WITH CHS 1 and 2 incorp.

OPNAVINST 5090.1B
1 November 1994

Environmental and Natural Resources Program Manual

Department of the Navy
Office of the Chief of Naval Operations
Washington, D.C. 20350

DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON, D.C. 20350-2000

IN REPLY REFER TO

OPNAVINST 5090.1B CH-2
N45
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OPNAV INSTRUCTION 5090.1B CHANGE TRANSMITTAL 2

From: Chief of Naval Operations

Subj: ENVIRONMENTAL AND NATURAL RESOURCE PROGRAM MANUAL

Encl: (1) Revised pages 3 and 4, table of contents, chapters 1, 2, 3, 4, 6, 8, 9, 10, 13, 14, 15, 16, 19, 20, 22; appendices B, D, H, I, K, L, Y, and Z; new chapter 27 and new appendix M

1. Purpose

a. To discuss requirements, delineate responsibilities, and issue policy for the management of the environment and natural resources for all Navy ships and shore activities.

b. To provide new chapter 27, new appendix M and change old appendix M to appendix Z.

c. To revalidate the reporting requirements contained in the instruction, to modify reporting requirements for oil spills contained in chapter 10, and announce a new report, the Preliminary Impact and Exposure Report.

2. Cancellation. This instruction supercedes CNO ltr 5090 Ser N456/8U595188 of 9 Mar 98, Modification of Procedures for Implementing the National Environmental Policy Act and Report Symbol OPNAV 5090-1.

3. Action. Remove pages 3 and 4, table of contents, chapters 1, 2, 3, 4, 6, 8, 9, 10, 13, 14, 15, 16, 19, 20, 22 and appendices B, D, H, I, K, L, M and Y and replace with enclosure (1) of this change transmittal.

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OFFICE OF THE CHIEF OF NAVAL OPERATIONS
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OPNAV INSTRUCTION 5090.1B CHANGE TRANSMITTAL 1

From: Chief of Naval Operations

Subj: ENVIRONMENTAL AND NATURAL RESOURCE PROGRAM MANUAL

Encl: (1) Table of contents; revised chapters 2, 3, 4, 5, 6, 13, 14, 16, 19, 23, 24, 25, and appendices B, C, D, K, L, and O; new appendicies L and Y

1. Purpose

a. To discuss requirements, delineate responsibilities, and issue policy for the management of the environment and natural resources for all Navy ships and shore activities.

b. To provide new appendix L and change old appendix L to appendix Y.

c. To revalidate the reporting requirements contained in the instruction and to delete the requirement for the Air, Water, Solid Waste, Noise, Pesticide, And Radiation Pollution Control (A-106) Report .

2. Cancellation. OPNAVINST 4110.2, Hazardous Material Control and Management dated 20 June 1989 and report control symbol DD-A&T (A) 1383 (5090).

3. Action. Remove table of contents, chapters 2, 3, 4, 5, 6, 13, 14, 16, 19, 23, 24, 25, and appendices B, C, D, K, L and replace with enclosure (1) of this change transmittal.

J.W. Taylor
By direction

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OPNAV INSTRUCTION 5090.1B

From: Chief of Naval Operations

Subj: ENVIRONMENTAL AND NATURAL RESOURCES PROGRAM MANUAL

1. Purpose

a. To discuss requirements, delineate responsibilities, and issue policy for the management of the environment and natural resources for all Navy ships and shore activities.

b. This is a significant revision to the Environmental and Natural Resources Program Manual, and the manual should be reviewed in its entirety.

2. Cancellation

a. OPNAVINST 5090.1A

b. Shoreside Cost of Compliance Report, Report symbol OPNAV 5090-10

c. Ship's Cost of Compliance Report, Report Symbol OPNAV 5090-11

d. PCB Inventory Form, OPNAV 5090/1 (REV 3-83)

e. Solid and Hazardous Waste Annual Report Form, OPNAV 5090/2 (Rev 3-83).

3. Discussion

a. The Navy's ability to accomplish its mission requires daily operations in the land, sea, and air environments. The Navy is committed to operating in a manner compatible with the environment. National defense and environmental protection are and must continue to be compatible goals. Therefore, an important part of the Navy's mission is to prevent pollution, protect the environment, and protect natural, historic, and cultural resources. In order to accomplish this mission element, personnel must be aware of the environmental and natural resources laws and regulations which have been established by Federal, State, and local governments. The Navy chain of command must provide leadership and a personal commitment to ensure that

all Navy personnel develop and exhibit an environmental protection ethic.

b. The number of environmental regulations has increased significantly in recent years, and these regulations are in a continuous state of change. This instruction discusses Federal regulations, Department of Defense (DoD) requirements, and Navy requirements which apply to Navy ships and shore activities. In addition, shore activity personnel must ensure they are aware of, understand, and comply with the additional requirements imposed upon their activities by State and local governments. This instruction addresses procedures by which ships will be made aware of the applicable State and local requirements for U.S. ports in which they may be moored.

c. Summary of Changes

(1) This instruction has been revised to describe recent changes in environmental legislation, regulations, and enforcement which have taken place since the issuance of OPNAVINST 5090.1A in October, 1990. It also describes command responsibilities for environmental management, and describes updated funding procedures.

(2) The instruction contains 25 chapters in lieu of the 20 contained in the previous instruction. Previous Chapters 1, 2, and 3 have been combined into a single new chapter titled "Environmental Policy, Organization and Funding." The previous Chapter 9 titled "Hazardous Waste and PCB Management Ashore" has been divided into two Chapters, 11, and 12, titled "PCB Management Ashore" and "Hazardous Waste Management Ashore," respectively. New chapters have been added for "Pollution Prevention," (Chapter 3), "Procedures for Implementing the Emergency Planning and Community Right to Know Act" (Chapter 4), the "Management of Ozone Depleting Substances" (Chapter 6), "Overseas Environmental Compliance Ashore", (Chapter 18), and "Environmental and Natural Resources Training" (Chapter 24). "Sampling and Laboratory Testing" (Chapter 25) text will be included in a future change of this instruction.

(3) Other important changes in this instruction include:

(a) Direction is given to reflect the passage of legislation since the last update of OPNAVINST 5090.1A in 1990. Some Acts of note include: the Federal Facility Compliance Act (FFCA), the Oil Pollution Act of 1990 (OPA 90), the Pollution Prevention Act of 1990 (PPA), and the Water Resources Development Act of 1992.

(b) Major revision of the Clean Air Ashore chapter reflects the impact on the Navy of the Clean Air Act Amendments of 1990 (Chapter 5).

(c) Guidance on ship environmental operations has been updated and reformatted (Chapter 19).

(d) New appendices have been added: Appendix E, "Environmental Effects Abroad of Major Navy Actions," Appendix F, "Chief of Naval Operations Interim Guidance on Compliance With the Clean Air Act General Conformity Rule," (text to be added in a future change of this instruction) and Appendix G, "Guidance on Developing Activity Pollution Prevention Programs and Implementing Pollution Prevention Program Elements."

4. Action

a. This instruction is applicable to all Navy commands afloat and ashore. The policies, procedures, and actions required are published without the necessity for further implementing instructions from the various commands, bureaus, and offices, except as specifically directed. However, organizations that have significant environmental or natural resources responsibilities may find it necessary to provide additional guidance and supplemental instructions specific to their local area.

b. Addressees shall enhance the quality of the environment, prevent environmental pollution, and provide the necessary direction to ensure the provisions of this instruction are implemented on a continuous basis.

c. The policies and responsibilities of this instruction are effective on the date of signature. All commands shall implement the requirements of this instruction into their operations in an expeditious manner. Monitoring of the implementation of this instruction shall be a part of the Environmental Compliance Evaluations (ECEs) described in Chapter 20.

5. Reports and Forms

a. The following reports required by this instruction are approved for 3 years from the date of the latest change to this instruction: (R

(1) Air, Water, Solid Waste, Noise, Pesticide and Radiation Pollution Control (A-106) Report, Report Symbol DD-A&T (A)1383(5090), Chapter 1.

(2) Status of Elimination of ODSs in Specifications and Standards, OPNAV 5090-7, Chapter 6.

(3) Oil Spill Report, Report Symbol OPNAV 5090-2 (MIN CONSIDERED), Chapter 10 and Appendix H.

(4) Hazardous Substance Release Report, Report Symbol OPNAV 5090-3 (MIN CONSIDERED), Chapter 10 and Appendix I. (D

(5) Annual Solid and Hazardous Waste Report, Report Symbol DD-A&T (SA) 1485 (5090), Chapters 12 and 14. (D

(6) Report of Receipt of Notice of Violation or Noncompliance, Report Symbol 5090-4, Chapter 20 and Appendix B.

(7) Environmental Compliance Evaluation Report, Report Symbol OPNAV 5090-5, Chapter 20.

(8) Burial at Sea Report, Report Symbol OPNAV 5090-9, Chapter 21.

(9) Target Vessel Sinking Report, Report Symbol OPNAV 5090-12, Chapter 21.

(10) Preliminary Impact and Exposure Report (PIER), Report Symbol OPNAV 5090-15. Chapter 27 (A

b. The OPREP reports required by this instruction are exempt from reports control by SECNAVINST 5214.2B.

c. The following forms are available from the Navy supply system and may be requisitioned per NAVSUP P-2002D.

FORM	TITLE	STOCK NUMBER
DD 1348-1 (7/91)	DoD Single Line Item Release/ Receipt Document	0102-LF-013-7500
DD 2521 (12/88)	Hazardous Material Warning Label	0102-LF-012-0800
DD 2522 (12/88)	Hazardous Material Warning Label	0102-LF-012-1100

d. DD 2530 (12-92), Ozone Depleting Chemicals Annual Report, is enclosed as Table 6.3.

e. SF 298 (2-89), Report Documentation Page, NSN 7540-01-280-5500, may be obtained from General Services Administration.

f. The Annual Emergency and Hazardous Chemical Inventory Form, (Tier I or Tier II) can be obtained by writing to: EPCRA Hotline at U.S. EPA, 401 M Street, SW (OS-120), Washington, D.C. 20460 or calling toll-free 1-800-535-0202.

g. EPA Form 8700.13A Biannual Report, EPA Form 8700.13B, Unmanifested Waste, and EPA Form 9350-1 (Form R), Toxic Release Inventory (TRI) Reporting, can be obtained by writing to: Document Distribution Center, P.O. Box 12505, Cincinnati, OH, 45212.

h. State Underground Storage Tank/Above-ground Storage Tank (UST/AST) Notification Forms can be obtained by the cognizant State department of environmental regulation.

i. National Register Forms may be obtained from the cognizant State Historic Preservation Office or the National Park Service at 1-202-343-9559 or 9550.

S. R. ARTHUR
Admiral, U.S. Navy
Vice Chief of Naval Operations

Distribution:
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CHAPTER 1

ENVIRONMENTAL POLICY, ORGANIZATION AND FUNDING

1-1 Scope

1-1.1 Manual. This manual provides Navy policy, identifies key statutory and regulatory requirements, and assigns responsibility for management of Navy programs for:

a. Cleanup of waste disposal sites

b. Compliance with current laws and regulations for the protection of the environment, natural resources, and cultural and historic resources

c. Conservation of natural resources

d. Pollution prevention

e. Technology.

These programs are listed neither in order of importance nor priority. Within the Department of Defense (DOD), these five program areas are referred to as C^3P^2+T.

1-1.2 Coordination. This manual has been coordinated with the Commandant of the Marine Corps, but does not apply to Marine Corps activities.

1-1.3 Applicability. The policies and procedures in this manual apply to shore activities within the United States, territories, commonwealths, and possessions. The policies in chapter 19 apply to ship operations worldwide. Other policies and procedures in this manual, including those regarding the National Environmental Policy Act (NEPA), are applicable to ships and Navy operations only within the territorial seas of the U.S. unless expressly stated otherwise. Navy policy for overseas shore activities is provided in chapter 18. This instruction describes the internal management of the Navy's environmental program, and is not intended to create any right or benefit, substantive or procedural, enforceable at law by any party against the Department of the Navy (DON), its officers, employees, or any person.

1-1.4 Precedence. This instruction is the primary guidance for Navy policies and procedures for managing environmental and natural resource programs, and any apparent conflict between this instruction and other Navy instructions, manuals and similar directives on environmental and natural resource programs will be resolved in favor of this instruction. This instruction is consistent with all applicable statutes, Executive Orders (E.O.s), DOD directives and DON instructions, and readers will so construe it.

1-1.5 References. References are:

a. SECNAV INSTRUCTION 5510.30A, Department of the Navy Personnel Security Manual; (NOTAL)

b. SECNAV INSTRUCTION 5510.36, Department of the Navy Information Security Program (ISP) Regulation; (NOTAL)

c. OPNAVINST 5430.48D, Office of the Chief of Naval Operations (OPNAV) Organization Manual; (NOTAL)

1-2 Policy

1-2.1 General Requirements

a. The Chief of Naval Operations (CNO) has defined the environmental vision of the Navy: "Navy recognized as an environmental leader while effectively executing naval operations." The Navy's ability to accomplish its mission requires daily operations in the land, sea, and air environment. The Navy is committed to operating in a

manner compatible with the environment. National defense and environmental protection are, and must be, compatible goals. The chain of command must provide leadership and personal commitment to ensure that all Navy personnel develop and exhibit an environmental protection ethic. Thus, an important part of the mission of the Navy is to prevent pollution, protect the environment, and protect natural, historic, and cultural resources.

b. All Navy personnel (civilian and military), tenants, and contractors working for the Navy shall comply with all applicable Federal, State, local, and internal environmental policies, regulations, and requirements. Navy personnel shall obtain all necessary Federal, State, and local environmental permits for construction and operation of facilities and comply with permit terms and conditions. When, in the interest of national defense and/or a particular mission, a Navy command considers that compliance with an applicable requirement is impractical or inappropriate due to security considerations or impact on the military mission, the issue shall be referred to the Deputy Chief of Naval Operations (DCNO (Logistics), CNO (N4)), via the chain of command. Presidential exceptions may be available under some statutes, but Navy policy is to achieve and maintain compliance with applicable laws and regulations. Activities shall seek compliance waivers only as a last resort, and CNO (N4) will not grant waivers if he or she considers compliance to be practicable. Commands seeking waivers must comply with environmental requirements while the request is pending.

1-2.2 Pollution Prevention. The preferred method of environmental protection is to eliminate or control, to the maximum extent feasible, the pollutant source per E.O. 12856. All Navy activities shall identify means and methods for the elimination or minimization of pollutants and, where possible, incorporate them at the earliest stages of planning, design, and procurement of facilities, ships, aircraft, weapon systems, equipment, and material. Commands shall strive to eliminate or minimize use of hazardous materials (HM) and generation of hazardous waste (HW). chapter 3 describes these programs in detail.

1-2.3 Statutory Requirements. Federal agencies may have to comply with the requirements of a law either because Congress has waived sovereign immunity and made Federal agencies subject to its provisions or because the President has directed by E.O. that agencies of the Executive Branch comply with certain laws or portions of laws as a matter of policy. Most major environmental statutes contain waivers of sovereign immunity that require Federal agencies to comply with Federal, State and local environmental laws and provide for enforcement of Federal, State, and local substantive, procedural, and administrative requirements. Because the application of sovereign immunity waivers varies somewhat with specific situations, personnel should seek the advice of appropriate Navy legal counsel. Requirements for the payment of fees, fines, or taxes are discussed in paragraph 1-4.3.

1-2.4 Executive Requirements. E.O. 12088 requires the head of each Federal agency to comply with "applicable pollution control standards" defined as "the same substantive, procedural, and other requirements that would apply to a private person." It also requires Federal agencies to cooperate with the Environmental Protection Agency (EPA), State, and local environmental regulatory officials. Other E.O.s specific to each subject are referenced in subject chapters and in appendix A.

1-2.5 Information Security. Representatives of Federal, State, and local agencies, exercising their regulatory authorities under environmental laws and regulations, periodically visit Navy shore activities. Activities shall properly enforce Navy regulations and Federal statutes governing the control and protection of classified and sensitive unclassified information but shall not interfere with the legitimate regulatory purpose of these visits. Activities shall follow these guidelines:

a. Only personnel with appropriate security clearances or access authorizations shall be permitted access to classified information, and then only upon a determination by the cognizant Navy official that a need-to-know exists to fulfill a legitimate regulatory purpose. In keeping with the need-to-know principle, such access shall be limited to classified information required to resolve the matter at hand. When permitting access, activities shall negotiate arrangements under references (a) and (b) to assure continued protection of the information by the regulatory personnel.

b. Navy commands handle a considerable amount of sensitive unclassified information controlled under Navy security regulations, Federal Export Control regulations, and other government-wide requirements. While security clearances or access authorizations are not required for access to this information, a need-to-know determination shall be made as described above for classified information, and only U.S. citizens may be permitted access in most cases. The holder of the information shall ensure that the recipient understands and complies with applicable security regulations governing dissemination and protection of the information before permitting access.

c. Access to certain categories of classified and sensitive unclassified information requires special authority. Specifically, access to classified or unclassified naval nuclear propulsion information or to the propulsion plant spaces of nuclear powered ships requires the specific approval of the Director of Naval Nuclear Propulsion Program CNO (N00N).

d. Because access to classified and sensitive unclassified information by regulatory personnel creates administrative burdens for both the Navy and the regulator, as described above, Navy commands are encouraged to satisfy the needs of regulatory personnel using information which is publicly releasable.

Subordinate commands shall ensure that these guidelines are reflected in instructions which they issue covering this area.

Chapter 19 discusses information security regarding ships.

1-2.6 GOCO Facilities. *Navy offices or activities* sponsoring government-owned-contrac-tor-operated (GOCO) facilities shall exercise oversight through the facility's lease or management contracts to ensure that the operating contractor complies with applicable environmental regulations.

1-2.6.1 Facility Use Operations. Officially assigned major claimants for a GOCO plant shall exercise oversight through the facility's use or management contracts to ensure that the plant complies with environmental regulations. When a GOCO plant has no operating contractor or lessee, the major claimant for the GOCO plant shall comply with the requirements of this instruction. Officially assigned major claimant(s) for a leased property shall ensure that lease contract terms and conditions place full responsibility for environmental compliance on the lessee, and shall exercise appropriate oversight of the leased property to ensure lessee compliance with environmental regulations.

1-2.6.2 Operations, Facility Use, or Lease Agreements. These agreements shall require operation of all facilities and equipment under applicable substantive and procedural environmental requirements. Contractors shall obtain all necessary permits and sign the permits as operators unless otherwise directed by contract. Contractors shall advise the Navy of any permit, its conditions, and provide periodic compliance status reports as required by the managing Navy office. Each major claimant for assigned GOCO plants, non-excess GOCO plants, and non-excess military installations, and each Navy sponsor of a GOCO facility shall sign as owner for all environmental permits which each respective operating contractor or lessee of such assigned plant or facility is required to have per environmental regulations and laws. The

landlord command shall develop a schedule and document periodic review of the environmental compliance of its lease and license holders.

1-2.6.3 Facilities Leased or Rented by the Navy. Facility use contracts, rental agreements or leases shall require the owner of facilities leased or rented by the Navy to be responsible for ensuring that the facilities comply with all applicable environmental requirements. The Navy activity renting/leasing the facility shall operate all facilities and equipment under all applicable substantive and procedural environmental requirements, obtain all necessary permits, and sign as operator, unless otherwise directed by contract.

1-2.7 Real Estate Purchase. The purchasing activity shall conduct a pre-purchase environmental survey and a property transaction audit that includes a Preliminary Assessment (PA) for potential hazardous waste contaminated sites. If the seller did a PA, then the purchasing activity shall review documents for accuracy to determine the need for an on-site survey.

1-2.8 Regional/Community Programs. The Navy supports the participation of its employees and officers in regional and community programs to prevent pollution, address waste management issues, and to protect natural and cultural resources. Such participation may include advisory functions or planning of pollution control facilities where Navy shore activities can contribute to the subject to be addressed by that facility. When beneficial and authorized, the Navy may participate in funding of regional/community pollution control and solid waste management solutions. Before committing to participation, employees and commands shall seek the advice of Navy counsel.

R) **1-2.9 Reporting Noncompliance.** Immediately upon discovery of a failure to comply, or a potential failure to comply with environmental requirements, a Navy employee shall report it to the responsible command. If the responsible command is unknown, the noncompliance shall be reported up the individual's chain of command until the responsible official is determined. If reprisal is of concern to the reporting individual, he or she may submit reports via the Navy Hotline, (800) 522-3451. Naval personnel shall report Notices of Violation (NOVs), Notices of Noncompliance (NONs), warning letters, warning notices, citizen suit notices, consent orders, or any other written or oral notice of deficiencies of Federal, State, interstate, or local environmental control laws or regulations per the procedures of appendix B. If necessary, personnel should seek assistance from the major claimant, the servicing Engineering Field Division (EFD), or the cognizant Regional Environmental Coordinator (REC). Navy policy is to promptly correct any areas not in compliance with applicable requirements. Such prompt attention is the best defense to possible criminal charges or individual penalties.

1-2.10 Facility Inspections. Navy shore facility commanders shall allow entry at reasonable times to Federal or State/local environmental regulators or representatives, upon presentation of proper credentials and subject to information security requirements of paragraph 1-2.5. to examine or copy records, inspect monitoring equipment, inspect work being performed in regard to environmental/regulatory compliance, or sample any wastes or substances which they have the authority to regulate. Further, such inspections shall comply with information and facility security requirements set forth in references (a) and (b) and paragraph 1-2.5. Activities shall notify the major claimant and the REC of all regulatory inspections and may request cognizant Naval Facilities Engineering Command (COMNAVFACENGCOM) organization or REC assistance at such inspections. Chapter 19 provides policy for inspections aboard ship.

1-2.11 Fleet/Shore Facility Relationship. When naval vessels or aircraft are present at a shore facility, commanding officers and personnel assigned to such vessels or aircraft shall comply with the host command's environmental protection policies developed under this instruction.

Compliance with local environmental requirements often requires specialized knowledge, expertise, or capability that afloat units may lack. To the maximum extent possible, shore commands and RECs shall provide to afloat units, upon request, such assistance as may be necessary to ensure environmental compliance by afloat units.

1-2.12 Consistency. Environmental regulations have increased exponentially in recent years. The regulations of a variety of Federal, State, regional and local agencies apply to Navy shore activities. Requirements and interpretations vary widely. To ensure consistent responses to various agencies and to avoid adverse precedents, all commands shall coordinate permit conditions, demands for payment of Navy funds, compliance agreements, settlements, negotiations and responses to NOVs from environmental agencies with their major claimant and REC. appendix B contains instructions for the processing of NOVs and associated chain of command responsibilities. Commands shall send all interpretations or agreements likely to set precedents to CNO (N45) immediately, via the chain of command, with copies to the REC and COMNAVFACENGCOM or applicable EFD or Engineering Field Activity (EFA).

1-2.13 Delegation. Navy personnel shall cooperate fully with Federal, State, and local officials and attempt to reach agreement on environmental compliance matters at the lowest level possible, keeping in mind the coordination requirements outlined above.

1-2.14 Host/Tenant Agreements. Commanding officers/officers in charge of host activities are responsible for all aspects of environmental, natural resources and cultural resource compliance on their bases. Commands cannot delegate this responsibility. All Navy hosts and tenants shall develop agreements, or include in existing agreements, roles and responsibilities with respect to environmental compliance. Such agreements shall include pollution prevention, environmental compliance evaluations (see chapter 20), NEPA documentation (see chapter 2), contact with regulatory agencies, payment of fines/fees, permit signatures/duties, HW management, emergency planning and community right-to-know implementation, training, corrective and/or response actions, etc. Where appropriate, commands shall establish environmental compliance boards consisting of host and tenant management personnel. Commands may delegate authority for portions of environmental program management to senior managers consistent with "by direction" signature authority. Host commands may delegate authority to tenant commands, but overall responsibility shall remain with the host commanding officer.

1-2.15 Release of Information. Applicable law and information security requirements govern release of activity specific data and information to agencies outside the Navy. Persons outside the Navy shall forward requests for information to an activity for action by the commanding officer of the activity or cognizant major claimant.

1-2.16 Radioactive Material. Use and management of radioactive material shall comply with applicable rules, regulations, and requirements of the Department of Energy (DOE), Nuclear Regulatory Commission (NRC), Department of Transportation (DOT), and EPA, and shall comply with the Naval Nuclear Propulsion Program for matters pertaining to nuclear propulsion. Commands shall coordinate any matters affecting or involving naval nuclear propulsion plants or nuclear support facilities or their associated radioactivity with CNO (N00N). CNO (N00N) shall coordinate such matters as appropriate with the cognizant REC.

1-2.17 Environmental and Natural Resources Training (R

a. All naval commands afloat and ashore, shall provide adequate education and training to naval personnel to ensure they understand their role within the Navy's program and to enable them to comply with applicable Federal, State and local environmental laws and regulations. Commanders shall provide Navy personnel with environmental

and natural resources training appropriate to their position or employment. At minimum, personnel must attain a general awareness of Navy environmental and natural resources policies, as well as an awareness of the effects that their actions can have on the environment (see chapter 24).

b. Commands shall ensure that counsel assigned to provide advice on environmental law issues comply with the training recommendations, including continuing legal education, established jointly by the General Counsel of the Navy (OGC) and the Judge Advocate General (NAVY JAG). Individuals should complete this initial training en route where possible. Commands shall also ensure that counsel assigned to provide advice on environmental law issues have access to reference material that complies with the joint recommendations of the OGC and NAVY JAG.

R) **1-2.18 Representation of Federal Employees** If a legal entity or individual brings action against an employee or service member in a civil lawsuit, consult with the command counsel immediately to initiate the steps to obtain U.S. Department of Justice (DOJ) representation. DOJ determines availability of DOJ representation after favorable chain of command endorsement. Members and employees should direct any further question regarding representation to the command counsel.

1-2.18.1 Payment of Attorney Fees and Judgments. DOJ representation will be free of charge to the employee or service member. If a court finds the employee or service member personally liable, the employee or service member will be responsible for paying any judgment or penalty from personal funds, regardless of whether DOJ provided representation. There are no specific provisions for reimbursing an employee or service member for judgments incurred.

A) **1-2.19 Environmental Considerations During Celebrations/Events.** Large-scale celebrations/events held aboard naval ships or shore facilities may adversely affect the environment if not planned carefully. Event organizers must consider factors such as solid waste source generation and reduction and wastewater collection and treatment when planning change of command ceremonies, commissioning and de-commissioning ceremonies, deployment homecoming celebrations, and other events that involve large gatherings of personnel and civilian guests.

1-2.19.1 Use of Balloons During Celebrations/Events. Helium-filled balloons travel significant distances from point of release and can harm marine mammals and other aquatic life if they deflate over water. Navy activities will not release helium-filled balloons during celebrations and other events regardless of distance from any coastline. (A

1-3 Organization

1-3.1 Area Environmental Coordinators (AECs). AECs are responsible for coordination of environmental issues within their designated EPA region. (See appendix C for the list of EPA regions.) AECs shall appoint RECs and Navy On-Scene Coordinators (NOSCs) within the AEC's area of responsibility (AOR). The Navy AECs are:

CINCLANTFLT:	EPA Regions I, II, III and IV
CNET:	EPA Regions V and VI
COMNAVRESFOR:	EPA Regions VII and VIII
CINCPACFLT:	EPA Regions IX and X

1-3.1.1 *DOD Regional Environmental Coordination.* The Department of Navy has been designated as the DOD Executive Agent (EA) for the regional environmental coordination in EPA regions I, III, and IX, and therefore serves as the DOD REC in these regions.

1-3.2 Navy On-Scene Coordinator (NOSC). The NOSC is the Navy official pre-designated to coordinate Navy oil and hazardous substances (OHS) pollution contingency planning and direct Navy OHS pollution response efforts in a pre-assigned area. Shoreside NOSCs are normally RECs pre-designated by the AECs (see chapter 10). CINCPACFLT, CINCLANTFLT and CINCUSNAVEUR will pre-designate fleet NOSCs for assigned ocean areas. The NOSC is the Federal On-Scene Coordinator (OSC) for Navy hazardous substance (HS) releases. The NOSC shall act as the Qualified Individual (QI) and incident commander for spills outside areas assigned to Facility Incident Commanders (FICs), and as incident commander for spills beyond the capability of a FIC.

1-3.3 RECs. RECs serve as the senior Navy officer in a local region to coordinate environmental matters and public affairs. AECs designate RECs, and may designate them as NOSCs for spill response as discussed in chapters 10 and 19.

1-3.4 Naval Environmental Protection Support Service (NEPSS). The NEPSS includes offices in various commands designated to provide environmental technical, legal, data management, and information exchange support to Navy and Marine Corps organizations. The NEPSS consists of the following:

a. COMNAVFACENGCOM is the NEPSS manager.

b. COMNAVFACENGCOM, its subordinate EFD/EFAs and the Naval Facilities Engineering Service Center (NFESC) provide expertise in environmental engineering and legal support, coordinate NEPSS actions, provide NEPSS Navy-wide data collection, and manage NEPSS specialty offices.

c. Specialty offices include

(1) Ordnance Environmental Support Office (OESO) at the Naval Surface Warfare Center, Indian Head, MD, Division provides Navy-wide support relative to specialty chemical, ordnance, munitions, and ordnance activity environmental protection.

(2) Aircraft Environmental Support Office (AESO) at the Naval Aviation Depot, North Island, CA provides Navy-wide support relative to aircraft and aircraft facility environmental protection.

(3) Ships Environmental Support Office (SESO) at the Naval Surface Warfare Center, Carderock Division, Annapolis, MD, Detachment provides Navy-wide support relative to ships environmental protection.

(4) Marine Environmental Support Office (MESO) at the Naval Command, Control and Ocean Surveillance Center Research, Development, Test and Evaluation (RDT&E) Division, San Diego, CA, provides Navy-wide support relative to aquatic environmental protection.

1-3.5 Disputes. Activities having unresolved differences of opinion between themselves and/or with the REC relative to environmental policy issues, including new permit conditions, negotiating positions, payment of new fees, novel provisions in compliance agreements, etc. shall consult cognizant major claimants for resolution. If necessary, they shall take such issues to CNO (N45) through the cognizant major claimant. Activities shall refer legal questions, including interpretations of laws, regulations, permits, compliance agreements and similar legal documents to counsel for the REC for determination consistent with Article 0327 of Navy Regulations, 1990.

1-3.6 Environmental Quality and Natural Resources Conservation Awards. The Navy recognizes outstanding environmental protection or natural resources conservation achievements by Navy individuals and organizations. Secretary of (R

the Navy (SECNAV) and the CNO annually present awards to installations, ships, and individuals for outstanding leadership and programs, innovation in problem solving, and exemplary approaches to incorporating environmental protection and natural resource concerns into training and day-to-day operations. The SECNAV and CNO awards are the basis for nomination for annual DOD awards. Details of awards and nomination requirements are located in appendix D. DOD publishes its requirements annually which may supercede appendix D.

1-4 Funding

R) **1-4.1.1 Environmental Program Requirements (EPR):** All activities shall enter Navy environmental costs, no matter how funded, into the EPR system. The following requirements are applicable to costs associated with shore compliance, conservation and pollution prevention. Major claimants shall ensure their subordinate commands identify all environmental costs in the EPR system, and shall implement a reporting system that best meets their needs while satisfying reporting requirements.

R) **1-4.1.1.1** All major claimants shall maintain an environmental database to support planning, programming, budgeting and reporting of the environmental program requirements of this instruction. Technical assistance is available from NAVFACENGCOM, its EFDs or EFAs.

1-4.1.1.2 Major claimants shall review environmental program elements in-house or with assistance from the NAVFACENGCOM, EFD or EFA. Major claimants must review program elements for technical adequacy, regulatory requirements, and adequacy of the cost estimate.

R) **1-4.1.1.3** Major claimants shall forward approved environmental program elements from their consolidated claimant database to CNO (N45). Claimants may use NAVFACENGCOM, EFDs, EFAs or other support on a reimbursable basis to manage their environmental program database.

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1.4.2 Federal Anti-Deficiency Act. This Act provides that no Federal official or employee may obligate the government for the expenditure of funds unless Congress has authorized and appropriated funds for that purpose.

1-4.3 Fees and Taxes. As a rule, Federal facilities are subject to reasonable service charges or fees related to the administration of environmental enforcement programs imposed by Federal, State, and local agencies. Service charges related to the discharge of effluent into bodies of water, the discharge of air emissions into the atmosphere, underground storage tanks (USTs), and the storage, treatment, transportation, and disposal of solid waste are among the types of charges that may be billed to an installation. However, Congress has generally not provided for the payment of taxes by Federal installations and activities. It is therefore important to distinguish between those charges that are fees and those that, although not called taxes, have the character of taxes. Activities must make this distinction before payments are made. Disbursing authorities shall consult with command or REC counsel when an agency first presents a fee or service charge. Final determinations regarding the legality of new fees shall be formulated in consultation with DOJ at the headquarters level in appropriate cases.

1-4.3.1 In general, a command will examine charges presented as fees or for services to determine whether:

a. The charge in question is imposed on all regulated entities without discriminating against Federal agencies; or

b. The charge fairly approximates the cost to the State or local authority of making the services available: or

c. The charge does not generate revenues over and above the cost of the relevant programs it supports.

Negative answers to any of these inquiries suggest that the charge is a tax rather than a fee or service charge, thus obliging the U.S. to determine whether to contest it. Commands should refer questions about these charges to command counsel or REC counsel.

Installations and activities questioning a charge shall make clear to the authority demanding payment that delay for review is not a reflection of Navy resistance to regulatory action, but is necessary because of legal issues that require resolution before payment may be made lawfully.

If a regulatory agency refuses to issue an environmental permit to an activity because the activity has not paid an assessment pending legal review, the activity shall immediately notify CNO (N45) via the chain of command, and their REC.

1-4.3.2 Citations and Fines. Commands shall report immediately any citation by a regulatory agency for an alleged violation of any substantive or administrative requirement or any attempt to levy a fine against a Navy facility. Commands shall process the citation by the procedures of appendix B.

1-4.4 Economic Analysis. When practical and appropriate, commands shall analyze the economic consequences before deciding among options for complying with environmental requirements. For example, it may be more efficient to contract out or transfer operations rather than fund pollution control projects. In other cases, it may be more economical to replace equipment as opposed to retrofitting to meet requirements. Long term pollution prevention options take precedence over short term controls wherever practical.

R) **1-4.5 EPA Compliance Requirements Categories.** Office of Management and Budget (OMB) and EPA require all Federal agencies to classify shoreside compliance projects (other than environmental restoration) into four categories:

a. Class 0 projects are those necessary to (A
cover the administrative, personnel and other costs associated with managing environmental programs that are necessary to meet applicable compliance requirements or which are in direct support of the military mission. Recurring class 0 costs consist of manpower; training; supplies; hazardous waste disposal; operating recycling activities; permit; fees; testing; and monitoring/sampling and analysis; reporting; record keeping; and compliance self assessments.

b. Class I projects are those necessary to (R
correct situations which are currently out of compliance with established regulatory deadlines. This class also includes projects necessary to correct situations not currently out of compliance but susceptible to noncompliance if projects remain not implemented within the current program year. This class includes overseas projects necessary to alleviate the human health threats, threats to ongoing operations or necessary to comply with applicable treaties and agreements.

c. Class II projects are those in which facilities will be out of compliance at a specific, impending published deadline if action is not taken. If not accomplished by the deadline, projects become Class I.

d. Class III projects are those needed to meet DOD, Assistant SECNAV (Installations & Environment) (ASN (I&E)), CNO and/or claimant goals related to environmental protection, pollution prevention, cost effectiveness, environmental quality, or enhancement initiatives. Law does not mandate these projects, but their accomplishment demonstrates Federal leadership and goodwill.

1-4.6 Budgeting for Environmental Compliance. Shore activities and afloat commands shall report Annual Environmental budget requirements on Assistant Secretary of the Navy (Financial Management and Comptroller (ASN(FM&C)) Exhibit PB-28, per (ASN(FM&C)) guidance.

1-4.6.1 Funding Base Operations. The cost of environmental, natural resources and cultural resources compliance shall be part of each activity's operating budget. Activities shall program, budget, and execute compliance requirements in the same manner as other traditional base support costs. Activities are encouraged to charge those commands which use facility services for the full cost of the service as it relates to assuring legally mandated environmental compliance for day-to-day work.

R) **1-4.7 Weapon Systems and Platforms.** The Navy funds alterations to existing Navy ships, aircraft or weapon systems and platforms for the purpose of meeting environmental compliance requirements in the Fleet Modernization Program (FMP) or Engineering Change Proposal (ECP) program, and also uses funds programmed by the applicable CNO resource sponsors. The appropriate hardware systems command budgets for special studies, equipment, and research, development, test and evaluation (RDT&E) for new environmental compliance requirements.

1-4.8 Limit on Use of Environmental Funds. Naval activities shall use funds allocated for environmental and natural resources protection *only* for those purposes, consistent with applicable (ASN(FM&C)) regulations.

1-5 Responsibilities

1-5.1 DCNO (Logistics, CNO (N4)) or designee shall:

a. Monitor proposed Federal environmental legislation, Federal regulations and proposed rules, and coordinate Navy impact analyses, and ensure articulation of Navy positions and concerns in conjunction with the Navy Office of Legislative Affairs (OLA) and ASN (I&E).

b. Establish and regularly update policy, direct, and monitor progress of the Navy environmental and natural resources programs.

c. Coordinate environmental policy and program matters with ASN (I&E), the Deputy Under Secretary of Defense (Environmental Security) (DUSD (ES)), other services, the EPA, and other Federal agencies.

d. Coordinate review and issuance of NEPA documents and documents prepared under E.O. 12114.

e. Serve as the CNO's assessment sponsor for the environmental and natural resources programs, and as the CNO's resource sponsor for shore activity environmental and natural resources protection requirements.

f. Coordinate with resource sponsors, CNO (N8), (ASN(FM&C)), Fiscal Management Bureau (FMB) and OMB in the reconciliation of environmental compliance requirements vs. budgeted resources.

1-5.2 The Director of Naval Nuclear Propulsion Program, CNO (N00N) shall fulfill all responsibilities prescribed in E.O. 12344 and implement Navy instructions for all matters pertaining to naval nuclear propulsion, including all radiological aspects of naval nuclear propulsion, oversight of radiological environmental compliance and monitoring, and involvement, where needed, in other environmental compliance and monitoring matters that affect naval nuclear propulsion.

1-5.3 Resource sponsors shall

a. Ensure environmental compliance by establishing requirements and providing resources, consistent with their missions and functions as assigned in reference (c).

b. Provide sufficient resources to major claimants for environmental compliance requirements at Navy activities.

c. Provide sufficient resources to major claimants for RDT&E, procurement of equipment,

installation, and alterations of weapons systems and platforms to ensure compliance with environmental requirements.

1-5.4 Chief of Information (CHINFO) shall

a. Provide guidelines for the release of information involving environmental and natural resources matters.

b. Provide guidance on the conduct of public affairs matters and public hearings required by environmental laws or regulations.

c. Establish and implement a program to gather and publicize Navy environmental program accomplishments.

1-5.5 Area Environmental Coordinators shall

a. Appoint a flag level Navy officer to serve as the Navy REC in each of the 10 EPA regions. Should the AEC chose to appoint more than one REC within an EPA region, the AEC must designate one REC to serve as the Navy's lead REC in the region.

b. In regions where the Navy is designated as the DOD EA for regional environmental coordination, assign Navy EA responsibilities to the lead REC.

c. Provide a semi-annual report to CNO (N45) regarding implementation of DOD policy in regions for which the Navy has been designated EA for Environmental Security.

d. Appoint NOSCs as required.

1-5.6 Regional Environmental Coordinators *shall*

a. Coordinate public affairs and community relations in the region with respect to environmental matters, and serve as the Navy point of contact for public and media inquiries when appropriate for matters of regional scope.

b. Ensure consistent positions, agreements, permit conditions, and responses to regulatory agencies within the region, coordinating closely with affected shore activities, major claimants and COMNAVFACENGCOM EFD/EFAs. Coordinate with other military service RECs on issues that affect regional DOD activities as a whole. Where activities are taking inconsistent positions on similar environmental issues, the REC shall assist in reconciling the positions and developing a single Navy position within the region. If differences remain unresolved among affected shore activities, major claimants, or other military service RECs, the REC shall elevate the issue to CNO (N45) via the chain of command for resolution as discussed in paragraph 1-3.5.

c. Serve as the primary Navy interface with regional Federal and State regulatory agencies. RECs may designate activities within their region to serve as the primary interface with individual State and/or local regulatory agencies.

d. Coordinate exchange of environmental information among Navy shore activities in the region, including the distribution of State, local, and regional laws, rules, and regulations. Hold meetings and/or conferences, as necessary, for regional commands on environmental compliance issues.

e. Monitor environmental compliance at activities within their region.

f. Develop regional plans of action for specific environmental initiatives in coordination with commanding officers of Navy shore activities in the region and major claimants. Coordinate regional training initiatives among Navy activities and with other Federal, State, and local agencies to promote efficient use of training resources.

g. Review the NOSC spill contingency plans to ensure the NOSC clearly outlines responsibilities and provides procedures consistent with policies of the REC in cases where the REC is not

the NOSC for spill response. See chapter 10 for more detail on contingency planning.

h. Provide assistance to facilities in dealing with regulatory agencies as requested.

i. Act as the liaison between visiting foreign warships, environmental regulatory personnel, and port services on environmental requirements during ship visits. See paragraph 19-14.9.e.

j. Ensure that agreed upon Navy positions and concerns are articulated to State lawmakers and Federal, State, and local regulatory officials within their region by appropriate Navy officials.

k. Review and evaluate proposed State environmental legislation and regulations for potential impact on Navy operations, and keep appropriate major claimants and shore activities informed on the status of State legislative and regulatory proposals.

l. Refrain from entering into any compliance commitment or agreement for which it is not the permit holder; nor shall the REC sign any memorandum of understanding or similar document, if unresolved differences remain with any affected shore activities or commands.

m. Execute Navy EA responsibilities for DOD environmental coordination if designated by the cognizant AEC. Coordinate all DOD regional environmental issues via the chain of command.

1-5.7 COMNAVFACENGCOM shall:

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a. Provide environmental program management information as requested by naval activities and commands.

R) b. Plan, program, budget and provide overall coordination and management for the Environmental Restoration, Navy (ER, N) Account and the NEPSS program.

c. Provide environmental engineering, environmental compliance, and contracting assistance to naval activities and commands upon request.

d. Prepare analyses of relevant operational, legal, and technical issues raised by proposed State environmental legislation as requested by the RECs,.

e. Designate, in each EFD and specialty office, a single point of contact for major claimants and RECs. (D

f. Perform designated tasks under the DON Strategic Environmental Quality RDT&E program.

1-5.8 Commander, Naval Sea Systems Command (COMNAVSEASYSCOM) shall:

a. Endorse annual actions and levels of effort of the SESO and OESO to ensure these offices focus on key Navy environmental problems within their specialty area.

b. Manage the shipboard, ordnance and munitions environmental protection RDT&E program.

c. Maintain OHS pollution response equipment and expertise for Navy offshore and salvage related OHS spills or releases through the Supervisor of Salvage (SUPSALV).

1-5.9 Commander, Naval Air Systems Command (COMNAVAIRSYSCOM) shall:

a. Endorse annual actions and levels of effort of the AESO to ensure this office focuses on key Navy environmental problems within its specialty area.

b. Manage the naval aviation advanced development environmental protection RDT&E program.

1-5.10 Commander, Naval Space and Warfare Systems Command (COMNAVSPA-

WARSYSCOM) shall endorse annual actions and levels of effort of MESO to ensure this office is focused on key Navy environmental problems within its specialty area.

1-5.11 Chief, Bureau of Medicine and Surgery (CHBUMED) shall

a. Determine, validate, and establish health-related criteria and standards that are not available through Federal, State, or local laws or regulations.

b. Provide assistance to activities, offices, and commands concerning the health aspects of pollution sources or pollution control equipment, including development of medical monitoring programs.

c. Provide industrial hygiene and medical expertise to activities during spill events and other environmental emergencies via Navy hospitals and clinics, Navy Environmental Preventive Medicine Units, Navy Disease Vector Ecology Control Centers, and the Navy Environmental Health Center.

d. Coordinate with the Agency for Toxic Substances and Disease Registry (ATSDR) for the timely completion of public health assessments for National Priorities List (NPL) sites, toxicological profiles on any specific contaminants, health education, health consultations, and other activities provided in the DOD/ATSDR Annual Plan of Work.

1-5.12 Chief of Naval Education and Training (CNET) shall

a. Ensure effective training programs on environmental compliance and natural resources management exist throughout the Navy.

b. Update as required, budget for and implement the Navy Environmental and Natural Resources Program Training Plan.

1-5.13 Commander, Naval Legal Service Command shall:

a. Review recommended training and reference resource standards for counsel providing legal advice on environmental law issues, in consultation with the OGC .

b. Develop, budget for and conduct training courses sufficient to meet recommended training levels for Navy military and civilian attorneys providing legal advice on environmental law issues.

1-5.14 NAVY JAG and OGC attorneys shall provide advice and counsel on

a. Interpretation of environmental laws and regulations and their effect on the operation of the Navy.

b. Responses to NOVs or similar assertions of non-compliance and to demands for payment of Navy funds from any environmental agency.

c. Provisions in contracts or agreements with respect to environmental matters.

JAG and GC attorneys within the chain of command are a command's primary legal resource. Counsel assigned to RECs, Naval Legal Service Offices, Public Works Centers and EFDs are available to provide additional legal support upon request. Counsel with environmental law expertise are also on the staffs of the major claimants. The litigation office of the OGC provides environmental litigation support. Finally, environmental legal advice is available from the Office of the Assistant General Counsel (Installations and Environment) (OAGC (I&E)).

1-5.15 Major claimants shall

a. Ensure that subordinate commands adhere to the policies in this manual and comply with applicable environmental requirements.

b. Plan, program, budget and allocate sufficient resources to fund environmental compliance requirements at their activities.

c. Issue guidance to activities regarding planning, programming, and budgeting of environmental requirements and execution of environmental programs and projects.

d. Ensure activities, including GOCOs, submit all environmental compliance requirements to major claimants as soon as such requirements are foreseen.

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e. Support CNO (N4) as program assessment sponsor by providing detailed information in support of program baseline assessments as requested.

f. Provide input on RDT&E requirements via the DON Strategic Environmental Quality RDT&E program, and direct the implementation of innovative solutions to environmental compliance, cost, and liability issues.

g. Review draft legislation and regulations and provide CNO (N45) with timely comments and assessments on the impact of draft legislation or regulations on their activities.

1-5.16 Commanding officers (COs) of shore activities shall

a. Comply with applicable substantive and procedural Federal, State, and local environmental laws and regulations and continuously strive for improvements in all areas of pollution prevention.

b. Cooperate with Federal, State, and local environmental regulatory officials.

c. Comply with the policies in this manual.

d. Coordinate environmental and natural resources matters (especially enforcement actions, agreements and permit conditions) with RECs, NAVFACENGCOM EFDs and EFAs, and major claimants.

e. Submit nominations for the Secretary of the Navy Environmental Quality and Natural Resources Awards, as appropriate.

f. Integrate environmental compliance requirements into all levels of activity management through the application of program management procedures (including oversight, inspection, and identification) and by requesting sufficient resources to support environmental and natural resources programs.

g. If CO of a host activity, apply for all Federal, State, and local permits, where appropriate, and coordinate permit conditions with all affected tenant commands. Include responsibilities for environmental and natural resources program, permits, fees and fines in all host/tenant agreements. In those States or regions where environmental regulatory agencies allow tenant commands to submit and hold their own environmental permits, COs of host commands may delegate authority to sign and hold permits to COs of tenant commands.

h. Along with COs and officers in charge (OICs) of tenant activities, comply with the policies of this manual and with written environmental and natural resources requirements established by the host commanding officer. Federal, State and local laws allocate responsibilities that intra-Navy agreements and command relationships cannot alter. Accordingly, COs and OICs of tenant activities shall coordinate all contacts with regulatory officials through the host activity.

i. Plan, program, budget, and allocate funds for environmental protection costs.

1-5.17 Commander, Military Sealift Command (MSC) shall:

a. Ensure that MSC-owned vessels and MSC-chartered vessels, as public vessels, comply with the policies and procedures of this manual.

b. Include applicable environmental requirements of this manual in all charters, contracts, and leases for vessels.

1-5.18 COs and masters of naval vessels shall:

a. Adhere to the policies of this manual, including chapters 3 and 19 on pollution prevention and afloat environmental compliance.

b. Comply with written environmental directives of host shore facilities and cooperate with host's designated environmental management staff to ensure compliance with applicable Federal, State, and local requirements.

c. Ensure proper maintenance and operation of shipboard environmental protection systems to conform with applicable Federal, State, and local regulations.

d. Ensure proper training of ship's personnel whose actions could adversely affect the environment. Ensure they attend appropriate schools, and are fully aware of appropriate documentation.

e. Report to the chain of command any conditions or systems/equipment malfunctions or personnel errors that could result or have resulted in unlawful emissions or discharge.

f. Carry out the detailed responsibilities listed in paragraph 19-14.10 of this manual.

CHAPTER 2

PROCEDURES FOR IMPLEMENTING THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)

2-1 Scope

The National Environmental Policy Act (NEPA) is a basic national charter for protection of the environment. It establishes policy, sets goals, and provides a means for carrying out environmental policy. This chapter contains policy and guidance to ensure that the Navy acts, per the letter and spirit of NEPA, on all actions with the potential to have significant environmental impacts. Navy activities should apply the requirements of this chapter to any action affecting the environment inside the U.S., its territories and possessions. Executive Order (E.O.) 12898 of February 11, 1994, deals with Federal actions to address environmental justice in minority populations and low-income populations. This instruction supercedes CNO ltr 5090 Ser N456/8U595188 of 9 Mar 98, Modification of Procedures for Implementing the National Environmental Policy Act (NOTAL).

Proponents of proposed actions having the potential for significant effects on the environment outside the geographical borders of the U.S., its territories, and possessions must also take environmental considerations into account per E.O. 12114 of January 4, 1979, and reference (a). Appendix E presents procedures to follow when a proposed Navy action affects the environment outside the jurisdiction of the U.S.

2-1.1 References. Relevant references are:

a. DOD Directive 6050.7 of 31 March 1979, Environmental Effects Abroad of Major Department of Defense Actions; (NOTAL);

b. 32 CFR 775, DON Procedures for Implementing the National Environmental Policy Act;

c. SECNAVINST 5000.2B Implementation of Mandatory Procedures for Major and Non-major Defense Acquisition Programs and Major and Non-major Information Technology Acquisition Programs; (NOTAL).

2-2 Legislation

2-2.1 NEPA mandates that Federal agencies "utilize a systematic, interdisciplinary approach that will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man's environment." NEPA encompasses a wide variety of existing environmental legislation including, but not limited to, the: Clean Air Act (CAA), Clean Water Act (CWA), Coastal Zone Management Act (CZMA), National Historic Preservation Act (NHPA), Marine Protection, Research and Sanctuaries Act (MPRSA), Pollution Prevention Act (PPA), and the Endangered Species Act (ESA). Please refer to appendix A for further discussion of specific laws. (R

NEPA further requires a detailed statement on the environmental impact of major Federal actions that significantly affect the environment be included in every recommendation or report on proposals for legislation. Two basic tenets of NEPA and the Council on Environmental Quality (CEQ) regulations are that:

a. Procedures must exist to ensure environmental information is available to decision makers and citizens before making decisions and taking major Federal actions;

b. The NEPA process should identify and assess reasonable alternatives to proposed actions

to avoid or minimize adverse environmental effects.

2-2.2 NEPA created the CEQ, which provides regulations to implement the procedural provisions of NEPA.

2-2.2.1 CEQ regulations apply a three-tiered approach to ensure that pertinent environmental information for major Federal actions is available to decision makers and the public:

a. Categorical Exclusions

b. Environmental Assessments (EAs)

c. Environmental Impact Statements (EISs).

This chapter discusses in detail compliance criteria for each level.

2-2.3 E.O. 12898 mandates that each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.

2-3 Terms and Definitions

R) **2-3.1 Action Proponent.** The commander, commanding officer, or civilian director of a unit, activity or organization that is responsible for initiating and/or carrying out a proposed action. In general, the proponent should be at the lowest level in the chain of command that "owns" the entire action being proposed. The proponent has the responsibility to prepare and/or obtain funding for the preparation of the appropriate environmental documentation. To illustrate, the station commanding officer would normally be the action proponent for a military construction project for the station (but not other installations). The commander of an operational group would normally be the action proponent for training for the group (but not training for others). The Commander In Chief U.S. Atlantic Fleet, U.S. Pacific Fleet, or U.S. Naval Forces, Europe would normally be the action proponent for the Navy-wide introduction of a new weapon system (e.g. new ship class, new aircraft model, new missile) within his/her Area of Responsibility (AOR). An acquisition program manager for a systems command would normally be the action proponent for systems testing, or for a programmatic action that has multi-base, multi-region or multi-claimant impact. When prudent due to the significance of the action proposed or for other reasons, the designation of action proponent may be elevated to a person higher in the chain of command.

2-3.2 Categorical Exclusion. A category of actions that do not have, under normal circumstances, individually or cumulatively, a significant effect on the human environment; or, that have been previously found to have no such effect as a result of procedures adopted by the Navy for implementing the CEQ regulations and for which, therefore, neither require an EA nor an EIS.

2-3.3 CNO Environmental Review Panel. A (R
selected group of technical experts convened by the Environmental Protection, Safety, and Occupational Health Division (N45), on an ad hoc basis, to review specific EAs/EISs submitted on request to recommend subsequent disposition/processing. Review panel composition is on a subject-by-subject basis with specific subject matter experts named to the panel as appropriate and only for the time necessary to review the current EA/EIS and resolve the current issues. There is no standing membership or scheduled meetings.

2-3.4 Cooperating Agency. Any Federal agency other than a lead agency, which has jurisdiction by law or special expertise concerning any environmental impact, involved in a proposal (or a reasonable alternative) for legislation or other major Federal action significantly affecting the quality of the human environment. A State or local agency of similar qualifications or, when the effects are on a reservation, an Indian tribe, may by

agreement with the lead agency become a cooperating agency.

R) **2-3.5 Draft Environmental Impact Statement (DEIS).** Statements prepared for actions that may have a significant impact on the quality of the human environment or that are potentially controversial in environmental effects. DEISs are filed with the Environmental Protection Agency (EPA) and distributed to cognizant Federal, State, local, and private agencies, organizations, and individuals for review and comment before preparation of a final EIS (FEIS). A DEIS requires a complete and comprehensive analysis of anticipated impacts to the human environment.

2-3.6 Environmental Assessment (EA). A concise public document that:

a. Briefly provides sufficient evidence and analysis for determining whether to prepare an EIS or a Finding Of No Significant Impact (FONSI).

b. Aids to Navy compliance with NEPA when no EIS is necessary.

c. Facilitates preparation of an EIS when one is necessary.

R) **2-3.7 Final Environmental Impact Statement (FEIS).** Statement that incorporates all pertinent comments and information resulting from review of the DEIS. The FEIS is filed with EPA and distributed to recipients of the DEIS.

R) **2-3.8 FONSI.** A document, in which the Navy briefly presents the reasons why an action not otherwise categorically excluded, will not have a significant effect on the human environment, and for which an EIS will not therefore be prepared. The FONSI shall include a brief summary of the proposed action and brief summary of the basis for the finding regarding any relevant issues, mitigation, and/or regulatory concurrence used by the action proponent to make the finding. A FONSI may be one result of review of an EA.

2-3.9 Human Environment. The natural and physical environment and the relationship of people with that environment.

2-3.10 Impacts. Impacts, as used in this chapter, are synonymous with effects, and include direct, indirect, and cumulative impacts. Direct impacts result from some action and occur at the same time and place as the action. Indirect impacts also result from an action, but occur later in time or at a removed location from the action. They are reasonably foreseeable. Indirect impacts include:

a. Growth inducing effects.

b. Effects related to induced changes in the pattern of land use, population density, or growth rate.

c. Related effects on the human environment.

Cumulative impacts result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

2-3.11 Lead Agency. The Federal agency or agencies preparing or having taken primary responsibility for preparing an EIS.

2-3.12 Legislative Environmental Impact Statement (LEIS). An LEIS is a detailed statement required by law for inclusion in a recommendation or report on a legislative proposal to Congress. A LEIS is part of the formal transmittal of a legislative proposal. However, one may transmit it up to 30 days later to allow time for completion of an accurate statement that can serve as the basis for public and congressional debate. The Navy does not prepare an LEIS for annual requests to Congress for Military Construction

(MILCON) authorization or other funding appropriations. Following funding authorization, Navy provides appropriate NEPA compliance reviews for each project.

2-3.13 Major Federal Action. Any proposed Navy action that has the potential for physical impact on the human environment. Actions include, but are not limited to:

a. New activities, including projects the Navy is entirely or partly funding, assisting, conducting, regulating, or approving.

b. Substantive changes in continuing actions, such as substantial changes in operational tempo, areas of use, or in methodology/equipment.

c. Approval of specific projects, such as construction or management activities located in a defined geographic area (i.e., MILCON projects, public/private venture projects, unspecified minor construction projects, natural resources management projects, special projects, land acquisition, and locally funded projects).

d. Adoption of programs, such as a group of concerted actions to implement a specific policy or plan.

2-3.14 Mitigation. Actions, which reduce the severity or intensity of impacts of other actions, to include:

a. Avoiding the impact altogether by not taking a certain action or parts of an action or by moving the project location.

b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, for example by adjusting site layout.

c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.

d. Reducing or eliminating the impact over time by monitoring, maintaining, and/or replacing equipment or structures so that future environmental degradation due to equipment or structural failure does not occur during the life of the action.

e. Compensating for the impact by replacing or providing substitute resources or environments.

Action proponents should consider the avoidance of impacts as the preferred mitigation measures.

2-3.15 Notice of Intent (NOI). A required notice published in the Federal Register that formally announces the Navy's intent to prepare an EIS. The NOI provides a brief description of : the proposed action (including location, extent and duration of action), purpose and need for the action, any known alternatives to be considered, issues to be addressed (in particular, any sensitive issues), identifies any co-lead or cooperating agencies, and provides a Navy point of contact for any questions. The NOI formally opens the public scoping process and usually, though not required, provides information regarding public scoping meetings to be held.

2-3.16 Record of Decision (ROD). A concise summary for publication in the Federal Register of the decision made by the Navy from the alternatives presented in an FEIS. CNO (N45) prepares the document and the Secretary of the Navy (SECNAV) approves it. The ROD will state the decision, identify alternatives considered (including that which was environmentally preferable), and discuss other considerations (non-environmental) that influenced the decision identified. The ROD will also describe the intended implementation of all practical means to avoid impacts resulting from the chosen alternatives, and explain any decision behind the non-implementation of any of these means. Additionally, the ROD shall address any monitoring associated with mitigation. (R

2-3.17 Scoping. An early and open process for determining the scope of issues and for identifying the significant issues related to a proposed action.

2-3.18 Significance. The context and intensity of an impact. Context means the area, resources, or processes affected. Intensity refers to the severity of impact as derived from evaluating magnitude of effects on public health or safety, unique characteristics of the geographic area, controversy of environmental effects, risk analysis, precedents, relationship to other actions, cumulative impacts, and the potential for violating laws imposed to protect the environment.

R) **2-3.19 Supplemental Environmental Impact Statement.** A document describing the environmental impacts of a project or proposal prepared when substantial changes relevant to environmental concerns are made in the proposed action, or when significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts becomes available. Action proponents shall prepare a supplemental EIS at any time after preparing and filing a DEIS, FEIS, or ROD. Action proponents will process the supplemental EIS (file with the EPA and distribute to recipients) in the same manner described in this chapter for any similar EIS.

2-4 Navy Policy

2-4.1 General. The Navy shall act with care to ensure, to the maximum extent practicable, that in conducting its mission of providing for the national defense, it does so in a manner consistent with national environmental policies, including environmental justice. In so doing, the Navy recognizes that the NEPA process includes the systematic examination of the likely environmental consequences of implementing a proposed action. To be an effective decision- making tool, the Navy shall integrate the process with other Navy-Marine Corps project planning at the earliest possible time. This ensures that planning and decision-making reflect environmental values, avoid delays, and avoid potential conflicts. The Navy shall take care to ensure that, consistent with other national policies and national security requirements, practical means and measures are used to protect, restore, and enhance the quality of the environment, to avoid or minimize adverse environmental consequences, and to attain the objectives of:

a. Achieving the widest range of beneficial uses of the environment without degradation, risk to health and safety, or other consequences that are undesirable and unintended.

b. Preserving important historical, cultural, and natural aspects of our national heritage, and maintaining, where possible, an environment that supports diversity and variety of individual choice.

c. Achieving a balance between resource use and development within the sustained carrying capacity of the ecosystem involved.

d. Enhancing the quality of renewable resources and working toward the maximum attainable recycling of depletable resources.

e. Providing the opportunity for public comment.

Every person preparing, implementing, supervising, and managing projects involving categorical exclusions, EAs, and EISs shall have received Environmental and Natural Resources training outlined in chapter 24 of this instruction, shall have received comprehensive NEPA training specific to their job assignment, and shall be familiar with the provisions of this chapter. (R

2-4.2 NEPA Compliance. To comply (see figure 2.1) with NEPA, the Navy shall:

a. Assess environmental consequences of proposed actions that could affect the quality of the

environment in the U.S., its territories, and possessions per Department of Defense (DOD) and Council on Environmental Quality (CEQ) regulations.

b. Use a systematic, interdisciplinary approach that ensures the integrated use of the natural and social sciences and environmental considerations in planning and decision-making where there may be an impact on man's environment.

c. Ensure the consideration of presently unmeasured environmental amenities in the decision-making process.

d. Consider the reasonable alternatives to recommended actions in any proposal that would involve unresolved conflicts concerning alternative uses of available resources.

e. Make available to States, counties, municipalities, institutions, and individuals advice and information useful in restoring, maintaining, and enhancing the quality of the environment.

f. Use ecological information in planning and developing resource-oriented projects

D)

2-5 Requirements

2-5.1 Categorical Exclusions. CEQ regulations provide for establishment of categorical exclusions for those actions that, after consideration by the Departments (Navy), have been found not to have a significant effect on the human environment individually or cumulatively, under normal circumstances, and therefore do not require an EA or an EIS. Categorical exclusions are applicable to those kinds of military actions that do not significantly affect the quality of the human environment, do not result in any significant change from existing conditions at the site of the proposed action, and whose effect is primarily economic or social. Even though a proposal generally fits the definition of a categorical exclusion, activities should not use a categorical exclusion if the proposed action:

a. Would affect public health or safety;

b. Involves an action determined to have, in coordination with the appropriate resource agency, potential for significant environmental impacts on wetlands, endangered or threatened species, historical or archeological resources, or hazardous waste sites. Examples include situations in which:

(1) The action would not qualify under an Army Corps of Engineers (COE) nationwide/regional permit, or if it would meet COE requirements but cannot meet Navy's "no net loss" wetland policy. (R

(2) The National Marine Fisheries Service (NMFS) or United States Fish and Wildlife Service (USFWS) would not issue a "no adverse effect" opinion for any threatened or endangered species or its critical habitat. (R

(3) The State Historic Preservation Office (SHPO) would not concur with a "no adverse effect" determination.

(4) The action would conflict with remediation plans or activities, such as those that occur under the Installation Restoration Program. (R

c. Involves effects on the human environment that are highly uncertain, involve unique or unknown risks, or are scientifically controversial;

d. Establishes precedents or makes decisions in principle for future actions with significant effects; and/or

e. Threatens a violation of Federal, State, or local law or requirements imposed for protection of the environment.

It is the responsibility of action proponents (often at the activity level) to decide to categorically exclude a proposed action. The action

proponent must document the decision not to prepare an EA or EIS on the basis of one or more categorical exclusions and must describe the exclusions found applicable, the facts supporting their use, and specific considerations of whether the exceptions to the use of categorical exclusion, set out above, were applicable. This Record of Categorical Exclusion need not be more than a page or two, but the commanding officer or his/her designee must sign it. In the case of weapons acquisition programs, the program manager must sign. If, during action coordination with the appropriate regulatory/resource agencies, it is determined that the action will have no adverse effect on resources listed in paragraph 2-5.1b and no other impacts are anticipated, an action proponent may use a categorical exclusion that includes copies of the agency correspondence in a Record of Categorical Exclusion. The action proponent shall retain the signed Record of Categorical Exclusion within the project files and make it available for review during Environmental Compliance Evaluations (ECEs).

2-5.2 List of Categorical Exclusions. The following are actions (listed in the same order and manner as reference (b)) under normal conditions, categorically excluded from further documentation requirements under NEPA:

a. Routine personnel, fiscal, and administrative activities involving military and civilian personnel (i.e., recruiting, processing, paying, and records keeping).

b. Reductions in force wherein impacts are limited to socioeconomic factors.

c. Routine movement of mobile assets, such as ships and aircraft, in home port reassignments (when no new support facilities are required) to perform as operational groups, and/or for repair and overhaul.

d. Relocation of personnel into existing Federally owned or commercially leased space that does not involve a substantial change in the supporting infrastructure (an increase in vehicular traffic beyond the capacity of the supporting road network. To accommodate such an increase is an example of substantial change).

e. Studies, data, and information gathering that involve no physical change to the environment (i.e., topographic surveys, bird counts, wetland mapping, forest inventories, and timber cruising).

f. Routine repair and maintenance of facilities and equipment to maintain existing operations and activities, including maintenance of improved and semi-improved grounds such as landscaping, lawn care, and minor erosion control measures.

g. Alteration and additions of existing structures to conform to or provide conforming use specifically required by new or existing applicable legislation or regulations (i.e., hush houses for aircraft engines and scrubbers for air emissions).

h. Routine actions normally conducted to operate, protect, and maintain military-owned and/or controlled properties (i.e., maintaining law and order; physical plant protection by military police and security personnel; and localized pest management activities on improved and semi-improved lands conducted under applicable Federal and State directives).

i. New construction that is consistent with existing land use and, when completed, the use or operation of which complies with existing regulatory requirements (i.e., a building on a parking lot with associated discharges/runoff that are within existing handling capacities; a bus stop along a roadway; and a foundation pad for portable buildings within a building complex).

j. Procurement activities that provide goods and support for routine operations.

k. Day-to-day personnel resource management and research activities under approved plans

and inter-agency agreements and designed to improve and/or upgrade military ability to manage those resources.

l. Decisions to close facilities, decommission equipment, and/or temporarily discontinue use of facilities or equipment (where such equipment is not used to prevent/control environmental impacts). (Note: Does not apply to permanent closure of public roads or to base closures.)

m. Contracts for activities conducted at established laboratories and plants, to include contractor-operated laboratories and plants, within facilities where all airborne emissions, waterborne effluent, external radiation levels, outdoor noise, and solid and bulk waste disposal practices comply with existing applicable Federal, State, and local laws and regulations.

n. Routine movement, handling and distribution of materials, including hazardous materials and wastes, that when moved, handled, or distributed are under applicable regulations.

o. Demolition, disposal, or improvements involving buildings or structures neither on nor eligible for listing on the National Register of Historic Places and when under applicable regulations (i.e., removal of asbestos, polychlorinated biphenyls (PCBs), and other hazardous materials).

p. Acquisition, installation, and operation of utility and communication systems, data processing cable and similar electronic equipment, that use existing rights of way, easements, distribution systems, and/or facilities.

q. Renewals and/or initial real estate ingrants and outgrants involving existing facilities and land wherein use does not change significantly. This includes, but is not limited to, existing or Federally-owned or privately-owned housing, office, storage, warehouse, laboratory, and other special purpose space.

r. Grants of license, easement, or similar arrangements for the use of existing rights-of-way or incidental easements complementing the use of existing rights-of-way for use by vehicles (not to include significant increase in vehicle loading); electrical, telephone, and other transmission and communication lines; water, wastewater, stormwater, and irrigation pipelines, pumping stations, and facilities, and for similar utility and transportation uses.

s. Transfer of real property from the military to another military department or to another Federal agency, and the granting of leases (including leases granted under the agricultural outleasing program where soil conservation plans are incorporated), permits and easements where there is no substantial change in land use or where subsequent land use would otherwise be categorically excluded.

t. Disposal of excess easement interests to the underlying fee owner.

u. Renewals and minor amendments of existing real estate grants for use of government-owned real property with no anticipated significant change in land use.

v. Pre-lease exploration activities for oil, gas or geothermal reserves (e.g., geophysical surveys).

w. Return of public domain lands to the Department of the Interior.

x. Land withdrawal continuances or extensions, that merely establish times, and where there is no significant change in land use.

y. Temporary closure of public access to military property to protect human or animal life.

z. Engineering effort undertaken to define the elements of a proposal or alternatives sufficiently to assess the environmental effects.

aa. Actions, which require the concurrence or approval of another Federal agency, where the

action is a categorical exclusion of the other Federal agency.

bb. Maintenance dredging and debris disposal requiring no new depths, securing of applicable permits, and disposal at an approved disposal site.

cc. Installation of devices to protect human or animal life (i.e., raptor electrocution prevention devices, fencing to restrict wildlife movement onto airfields, and fencing and grating to prevent accidental entry to hazardous areas).

dd. Natural resources management actions undertaken or permitted under agreement with or subject to regulation by Federal, State, or local organizations having management responsibility and authority over the natural resources in question, including hunting or fishing during hunting or fishing seasons established by State authorities under their State fish and game management laws. Concerning natural resources regulated by another Federal agency, the responsible command may cooperate in any environmental analysis that may be required by the other agency's regulations.

ee. Approval of recreational activities that do not involve significant physical alteration of the environment or increase human disturbance in sensitive natural habitats and that do not occur in or next to areas inhabited by endangered or threatened species.

ff. Routine maintenance of timber stands, including issuance of down-wood firewood permits, hazardous tree removal, and sanitation salvage.

gg. Reintroduction of endemic or native species (other than endangered or threatened species) into their historical habitat when no substantial site preparation is involved.

2-5.3 Environmental Assessments (EAs)

R)

2-5.3.1 General. An EA is an analysis of the potential environmental impact of a proposed action. Action proponents must prepare an EA when they do not know beforehand whether or not the proposed action will significantly affect the human environment or be controversial regarding environmental effects. An EA will either result in a Finding Of No Significant Impact (FONSI), or, if a significant impact is expected, preparation of an Environmental Impact Statement (EIS).

2-5.3.2 Action Normally Requiring EAs. The action proponent prepares an environmental assessment of the action unless it is determined that an EIS shall be prepared or that an action falls within the scope of one or more categorical exclusions. The following are examples of actions that, under normal conditions, would require preparation of an EA:

a. Training exercises on or over (airspace) non-military property.

b. Major training exercises on military property not categorically excluded, for which the impacts are unknown, or for which the action proponent does not already know the impacts to be significant.

c. Dredging projects that increase water depth over previously dredged or natural depths.

d. Proposed utilization of tidal and non-tidal wetlands that would require a special permit.

e. Real estate acquisitions or outleases of land involving one of the following:

(1) New ingrants/outgrants only, i.e., not renewals nor continuances wherein land usage remains the same,

(2) Fifty acres or more where existing land use will change and will not be categorically excluded, or

(3) Renewals of agricultural and grazing leases involving changes in animal stocking rates, season of use, or conversions to or from cropland.

f. Real estate acquisition of any size or ingrants/outgrants, which may be considered environmentally controversial, regardless of the appropriation or intended use.

g. Family housing projects when resident population changes substantially.

h. New target ranges or range mission changes that would increase environmental impact.

i. Exercises conducted at the request of States (e.g., ship sinking for artificial reefs) or territorial governments wherein they are expecting an environmental impact.

j. New low altitude aircraft training routes and/or special use airspace and warning areas wherein overflights impact persons or wildlife (particularly endangered species).

k. Mission changes, base closures/ relocations/consolidations and deployments that would cause major long term population increases or decreases in affected areas. EAs are not required where impacts are purely socioeconomic and involve no potential for significant environmental impacts.

l. Any activity proposed that may adversely affect threatened or endangered species, or the designated or proposed critical habitat of an endangered species. Chapter 22 discusses the associated but separate need for a biological assessment and consultation under the Endangered Species Act.

m. Any activity proposed that would adversely affect historical or cultural sites either now listed on the National Register of Historical Places or deemed eligible for inclusion on the National Register (see chapter 23).

n. Permanent closure or limitation of access to any areas that were open previously to public use, such as roads or recreational areas.

o. Construction or any other action resulting in discharges to or potential contamination of an aquifer, watershed, or recharge zone regulated by the Safe Drinking Water Act (SDWA).

p. Irreversible conversion of "prime or unique farmland" to other uses.

q. Transportation of hazardous substances, conventional munitions, or other wastes for intentional disposal into the oceans by any naval unit.

r. Award or termination of contracts involving substantial quantities of natural resources, wherein the Navy is the contracting agency.

s. Any action for which the environmental effect is scientifically controversial.

2-5.3.3 Content of EAs. When preparing an EA, the action proponent should follow the same evaluation thought process as for EISs (i.e., focus on the issues of concern and make the EA length sufficient to address those issues). Briefly discuss the need for the action; discuss alternatives considered; describe the environmental impacts of the proposal and any environmental monitoring requirements and provide a listing of the agencies and persons consulted. See chapter 23 for additional information regarding cultural resources.

a. The action proponent must discuss the potential impact on threatened or endangered animal or plant species, or if the U.S. Fish and Wildlife Service or the National Marine Fisheries Service designates the area a "critical habitat" for such species. See chapter 22 for additional responsibilities regarding the protection of endangered species. (R

b. To satisfy the General Conformity Rule under Section 176(c) of the Clean Air Act, include the results of the Conformity Review as an appendix to an EA that proposes an action in a (R

nonattainment or maintenance area. The action proponent should include in the Conformity Review one or a combination of the following: (1) a determination that the action is not subject to the rule, citing the specific exception from 40 CFR 51.853(c); (2) a Record of Non-Applicability, or; (3) a Conformity Determination.

2-5.3.4 Public Participation. CEQ regulations clearly recognize the importance of public participation in preparing EAs as well as commands proposing an action to develop a plan to ensure appropriate communication with affected and interested parties. In determining the extent to which public participation is practicable, consider the following factors:

a. The magnitude of the environmental considerations associated with the proposed action;

b. The extent of anticipated public interest;

c. Any relevant questions of national security and classification.

2-5.3.5 EA Process. At the commencement of EA preparation, the action proponent will notify CNO (N45) and the REC via a brief letter that describes the proposed action. This letter will afford CNO (N 45) and the REC the opportunity to inform the action proponent of any policy issues or regional concerns that will need to be addressed in preparing the EA.

The action proponent must also determine if the General Conformity Rule applies to the proposed action as defined in the EA. The CNO Interim Guidance on Compliance with the Clean Air Act General Conformity Rule (appendix F) describes the requirements and procedures for preparing a Conformity Review. If an action proponent prepares a Record of Non-Applicability for a proposed action occurring in a nonattainment or maintenance area, he/she shall sign the record and include it, along with the supporting analysis, in the EA for processing.

Where a case requires a Conformity Determination, the action proponent shall distribute a "review EA" with the draft Conformity Determination as an appendix to appropriate review agencies listed in the Conformity Rule and interested parties for a 30-day comment period (See appendix F). Concurrently, the action proponent shall publish a public notice on the availability of a Draft Conformity Determination in the local newspaper. Once the EA and its Conformity Determination are finalized by the action proponent, the Navy shall process the EA internally as shown in Figure 2.1 (except as noted in paragraph 2-6.6).

a. If the action proponent is in one of the following commands: CINCLANTFLT, CINCPACFLT, CNET, COMNAVRESFOR, COMNAVSEASYSCOM, or COMNAVAIRSYSCOM, he or she shall submit five copies of the completed EA via the chain of command to the flag-level official designated to sign FONSIs at its headquarters ("designated headquarters official"). Each command with a designated headquarters official shall keep CNO (N45) informed of the name of that official. If the action proponent is not in a claimancy mentioned above, and the proposed action is not acquisition related, the action proponent shall submit the EA to CNO (N45) via the chain of command. Action proponents shall continue to process acquisition-related EAs in accordance with reference (c). If the EA involves actions that affect resources under the control of a regional environmental coordinator, it requires the concurrence of the regional environmental coordinator. Should the regional environmental coordinator not concur with the proposed action, alternatives considered, criteria for development of alternatives, or mitigation, he or she shall forward the matter to CNO (N45) for resolution. (R

b The designated headquarters official for the commands listed in the previous paragraph shall evaluate the documented impact of the proposed action on the environment and shall advise

LEVELS OF DOCUMENTATION

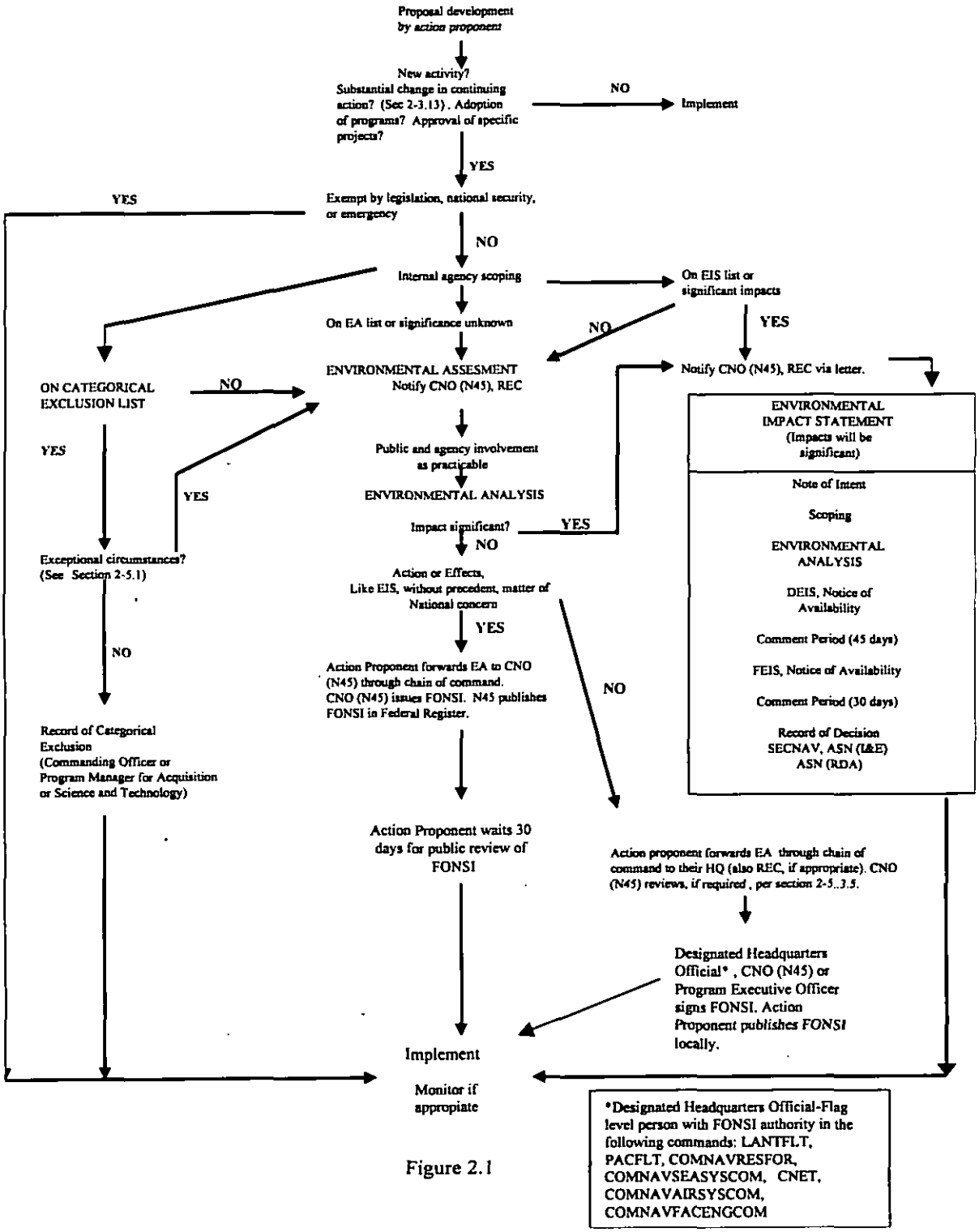

Figure 2.1

the action proponent if additional information is required.

R) c. After evaluating the EA, the designated headquarters official shall decide whether a FONSI is appropriate, or whether the proposed action would generate significant impacts. The inclusion of mitigation measures as part of the proposed action may bring impacts below the threshold of significance. If appropriate, he/she shall prepare a FONSI and notify the action proponent to complete public notification and the NEPA process. If the EA includes a Conformity Determination, which has undergone public review, CNO (N45) shall review and sign the Conformity Determination and shall include it in the FONSI. In these cases, the action proponent must publish a notice of the availability of a FONSI/ Conformity Determination in a local newspaper within 30 days of signature. All mitigation committed to in the FONSI is legally binding on the action proponent, and he or she must implement it. Public notification shall normally consist of newspaper publication of a summary of the FONSI and direct mail-out of the full FONSI by the action proponent to any interested or affected parties (as defined during preparation of the EA). The action proponent shall publish the summary of the FONSI for 3 consecutive days in the "Public Notices" section of a newspaper with distribution in the area of the proposed action. In some cases where publication in large-city newspapers would result in prohibitively high cost, the action proponent may opt for a broad mail-out of the FONSI to all regulatory/resource agencies, interested or affected parties, libraries, and elected officials, instead of newspaper publication. Where appropriate, the action proponent should also publicize in foreign-language newspapers. Within 2 days after the designated headquarters official signs the FONSI, he or she shall forward a copy of the EA and FONSI, preferably in electronic form, to CNO (N45).

d. If the proposed action involves:

(1) Effects of national concern,

(2) Action closely similar to conditions that normally require the preparation of an EIS, or

(3) An action without precedent, the action proponent will forward the EA to CNO (N45) via the regional environmental coordinator and chain of command. CNO (N45) will review the EA and determine if a FONSI is appropriate. If so, CNO N45 shall prepare the FONSI in coordination with, and for approval by, Assistant Secretary of the Navy (Installation & Environment) (ASN (I&E)) for publication in the Federal Register. CNO (N45) shall also notify the action proponent to complete the public notification and NEPA process. (R

For projects under these circumstances, the action proponent shall make the FONSI available to the public for 30 days before the FONSI becomes final at which time the action may begin.

The action proponent shall also send a copy of the completed EA and FONSI to:

ATTN: DTIC-ODR
Defense Technical Information Center
8725 John J. Kingman Road STE 0944
Fort Belvoir, VA 22060-6218

2-5.4 Environmental Impact Statements (EISs)

2-5.4.1 General. In an EIS, the action proponent provides full and unbiased discussion of significant environmental impacts and informs decision makers and the public of the reasonable alternatives that would avoid or minimize adverse impact or enhance the quality of the human environment.

2-5.4.2 Guidelines and Standards. The action proponent may use several guidelines to judge the significance of the effect of an action on the environment, including:

a. The geographical extent of the action. For example, construction, land use modification, etc., to support a limited maneuver or training exercise

by an individual command may not normally have a significant effect upon the environment. However, training exercises on a broad geographic scale involving diverse natural areas would be more likely to have a significant effect on environmental quality.

b. *The long-term impact of the action.* The action proponent should maintain an objective view toward the magnitude of environmental effects of both the immediately contemplated action and future actions, for which the proposed action may serve as a precedent, and which may result in a cumulatively significant impact.

c. The risk potential of the action. For example, even though the environmental impact of an efficiently run fuel depot may not be significant, the effects of an oil spill (if determined "reasonably foreseeable" within the timeframe of the project) on the local fishing industry or the surrounding beaches, in the case of a tourist-oriented economy, may well render construction of such a depot very significant.

d. The existing or possible historical, architectural, or archeological interest of the site. See chapter 23 for additional information regarding cultural resources.

e. The potential impact on endangered animal or plant species. Particularly if the U.S. Fish and Wildlife Service or the National Marine Fisheries Service designates the area a "critical habitat" for such species. See chapter 22 for additional responsibilities regarding the protection of endangered species.

2-5.4.3 *Actions for Which EISs Must Be Prepared.* The following are examples of actions that may have a significant impact on the quality of the human environment or are potentially controversial in environmental effects, and therefore require preparation of an EIS by an action proponent:

a. Large dredging projects or dredging projects where dredged material disposal may result in significant impacts.

b. Proposed major construction and filling in tidelands/wetlands.

c. Establishment of major new installations. (R

d. Major land acquisitions that result in a change in how the property is used.

e. New sanitary landfills.

f. Disposal of biological or chemical munitions and pesticides or herbicides other than in the manner in which they are authorized for use or disposal.

When an action is among those listed above, closely analogous to the same, or when an EA concludes impacts to be significant or environmentally (scientifically) controversial, the action proponent will prepare an EIS using procedures outlined in this instruction. The action proponent shall notify CNO (N45), the regional environmental coordinator, and, if appropriate, the systems command environmental coordinator via letter before commencing an EIS (see 2-5.4.8). (R

2-5.4.4 EIS Preparation. To achieve the goal of NEPA to prepare a concise and useful statement, action proponents are to prepare EISs in the following manner:

a. Make EISs analytic rather than encyclopedic.

b. Discuss the impacts in proportion to their significance. Discuss only briefly other, non-significant issues. (R

c. Keep EISs concise and no longer than necessary to comply with NEPA, these regulations, and those issued by the CEQ. Vary the length of discussion with respect to: (1) the potential (R

environmental issues, and (2) the context and intensity of the action.

d. Describe the criteria for selecting alternatives.

R) e. The range of alternatives discussed in EISs, including the No Action alternative, will encompass the ultimate decision-maker's alternatives, and those directed by the lead agency if the DOD is a cooperating agency.

f. Before making a final decision, cognizant commands will not make irreversible commitments of resources that change the physical environment.

g. Use EISs as a means of assessing whether the environmental impacts of proposed actions include disproportionately high adverse human health or environmental effects on minority and low-income populations.

h. To satisfy the General Conformity Rule under Section 176(c) of the Clean Air Act, include the results of the Conformity Review as an appendix to the DEIS proposing an action in a non-attainment or maintenance area. Appendix F describes the requirements and procedures for preparing a Conformity Review.

2-5.4.5 Document Length. The text of the EIS should normally be less than 150 pages. For proposals of unusual scope or complexity, EISs should normally be less than 300 pages. The action proponent should make every effort to restrict the document only to pertinent facts, excluding material not directly applicable to the expected impact and ensure that the statement contains sufficient information and baseline data to support the conclusions reached. If desired, the action proponent may include additional data to the statement as appendices.

R) **2-5.4.6 Contractor Involvement in EIS Preparation.** Contractors frequently prepare EISs and EAs. To obtain unbiased analyses, commands must select contractors in a way that avoids any conflict of interest. Contractors must therefore execute disclosure statements specifying they have no financial or other interest in the outcome of the project. Action proponents must closely monitor the contractor's efforts throughout the contract to ensure an adequate assessment/statement and thus avoid extensive, time consuming, and costly revisions.

2-5.4.7 Cooperation with State and Local Agencies. To eliminate duplication of State and local procedures, action proponents will cooperate fully with State and local agencies to reduce duplication among NEPA, State and local requirements. Such cooperation could include:

a. Joint planning processes.

b. Joint environmental research and studies including assessments of the presence or special needs of minority and low-income groups, including foreign language interpretation, collection, and analysis of demographic characteristics.

c. Joint public hearings (except where otherwise provided by statute).

d. Joint EAs.

e. Joint EISs.

(R

2-5.4.8 Scoping. To facilitate early resolution of policy issues affecting preparation of an EIS, action proponents will forward to ASN(I&E) via CNO (N45), a description of the proposed action, purpose and need, alternatives slated for consideration, and the criteria used to select reasonable alternatives. After forwarding this information, the action proponents shall engage in a dialogue with CNO (N45), ASN (I&E) and the regional environmental coordinator to resolve any issues. During the scoping process action proponents will:

a. Invite the participation of affected Federal, State, and local agencies, any Indian tribe,

minority and low-income populations, and other interested persons.

b. Determine the scope and the significant issues that the EIS will analyze in depth.

c. Identify and eliminate from detailed study insignificant issues or those previously covered by environmental review, narrowing the discussion of these issues in the statement to a brief presentation of why they will not have a significant effect on the human environment or providing a reference to their coverage elsewhere.

d. Allocate assignments for preparation of the EIS among the lead and cooperating agencies, with the lead agency retaining responsibility for the statement.

e. Indicate any public EAs and other EISs, which are being or will be prepared, that relate to but are not part of the scope of the impact statement under consideration.

f. Indicate the relationship between the timing of the preparation of EISs and the agency's tentative planning and decision making schedule.

CNO (N45) will publish the NOI to prepare an EIS in the Federal Register. The NOI will briefly describe the proposed action and the scoping process. In addition to publication of the NOI in the Federal Register, the action proponent will mail the NOI directly to concerned agencies and persons. The action proponent should also publish the NOI in local newspapers (especially if extensive mailings are not practicable or may not reach all affected or interested persons). CNO (N45) should make these notifications as soon as practicable after deciding to require an EIS and notifying the proper chain of command. Action proponents may carry out the functions identified in the preceding paragraphs in the context of a public, informal meeting at which written responses or oral presentations resulting from the public notices may be received.

Action proponents may hold such meetings whenever practicable, but they are not mandatory. There is no authority for the payment of expenses incurred by any private person(s) in the preparation and presentation of information at these meetings. If no meeting is to occur, the cognizant command will address the issues based upon responses to notices processed and documented. If a public scoping meeting is to occur, a notice of the public scoping meeting will be published in the Federal Register as part of the NOI, or as soon as practical after the NOI is published. In no case shall the command publish a notice less than 15 days before the day of the public meeting. In addition to publication in the Federal Register, the action proponent will mail the NOI and/or announcement of scoping meeting directly to concerned agencies, organizations and individuals, and publish it in local newspapers. Per E.O. 12898, whenever practicable and appropriate, the action proponent will translate the NOI and announcement of the scoping meeting for non-English speaking communities or persons interested.

2-5.4.9 Processing the DEIS. The Navy shall process the DEIS as follows: (R

a. The action proponent shall submit 10 copies of the DEIS to CNO (N45) via the chain of command. If the proposed action affects resources under the control of a regional environmental coordinator, including but not limited to facility assets or operations, the DEIS and FEIS shall be endorsed by the regional environmental coordinator. If the proposed DEIS concerns matters expected to generate considerable public interest or controversy, the action proponent shall furnish a copy of the statement and all subsequent correspondence to the Chief of Information (CHINFO) via CNO (N45). (R

b. In the forwarding endorsement, the appropriate major claimant shall provide recommendations relative to further disposition, if applicable.

c. After receiving the proposed DEIS, CNO (N45) shall evaluate the documented impact of the proposed action on the environment and advise the action proponent if they require additional information. If no additional information is necessary, CNO (N45) will coordinate with appropriate CNO codes to ensure that the information in the DEIS is consistent with Navy operational policy.

R) d. Once policy issues with other CNO codes are resolved, CNO (N45) shall forward it to the ASN (I&E) for approval for filing with EPA. CNO (N45) will brief ASN (I&E) on the issues in the DEIS.

e. If the ASN (I&E) does not concur in filing the document, he or she may return the statement for further action.

f. Once the decision is made to file a statement, the action proponent may be required to coordinate with or provide CNO (N45) with additional copies of the DEIS for distribution. The number of copies shall vary depending on the action contemplated.

g. In conjunction with the foregoing distribution, the action proponent may request specific comments from:

(1) Any Federal agency that has jurisdiction by law or special expertise regarding any environmental impact involved, or one authorized to develop and enforce standards applicable to the proposed action.

(2) Appropriate State and local agencies that are authorized to develop and enforce standards applicable to the proposed action.

(3) Indian tribes, when the effects may be on a reservation.

(4) Any agency that has requested that it receive statements on actions of the kind proposed.

(5) The public, affirmatively soliciting comments from those persons or organizations who may reasonably be interested or affected.

(6) Minority and low-income populations.

h. A minimum of 45 days is allocated for agency/public review, beginning with the date on which notice of the DEIS appears in the Federal Register. Normally that date shall be the Friday following the week that EPA receives the statement. The action proponent may extend the review time for anyone making a timely request for additional comment time. Failure to file timely comments shall not be a sufficient reason for the Navy to extend the review period.

(D
(R i. Action proponents may hold public hearings as part of the review process. If the hearing is likely to be contentious, the action proponent should consider using a military judge from the JAG as a hearing officer, coordinating this decision with CNO (N45). .Action proponents shall prepare a notice of public hearings (includes hearing schedules and provide the notice to CNO (N45) with adequate time for publishing it in the Federal Register at least 15 days prior to the hearing.

(A j. The General Conformity Rule reporting requirements are similar to those for an EA. The action proponent shall include the appropriate documentation to satisfy the Conformity Review in the DEIS. The action proponent shall also publish a notice of availability of the Draft Conformity Determination in the local newspaper when the DEIS is filed with EPA and ensure that the comment period runs concurrently with the 45-day DEIS review period.

2-5.4.10 Processing the FEIS. Action proponents shall process the FEIS as follows:

a. After the passage of a minimum of 45 days from the date the announcement of the DEIS appears in the Federal Register, action proponents may file an FEIS. Action proponents shall incorporate into the FEIS all comments received on the DEIS. Where comments reveal previously unrecognized impacts or changes to identified impacts, action proponents shall include sufficient analysis thereof. Action proponents shall reproduce individual comments received from agencies and the public where relevant but should discourage the inclusion of verbatim records from public hearings. Action proponents shall ensure the consideration of the hearings by summarizing comments under relevant topic headings, followed by an appropriate response. Action proponents shall also include a meaningful response to all responsible opposing views that have not been adequately addressed in the DEIS. Possible responses in the FEIS include:

(1) Modify alternatives including the proposed action.

(2) Develop and evaluate alternatives not previously given serious consideration.

(3) Supplement, improve, or modify the analyses.

(4) Make factual corrections.

(5) Explain why the comments do not warrant further response, citing the sources, authorities, or reasons that support such a position, and, if appropriate, indicate those circumstances that would trigger a reappraisal or further response.

b. Where Navy response to comments can be accomplished by referencing sections contained in the DEIS, the action proponent shall clearly identify pertinent sections in the response.

c. If appropriate, the action proponent shall include an unsigned version of the Final Conformity Determination in the FEIS.

R) d. After preparation of the FEIS, the action proponent shall again forward a minimum of 10 copies of the statement through the chain of command to CNO (N45) for review and appropriate disposition. If the proposed action affects resources under control of a regional environmental coordinator, the regional environmental coordinator must endorse the FEIS before progressing through the chain of command to CNO (N45). CNO (N45) will coordinate the FEIS with appropriate CNO codes to ensure that Navy operational policy is consistent with the information in the FEIS. CNO (N45) will brief ASN(I&E) on emergent issues during DEIS review and resolutions in the FEIS. Upon approval of the FEIS by the ASN (I&E), CNO (N45) shall notify the action proponent to begin public distribution and shall file the FEIS with the EPA. EPA then publishes the notice of availability in the Federal Register, which shall start the 30-day public review period. The action proponent shall distribute the FEIS to recipients of the DEIS and to any person, organization, or agency that submitted substantive comments on the DEIS

Each week, EPA publishes notices of availability in the Federal Register for EISs filed the previous week. The minimum time for FEIS public review shall be calculated from the date of this notice. Action proponents shall publicly distribute FEISs no later than the time they file copies with EPA. (R

2-5.4.11 Record of Decision. Action proponents shall delay committing resources irreversibly for a proposed action until the later of the following dates:

a. 90 days after publication of the Federal Register notice announcing the filing of the DEIS with EPA.

b. 30 days after publication of the Federal Register notice of the filing of the FEIS with EPA. The action proponent will forward all comments on the FEIS along with draft responses to CNO (N45) as soon as the 30-day no-action period is over.

R) CNO (N45) shall prepare and forward a draft ROD to the appropriate CNO codes to ensure consistency with operational policies. Once CNO issues are resolved, CNO (N45) will forward the draft ROD to ASN (I&E) for approval and signature. If appropriate, ASN (I&E) will incorporate the Final Conformity Determination into the ROD. When ASN (I&E) approves and signs the ROD, CNO (N45) shall arrange for its publication in the Federal Register.

In addition to Federal Register publication, the action proponent shall distribute the ROD to all interested parties, and, if appropriate, publish a notice of availability of Final Conformity Determination in local newspapers and distribute it to agencies and interested parties within 30 days of the approval of the ROD.

The action proponent shall also send a copy of the completed EIS and ROD to:

ATTN: DTIC-ODR
Defense Technical Information Center
8725 John J. Kingman Road STE 0944
Fort Belvoir, VA 22060-6218

2-5.5 *Significant Issues and Other Factors*

2-5.5.1 Classified Actions. Some aspects of a proposed action may involve information not releasable to the public because it is classified or for some other legal reason. This does not relieve the action proponent from complying with the requirements of this instruction. The action proponent shall prepare, safeguard and disseminate EISs, both draft and final, as well as EAs, per the requirements applicable to classified or sensitive unclassified information. When feasible, the action proponent should organize the documents in such a manner to include the classified or sensitive unclassified portions as appendices. In this way, the action proponent can make unclassified portions available to the public. The action proponent shall coordinate the review of classified or sensitive unclassified EISs with the EPA to fulfill requirements of Section 309 of the Clean Air Act (CAA).

In rare circumstances where even public notice of the desired action would disclose classified information, there is no "proposal" under NEPA, and neither an EA nor EIS is required. Plans for actions that would disclose the presence of nuclear weapons, for example, do not constitute "proposals" under NEPA. CNO (N45) must review such instances and should require the consideration of environmental factors using other internal procedures that would provide decision-makers with information of a quality equivalent to that produced under NEPA and excepting public review and comment, to evaluate the potential environmental impacts of the action. For such actions involving nuclear weapons, the internal procedures will address the following elements:

a. A description of the worst case accident considering the particular weapons involved.

b. The best estimate for accident probabilities.

c. Alternative site impact information.

d. Additional information on potential land contamination and clean up.

An EA or EIS containing classified information or other information, prohibited from release by law, serves the same purpose as an ordinary EA or EIS although not all its contents are subject to public review and comment. Action proponents must ensure that the entire package accompanies the proposal through the decision making process. In this way, the content of an EIS or EA containing portions that cannot be released to the public will meet the same overall content requirements that are applicable to an EA or EIS that is fully published.

2-5.5.2 Continuing Actions. CEQ regulations define major Federal actions subject to evaluation

under NEPA to include, among other things, "new and continuing activities." The term "new activities" encompasses future actions (i.e., those not ongoing at the time of the proposal). The DON will apply the term "continuing activities," which may necessitate the preparation of a NEPA document, to include activities that are presently being carried out in fulfillment of a military mission and function, including existing training functions where there are:

a. Currently occurring environmental effects, not previously evaluated in a NEPA document, and there is a discovery that subs R) environmental degradation is occurring, or is likely to occur, because of ongoing operations. Examples: A discovery that significant beach erosion is occurring because of continuing amphibious exercises; new designation of wetland habitat or discovery of an endangered species residing in the area of the activity.

b. Environmental effects of an ongoing activity that are significantly and qualitatively different or more severe than predicted in a NEPA document prepared in connection with the commencement of the activity.

Navy activities shall consider substantial change in a continuing activity, which has the potential for significant environmental impacts, as a proposal for a new action and document it accordingly. Preparation of an appropriate NEPA document is not a necessary prerequisite, nor a substitute, for compliance with other environmental laws.

2-5.5.3 Emergency Actions. Where emergency circumstances outside the control of the Navy make it necessary to take an action with significant environmental impact without observing the provisions of CEQ regulations, the Navy must consult with the CEQ about alternative arrangements. Action proponents must submit requests for such consultation to CNO (N45) as soon as they identify the need to consult with the Secretariat and in appropriate cases, the CEQ. The action proponent shall limit alternative arrangements to those aspects of a proposal that must continue on an emergency basis. The remainder is subject to normal NEPA review. Ordinarily, the failure to plan properly does not establish an emergency.

2-5.6 Weapon System Acquisition Programs. The program manager must comply with NEPA or E.O. 12114 (Environmental Effects Abroad of Major Federal Actions) when a proposed action within an acquisition program will impose a physical effect on the natural environment.

Reference (c) provides a format for the program manager's Programmatic Environmental Safety and Health Evaluation (PESHE) associated with an acquisition through-out its entire life cycle and measures to mitigate adverse effects. The NEPA section of the PESHE is not a NEPA document, but a "file drawer" that contains all NEPA and E.O. 12114 documents prepared, as well as a "road map" of future NEPA and E.O. 12114 actions in the current and upcoming phase. Its purpose is twofold: (1), to provide an administrative record of NEPA documents for program decisions, which ensures that decision-makers understand the nature, scope, and timing of an action's potential environmental impact; and (2), to manage the budgeting and execution of NEPA and E.O. 12114 responsibilities. In the NEPA section of the PESHE, program managers should list the upcoming actions that trigger NEPA, and the level of NEPA documentation required. The PESHE should include a current plan of action and milestones (POA&M) that matches the upcoming actions (tests, for example) with milestones for budgeting and completing the necessary NEPA or E.O. 12114 documentation. The PM can refer to the PESHE POA&M to plan and budget his/her NEPA or E.O. 12114 compliance. In many cases, preparation of an EA must begin at least 6-8 months before decision deadlines for a test (e.g., siting or methodology). Budgeting for the EA may be needed a year earlier. Because environmental concerns may develop at any point during the acquisition process, reference (c) requires program managers to keep the PESHE current throughout

the program life cycle. If the program manager indicates the requirement for NEPA/E.O. 12114 documentation in the PESHE, he or she must complete it before making a decision having an adverse environmental impact or limiting a choice from reasonable alternatives.

The program manager bases the determination of when the potential for significant impact exists on project specific requirements and the criteria in this instruction. For example, concept development during early phases of acquisition programs may use techniques known not to cause a significant environmental impact (e.g., computer simulations). In other cases, the potential for significant impact may occur during these early phases, due to testing and evaluation requirements. Section 2-5.3.2 and 2-5.4.3 list other examples of actions with the potential for environmental impact.

2-5.7 Pollution Prevention

a. EPA will evaluate NEPA documentation reviewed under authority of Section 309 of the Clean Air Act for incorporation of pollution prevention measures and will assist Federal agencies in acknowledging and receiving credit for commitment to pollution prevention.

b. The term "pollution prevention" includes: equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

During all stages of project formulation, from early planning and NEPA documentation through implementation, action proponents should seek opportunities to incorporate pollution prevention into their programs.

c. The following list describes areas where action proponents may appropriately discuss pollution prevention during the NEPA scoping and subsequent environmental review phases:

(1) The definition of the project's purpose and need (the proponent should clearly identify the purpose and not slant the definition to support the proponent's desires, which could limit pollution prevention options).

(2) The project design specifications and standards.

(3) The sizing of a project (e.g., a smaller project may affect less habitat, have fewer impacts on soil erosion and water quality, and/or result in less induced growth).

(4) The location of a facility (i.e., away from sensitive habitats, close to centralized transportation or other compatible uses).

(5) The range of alternatives (e.g., whether pollution prevention opportunities are included).

(6) Rejection of certain alternatives (e.g., because of their potential to cause pollution).

(7) Emphasis on environmental requirements (whether the focus is on pollution prevention, source reduction, innovative technologies or traditional end-of pipe, add-on controls).

(8) The capability of the proposed action to prevent pollution.

(9) The secondary effects of a proposed action, which may discourage pollution prevention.

(10) The mitigation measures incorporated into the proposal (i.e., some mitigation measures may have more pollution prevention benefits than others, and significant pollution prevention may require a basic change in the project).

d. Chapter 3 provides further guidance on compliance with the Pollution Prevention Act as well as pollution prevention strategies.

2-5.8 Time Limits. Action proponents commencing the preparation of an EIS should set time limits with due regard for operational requirements as well as the public and agency comment periods established by CEQ regulations. State or local agencies or members of the public may request that the cognizant command set time limits on the NEPA process. In determining time limits (required to complete the EIS), the action proponents may consider the following factors:

a. Potential for environmental harm.

b. Size of the proposed action.

c. State-of-the-art analytic techniques.

d. Degree of public need for the proposed action, including the consequences of delay.

e. Number of persons and agencies affected.

f. The certainty of relevant information, and if it is uncertain, the time required to obtain information of required authenticity.

g. Degree to which the action is controversial.

h. Other time limits imposed on the agency by law, regulations, or E.O.

2-5.9 Format. Action proponents should prepare all pages of the original document on 8 1/2 x 11-inch bond, although it is permissible to use foldout sheets as long as they retain the 11-inch vertical dimension. Use the following format for all EISs and, to the extent appropriate, EAs:

a. **Cover Sheet.** Do not exceed one page for the cover sheet and include:

(1) A list of the responsible agencies including the lead agency and any cooperating agencies.

(2) The title of the proposed action that is the subject of the environmental analysis (and if appropriate the titles of related cooperating agency actions), together with the State(s) and county(ies) (or other jurisdiction if applicable) where the action is located.

(3) The name, address, and telephone number of the person at the responsible command who can supply further information.

(4) A designation of the analysis as an EA, DEIS, or FEIS or draft or final supplement.

(5) A one-paragraph abstract of the statement.

(6) The date by which comments must be received.

b. **Summary.** Action proponents will include a summary in each EIS that adequately and accurately summarizes the statement. Place the summary sheet (not to exceed three pages) at the beginning of the document immediately after the cover sheet and include:

(1) The name of the action and whether it is administrative or legislative.

(2) A brief description of the action and what geographical region (including State and county, as applicable) is particularly affected.

(3) A description of alternatives considered.

(4) A summary of the environmental impact, particularly adverse environmental effects, and major mitigating actions required. The action proponent should include a statement regarding the possible exemption from the general conformity rule of the action, or if the action conforms or does not conform to an applicable State Implementation Plan (SIP) or Federal Implementation Plan (FIP).

(5) A statement as to whether the action is anticipated to have a significant environmental impact or will be scientifically controversial.

c. **Distribution List.** The action proponent shall provide a brief, concise list of the names and addresses of all Federal, State and local organizations and persons to whom he or she will distribute the EIS.

d. **Purpose and Need.** Begin the body of the document by explaining the need for any action. Concisely and objectively, set out the justification for the proposed action and the essential requirements that must be satisfied to achieve the purposes of the proposed action.

e. **Alternatives Including the Proposed Action.** Based on the information and analysis presented in the sections entitled EXISTING ENVIRONMENT and the ENVIRONMENTAL CONSEQUENCES present the environmental impacts of the proposal and the alternatives in comparative (matrix) form, thus sharpening the issues and providing a basis for choice among the options by the decision-maker and the public.

The action proponent shall include in the alternatives to the proposed action, where relevant, those not within the existing authority of the agency. A rigorous exploration and objective evaluation of the environmental impacts of all reasonable alternative actions are essential, particularly those actions that might enhance environmental quality or avoid some or all adverse environmental effects. The action proponent should include sufficient analysis, if applicable, of such alternatives and their environmental benefits, costs, and risks to accompany the proposed action through the agency review process. If the action proponent is considering whether a cost-benefit analysis is relevant to the choice among environmentally different alternatives for the proposed action, he or she should incorporate it by reference or append it to the analysis as an aid in evaluating the environmental consequences. When a cost-benefit analysis is prepared, discuss in the EA or EIS, the relationship between the analysis and any analysis of unquantified environmental impacts, values and amenities. Action proponents need not weigh the merits and drawbacks of the various alternatives where there are important qualitative considerations. However, the action proponent should indicate in the analysis those considerations, including factors not related to environmental quality that are likely to be relevant and important to a decision. This will prevent premature foreclosure of options that might enhance environmental quality or have less detrimental effects.

Examples of alternatives include: (R

(1) Taking no action.

(2) Postponing action.

(3) Selecting actions of a significantly different nature, meeting mission and project objectives with different environmental impacts.

(4) Different designs or details of the proposed action that would present different environmental impacts (including mitigation measures).

In each case, the action proponent should make the analysis sufficiently detailed to reveal the agency's comparative evaluation of the proposed action and each reasonable alternative. Throughout the EA or EIS, the action proponent shall structure the discussion and analysis to prevent premature foreclosure of options that might enhance environmental quality or have less detrimental effects.

f. **Existing Environment of the Proposed Action.** The EA or EIS shall concisely describe the environment of the affected area, including the baseline conditions used to compare the impacts of the various alternatives. The EA or EIS should make the amount of detail provided in such

descriptions commensurate with the extent and impact of the action, and with the amount of information required at the particular level of decision making. The EA or EIS should discuss, where appropriate, urban quality, historical and cultural resources, and the design of the built environment including the re-use and conservation potential of various alternatives and mitigation measures.

g. **Environmental Consequences.** This section forms the scientific and analytic basis for the comparisons presented under the alternatives section. The EA or EIS shall include the environmental impacts of reasonable alternatives in the discussion; note any adverse environmental impacts that cannot be avoided if the proposal is implemented; discuss the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity; and mention any irreversible or irretrievable commitments of resources that would be involved in the proposal should it be implemented. The EA or EIS should not duplicate the discussions of the alternatives section. Instead, this section should involve:

(1) Direct effects and their significance (i.e., an assessment of the positive and negative effects of the proposed action). Action proponents should vary the attention given to different factors according to the nature, scale, and location of the proposed action, and give primary attention to the discussion of those factors most evidently affected by the proposed action.

(2) Indirect effects and their significance. The EA or EIS shall include secondary or indirect consequences for the environment in the analysis. Many major Federal actions, especially those that involve construction (for example, new installations, joint use of an installation, etc.), stimulate or induce secondary effects in the form of associated investments and changed patterns of social and economic activities. Such secondary effects, by their impacts on existing community facilities and activities, by inducing new facilities and activities, or by changes in natural conditions, may often be even more substantial than the primary effects of the original action itself. For example, the EA or EIS should estimate the effects of the proposed action on population and growth impacts if expected to be significant and evaluate the effect of any possible change in population patterns, particularly those which may affect minority and low-income population. If applicable, the EA or EIS shall also evaluate the growth upon the resource base including land use, water, and public services of the area in question.

(3) Relationships between the proposed action and the objectives of Federal, State and local land use plans, policies, and controls for the area concerned. The EA or EIS shall discuss how the proposed action may conform or conflict with the objectives and specific terms of approved or proposed Federal, State, and local land use plans, policies, and controls, if any, for the area affected, including those developed in response to environmental legislation. Where a conflict or inconsistency exists, the EA or EIS shall describe the extent to which the agency has reconciled its proposed action with the plan, policy, or control. The action proponent shall document justification for any decision to proceed, in the absence of full reconciliation.

(4) The environmental effects of alternatives including the proposed action. These narratives are the basis for the comparisons made in the alternatives section of the document.

(5) Energy requirements and conservation potential of various alternatives and mitigation measures. The EA or EIS shall address comments regarding the energy impact, including the alternatives considered.

(6) Any irreversible and/or irretrievable commitments of resources involved anticipated upon implementation of the proposed action. The EA or EIS shall identify from a survey of unavoidable impacts the extent to which the action irreversibly curtails the range of potential uses of

the environment. The term "resources" in this regard refers to the natural or cultural resources that would be irretrievably committed or lost if the action goes forward.

(7) Relationship between local, short-term use of man's environment and maintenance and enhancement of long-term biological productivity. The EA or EIS shall briefly discuss the extent to which the proposed action involves tradeoffs between short-term environmental gains and the expense of long-term losses or vice versa. Also, the EA or EIS shall discuss the extent to which the proposed action forecloses future options. In this context, short-term and long-term do not refer to any fixed time periods and should be viewed in terms of the environmentally significant consequences of the proposed action.

(8) Means to mitigate and/or monitor adverse environmental impacts (if not previously discussed). Where appropriate, the EA and EIS shall discuss mitigation measures such as avoidance, design modification, rehabilitation, preservation, or compensation. It shall also address the extent of any benefits derived from implementing mitigation measures and/or monitoring programs to avoid or reduce some or all of the adverse environmental effects, if appropriate.

The action proponent shall coordinate any mitigation measures included in the NEPA document with the appropriate chain of command to ensure concurrence, implementation feasibility, and funding availability. If necessary, the action proponent shall coordinate mitigation measures with cognizant regulatory agencies.

(9) Possible conflicts between the proposed action and the objectives of Federal, regional, State and local (and in the case of a reservation, Indian tribe) land use plans, policies, and controls for the area concerned.

(10) Cumulative impacts (see paragraph 2-3.10) as appropriate and in context with the scope and magnitude of the proposed action.

h. **List of Preparers.** Action proponents will prepare EAs and EISs using an interdisciplinary approach that will ensure the integrated use of the natural and social sciences and the environmental design arts. To ensure that this approach is undertaken, EAs and EISs shall list the names, together with their qualifications (expertise, experience professional disciplines) of the persons who were primarily responsible for preparing the documents or significant background papers, including basic components of the statement. Where possible, the EA or EIS shall identify the persons who are responsible for a particular analysis, including analyses in background papers. This list should not exceed two pages.

i. **Appendix.** Action proponents shall include any of the following information as appendices in the EIS:

(1) Material prepared in connection with an EIS (as distinct from material that is not so prepared or that is incorporated by reference) such as collected comment letters, etc.

(2) Material that substantiates any analysis fundamental to the impact statement.

(3) Analytic and relevant material to the decision to be made.

j. **Incorporation by Reference.** To the extent practicable, action proponents preparing EAs or EISs shall incorporate material by reference when the effect will cut down on bulk without impeding agency and public review of the action. Action proponents shall cite the incorporated material in the statement and briefly describe its content. Action proponents shall not incorporate any material by reference unless it is reasonably available for inspection by potentially interested persons within the time allowed for comment. In

addition, action proponents shall not incorporate by reference any material based on proprietary data.

k. **Incomplete or Unavailable Information.** For the purposes of this section, "reasonably foreseeable" includes impacts that have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason. When the action proponent is evaluating significant adverse effects on the human environment in an EIS and there is incomplete or unavailable information, the action proponent shall always make clear that such information is lacking. For such situations, the action proponent can take the following actions:

(1) If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency will include the information in the EIS.

(2) If the information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are exorbitant or the means to obtain it are not known (i.e., the means for obtaining it are beyond the state-of-the-art), the action proponent will include within the EIS:

(a) A statement that such information is incomplete or unavailable.

(b) A statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment.

(c) A summary of existing credible scientific evidence that is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment.

(d) An evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community.

2-5.10 Record of Decision. The ROD, as described in paragraph 2-3.15, is the decision made by SECNAV or his/her designee, which completes the EIS process. CNO (N45) arranges for publication of the ROD in the Federal Register. The action proponent mails the ROD to the appropriate agencies, organizations, and individuals.

2-5.11 Tiering and Programmatic EISs. CEQ regulations encourage the use of tiering whenever appropriate to eliminate repetitive discussions of the issues and to focus on the actual issues ripe for discussion at each level of the environmental review. Action proponents accomplish tiering through the preparation of a broad programmatic EIS that discusses the impacts of a wide-ranging or long-term stepped program followed by narrower statements or EAs concentrating solely on issues specific to the analysis subsequently prepared. Action proponents should consider tiering appropriate when it helps the lead agency to focus on issues that are ripe for decision and excludes from consideration issues that are already decided or not yet ripe. Action proponents shall conduct a sequence of statements or analyses to make this determination. The following are examples in which tiering can be accomplished:

a. From a broad program, plan, or policy EIS (not necessarily site specific) to a subordinate/smaller scope program, plan, or policy statement or analysis (usually site specific). For example, a national program providing for mineral exploration on military-held lands with a subsequent analysis tiered for each installation impacted, or the initiation of a new training apparatus where the use of the apparatus itself may impact the environment with subsequent-tiered analysis at each site proposed for locating such training.

b. From an EIS on a specific action at an early stage (such as need and site selection) to a supplement (which is preferred) or a subsequent statement or analysis at a later stage (such as environmental mitigation). For example: the planning for the use of long-term staged construction for the establishment of a new installation to homeport and operate a class of vessels with a subsequent tiered analysis as each stage is programmed and proposed; the planning for the construction of a communication network involving the establishment of sending and receiving apparatus at various geographic locations with a subsequent tiered analysis for each location cited; or a proposal for the homeporting of a new vessel to operate off the east coast of the U.S. with a subsequent tiered analysis of the establishment of the homeport at a preferred specific east coast location.

2-5.11.1 Preparation of the Programmatic EIS. In addition to the discussion required by these regulations for inclusion in the EIS, the action proponent will include the following in the programmatic EIS:

a. A description of the subsequent stages or sites that may ultimately be proposed (in as much detail as presently possible).

b. The implementing factors of the program that are known at the time of the impact statement preparation.

c. The environmental impacts that will result from establishment of the overall program itself and that will be similar for subsequent stages or sites as further implementation plans are proposed.

d. The appropriate mitigation measures that will similarly be proposed for subsequent stages or sites.

2-5.11.2 Preparation of a Tiered Analysis. The action proponent will also use an EIS as the analytical document for stage or site specified analysis subsequent to the programmatic EIS when the subsequent tier itself may have a significant impact on the quality of the human environment, or when otherwise requiring an impact statement. Otherwise, the action proponent will document the tiered analysis with an EA to assess fully the need for further documentation or whether a FONSI would be appropriate.

In addition to the discussion required by these regulations for inclusion in EISs and EAs, action proponents are required to accomplish the following in each subsequent-tiered analysis:

a. Summarize the program-wide issues discussed in the programmatic statement and incorporate discussions from the programmatic statement by reference.

b. Concentrate on the issues specific to the subsequent action.

c. State where the earlier document is available.

2-5.11.3 Processing Programmatic Environmental Documentation. Action proponents will prepare, circulate, and file with the EPA Programmatic EISs and all the subsequent tiered impact statements or EAs in the same fashion as required of any other EIS.

2-5.12 Processing Supplemental Statements. Action proponents will prepare supplements to either DEISs or FEISs if there are substantial changes made in the proposed action that are relevant to environmental concerns or significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. Action proponents will usually prepare, circulate, and file such supplements in the same fashion as a DEIS or FEIS. Scoping, however, is not required.

2-5.13 Processing Statements Originated by Other Federal Agencies. Other Federal agencies (R

originating environmental impact statements shall be processed as follows:

a. The Federal agency originating the impact statement submits the statement to ASN (I&E).

b. ASN(I&E) refers the statement to CNO (N45) for review.

c. CNO (N45), after independent review, and after referring the statement to the command or activity with the expertise for detailed review and return comments, advises ASN(I&E) of the concurrence/nonconcurrence with the statement for the Navy.

2-5.14 Procedures for Conducting Public Hearings Under NEPA. Action proponents will conduct hearings as follows:

a. **Guidelines and Standards.** The action proponent, in coordination with CNO (N45), will determine whether to hold a public hearing. Public hearings are appropriate in the following situations:

(1) Where the proposed action by the agency will have a direct or peculiar environmental impact on the people living in a particular geographic area.

(2) Where public organizations or members of the public possess expertise concerning the environmental impact of the action that may not otherwise be available.

(3) Where no overriding consideration of national security or time makes it illegal or impractical to involve such organizations or members of the public in the consideration of a proposed action in which there is evidence of wide public interest.

(4) When another agency with jurisdiction over the action submits a request for a hearing and supports its reasons why a hearing will be helpful.

(5) Where the proposed action may affect a minority or low-income population.

b. **Preparation.** In preparation for a hearing, the action proponent shall:

(1) Use two objectives to dictate the format for conducting public hearings: First, the hearing is intended to provide interested members of the general public with relevant information. Second, the hearing affords members of the public an opportunity to present their views of the proposed action.

(2) If the proposed action makes a hearing appropriate, advise the public of the proposed hearing, via the Federal Register, at least 15 days before the scheduled hearing. (The Federal Register notice is in addition to publication in local newspapers.) Per E.O. 12898, notify, wherever practicable and appropriate, in local foreign language newspapers. The action proponent shall include the following in the notification:

(a) The date, time, and telephone number of the hearing officer.

(b) A request for speakers to submit, in writing, their intention to participate.

(c) Any limitations on the length of oral statements.

(d) A suggestion that technical statements or statements of considerable length be submitted in writing.

(e) A summary of the proposed action.

(f) The findings contained in the DEIS.

(g) The office(s) or location(s) where the DEIS is available for examination.

(h) A request that any individual(s) with special needs (i.e., accessibility or transportation, foreign language interpretation, etc.) notify the agency conducting the hearing.

(3) The agency, if feasible, will make copies of the DEIS available to the public at their appropriate regional offices. The action proponent shall forward copies of the DEIS to the appropriate State, regional, and metropolitan clearinghouses (unless the governor of the State involved has designated some other point for receipt of the information) at the same time that the statement is sent to CEQ, EPA, and other Federal agencies. The action proponent shall make the DEIS available to the public at least 15 days before public hearings, using local outlets such as libraries, county commissioner's offices, etc., whenever possible. Whenever practicable and appropriate, the action proponent shall translate document summaries into languages other than English.

(4) Hold the hearing at a time and place and in an area readily accessible to civilian organizations and individuals interested in the proposed action. Hearings are generally preferable in a civilian facility such as a high school auditorium on a weekday evening when such groups are able to attend.

(5) Select a hearing officer who is able to achieve both purposes described in subparagraph (1) above. Select one hearing officer of appropriate seniority (preferably military) that is thoroughly familiar with the proposed action and of suitable temperament to preside at a public meeting (possibly with the news media in attendance). Other personnel who are familiar with the proposed action, or some phase of it, may also provide assistance. Use these personnel in the presentation phase of the hearing to explain details or specialized portions of the proposed action. Non-English interpreters should be present, as appropriate.

(6) Prepare a verbatim written record of the hearing and may use an experienced court reporter or stenographer to prepare the record. The hearing officer may make a tape recording of the hearing and append to the record as exhibits, all written material submitted to the hearing officer during the hearing or prior to the record being completed. The hearing officer shall also add to the record a list of persons attending the hearing, the organizations or interests they represent, and their addresses. Mail a copy of the hearing to persons who have indicated that they desire one, subject to the cost of reproduction.

c. **Format.** The following format provides a general guideline for the conduct of a hearing. Hearing officers should tailor the format for each hearing as the circumstances dictate to meet the objectives of the hearing. The objectives are to provide information to the public and to record the opinions of interested persons for later evaluation in conjunction with the proposed action.

(1) The hearing officer should know the names of attendees. A record of attendance is of assistance in preparing the record, in recognizing individuals who desire to make a statement, and in mailing written answers to persons who desire them. The hearing officer may compile this record by having all people who attended the hearing complete an individual card indicating their name, address, and organization represented, if any, and whether they intend to make a statement at the hearing. The hearing officer may use an appropriate number of attendants to distribute and collect the cards and to separate cards of those who desire to make a statement from those who do not. The hearing officer may then use the cards as an orderly system for calling upon individuals who desire to make statements. Additionally, hearing officers shall ask those individuals responding to the announcement and requesting an opportunity to speak to provide copies of any remarks for hearing proceedings.

(2) The hearing officer should first introduce himself/herself and any assistants and welcome any prominent attendees. He/she should next make a brief statement as to the purpose of the hearing, and state the general ground rules for conduct. The hearing officer can simplify this process by distributing written copies of this information to the attendees and/or making them available at the attendance desk. The hearing officer should make clear that he/she is not going to decide the project's continuation, modification or abandonment.

(3) The hearing officer should fully explain what the proposed action entails, including information on alternative courses of action. He/she may call upon one or more assistants to explain any particular phase of the program.

(4) The hearing officer should only answer questions that seek clarification of the action and should not attempt to respond to those attacking it. He/she should include all questions asked in the record of the hearing.

(5) The agency must give persons attending the hearing the opportunity to present oral and/or written statements. The hearing officer should ensure that he/she has the name and address of each person submitting an oral or written statement. He/she should permit the attendees to submit written statements during the hearing and for a reasonable time following the hearing (normally 2 weeks). If the hearing officer is going to allow oral statements, he or she should publicize this in the public notice of the hearing, indicating a reasonable length of time for them, (3 to 5 minutes). The agency should allow individuals who desire to make a written or oral statement, but did not indicate so on the card submitted when they entered the meeting, the opportunity to do so after all other scheduled statements are complete.

(6) When it is time to adjourn the meeting, the hearing officer should thank the attendees and adjourn the meeting. The hearing officer may decide that attendance will warrant an additional day, perhaps at another time and location. If so, the hearing officer should announce the intent, but not normally agree to publish again the entire procedure in the Federal Register, etc. At the conclusion of the meeting, the hearing officer should not express any opinion on the merits of the proposals or comments presented by anyone at the hearing.

2-6 Responsibilities

2-6.1 General. Although SECNAV has the ultimate decision-making authority, responsibility for compliance with NEPA, as with all environmental responsibilities, rests within the entire Navy chain of command in the same manner as responsibility for developing and, ultimately, implementing the proposed action.

Commands and activities shall provide every person preparing, implementing, supervising, and managing projects involving categorical exclusions, EAs, and EISs with Environmental and Natural Resources training outlined in chapter 24 of this instruction, comprehensive NEPA training specific to their job assignment, and familiarize them with the provisions of this chapter.

2-6.2 DCNO (Logistics, Environmental Protection, Safety, and Occupational Health Division , CNO (N45))shall:

a. Implement Navy policy regarding NEPA compliance.

b. Serve as CNO lead in all NEPA and E.O. 12114 documents. Coordinate with all appropriate CNO codes to ensure that these documents are consistent with Navy operational policy.

c. Advise commands of the requirement for submitting EAs or EISs. When requested, furnish commands necessary information (i.e., list of potentially interested national organizations for scoping process of EISs).

d. Provide review of documents submitted for CNO decision, including EAs and EISs. Make decisions on whether FONSI is appropriate for EAs submitted for CNO review, or if an EIS is required.

e. Coordinate review of selected EAs and statements through the CNO Environmental Review Panel.

f. Coordinate with the CEQ, EPA, the appropriate Assistant Secretaries of Defense, ASN (I&E), and other DOD components and Federal agencies concerned with environmental matters.

g Coordinate with CHINFO for public release of EAs, EISs, FONSIs, RODs, and corresponding press statements and query responses.

h. Coordinate with JAG to place required notices in the Federal Register.

i. Coordinate with commands to decide feasibility of public hearings under NEPA process.

j. Provide assistance for actions initiated by private persons, State or local agencies, and other non-Navy/DOD entities for which Navy involvement may be reasonably foreseen.

k. Identify major decision points wherein environmental effects be considered as associated with naval actions.

2-6.3 CNO Environment Review Panel. The CNO Environment Review Panel is convened at the request of N45 on an ad hoc basis to:

R) a. Review appropriate EAs and EISs.

b. Recommend to CNO (N45) and ASN(I&E) when, in the panel's opinion, DEISs should be submitted to the EPA, other Federal agencies, and to the public for appropriate comment.

c. Recommend to CNO (N45) whether a FONSI or preparation of an EIS is the appropriate disposition of an EA under review.

2-6.4 Major claimants, Regional Commanders, C Os of shore Activities, Training and Operations Planners, Weapons Systems Acquisition Program Managers, and Science and Technology Program Managers shall

a. Ensure that all appropriate instructions including those requiring written justification for projects or programs, collectively or separately, involving Research, Development, Test and Evaluation (RDT&E), MILCON, Operations and Maintenance, Navy (O&MN), Navy Working Capital Fund (NWCF), urgent minor construction, land acquisitions, natural resources management, weapons and support systems and special projects are included in the requirements for funding and scheduling for environmental documentation, as necessary.

b. Review potential environmental impacts associated with a proposed action at the initial planning stage, such as during the facility study in the instance of MILCON projects, and at each following significant step or decision in the development of a program or project as warranted. The intent of NEPA is to encourage participation of Federal- and State-involved agencies and affected citizens in the assessment procedure, as appropriate. The lack of such coordination has been a significant point raised in subsequent litigation as well as causing a gap in information supplied for established review procedures. Accordingly, action proponents shall encourage early contact with those effected. If implementing NEPA, they shall, in most instances, establish a dialogue. Claimants and commanding officers shall sufficiently detail and document the dialogue to identify significant impacts and environmental controversy.

The necessity for convening the review panel shall be an option left to CNO (N45). In individual cases and depending upon the individual submission, unanimous panel concurrence is not necessary to decide on the dispensation of a particular assessment.

c. Assess the environmental effects of current and proposed actions under the criteria of this chapter and send appropriate documentation to CNO (N45) via the chain of command.

d. Participate in the formulation of, and ensure commitment to, FONSI/ROD conclusions and any mitigation and monitoring requirements established.

e. Complete environmental documentation for training exercises off military property at least 120 days before the authorization of the exercise in question. If it is not possible to prepare the appropriate environmental document within the periods identified, CNO (N45) shall be so informed, preferably in writing. Pertinent sections of environmental documents prepared for training maneuvers shall also be incorporated into applicable operational plans.

f. Encourage by all means possible a sense of environmental responsibility and awareness among personnel to implement most effectively the spirit of NEPA. All personnel who engage in any activity or combination of activities that significantly affect the quality of the human environment shall be aware of NEPA responsibility. Only through alertness, foresight, and notification through the chain of command shall they realize NEPA goals.

2-6.5 The Regional Environmental Coordinator shall (R

a. Participate in the preparation of EAs and EISs for proposed actions that affect resources under their control or issues of concern in the region. (R

b. Endorse EAs and EISs involving actions that affect resources under their control.

2-6.6 Special Coordination Requirements. Communication and coordination are primary factors in a successful NEPA process and are the responsibility of all concerned. Command counsel and public affairs offices shall be integral parts of a concerted coordination effort. There are, however, several types of actions that require special coordination by action proponents early in the NEPA process:

Under E.O. 12344, statutorily prescribed by Public Law 98-525 (42 U.S. Code (U.S.C) 7558, note), the Director, Naval Nuclear Propulsion (N00N) is responsible for prescribing and enforcing environmental standards and regulations for the control of radiation and radioactivity associated with naval nuclear propulsion activities, including safety and health of workers, operators, and the general public. Accordingly, the Director or designee, in coordination with CNO (N45) or designee, is responsible for developing, approving, and issuing EAs and FONSIs for actions within the purview of CNO (N00N), including obtaining the concurrence of other affected Navy commands as appropriate. ASN (I&E) or designee shall obtain concurrence/approval on any decision to prepare an EIS or on any ROD.

CHAPTER 3

POLLUTION PREVENTION

3-1 Scope

A) a. The Navy P2 vision is to "Support operational readiness by achieving cost effective, full and sustained compliance and enhanced personnel safety through innovative, aggressive use of pollution prevention." The P2 program is focused on meeting the requirements mandated in Executive Order (E.O.) 12856, reference (a), and E.O. 13101, reference (b), and supporting full and sustained compliance with environmental requirements at the lowest feasible life cycle cost (LCC).

R) b. This chapter provides P2 policies and procedures applicable to all Navy shore facility operations, unless otherwise specified.

R) E.O. 12856 of 3 August 1993, which mandates Federal facility compliance with the Pollution Prevention Act of 1990 and the Emergency Planning and Community Right-to-Know Act (EPCRA), applies only to Federal facilities within the customs territory of the United States. As a matter of voluntary compliance, the Navy will fully comply with E.O. 12856 and all related Navy and Department of Defense (DOD) policy on Guam.

(Note: At the time of this update, E.O. 12856 was under revision, including new and expanded requirements, new goals for reduction of HAZMAT use and toxic releases. The Chief of Naval Operations (CNO) will forward any required changes in OPNAV policy via letter and incorporate them into the next update of this instruction.)

R) c. Related information. Chapter 4 discusses procedures for implementing the Emergency Planning and Community Right-to-Know Act (EPCRA). Chapter 19 discusses P2 for ships. Chapter 2 discusses P2 in National Environmental Policy Act (NEPA) actions. Chapter 14 discusses the Navy Qualified Recycling Program (QRP), solid waste pollution prevention, solid waste reduction, and affirmative procurement for shore activities.

3-1.1 References. References are:

a. E.O. 12856 (A

b. E.O. 13101 (A

c. 40 CFR 355, Regulations for Emergency Planning and Notification Under CERCLA;

d. 49 CFR 173, Shippers - General Requirements for Shipments and Packaging;

e. 29 CFR 1910.1200, OSHA Hazard Communication Standard;

f. 40 CFR 261, Identification and Listing of Hazardous Waste;

g. 40 CFR 302, EPA Designation, Reportable Quantities and Notification Requirements for Hazardous Substances under CERCLA;

h. 40 CFR 372, Toxic Chemical Release Reporting, Regulations;

i. DOD Instruction 4715.4 of 1 July 1998, Pollution Prevention (NOTAL);

3-2 Legislation

3-2.1 Pollution Prevention Act of 1990. This Act establishes the national policy that: Pollution should be prevented or reduced at the

source whenever feasible. Pollution that cannot be prevented should be recycled in an environmentally safe manner, whenever feasible. Pollution that cannot be prevented or recycled should be treated in an environmentally safe manner, whenever feasible. Disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner.

3-2.2 Resource Conservation and Recovery Act (RCRA). RCRA requires cradle-to-grave management of hazardous waste (HW). The Act also encourages beneficial reuse of solid waste through recycling and reuse as an energy source. The 1984 RCRA amendments require HW generators and treatment, storage, and disposal (TSD) facility owners to certify that the generator has a program in place to "reduce the volume or quantity and toxicity" of waste and that the TSD method minimizes the threat to health and the environment. In addition, the Act requires generators to report the changes in volume and toxicity of waste actually achieved during the year of the report (in comparison with previous years).

3-3 Terms and Definitions

3-3.1 Affirmative Procurement Program (APP). A program assuring Guideline items composed of recovered materials will be purchased to the maximum extent practicable, consistent with Federal law and procurement regulations.

3-3.2 Authorized Use List (AUL). The list of all hazardous material (HM) needed to support the requirements of a command or facility.

3-3.3 Consolidated Hazardous Material Reutilization and Inventory Management Program (CHRIMP). CHRIMP is a successful methodology to achieve life cycle hazardous material control and management (HMC&M) and P2 at the command and facility levels. The Navy CHRIMP manual provides a standardized approach and guidance for the development and implementation of centralized HMC&M practices that result in a reduction of HM procured, stocked, distributed, and eventually disposed of as waste.

3-3.4 Environmentally Preferable. Products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service.

3-3.5 Extremely Hazardous Substance (EHS). Any substance listed in appendices A and B of reference (c).

3-3.6 Hazardous Inventory Control System (HICS). An automated product tracking and inventory system designed to facilitate the CHRIMP process on board Navy ships.

3-3.7 Hazardous Material (HM). In general, HM is any material that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may pose a substantial hazard to human health or the environment. This definition includes all extremely hazardous substances, hazardous chemicals, hazardous substances, and toxic chemicals. HM is any material *regulated as HM*, per reference (d), or any material that requires a material safety data sheet (MSDS), per reference (e). HM is also any material having components which meet or have potential to meet the definition of HW per reference (f), subparts A, B, C, and D, during any phase of its existence: end use, treatment, handling, packaging, storage, transportation, or disposal.

Designation of a material as HM does not eliminate the need for adherence to hazard-specific guidance, which for control purposes, takes precedence over this instruction when a

material is separately regulated or controlled by other instructions or directives. Such materials include ammunition, weapons, explosives and explosive-actuated devices, propellants, pyrotechnics, chemical and biological warfare materials, medical and pharmaceutical materials, medical waste and infectious materials, bulk fuels, radioactive materials, and other materials such as asbestos and mercury. These materials are HM to the extent that personnel exposure may occur during manufacture, storage, use, and demilitarization of these items.

3-3.8 Hazardous Substance (HS). Any substance listed in table 302.4 of reference (g).

3-3.9 Hazardous Substance Management System (HSMS). HSMS is an automated chemical tracking system providing "cradle-to-grave" tracking not only of the hazardous material used at a facility, but also the chemical constituents of those materials. The system facilitates Emergency Planning and Community Right-to-Know Act (EPCRA) reporting to comply with E.O. 12856. The system also provides naval activities with a tool to analyze the flow of hazardous material while developing sound P2 management techniques that (1) reduce the amount of hazardous material procured and used and (2) reduce the amount that becomes waste.

3-3.10 Hazardous Waste. A solid waste, or combination of solid wastes, that because of quantity, concentration, or physical, chemical or infectious characteristics may:

a. Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible, illness.

b. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

3-3.11 Pollution/Pollutants. Gaseous, liquid or solid by-products of industrial, agricultural or even natural processes, which after recycling, treatment, or other mitigating processes, still produce undesirable environmental effects.

3-3.12 Pollution Prevention. Source reduction and other practices that reduce or eliminate the creation of pollutants through:

a. Increased efficiency in the use of raw materials, energy, water, or other resources.

b. Protection of natural resources by conservation.

c. Reduction/elimination of the use of dangerous, toxic and hazardous materials.

d. Recycling/reuse of materials (A

Examples of P2 techniques include: (R

a. Material substitution

b. Product reformulation

c. Process change

d. Process modification

e. Process Elimination

f. Improved operation and maintenance

g. Integrated recycling.

h. Material Management

3-3.13 Pollution Prevention Equipment Program (PPEP). A program to procure and provide commercially available P2 equipment for Navy activities and to procure, demonstrate, and evaluate new technologies for Navy-wide application. (R

3-3.14 Recycled Material. Previously used materials, substitutable for a raw or source material in the manufacturing process. If not so used, this material would become waste.

3-3.15 Recycling. Using, reusing, or reclaiming materials, including processes that regenerate a material or recover a usable product from it.

3-3.16 Source Reduction. Any practice which:

a. Reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, and disposal.

b. Reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.

The term includes equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

3-3.17 Toxic Chemical. Any substance listed in reference (h).

3-3.18 Toxic Chemical Use Reduction. P2 actions to reduce, avoid, or eliminate the use of toxic chemicals.

3-3.19 Toxic Chemical Use Substitution. P2 actions to substitute non-toxic or less toxic chemicals in maintenance/operations/industrial processes.

3-3.20 Used/Excess HM. HM for which there is no further, immediate use aboard the ship or at the shore facility possessing the material. Another ship, shore facility or commercial industry may ultimately use such material for purposes other than those for which it was initially manufactured.

3-3.21 Waste. See "Pollution/Pollutants."

3-3.22 Waste Minimization. Source reduction and the following types of recycling:

a. Beneficial use/reuse

b. Reclamation.

Waste minimization does not include disposal or burning for energy recovery.

3-3.23 Waste Reduction. See "Waste Minimization."

3-4 Requirements

3-4.1 Navy P2 Level 1 Program Drivers (R

The Navy defines as "Level 1," those environmental requirements derived from Federal, State, or local environmental laws, regulations, or E.O.s. Level 1 program drivers for the Navy P2 program include:

a. E.O. 12856 requires Federal agencies to comply fully with the requirements of the P2 Act (PPA) of 1990 and the Emergency Planning and Community Right-to-Know Act (EPCRA). It requires Federal agencies to adopt voluntary goals for reduction of toxic releases, be proactive about source reduction, report under the Toxic Release Inventory (TRI) program, develop written facility P2 Plans, review/revise standardized documents, integrate P2 in acquisition and procurement efforts, and make life cycle cost decisions which include environmental considerations.

b. E.O. 13101, reference (b), requires Federal agencies to prevent pollution whenever feasible, incorporate waste prevention and recycling into daily operations, increase procurement of environmentally preferable items, expand existing

affirmative procurement and recycling programs, establish model facility demonstration projects, integrate P2 and affirmative procurement into acquisition programs, and establish goals for reduction of solid waste generation and increased procurement of environmental preferable items. Chapter 14 contains policy and guidance related to solid waste reduction, recycling and affirmative procurement.

c. The Resource Conservation and Recovery Act (RCRA) requires that facilities which dispose of hazardous wastes have programs in place to minimize the generation of such hazardous waste.

A) d. Other environmental statutes including the Clean Air Act and Clean Water Act include specific requirements for P2.

3-4.2 DOD Pollution Prevention Policy. Reference (i) establishes policy, assigns responsibilities, and prescribes procedures for P2.

This document requires DOD to reduce use of hazardous material (HM), generation or release of pollutants, and any adverse effects on human health and the environment. It requires selection, use and management of HM over its life cycle so that DOD incurs the lowest cost required to protect human health and the environment. DOD policy emphasizes P2 and the Pollution Prevention Act environmental management hierarchy (3-2.1) when developing solutions. DOD policy emphasizes avoiding or reducing the use of HM as the preferred method of P2. Where an activity cannot avoid the use of a HM, the directive requires the activity to follow regulations regarding use and employment of HM management practices that avoid harm to human health and the environment. This document requires emphasis on using less HM in processes and products instead of end-of-pipe management of HW. For related information, chapter 4 contains DOD policy on EPCRA and chapter 14 provides DOD policy on solid waste reduction, recycling and affirmative procurement.

3.5 Navy P2 Program Description (A

The Navy's approach to P2 is to Assess, Implement, Manage and Measure (AIMM). The Navy P2 program assesses P2 opportunities through the P2 planning process, using such tools as Model P2 Plans, P2 Planning Standard Operating Procedures, the P2 Opportunities Handbook, the Tri-Service P2 Technical Library, Navy Environmental Leadership Program (NELP), Fleet Assistance Support and Technology Transfer Team (FASTT), P2 Afloat Program, and P2 Technology Demonstrations. After careful evaluation, the Navy implements P2 opportunities through the annual Baseline Assessment process, the Navy Working Capital Fund process and the centrally managed P2 Equipment Program (PPEP). The Navy manages unavoidable and irreducible materials and waste streams through programs including the CHRIMP, the Hazardous Substances Management System (HSMS), the Navy Qualified Recycling Program (QRP), as well as regulatory permitting programs. The Navy measures progress through reporting under the Emergency Planning and Community Right to Know Act (EPCRA) and the DOD Measures of Merit.

The Navy strives for Environmental Excellence using the AIMM P2 methodology as a primary tool. Navy Environmental Excellence requires two important components, Sustained Compliance and Operational Readiness. An excellent Navy environmental quality program must both support the operational readiness of the Navy to perform its national security mission and must also achieve and maintain sustained compliance. The Navy cannot maintain readiness without compliance, and compliance without readiness is not excellence for the United States Navy. Sustained Compliance plus Operational Readiness equals Environmental Excellence, (SCORE).

The overall Navy P2 concept is to "AIMM to SCORE" to achieve environmental excellent through utilization of P2 as a tool to support sustained compliance at the lowest life cycle cost.

The Navy Environmental Quality Initiative (EQI) is an essential element in the AIMM to SCORE concept. This comprehensive initiative focuses on maximum P2 to achieve and maintain compliance. The EQI has four primary objectives:

1. Reduce the life cycle cost of the Navy's environmental quality program.

2. Achieve sustained environmental compliance at Navy activities.

3. Reduce generation of pollutants at Navy activities.

4. Increase use of P2 alternatives to meet environmental compliance requirements.

In addition to supporting the requirements of E.O.s 12856 and 13101, Navy's EQI focuses on using current P2 tools to support statutory and regulatory compliance. The EQI supports a transition from P2 planning to more comprehensive environmental quality planning, focused on lowest life cycle cost and sustainable compliance. The Navy P2 program is designed to allow Navy activities to make the best possible use of the significant assets already available such as their activity P2 plans, the PPEP, and the P2 Technical Library. Integrated environmental quality planning supports operational readiness by targeting source reduction efforts and in turn reducing regulatory and cost impacts on Navy operations.

3.6 Navy P2 Policy

The Navy shall act to prevent pollution and to decrease the release of pollutants into the environment using the methods identified in the EPA P2 hierarchy shown below:

a. Source Reduction

b. Recycling

c. Treatment

d. Disposal.

In establishing this hierarchy, the EPA stated the criteria for selecting the method depend upon the requirements of the applicable law, the level of achievable risk reduction, and the cost-effectiveness of the option. Under Navy policy, source reduction is always the most desirable option as it addresses reducing both the volume and toxicity of pollution.

The Navy shall take all necessary actions to comply with the requirements of E.O. 12856 and E.O. 13101, comply with other P2 requirements derived from applicable Federal, State and local laws and regulations, and use P2 to support full and sustained environmental compliance at Navy activities at the lowest feasible life cycle cost (LCC).

3-6.1 Pollution Reduction. All Navy facilities shall identify and implement source reduction opportunities to reduce releases of toxic chemicals to the environment, off-site transfer of such toxic chemicals for treatment and disposal, and generation and disposal of hazardous and non-hazardous solid wastes. Further, Navy facilities shall act to increase on- and off-site recycling of hazardous wastes, increase diversion of non-hazardous solid wastes for recycling or composting and increase procurement of environmentally preferable products and services.

3-6.2 Hazardous Material Control. Navy commands shall reduce the amount of HM used, and HW generated through up front HM control in procurement, supply, and use by:

a. Developing local mechanisms at shore facilities to identify materials in use that are hazardous and limiting quantities of HM procured and stored. Facilities shall establish HM AULs to control the quantity of HM procured and stored.

b. Implementing CHRIMP to reduce the amount of procured, stocked, and distributed HM eventually disposed of as waste.

c. Establishing methods for substituting a less HM or non-HM for HM where possible.

d. Developing and incorporating new technology or materials that have a reduced impact upon the environment, are safer and healthier, or result in reduced emissions.

e. Modifying HM shelf life to reduce the generation of waste because of shelf life expiration, when possible.

f. Modifying units of issue to reduce the generation of waste because of unused surplus material.

g. Review of local documentation that directs the use of HM to determine possible changes to minimize further the use of HM and generation of HW.

h. Requesting cognizant engineering authorities to modify weapon system maintenance requirement cards and technical manual requirements to reduce or eliminate the use of HM.

i Using the P2 Equipment Program (PPEP).

j. Reviewing standardized documents, including specifications and standards, to identify opportunities to stop or reduce use of extremely hazardous substances and toxic chemicals, consistent with the safety and reliability requirements of its mission.

k. Integrating environment, safety and health (ESH) considerations into all acquisition and procurement actions.

3-6.3 Pollution Prevention Plans. Every Navy facility shall develop and implement a Pollution Prevention Plan. In it, facilities shall address the actions required to reduce pollution from all sources and to all media, and to support full and sustained compliance with environmental requirements at the lowest life cycle cost. (Note: Guidance on development of activity P2 plans is provided in the OPNAV P45 120 10 94 of October 1994)

Facilities should use their P2 Plans as a primary tool for identifying methods and means to achieve compliance with Federal, State and local environmental laws and regulations and E.O.s, enhance personnel safety, and reduce the generation and release of pollutants.

Facilities should use their P2 plans in developing and justifying funding requirements for compliance with applicable regulations and to meet applicable requirements for reducing pollution.

a. Purpose

(1) Identify activities and processes that generate pollutants, including hazardous and non-hazardous solid wastes and toxic releases to all media

(2) Develop technically and economically feasible options to reduce generation of pollutants consistent with the DOD measures of merit and associated goals

(3) Identify methods and mechanisms to use P2 as a tool to achieve full and sustained compliance with DOD and DON instructions and directives and Federal, State and local laws and regulations at the lowest feasible life cycle cost.

b. Applicability and Scope

(1) All Navy activities are required to have a P2 plan (see section 3-4.1b). Host activities shall incorporate tenant activity P2 plans within their P2 plan or oversee the independent development of a plan by the tenant command. The result must support facility-wide P2 and environmental quality planning. The commanding officer, at his or her discretion, may develop separate P2 plans for geographically non-contiguous sites.

(2) To the extent feasible, the activity P2 plan should incorporate within it related plans such as the HMC&M plan, hazardous waste minimization (HAZMIN) plan, storm water pollution prevention plan, solid waste management plan, and ozone depleting substances phase-out plan.

c. Key Plan Elements

(1) Identification of all actions and processes which generate pollutants, including hazardous and non-hazardous solid wastes and toxic releases to all media.

(2) Identification of pollutants generated by the activity, including hazardous and non-hazardous solid wastes and toxic releases to all media.

(3) Identification of compliance vulnerabilities and potential impacts on DOD measure of merit goals associated with generation of pollutants.

(4) Identification of environmental and other quantifiable costs associated with the generation of pollutants.

(5) Identification of potential alternative actions, materials, and processes, including elimination of unnecessary requirements, which will support cost effective compliance and/or support achievement of DOD measure of merit goals.

(6) Identification of priorities for implementing administrative, managerial and process improvements required to meet P2 plan goals

(7) Identification of any barriers to accomplishing P2 plan improvements, including funding, approval process, and document changes.

(8) Documentation of required administrative elements including:

(a) Methods and schedule for updating P2 plan.

(b) Methods for measuring and reporting progress.

(c) Plans to provide P2 training and techniques to establish activity-wide P2 awareness.

(d) HM management and control practices and procedures.

(e) Non-hazardous solid waste recycling and composting practices and procedures.

(f). Commanding Officer Approval and Certification

d. P2 Plan Updates:

As the guiding document for an activity P2 program, activities shall update the P2 plan on a regular basis. This update should support activity efforts to broaden the focus of the plan to integrate sustained compliance through P2, primarily source reduction.

Activities are required to review P2 plans on at least an annual basis. This review should iden-

tify any significant changes in activity mission, function and personnel; progress on actions identified in the P2 Plan; changes to compliance requirements; and changes in activity priorities. This review should be accomplished by base personnel if feasible and can be documented informally by marking up the existing P2 plan or simply adding a short update section.

Activities are required to revise their P2 Plan at least every three years. Pollution Prevention Plan revisions should focus on identification of opportunities to use P2 to meet compliance requirements and to lower overall environmental quality program life cycle costs. The revisions should include revalidation and documentation of the key plan elements identified in section 3.6.3c above. Activities shall provide a copy of the revised plan to the Naval Facilities Engineering Service Center.

e. Public Availability:

Installations should make pollution prevention plans readily available to the public. The means of providing this public access may vary widely from installation to installation, but availability only through FOIA requests is not desirable.

3-6.4 Training. One of the most effective P2 techniques is to train personnel properly on those job functions that have an environmental impact. chapter 24 provides overall environmental training requirements. Individual chapters of this manual discuss the training necessary to achieve compliance with environmental laws and regulations.

3-6.5 P2 Committee:

P2 is a multi-disciplinary effort that requires participation from many functional areas of Navy organizations to be successful. While organization environmental personnel can and should take the lead to implement P2 opportunities, successful implementation requires the participation and support of functional areas including supply, safety, systems maintenance, public works, and operational elements.

Navy organizations should establish a P2 Committee to advise the commander or commanding officer on P2. The primary responsibility of the committee should be the establishment of an integrated organizational P2 program and the development and implementation of policies and procedures required to comply with the requirement of this instruction. The P2 committee should be multi-disciplinary and bring together the various organizations and groups having functional responsibilities and authority over HM acquisition and use, etc. The commander or commanding officer should designate the chairperson of the committee and delegate him or her sufficient authority to ensure that the committee receives required participation and cooperation.

3-7 Responsibilities

3-7.1 CNO (N45) shall: (R

a. Develop and implement Navy P2 policy.

b. Identify Navy opportunities for P2 and facilitate transfer of P2 information and technology.

c. Provide guidance to major claimants and facilities to implement the Navy Pollution Prevention Program.

d. Act as the resource and assessment sponsor for all programs required to implement the requirements of the Navy P2 program including implementation of P2 efforts at Navy facilities .

e. Coordinate with Navy Program Sponsors and acquisition program managers to ensure that Navy acquisition efforts are fully compliant with environmental laws and policies

through all phases of the acquisition process including R&D, design, manufacturing, and ultimate disposal.

f. Actively participate with industry and other Services through joint initiatives to eliminate or reduce shared HM procurement, use, and requirements.

3-7.2 Commander Naval Supply Systems Command (COMNAVSUPSYSCOM) shall:

a. Assist CNO (N45) in managing the HM aspects of the Navy P2 effort and serve as the overall manager for the supply aspects of the Pollution Prevention Program.

b. Develop, implement, and maintain a Navy-wide system for acquiring only authorized HM, integrating command and shore facility HM AULs.

c. When requested, assist system command program managers by providing life cycle costs for HM being considered for acquired systems.

R) d. Develop and recommend to CNO(N45) HM shelf life policies and procedures to support the goal of eliminating disposal of unused HM as hazardous waste. Provide guidance to facility level supply functions in establishing and managing local shelf life control and management programs.

e. Provide guidance to and coordinate efforts of the Navy-wide HM substitution efforts.

R) f. Develop and recommended to CNO (N45) policies and procedures to reduce or minimize the entry of new HM into the supply system.

g. Provide Navy guidance for shore facilities and ships on implementing CHRIMP.

h. Develop and maintain Navy-wide HM/HW tracking systems (HSMS for shore activities and HICS for ships) in support of CHRIMP and to implement E.O. 12856.

i. Provide initial assistance and computer equipment to implement CHRIMP and HICS on ships to the point the ship has acquired sufficient control over a portion of their HM/HW in an operational HICS environment to sustain the operation of HICS on their ship.

j. Provide initial assistance and computer equipment to implement CHRIMP and HSMS at shore facilities to the point a facility has acquired sufficient control over a portion of their HM/HW in an operational HSMS environment to sustain the operation of HSMS at their facility.

k. Develop and implement a Regional Hazardous Material Management System (RHMMS) to ensure that Fleet and Industrial Supply Centers (FISCs) do not declare usable excess HM as excess or waste and, instead, make it available to other FISCs or activities requiring it. The aim is to reduce both waste disposal costs and additional procurement costs.

l. Support CNO(N45) in HSMS software development efforts. (R

(D

3-7.3 Commander Naval Facilities Engineering Command (COMNAVFACENGCOM) shall:

a. Support P2 initiatives as tasked by CNO (N45).

b. Assist CNO (N45) in managing P2 technology transfer efforts.

c. Serve as financial manager in support of the Pollution Prevention Equipment Procurement Program.

d. Provide technical assistance to shore facilities to implement P2 practices and incorporate P2 technology into facility processes.

e. Develop plans for implementing the use of alternative fuel vehicles in Navy vehicle fleets.

R) f. Assist COMNAVSUPSYSCOM in supporting activities in implementation and utilization of the CHRIMP program and the HSMS software system.

g. Designate the Naval Facilities Engineering Service Center (NFESC) as the central repository for all Navy Installation P2 Plans. NFESC shall collect and maintain an up to date copy of each installation's P2 plan.

A) h. In support of Navy's Environmental Quality Initiative, review all Navy P2 plans, develop and distribute lessons learned to support P2 plan updates, identify and transfer Navy-wide P2 for compliance opportunities, and support identification of P2 solutions to meet compliance requirements.

A) i. Assist CNO (N45) in development of process maps and metrics to identify and evaluate business process improvements.

3-7.4 Regional Environmental Coordinators (RECs) shall:

a. Assist CNO (N45) and COMNAVSUPSYSCOM in planning and preparation for CHRIMP and HSMS implementation.

b. Coordinate implementation efforts within their regions and serve as a point of contact for activities in managing and prioritizing implementation.

c. Serve as regional point of contact and coordinator for regional-scale P2 initiatives.

3-7.5 Major claimants shall:

a. Ensure that activities under their cognizance develop, review, revise, and implement Pollution Prevention Plans per the guidance of this chapter.

b. Ensure that activities under their cognizance provide a copy of their Installation P2 Plan, and all subsequent revisions to NFESC.

c. Plan, program, budget, and allocate funds for all facility P2 projects identified in facility Pollution Prevention Plans which support cost effective environmental compliance, support achievement of the DOD measure of merit goals, reduce generation of pollutants, or reduce the overall life cycle cost of the activities environmental program. (R

d. Plan, program, budget, and allocate funds for implementing CHRIMP and HSMS/HICS at shore activities and on ships.

e. Assist COMNAVSUPSYSCOM in implementing CHRIMP/HICS on ships and CHRIMP/HSMS at shore facilities.

f. Develop and implement HM elimination or substitution processes for all systems and operations under their cognizance. These processes shall include the identification, evaluation, and use of the least hazardous material available.

g. Develop processes to ensure that the facility AUL incorporates the least hazardous, technically acceptable materials.

h. Take necessary actions to support Navy achievement of goals established by DOD under E.O.s 12856, 13101 and any subsequent P2 E.O.s.

i. Work with acquisition program managers to aggressively pursue reduction of (R use in all systems.

j. Incorporate Environment, Safety and Occupational Health (ESOH) into the system engineering process using system safety engineering principles and practices.

k. Assess ESOH effects of chemicals, processes and materials posing a high hazard potential. Use the results in all life cycle cost and trade-off decisions.

l. Review and revise standardized documents under their cognizance, including specifications, standards, technical manuals and handbooks to reduce/eliminate requirements for hazardous material/toxic substances and other pollution sources. Reviews shall occur with sufficient frequency to take advantage of P2 opportunities created by changes to management practices, technologies, materials, processes and requirements, as appropriate. Plan, program and budget for these P2 reviews and revisions.

m. Submit P2 Program Metric data annually to CNO(N45) via the P2 Annual Data Summary (P2ADS).

R) **3-7.6 The Chief of Naval Education and Training (CNET)** shall incorporate P2 practices into Navy training, including incorporation of information on source reduction initiatives in appropriate training courses.

3-7.7 Commanders and commanding officers of shore facilities shall:

a. Develop and implement a facility Pollution Prevention Program to support implementation of Navy P2 Policy as specified in this instruction.

b. Develop and implement an activity Pollution Prevention Plan per paragraph 3-6.3. Use the pollution prevention plan as a primary tool for identifying the methods and means to reduce HM use, HW generation and toxic chemical releases, and to support cost effective, full and sustained compliance.

c. Plan, program, budget, and allocate funds for all facility P2 projects identified in facility Pollution Prevention Plans that support cost effective environmental compliance, support achievement of the DOD measure of merit goals, reduce generation of pollutants, or reduce the overall life cycle cost of the activities environmental program.

d. Update the Pollution Prevention Plan on a regular basis. P2 plan updates shall incorporate efforts to use P2 to achieve sustained compliance at the lowest life cycle cost. P2 plan updates should utilize integrated environmental quality planning to support operational readiness by targeting source reduction efforts and in turn reducing regulatory and cost impacts on Navy operations.

Review P2 Plans on at least an annual basis. This review should identify any significant changes in activity mission, function and personnel; progress on actions identified in the P2 Plan; changes to compliance requirements; and changes in activity priorities. Base personnel should accomplish this review, if feasible, and document it informally by marking up the existing Pollution Prevention Plan or simply adding a short update section.

Revise their Pollution Prevention Plan at least every three years. Pollution Prevention Plan revisions should focus on identification of opportunities to use P2 to meet compliance requirements and to lower overall environmental quality program life cycle costs. The revisions should include revalidation and documentation of the key plan elements identified in section 3-6.3c above. Activities shall provide a copy of the revised plan to the Naval Facilities Engineering Service Center.

Submit requests for waivers of this policy to CNO(N451) via the appropriate chain of command. Waiver requests should cite State and/or local requirements specifying a different update cycle or demonstrate significant savings without negative program impact.

e. Establish or revise, as necessary, and implement procedures to control, track, and reduce the variety and quantities of HM in use, in storage or stock, or disposed of as HW per the Navy CHRIMP manual. This includes establishing HAZMINCENs to facilitate the central management of all HM at a facility.

A) f. Implement HSMS at the facility. This includes identifying an MSDS, industrial type process, and EPA waste stream for each manufacturer-specific HM used within the facility. It also includes adapting previously developed process algorithms or developing new ones for each of the identified processes.

g. Develop, revise as necessary, and implement a facility level HM AUL using an inventory that identifies and quantifies HM, in cluding categorizing the material as an extremely hazardous substance, hazardous substance, or toxic chemical as defined under EPCRA (see chapter 4).

h. Limit local purchases of HM to purchases for which a stock numbered product is unavailable from the supply system and for which there is a valid controlling document (e.g., maintenance requirement card (MRC), maintenance requirement plan (MRP), technical manual, technical order, maintenance manual, or similar document). Make and control local purchases through the HAZMINCEN according to CHRIMP principles of HM management and adhere to the same requirements as any other HM stock procurement. In cases where a standard stock item appears inferior, provide complete information regarding the item to the supply officer who can then submit an HM AUL feedback report to document the apparent deficiency.

i. Ensure facility level supply functions establish and implement a local shelf life control and management program.

j. Submit P2 Program Metric data annually to the cognizant major claimant via the P2 Annual Data Summary (P2ADS).

k. Use the PEPP program to support implementation of the activity Pollution Prevention Plan and support the goals of the Navy EQI.

CHAPTER 4

PROCEDURES FOR IMPLEMENTING THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT (EPCRA)

4-1 Scope

a. This chapter provides Emergency Planning and Community Right-to-Know Act (EPCRA) policies and procedures applicable to all Navy shore installation operations in the customs territory of the United States and Guam.

R) b. This chapter implements the requirements of E.O. 12856 of 3 August 1993, which requires Federal agency compliance with EPCRA. The Navy shall comply with EPCRA requirements of E.O. 12856 and all related Navy and Department of Defense (DOD) policy in the customs territory of the United States. As a matter of voluntary compliance, the Navy will comply with EPCRA requirements of E.O. 12856 and all related Navy and DOD policy in Guam. Neither the E.O., nor this chapter, imposes any requirements directly upon ships. Cognizant shore installations shall account in their reporting requirements for hazardous materials transferred to and from Navy ships.

A) c. At the time of printing, E.O. 12856 was under revision. Should changes to this policy result from the revised executive order, policy will be issued under CNO letter and incorporated into this instruction at the next printing.

A) Additionally, DOD is issuing staged guidance for application of EPCRA requirements to munitions operations. The initial stage requiring application of EPCRA to munitions manufacturing and munitions demilitarization operations has been signed, and policy is covered in this chapter. The second and final stage of guidance relating to range operations is currently in coordination and not signed at the time of printing. Changes to this instruction resulting from the additional DOD guidance will be issued under CNO letter and incorporated at the next printing.

4-1.1 References. Relevant references are:

a. 40 CFR 355, EPA Regulations for Emergency Planning and Notification Under CERCLA;

b. 29 CFR 1910.1200, OSHA Hazard Communication Standard;

c. 49 CFR 173.2, Shippers - General Requirements for Shipments and Packaging;

d. 40 CFR 261, Identification and Listing of Hazardous Waste;

e. 40 CFR 302, EPA Designation, Reportable Quantities and Notification Requirements for Hazardous Substances under CERCLA;

f. 40 CFR 372, EPA Toxic Chemical Release Reporting Regulations;

g. OPNAVINST 5100.23E, Navy Occupational Safety and Health (NAVOSH) Program Manual; (D

4-2 Legislation

4-2.1 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA provides funding and enforcement authority for the clean up of waste disposal sites and for responding to hazardous substance spills. CERCLA establishes a comprehensive response program for past hazardous waste (HW) installations, and the planning and response framework for hazardous substance releases.

4-2.2 Emergency Planning and Community Right-to-Know Act (EPCRA). This is title III of the Superfund Amendments and Reauthorization Act (SARA) which encourages and supports emergency planning and provides timely and comprehensive information to the public about the hazards associated with toxic chemical releases. Most notably, specific sections of EPCRA require immediate notification of releases of extremely hazardous substances and hazardous substances defined under the CERCLA to State and local emergency response planners. Additionally, EPCRA requires State and local coordination in planning response actions to chemical emergencies. The Act requires the submission and public disclosure of information on chemical inventories and releases and is made applicable to Navy facilities through E.O. 12856.

4-2.3 Occupational Safety and Health Act (OSHA). OSHA directs employers to establish and maintain comprehensive and effective occupational safety and health programs.

4-3 Terms and Definitions

4-3.1 Agency. An executive agency of the Federal government. Military departments fall under DOD.

4.3.2 Article. A manufactured item formed to a specific shape or design during manufacture and has end use functions dependent in whole or in part upon its shape or design during end use and which does not release, or otherwise result in exposure to, a toxic chemical under normal conditions of use.

4-3.3 Authorized Use List (AUL). The list of all hazardous material (HM) necessary to support the requirements of a command, facility, or installation.

4-3.4 Covered Facility. All facilities that meet one or more of the threshold reporting requirements under any section of EPCRA.

4-3.5 Depot Maintenance. Material maintenance requiring major overhaul or a complete rebuilding of parts, assemblies, subassemblies and end items, including the manufacture of parts, modification, testing, and reclamation. Depot maintenance serves to support lower categories of maintenance by providing technical assistance, sometimes beyond their responsibility. Depot maintenance provides stock of serviceable equipment because it has more extensive facilities available for repair than are available in lower maintenance installations. Depot maintenance includes all aspects of software maintenance.

4-3.6 Extremely Hazardous Substance (EHS). Any substance listed in appendix A or B of reference (a).

4-3.7 Facility. All buildings, equipment, structures, and other stationary items located on a single site or on contiguous or adjacent sites, owned or operated by the same person, otherwise known as the "host" or the "fenceline owner." For the purposes of Section 304 of EPCRA, the term includes motor vehicles, rolling stock, and aircraft.

4-3.8 Hazardous Chemical (HC). A chemical that is a physical or health hazard as defined in reference (b).

4-3.9 HM. Any material that is regulated as HM per reference (c) requires a material safety data sheet (MSDS) per reference (b) or, which during end use, treatment, handling, packaging, storage, transportation, or disposal, meets, has components which meet, or has the potential to meet the definition of HM as defined by reference (d) subparts A, B, C, and D. In general, any material, which because of its quantity, concentra-

tion, or physical, chemical, or infectious characteristics, may pose a substantial hazard to human health or the environment. Included in this definition are all EHSs, HCs, hazardous substances (HSs), and toxic chemicals (TCs).

Any other hazard-specific guidance (instructions or directives) takes precedence over this instruction for control purposes of HM. Such materials include: ammunition, weapons, explosives and explosive-actuated devices, propellants, pyrotechnics, chemical and biological warfare materials, medical and pharmaceutical materials, medical waste and infectious materials, bulk fuels, radioactive materials, and other materials such as asbestos and mercury. These materials are hazardous and exposure to personnel may occur during manufacture, storage, use, and demilitarization of these items.

4-3.10 Hazardous Substance (HS). Any substance listed in Table 302.4 of reference (e).

4-3.11 Intermediate-Level Maintenance. Material maintenance that is the responsibility of, and performed by, designated maintenance installations in support of using organizations. The intermediate maintenance mission is to enhance and sustain the combat readiness and mission capability of supported installations providing quality and timely material support at the nearest location with the lowest practical resource expenditure. Intermediate-level maintenance includes: limited repair of commodity-oriented components and end-items; job shop, bay, and production line operations for special mission requirements; repair of printed circuit boards, software maintenance, and fabrication or manufacture of repair parts assemblies, components, jigs and fixtures, when approved by higher levels.

4-3.12 Material Safety Data Sheet (MSDS). OSHA Form 174 or an equivalent form containing identical data elements used by manufacturers of chemical products to communicate to users the chemical, physical, and hazardous properties of their products.

4-3.13 Organization-Level Maintenance. Maintenance normally performed by an operating unit on a day-to-day basis in support of its own operations. The organization-level maintenance mission is to maintain assigned equipment in a full mission-capable status while continually improving the process. Group organizational-level maintenance under the categories of "inspections," "servicing," "handling," and "preventive maintenance."

4-3.14 Release. Under EPCRA, release includes: pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles) of any EHS, CERCLA release, HS or HC.

4-3.15 Reportable Quantity (RQ). The specified amount of any EHS or HS, which when released in excess of that amount to the environment, requires reporting under EPCRA Section 304. Appendices A and B of reference (a) and Table 302.4 of reference (e) list RQs. Some States may have more stringent limits set for RQs. Facilities should make every effort to comply with State and local requirements.

4-3.16 Threshold Planning Quantity (TPQ). The established amount of an EHS, which when present on-site at a facility in quantities equal to or greater than the TPQ, requires reporting under EPCRA Section 311 and notification under EPCRA Section 302. Appendices A and B of reference (a) list TPQs.

4-3.17 Toxic Chemical (TC). Any substance listed in reference (f).

4-4 Requirements

4-4.1 EPCRA Policy for Federal Agencies. Since 1994, all Federal agencies are required to comply with the provisions in Sections 301-303, 304, 311-312, and 313 of EPCRA, all implementing regulations, and future amendments.

A) After extensive efforts to identify and define applicable munitions operations and associated releases, DOD is now issuing staged guidance on application of EPCRA requirements to munitions operations. Since calendar year 1998, installations have been required to fully comply with sections 302, 304, and 311-312 for munitions and munitions related items as specified in this chapter. Since 1998, installations have had to fully comply with section 313 requirements for the manufacture, processing, or otherwise use of toxic chemicals to produce munitions. Beginning calendar year 1999, installations shall comply, as specified in this chapter, with section 313 requirements for the testing and demilitarization operations of munitions and munitions related items. Application of EPCRA to range operations is currently pending.

A) a. **Primary Purpose of Emergency Planning and Report Notifications** is to protect public health, safety, and the environment, and to establish and coordinate the nation's chemical emergency planning activities.

R) b. **Section 302** is to inform emergency planners about the presence of extremely hazardous substances. A facility that has, on-site, any EHS, including those in munitions and munition related items, in a quantity equal to or in excess of its applicable TPQ, shall provide a one-time notification to the State Emergency Response Commission (SERC) and the Local Emergency Planning Committee (LEPC) (or equivalent for your jurisdiction) that the facility is subject to the emergency planning requirements of EPCRA for that substance. Include the facility name, facility point of contact, an alternative point of contact, and phone numbers. Thereafter, if an EHS becomes present at the facility in excess of its TPQ, or if the EHS list is revised and the facility has present an EHS in excess of the TPQ, the facility shall amend the original notification to the SERC and LEPC (or equivalent for your jurisdiction) to include the additional substance within 60 days of receiving the new information or the EHS.

c. **Under Section 303**, a covered facility shall provide any emergency planning information requested by the LEPC (or equivalent for its jurisdiction), to the extent practical, while taking into consideration national security issues. As a minimum, a facility subject to EPCRA reporting requirements will appoint a facility representative to actively serve on the LEPC (or equivalent for its jurisdiction).

d. **Section 304**, protects the public in the event of hazardous chemical releases through the establishment and formation of local and state emergency response capabilities. A facility where an EHS or HS is produced, used, or stored shall provide an immediate verbal and written follow-up notice of any EHS or HS, including those from munitions and munitions related items, released over a 24-hour period into any environmental media that meets the established RQ. Notify all SERCs and all LEPCs (or equivalent for its jurisdiction) for areas likely to be effected by the release. This notice does not relieve the facility of any notification requirements covered under other environmental regulations. (R

Notification to the SERC or LEPC (or equivalent for its jurisdiction) is not required for releases that result in exposure to personnel solely within the boundaries of the facility, regardless of whether the RQ for the substance was met.

R) e. **Section 311** is to increase community awareness of chemical hazards. A facility with any HCs, including those associated with munitions and munitions related items, present on-site at any one time in an amount equal to or greater than 10,000 pounds, or equal to or greater than 500 pounds for an EHS or the applicable TPQ (whichever is less), and requiring an MSDS under OSHA, shall provide a one-time submission of copies of those MSDSs or a list of the HCs grouped by hazard category to the SERC, LEPC (or equivalent for its jurisdiction), and the local fire department with jurisdiction over the facility. Facilities should contact the local agency to identify their preference for data submission. Thereafter, should an HC become present in amounts equal to or over established thresholds or, should significant new information be discovered concerning the HCs for which a submission was previously made, the facility shall provide a new or revised submission within 3 months.

Stored munitions end items are considered to be "a solid in any manufactured item" and therefore the chemicals contained in munitions end items are not included in the threshold calculation or reporting in this section.

Should the SERC, LEPC (or equivalent for its jurisdiction), or local fire department with jurisdiction over the facility request an MSDS not previously submitted, the facility shall submit the requested MSDS within 30 days of receipt of the request. The minimum threshold for reporting in response to a request for submission is zero.

R) f. **Section 312** provides comprehensive information about the identity and amounts of stored chemicals and makes the information available to the public, emergency planners, and responders. A facility meeting Section 311 reporting requirements shall submit an annual Emergency and Hazardous Chemical Inventory Form (Tier I or Tier II) for applicable HCs. The annual submission is due on 1 March for the previous calendar year.

Should the SERC, LEPC (or equivalent for its jurisdiction), or local fire department with jurisdiction over the facility request a Tier II form not previously submitted, the facility shall submit the requested form within 30 days of receipt of the request. The minimum threshold for reporting in response to a written request for submission is zero.

g. **Section 313** is to establish a facility-wide inventory of toxic chemical releases to all environmental media, to support State and local planning efforts and to inform the public about routine releases of toxic chemicals to the environment. A facility that has 10 or more full-time employees, and manufactures or processes any listed TC in excess of 25,000 pounds, or that otherwise uses any listed TC in a quantity over 10,000 pounds in a calendar year, is required to submit individual release data, a Form R, for each applicable TC. (R

The manufacture, process or otherwise use of TCs to produce munitions related items is covered under this section. The demilitarization of munitions and munitions related items, including disassembly, dismantling, recycling, recovery, reclamation, and reuse, is considered a processing activity and is covered under this section. The demilitarization activities including open burning and open detonation (OB/OD), incineration, chemical neutralization and other methods of final treatment that alter the chemical composition of the munitions and its components is considered treatment and is covered under this section.
The annual submission will be 1 July for the previous calendar year.

h. Federal agencies are required to develop voluntary goals to reduce the agency's total releases of TCs to the environment from covered (R

facilities by 50 percent by 31 December 1999. Federal agencies will publicly report baseline information for this goal on 1994 Form R reports. Federal agencies will calculate and monitor reductions using future Form R reporting. The baseline and reductions reported will not include releases and off-site transfers associate with munitions and munitions related items.

4-5 Navy Policy

a. Navy policy is to comply with all requirements of EPCRA as described in E.O. 12856. Navy facilities are encouraged but not required to comply with additional State or local EPCRA program requirements. Navy installations should comply with State or local EPCRA program requirements to the extent that resources allow, and provided such compliance does not interfere with command mission accomplishment or other legal obligations.

R) b. The Navy shall act to use the data generated through EPCRA data gathering and reporting information to prevent pollution by reducing HM use and decreasing the release of toxic chemicals into the environment to the minimum amounts achievable. Navy facilities shall use EPCRA data to provide input and updates to facility Pollution Prevention Plans as discussed in chapter 3.

4-5.1 Compliance with Federal EPCRA Requirements. All Navy shore installations shall use the following procedures in the customs territory of the United States and Guam in complying with EPCRA:

a. All installations shall define the facility fenceline and operations within that fenceline that require EPCRA documentation. Installations shall update Interservice Support Agreements (ISAs), as well as any other Host-Tenant agreements, to reflect the data collection requirements of the tenants to the host.

(1) Class I property lines most appropriately define the facility fenceline with the fenceline owner responsible for all DOD tenants. The fenceline owner, otherwise known as the "host" command, shall file one report for the entire facility for each section of EPCRA requiring a report. All calculations will include combined totals from within the fenceline. Navy installations shall not report actions of non-DOD Federal agencies. Navy tenants of non-DOD host installations are independently responsible for meeting the Navy EPCRA reporting requirements.

(2) The owner of geographically separated portions of a covered facility may treat each establishment it operates as a separate facility. Independent owners of contiguous or adjacent sites are individually responsible for meeting all EPCRA reporting requirements.

b. Private contract operators on DOD facilities and Government-Owned and Contractor-Operated (GOCO) facilities are legally required to comply with all provisions of EPCRA to the extent that their operations meet threshold and other requirements of the statute and implementing regulations. The Navy encourages GOCO facilities to support Navy efforts in meeting any additional reporting requirements.

c. For purposes of emergency planning, all facilities shall determine whether they meet or exceed threshold requirements for an EHS or HS used at the facility. Each Navy facility that exceeds a threshold is subject to the reporting requirements of EPCRA for emergency planning, providing information, and emergency notification. Host commands shall calculate thresholds using the entire facility inventory. (R

(1) Each facility that meets or exceeds a TPQ for an EHS shall notify the SERC and the LEPC (or equivalent for its jurisdiction) and provide a facility point of contact, an alternative point of contact, and telephone numbers.

A) (2) Facilities shall include EHS contained in munitions and munitions-related items. Munitions and munitions-related items containing EHS must be included in all facility calculations for threshold requirements and will report as required.

(3) If an EHS later becomes present at the facility in excess of its TPQ, or if the EHS list is revised and the facility has present an EHS in excess of the TPQ, the facility shall amend the original notification to the SERC and LEPC (or equivalent for its jurisdiction) to include the additional substance within 60 days.

(4) Each covered facility shall request to participate in local emergency planning functions and appoint a facility representative to actively serve on the LEPC (or equivalent for its jurisdiction). To the extent practicable, each covered facility shall provide any emergency planning information requested by the LEPC (or equivalent for its jurisdiction), while taking into consideration national security issues.

R) d. For emergency notification reporting, each facility that releases an EHS or HS, including those from munitions and munitions-related items, in excess of the RQ for that substance into any environmental media shall immediately notify all SERCs and LEPCs (or equivalent for its jurisdiction) in the area likely to be effected by the release of that substance. The facility shall submit a written follow-up notification of the release and actions taken as soon as practicable after the release. To expedite the notification process, the facility shall prepare and use a standard form and approval chain in the event of a reportable release. The installation shall also notify the cognizant major claimant of the release in message form as soon as practicable after the release has occurred. The facility is not required to notify the SERC or LEPC (or equivalent for your jurisdiction) of releases that result in exposure to personnel solely within the boundaries of the facility regardless of whether the RQ for that substance was exceeded.

e. For community awareness, all installations shall determine if they meet or exceed threshold requirements for all HCs they possess that require an MSDS. This section includes those HCs associated with munitions and munitions-related items. However, stored munitions end items are considered to be "a solid in any manufactured item" and therefore, the chemicals contained in munitions end items are not included in the threshold calculation or reporting in this section. Each Navy facility that exceeds the threshold is subject to the reporting requirements of EPCRA for community right-to-know provisions. Host commands shall calculate thresholds using the entire facility inventory. (R

If the quantity of an HC is present at any one time in amounts equal to or greater than 10,000 pounds, it is reportable. If the substance is an EHS and the amount present at any one time is equal to or greater than 500 pounds or its TPQ, whichever is less, it is reportable. For each reportable HC, facilities shall provide a one-time submission of a copy of the MSDS or a list of reportable HCs, grouped by hazard category, to the SERC, LEPC (or equivalent for your jurisdiction), and the fire department with jurisdiction over the facility. Facilities should contact local agencies to identify their preferred method of data submission. A hard copy MSDS obtained from the Hazardous Material Information System (HMIS) is sufficient; see reference (g) for information on HMIS. The facilities should make the submissions to the fire department that would

routinely be the first alerted during an emergency. This would generally be the Navy fire department located on the installation but may also be a non-Navy fire department separate from the facility.

If a facility submits a list, it shall contain the following information:

(1) A list of the HCs for which an MSDS is required under OSHA regulations, grouped by hazard category. Only include those chemicals (either in mixtures or in the pure form) that meet or exceed threshold levels.

(2) The HC listed under all applicable hazard categories.

(3) The chemical and common name of each HC as provided on the MSDS.

Should the SERC, LEPC (or equivalent for your jurisdiction), or local fire department with jurisdiction over the facility request an MSDS not previously submitted, the facility shall submit the requested MSDS within 30 days of receipt of the request. The minimum threshold for reporting in response to a request for submission is zero.

Should an HC become present over established thresholds or should significant new information concerning the HCs for which a submission was previously made become available, the facility shall provide a new or revised submission within 3 months after discovery of this new information.

R) f. To provide comprehensive information about the identity and amounts of chemical hazards, facilities meeting or exceeding HC threshold requirements shall submit Emergency and Hazardous Chemical Inventory Forms for those HCs to the SERC, LEPC (or equivalent for their jurisdiction), and the local fire department with jurisdiction over the facility by 1 March, annually, that cover the previous calendar year's inventory. Facilities may submit either Tier I or Tier II information; however, they are not required to comply with requests to use any form other than the Federal Tier I or Tier II forms.

The SERC and the LEPC (or equivalent for their jurisdiction) have the authority to request a Tier II submission for HCs present at the facility below threshold levels if the requester provides a written statement of need. Should the SERC, LEPC (or equivalent for their jurisdiction), or local fire department with jurisdiction over the facility request a Tier II form not previously submitted, the facility shall submit the requested form within 30 days of receipt of the request. The minimum threshold for reporting in response to a request for submission is zero.

g. To establish a facility-wide inventory of toxic chemical releases, all facilities shall determine if they meet reporting requirements for Toxic Release Inventory (TRI) Reporting, Environmental Protection Agency (EPA) Form R. Host commands shall ensure thresholds are calculated using the entire facility inventory. Base the TRI reporting requirements on the following criteria: (R

(1) The facility has 10 or more full-time employees; and

(2) The facility manufactured (defined to include imported) or processed a TC in quantities in excess of 25,000 pounds over the course of a calendar year; or

(3) The facility otherwise used a TC in quantities in excess of 10,000 pounds over the course of a calendar year.

These thresholds are TC and activity-specific, and do not include storage or the amount present at any one time.

A) The manufacture, process or otherwise use of TCs to produce munitions-related items is covered under this section. The demilitarization of munitions and munitions-related items, including disassembly, dismantling, recycling, recovery, reclamation, and reuse, is considered a processing activity and is covered under this section. The demilitarization activities including OB/OD, incineration, chemical neutralization and other methods of final treatment that alter the chemical composition of the munitions and its components are considered treatment and are covered under this section. All munitions treated on-site shall be counted. Munitions included on ranges is a subject still under consideration and will be covered in subsequent guidance.

Navy installations shall not use the alternative threshold certification statement option, Form A.

R) Navy facilities will make every attempt to submit Form Rs to EPA covering GOCO information as required in this chapter. The facility shall provide U.S. Navy GOCO information on a separate government-submitted Form R. The government Form R submission shall list U.S. DOD Navy as the "parent company" under section 5.1 of the form. If the Navy is unable to obtain GOCO information or Form Rs, the Navy facility shall, at a minimum, provide the contractor's name, technical contact, and facility location to CNO (N45).

By entering only the government submitted form to the automated EPA database, EPA will avoid database double counting of these releases.

TCs stored aboard ship while a ship is in port do not become part of the shore facility's inventory and are not reported by the shore facility. Material maintained under ship's custody is not subject to reporting requirements. The transfer of a TC to or from a Navy ship is not considered to be a manufacture, process, or other use of a TC and, therefore, shall not be used by a facility to calculate threshold requirements. If the TC has triggered the reporting requirement elsewhere however, the facility shall include transfers to ships as off-site transfers in the Form R release calculations. Consider floating dry-docks as part of the shore facility and report them accordingly.

h. EPCRA regulations provide certain exemptions that are intended to relieve facilities from the burden of making threshold and release calculations based on small or ancillary uses of listed TCs. Five primary categories exist under the exemptions, including *de minimis*, article, use, laboratory, and property ownership. In general, the use exemption does not apply to TCs manufactured, processed, or otherwise used. The use and laboratory categories apply to Navy facilities in the following manner:

(1) The structural component category exempts TCs that are structural components of the facility or that are used to ensure or improve structural or functional integrity. The facility can apply this exemption to listed TCs found in material that is part of the facility's structure (i.e., copper in copper piping used for the plumbing in the facility). The facility does not have to account for releases resulting from passive degradation that naturally occurs in structural components of a facility.

Maintenance and repair activities performed by facility maintenance to the facility infrastructure are also consistent with the "structural component" exemption. Include painting to maintain the physical integrity or function of the facility in the exemption. The exemption also covers small amounts of material passively abraded or corroded from pipes and other facility equipment. Include in the facility infrastructure, but do not limit to: buildings, roads, runways, fencelines, and utilities.

(2) The routine janitorial and grounds maintenance category exempts the use of TCs contained in products for routine janitorial and installations grounds maintenance. The routine maintenance exemption covers janitorial or other custodial maintenance and all other installation grounds maintenance for activities using substances such as cleaning supplies, fertilizers, pesticides, fungicides, herbicides, rodenticides, and insecticides similar in type and concentration to consumer products. For example, facilities do not have to report the use of TCs for lawn maintenance, building maintenance, and grounds maintenance.

(3) The personal use category exempts the personal use of listed TCs in products used by employees or other persons at the facility. This exemption also covers activities associated with facility-operated cafeterias, commissaries, DOD Exchanges, medical facilities or facilities associated with morale, welfare, and recreation (MWR). "Personal use" products include foods, drugs, cosmetics, office supplies, and other personal items. The personal use exemption also covers toxic chemicals used strictly for reasons of personal comfort, necessity, or other such purposes, for example, heating and air conditioning units or lighting fixtures.

Navy policy exempts activities associated with hospitals and other base medical facilities from toxic release inventory threshold and release calculations as such activities are exempted under the personal use exemption of the EPCRA regulations.

(4) The motor vehicle category exempts TCs contained in products used for the purpose of maintaining motor vehicles operated by a facility. Facilities are exempt from reporting the use of TCs associated with the maintenance of motor vehicles, such as staff cars, base maintenance and support vehicles, and privately owned vehicles used on the installation. Large combined fleets of motor vehicles maintained at one central location are not exempt.

Facilities are not exempt from reporting the TCs used at the Intermediate and Depot Level for the maintenance of the tactical vehicles, aircraft (including missiles), and ships. Shore facilities are not exempt from reporting TCs used by shore based maintenance in repairing and painting ships that are in port or in dry-dock. TCs used on board ship by ship's company for organizational level maintenance are exempt. Maintenance below Intermediate and Depot Level (e.g., Organizational Level) maintenance is exempt. For example, field or organizational level units are exempt from reporting TCs used in the maintenance of vehicles outside the Intermediate and Depot Level maintenance shop. Similarly, personnel maintaining aircraft and vehicles under field conditions and personnel maintaining ships at sea are exempt from reporting their use of TCs.

(5) The motor vehicle maintenance category applied for fuels exempts TCs associated with the transfer of fuel from non-stationary sources of fuel, for example tanker trucks. Emissions from mobile sources are exempt. The fueling of vehicles from stationary sources of fuel and bulk fuel storage, including movable bulk storage tanks, is exempt from threshold and release calculations.

(6) The intake water/air category exempts facilities from reporting TCs present in process water or no-contact cooling water as drawn from the environment or from municipal sources. The exemption also covers TCs present in air used either as compressed air or as part of combustion.

(7) The laboratory activity category applies to those listed TCs manufactured, processed, or otherwise used in a laboratory for quality control, research and development, and other (R

laboratory activities. The manufacture, process, or otherwise use of TCs for the purpose of testing munitions, weapons systems or qualifying munitions by personnel as part of the testing process is considered part of this exemption. This exemption should be applied as narrowly as possible. It is not intended as a blanket exemption for any facility that has the title "laboratory" in its name. To qualify, the listed TCs must be directly used in, or produced by, a laboratory activity at a Navy facility. The manufacture, processing, or other use must occur under the supervision of a technically qualified individual. Generally, consider bench-scale activities exempt. Activities that do not directly support research and development, sampling and analysis or quality assurance and control are not exempt. Specialty chemical production and pilot plant scale activities do not qualify for the laboratory activities exemption.

R) Facilities were not required to report information for munitions for CY 1994, 1995, 1996, or 1997 submissions. Since CY 1998, reporting of munitions has been required as directed by this chapter.

Facilities shall submit a separate and complete electronic Form R to the EPA and the State for each TC meeting threshold requirements. The Form R shall cover not only the triggering activity but all uses of the TC at the facility. Installations shall use actual numbers vice range codes for all areas on the Form R. The annual submission is due by 1 July covering the previous calendar year releases. Installations shall submit an electronic copy of all Form Rs to the cognizant major claimant who shall forward the electronic form to CNO (N45) by 1 August for accurate measurement of the total annual releases and off-site transfers of reported TCs by Navy installations.

D) Facilities shall ensure documentation is in place to support EPCRA reporting efforts. Facilities should have documentation and calculations for threshold and release decisions available to support any inquires. Facilities shall maintain support documentation for a minimum of 5 years.

Facilities shall cooperate fully with EPA regional personnel conducting EPCRA compliance reviews and inspections. Facilities should be prepared to provide, in a timely manner, information related to the calculation and preparation of all EPCRA reports. If information requested is not available or questioned by EPA personnel, installations shall explain in writing and should reference Navy guidance as applicable. If Navy policy or guidance is questioned, installations shall refer EPA personnel to CNO (N45). Installations shall not take any action inconsistent with Navy policy without approval from CNO (N45). (A

The Navy's policy is to make Form R's readily available to the public upon request without requiring Freedom of Information requests.

i. By 31 December 1999, each major claimant shall meet an aggregate 50 percent reduction from a 1994 baseline of total releases and off-site transfers of TCs to the environment by its facilities. Claimants may assign differing goals to installations based on assessment of progress already achieved and the opportunity for realizing additional reductions in a cost effective manner. Installations should approach reduction efforts in a total quality leadership manner striving for continuous improvement regardless of numeric goal settings. Installations shall use as baseline information for this goal publicly reported 1994 Form R reports. Reductions will be calculated and monitored annually through future Form R reporting. The baseline and reductions reported will not include releases and off-site transfers associated with munitions and munitions related items. (R

(1) The actual baseline is the total volume of TCs that appear on the EPA Form R

Section 8.1, Quantity Released and Section 8.7, Quantity Treated Off-Site. Section 8.1 is a compilation of Section 5, and Section 6.2 (disposal codes only: M10, M71, M72, M73, M79, M90, M94, M99) minus Section 8.8 (events associated with catastrophic events) data. Section 8.7 includes Section 6.2 (waste treatment codes: M40, M50, M54, M61, M69, M95) and Section 6.1 data.

(2) CNO (N45) will use the annual sum of Sections 8.1 and 8.7 of all submitted Form Rs to track progress in meeting the 50 percent reduction goal.

j. Prior to the release of any reports to the SERC or LEPC (or equivalent for your jurisdiction), non-Navy fire departments, EPA, or the State, installations shall review the information to prevent the release of classified information. In cases where information regarding the use of a substance is classified, the installation shall develop alternative procedures for protecting the installation and off-site personnel.

k. Chapter 10 describes Navy policy and planning in relation to an accidental release of HS.

4-6 Responsibilities

4-6.1 The Chief of Naval Operations CNO (N45) shall:

a. Develop and implement Navy EPCRA policy.

b. Develop detailed guidance for use by installations in the implementation of EPCRA requirements.

c. Act as the assessment sponsor for accomplishing implementation of EPCRA and pollution prevention efforts at Navy installations.

d. Track and monitor Navy progress toward 50 percent reduction goal.

e. Provide Claimant-submitted Form R reports, status reports and updates to DOD annually.

4-6.2 COMNAVFACENGCOM shall:

a. Support EPCRA initiatives as tasked by CNO (N45).

b. Assist CNO (N45) in managing and analyzing EPCRA data.

c. Provide technical assistance to shore installations to implement EPCRA policy.

4-6.3 COMNAVSUPSYSCOM shall:

a. Assist the CNO (N45) in managing the HM aspects of the Navy EPCRA effort and serve as the overall manager for the supply aspects.

b. Provide support, as requested, to identify EPCRA-listed chemicals in supplied materials.

c. Develop, implement, and maintain a Navy-wide system for acquiring only authorized HM, integrating command and shore installation HM AULs to support reduced EPCRA reporting.

d. Provide guidance to, and coordinate efforts of the Navy-wide HM substitution efforts, including development of a substitution guidance document to support reduced EPCRA reporting.

e. Establish methods to reduce or minimize the entry of new HM into the supply system. Prior to the introduction of new HM into the system, a valid requirement for the HM must exist; a complete MSDS shall be locally available; and a review shall confirm that existing non-hazardous

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or less hazardous substitutes are not available to support reduced EPCRA reporting (see chapter 3 for details).

4-6.4 The Chief of Naval Education and Training (CNET) shall incorporate EPCRA guidance and policies into Navy training. Appropriate training courses shall include pollution prevention and source reduction initiatives as applicable to EPCRA requirements.

4-6.5 Major claimants shall:

a. Program, budget, and allocate funds for all identified installation EPCRA requirements.

b. Assist COMNAVSUPSYSCOM in developing and maintaining a centralized list of authorized HM or the approved, less hazardous substitutes. Ensure that installations under their cognizance use only those HMs that appear on the HM AUL in support of reducing EPCRA reporting requirements.

c. Develop and implement HM elimination/substitution processes for all systems and operations under their cognizance to support the reduction of EPCRA reporting.

d. Develop processes that ensure that the least hazardous, technically acceptable materials are incorporated into the installation AUL to improve EPCRA reporting efforts (see chapter 3 for details).

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e. Establish goals for facilities under their command to support the Navy 50 percent reduction goal of total releases of TCs to the environment by 31 December 1999. Advise CNO (N45) of individual installation goals as established.

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f. Notify CNO (N45) of any deficiencies cited by EPA inspectors during facility EPCRA reviews and inspections to provide appropriate lessons learned and required improvements to current policy and programs.

g. Compile and review all installation Form Rs and forward electronic copies to CNO (N45) annually by 1 August for accurate measurement of releases and off-site transfers of all TCs by Navy installations.

h. Compile and review facility information on actual number of installations meeting reporting requirements under all sections of EPCRA.

4-6.6 Commanders and commanding officers of shore installations shall refer to paragraph 4-5 for specific requirements and shall:

a. Define the facility fenceline, including all tenants, to support EPCRA reporting requirements. Revise and update ISAs to support these requirements.

b. Calculate all thresholds using the entire facility inventory and meet all reporting requirements according to EPCRA for that facility.

c. Review all publicly available data to prevent sensitive or classified information from being released. Sign each EPCRA Form R as the validating official or designate in writing alternate validating official.

d. Honor public requests for EPCRA information in a timely and informative manner. Ensure the public affairs office is onboard and aware of information.

e. Use data provided from EPCRA data collection and reporting in updating the installation comprehensive Pollution Prevention Plan (see chapter 3 for details).

f. Notify Major Claimant and regional environmental coordinator upon receiving notice (A

of EPA's intent to inspect for EPCRA compliance and of final results. Fully cooperate with EPA personnel to support EPCRA reviews and inspections.

g. Reduce the releases of TCs as established by the Major Claimant and identified in the Pollution Prevention Plan to support the Navy's 50 percent reduction of total releases of TCs to the environment by 31 December 1999 and reduction in EPCRA reporting requirements.

h. Develop and implement a local HM AUL using an inventory that identifies and quantifies HM, including whether the material is an EHS, HS, or TC.

i. Establish and implement procedures to control, track, and reduce the variety and quantities of HM in use, in storage or stock, or disposed of as HW, to support reduced EPCRA reporting.

j. Identify to the Major Claimant funding needed to support all EPCRA requirements.

4-6.7 Regional Environmental Coordinators (RECs) shall:

a. Coordinate with regulators, covered facilities, and CNO.

b. Disseminate policy and guidance information to covered facilities.

c. Support regional requests for public information on EPCRA information.

CHAPTER 5

CLEAN AIR ASHORE

5-1 Scope

This chapter applies to air emissions from stationary, mobile and area sources at all shore facilities within the United States, Commonwealth of Puerto Rico, U.S. Virgin Islands, Guam, American Samoa, and Commonwealth of the Northern Marianas Islands. Chapter 18 provides Navy policy with respect to installations in foreign countries.

R) Refer to Chapter 6 for management of ozone depleting substances, Chapter 19 for the control of air emissions from ships and Chapter 26 for radon management.

5-1.1 References. Relevant references are:

R) a. 40 CFR, Parts 50-91 & 93, Environmental Protection Agency (EPA) Air Programs Regulations;

b. 29 CFR 1910.119, Process Safety Management of Hazardous Chemicals;

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A) c. Navy Title V Operating Permits Program Summary and Policy Guidance of 20 December 1995 (NOTAL);

d. 41 CFR Subchapter H, Parts 41-47 GSA Disposal Regulations;

e. 48 CFR Chapter 1, Federal Acquisition Regulation;

D) f. DOD Directive 4170.10 of 8 August 1991, Energy Management Policy; (NOTAL);

g. DOD Directive 5410.12 of 22 December 1987, Economic Adjustment Assistance to Defense-Impacted Communities; (NOTAL);

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(A h. DOD Base Reuse Implementation Manual, DOD 4165.66-M of July 1995; (NOTAL).

5-2 Legislation

5-2.1 Clean Air Act (CAA). The purpose of (R the CAA is "to protect and enhance the quality of the Nation's air resources so as to promote public health and welfare and the productive capacity of its population..." To achieve this goal, the CAA established two strategies for setting standards: (1) National Ambient Air Quality Standards (NAAQS) for six criteria pollutants; and (2) national emission standards for individual sources of hazardous air pollutants (HAPs). In addition, the CAA requires regulation of mobile sources of air emissions and a permit program for stationary sources. Refer to reference (a) for complete details of these requirements.

Achieving CAA standards is the responsibility of (R the States which must develop State implementation plans (SIPs) that outline to EPA how each State will achieve and maintain the standards. SIPs implement CAA programs such as the Title V operating permit, new source performance standards (NSPS), new source review (NSR), and national emission standards for hazardous air pollutants (NESHAPs) at the State and local level. States may require pollution control and prevention measures which are more stringent than those mandated by EPA, but may not allow measures which are less stringent. Federal agencies must comply with the requirements of Federal, State, interstate, and local air pollution control regulations.

The 1990 Amendments to the CAA introduced sweeping changes to the legislation. In order to improve air quality nationwide, the 1990 Amendments mandate the implementation of more

stringent pollution control and prevention measures which include: reclassification of nonattainment areas, regulation of mobile sources, regulation of 189 HAPs, regulation of sulfur dioxide (SO_2) and oxides of nitrogen (NO_X) for acid deposition control, implementation of an extensive operating permit program, and strengthening of the powers that allow EPA and State agencies to better enforce the provisions of the CAA.

5-2.2 Emergency Planning and Community Right to Know Act (EPCRA) of 1986. This Act, also known as Title III of the Superfund Amendments and Reauthorization Act (SARA), addresses the release of hazardous substances (HS) to the environment. EPCRA calls for reporting releases of certain extremely hazardous substances (EHS) to the environment. Certain chemicals subject to the HAPs and risk management provisions of CAA Section 112 are also subject to Title III. See Chapters 4 and 12 for detailed requirements.

5-2.3 The Alternative Motor Fuels Act of 1988 (AMFA). Congress passed AMFA in 1988 to achieve long-term energy security and improve air quality. Under AMFA, a portion of the new vehicles which the Federal government acquires each year must be alternative fuel vehicles (AFVs) in order to encourage the production of these vehicles for consumer use.

5-2.4 The Energy Policy Act of 1992 (EPACT). EPACT seeks to enhance the long-term energy security of the nation by reducing dependency on imported oil and providing for improved energy efficiency. EPACT establishes a Federal leadership strategy designed to encourage automobile manufacturers and fuel suppliers to expand the commercial availability of alternative fuels and vehicles. Under EPACT, Federal agencies must acquire increasing numbers of AFVs.

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5-3 Terms and Definitions

5-3.1 Acid Rain. The acidic precipitation formed by the atmospheric chemical transformation of SO_2 and NO_X emissions.

5-3.2 Air Pollution Emergency Episodes. Air pollution emergency episodes exist when the accumulation of air pollutants in any place is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a substantial threat to the health of individuals.

5-3.3 Alternative Fuels. Substitutes for traditional petroleum products such as gasoline and diesel fuel. EPACT defines alternative fuels to mean: methanol, denatured ethanol and other alcohols; mixtures containing 85 percent or more alcohol with the balance consisting of gasoline or other such fuels; natural gas; liquefied petroleum gas; hydrogen; coal-derived fuels; fuels derived from biological materials; electricity; and other substantially non-petroleum based fuels. (R

5-3.4 Best Available Control Measures (BACM). Emission control measures that achieve the greatest possible reduction in the emission of particulate matter.

5-3.5 Best Available Control Technology (BACT). Emission control technology to be applied to new sources located in areas that are in attainment of the NAAQS for the pollutants emitted from the new source. States are to apply BACT on a case-by-case basis, taking into account economic considerations. BACT must be at least as stringent as the NSPS for similar facilities.

5-3.6 Clean Alternative Fuels. Any fuel (including methanol, ethanol, fuel blends containing 85 percent or more alcohol, reformulated gasoline, diesel, natural gas, liquefied petroleum gas, and hydrogen) or power source (including electricity) used in a clean-fuel vehicle that meets the requirements and emission standards of the CAA. (R

5-3.7 Control Techniques Guidelines (CTG). Documents published by EPA designed to assist the States/localities in selecting the most appropriate technologies to apply for the control of major sources of air pollution.

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5-3.8 Federal Implementation Plan (FIP). A Federally-imposed air quality plan which supersedes a SIP due to a State's failure to develop an adequate plan to achieve and maintain the NAAQS.

5-3.9 Lowest Achievable Emission Rate (LAER). Rate of emissions that reflects the most stringent emission limitation contained in the implementation plan of any State for such class or category of source, or the most stringent emission limitation achieved in practice by such class or category of source, whichever is more stringent. The application of LAER shall not permit a proposed new or modified source to emit any pollutant in excess of the amount allowable under applicable NSPS.

R) **5-3.10 Major Source.** Any stationary source, or group of stationary sources located within a contiguous area and under common control, which emits, or has the potential to emit, air pollutants in excess of specified threshold levels. The threshold amounts vary according to the attainment classification of the area in which the source is located and the pollutant(s) emitted.

5-3.11 Maximum Achievable Control Technology (MACT). Emissions control technology that achieves the maximum emission reduction possible. MACT is applicable only to those pollutants listed as HAPs under Section 112 of the CAA.

5-3.12 Motor Vehicle. Any self-propelled vehicle designed for transporting persons or property on a street or highway.

5-3.13 National Ambient Air Quality Standards (NAAQS). Air quality standards established by EPA for six criteria pollutants in order to provide an adequate margin of safety in protecting the general health and welfare of the public. Criteria pollutants include: ozone (O_3), carbon monoxide (CO), particulate matter 10 microns or smaller (PM-10), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and lead (Pb).

5-3.14 National Emissions Standards for Hazardous Air Pollutants (NESHAPs). Standards established for categories of stationary sources that emit one or more of the HAPs listed under CAA section 112. (A

5-3.15 New Source Performance Standards (NSPS). National emission standards that limit the amount of pollution allowed from new or modified sources.

5-3.16 New Source Review (NSR). State program for reviewing major sources and modifications prior to construction in nonattainment or prevention of significant deterioration (PSD) program areas.

5-3.17 Nonattainment Area. An area which fails to meet the NAAQS for one or more of the criteria pollutants.

5-3.18 Non-road Engine. An internal combustion engine (including the fuel system) that is not used in a motor vehicle or a vehicle used solely for competition, or that is not subject to standards for stationary internal combustion engines or emission standards for new motor vehicles or new motor vehicle engines.

5-3.19 Non-road Vehicle. A vehicle powered by a non-road engine and that is not a motor vehicle or a vehicle used solely for competition.

5-3.20 Offsets. Emission reductions obtained from one source in order to compensate for increased emissions from another.

5-3.21 Title V Operating Permit. A Federally enforceable document issued by the States to significant stationary sources of air pollution that defines emission standards, operational procedures, and all obligations of the source under the CAA.

5-3.22 Oxygenated Gasoline. Gasoline which is blended with any one of a number of additives in order to increase the oxygen content, resulting in a more complete combustion and reduced emissions.

5-3.23 Ozone (O_3). The major constituent of "smog," ozone is formed when volatile organic compounds (VOCs) and NO_X react in sunlight. The atmosphere has two distinct layers of ozone. For air quality purposes, interest rests in the formation and transport of ground level ozone. At ground level, ozone has been shown to adversely affect the respiratory system and has proven to be the primary criteria pollutant causing regions to be declared in nonattainment of the NAAQS. At altitudes above 7 miles, stratospheric ozone plays a vital role in blocking out dangerous ultraviolet radiation. Recent evidence of a decline in stratospheric ozone levels has resulted in a world-wide call for the banning of ozone depleting substances (see Chapter 6).

5-3.24 Ozone Depleting Substances. Any chemical listed as a Class I or Class II substance in Section 602 of the CAA (see Chapter 6, Tables 6-1 and 6-2 for a list of Class I and Class II substances).

R) **5-3.25 Particulate Matter (PM).** A criteria air pollutant that includes dust, soot, and other small, solid materials that are released into and move around in the air. PM-10 is that portion of the total suspended particulate matter with an aerodynamic diameter of 10 microns or less.

5-3.26 Prevention of Significant Deterioration (PSD) Program. Emission control program that affects those areas with air quality that meet or exceed the NAAQS.

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5-3.27 Reasonably Available Control Technology (RACT). Emission control technology that achieves the lowest possible emissions level given technological and economic considerations. RACT is usually applied to existing stationary sources in nonattainment areas and often involves the installation of new control equipment on older sources.

5-3.28 Reformulated Gasoline. Gasoline which has undergone special distillation processes in order to meet performance requirements for NO_X emissions, oxygen content, benzene, heavy metals, VOCs, and toxic air pollutants.

5-3.29 State Implementation Plan (SIP). A plan developed by each State to implement, maintain, and enforce the NAAQS and other CAA goals within that State. While States have the primary responsibility for implementing the CAA, EPA maintains strong oversight in this process. (R

5-3.30 Stationary Source. Any source of an air pollutant except those emissions resulting directly from an internal combustion engine for transportation purposes or from a non-road engine or non-road vehicle. (R

5-3.31 Volatile Organic Compounds (VOCs). Photochemically reactive organic compounds that evaporate readily under normal temperature and pressure conditions. As a result of the tendency to evaporate readily, VOCs are primary contributors to the formation of ground level ozone. (R

5-4 Requirements

5-4.1 Regulatory Scheme. EPA has designated all areas in the country as unclassifiable, attainment, or nonattainment with respect to the NAAQS for each criteria pollutant. Areas are designated as follows:

a. **Unclassifiable.** Any area that cannot be classified on the basis of available information as

meeting or not meeting the NAAQS for the pollutant.

b. **Attainment.** Any area that meets the NAAQS for the pollutant.

c. **Nonattainment.** Any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the NAAQS for the pollutant.

Certain regulatory requirements are fundamental and apply to all areas, regardless of their attainment status, while other more specific and stringent requirements apply only to nonattainment areas. For help in determining attainment designations, contact the State or local air pollution control office, or the appropriate EPA Regional Office (see Appendix C).

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5-4.2 General Requirements

5-4.2.1 Conformity Rule. Section 176(c) of the CAA prohibits Federal agencies from engaging in, supporting, providing financial assistance for, licensing, permitting, or approving any activity that does not conform to an applicable SIP or FIP. EPA issued criteria and procedures for determining conformity, found in reference (a). Federal agencies must make a determination that a Federal action conforms to the SIP or FIP before proceeding with the action. Conformity determinations will typically be done as part of the National Environmental Policy Act (NEPA) analysis and documentation procedures for the planned action (See NEPA Procedures in Chapter 2).

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5-4.2.2 Enforcement/Citizen Suit Provisions.

R) a. **Waiver of Sovereign Immunity.** The broad waiver of Federal sovereign immunity in CAA Section 118(a) subjects Federal facilities to all Federal, interstate, State, and local air pollution requirements. States or local air districts generally enforce these CAA requirements; however, EPA also has enforcement authority for most CAA violations. Methods of enforcement include compliance orders, field citations, administrative assessment of civil penalties, civil judicial enforcement, and criminal enforcement. The CAA provides for penalties of up to $25,000 per day for each violation.

b. **State Civil Penalties.** In U.S. v. Georgia Department of Natural Resources, No. 1:94-CV-2993-JOF (Northern District Georgia, 2 August 1995), the Federal District Court held that CAA Section 118(a) does not waive Federal sovereign immunity for punitive civil fines and penalties assessed by a State government. (R

c. **Citizen Suits.** Civil actions may be brought against any person (including the United States) for present or past (if repeated) CAA violations of an emission standard, limitation, or order issued by EPA or a State. In addition, actions may be brought against any person who constructs without a required permit. (R

Penalties collected are deposited in a special U.S. Treasury fund to be used by EPA to finance air compliance and enforcement activities. At the Court's discretion, such funds can be used for beneficial mitigation projects consistent with the CAA and which enhance public health or the environment. The Court will ask EPA's view on any such projects. Amounts cannot exceed $100,000.

5-4.3 Provisions For Stationary Sources. In addition to compliance with the general requirements outlined above, the following additional standards apply to stationary sources only.

5-4.3.1 Title V Operating Permits. Title V of the CAA created an operating permit program which the States must develop and implement per EPA regulations establishing minimum requirements for State programs. Although the States are responsible for implementing and enforcing the permit program, EPA retains significant authority to oversee State implementation. EPA must review

and approve State permit programs, review proposed permits, veto improper permits and, if a State fails to adopt or implement an approved program, EPA will develop and implement a Federal permit program. The permit program attempts to clarify, in a single document, all the requirements applicable to a source, including requirements from the SIP, the acid rain program, and the air toxics program. The permit program also includes a requirement for payment of permit fees to finance the State air programs. After the effective date of any permit program approved under Title V, it is unlawful to violate any requirement of such a permit, or to operate a source subject to the permit program, except in compliance with a Title V permit. The program applies to all stationary sources of air pollution, including those operated on Federal facilities, that are subject to Federal regulation under the CAA.

a. **Permit Application.** Applications must be "timely" and "complete." An application is "timely" if it is submitted within 1 year of either the date of State program approval or of commencing operations for sources required to obtain preconstruction permits under the CAA Title I parts C or D. States must establish specific criteria to define a "complete" permit application.

An "application shield" is created if a timely and complete application is filed, allowing the source to operate without a permit pending the State's action on the permit.

b. **Certification.** A responsible official must certify permit applications as to their truth, accuracy and completeness after making reasonable inquiry. The certification must include the compliance status of the facility, and the method used to determine the compliance status.

5-4.3.2 Hazardous Air Pollutants (HAPs). Section 112 of the CAA lists an initial 189 pollutants as hazardous and subject to regulation and details Federal requirements for the control of HAPs. EPA retains the option of revising the list periodically as necessary.

a. **Source Definitions**

(1) **Major Source.** For HAPs, a major source is any stationary source, or group of stationary sources located within a contiguous area and under common control, which emits, or has the potential to emit, 10 tons per year (tpy) or more of any HAP or 25 tpy or more of any combination of HAPs.

(2) **Area Source.** An area source is any stationary source of HAPs that is not a major source. The term does not include motor vehicles or non-road vehicles.

b. **Source Categories.** Major and area sources are grouped into categories and subcategories. EPA must issue regulations establishing emission standards for the source categories and subcategories according to a phased-in schedule, with 25 percent of all categories and subcategories required to have standards by 1994, 50 percent by 1997, and 100 percent by 2000.

c. **Emission Standards.** EPA must establish technology-based emission standards that achieve the maximum degree of emissions reduction possible for new and existing sources in the appropriate category while giving consideration to cost, non-air quality health and environmental impacts, and energy requirements. Measures to achieve the desired emissions standards include: implementation of process changes; material substitutions; and measures to treat or control emissions, generally through the application of MACT.

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d. **Accidental Releases/Risk Management Plans.** Owners and operators of stationary sources that manufacture, process, use, handle or store EPA-regulated substances which exceed specified thresholds are required by CAA Section 112(r) to identify hazards from releases of such substances

and to design and maintain a safe facility to prevent releases and minimize the consequences of any accidental releases. Facilities that exceed the threshold limits must submit Risk Management Plans to EPA by 20 June 1999.

e. **Solid Waste Combustion.** Section 129 of the CAA directs EPA to establish NSPS for new solid waste incinerators and to develop performance guidelines for existing units. This includes municipal waste combustors, infectious waste incinerators, and industrial waste incinerators. Section 129 also requires incinerator emissions monitoring, training and certification programs.

5-4.3.3 Attainment Areas. The CAA mandates the implementation of emission limits and other measures for prevention of significant deterioration of air quality in those areas designated as being in attainment of the NAAQS. Facilities located in attainment areas must obtain a permit before any new construction or modification begins. The PSD permit application must include BACT review and selection; a growth-related impact analysis; ambient air quality analysis; and other information relative to preserving air quality.

5-4.4 Provisions For Mobile Sources

5-4.4.1 Aircraft. The CAA authorizes EPA, in consultation with the Secretary of Transportation, to develop emission standards applicable to the emission of any air pollutant from any class or classes of aircraft engines. No State or local air quality region may adopt or attempt to enforce any standard respecting emission of any air pollutant from any aircraft or engine unless such standard is identical to an applicable standard developed by EPA and the Secretary of Transportation. While limited regulation of aircraft engine emissions is possible, current regulations apply only to uninstalled aircraft engines (see 5-4.6.1).

R) **5-4.4.2 Non-road Engines.** Section 213(a) of the CAA directed EPA to conduct a study of emissions from non-road engines and vehicles to determine if their contribution to ozone or CO is significant. Based on this study, completed in November 1991, EPA determined that emissions from non-road engines are significant and began promulgating new non-road engine requirements. EPA has issued standards for spark-ignition non-road engines at or below 19 kilowatts (kW), compression-ignition nonroad engines at or above 37 kW, and gasoline spark-ignition and diesel compression-ignition marine engines.

5-4.4.3 Vehicle Inspection and Maintenance (I/M). Vehicle emissions testing is required in certain nonattainment areas. Federal installations in these areas must demonstrate compliance with State I/M programs for all motor vehicles operated on the installation even if the vehicle is not registered in that state. This requirement applies to all employee, military, contractor and Federally-owned/leased vehicles operated more than 60 days per year on the installation. Military tactical vehicles are exempt from the I/M program.

5-4.4.4 Fuels

a. **Leaded Gasoline.** The CAA prohibits the use of gasoline containing lead or lead additives in motor vehicles. (R

b. **Oxygenated Gasoline.** States that include all or part of an area designated nonattainment for CO and having a design value of 9.5 parts per million (ppm) or higher must include in their SIP a provision for the sale and dispensing of oxygenated gasoline in metropolitan areas within the nonattainment area. This provision is in effect during high CO portions of the year as determined by EPA. EPA may waive the requirement for oxygenated fuel if a State can satisfactorily demonstrate that imposition of such a provision interferes with the attainment of any other NAAQS.

c. **Reformulated Gasoline.** The nine worst ozone nonattainment areas with a 1980 population

greater than 250,000 were required to implement the use of reformulated gasoline beginning in 1995.

Other nonattainment areas may petition to opt-in to the reformulated gasoline program; however, if domestic supplies are found to be inadequate, EPA may delay by up to 3 years the extension of the program into these areas.

d. **Volatility.** To address the substantial release of VOCs into the atmosphere by volatilization of fuel, Federal guidelines limit the volatility of gasoline marketed during the high ozone season in the continental U.S. (CONUS).

R) e. **Diesel Fuel Sulfur Content.** Diesel fuel used in motor vehicles must not exceed a sulfur content of 0.05 percent by weight, or fail to meet a minimum cetane index of 40.

5-4.4.5 Clean Fuel Fleet/Alternative Fuel Vehicles. The CAA's clean-fuel vehicle requirements apply to owners/operators of centrally fueled fleets of 10 or more vehicles located in serious or above O_3 and serious CO nonattainment areas, with a 1980 Census population of 250,000 or more. Beginning with model year 1998, 30 percent of new light-duty fleet vehicle acquisitions must be clean-fuel vehicles; for model year 1999, that percentage increases to 50 percent, while after the year 2000, it must equal at least 70 percent.

The CAA mandates that any Federal facility that dispenses clean alternative fuels to Federal fleet vehicles must offer the fuel for sale to the public during reasonable business hours, subject to national security concerns and the commercial availability of such fuels in the vicinity of the facility.

5-4.5 Additional Requirements for Nonattainment Areas

5-4.5.1 Ozone (O_3)

a. **Marginal Nonattainment Areas.** Areas classified as marginal nonattainment for O_3 must institute the following provisions:

(1) The application of NSR requirements to major NO_X sources.

(2) The completion of an emissions inventory from all sources, to be updated every 3 years.

(3) The application of RACT requirements that were in effect prior to enactment of the CAA.

(4) A construction and operating permit program for new and modified sources.

(5) An emissions statement for stationary sources of VOCs and NO_X.

(6) An offset program that requires each new or modified major source of VOCs or NO_X to be offset by the ratio of 1.1 to 1.

In marginal nonattainment areas, a major source is defined as one which emits, or has the potential to emit, 100 tpy or more of VOCs or NO_X.

b. **Moderate Nonattainment Areas.** In addition to meeting the requirements of marginal areas, moderate nonattainment areas must also:

(1) Show reasonable further progress toward attainment through a 15 percent reduction in VOCs from the baseline by 1996.

(2) Apply RACT to all major stationary VOC and NO_X sources.

(3) Require Stage II vapor recovery systems for all facilities that distribute more than 10,000 gallons of gasoline per month or 50,000 gallons per month for independent small business marketers. Requirements for installation and operation of Stage II controls are effective for new

facilities (built after enactment of the CAA) within 6 months after a rule requiring Stage II controls is adopted in the State where the facility is located; within 1 year after adoption for existing facilities with 100,000 gallons or greater capacity (average monthly sales for 2 years prior to rule adoption date); or within 2 years for all other facilities.

(4) Initiate a basic vehicle I/M program.

(5) Have an offset program requiring each new or modified major source of VOCs or NO_X to be offset by the ratio of 1.15 to 1.

In moderate nonattainment areas, a major source is defined as one which emits, or has the potential to emit, 100 tpy or more of VOCs or NO_X.

c. **Serious Nonattainment Areas.** In addition to meeting the requirements of moderate nonattainment areas, serious nonattainment areas must also:

(1) Operate an enhanced ambient monitoring program for NO_X, O_3, and VOCs.

(2) Demonstrate that required provisions will lead to attainment through the use of computer modeling.

(3) Show reasonable further progress toward attainment through a 15 percent reduction in VOCs from the baseline by 1996, plus an additional 3 percent per year averaged over each consecutive 3 year period until attainment.

(4) Institute an enhanced vehicle I/M program to be enforced through denial of vehicle registration.

(5) Establish a clean-fuel fleet program in those areas having a 1980 census population of 250,000 or more.

(6) Have an offset program requiring each new or modified major source of VOCs or NO_X to be offset by the ratio of at least to 1.2 to 1.

In serious nonattainment areas, a major source is defined as one which emits, or has the potential to emit, 50 tpy or more of VOCs or NO_X.

d. **Severe Nonattainment Areas.** In addition to meeting the requirements of serious nonattainment areas, severe nonattainment areas must also:

(1) Identify and adopt enforceable transportation control measures to offset growth in vehicle miles traveled, and require employers of 100 or more persons to increase average vehicle occupancy by 25 percent.

(2) Have an offset program requiring each new or modified major source of VOCs or NO_X to be offset by the ratio of at least 1.3 to 1.

(3) Submit a plan detailing enforcement provisions to EPA by 31 December 2000.

In severe nonattainment areas, a major source is defined as one which emits, or has the potential to emit, 25 tpy or more of VOCs or NO_X.

e. **Extreme Nonattainment Areas.** In addition to meeting the requirements of severe nonattainment areas, States with extreme nonattainment areas must also:

(1) Have an offset program requiring each new or modified major source of VOCs or NO_X to be offset by the ratio of at least 1.5 to 1. An increase in emissions at a major source is not considered to be a modification subject to the 1.5 to 1 offset requirement if the owner/operator of the source elects to offset the increased emissions by a reduction in emissions from other operations, units, or activities within the source at an internal offset ratio of at least 1.3 to 1. (R

(2) Develop a plan requiring existing, new, or modified electric utility and industrial and commercial boilers emitting more than 25 tpy NO_X, to burn natural gas, methanol, ethanol or other clean fuel as their primary fuel or use advanced technology to control NO_X emissions.

In extreme nonattainment areas, a major source is defined as one which emits, or has the potential to emit, 10 tpy or more of VOCs or NO_X.

5-4.5.2 Carbon Monoxide (CO)

a. **Moderate Nonattainment Areas.** Areas designated moderate nonattainment have a design value between 9.1 and 16.4 ppm. Moderate nonattainment areas must:

(1) Submit an accurate inventory of all emission sources and update the inventory every 3 years until attainment of the NAAQS is achieved.

(2) Provide and update annually a forecast of vehicle miles traveled if the design value is 12.7 ppm or greater.

(3) Institute a vehicle I/M program with requirements equivalent to those for marginal ozone nonattainment areas, except that the program applies to CO. For those areas with a design value greater than 12.7 ppm, the requirements are the same as the enhanced I/M program required of serious ozone nonattainment areas, except that the program applies to CO.

(4) Institute a clean-fuel fleet program as is required in serious or above ozone nonattainment areas if the design value is 16 ppm or greater.

(5) Demonstrate attainment of the CO standard if the design value is greater than 12.7 ppm. Such a demonstration must incorporate specific annual emission reductions necessary to achieve attainment.

(6) Require the use of oxygenated fuel during high CO portions of the year in those areas with a design value of 9.5 ppm or above.

b. **Serious Nonattainment Areas.** Serious nonattainment areas have a design value of 16.5 ppm and above. In addition to all the requirements of moderate CO nonattainment areas with a design value of 12.7 ppm or higher, serious CO nonattainment areas must also:

(1) Require the same transportation control measures that apply to severe ozone nonattainment areas, except that CO is targeted.

(2) Implement an economic incentive program to encourage emissions reductions of 5 percent per year until attainment if compliance with the NAAQS is not attained by the specified attainment date. (R

In those serious nonattainment areas where stationary sources are believed to contribute substantially to ambient CO levels, a major source is any stationary source which emits, or has the potential to emit, 50 tpy of CO.

c. **Multi-State CO Nonattainment Areas.** A multi-State CO area exists if a CO nonattainment area is part of more than one State. In such an interstate situation, the affected States must coordinate the revision and implementation of the CO SIPs as they apply to the affected areas.

5-4.5.3 PM-10. Areas designated as nonattainment for PM-10 are initially classified as moderate nonattainment areas; any area that fails to attain by the specified attainment date is reclassified as serious. In addition, if EPA makes a determination that moderate nonattainment areas are unable to practicably achieve the NAAQS by the specified attainment date, they will be reclassified as serious nonattainment areas.

a. **Moderate Nonattainment Areas.** Areas designated as moderate nonattainment must

achieve attainment as quickly as possible but no later than 6 years after being classified as nonattainment. Extensions of attainment dates are possible if implementation requirements have been met and performance standards have been achieved. Provisions to achieve attainment include:

(1) A construction and operating permit program for new and modified stationary PM-10 sources.

(2) A demonstration (including air quality modeling) that the plan will provide for attainment by the applicable attainment date or a demonstration that attainment by such date is impracticable.

R) (3) The use of reasonably available control measures (RACM), including RACT, within 4 years of an area being classified as moderate nonattainment.

b. **Serious Nonattainment Areas.** In serious nonattainment areas, a major source of PM-10 is defined as one which emits, or has the potential to emit, 70 tons per year of PM-10. All of the requirements that apply to moderate nonattainment areas also apply to serious nonattainment areas. In addition:

(1) BACM must be implemented within 4 years of an area being classified as serious nonattainment.

R) (2) The area must submit a demonstration of attainment (or demonstration of the impracticability of attainment for those areas seeking an extension) within 4 years of designation to serious. However, areas reclassified as serious due to a failure to achieve attainment by the applicable deadline must submit a demonstration proving attainment within 18 months of such reclassification. Provisions outlining the BACM to be employed are also required within 18 months.

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(3) If a serious PM-10 nonattainment area fails to attain the NAAQS by the applicable deadline it must submit a demonstration of attainment that provides for an annual reduction of PM-10 emissions of at least 5 percent in the area, based upon the most recent emissions inventory. All attainment demonstrations must include quantitative milestones that demonstrate how reasonable further progress is to be achieved. Milestones must be achieved every 3 years until attainment is reached.

(4) EPA may waive any requirements for a serious PM-10 nonattainment area if it is determined that man-made sources do not significantly contribute to ambient PM-10 concentrations. Likewise, attainment dates may be waived if it is determined that sources which are not man-made contribute significantly to the violation of the NAAQS.

(5) Control measures for major stationary sources of PM-10 also apply to sources of PM-10 precursors, except where EPA has determined that such sources do not contribute to the elevated PM-10 concentrations observed in an area.

5-4.6 Miscellaneous Provisions

5-4.6.1 Jet Engine Test Cells. The CAA targets emissions from aircraft engine test cells by requiring EPA and the Department of Transportation (DOT), in consultation with DOD, to jointly study NO_X emissions from test cells. Following completion of the study, States may choose to adopt or enforce any standard for NO_X emissions from aircraft engine test cells "only after issuing a public notice stating whether such standards are in accordance with the findings of the study."

5-4.6.2 Federal Implementation Plans (FIPs). Section 110(c) of the CAA requires EPA to issue a FIP where a State has failed to make a required SIP submission, where the SIP submission does not satisfy the minimum criteria, or where a SIP

submission has been disapproved in whole or in part and the State has not corrected the deficiency in a timely manner. Typically EPA disapproves a SIP because it does not contain sufficiently strict requirements to demonstrate attainment. A FIP will generally contain requirements that apply to more types of sources and that control emissions in a more stringent manner than did the SIP.

5-4.6.3 Emission Reduction Credits (ERCs). Sections 110(a)(2)(A) and 172(c)(6) of the CAA authorize States, or their local air quality districts (AQDs), to establish, by regulation, a trading system for ERCs. ERCs are created when equipment that emits pollutants is removed from service or emissions from equipment remaining in service are reduced, provided that the emission reductions would not otherwise be required by the CAA or a current SIP, and the owner applies under the AQD regulations for credit for the reduction. Each ERC constitutes permission from the AQD to emit a stated amount of a specific air pollutant. Following validation by the AQD, ERCs may be transferred by sale, lease or other disposal method, for use by other emission sources within the same air quality district.

5-4.6.4 Exemptions for Certain Territories. Upon petition by the Governor of Guam, American Samoa, the U.S. Virgin Islands, or the Commonwealth of the Northern Marianas Islands, the Administrator of EPA may exempt any person or source in such territory from any CAA requirement other than those provisions concerning hazardous air pollutants or implementation plans for the achievement of the NAAQS. EPA may grant such exemptions based on the finding that compliance is not feasible or is unreasonable due to unique geographical, meteorological, or economic factors.

5-4.6.5 Federal Contractor Restrictions. No Federal agency may enter into a contract with any person convicted of a criminal offense under the CAA. This restriction applies to the procurement of goods, materials, and services to perform such contract at any facility which gave rise to such conviction if such facility is owned, leased, or supervised by such person.

5-4.6.6 Acid Rain. In order to reduce the detrimental environmental effects of acid rain, the CAA mandates large-scale reductions in the emissions of SO_2 and NO_X through an innovative market-based approach aimed at electric utility plants. The goal of Title IV is to reduce SO_2 emissions by 10 million tons past 1980 emission levels and to reduce NO_X emissions by 2 million tons past 1980 levels by the year 2000.

5-4.6.7 Aerospace and Marine Coatings. As required by the CAA, EPA issued NESHAPs and CTGs to control emissions from aerospace manufacturing and rework and shipbuilding and ship repair operations. The rules establish MACT and BACT requirements for aircraft and ship activities such as cleaning, painting, de-painting, maskant application, and waste handling. Generally, installations will achieve the necessary emission reductions through the use of compliant materials or control devices. Other requirements include testing, recordkeeping, and reporting protocols. Implementation of these rules may incur substantial cost and labor impacts. (R

5-4.6.8 Training. Every person who prepares or supervises the preparation of air emissions inventories, air emissions permit requests and air emissions reports must receive environmental overview training as specified in Chapter 24, specific comprehensive training in their assigned subject matter, and must be familiar with the provisions of this chapter. In addition, the CAA requires explicit training in many areas, including:

a. **Chemical Process Safety Management.** The CAA requires the issuance of a chemical process safety standard to protect employees from the dangers associated with accidental releases of highly hazardous chemicals in the workplace. The safety standard requires employers to: train employees in operating procedures; emphasize hazards and safe practices; ensure contractors and

contract employees are provided with appropriate information and training; and train and educate employees and contractors in emergency response in a manner as comprehensive and effective as that required by SARA. The standard and a list of highly hazardous chemicals can be found in reference (b).

R) b. **Solid Waste Incineration.** The CAA requires the training and certification of operators of high capacity (greater than 250 tons per day) solid waste incineration units and high-capacity fossil fuel fired plants. It is unlawful to operate any such unit unless each person with control over processes affecting emissions from the unit has satisfactorily completed a training program which meets EPA requirements.

5-5 Navy Policy

5-5.1 Stationary Sources

A) **5-5.1.1 Title V Permits.** Policy guidance on Navy compliance with the CAA Title V Operating Permits Program is provided in reference (c).

5-5.1.2 Fuel Standards. Navy commands shall comply with Navy and regulatory fuel composition requirements applicable to solid, liquid, and gaseous fuels for stationary fuel-burning equipment.

5-5.2 Mobile Sources

5-5.2.1 Tampering with Emission Controls. Navy personnel shall not permanently remove or render inoperative any device, or element of design, which is installed in a government motor vehicle or engine to comply with air quality regulations.

5-5.2.2 Fuel Standards. Navy commands shall comply with Navy and regulatory requirements for composition of fuels used in motor vehicles. Installations dispensing gasoline shall be equipped to dispense unleaded gasoline. The Navy shall not procure any gasoline-powered vehicle that cannot operate on unleaded gasoline.

5-5.2.3 Vehicle Inspection and Maintenance (I/M). Navy commands shall comply with State and local area vehicle emission I/M program requirements for fleet vehicles and all other vehicles operated on an installation. Commands shall furnish proof of compliance to the appropriate regulatory authority when required. Commands are authorized to develop I/M procedures for their fleet vehicles as a part of normal preventive maintenance programs. (R

5-5.2.4 Introduction of Alternative Fuel Vehicles (AFVs). Per the requirements of EPACT, the Navy shall introduce light-duty AFVs into administrative vehicle fleets. Introduction of AFVs will target fleets within nonattainment areas in order to ensure compliance with CAA requirements which will be effective starting in 1998.

The Navy shall work with other Federal agencies to maintain compatibility and inter-operability of AFVs and refueling sites. The Navy will select implementation sites to minimize cost, maximize inter-Federal cooperative efforts and develop infrastructure.

The Navy prefers original equipment manufacturer AFVs to AFV conversions. Vehicles converted shall meet, as a minimum, California Air Resources Board (or equivalent) certification requirements.

The Assistant Secretary of the Navy (Installations and Environment) has the lead for oversight of Department of the Navy (DON) implementation of AFV programs.

5-5.3 Air Pollution Emergency Episodes. Where required, Navy shore facilities shall have an air pollution emergency episode contingency plan identifying all actions that can reasonably be taken without compromising essential services and mission responsibilities.

R) **5-5.4 Conformity.** The Navy issued draft interim guidance (CNO ltr Ser N457/4U596107 of 26 April 1994, (NOTAL)) for conducting conformity reviews which should be followed until final guidance is available.

R) **5-5.5 Penalty Assessments.** Navy activities should report all assessments of civil or administrative penalties by State or local air districts to the Regional Environmental Coordinator (REC) and refer them up through the claimant's chain of command and the Office of General Counsel chain of command to the Office of the Assistant General Counsel (Installations and Environment) (OAGC(I&E)) for guidance before paying any penalties.

R) **5-5.6 Emission Reduction Credits (ERCs).** ERCs shall be acquired and disposed of under references (d), (e), (f), (g), and (h) as if they were personal property.

a. For bases that are being closed or realigned under the Base Closure and Realignment Act of 1988 (Public Law 100-526) and the Defense Base Closure and Realignment Act of 1990 (Public Law 101-510) process or any subsequent base closure law, ERCs shall be utilized and disposed of per DOD and DON policy.

b. For operating installations, ERCs will be utilized and disposed of in the following manner:

(1) ERCs generated from a change in operations, removal from service of equipment, or any other action that results in emissions reductions may be banked for:

(a) Future use by that same installation

(b) Transfer to another Navy installation within the same AQD or another AQD that will accept transfer of the credits

(c) Transfer to any DOD installation within the same AQD or another AQD that will accept transfer of the credits; or

(d) Transfer to any other Federal agency within the same AQD or another AQD that will accept transfer of the credits.

(2) ERCs may be transferred between military services under 10 U.S.C. Section 2571, with or without compensation.

(3) ERCs determined to be surplus to the Federal government shall be reported for screening and disposal using the existing personal property disposal mechanisms.

Installations requiring ERCs shall either:

(a) Purchase ERCs from other sources; or

(b) Obtain offsets from on-installation sources.

No ERCs may be disposed of or traded to non-Navy facilities unless such action has been coordinated with the appropriate REC.

5-5.6 Airborne Radionuclide Emissions. (R
Reference (a) regulates airborne radionuclide emissions into the environment. Within the Navy, the Naval Nuclear Propulsion Program Directorate is responsible for all aspects of compliance with Subpart I pertaining to nuclear propulsion. The Navy Radiation Safety Committee is responsible for compliance with Subpart I with respect to airborne radionuclide emissions from all other Navy sources under reference (a), Part 61. (D

5-6 Responsibilities

5-6.1 Deputy Chief of Naval Operations (Logistics) or designee shall: (R

a. *Coordinate the overall implementation of* CAA requirements.

b. Coordinate the review of proposed and final CAA regulations.

c. Issue policy and guidance as needed.

d. Coordinate the review of fines and penalties with OAGC(I&E).

5-6.2 Commander, Naval Facilities Engineering Command (COMNAVFACENGCOM) shall:

a. Revise technical documents and manuals to reflect design, operation, monitoring, and testing parameters required by emission and performance standards and permit requirements for shore facilities.

b. Provide technical assistance to shore commands, as requested, to:

(1) Determine permit and variance requirements, obtain data, and complete applications.

(2) Determine and implement requirements for mobile source controls.

c. Develop and provide to activity commanding officers required air applications/permits for preconstruction review/construction of Military Construction (MILCON)-funded air projects and pay related fees from the funds appropriated and budgeted for the projects. Such projects include initial source testing for startup of facilities and initial operating permits.

d. Maintain Navy-wide information on location and physical characteristics of Navy stationary sources, including key features of variances and delay compliance orders (DCOs).

e. Identify compliance requirements for new construction by coordination of all new projects or modifications with appropriate State/local and/or EPA regional offices and the affected facility.

f. Identify appropriate emission offsets, where required for new construction, and prepare and coordinate projects to implement offset requirements.

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g. Provide Navy-wide coordination and technical support for compliance with the CAA Title II requirements applicable to the Navy's vehicle fleets. (A

h. Assist Navy vehicle fleets in I/M testing.

5-6.3 Major claimants and subordinate commands shall:

a. Ensure that activities under their command comply with current Federal, State, interstate, and local air pollution control requirements.

b. Include requests for resources to meet air pollution control requirements in Program Objectives Memorandum (POM)/budget submissions.

5-6.4 Regional Environmental Coordinators shall:

a. Coordinate input and comments on all applicable CAA requirements in their area of responsibility. (R

b. Coordinate ERC trading among Navy facilities.

c. Notify CNO (N45) of any significant or precedent-setting State or local regulatory actions with the potential to impact Navy operations.

d. Perform the functions of Navy air pollution episode coordinator within air quality control regions, or portions thereof, under their jurisdiction. Air pollution episode coordinators

shall ensure that air episode plans and actions are consistent in degree and timing for all Navy activities in the affected episode area and are also as consistent as possible with plans and actions of other Federal activities and State and local air pollution control authorities.

5-6.5 Commanding Officers of shore activities shall:

a. Identify and submit environmental compliance projects, per Chapter 1, required to bring air sources into compliance.

b. Assure CAA general conformity rule requirements are satisfied for all Navy actions on the installation.

c. Sign all permits and compliance statements for operations conducted on the installation unless multi-installation permits are to be signed by a higher authority. Develop specific host/tenant agreements to ensure tenants will comply with all CAA requirements.

d. Sign applications for permits related to demolition, preconstruction, and construction phases of projects unless multi-installation permit applications are to be signed by a higher authority. Develop applications and pay related fees for non-MILCON projects. Similarly, sign applications and pay related fees associated with operating permits and variances to temporarily operate sources out of compliance with emission limitations.

e. Budget sufficient resources to maintain and demonstrate compliance, including all routine air monitoring and scheduled sampling or testing.

f. Notify State and local authorities, to conform with permit requirements, of all instances of noncompliance.

g. Survey emission sources to identify potential reductions.

h. Report potential ERC sources to the REC.

i. Submit, via the chain of command, to CNO (N45) all instances in which compliance with fuel standards is impractical.

j. Maintain current records of physical, operational, and emission characteristics of air sources, including the potential to emit and actual emissions of sources as required by applicable Federal, state and local regulations. (R

k. Ensure the development of air episode plans as required, and provide copies of plans to the REC.

l. Cooperate with the Navy air pollution episode coordinator, EPA, and State and local air pollution control authorities in the execution of air episode plans while in episode areas.

m. Ensure that motor vehicles and other mobile sources comply with applicable emission standards and other requirements.

n. Develop and implement transportation control measures as required by the SIP.

o. Where applicable, furnish to the appropriate regulatory authority proof of compliance with all State and local motor vehicle I/M requirements for all vehicles operated on the installation.

p. Implement and maintain proper adjustments in stationary heating and power plant operations, including those owned/operated by public work centers (PWCs), to reduce total emissions. Substantial fuel savings can also result from proper combustion operations and combustion air monitoring.

q. Ensure personnel are properly trained as required by the CAA.

CHAPTER 6

MANAGEMENT OF OZONE DEPLETING SUBSTANCES

6-1 Scope

This chapter implements Department of Defense (DOD) and Secretary of the Navy (SECNAV) policy concerning the management of ozone depleting substances (ODSs); incorporates the necessary changes to the U.S. Navy ODS Program under the requirements of the Clean Air Act Amendments of 1990, the accelerated production phase-out schedules for Class I ODSs (1 January 1994 for Halons, 31 December 1995 for all other Class I ODSs), and Executive Order (E.O.) 12843 of April 21, 1993 regarding acquisition and ODSs; and details specific restrictions and uses of ODSs within the Navy. OPNAVINST 5090.2A, "Management of Ozone Depleting Substances," dated 14 July 1994, was canceled.

The requirements of this chapter apply to all Navy ships, aircraft, shore activities (including non-appropriated fund activities), and government-owned/contractor-operated (GOCO) facilities worldwide except as follows:

a. **Naval Nuclear Propulsion Program.** E.O. 12344 and Public Law (P.L.) 98-525 (42 U.S.C. 7158, note) establish the responsibilities and authorities of the Director of Naval Nuclear Propulsion Program (CNO (N00N)) in the Office of the Chief of Naval Operations (CNO) (who is also Deputy Commander Nuclear Propulsion Directorate (SEA 08) in the Naval Sea Systems Command) over all facilities and activities that comprise the Program, a joint Department of Energy (DOE)/Navy organization. These responsibilities and authorities include all technical and logistical matters related to naval nuclear propulsion. Nothing in this policy supersedes or changes these responsibilities and authorities. Accordingly, the provisions of this policy do not apply to facilities and activities covered under E.O. 12344 and Pub.L. No. 98-525.

b. **Medical Devices.** This policy does not apply to essential uses of ODSs for medical devices as defined in the Clean Air Act (CAA) section 601(8) and approved for use as specified in CAA section 604(d)(2) and section 605(d)(1) by the Commissioner of the Food and Drug Administration and the Administrator of the Environmental Protection Agency (EPA) for Class I and Class II ODSs.

c. **Small Appliances.** This policy does not apply to small appliances, defined as appliances that do not normally require routine maintenance of the sealed refrigerant system and contain a refrigerant charge of 5 pounds or less. Examples include refrigerators and freezers designed for home use, dehumidifiers, room air conditioners (including window air conditioners), ice makers, vending machines and water coolers at shore activities and installed in surface ships and submarines.

d. **Laboratory and Analytical Uses.** This policy does not apply to essential uses of ODSs in very small quantities for laboratory purposes. As defined in the Technology and Economic Assessment Panel Report of the Montreal Protocol of March 1994 (NOTAL), laboratory purposes include: equipment calibration; use as extraction solvents, diluting agents, or carriers for specific chemical analysis; biochemical research; inert solvents for chemical reactions; and other critical purposes in research and development where substitutes are not readily available or where standards set by national and international agencies require specific use of ODSs.

e. **Base Realignment and Closure (BRAC) Activities.** Section 6-5.9.3 does not apply to BRAC facilities scheduled for closure. Section 6-5.13.1 does not apply to Class I ODSs to be transferred per BRAC procedures.

6-1.1 References. Relevant references are:

a. 40 CFR Part 82, EPA Regulations on the Protection of Stratospheric Ozone;

b. SECNAVINST 5090.5 Management and Elimination of Ozone Depleting Substances; (NOTAL);

c. SECNAV memorandum of 28 May 1993: "Elimination of Class I Ozone Depleting Substances in Department of the Navy Contracts;" (NOTAL);

d. Navy Acquisition Procedures Supplement to the Defense Federal Acquisition Regulation Supplement (DFARS) Subpart 5210.002-71 and Notice 5252.210-9000;

A) e. CNO ltr Ser N451I/7U530491 of 24 Dec 1997 Subj: POLICY ON CONVERSION OF HALON 1301 SYSTEMS

A) f. Navy ODS Advisory 96-01

g. BUMEDINST 6270.8, Procedures for Obtaining Health Hazard Assessments Pertaining to Operational Use of Hazardous Materials; (NOTAL);

h. OPNAVINST 5100.23E, Navy Occupational Safety and Health (NAVOSH) Program Manual; (NOTAL);

6-2 Legislation

6-2.1 Clean Air Act (CAA), as amended. In November of 1990, the United States Congress passed implementing national legislation for stratospheric ozone protection as Title VI of the 1990 Clean Air Act Amendments.

6-2.2 Montreal Protocol on Substances that Deplete the Ozone Layer. The presence of chlorofluorocarbons (CFCs), halons, other chlorinated hydrocarbons (carbon tetrachloride, methyl chloroform), hydrochlorofluorocarbons (HCFCs), etc., in the stratosphere is linked to the depletion of the earth's ozone layer that protects life and vegetation from damaging ultraviolet light. These materials are collectively referred to as ODSs. In response to the threat ODSs present to the environment, more than 125 nations, including the United States, have signed an international agreement, known as the Montreal Protocol, limiting ODS production. In 1990, due to increasing evidence of continued harm to the ozone layer, the Protocol was amended to provide for the eventual elimination of most ODSs. In November 1992, in a meeting in Copenhagen, parties to the Montreal Protocol agreed to accelerate the production phase-out schedules of CFCs to 31 December 1995 and halons to 1 January 1994.

6-2.3 DOD Authorization Act of 1993 (Pub.L. 102-484). The DOD authorization of funds for 1993 that restricts the purchase of Class I ODSs. The law requires that no class I ODS contracts can be issued without a Technical Certification provided by an authorized technical representative (ATR) and the approval of a senior acquisition official (SAO).

6-3 Terms and Definitions

6-3.1 Mission Critical Application. Uses of ODSs as determined by CNO and defined in paragraph 6-5.7.1.

6-3.2 Ozone Depleting Substances (ODSs). Any chemical listed as a Class I or Class II substance as defined by the CAA. Tables 6.1 and 6.2 list Class I and Class II ODSs. Class I ODSs most prevalent in Navy applications include CFC-11, CFC-12, CFC-113, CFC-114, Halon 1211, Halon 1301, methyl chloroform (1,1,1 trichloroethane), and carbon tetrachloride. Class II ODSs most prevalent in Navy applications include HCFC-22,

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CLASS I CHEMICAL AGENTS		ODP[1]
Group I (CFC - chlorofluorocarbon)		
CFC-11	Trichlorofluoromethane	1.0
CFC-12	Dichlorodifluoromethane	1.0
CFC-113	Trichlorotrifluoroethane	0.8
CFC-114	Dichlorotetrafluoroethane	1.0
CFC-115	Monochloropentafluoroethane	0.6
CFC-500[2]	Dichlorodifluoromethane-difluoroethane	0.738
CFC-502[3]	Monochlorodifluoromethane-monochloropentafluoroethane	0.307
Group II		
Halon-1211	Bromochlorodifluoromethane	3.0
Halon-1301	Bromotrifluoromethane	10.0
Halon-2402	Dibromotetrafluoroethane	6.0
Group III (CFC - chlorofluorocarbon)		
CFC-13	Chlorotrifluoromethane	1.0
CFC-111	Pentachlorofluoroethane	1.0
CFC-112	Tetrachlorodifluoroethane	1.0
CFC-211	Heptachlorofluoropropane	1.0
CFC-212	Hexachlorodifluoropropane	1.0
CFC-213	Pentachlorotrifluoropropane	1.0
CFC-214	Tetrachlorotetrafluoropropane	1.0
CFC-215	Trichloropentafluoropropane	1.0
CFC-216	Dichlorohexafluoropropane	1.0
CFC-217	Monochloroheptafluoropropane	1.0
CFC-503[4]	Trifluoromethane-trichlorotrifluoroethane	0.599
Group IV		
Carbon Tetrachloride	Tetrachloromethane	1.1
Group V		
Methyl Chloroform	1,1,1-Trichloroethane	0.1
Group VI		
Methyl Bromide	Bromomethane	0.7

Table 6.1

CLASS I CHEMICAL AGENTS	ODP[1]
Group VII	
$CHFBr_2$	1.0
CHF_2Br (HBFC-22B1)	0.74
CH_2FBr	0.73
C_2HFBr_4	0.3-0.8
$C_2HF_2Br_3$	0.5-1.8
$C_2HF_3Br_2$	0.4-1.6
C_2HF_4Br	0.7-1.2
$C_2H_2FBr_3$	0.1-1.1
$C_2H_2F_2Br_2$	0.2-1.5
$C_2H_2F_3Br$	0.7-1.6
$C_2H_3FBr_2$	0.1-1.7
$C_2H_3F_2Br$	0.2-1.1
C_2H_4FBr	0.07-0.1
C_3HFBr_6	0.3-1.5
$C_3HF_2Br_5$	0.2-1.9
$C_3HF_3Br_4$	0.3-1.8
$C_3HF_4Br_3$	0.5-2.2
$C_3HF_5Br_2$	0.9-2.0
C_3HF_6Br	0.7-3.3
$C_3H_2FBr_5$	0.1-1.9
$C_3H_2F_2Br_4$	0.2-2.1
$C_3H_2F_3Br_3$	0.2-5.6
$C_3H_2F_4Br_2$	0.3-7.5
$C_3H_2F_5Br$	0.9-1.4
$C_3H_3FBr_4$	0.08-1.9
$C_3H_3F_2Br_3$	0.1-3.1
$C_3H_3F_3Br_2$	0.1-2.5
$C_3H_3F_4Br$	0.3-4.4
$C_3H_4FBr_3$	0.03-0.3
$C_3H_4F_2Br_2$	0.1-1.0
$C_3H_4F_3Br$	0.07-0.8
$C_3H_5FBr_2$	0.04-0.4
$C_3H_5F_2Br$	0.07-0.8
C_3H_6FB	0.02-0.7

NOTE:
1. Ozone Depletion Potential as stated in Section 602 of the CAA.
2. Azeotropic mixture of CFC-12 and Hydrofluorocarbon (HFC) 152a.
3. Azeotropic mixture of CFC-115 and HFC-22.
4. Azeotropic mixture of CFC-113 and HFC-23.

Table 6.1 Continued

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CLASS II CHEMICAL AGENTS (HCFC - hydrochlorofluorocarbon)		ODP[1]
HCFC-21	Dichlorofluoromethane	
HCFC-22	Monochlorodifluoromethane	0.05
HCFC-31	Monochlorofluoromethane	
HCFC-121	Tetrachlorofluoroethane	
HCFC-122	Trichlorodifluoroethane	
HCFC-123	Dichlorotrifluoroethane	0.02
HCFC-124	Monochlorotetrafluoroethane	0.02
HCFC-131	Trichlorofluoroethane	
HCFC-132	Dichlorodifluoroethane	
HCFC-133	Monochlorotrifluoroethane	
HCFC-141(b)	Dichlorofluoroethane	0.1
HCFC-142(b)	Monochlorodifluoroethane	0.06
HCFC-221	Hexachlorofluoropropane	
HCFC-222	Pentachlorodifluoropropane	
HCFC-223	Tetrachlorotrifluoropropane	
HCFC-224	Trichlorotetrafluoropropane	
HCFC-225	Dichloropentafluoropropane	
HCFC-226	Monochlorohexafluoropropane	
HCFC-231	Pentachlorofluoropropane	
HCFC-232	Tetrachlorodifluoropropane	
HCFC-233	Trichlorotrifluoropropane	
HCFC-234	Dichlorotetrafluoropropane	
HCFC-235	Monochloropentafluoropropane	
HCFC-241	Tetrachlorofluoropropane	
HCFC-242	Trichlorodifluoropropane	
HCFC-243	Dichlorotrifluoropropane	
HCFC-244	Monochlorotetrafluoropropane	
HCFC-251	Trichlorofluoropropane	
HCFC-252	Dichlorodifluoropropane	
HCFC-253	Monochlorotrifluoropropane	
HCFC-261	Dichlorofluoropropane	
HCFC-262	Monochlorodifluoropropane	
HCFC-271	Monochlorofluoropropane	

NOTE:
1. Ozone Depletion Potential as stated in Section 602 of the CAA.

Table 6.2

HCFC-123, and HCFC-141b. CFCs and HCFCs are commonly referred to as Freons.

6-3.3 ODS Reserve. Supply of selected Class I ODSs to support mission critical applications as defined in paragraph 6-5.7.1. The DOD ODS Reserve is located at Defense Supply Center, Richmond, Virginia (DSC,R)

6-3.4 Reclaiming. The process of returning a used or contaminated ODS to near original specifications, by means which may include distillation. A reclaimer must perform chemical analysis of the ODS to determine that the appropriate product specifications are met.

6-3.5 Recovery. The removal and containment (or capture) of any ODS in any condition from a system without testing or processing.

6-3.6 Recycling. The reduction of contaminants in a used ODS by oil separation and single or multiple passes through devices that reduce moisture, acidity, and particulate matter.

6-4 Requirements

6-4.1 General. The following legislative requirements apply to shore facilities. Refer to chapter 19 for shipboard requirements.

a. Production of CFCs, carbon tetrachloride, methyl chloroform was prohibited as of 31 December 1995; production of halons was prohibited as of 1 January 1994.

b. Only technicians trained and certified per the requirements of reference (a) who use approved recovery and recycling equipment may repair or service motor vehicle air conditioners.

c. Only technicians trained and certified per the requirements of reference (a) who use approved recovery and recycling equipment may repair, service, maintain or dispose of appliances and industrial process refrigeration and air conditioning.

d. Only technicians trained regarding halon emissions reduction as specified by reference (a) may test, maintain, service, repair or dispose of halon-containing equipment. (A

e. It is unlawful to knowingly release any Class I or Class II ODS refrigerant or halon into the atmosphere during the service, repair, or disposal of appliances, industrial process refrigeration and air conditioning equipment and halon-containing equipment.

f. Activities must reduce the use and emissions of ODSs to the lowest achievable level.

g. Activities must meet labeling requirements for ODSs.

h. Owners or operators of appliances normally containing more than 50 pounds of refrigerant must monitor leakage rates and repair leaks as specified by reference (a). This requirement does not apply to military unique equipment as defined in reference (a) and chapter 19.

i. Owners/operators of air conditioning and refrigeration equipment, owners of recovery and recycling equipment, disposers, technician certification programs, equipment certification programs, wholesalers, and reclaimers must meet recordkeeping requirements as specified in reference (a).

6-5 Navy Policy

6-5.1 General. In recent years, the Navy has been involved in research and development of alternative substances and systems, and recovery and recycling equipment that decrease the Navy's dependence on ODSs. Due to the large quantities of ODSs used and the numerous applications of these ODSs, Navy personnel should carefully evaluate each situation to determine the proper

course of action needed to phase out ODS usage. In all military applications, such as fire protection and shipboard chilled water air conditioning and refrigeration systems, it is essential to recycle, conserve, and properly manage these ODSs to ensure adequate availability of ODSs until suitable alternatives can be tested, qualified, and implemented. It is important that the Navy continue to reduce the use of ODSs and eliminate emissions for compliance with the requirements of the CAA.

To satisfy these objectives, this chapter provides policy on ODS procurement, recovery, use, recycling, material management, emission, substitution, and research, development, testing and evaluation.

6-5.2 Acquisition. Acquisition of ODSs shall be per the DOD Authorization Act of 1993; E.O. 12843 of April 21, 1993; reference (b); reference (c); reference (d); all implementing procurement regulations; and the requirements of this instruction. Class I ODSs for mission critical applications shall be procured from the ODS Reserve per section 6-5.8 and not by contracting action.

6-5.3 ODS Inventory Reporting. Activities shall submit ODS inventory data to claimants on an annual basis. The report should provide information as of 1 January of the calendar year in which it is submitted. Claimants shall validate the data and submit a consolidated annual report for their activities to CNO (N45) no later than 1 April for calendar years 1997-2001.

Appendix O provides detailed descriptions and formats for data call responses. CNO (N45) will use the data to validate funding requirements and measure Navy progress in eliminating use of ODSs.

6-5.4 Procurement of Recycled or Reclaimed ODSs. If ODS procurement is necessary, Navy activities shall procure recycled or reclaimed ODSs whenever possible.

6-5.5 Conservation Practices. Activities shall implement conservation practices to the extent practical for all ODS applications, including performing regular system leak checks, improving supply management, and recycling and reclaiming Class I and Class II ODSs.

6-5.6 Review of Navy Practices. Activities shall review and modify all operational, training and testing practices to reduce and eliminate emissions of ODSs to the maximum extent possible.

6-5.7 Mission Critical Applications. The use of Class I ODSs shall continue for mission critical applications so as to not jeopardize or degrade the safety or operational requirements of the Navy.

6-5.7.1 Navy mission critical applications are:

a. CFC-11, CFC-12, CFC-114, and CFC-500 used in ship chilled water air conditioning, ships stores and cargo refrigeration, and aircraft environmental control systems. CFCs used in shore-based training applications where weapon system equipment is stationed at a shore facility responsible for training of personnel in the handling, operation, and maintenance of that equipment.

b. Halon 1211 used in flight line fire protection and ship and shore-based crash, fire, and rescue vehicles. Limited use of Halon 1211 for landing craft, air cushion (LCAC).

c. Halon 1301 used in shipboard room flooding applications and aircraft explosion suppression and fire protection.

d. CFC-113 used in support of oxygen system cleaning and gyroscope cleaning applications.

e. Shore-based heating, ventilation, air conditioning and refrigeration (HVAC&R)

equipment and fire protection systems as approved by CNO (N45).

Activities shall continue to use ODSs for mission critical applications until such time as the cognizant System Command develops and approves, and Echelon 2 Commands implement the use of safe alternative substances or systems. Navy Advisory 95-01 provides additional guidance.

6-5.8 Use of ODS Reserve

6-5.8.1 General. CNO (N45) shall control access to the ODS Reserve. The ODS Reserve shall be used only to support mission critical applications as described in paragraph 6-5.7 when no alternative is available or when interim support is required during retrofit or implementation of alternatives. Requisition of ODS Reserve material for non-mission critical applications is not authorized. CNO (N45) shall control access to the Reserve with an authorized users' list. Defense Logistics Agency (DLA) established procedures for deposits to and requisitions from the Reserve. Navy distributes these procedures in reference (f). CNO (N45), Commander, Naval Sea Systems Command (COMNAVSEASYSCOM), Commander, Naval Air Systems Command (COMNAVAIRSYSCOM) and Commander, Military Sealift Command (COMSC) shall monitor requisitions. Activities shall submit requests for waivers to this policy to CNO (N45) via the chain of command as described in paragraph 6-5.14.

6-5.8.2 Activities shall not requisition ODSs from the Reserve for non-mission critical applications such as shore-based HVAC&R equipment, or shore-based fire protection systems except as approved by CNO (N45) in paragraph 6-5.14.

6-5.9 Non-mission Critical Applications

6-5.9.1 New Equipment. All shore-based, non-mission critical HVAC&R equipment for which procurement was initiated after 14 July 1994 shall use an EPA Significant New Alternatives Policy (SNAP) Program-approved refrigerant with an ozone depletion potential (ODP) of 0.05 or less and an ODP of zero when possible. HVAC&R equipment using SNAP Program-approved refrigerants with ODP values of 0.05 or less, but greater than zero, are allowed when the use of refrigerants with ODP of zero prevents compliance with the energy efficiency requirements of 10 CFR 435.108 and E.O. 12902 for the procurement of HVAC&R equipment, results in higher life cycle cost, or does not meet other performance criteria (size, reliability/maintenance, logistics, etc.) New HVAC&R equipment (both mission critical and non-mission critical) may not contain Class II substances if the expected life cycle of the equipment extends 5 years beyond the production phaseout date of the specific Class II substance used. (For example: activities may not procure new HCFC-22 equipment with life cycles extending beyond 2025.) Installation of shore-based Halon 1301 fire protection systems and procurement of non-mission critical portable halon fire extinguishers is prohibited. (R

6-5.9.2 Acquisition. Per the DOD Authorization Act of 1993, no Class I ODS contracts may be issued without a Technical Certification and the approval of a SAO.

a. The cognizant command shall designate an authorized technical representative who will conduct a technical review and certify that there are no suitable substitutes available.

b. A flag officer or member of the Senior Executive Service (SES) designated by the requiring command to be the SAO for the procurement shall approve the contract following the Technical Certification. The SAO is the person who actually authorizes the purchase and should be in the chain of command of the activity that owns the equipment or facility requiring the use

of a Class I ODS. Upon signing the approval, the SAO shall report the procurement to the Assistant Secretary of the Navy, (Research, Development and Acquisition) (ASN (RD&A)) through the appropriate Echelon 2 Command.

R) **6-5.9.3 ODS Conversion Plan.** CNO (N45) has issued revised guidance that eliminates the deadline for removal of shore facility Halon 1301 systems, formerly contained in this instruction. Unless waived by CNO, OPNAVINST 5090.1B previously required the removal of Halon 1301 systems at Navy shore facilities no later than 31 December 2000. The new policy, contained in reference (e), states:

"The Navy ODS program is focused on making decisions that ensure operational readiness and minimize environmental impacts during the production phase-outs of Ozone-Depleting Substances (ODS). Halon 1301 in non-mission critical, shore-based installed systems is not released to the atmosphere unless there is a catastrophic failure or a fire."

Since removal of installed systems can sometimes lead to the unintentional and unnecessary release of Halon to the atmosphere, in some cases it may be desirable to leave an installed Halon system in place. However, should a discharge occur as a result of a fire or accident, in no case will the system be refilled with Halon 1301.

Many facility spaces that are currently protected with Halon 1301 can be adequately protected with existing water sprinkler systems. If an accidental discharge or fire should occur in this situation, there will be no need to replace the Halon 1301 in the system or to replace the system with an alternative agent.

Some facility spaces currently protected by Halon 1301 cannot be adequately protected with water sprinkler systems alone. If an accidental discharge or fire should occur in one of these spaces, the system should not be refilled with Halon 1301. It should be retrofitted or replaced with an alternative agent.

Facilities with existing systems that are discharged in the event of a fire or accidentally shall follow guidelines in the NAVFAC ODS Conversion Guide to determine if water sprinklers provide adequate protection or if retrofit with an alternative agent is required.

All excess Halon should continue to be recovered and returned to the DOD ODS Reserve in accordance with OPNAVINST 5090.1B and using procedures contained in reference (f).

ODS conversion plans shall be referred to or incorporated in facility pollution prevention plans as described in section 3-5.4. CNO (N45) will not fund execution of ODS conversion plans for Defense Working Capital Fund/Navy Working Capital Fund (DWCF/NWCF)-funded equipment. (R

Plans should contain at a minimum:

a. Inventory of Class I ODS equipment/applications.

b. Description of alternatives that will be implemented.

c. Schedule for conversion/replacement.

d. Estimated costs for plan implementation.

e. Plans for recovery/recycling/reuse of existing stocks of ODSs to support shore-based equipment during plan execution.

f. Plans for leak monitoring.

g. Plan for supporting training requirements.

6-5.9.4 Shore-based HVAC&R Equipment

6-5.9.4.1 Applicability. The requirements of paragraph 6-5.9.3 apply to HVAC&R equipment in the following categories:

a. Refrigeration equipment with more than 5 pounds of refrigerant installed (i.e., all refrigeration equipment that is not a small, hermetically sealed appliance).

b. Air conditioning equipment with more than 5 tons cooling capacity (60,000 BTU).

The requirements of paragraph 6-5.9.3 do not apply to motor vehicle air conditioners.

6-5.9.4.2 Recovered Refrigerant. Activities shall recover, recycle, and reuse serviceable refrigerant from replacements and conversions. Refrigerant recovered and recycled may be stored and used locally in order to service existing Class I ODS AC&R equipment. Activities shall manage this supply and deposit it in the Navy portion of the ODS Reserve per paragraph 6-5.8.1 when it is no longer needed to support local applications.

6-5.9.5 Shore-Based Halon 1301 Systems

6-5.9.5.1 General. The requirements of paragraph 6-5.9.3 apply to all non-mission critical installed Halon 1301 systems.

6-5.9.5.2 Recovered Halon 1301. Activities shall recover and deposit excess Halon 1301 in the Navy portion of the ODS Reserve per paragraph 6-5.8.1.

6-5.9.6 Portable Halon Fire Extinguishers. As of 1 January 1996, activities were required to remove and locally redistribute all non-mission critical halon portable fire extinguishers to support mission critical requirements or turn them in to the Navy portion of the ODS Reserve per paragraph 6-5.8.1.

6-5.9.7 ODS Solvents. Class I ODS solvents were phased out of production on 31 December 1995. Existing supplies are limited. If an activity identifies a Class I ODS solvent application for which it does not know of an alternative, the activity shall consult with the cognizant engineering authority. If no alternative has been identified, the activity shall forward this information via the chain of command to its cognizant Echelon 2 command. Mission critical solvent applications as described in paragraph 6-5.7.1 with no identified alternatives shall be supported by the ODS Reserve until alternatives are implemented. New supplies of material should not be procured.

6-5.9.7.1 Existing Supplies of ODS Solvents. Existing stocks of ODS solvents may be used to provide interim support during the transition to non-ODS alternatives. Activities shall turn in unopened containers of Class I ODS solvents that are not required for interim support to the ODS Reserve per paragraph 6-5.8.1.

6-5.9.8 Shipboard Galley Equipment. Class I ODS refrigerants used in shipboard galley equipment were phased out of production on 31 December 1995. Existing supplies are limited. Ships shall replace existing equipment with new units through attrition per paragraph 6-5.9.9 and NAVSEA catalog S6161-Q5-CAT-010. CNO (N45) authorized ships to use material from the ODS Reserve per paragraph 6-5.8.1 to support galley equipment until the year 2005. After that date, ships shall meet any remaining material requirements through local sources per paragraph 6-5.9.2.

6-5.9.9 Alternative Selection

6-5.9.9.1 Criteria. Navy activities shall select alternatives that are EPA SNAP-approved with an ODP of zero when possible, except as noted in paragraph 6-5.9.1. If no EPA SNAP-approved alternative with an ODP of zero exists, activities shall adopt alternatives with an ODP of 0.05 or less. Alternatives shall meet performance requirements and be commercially available.

6-5.9.9.2 Health and Safety issues. Activities shall contact their local industrial hygienist or occupational safety and health personnel to ensure proper identification of occupational safety and health hazards associated with ODS alternatives. Activities shall ensure recommended health and safety hazard control measures are properly in place prior to implementing alternatives. Reference (g) details specific procedures for obtaining health hazard assessments pertaining to operational use of hazardous materials.

D)

6-5.10 Refrigerants Handling

6-5.10.1 Maintenance. Navy personnel, in the course of maintaining, servicing, repairing, or disposing of any equipment (including small appliances) or systems containing Class I or Class II ODSs, shall not knowingly vent or otherwise knowingly release any ODS in a manner which permits the substance to enter the environment. These restrictions do not apply to *de minimis* releases associated with good faith attempts to recapture and recycle or safely dispose of Class I and Class II ODSs.

6-5.10.2 Refrigerant Recovery

a. Activities shall use EPA-approved refrigerant recovery equipment for all commercial off-the-shelf equipment. For military-unique systems, recovery equipment shall be designed, to the extent practical, to achieve performance comparable to that required of commercial equipment by the EPA. In shipboard operations, personnel shall recover ODSs prior to performing maintenance on air conditioning and refrigeratio R) tems per paragraph 19-4.2.2.f.

b. New and converted HVAC&R equipment shall include refrigerant isolation valves and service apertures to facilitate recovery and recycling procedures per CAA rulemaking requirements.

c. Per reference (a), activities owning recycling and recovery equipment shall certify to the appropriate EPA regional office that they have acquired such equipment and that they are complying with CAA section 608 requirements.

6-5.10.3 Refrigerant Technician Certification. All Navy military and civilian refrigerant technicians shall be certified per reference (a). Training priority should be granted to technicians servicing equipment within the U.S., then to technicians overseas. Technicians may require additional State or local certifications if they are more stringent than Federal certification. Technician certification requirements do not apply to foreign nationals working on U.S. Navy equipment overseas.

6-5.10.4 Motor Vehicle Technician Certification. All Navy military and civilian motor vehicle technicians performing service and repair on motor vehicle air conditioners shall be certified as specified by reference (a). Certification requirements do not apply to foreign nationals working on U.S. Navy vehicles overseas.

6-5.10.5 Refrigerants as Hazardous Material. ODS refrigerants are considered hazardous material (HM) and are subject to the requirements of this chapter as well as to the CAA and reference (h). However, used Class I and Class II ODS refrigerants that are recycled for future use are not considered hazardous waste under Federal laws. Where they are more restrictive, however, State and local ODS regulations apply.

6-5.11 Intentional Releases of Halon. Navy personnel shall not intentionally release halon during the service, maintenance, repair, or disposal of any firefighting equipment. Technicians who test, maintain, service, repair or dispose of halon-containing equipment shall be trained regarding halon emissions reduction as specified by reference (a).

6-5.12 Emerging Technology/Alternatives. Navy activities having any information regarding new emerging technologies and alternatives for the elimination of ODSs should contact their claimant or COMNAVSEASYSCOM for incorporation into the Navy CFC/Halon Clearinghouse. In addition, activities may request information on ODS alternatives by contacting the clearinghouse through COMNAVSEASYSCOM.

6-5.13 Disposal of ODSs

6-5.13.1 Sale of ODSs. No Navy activity shall sell or otherwise transfer any Class I ODS outside the Navy without written permission from the CNO (N4). Contract specifications and contractual actions shall not include the transfer of Class I ODSs to contractors. Activities shall deposit excess Class I ODSs into the Navy portion of the DOD ODS Reserve per paragraph 6-5.8.1.

6-5.13.2 Turn-in of Equipment to Defense Reutilization and Marketing Service (DRMS). Activities transferring HVAC&R equipment to DRMS for reuse shall label the equipment to indicate that it contains an ODS. Activities transferring HVAC&R equipment to DRMS for disposal as scrap shall recover the ODS prior to disposal. Activities are not required to recover ODSs from HVAC&R equipment classified as small appliances by paragraph 6-1c prior to transfer of equipment to DRMS for reuse or disposal.

6-5.14 Waivers. Requests for waivers to the provisions of this chapter shall be submitted to CNO (N45) via the chain of command. For such waivers, an activity must demonstrate that the application of the requirements of this chapter is impractical or results in the expenditure of resources that are not commensurate with the resultant reduction in the potential for unintentional release of ODSs to the environment. Statutory requirements shall not be waived.

6-5.14.1 Content. At a minimum, waiver requests should contain the following:

a. ODS involved

b. Number of units affected

c. Quantity of ODS involved

d. Associated costs

e. Statement of environmental impact (i.e., annual leakage, average annual discharge of material, etc.)

f. Safety and occupational health impact

g. Operational impact

h. Plan for meeting requirement

i. Additional information as appropriate.

6-5.14.2 Review and Approval Process. CNO (N45) will review waivers on a case-by-case basis and provide responses by letter via the chain of command. All approved waivers will be granted for a finite time period.

6-6 Responsibilities

6-6.1 The Chief of Naval Operations (CNO N45) shall: (R

a. Annually review, in conjunction with the Directors of Warfare Divisions (CNO (N85, N86, N87 N88)) and Director of Test & Evaluation and Technology Requirements (CNO (N091)), the adequacy of ODS programs and resources.

b. Review all requests for waivers to the requirements of this chapter and forward recommendations to the Assistant Secretary of the Navy (Installations & Environment) (ASN (I&E)).

c. Review and approve requests for additions, deletions, or changes to the authorized users list for the ODS Reserve.

d. Compile claimant data on ODS Reserve requirements and identify any shortfalls.

e. Review annual ODS inventory data submitted by claimants.

f. Coordinate activities of Echelon 2 commands to ensure an orderly transition from ODSs to suitable alternatives.

6-6.2 All major claimants and subordinate commands shall:

a. Implement the policies and procedures of this chapter and ensure their activities correctly follow the annual reporting requirements outlined in this chapter. Annually submit ODS inventory data for their activities no later than 1 April.

b. Identify funding in their Program Objectives Memorandum (POM) process for elimination, recycling, and substitution of ODSs. Coordinate research and development (R&D) requirements with CNO (N45) to avoid redundant efforts. Coordinate all funding requirements with CNO (N45) and forward directly to the appropriate resource sponsor. Funding requirements shall include funds necessary for activities to meet all ODS-related requirements as described in Baseline Assessment Memorandum (BAM) Cookbook categories.

c. Ensure activities execute funds to meet deadlines for elimination of ODS equipment as described in section 6-5.9.

d. Revise preventive and corrective maintenance procedures, for which they are the cognizant activity, to incorporate the use of ODS recovery and recycling units.

e. Revise military specifications and manuals, for which they are the cognizant activity, to reduce or eliminate references to the use of ODSs.

f. Participate in ODS consortiums, conferences, and technology transfer to ensure the Navy's interests are identified and satisfied.

g. Submit an annual report by letter to CNO (N45) no later than 1 January on the status of elimination of ODSs in specifications and standards for which the Echelon 2 command is the cognizant authority. The report shall include:

(1) The total number of specifications and standards containing ODSs for which they have cognizant authority since November 1994,

(2) The number of specifications and standards which reference an ODS that were revised to remove the reference to ODSs during this period,

(3) The total number of specifications and standards which reference an ODS that were revised to remove the reference to ODSs since November 1994, and

(4) Any impediments to removing ODSs from specifications or standards and actions taken to resolve impediments.

Echelon 2 commands not holding cognizant authority over any specifications or standards shall submit a one-time negative report.

h. Review all requests from subordinate activities for waivers to the requirements of this chapter and forward recommendations to CNO (N45).

6-6.3 COMNAVSEASYSCOM shall:

a. Serve as the lead technical Echelon 2 command to ensure that all Navy-wide common interests and concerns are addressed.

b. Maintain the Navy CFC/Halon Clearinghouse for use by all Navy activities.

c. Manage the conversion of Navy shipboard HVAC&R systems.

d. Monitor the drawdown of the Navy's reserve of ODSs and, if the actual rate of drawdown varies from predicted rates, develop corrective actions, fully coordinate them with the appropriate Echelon 2 commands, and provide recommended corrective actions to CNO (N45).

e. Establish and maintain a single Navy ODS Advisory System that will provide consistent guidance to the Fleets and field activities.

f. In coordination with the Fleets, evaluate on an annual basis the ODS Reserve requirements for cognizant mission-critical applications of ODSs and submit any changes to CNO (N45).

g. Revise procurement guidance for shipboard galley equipment to include only equipment that meets the requirements of paragraph 6-5.9.9.

h. Ensure miscellaneous NAVSEASYSCOM-owned equipment and systems that use ODSs have material support plans or are converted or replaced to use non-ODS materials.

i. Ensure COMNAVSEASYSCOM field activities meet requirements for elimination of ODS equipment.

6-6.4 Commander, Naval Supply System Command (COMNAVSUPSYSCOM) shall

a. Serve as the Navy liaison with DLA on matters pertaining to the establishment, maintenance, operation, and funding, as appropriate, of the ODS Reserve.

b. Revise, as necessary, acquisition instructions and guidance to include additional ODSs as they are regulated by the EPA.

c. Assist Echelon 2 commands with the ODS recycling and reclamation program.

d. Incorporate refrigerant and halon recovery and recycling equipment and appropriate spare parts into the Navy supply system as soon as possible after contract award and notification by other Echelon 2 commands.

e. Provide monthly reports of ODS requisitions as compiled by Navy Inventory Control Point, Mechanicsburg (NAVICP-M) to COMNAVSEASYSCOM for incorporation into the ODS Reserve monitoring system.

6-6.5 Commander, Naval Facilities Engineering Command (COMNAVFACENGCOM) shall

a. Develop, and revise as necessary, guidance for shore activities on ODS alternatives for air conditioning and fire protection systems.

b. Develop a sample scope of work for analyzing shore-based HVAC&R equipment and providing recommendations to commanding officers on the most cost-effective manner of replacing, converting, or retrofitting existing HVAC&R systems.

c. Prepare plans for the replacement, conversion, or retrofitting of existing HVAC&R systems at shore activities as requested.

d. Provide technical support to activities in the development of ODS conversion plans.

6-6.6 Chief, Bureau of Medicine and Surgery (BUMED) shall provide workplace hazard evaluations and health risk assessments for ODS substitutes which are proposed for use in industrial operations and Navy-unique working environments, as requested by other Echelon 2 commands. Reference (g) provides guidance regarding procedures for requesting health hazard assessments.

6-6.7 Chief of Naval Education and Training (CNET) shall

a. Develop alternate training procedures using safe alternatives to ODSs where consistent with operational requirements without degradation of mission effectiveness.

b. Incorporate ODS issues into hazardous material control and management training as well as enlisted Class A and Class C schools and officer training courses, as appropriate.

c. Incorporate EPA-required training on the proper use of ODS recovery and recycling equipment into HVAC&R technician curriculums.

d. Ensure that training in the proper use of ODS recovery and recycling equipment is incorporated into the Environmental and Natural Resources Training System Plan.

e. Ensure all graduates of CNET courses that teach maintenance on systems containing ODSs are Federally certified per reference (a) as a condition for graduation.

6-6.8 COMNAVAIRSYSCOM shall:

a. Monitor the drawdown of the COMNAVAIRSYSCOM portion of the ODS Reserve and develop any required corrective actions in cooperation with CNO (N45), COMNAVSEASYSCOM, Commander Military Sealift Command (CMSC), and the Fleets.

b. In coordination with the Fleets, evaluate on an annual basis the ODS Reserve requirements for cognizant mission-critical applications of ODSs and submit any changes to CNO (N45).

c. Identify and address ODS program, technical, and supportability issues related to naval aviation and coordinate solutions with appropriate aircraft program managers, Echelon 2 commands and CNO (N45).

6-6.9 COMSC shall:

a. Monitor the drawdown of the MSC portion of the ODS Reserve and develop any required corrective actions in cooperation with CNO (N45), COMNAVSEASYSCOM, COMNAVAIRSYSCOM, and the Fleets.

b. In coordination with other Echelon 2 commands as appropriate, evaluate on an annual basis the ODS Reserve requirements for cognizant mission critical applications of ODSs and submit any changes to CNO (N45).

c. Identify and address ODS program, technical, and supportability issues related to COMSC operations and coordinate solutions with appropriate Echelon 2 commands and CNO (N45).

d. Revise procurement guidance for shipboard galley equipment to include only equipment that meets the requirements of paragraph 6-5.9.9.

e. Manage the conversion of shipboard HVAC&R systems on COMSC vessels.

f. Ensure miscellaneous MSC-managed equipment and systems that use ODSs have material support plans or are converted or replaced to use non-ODS materials.

6-6.10 Fleet Commanders in Chief (CINCs) shall:

a. Coordinate with COMNAVSEASYSCOM, COMNAVAIRSYSCOM, and COMSC, as appropriate, to manage equipment and weapon system conversion programs and schedules.

b. In coordination with CNO (N45), COMNAVSEASYSCOM, COMNAVAIRSYSCOM, and COMSC, monitor the drawdown of the ODS Reserve and develop any required corrective actions.

c. In coordination with COMNAVAIRSYSCOM, COMNAVSEASYSCOM, and COMSC, as appropriate, evaluate on an annual basis the ODS Reserve requirements for cognizant mission critical applications of ODSs.

d. Develop and execute plans to meet Navy performance goals for shipboard AC&R equipment leakage rates as described in paragraph 19-4.2.2.e.

e. Ensure Type Commanders manage existing funds to replace shipboard galley equipment as described in paragraph 6-5.9.8.

6-6.11 Commanding officers ashore and afloat shall:

a. Implement appropriate ODS procurement guidance as established by COMNAVSUPSYSCOM, COMNAVFACENGCOM, and other Echelon 2 commands. Establish requisition procedures to ensure ODS Reserve material is used only for prescribed mission critical applications.

b. Ensure that ODSs are included in the HM authorized use list.

c. Establish practices and procedures internally to reduce emissions of ODSs as much as possible.

d. Provide resources (tuition, travel, per diem, etc.) for training refrigerant and halon technicians on ODS emission reduction and recovery and recycling equipment and ensure compliance with applicable technician certification requirements. (R

e. Submit requests for waivers to any of the mandatory provisions of this policy via the chain of command to CNO (N45). Statutory requirements may not be waived.

6-6.11.1 Commanding officers ashore shall: (D

a. Annually submit ODS inventory data to claimants as described in paragraph 6-5.3.

b. Ensure ODS conversion plans were approved and submitted to claimants for review and funding in the POM cycle by 31 December 1996.

CHAPTER 7

CLEAN WATER ASHORE

7-1 Scope

7-1.1 This chapter identifies requirements and responsibilities for the control and prevention of surface and ground water pollution at Navy shore facilities within the United States, Commonwealth of Puerto Rico, Canal Zone, Virgin Islands, Commonwealth of the Northern Marianas Islands, Guam, America Samoa, and the Trust Territory of the Pacific Islands. Information on Navy activities in foreign countries is provided in Chapter 18.

7-1.2 Specific requirements for management and protection of drinking water supplies are provided in Chapter 8. Requirements for oil pollution prevention ashore are provided in Chapter 9. Navy response actions for spills of oil or hazardous substances (OHS) in navigable waters are provided in Chapter 10. Pollution prevention requirements related to vessels are provided in Chapter 19.

7-1.3 References. Relevant references are:

a. 33 CFR 1, General Provisions, U.S. Coast Guard, Department of Transportation;

b. 33 CFR 80-82, COLREGS, Interpretive Rules;

c. 40 CFR 104, EPA Regulations on Public Hearings on Effluent Standards for Toxic Pollutants;

d. 40 CFR 109, EPA Regulations on Criteria for State, Local, and Regional Oil Removal Contingency Plans;

e. 40 CFR 110, EPA Regulations on Discharge of Oil;

f. 40 CFR 112, EPA Regulations on Oil Pollution Prevention;

g. 40 CFR 113, EPA Regulations on Liability Limits for Small Onshore Oil Storage Facilities;

h. 40 CFR 122, EPA National Pollutant Discharge Elimination System Permit Regulations;

i. 40 CFR 123, State Program Requirements;

j. 40 CFR 125, EPA Regulations on Criteria and Standards for the National Pollutant Discharge Elimination System;

k. 40 CFR 129, EPA Toxic Pollutant Effluent Standards;

l. 40 CFR 130, EPA Requirements for Water Quality Planning and Management;

m. 40 CFR 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants;

n. 40 CFR 144, EPA Permit Regulations for the Underground Injection Control Program;

o. 40 CFR 230, EPA Interim Regulations on Discharge of Dredged or Fill Material into Navigable Waters;

p. 40 CFR 231, Section 404(c) Procedures, EPA Regulations on Disposal Site Determination Under the Clean Water Act;

q. 40 CFR 403, General Pretreatment Regulations for Existing and New Sources of Pollution;

r. 40 CFR 501, State Sludge Management Program Regulations;

s. DoD Directive 4120.14 of 30 August 1977, Environmental Pollution Prevention, Control and Abatement (NOTAL).

7-2 Legislation

7-2.1 Coastal Zone Management Act (CZMA). Administered by the Department of Commerce, the CZMA provides grants for development and management programs designed to achieve wise use of the land and water resources of the coastal zone. State CZMA programs include point and non-point source pollution control, flood control, sediment control, grading control, and storm water runoff control. Under the CZMA, Federal actions that affect any land or water use or natural resource of the coastal zone must be consistent to the maximum extent practicable with the State program.

7-2.2 Federal Water Pollution Control Act as amended by the Clean Water Act of 1977 (CWA). The purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. The CWA regulates the discharge of pollutants from point sources into waters of the United States. The CWA, as amended in 1987, requires each State to establish water quality standards for its surface waters derived from the amount of pollutants that can be assimilated by a body of water without deterioration of a designated use. The CWA limits any discharge of pollutants to a level sufficient to assure compliance with State water quality standards. Direct discharges of effluents are regulated under numerical limitations contained in National Pollutant Discharge Elimination System (NPDES) permits issued by the EPA or under State NPDES programs approved by EPA. Indirect industrial discharges of effluent to publicly-owned treatment works (POTWs) are subject to pretreatment standards promulgated by EPA.

The CWA prohibits spills, leaks or other discharges of oil or hazardous substances into waters of the United States in quantities that may be harmful. The Oil Pollution Act of 1990 (OPA 90) amended the CWA to expand oil spill prevention activities, improve preparedness and response capabilities, and ensure that companies are responsible for damages from spills. The CWA also requires a permit for the discharge of dredged or fill materials into waters of the United States.

7-2.3 Marine Protection, Research and Sanctuaries Act (MPRSA) (Ocean Dumping Act). The MPRSA requires the protection of contiguous zone waters from sewage sludge discharges and direct dumping, and through an ocean dumping permit program, provides procedures for the intentional disposal and/or abandonment of material into ocean waters.

7-2.4 Rivers and Harbors Act of 1899 (RHA). The RHA regulates the disposal of refuse and debris into the rivers and harbors of the U.S. and makes it illegal to create any obstruction to navigable waters without the approval of the Army Corps of Engineers (COE). The EPA, COE, and States regulate dredge and fill operations and dredge fill material disposal. EPA establishes criteria and guidelines to protect the nation's waters from contamination by dredged or fill material. The COE, and some States, administers permit programs for dredge and fill operations in waterways and wetlands, and for construction activities in navigable waters.

7-2.5 Safe Drinking Water Act (SDWA). The SDWA requires EPA to set national primary drinking water standards and provides for the direct control of underground injection of fluids that could potentially affect groundwater supplies. States usually assume the predominant role in executing groundwater protection programs. The EPA has direct responsibility only if a State chooses not to participate in the underground injection control program.

7-2.6 Water Resources and Development

Act of 1992. This act requires the conservation and development of water and related resources. Title V (National Contaminated Sediment Assessment and Management Act) requires the establishment of a National Contaminated Sediment Task Force to: (1) conduct a comprehensive U.S. aquatic sediment quality survey; (2) develop an aquatic sediment criteria; (3) examine restoration methods; and (4) assess long-term disposal sites of dredged material not suitable for ocean dumping. Title V also amends the Marine Protection, Research and Sanctuaries Act of 1972 regarding ocean dumping, permitting, and penalties.

7-3 Terms and Definitions

7-3.1 Aquatic Sediment. Sediment underlying the navigable waters of the United States.

7-3.2 Contiguous Zone. The belt of high seas, 9 nautical miles wide, that is adjacent to and seaward of the territorial seas of the United States and was declared to exist in Department of State Public Notice 358 of June 1, 1972, 37 FR 11906.

7-3.3 Discharge. Includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying or dumping of any pollutant, but excludes certain cases under CWA Section 402.

7-3.4 Discharge of a Pollutant. As defined in reference (h), the discharge of a pollutant is:

a. Any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source," or

b. Any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation.

This definition includes additions of pollutants into waters of the United States from: surface runoff which is collected or channelled by man; discharges through pipes, sewers, or other conveyances owned by a State, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works. This term does not include an addition of pollutants by any "indirect discharger."

7-3.5 Dredge and Fill Operations. Dredge and fill operations encompass construction or other work involving excavation or discharge of dredged or fill material in waters of the U.S.

7-3.6 Federally Owned Treatment Works (FOTWs). A treatment works (as defined in Section 212 of the CWA) owned and operated by the Federal government. This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to the FOTW. FOTWs that discharge treated effluent directly to waters of the U.S. are "treatment works." FOTWs that discharge pretreated effluent to another treatment works for final treatment and ultimate discharge to waters of the U.S. are "pretreatment works" (FOPTW).

7-3.7 Internal Waters and Inland Water.

a. "Internal waters" and, except as provided in paragraph (b) of this section, "inland waters" mean:

(1) With respect to the U.S., the waters shoreward of the territorial sea baseline.

(2) With respect to any foreign country, the waters shoreward of the baseline of its territorial sea, as recognized by the U.S.

b. "Inland waters," as used in the CWA, means the waters shoreward of the lines described in reference (b), except the Great Lakes

and their connecting and tributary waters as far east as Montreal, the waters of the Mississippi River between its source and Huey P. Long Bridge and all of its tributaries emptying thereinto and their tributaries, that part of the Atchafalaya River above its junction with the Plaquemine-Morgan City alternate waterway, and the Red River of the North.

7-3.8 National Pollutant Discharge Elimination System (NPDES). A national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits and imposing and enforcing pretreatment requirements, under Sections 307, 402, 318, and 405 of the CWA. The term includes an "approved program," per reference (h) definition. NPDES programs are either EPA or State programs. State programs must be approved and authorized by EPA under reference (i).

7-3.9 Navigable Waters of the United States (Navigable Waters, Territorial Waters)

a. Except as provided in paragraph 7-3.16(b) of this section, "navigable waters of the United States," " navigable waters," and "territorial waters" are defined to include, except where Congress has designated them not to be navigable waters of the U.S., the following:

(1) Territorial seas of the U.S.

(2) Internal waters of the U.S. that are subject to tidal influence

(3) Other waters over which the Federal government may exercise constitutional authority; and

(4) Internal waters of the U.S. not subject to tidal influence that:

(a) Are or have been used, or are or have been susceptible for use, by themselves or in connection with other waters, as highways for substantial interstate or foreign commerce, notwithstanding natural or man-made obstructions that require portage, or

(b) A governmental or non-governmental body, having expertise in waterway improvement, determines to be capable of improvement at a reasonable cost (a favorable balance between cost and need) to provide, by themselves or in connection with other waters, highways for substantial interstate or foreign commerce.

7-3.10 Navy Owned Treatment Works (NOTW). A treatment works as defined in Section 212 of the CWA, which is owned by a DON activity. This definition includes any devices and systems used in the storage, treatment, recycling and reclamation of sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to the NOTW. NOTWs that discharge treated effluent directly to waters of the U.S. are "treatment works." NOTWs that discharge pretreated effluent to another treatment works for final treatment and ultimate discharge to waters of the U.S. are "pretreatment works" (NOPTW).

7-3.11 Non-point Source Discharges. Non-point source discharges are any discharges to waters of the U.S. that are not point source discharges, under reference (h).

7-3.12 Operator Certification. A program where a manager or operator is required by a State to complete necessary training and/or operational requirements to obtain a license or certificate to operate or manage a wastewater treatment facility. The requirements for certification vary with the State in which the wastewater treatment facility is located.

7-3.13 Point source. Point source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal

feeding operation, landfill leachate collection system, vessel, or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff.

7-3.14 Pollutant. Includes dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, sewage sludge, munitions, chemical wastes, biological material, radioactive materials (other than those regulated as source, by-product, or special nuclear material (SNM) under the Atomic Energy Act of 1954, as amended), heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water.

7-3.15 Pretreatment. As defined in reference (q), pretreatment means the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a Publicly Owned Treatment Works (POTW).

7-3.16 Territorial Seas of the United States

a. With respect to the U.S., "territorial seas" means the waters within the belt, 3 nautical miles wide, that is adjacent to its coast and seaward of the territorial sea baseline.

b. With respect to any foreign country, "territorial seas" means the waters within the belt that are adjacent to its coast and whose breadth and baseline are recognized by the United States.

7-3.17 Territorial Sea Baseline. This is the delimitation of the shoreward extent of the territorial seas of the United States drawn according to the Convention on the Territorial Sea and the Contiguous Zone, 15 U.S.T. 1606, as recognized by the United States. Charts depicting the territorial sea baseline are available for examination per reference (a).

7-3.18 Toxic Pollutant. As defined in reference (h), a toxic pollutant is any pollutant listed as toxic under Section 307(a)(1) or, in the case of "sludge use or disposal practices," any pollutant identified in regulations implementing Section 405(d) of the CWA.

7-3.19 Treatment Works. Any domestic or industrial wastewater treatment devices or systems, regardless of ownership (including Federal facilities, such as FOTWs and NOTWs), used in the storage, treatment, recycling, and reclamation of domestic and industrial wastewater (including land dedicated for the disposal of associated sludge).

7-3.20 Treatment Works Treating Domestic Sewage. As defined in reference (h), this is a POTW or any other sewage sludge or wastewater treatment device or system, regardless of ownership (including Federal facilities), used in the storage, treatment, recycling, and reclamation of municipal or domestic sewage, including land dedicated for the disposal of sewage sludge. This definition does not include septic tanks or similar devices. For purposes of this definition, "domestic sewage" includes waste and wastewater from humans or household operations that are discharged to or otherwise enter a treatment works. In States where there is no approved State sludge management program under Section 405(f) of the CWA, the Regional Administrator may designate any person subject to the standards for sewage sludge use and disposal in reference (r) as a "treatment works treating domestic sewage," where he or she finds that there is a potential for adverse effects on public health and environment from poor sludge quality or poor sludge handling, use or disposal practices, or where he or she finds that such designation is necessary to ensure that such person is in compliance with reference (r).

7-4 Requirements

7-4.1 General

a. As required by EO 12088 and the CWA, Navy facilities will comply with all substantive and procedural requirements applicable to point and non-point sources of pollution. These requirements include Federal, State, interstate, and local laws and regulations respecting the control and abatement of water pollution. Navy facilities must comply in the same manner and to the same extent as any nongovernmental entity, including the payment of reasonable service charges.

b. The discharge of any pollutant that does not comply with effluent standards or other procedural requirements is unlawful. The discharge of radiological, chemical or biological warfare agents or low level radioactive waste is prohibited.

7-4.2 Point Source Control

a. **Discharge Permits.** Permits are required for all point source discharges to waters of the U.S. Discharges must comply with all terms or conditions of EPA, State, or locally issued permits. For all discharge points in States that have an EPA approved NPDES program for Federal facilities, permits must be requested from the applicable State environmental agency. For all discharge points in States that do not have authority to issue NPDES permits for Federal facilities, permits must be requested from EPA. If the State has a non-NPDES clean water permit program, permits must be obtained from both the State and EPA. All monitoring records must be retained as required by Federal, State or local regulations.

b. **Industrial Wastewater Treatment/Pretreatment.** Industrial wastewater discharges from Navy facilities to POTWs are subject to national categorical pretreatment standards, or other applicable standards as established by State, county or local regulations.

c. **Discharges to NOTWs and POTWs.** Discharges to NOTWs and POTWs will meet all applicable general and categorical pretreatment standards.

d. **Storm Water Discharges.** Storm water discharges must meet all applicable Federal, State or local permit requirements, including control requirements for toxic and nonconventional pollutants, and best conventional technology (BCT) limits for conventional pollutants.

e. **Hazardous Pollutant Discharges.** HW may be introduced into a treatment facility only if the facility is specifically permitted to treat the type of waste introduced under a Resource Conservation and Recovery Act (RCRA) Treatment, Storage and Disposal (TSD) permit, or a "permit by rule."

f. **Sludge Disposal.** Discharge, treatment or incineration of treatment plant sludge must meet other applicable Federal, State and local requirements such as SWDA, RCRA, Clean Air Act (CAA), etc.

g. **Waste Disposal Sites.** Surface water runoff and leachate from waste disposal sites will conform to applicable requirements specified for disposal of solid waste (Chapter 14) or HW (Chapter 12).

7-4.3 Groundwater Protection. Discharges to groundwater must meet applicable requirements of the SDWA, the CWA, and State and local implementing requirements, and applicable permit conditions.

7-4.4 Dredge and Fill Operations

a. **Permits.** Applications must be made to the COE for a permit to construct a structure in, or to otherwise alter or modify, navigable waters or wetlands. An application must also be submitted to the COE for dredge operations, including maintenance dredging. An application must be submitted to the COE for dredge disposal unless the disposal is permitted under a nationwide permit. Applicants are also required to

obtain State certification that such actions comply with applicable State effluent limitations, water quality implementation plans, toxic effluent limitations, fish and wildlife protection plans, etc. State certifications may either be done as a part of the COE permit process, or independently if no COE permit is required because of a nationwide permit. Projects covered by a nationwide permit require COE notification even though no permit application is required. Field sampling may be required to select proposed dredge disposal sites. Other surveys, including site monitoring may be required at disposal sites before, during, and after disposal.

b. **Permit Exemptions.** Projects for which an environmental impact statement (EIS) has been written and submitted to Congress, and that have specific congressional authorization do not require COE or State permits.

Projects covered by a nationwide general permit require COE notification, but do not require individual permits. However, on a case-by-case basis, some additional individual requirements may be applied by COE or States.

c. **Discharges of Dredged or Fill Material.** Discharges of dredged or fill material into waters under COE jurisdiction will comply with Federal regulations. Disposal by ocean dumping requires a COE permit and compliance with EPA requirements (Chapter 21).

Discharges to waters under the jurisdiction of States will comply with applicable permits and discharge regulations, including State fee schedules.

Disposal site selection may entail field sampling and analyses. Elutriate and/or bioassay testing may be required to determine if the proposed dredged materials should be classed as polluted or unpolluted. Other surveys, including site monitoring, may be required at disposal sites before, during, and after disposal.

7-4.5 In-water Construction. The COE and some States require a permit for any in-water construction. Facilities proposing in-water construction will obtain applicable permits prior to award of construction contracts, and comply with all permit conditions.

7-4.6 Non-point Source Control. Non-point source discharges must conform to best practicable management procedures defined by Federal, State or local requirements established under Section 208 of the CWA.

7-5 Navy Policy

7-5.1 *Point Source Reduction.*

a. Navy policy shall be to reduce or eliminate wastewater treatment requirements by elimination or reduction of volume and pollutants at the source.

b. NOTWs discharging to U.S. waters shall apply for and operate under Federal and/or State discharge permits and shall achieve secondary treatment and other effluent limitations as prescribed by discharge permits.

Navy owned Industrial Waste Treatment Plants (IWTPs) and other industrial processes discharging to U.S. waters, either directly or indirectly through a POTW, shall comply with the applicable best practicable control technology (BPCT) or best available technology (BAT) standards and any other effluent limitations prescribed by discharge permits. Such sources, although in compliance with a discharge permit at the time of issuance based on existing standards, are not automatically in compliance with the new standards. Where compliance dates are not established for new standards by permit renegotiation, affected sources shall comply with applicable standards within 1 to 3 years, or as specified by EPA or the State at the time of permit issuance.

c. Operators of Navy collection systems and treatment plants shall meet applicable train-

ing and certification requirements of the State, county, city or regional regulatory authority in which the system or plant is located.

d. Discharges to POTWs and NOTWs shall meet all general and applicable categorical pretreatment standards. NOTWs shall develop, implement, maintain and enforce pretreatment programs for all known dischargers to the NOTW.

7-5.2 Dredge and Fill Operations. Navy activities proposing to undertake any action requiring COE permitting shall apply to the COE District Engineer in the district where the proposed action is to be performed.

a. Permits for maintenance dredging shall include a permit expiration date that in no event will extend more than 10 years from the issue date. Requests for renewal from COE shall be filed with the cognizant District Engineer at least 2 years before expiration.

b. Early planning for dredge spoil disposal site selection, preparation, and use is essential. An Environmental Assessment (EA) shall be prepared by the sponsoring Navy activity and reviewed under Chapter 2 for each MILCON project involving a change to the width or depth of a channel or other water body.

c. Existing dredge spoil disposal sites, approved by COE, shall be used wherever possible. Proposed new dredge spoil disposal sites shall be identified to the cognizant COE District Engineer for evaluation and approval from 2 to 2 1/2 years before project initiation.

7-5.3 In-water Construction. Navy activities shall ensure compliance with appropriate Federal, State, and local regulations.

7-5.4 Stormwater Management (Non-point Source Control). A major contributor to surface water quality impairment is stormwater discharges. Significant sources of stormwater discharges include urban (facility) runoff, industrial activity, and construction. To address these environmental risks, Congress established a two-phased stormwater program under the CWA. Phase 1 applies to municipal storm sewer systems serving a population over 100,000, as well as stormwater discharges associated with industrial activity. Phase 2 covers all stormwater discharges that are not included in Phase 1. Stormwater discharges, covered by these provisions of the Act, are regulated as part of specific NPDES permits or under general group permits. Navy policy requires commands to ensure that all activities comply with stormwater management and pollution prevention requirements, as stipulated in permits under which the activities are covered.

7-5.5 Water Conservation. Navy commands shall ensure that all activities implement water conservation programs. These programs shall use existing or innovative technologies to reclaim, recycle and reuse wastewater to the maximum extent feasible, taking into account economic payback, process requirements and the scarcity of water resources available to the primary water supplier for the activity.

7-5.6 Training

a. Every person involved in operations at naval shore facilities which could result in pollution of surface or groundwater shall have received environmental overview training specified in Chapter 24 of this instruction, will receive specific comprehensive training in water pollution prevention required by the CWA and implementing regulations, and will be familiar with the provisions of this chapter.

b. COMNAVFACENGCOM and Engineering Field Division (EFD) environmental professionals, Navy regional environmental coordinators (RECs), shore activity technical and legal environmental staff and their managers shall have received environmental overview training specified in Chapter 24 of this instruc-

tion, and shall have received introductory or executive overview training in water pollution prevention and coastal zone management.

Wastewater treatment plant operators shall have received environmental awareness training specified in Chapter 24 of this instruction, and shall have received training and certification required by applicable State and local water quality regulations. Where State and/or local regulations do not specify training, the following subjects shall be included in their training plan:

(1) Basic wastewater plant design

(2) Wastewater plant operations

(3) Basic maintenance/calibration of plant controls and equipment

(4) Wastewater treatment principles

(5) Wastewater sampling and analysis

(6) Wastewater plant/systems documentation and reporting requirements.

7-6 Responsibilities

7-6.1 COMNAVFACENGCOM shall:

a. Prepare permit applications for construction and initial operation of MILCON funded projects and pay-related fees from the funds appropriated and budgeted for the projects. Provide permit applications to activity commanding officer (CO) for submittal to applicable regulatory agency.

b. Assist commands, as requested, in preparing permit applications for in-water construction, new dredging, dredge disposal, maintenance dredging, etc.

c. Assist commands, as requested, in identifying applicable effluent standards and appropriate control technologies and best management practices, and in developing storm water management plans and industrial wastewater management plans.

d. Coordinate the review of all projects for the construction of new treatment works with the appropriate Federal, State, and local regulatory agencies.

e. Maintain liaison with COE to facilitate dredge and fill project planning, preparation of EAs/EISs, and disposal site approval.

7-6.2 Major claimants shall:

a. Implement the CWA program requirements at their shore facilities.

b. Plan, program, budget and provide funding for current and future requirements under the CWA and revisions to the applicable regulations.

7-6.3 Commanding officers (CO) of shore activities shall:

a. Comply with the applicable substantive and procedural Federal, State, local and regional clean water laws and regulations and with the conditions in dredge, disposal, construction, and discharge permit conditions.

b. Cooperate with Federal, State, local, and regional environmental regulatory officials.

c. Prepare or review and sign, or designate in writing the appropriate person to sign, all applications for permits to construct wastewater treatment plants, for in-water construction, for all new dredging, maintenance dredging, and dredge disposal operations, and shall obtain, renew, and pay for all new and recurring permits.

d. Operate and maintain NOTWs to assure continuing compliance with applicable Federal, State, and local regulations and permit conditions.

e. Coordinate Clean Water issues and permits with COMNAVFACENGCOM EFDs and Engineering Field Activities (EFAs), with major claimants, and with RECs.

f. Integrate Clean Water requirements into all applicable levels of activity management through the application of program management procedures including oversight, inspection, and training, and by requesting and committing sufficient resources to assure compliance with applicable Clean Water standards.

g. Ensure, if CO of host activity that owns, operates or uses sewage and wastewater collection and/or treatment systems, applications for applicable Federal, State, and/or local permits are filed, and ensure compliance with all permit conditions.

h. COs and officers in charge (OICs) of Tenant Activities shall comply with the policies of this manual and with written sewage and wastewater collection and treatment requirements established by the host CO.

i. Identify and submit environmental compliance projects, per Chapter 1, required to bring wastewater sources into compliance with applicable requirements.

j. Improve opportunities to recycle and reclaim and reuse wastewater and sludge.

k. Develop, implement, and maintain current storm water management plans, and comply with Federal, State, and local regulations and permit conditions, as applicable.

l. Ensure environmental personnel are properly trained (and certified as applicable).

CHAPTER 8

SAFE DRINKING WATER ACT COMPLIANCE ASHORE

8-1 Scope

R) **8-1.1** This chapter identifies requirements, establishes policy, and assigns responsibilities for the protection and conservation of drinking water supplies at shore installations in the United States, Commonwealth of Puerto Rico, U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas Islands. Chapter 18 provides Navy policy with respect to foreign countries.

D)

8-1.2 References.

a. 40 CFR 141, National Primary Drinking Water Regulations;

b. 40 CFR 142, National Primary Drinking Water Regulations Implementation;

c. 40 CFR 143, National Secondary Drinking Water Regulations;

d. 40 CFR 144, Underground Injection Control (UIC) Program;

e. 40 CFR 146, UIC Program: Criteria and Standards;

f. Executive Order (E.O.) 12902, "Energy Efficiency and Water Conservation at Federal Facilities", March 8, 1994;

g. Naval Facilities Engineering Service Center: Naval Water Conservation Guide for Shore Activities, User's Guide UG-2017-E&U, (July 1996);

A) h. MIL-HDBK-1165, Water Conservation, (7 Apr 1997);

i. American Water Works Association Manual of Standard Practices, Emergency Planning for Water Utility Management, AWWA M19 Second Edition 1984; (A

j. U.S. Environmental Protection Agency: Pocket Sampling Guide for Operators of Small Water Systems: Phase I, EPA/814-B-92-001 (April 1992); (A

k. U.S. Environmental Protection Agency: Pocket Sampling Guide for Operators of Small Water Systems: Phase II and V, EPA/814-B-94-001 (July 1994); (A

l. Naval Facilities Engineering Service Center: Cross-Connection Control and Backflow Prevention Program Implementation at Navy Shore Facilities, User's Guide UG-2029-ENV (May 1998); (A

m. U.S. Environmental Protection Agency, Office of Drinking Water: Guidance Manual for Compliance with the Filtration and Disinfection Requirements for PWSs Using Surface Water Sources, EPA570/9-89-018 (October 1989); (A

n. NAVMED P-5010-5, Manual of Naval Preventive Medicine, chapter 5, Water Supply Ashore (Rev 1990) and NAVMED P-5010-5 CH1 (1992); (A

o. BUMEDINST 6240.10, Standard for Potable Water; (A

p. Naval Facilities Engineering Service Center: Consecutive Water System Guidance Document for Navy Shore Installations, Users' Guide UG-2034-ENV (January 1999); (A

A) q. U.S. Environmental Protection Agency: Lead in Drinking Water in Schools and Non-Residential Buildings, EPA/812-B-94-002 (April 1994);

A) r. Naval Facilities Engineering Command: Guidance for Sampling Water Coolers (May 1998);

A) s. *MIL-HDBK-1005/7, Water Supply* Systems (30 November 1988);

A) t. U.S. Environmental Protection Agency: State Source Water Assessment and Protection Programs Guidance, EPA/816-R-97-009 (August 1997);

A) u. U.S. Environmental Protection Agency Region III: Public Information Bulletin, UIC Class V Injection Wells, EPA/813-F-94-005 (July 1994);

A) v. OPNAVINST 11000.16A, Command Responsibility for Shore Activity Land and Facilities;

A) w. American Water Works Association Standards A100-90 through F102-91;

A) x. MIL-HDBK-1164, Maintenance and Operation of Water Supply Systems (3 Mar 1998);

A) y. U.S. EPA/State Joint Guidance on Sanitary Surveys (December 1995).

8-2 Legislation

R) **8-2.1 Safe Drinking Water Act (SDWA).** An amendment to the Public Health Service Act, the Safe Drinking Water Act (SDWA or "the Act") Federalized the regulation of drinking water systems. Among other things, the Act requires the U.S. Environmental Protection Agency (EPA) to set national standards for levels of contaminants in drinking water and created a program for the regulation of underground injection wells. The SDWA applies to "PWSs" (see definition at section 8-3.15) and requires EPA to identify contaminants in drinking water that may have an adverse effect on human health. There are set standards for the following groups of contaminants:

a. Inorganics.

b. Organics.

c. Turbidity.

d. Total coliforms.

e. Radionuclides.

For each contaminant so identified, EPA es- (R
tablishes either a "maximum contaminant level" (MCL) or a treatment technique. Where feasible, this MCL or treatment technique has been used to establish the National Primary Drinking Water Standards (NPDWS) for the contaminant. Once issued, NPDWS are mandatory for all PWSs. The Act also requires EPA to identify "maximum contaminant level goals" (MCLGs), which are non-enforceable goals for contaminants that may have an adverse effect on human health and are known or anticipated to occur in PWSs. An MCLG may be more protective of human health than a health-based maximum contaminant level (MCL) because the MCLG is established without consideration to the feasibility of meeting it. The goal of the Safe Drinking Water Act is to move towards implementing these MCLGs when possible. Finally, for contaminants that may cause the drinking water to become aesthetically unpleasing, thus creating a situation where consumers may seek alternative sources of water that may not be safe, the Act requires EPA to specify the maximum contaminant level requisite to protect the public welfare. These contaminants are regulated under the National Secondary Drinking Water Standard (NSDWS). Even though they are not Federally enforceable, the NSDWS may apply to any contaminant that adversely affects the odor

or appearance of drinking water or may otherwise adversely affect the public welfare.

R) The SDWA provides for State implementation. Upon application to EPA, if a State has drinking water standards "no less stringent" than the Federal standards, "adequate" enforcement procedures, and variance and exemption conditions "no less stringent" than the Federal conditions, then the Federal Government grants the State primary enforcement authority. Today most of the States have such authority. This is significant because, under the SDWA, Federal facilities are subject to applicable State and local laws and regulations.

A) As a general principle, installations that purchase water from private or municipal utilities and do not treat or resell the water are not subject to the requirements of reference (a). However, an installation that purchases water and either provides supplemental treatment, such as rechlorination, fluoridation, or softening (corrosion control), or resells the water, may be subject to the Act and implementing regulations. See section 8-5.13 for the Navy's definition of reselling water.

A) The SDWA requires each State to have an Underground Injection Control Program (UICP) to ensure that underground injection does not endanger underground sources of drinking water. All groundwater injection systems must be permitted or authorized by rule.

A) References (a) through (e) describe EPA regulations for implementing the SDWA.

A) **8-2.2 Executive Order (E.O.) 12902.** E.O. 12902 (reference (f)) of 8 March 1994 directs Federal facilities to assess and implement measures to improve the efficiency of Federal energy and water use. While no specific targets are set for reductions in water use, water conservation measures are required where they are cost-effective.

References (g) and (h) provide valuable information with regard to the development of a water conservation program. They recommend metering as an effective means of accounting for facilities water uses, an essential task to developing a water conservation plan and one that renders water conservation planning more credible.

8-3 Terms and Definitions

8-3.1 Action Level. The concentration of (R
lead or copper in water that, in some cases, determines the treatment requirements for a given water system. Under the Lead and Copper Rule, action levels have replaced lead and copper *maximum contaminant levels.*

8-3.2 Community Water System (CWS). A (A
PWS that serves at least 15 service connections used by year-round residents, or regularly serves at least 25 year-round residents.

8-3.3 Consecutive Water System. A PWS (A
which has no water production or source facility of its own and which obtains all of its water from another water system.

8-3.4 Consumer. Any person served by a (A
PWS. Human consumption includes drinking, bathing, showering, cooking, dishwashing, and maintaining oral hygiene.

8-3.5 Customer. Any single-family resi- (A
dence, or other residential or nonresidential population, supplied water by a PWS and billed separately for the water supply.

8-3.6 Disinfectant. Any oxidant including, (R
but not limited to, chlorine, chlorine dioxide, chloramines, and ozone added to any part of the treatment or distribution process for the purpose of killing or inactivating pathogenic microorganisms.

(D

8-3.7 Injection Well. A "well" into which (R
fluids are being injected.

8-3.8 Lead Service Line. A service line made of lead that connects the water main to the building inlet and any lead pigtail, gooseneck, or other fitting that is connected to such lead line.

8-3.9 Maximum Contaminant Level (MCL). The maximum permissible level of a contaminant in water that is delivered to any user of a PWS.

8-3.10 Maximum Contaminant Level Goal (MCLG). The maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur and that allows an adequate margin of safety. Maximum contaminant level goals are non-enforceable health goals.

A) **8-3.11 Non-Transient, Non-Community Water System (NTNCWS).** A PWS that is not a community water system and that regularly serves at least 25 of the same persons over 6 months per year.

A) **8-3.12 Permitted PWS.** A water system that meets the definition of section 8-3.15 and has been issued a permit or other formal authorization to operate a PWS from the regulatory authority with SDWA primacy for its State.

8-3.13 Point-Of-Entry (POE) Treatment Device. A treatment device applied to the drinking water entering a house or building for the purpose of reducing contaminants in the drinking water distributed throughout the house or building.

8-3.14 Point-Of-Use Treatment Device. A treatment device applied to a single tap for the purpose of reducing contaminants in drinking water at that one tap.

8-3.15 Public Water System (PWS). A system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least 15 service connections or regularly serves at least 25 individuals. Such term includes:

a. any collection, treatment, storage and distribution facilities under control of the operator of such system and used primarily in connection with such system, and

b. any collection or pretreatment storage facilities not under such control, used primarily in connection with such system.

The definition of a PWS is based on the population served by the system, not by the type of ownership. Navy-operated systems providing water to 25 or more personnel, or serving greater than 15 service connections as described above, are classified as a PWS.

A PWS is either a "community water system" or a "non-community water system." There are two kinds of non-community water system: transient and non-transient.

8-3.16 Sanitary Survey. An on-site review of the water sources, facilities, equipment, operation and maintenance of a PWS for the purpose of evaluating the adequacy of such sources, facilities, equipment, operation and maintenance for producing and distributing safe drinking water.

8-3.17 Service Connection. The opening, including all fittings and appurtenances, at the water main through which water is supplied to the user. (A

8-3.18 Source Water Assessment Program. Under the SDWA Amendments of 1996, States were required to develop, by Feb. 6, 1999, comprehensive Source Water Assessment Programs (SWAP) that delineate source water protection areas, inventory significant contaminants in these areas, and determine the susceptibility of each public water supply to contamination. (A

A) **8-3.19 Source Water Protection Program.** State efforts to manage identified sources of contamination in a manner that will protect drinking water supplies, based on the SWAP.

8-3.20 Supplier of Water. Any person who owns or operates a PWS.

A) **8-3.21 Transient, Non-Community Water System (TWS).** A non-community water system that does not regularly serve at least 25 of the same persons over 6 months per year.

D) **8-3.22 Turbidity.** The measurement of the amount of light scattered by colloidal, suspended matter in liquid. *Elevated turbidity in drinking* water may be indicative of water quality problems.

8-3.23 Underground Injection. Well injection, meaning the subsurface emplacement of fluids through a bored, drilled, or driven well or through a dug well where the depth of the dug well is greater than the largest surface dimension (see reference (e)).

R) **8-3.24 Vulnerability Assessment.** There are two types of Vulnerability Assessments that apply to drinking water: one pertaining to water quality *and the other to the drinking* water distribution system's susceptibility to damage or contamination during emergency situations.

A) **8-3.24.1 Vulnerability Assessment For Water Quality.** An evaluation that determines:

a. Whether contaminants of concern have been used in a watershed area.

b. The susceptibility of the system's source water to contamination. Susceptibility is based on prior occurrence, environmental persistence, transport of the contaminants, and any wellhead protection program test results.

(A **8-3.24.2 Vulnerability Assessment For Emergency Contingency Situations.** An evaluation that:

a. Identifies and describes the components of a water system.

b. Assigns characteristics of the disasters of concern.

c. Estimates the effects of these disasters of concern.

d. Estimates the water demand requirement during disasters.

e. Evaluates the ability to meet the required water demand.

f. Identifies critical components in the water supply and distribution system.

g. Evaluates the effects of the disasters of concern on water quality.

h. Evaluates the effects of the disasters of concern on the water supply.

Further guidance for conducting vulnerability assessments for emergency contingency situations is available in reference (i).

(A **8-3.25 Well.** A bored, drilled or driven shaft, or a dug hole, whose depth is greater than the *largest surface dimension.*

(A **8-3.26 Wellhead Protection Program.** A program to protect groundwater that supplies wells and wellfields that contribute drinking water to public water supply systems. Under the SDWA (42 U.S.C. 300h-7), each State was required to prepare and submit to EPA a Wellhead Protection Program by June 19, 1989. Wellhead Protection Programs have six major components: (1) designation of roles and duties of State and local agencies, (2) delineation of wellhead protection areas,

(3) identification of contaminant sources, (4) development of management approaches for the wellhead area, (5) preparation of contingency plans for replacement water supplies, and (6) planning and siting of new wells.

8-4 Requirements

R) **8-4.1 General.** Installation PWSs shall comply with all applicable Federal, State, and local contaminant limitations and monitoring and enforcement procedures. In the absence of permit or rule requirements, shore installations operating PWSs shall comply with Navy policy.

Federal regulations define a PWS as a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals (see section 8-3.15 for the complete definition). Based on this definition most Navy facilities operate PWSs. The National Primary and Secondary Drinking Water Regulations provide the requirements for PWSs to follow in order to ensure safe and aesthetically pleasing drinking water.

The Navy also operates water systems that are not within the scope of SDWA regulations, including systems that do not meet the Safe Drinking Water regulatory definition of a PWS (e.g., systems having less than 15 service connections and serving less than an average of at least 25 people daily at least 60 days out of each year). SDWA regulations also do not apply to PWSs that:

a. consist only of distribution and storage facilities and do not have any collection and treatment facilities,

b. obtain all their water from but are not owned or operated by PWSs to which the regulations apply,

c. do not sell water to any persons, and

d. are not carriers that convey passengers in interstate commerce.

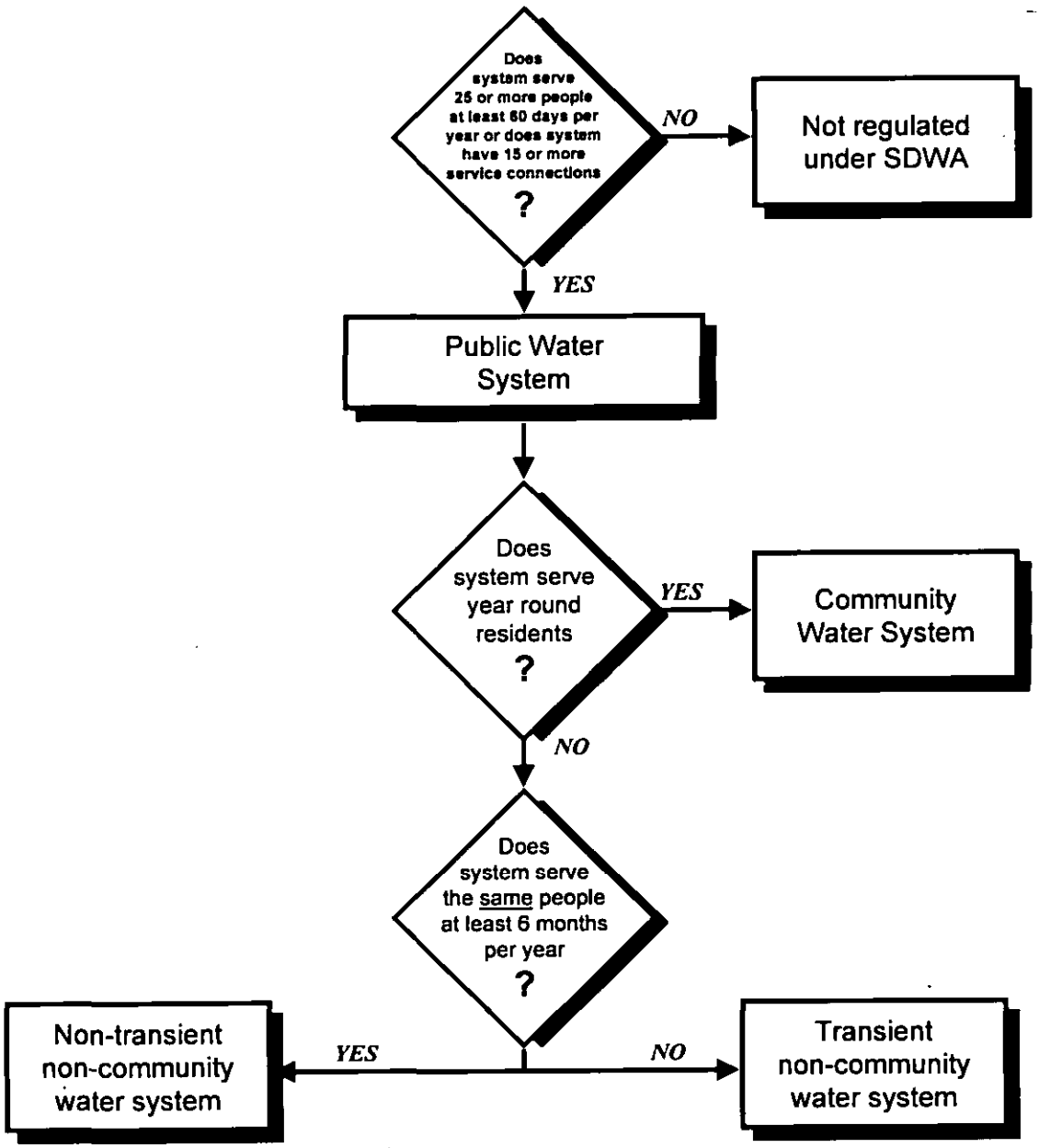
These non-qualifying drinking water systems must comply with Navy policy as contained in section 8-5 of this chapter.

8-4.2 Sampling and Analysis. As required, PWSs at Navy installations shall conduct initial sampling (and any required subsequent sampling) to characterize each specified contaminant within required timeframes and at the frequencies specified by reference (a) subpart C. There are different monitoring requirements for each contaminant group depending on whether the system uses surface water or ground water and on the number of people served. To determine what type of system you are operating (PWS, CWS, NTNCWS, or TWS), refer to figure 8-1. Installations shall use laboratories certified by EPA or the cognizant State to perform all sample analyses. Except for required entry point samples (i.e., turbidity and fluoride), installations must collect water samples at points that represent the quality of water in the distribution system. Chapter 25 provides Navy policy regarding sampling and testing protocols. (R

8-4.2.1 Total Trihalomethane (TTHM). A community water system, serving more than 10,000 people, that adds a disinfectant to the drinking water during any part of the treatment process is required to sample and analyze for TTHM. The MCL for TTHM is 0.10 mg/L (see Subpart B of reference (a)). (D (A

8-4.2.2 Phase I, II, and V Organic Chemicals. A list of MCLs for organic and synthetic organic contaminants can be found in Subpart G of reference (a). These MCLs apply to CWS and NTNCWS. Sampling of Phase I, II, and V organic chemicals depends on the source of the drinking water (ground or surface), type of water (A

Water System Classification Flowchart [1,2]



(1) In accordance with Federal laws, State & local laws may be more stringent.
(2) Does not address issue of consecutive water systems which is determined independently by each state.

Figure 8-1

system (i.e., CWS or NTNCWS), persons served by the water system, and vulnerability of the water system to contamination (see Subpart C of reference (a) and references (j) and (k)). As required by the SDWA Amendments of 1996, EPA will determine every 5 years whether or not to regulate at least five of the contaminants listed as "potential contaminants for regulation." Water systems should be aware of the most current list of contaminants being regulated.

A) **8-4.2.3 Fluoride and Arsenic.** The MCL established for arsenic, 0.05 mg/L, applies only to community water systems.

The primary MCL, 4.0 mg/L, and secondary MCL, 2.0 mg/L, established for fluoride apply only to community water systems. Special public notices are to be distributed if either the primary MCL or the secondary MCL for fluoride is exceeded (see reference (a) Subpart D and reference (c)).

A) **8-4.2.4 *Secondary Maximum Contaminants.*** The National Secondary Drinking Water Standards have been established to control contaminants in drinking water that "primarily affect the aesthetic qualities relating to public acceptance of drinking water." These contaminants include pH, color, and odor. The recommended limits can be found in reference (c). Though these limits are not Federally enforceable, exceeding these standards may create a situation where consumers will seek alternative sources of drinking water.

R) **8-4.3 Control of Lead and Copper in Drinking Water.** PWSs at Navy installations shall comply with all applicable requirements for the control of lead and copper, as stated in the Federal Lead and Copper Rule (LCR) (see Subpart I of reference (a)). This is to ensure that the levels of the subject metals remain below the levels associated with health risks in treated (finished) water and at the consumer's free flowing tap. Per reference (a) and if approved by the State Regulatory Agency or EPA (whichever has primacy), shore installations may combine their consecutive PWSs monitoring plan as part of the supplier's plan, instead of treating each as a separate system.

The lead action level is exceeded if the concentration of lead in more than 10 percent of tap water samples collected during any monitoring period conducted per reference (a) is greater than 0.015 mg/L (i.e., if the 90th percentile lead level is greater than 0.015 mg/L). The copper action level is exceeded if concentrations of copper in more than 10 percent of tap water samples collected during any monitoring period conducted per reference (a) is greater than 1.3 mg/L (i.e., if the 90th percentile copper level is greater than 1.3 mg/L).

As specified in reference (a), if an action level is exceeded, installation PWSs must collect additional water quality parameter samples. Optimal corrosion control treatment may also be required. Should prescribed treatment options fail to bring lead levels below the action level, lead service lines may have to be replaced.

Water systems that meet the lead and copper action levels during specified monitoring periods may reduce the number and frequency of sampling in accordance with reference (a).

8-4.3.1 Prohibition on Use of Lead Pipe, Solder, and Flux. The use of lead pipe, solder, or flux in the installation or repair of any system for the provision of piped water for human consumption is prohibited. Solders and flux are considered lead free if they contain less than 0.2 percent lead; pipes and fittings are considered lead free if the lead content is less than 8.0 percent (see Subpart E of reference (a)).

8-4.4 Cross-Connection and Backflow Prevention. Cross-connection control programs apply to building interior domestic plumbing systems, fire protection plumbing systems, and exterior water distribution systems. These programs, (R

overseen by States with SDWA primacy, help ensure compliance with primary and secondary drinking water standards by establishing policy, procedures, and instructions for installing, repairing, maintaining, inspecting, and testing backflow preventers. Reference (l) provides guidance to Navy installations for complying with this requirement.

8-4.5 Public Notification. The owner or operator of a PWS that fails to comply with an applicable MCL, treatment technique, or that fails to comply with the requirements of any schedule prescribed under a variance or exemption, shall notify persons served by the system. The notices include specific language about the health effects of each contaminant (see Subpart D of reference (a) or contact the regulatory agency for this language). The PWS shall publish notices by newspaper, mail delivery, hand delivery, radio, and television announcements depending upon the type of violation or risk involved.

A) **8-4.6 Consumer Confidence Reporting.** Community Water Systems shall prepare and provide to their consumers annual reports on the quality of the water delivered by the system. The first Federally mandated report to customers is due during or before October 1999 and the second and subsequent reports are due by 1 July. The first report must contain data collected during, or prior to, calendar year 1998. Each report thereafter must contain data collected during, or prior to, the previous calendar year. If a community water system sells water to another community water system, data for the first report had to provided to the purchaser as of 19 April 1999. Annually thereafter, data must be provided by 1 April (or on a date mutually agreed upon by the seller and the purchaser, and specifically included in a contract between the parties.) Each water system shall deliver one copy of the consumer confidence report (CCR) to each of its customers. States may waive the mailing requirement for community water systems serving fewer than 10,000 persons. In such cases, systems would be required to inform their customers that the report will not be mailed, make the report available on request to the public, and publish the report annually in one or more local newspapers serving the areas in which the systems' customers are located. Alternative delivery methods should be used to make a "good faith" effort to reach consumers who do not receive water bills. A good faith effort would include a mix of methods appropriate to the particular system. In states with primary enforcement authority, utilities must mail a copy of the completed CCR to the State, followed, within 3 months, by a certification that the report has been distributed to customers and that the information in the CCR is correct. CCRs must contain, at minimum, the following:

a. Information on the source(s) of the water purveyed.

b. A brief and plainly worded definition of all technical terms as provided in regulations.

c. If any regulated contaminant is detected in the water purveyed by the community water system, a statement setting forth: (1) the maximum contaminant level goal, (2) the maximum contaminant level, (3) the level of such contaminant in the water system, and (4) for any regulated contaminant for which there has been a violation of the maximum contaminant level during the year covered by the report, a brief statement in plain language regarding the health concerns that resulted in regulation of that contaminant, as provided in the regulations.

d. Information on compliance with national primary drinking water regulations, as required.

e. Notice if the system is operating under a variance or exemption and the basis on which the variance or exemption was granted.

f. Information on the levels of unregulated contaminants for which monitoring is required

under the SDWA (Title 40 CFR, Part 141.40), including levels of Cryptosporidium and radon where States determine they may be found.

g. A statement that the presence of contaminants in drinking water does not necessarily indicate that the drinking water poses a health risk and that more information about contaminants and potential health effects can be obtained by calling the EPA Safe Drinking Water hotline.

h. Notice of opportunities for public participation.

i. Additional information required by the EPA Administrator.

j. Required language regarding vulnerable populations.

k. Additional information required by the primacy States.

8-4.7 Surface Water Treatment Rule (SWTR). The SWTR consists of treatment technique requirements that apply to all PWSs using surface water and those using ground water under the direct influence (UDI) of surface water (see reference (a) Subpart H and reference (m)). The rule requires that these systems properly filter the water, unless they meet certain, strict criteria. The rule also requires that these systems disinfect the water. There are no exceptions from the disinfection requirement.

PWSs using a surface water source or ground water source that is UDI must be operated by qualified personnel who meet the requirements specified by the State. Such requirements may include training, certification, and licensing.

A)

8-4.8 Source Water Assessment and Source Water Protection Programs. A) The SDWA Amendments of 1996 required all States to establish Source Water Assessment Programs (SWAP) and submit plans to the Environmental Protection Agency (EPA) by February 6, 1999 detailing how they would delineate source water protection areas, inventory significant contaminants in these areas, and determine the susceptibility of each public water supply to contamination. The States have up to 2 years after EPA program approval, or with an approved time extension, up to 3½ years, to complete the source water assessments.

8-5 Navy Policy

8-5.1 General. Navy installations operating PWSs shall:

a. Comply with all applicable Federal, State, and local safe drinking water regulations, including monitoring and sampling, training and certification of workers, and public notification requirements. (R (D

b. Control and eliminate the danger of lead exposure from drinking water supplies at shore facilities. (A

c. Maximize the use of municipal or regional drinking water supplies, including privatization of Navy systems wherever practicable.

d. Comply with all applicable Federal, State, and local source water/watershed protection programs. (R

e. Promote water conservation.

f. Update water distribution system maps at least every 5 years. (A (D

g. Develop and implement Underground Injection Control Programs and Wellhead Protection Programs.

h. Maintain records showing monthly operating reports for at least 5 years, and records of bacteriological results for not less than 5 years, and chemical results for not less than 10 years. (A

Note: Lead and copper monitoring results must be kept for at least 12 years.

A) i. Develop and implement a cross-connection control program. Retain cross connection inspection and maintenance records for not less than 5 years.

A) j. Apply, in writing, for exemption from permitting requirements, as appropriate.

R) **8-5.2 Water System Monitoring**

8-5.2.1 Permitted PWS Monitoring. Every shore installation that owns and/or operates a permitted PWS shall develop and implement a Drinking Water System Monitoring Program that complies with the requirements of its permit. However, many installations present a unique set of challenges for maintaining water quality control. Due to physical changes at the installations, changes in mission, and in occupants, as well as the needs of the various users, often there is too much storage, storage that is locked out of the system, oversized transmission lines, valves that are closed, etc. This is true of both permitted and non-permitted systems. These factors must be taken into account when developing water quality monitoring programs.

A) There are different monitoring requirements for each contaminant group depending on whether the system uses surface water or ground water and on the number of people served. Reference (a) Subpart C provides the complete Federal requirements for monitoring, with references (j) and (k) providing easy to read guidance for Small Water Systems. Navy guidance can also be found in reference (n) and BUMED recommendations in reference (o).

A) **8-5.2.2 Non-Permitted PWS Monitoring**

a. All Shore installations that own and/or operate a non-permitted PWS, whether primary or consecutive, shall perform bacteriological monitoring as specified in the New Coliform Rule (reference (a) subpart C). Sampling and testing shall comply with chapter 25 requirements.

b. Shore Installations that own and/or operate a non-permitted consecutive PWS that purchases treated water from a primary water purveyor shall review the monitoring reports of analyses required by the primary water purveyor's permit at least once each year. For each NPDWS parameter within the monitoring report that exceeds 50 percent of its respective MCL, the affected shore installation shall monitor from a representative point in the installation's system for those parameters that can be changed or influenced by the distribution system, such as lead, copper, asbestos, coliform, and disinfection by-products (trihalomethanes and haloacetic acids), at a frequency equal to that of the primary water purveyor. This requirement is to ensure that the water quality has not degraded to above the MCL for that parameter within the distribution system.

Despite the minimum monitoring requirements for non-permitted systems, it should be recognized that, for any given installation that falls into this category, the distribution system may well contain any number of elements that can accelerate water quality degradation within the installation.

For more extensive guidance regarding monitoring requirements of consecutive water systems, see reference (p).

8-5.2.3 Non-PWS Monitoring. Some shore installations own and/or operate water systems that do not fall under the definition of a PWS (see definition in section 8-3.15). If these systems purchase treated water from a primary water purveyor, these systems shall follow the monitoring requirements of section 8-5.2.2. Non-PWSs that collect, treat, store and distribute their own water source shall develop a Drinking Water System Monitoring Program that addresses at a minimum (A

total coliforms and disinfectant residuals. Installations shall arrange record keeping, reporting, and monitoring scheduling in consultation with the system's major claimant and the appropriate COMNAVFACENGCOM EFD/EFA.

A) **8-5.2.4 Alternative / Innovative Monitoring Approaches To Meeting SDWA Monitoring Requirements.** This section is applicable to non-permitted PWSs and non-PWSs at small facilities that purchase treated water from a PWS that is in full compliance with the SDWA. This includes large bases where the main distribution system is owned/operated by a non-Federal entity but the building or functional area distribution system(s) is owned and operated by the Navy.

These facilities may request, from CNO (N45), via the major claimant, alternative monitoring requirements. The minimum requirements for approval are as follows:

a. The facility will be covered by a written monitoring plan.

b. The plan shall be reviewed and approved by the facility's Engineering Field Division or Activity, BUMED, and their major claimant prior to submission to CNO (N45) for approval.

c. The plan shall be based on a Sanitary Engineering Survey of the facilities it covers and shall specifically address attainment and maintenance of any public health and/or water quality issues outlined in the survey report.

d. The plan and its implementation shall be regularly reviewed under the Environmental Quality Assessment (EQA) process as detailed in the Monitoring Plan.

e. The plan shall be updated when recommended by the EQA process.

f. The plan shall document compliance with sections 8-5.3.1 (Lead in Priority Areas and Water Coolers), 8-5.3.2 (Lead and Copper in Consecutive Water Systems), and 8-5.4 (Cross-Connection).

g. The plan shall require and document annual review of the primary (and any secondary) water purveyor monitoring for drinking water standard parameters. Should this review indicate that the primary and/or secondary purveyor is not in full compliance with the SDWA, including NPDWS parameters, the plan shall require and document:

(1) implementation of section 8-5.2.2 monitoring requirements, and

(2) notification of their major claimant and CNO (N45) that the waiver is no longer applicable.

h. The plan shall ensure adequate record keeping.

8-5.3 Lead and Copper in Drinking Water

8-5.3.1 Lead in Priority Areas and Water Coolers. The following procedures are not to be confused with the sampling and monitoring requirements of the Lead and Copper Rule (40 CFR 141.80). The following must be accomplished in addition to the EPA required Lead and Copper Rule monitoring. (R

a. Navy installations shall sample, test, and maintain resultant records for all drinking water outlets in the following priority areas to determine the presence of lead: primary and secondary schools, day care centers, hospital pediatric wards, maternity wards, and food preparation areas located on medical facilities. They shall screen all drinking water outlets in these locations using reference (q) and (r) protocols. If initial screening results exceed 20 ppb in 250-mL samples, installations shall use full protocol sampling

on affected outlets. If full protocol sampling exceeds 20 ppb, they shall secure the affected water outlets from service and institute permanent corrective measures.

b. If it has not been done previously, installations shall sample, test, and maintain resultant records for water from drinking water coolers. Newly installed drinking water coolers shall be sampled and tested to ensure lead levels are below 20 ppb. Installations shall sample and test per references (q) and (r).

c. A copy of all test results shall be made available for all schools, day care centers, and medical facilities where testing has been conducted. A notice of availability of the testing results shall be sent to the parents of children attending the affected school. Furthermore, Navy installations shall maintain testing results for water coolers at all other types of facilities.

R) **8-5.3.2 Lead and Copper in Water Systems**

a. Installations shall determine the susceptibility of their drinking water to lead and copper contamination above the action levels as contained in the Lead and Copper Rule. This requirement applies to both primary and consecutive Navy systems. Installations shall sample Navy consecutive systems that were not included in the primary system sampling pool (at the time the primary system performed Lead and Copper Rule monitoring) for lead and copper. All installations shall ensure the number and location of samples are sufficient to be representative of the system and in conformance with the Lead and Copper Rule.

NOTE:

More than 10 percent of the samples must exceed the limit to reach the action level. If 10 percent or less of the samples exceed the limits, the activity is still in compliance and no corrective action is required.

b. Installations shall retain test results for a minimum of 12 years. They shall make public notification, under reference (a), coordinated via the appropriate activity authorities (Occupational Safety and Health, Public Affairs, and Medical), to all consumers whose water tests above the current action level.

c. Navy installations shall coordinate mitigation measures to reduce or eliminate the source of high lead levels with the water supplier, as appropriate. Navy installations with wells or water systems that treat their own water shall implement mitigation procedures on their own.

d. Navy installations operating consecutive water systems may seek waivers from CNO (N45) for this monitoring requirement if they can document that their water purveyor passed its Lead and Copper Rule monitoring and that the water being supplied to them is non-corrosive.

8-5.4 Cross-Connection Control and Backflow Prevention Program Implementation. (R Every shore installation that owns or operates a PWS shall develop and implement a Cross-Connection Control and Backflow Prevention Program. At a minimum, the cross-connection control and backflow prevention program shall include procedures and mechanisms to:

a. Find and eliminate existing cross-connections and prevent new cross-connections.

b. When cross-connections cannot be eliminated, install, inspect, and test backflow preventers.

c. Keep an inventory of all existing backflow preventers.

d. Certify all backflow preventers as required by the regulatory agency. If there is no

regulatory requirement, then all backflow preventers should be certified at least once every 6 months for high hazards and once every 12 months for low hazards by a certified inspector.

e. Promptly repair or replace defective backflow preventers. Retain cross connection and backflow preventer inspection and maintenance records for at least 5 years.

Reference (l) provides guidance to Navy installations for complying with this requirement.

R) **8-5.5 Noncompliance Monitoring and Reporting.** Installations operating PWSs must report any failure to comply with reference (a), including a failure to comply with monitoring requirements, variances, or exemptions, to the State or EPA regional office (as applicable). In addition, commands shall notify all persons served by the system using the method required by reference (a).

A) **8-5.6 Consumer Confidence Reporting.** Operators of Navy Community Water Systems shall comply with all the requirements of the CCR. See section 8-4.6 for more details on CCR requirements.

R) **8-5.7 Surface Water Treatment.** Installations operating PWSs that receive water from surface water or groundwater under the direct influence of surface water shall comply with all Federal, State, and local regulatory requirements regarding surface water treatment (see reference (a) Subpart H and reference (m)). Further information can be found in references (n) and (s).

A) **8-5.8 Source Water Assessment and Source Water Protection Program.** Navy Regional Environmental Coordinators shall coordinate with States, when necessary, to provide information on existing sources of contamination associated with Navy activities within delineated source water protection areas. Navy installations shall coordinate with States to conduct source water assessments and implement source water protection programs, as appropriate. Reference (t) provides guidance to installations for complying with this requirement.

8-5.9 Protection of Underground Sources of Drinking Water. Navy shore installations shall protect underground sources of drinking water from contamination. (A

8-5.9.1 Underground Injection Control (UIC) Programs. EPA requires States to implement UIC Programs. When States fail to implement such programs, EPA permit-by-rule requirements apply. Under these requirements, installations must implement a program that includes: (R

a. Establishing and maintaining an underground injection well inventory.

b. Procedures for proper well closure.

There are five classes of UIC wells. The broadest category is Class V, which includes things such as French drains and some septic systems. For more information see references (d), (e) and (u).

8-5.9.2 Wellhead Protection. Installations that receive drinking water from wells must take measures to minimize contamination. These installations shall establish a wellhead protection program that meets applicable State or local wellhead protection requirements or, in the absence of such requirements, include the following as a minimum: (A

a. Identification of any contaminants of concern.

b. Regular monitoring (including sampling and testing for contaminants of concern).

c. Procedures to mitigate contamination should it occur.

R) **8-5.10 Operation and Maintenance.** Installations that own and/or operate water systems (public and non-public, permitted and non-permitted) shall develop and implement an operation and maintenance program applicable to the system. Minimum requirements of the program are to meet the requirements of reference (a), in particular 40 CFR 141 paragraph 141.63(d)(3), and include the proper implementation and documentation of:

a. Emergency and preventive maintenance.

b. System disinfection after maintenance work is performed.

c. Scheduled flushing of the system.

d. Reduction of water quality problems (as needed).

e. Implementation and documentation of a valve exercise and maintenance program.

f. Proper operation and maintenance of storage tanks.

g. Maintenance of current water distribution maps.

h. Documentation of location and dates of water line breakage.

i. Implementation of Utility System Assessments (USAs). Ensure that USAs are accomplished at least once every 6 years by NAVFACENGCOM EFDs as required by chapter 2 in paragraph 220 (d)(2)(d) of enclosure (1) to reference (v).

References (w), (x), and (s) provide additional guidance on the operation and maintenance of water systems.

A) **8.5.11 Construction Material Surveys.** Community Water Systems at Navy installations shall comply with the requirements of reference (a) [40 CFR 141.42(d)] to perform a piping distribution system construction materials survey to identify construction materials having the potential to contribute contaminants to the drinking water, including lead, copper and asbestos. Community water systems at Navy installations shall comply with the requirements of reference (a) [40 CFR 141.23(b)] to monitor for asbestos for those systems determined from the Construction Material Survey to be vulnerable to corrosion of asbestos cement pipe.

8-5.12 Sanitary Surveys. In many instances, a State may require treatment plants or PWSs that are experiencing compliance problems, particularly with microbial pathogens, to perform a sanitary survey. These surveys will usually be performed by the State regulatory agency. In the absence of this requirement, a sanitary survey shall be performed by the Navy installation every 3 years. (A

8-5.12.1 Survey Requirements. For treatment plants, the survey should include the following:

a. Verification and reevaluation of vulnerability assessments, watershed protection programs, and wellhead protection programs, as applicable.

b. Examination of the source water physical components and condition.

c. Schematic diagrams of the treatment process and examination and evaluation of the adequacy and appropriateness of all elements of the current treatment process, including an assessment of operational flows versus treatment process rated capacity and, where appropriate, CT assessment (disinfection contact time).

d. Examination and evaluation of the operation and maintenance of the treatment facility including the condition and reliability of equipment, operator qualifications, use of approved

chemicals, record keeping, process control, and safety programs.

e. Evaluation of the ability of the treatment plant to respond to changes in raw water fluctuations.

f. Evaluation of the treatment plant's emergency power supply and security measures.

8-5.12.2 Distribution System Sanitary Survey Review. Concerning the distribution system, the sanitary survey should include a review of the operations and maintenance program to ensure attention to the following areas of concern:

a. Elimination of unneeded or excess storage.

b. Adequate turnover of storage tanks.

c. Storage tank cleaning and maintenance.

d. Adequate disinfection practices during all main repairs and replacement.

e. If applicable, an effective corrosion control program.

f. A comprehensive cross connection control program.

g. An aggressive valve and hydrant exercise program.

h. An adequate water quality monitoring program that achieves compliance with the appropriate regulations and provides for effective water quality control.

i. An adequate flushing program, preferably a Unidirectional Flushing (UDF) program that is implemented on a yearly basis.

For more information on sanitary surveys, see reference (y).

8-5.13 Reselling of Water. Installations shall follow their State's definition of reselling water. If the State does not have a definition, a Navy installation resells water if it bills a non-Navy customer separately for water the customer uses (as opposed to calculating an estimated water usage and setting rents to reflect water usage as one, among many, costs). (A

8-5.14 Record Keeping. In the absence of more stringent Federal, State, or local record keeping requirements, shore installations shall maintain records as follows: (A

a. Bacteriological Results - 5 years.

b. Chemical Results - 10 years.

c. Lead/Copper testing results - 12 years.

d. Actions Taken to Correct Violations- 3 years after acting on the particular violation involved.

e. Sanitary Survey Reports - 10 years.

f. Variance or Exemption Records - 5 years following the expiration of such variance or exemption.

g. Water Treatment plant and/or Distribution System Operating Records – 3 years.

h. Cross Connection Inspection Records – 5 years.

i. Consumer Confidence Reports – 5 years.

8-5.15 Water Conservation. Water is a limited but recyclable resource. Navy installations shall, when economically practicable, implement water conservation programs to include: (R

a. Installation of water efficient industrial equipment and recycling of industrial process water.

b. Low flow showers, toilets, faucets and other devices where applicable.

c. Timely repairs of water service line leaks and main breaks.

d. Routine leak detection surveys.

See references (g) and (h) for additional guidance.

A) **8-5.16 Exemption from Permitting.** Navy installations that, per reference (a) criteria, require permits, but believe they qualify for exemption from PWS permitting shall apply, in writing, to the regulatory agency with SDWA primacy for an exemption.

R) **8-5.17 Training**

8-5.17.1 General

a. Activity commanders shall ensure that personnel involved in operations that affect drinking water quality receive general environmental awareness training as specified in chapter 24 of this instruction and receive, as appropriate, training in potable water systems requirements.

b. NAVFACENGCOM, Regional Environmental Coordinator environmental personnel, and shore activity technical, legal, and environmental staff shall receive general environmental awareness training specified in chapter 24 of this instruction and more extensive training in SDWA compliance to include applicable regulations and drinking water systems requirements.

R) **8-5.17.2 Water Treatment and Distribution System Operators.** Installations shall ensure their water treatment and distribution system operators are trained and certified per applicable Federal, State, and local regulations. Where training is not specified by the applicable regulations, installations shall include the following subject areas in the training plan(s) of the individual(s) concerned:

a. Basic water plant and/or distribution system design.

b. Basic water plant and/or distribution system operation.

c. Basic maintenance and calibration of plant controls and equipment.

d. Water plant and/or distribution systems treatment principles, including chemical storage and handling.

e. Water sampling and analysis.

f. Water plant and/or distribution system documentation and reporting requirements.

g. Cross-connection control and backflow prevention.

8-5.18 Fines and Penalties. The 1996 amendments to the SDWA waive sovereign immunity for the payment of fines and penalties imposed by State or local agencies for violations. In addition, EPA may assess administrative penalties of up to $25,000 per day per violation. Citizens may also sue for judicial review of EPA administrative penalties or if a Federal agency has not paid an administrative penalty within 18 months of the date it was assessed through a final order. (A

8-6 Responsibilities

8-6.1 CNO (N45) shall: (A

a. Grant, as appropriate and if requested, alternative monitoring requirements.

b. Grant, as appropriate and if requested, waivers from Lead and Copper Rule monitoring for consecutive water systems.

R) **8-6.2 COMNAVFACENGCOM** shall

a. Assist CNO (N45) in providing Navy-wide guidance regarding matters relating to safe drinking water and water conservation.

b. Provide technical, engineering, contracting, and legal assistance, upon request, to major claimants and installations in carrying out their responsibilities under this chapter.

c. Maintain a list of Navy PWSs and a record of violations of SDWA requirements.

A) d. Conduct Utility System Assessment (USA) of the Drinking Water Systems at least once every 6 years in accordance with chapter 2, paragraph 220 (d)(2)(d) of enclosure (1) to reference (v).

R) **8-6.3 Chief, Bureau of Medicine (CHBUMED)** shall

a. Establish and publish appropriate standards of water quality and monitoring requirements for Navy PWSs afloat and overseas.

b. Provide health-related advice to Navy commands in carrying out their responsibilities for drinking water quality and distribution.

c. Coordinate with COMNAVFACENGCOM to address health and safety for all lead mitigation measures considered by COMNAVFACENGCOM, including chemical additions used to reduce lead in drinking water.

A) **8-6.4 Regional Environmental Coordinators** shall:

a. Provide coordination and assistance to installations within the applicable region regarding implementation of this chapter.

b. Assist claimants with resolution of issues and communication with CNO (N45) and Federal, State, and local regulators.

c. Assist States conducting source water assessments, when necessary, by providing information on existing sources of contamination associated with Navy activities within delineated source water protection areas.

8-6.5 Major claimants shall (R

a. Implement the SDWA program requirements at their shore installations.

b. Plan, program, budget, and provide funding for current and future requirements under the SDWA and Navy policy.

8-6.6 Commanding Officers (COs) Or Officers in Charge (OICs) of shore installations shall (R

a. Budget sufficient resources for operation, maintenance, and repair of PWSs in compliance with applicable standards, including sampling and monitoring, reporting, record keeping, and other substantive and administrative requirements, including Navy requirements.

b. Ensure applications for applicable Federal, State, and/or local permits are filed and that installations comply with EPA, State, and local drinking water requirements. This provision applies only to COs/OICs that own and/or operate PWSs.

c. Ensure contracts between the Navy and water purveyors require the purveyor to supply the results of all permit required NPDWS monitoring that was performed on raw and treated water that serves the applicable Navy installation

and/or activity at least once a year. This provision applies only to COs/OICs that own and/or operate PWSs.

d. Review the various uses of water at their activities to ensure that all economically practicable water conservation measures are taken.

e. Ensure proper training of all personnel who collect samples. Ensure that only certified and/or accredited laboratories perform analyses in compliance with chapter 25.

f. Provide resources (tuition, travel, and per diem) for training operators of PWSs and ensure compliance with applicable State certification requirements.

g. Identify and submit compliance projects per chapter 1, for environmental requirements.

h. Ensure the appropriate monitoring plan is in place and followed. This includes, as appropriate, developing and implementing a plan for working with the water purveyor to include the installation in the purveyor's sampling pool for required monitoring and to develop subsequent mitigation plans as necessary.

i. Based on monitoring results, as needed, develop and implement appropriate mitigation programs.

j. Use lead free materials for any plumbing repairs made to activity drinking water systems.

k. Establish and implement an operation and maintenance program at each activity. This applies to both primary and consecutive water supplies. At a minimum, the program must ensure proper emergency and preventive maintenance, proper system disinfection (after maintenance work is performed), scheduled flushing of the distribution system, and a valve exercise and maintenance program.

l. Establish and implement Cross-connection and Backflow Prevention Programs at each activity.

m. Apply, in writing, for exemption from SDWA permitting requirements when required.

n. Report noncompliance with any National Primary Drinking Water Regulation (including failure to comply with monitoring requirements, variances, or exemptions) in accordance with chapter 1, section 1-2.9.

o. Ensure water systems that do not meet the definition of a PWS have an appropriate program in place to ensure adequate water quality.

p. Develop and distribute consumer confidence reports, if required.

q. Coordinate with the State, when necessary, to conduct source water assessments and implement source water protection programs.

r. Protect underground sources of drinking water from contamination. Establish and implement an underground injection control program and wellhead protection program, if necessary.

s. Conduct sanitary surveys every 3 years in the absence of State sanitary surveys.

t. Develop and distribute consumer confidence reports as required by section 8-5.6.

CHAPTER 9

OIL MANAGEMENT ASHORE

9-1 Scope

9-1.1 This chapter identifies requirements and responsibilities applicable to the prevention of oil pollution and the collection, reclamation, and disposal of oily wastes and used oils ashore. Requirements apply in all areas within the United States, Commonwealth of Puerto Rico, Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands. Chapter 18 provides Navy policy with respect to activities in foreign countries.

9-1.2 Chapter 10 describes the Navy response to oil spills under the National Contingency Plan (NCP). Chapter 12 describes the management of petroleum products, residues, or other mixtures that meet the reference (a) definition of hazardous waste (HW). Chapter 16 describes Management of storage tanks. Chapter 19 addresses shipboard oil pollution abatement.

9-1.3 *References.*

a. 40 CFR 260-266, Hazardous Waste Management System

b. 40 CFR 110, Discharge of Oil

c. 40 CFR 279, Standards for the Management of *Used Oil*

d. 40 CFR 270, Standards for Used Oil Processors and Refiners

e. 33 CFR 154, Oil Pollution Prevention Regulations for Marine Oil Transfer Facilities

f. 40 CFR 112, Oil Pollution Prevention

g. 49 CFR 110, Hazardous Materials Public Sector Training and Planning Grants

h. 49 CFR 171 (Subchapter C), Hazardous Materials Regulations

i. 49 CFR 174, Carriage by Rail

j. 49 CFR 176, Carriage by Vessel

k. NFESC 7-03, Oil Spill Prevention Control and Countermeasures Planning Manual (NOTAL).

9-2 Legislation

9-2.1 Federal Water Pollution Control Act as amended by the Clean Water Act of 1977 (CWA). Requires Federal activity compliance with applicable requirements concerning the control of oil pollution. Prohibits the discharge of oil into any surface waters of the U.S., if the discharge violates applicable water quality standards or effluent standards or causes a sheen on, or film upon, or discoloration of the surface of the water or adjoining shorelines, or causes a sludge or emulsion to be deposited beneath the surface of the water, or upon the shoreline.

9-2.2 Military Construction Codification *Act, Section 6.* *Contains a provision that allows* net proceeds from the sale of recyclable materials (including used oil) to be used by Navy activities for certain purposes.

9-2.3 Oil Pollution Act of 1990 (OPA 90). Amends Section 311 of the CWA to clarify Federal response authority, increase penalties for spills, establish *United States Coast Guard (USCG)* response organizations, require tank vessel and facility response plans, and provide for contingency planning in designated areas. The

OPA 90 provides new contingency planning requirements for both government and industry and establishes new construction, manning, and licensing requirements for tank vessels. The OPA 90 also increases penalties for regulatory noncompliance, broadens the response and enforcement authorities of the Federal government, and preserves State authority to establish laws governing oil spill prevention, response, and periodic drills and exercises.

9-3 Terms and Definitions

9-3.1 Boiler. An enclosed device using controlled flame combustion and having the following characteristics:

a. The unit must have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases; and

b. The unit's combustion chamber and primary energy recovery section(s) is of integral design, i.e., the combustion chamber and primary energy recovery section(s) is physically formed into one manufactured or assembled unit. A unit in which the combustion chamber and the primary energy recovery section(s) are joined only by ducts or connections carrying flue gas is not integrally designed. However, secondary energy recovery equipment (such as economizers or air preheaters) need not be physically formed into the same unit as the combustion chamber and the primary energy recovery section(s). The following units are not precluded from being boilers: process heaters (units that directly transfer energy to a process stream), and fluidized bed combustion units; and

c. While in operation, the unit must maintain a thermal energy recovery efficiency of at least 60 percent, calculated in terms of the recovered energy compared with the thermal value of the fuel; and

d. The unit must export and use at least 75 percent of the recovered energy calculated on an annual basis. In this calculation, no credit shall be given for recovered heat used internally in the same unit. (For example, preheating fuel or combustion air, driving induced or forced draft fans or feeding water pumps); or

e. The unit is one that the Environmental Protection Agency (EPA) Regional Administrator has determined on a case-by-case basis, to be a boiler, after considering the standards in reference (a), Subpart C, Part 260.32, Variances To Be Classified As A Boiler.

9-3.2 Bulk-oil Tank. Any permanent, stationary container designed to store an accumulation of, or process oil that is constructed of non-earthen materials that provide structural support.

9-3.3 Industrial Furnace. Any of the following enclosed devices that are integral components of manufacturing processes and use controlled flame devices to accomplish recovery of materials or energy:

a. Cement kilns

b. Lime kilns

c. Aggregate kilns

d. Phosphate kilns

e. Coke ovens

f. Blast furnaces

g. Smelting, melting and refining furnaces (including pyrometallurgical devices such as cupolas, reverberator furnaces, sintering machines, roasters, and foundry furnaces)

h. Titanium dioxide chloride process oxidation reactors

i. Methane reforming furnaces

j. Pulping liquor recovery furnaces

k. Combustion devices used in the recovery of sulfur values from spent sulfuric acid

l. Such other devices as the EPA Administrator may, after notice and comment, add to this list on the basis of one or more of the factors described in reference (a), Subpart B, Part 260.10.

9-3.4 Lubricating (Lube) Oil. Crankcase oil, cutting oil, gear lubricant, metalworking lubricant, hydraulic oil, and transmission fluid.

9-3.5 Navigable Waters. As defined in reference (b), Section 110.1, *"Navigable Waters"* means the waters of the United States, including the territorial seas. The term includes:

a. All waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide.

b. Interstate waters, including interstate wetlands.

c. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, and wetlands, the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) That are or could be used by interstate or foreign travelers for recreational or other purposes.

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce.

(3) That are used or could be used for industrial purposes by industries in interstate commerce.

d. All impoundments of waters otherwise defined as navigable waters under this section.

e. Tributaries of waters identified in paragraphs a-d of this section, including adjacent wetlands.

f. Wetlands adjacent to waters identified in paragraphs a-e of this section: Provided, "That *waste treatment systems (other than cooling ponds* meeting the criteria of this paragraph) are not waters of the United States..."

9-3.6 Off Specification Used Oil. Used oil that is not mixed with HW and that has constituents and properties, as determined by tests, that exceed the specified limits set in Table 1, reference (c).

9-3.7 Oil. As defined by OPA 90, Section 1001, "oil" means oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil, but does not include petroleum, including crude oil or any fraction thereof, that is specifically listed or designated as a hazardous substance under subparagraphs (A) through (F) of Section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 9601) and which is subject to the provisions of that Act.

NOTE:

This definition includes vegetable oil.

9-3.8 On Specification Used Oil. Used oil that is not mixed with HW and that has constituents and properties, as determined by tests, that do not exceed the specified limits set in Table 1, reference (c).

9-3.9 Processing. Any chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used oil-derived products. Processing includes, but is not limited to:

blending used oil with virgin petroleum products, blending used oil to meet the fuel specification, filtration, simple distillation, chemical or physical separation and re-refining.

9-3.10 Reclaimed. A material is reclaimed if it is processed to recover a usable product, or if it is regenerated.

9-3.11 Recycled. A material is recycled if it is used, reused, or reclaimed.

9-3.12 Transportation or Non-Transportation Related Oil Storage Facilities. Shore activities with oil storage facilities are classified as either transportation-related or non-transportation-related. Transportation-related facilities are primarily involved with bulk oil transfer. Bulk oil transfer includes transferring oil from stationary storage tanks to tanker ships, highway tankers, and railroad tank cars for transport to off-site locations. Non-transportation-related facilities are primarily involved in fuel storage for on site use.

9-3.13 Used Oil. Any oil that has been refined from crude oil, or any synthetic oil, that has been used and because of such use is contaminated by physical or chemical impurities.

9-3.14 Used Oil Generator. Any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

9-3.15 Used Oil Management Plan. A document that identifies sources of used oils, primary used oil segregation groups, recycling options, and detailed operational requirements for a specific Navy facility or facilities. (May be incorporated into or referenced in installation Hazardous Material Management Plan, or Pollution Prevention Plan.)

9-3.16 Used Oil Processor. A facility that processes used oil.

9-3.17 Used Oil Transfer Facility. Any transportation-related facility including loading docks, parking areas, storage areas and other areas where shipments of used oil are held for more than 24 hours and not longer than 35 days during the normal course of transportation, or prior to an activity performed under reference (c), Section 279.20(b)(2). Transfer facilities that store used oil for more than 35 days are subject to regulation under reference (d).

9-3.18 Used Oil Transporter. Any person who transports used oil, any person who collects used oil from more than one generator and transports the collected oil, and owners and operators of used oil transfer facilities. Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation but, with the following exception, may not process used oil. Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation), but do not produce (or make more amenable for production) used oil derived products or used oil fuel.

9-4 Requirements

9-4.1 Oil Storage Facilities. Transportation-related facilities serving vessels are subject to current USCG regulations. Through reference (e), the USCG requires facility operation manuals for applicable marine transportation-related facilities. These regulations, which apply to all components of DOD, address aspects of the design and operation of on-shore and offshore facilities that are engaged in the transfer of bulk oil to and from vessels.

EPA, through reference (f), requires spill prevention plans for applicable onshore non-transportation-related facilities.

The Research and Special Programs Administration (RSPA), under reference (g) requires response plans for onshore transportation-

related facilities, namely pipelines and tank trucks that leave naval facilities. See 10-4.1.

9-4.2 Spill Prevention Control and Countermeasure (SPCC) Plans

9-4.2.1 Facilities that are not transportation-related will have a SPCC Plan that provides a history of oil spill events, the potential for discharge of oil, as well as containment procedures and equipment to prevent oil spills into or upon a navigable waterway or shoreline of the U.S. A registered professional engineer (PE) in the State of jurisdiction must initially certify the SPCC plans, and the facility must review and evaluate them. Based on the review and evaluation, facilities will amend SPCC plans within 6 months of the review. Facilities must update their SPCC plans on a triennial basis and a PE must sign them.

9-4.2.2 SPCC plans are not required if the facility has an aggregate unburied storage capacity of 1,320 gallons or less of oil (provided no single container capacity exceeds 660 gallons), has a total underground storage capacity of 42,000 gallons or less, or could not reasonably be expected to discharge oil into or upon the navigable waters of the U.S. or adjoining shorelines because of facility location. Facilities that have experienced a spill into navigable waters of 1,000 gallons, or two reportable spills into navigable waters in any 12-month period, are required to submit SPCC plans to the EPA Regional Administrator under reference (f) within 60 days following such a spill.

9-4.2.3 New shore activities will prepare SPCC plans within 6 months of first operation and implement SPCC plans no later than 1 year after beginning operations. They will review SPCC plans and implement them within 6 months of a change in facility design, operation or maintenance, or the construction, completion and acceptance of a new facility that materially affects the facility's potential for the discharge of oil to navigable waters or adjoining shoreline.

9-4.2.4 Facilities will maintain SPCC plans at the facility and keep them available to EPA Regional Administrators or their designated representatives, and State and local agencies for on-site review during normal working hours.

9-4.3 Used Oil Recycling. DOD policy memoranda direct military departments to maximize the segregation, recycling and reuse of used oils, and to comply with Resource Conservation and Recovery Act (RCRA) regulations.

9-4.4 Used Oil Fuels Burned for Energy Recovery

9-4.4.1 Facilities burning used oil for energy recovery must test it. Used oil is subject to regulation under reference (c) unless the constituents and properties of the used oil do not exceed the allowable limits specified in Part 279.11. Used oil that does not have constituents and properties that exceed specification, i.e., the allowable limits set by Table 1 in Part 279.11, is not regulated under Part 279. However, the specification standard does not apply to mixtures of used oil and HW still regulated as HW according to Part 279. Also, used oil containing more that 1,000 parts per million total halogens is presumed to be a HW under Part 279.10(b)(1) unless it can be shown that the used oil does not contain HW using acceptable analytical methods.

9-4.4.2 Included in Part 279 are standards for used oil generators, transporters, transfer facilities, processors, marketers, and burners burning off-specification used oil for energy recovery. Part 279 also contains specific spill prevention and contingency-planning requirements for used oil storage, transfer and processing facilities.

9-4.4.3 Used oil that is mixed with a HW or HWs identified as such under reference (a), Subpart C, Characteristics of Hazardous Waste or under Subpart D, Lists of Hazardous Wastes, is subject to regulation as a HW (under reference (a)) if the

mixture exhibits any characteristics of HW as identified in Subpart C. Reference (c) prescribes specific provisions as to the applicability of the RCRA regulations to the management and use of used oil. Burning used oil that is a HW solely because it exhibits a characteristic of HW is subject to standards set forth in reference (c). The management and use of used oil, whether or not the used oil exhibits any characteristics of a HW, are regulated under reference (c).

9-4.4.4 Synthetic oils, fluids, and lubricants must be segregated from the crude-oil-derived used oil.

9-4.4.5 EPA must be notified by persons marketing or burning HW fuel, specification used oil fuel and off-specification used oil fuel. The sale of regulated fuels by the Defense Reutilization and Marketing Office (DRMO) is marketing; the transfer of regulated fuels between the various DOD components and activities are not.

9-4.5 Prohibited Uses of Used Oil. Used oils will not be used for environmentally unacceptable purposes such as weed control, insect control, road surfacing, dust control, or open pit burning.

A) **9-5 Navy Policy.** Navy shore facilities and Navy ships routinely manage oily wastes and waste oil. This chapter primarily addresses policy related to shore facilities. Chapter 19 contains policy for ships.

9-5.1 Navy Shore Facilities OPA 90 Compliance. Naval facilities shall use reference (f) for developing non-transportation-related facility response plans. Marine transportation-related facilities shall use reference (e) to develop response plans. All facilities shall use references (h), (i) and (j) to develop response plans for off-base transportation pipelines and bulk packaging. Normally a facility shall develop one response plan to address the requirements of all applicable response planning requirements, since most naval facilities are "complex" facilities under the OPA 90 regulations. The SPCC plan shall be a separate document. See chapter 10 for specific details on developing facility response plans.

9-5.2 Oil Storage Facilities. Navy policy is to meet USCG and EPA oil pollution prevention regulations pertaining to transportation-related and non-transportation-related facilities and to exceed those regulations wherever practicable.

9-5.3 Used Oil Recycling. Oil shall be recycled and reused within the Navy whenever technically and environmentally feasible and when environmentally acceptable. Navy policy is to recycle used oil per Federal, State and local regulations.

9-5.3.1 Military personnel and civilian employees shall be encouraged to collect used lube (crankcase) oil from personal vehicles for recycling via Navy installation, local, or regional used oil recycling programs.

9-5.3.2 If recycling of used lube oil is not feasible for economic reasons, the lube oil may be burned as a fuel or fuel supplement, provided appropriate chemical and economic analyses are made to determine suitability of burning as well as compliance with air pollution control requirements (chapter 5) and HW regulations (chapter 12).

9-5.3.3 When allowed by military used oil specifications, large installations or complexes shall consider closed loop used lube oil re-refining by commercial re-refiners.

9-5.3.4 Net proceeds from the sale of used oil shall be used by a Navy generating installation that has a qualified recycling program (QRP) for certain purposes as specified in chapter 14.

9-5.4 SPCC plans shall be developed as described in paragraph 9-4.2 and shall be prepared per Federal, State, and local requirements.

9-5.5 Oily Waste/Waste Oil (OW/WO) Management Plans. The cost and potential (A

environmental compliance problems associated with oily waste/waste oil (OW/WO) management both ashore and afloat necessitate a comprehensive approach that maximizes opportunities for recovery and recycling of usable product on a cost effective basis, provides necessary support to ships and submarines with varying capacities to retain or otherwise manage oily waste, and considers circumstances unique to specific ports, including the State and local regulatory climate. To balance these considerations correctly, facilities shall implement the following planning procedures:

A) **9-5.5.1 Oily Waste/Waste Oil Management Plan General Requirements.** Shore Facilities that manage oil products or waste products shall develop OW/WO Management Plans as follows:

a. The complexity and content of the OW/WO Management Plan will depend on the individual homeport or Navy activities grouped within a region. Factors affecting the management of OW/WO at individual port activities include, but are not limited to, the local environmental regulatory requirements, local water quality, the availability of shoreside infrastructure and resources, assigned ship classes and time in port, and bilgewater and other OW/WO generation rates.

b. OW/WO Management Plans shall include activity-specific policies for collecting, treating, and disposing of bilgewater from naval vessels and other shipboard and shoreside oily wastes. Facilities shall make this plan consistent with the policy set forth in section 19-5. It shall address the management of shipboard OW/WO from ships where oil water separators (OWSs) and oil content monitors (OCMs) are either not installed or installed, but not operational

c. Each plan shall include an evaluation of the problems specific to the naval activity or region. The plan shall include a review and summary of the site-specific regulatory requirements for the collection, treatment, transfer, and disposal of bilgewater and other OW/WO as well as the requirements for the use of reclaimed oil. It shall provide an inventory of existing OW/WO generating sources and treatment facilities that documents current generation rates and available resources for handling OW/WO.

Using this inventory, as well as the estimated future generation of OW/WO at the activity, the plan shall identify feasible alternatives for the collection, storage, treatment, and transfer of OW/WO. Alternatives may include various combinations of collection (waste oil barges, pier riser systems, pumping stations), storage (tankage, barges) treatment (package treatment units, commercial or Navy-owned oily waste treatment facilities, commercial hauler), and transfer (truck or rail car, pipelines). Plans shall discuss the unique regulatory situation affecting bilgewater and other OW/WO management in each area and justify the validity of each alternative considered. Activities shall conduct an economic analysis of the proposed alternatives that considers life-cycle costs for not less than 25 years.

The plan shall provide a plan of action with milestones for implementation of the recommended alternatives, including the appropriate project documentation for any project actions required under the recommended alternatives. For proposed military construction projects, facilities shall use the economic justification required by Commander Naval Facilities Engineering Command (COMNAVFACENGCOM) Economic Analysis Handbook, P-442, (NOTAL) as a basis for all economic comparisons. OW/WO Management Plans shall discuss procedures for plan implementation, addressing all facilities, equipment, personnel, and procedures indicated by the most feasible alternative.

d. OW/WO Management Plans have no established format. Facilities may prepare plans in the format of a regional instruction pertinent to assigned shore and afloat units. Regardless of the format chosen, the content and complexity of OW/WO Management Plans will depend upon the

characteristics of the individual activity or region as described below.

(1) Tier I activities. Tier I activities, because of their size, function, and geographic location, require management plans written from a regional perspective. These activities are the homeport to a large number and variety of ships where high volumes of bilgewater are generated daily. They are near enough to other Navy activities that planners should consider regionally shared OW/WO management strategies and alternatives for collection, storage, transfer, treatment, and disposal.

The Regional Environmental Coordinator (REC) for each Tier 1 activity shall develop and implement a Regional OW/WO Management Plan, with each individual oil-handling Navy installation within the geographic region of the Tier I activity having its own OW/WO Management Plan based on the most feasible regional alternative. The REC shall forward these plans to the Area Environmental Coordinator (AEC) for approval.

Tier I activities requiring OW/WO Management Plans written from a regional perspective are Commander, Navy Region Mid Atlantic (COMNAVREG MIDLANT NORFOLK VA), Commander, Navy Region Southwest (COMNAVREG SW SAN DIEGO CA), and Commander, Navy Region Hawaii (COMNAVREG PEARL HARBOR HI).

(2) Tier II activities. Tier II activities are major homeports and shipyards that are not part of a major geographic complex of activities covered by Tier I Regional OW/WO Management Plans. The requirements for Tier II activities are the same as for Tier I activities, except that the Tier II plans will not be written using a regional approach, but will be written specifically for the individual activity or complex, including tenant commands. The host activity is responsible for the development and implementation of the OW/WO Management Plans for Tier II activities, and forwards these plans to the cognizant REC for approval.

Tier II activities are:

(a) NAVSTA Mayport, FL

(b) SUBASE Kings Bay, GA

(c) NAVSHIPYD Portsmouth NH

(d) NAVMARIANASUPPACT GUAM

(e) NAVSHIPYD Bremerton, WA

(f) SUBASE Bangor, WA

(g) SUBASE New London, CT

(h) NAVSTA Everett, WA

(3) Tier III activities. Tier III activities are home ports not listed as Tier II activities and not covered by a Tier I OW/WO Management Plan. This category also includes other naval installations that may not serve as home ports but do have periodic ship berthing. Activities scheduled for Base Realignment and Closure are also Tier III activities. A Tier III activity may not require an OW/WO Management plan if ships do not routinely generate OW/WO or if they generate a small amount and dispose of it by methods that meet Federal, State, and local requirements. Activities planned for closure may need OW/WO Management Plans if there are specific regulatory concerns or if the existing operations are not cost-effective. Based on information provided by Tier III activities, RECs may waive the development of a discrete OW/WO Management Plan; otherwise, Tier III activities shall develop and submit an OW/WO Management Plan for cognizant REC approval.

e. The REC shall decide when to update the OW/WO Management Plans for Tier I activities, and the host activity will decide for Tier II and III

activities. Updates are necessary when significant operational changes occur that affect OW/WO collection, treatment and/or disposal; when construction of collection, treatment and/or disposal facilities are completed; and, when responsibilities for OW/WO management are transferred from one command to another.

f. The REC shall submit an annual OW/WO status report to CNO via the chain of command for Tier I activities. It will provide a summary of OW/WO management efforts in the region for the previous year. The report shall contain, at a minimum, the following for each activity managing shipboard OW/WO:

(1) Brief description of current OW/WO management practices;

(2) Brief description and status of projects for installation of OW/WO collection, treatment and/or disposal facilities completed in the previous year or planned;

(3) Status of ODR phase out, including number of ODRs eliminated in the previous year and number of ODRs remaining in use;

(4) Summary of the previous year's OW/WO management costs; and

(5) Brief description of the current regulatory climate, including any permit conditions, enforcement actions or negotiations with regulators.

The REC should submit the report to CNO by 1 November of each year.

A) **9-5.5.2 Oil Discharge Raft Phaseout**

a. Navy policy is to eliminate the use of ODRs as soon as possible in all Navy ports.

b. ODRs may continue in use at facilities where existing infrastructure is not sufficient to collect or treat bilgewater and a detailed OW/WO Management Plan has established a plan of action with milestones for their eventual elimination.

9-5.5.3 Use of Oil Water Separators By Ships In Port. (A Section 19-5 includes additional oily waste management and operational requirements for ships. Navy policy is to maximize segregation, recycling, and reuse of fuel and oil. Shoreside collection of OW/WO, followed by recovery of recyclable product is, therefore, the preferred method of dealing with OW/WO from ships. However, ships equipped with OWSs and OCMs may discharge via those systems in port. Discharged effluent may not exceed 15 parts per million (ppm) of oil in water, cause a sheen, or violate any other applicable water quality standard. Before discharging via an OWS, chapter 19 requires ships to consult with the supporting shore facility host command for discharge requirements.

9-5.5.4 Collection, Treatment, and Disposal of OW/WO. Under the appropriate circumstances and after consultation among the concerned activities, commands responsible for writing the plans may modify responsibilities to achieve the most economical method of OW/WO management for the Navy. The responsible commands should examine all options to maximize use of current facilities including functional transfer of OW/WO facilities, funding, and operating responsibilities.

9-5.5.5 OW/WO as Hazardous Waste (A

a. Under normal circumstances, bilgewater does not exhibit the characteristics of a HW and does not typically contain listed HWs. Circumstances develop, however, when bilgewater can become a HW, such as when an event introduces a HW into the bilge or when State law defines bilgewater as a HW even though not specifically contaminated. Chapter 19 requires ships to notify shore receiving facilities before offloading bilgewater or any other OW/WO if oily waste is contaminated from other than routine sources, such as aqueous film-forming foam

(AFFF), solvents, anti-freeze, or other HM. Shore installations shall handle, store, transport, treat and dispose of such OW/WO per applicable HW regulations. Installations shall not use ODRs to receive such waste. Some States consider bilgewater as hazardous waste. Chapter 19 requires ships in those states to consult with the host receiving facility for collection and discharge requirements.

b. Generally, installations should manage bilgewater like any other waste. That is, the generator bears the responsibility for determining whether or not it is hazardous. Since wastes from ships are not regulated as HW until offloaded, the receiving shore facility is the generator. The receiving facility shall sample and test bilgewater and other OW/WO batches periodically to see if the waste is a "characteristic" HW under 40 CFR 261.24 or meets the toxicity criteria of 40 CFR 261.11. If it exceeds the standards of either criteria, installations shall manage it as HW. The OW/WO Management Plan shall contain sampling protocols and procedures and require actions to trace and eliminate the source of contamination. Installations shall determine frequency of testing by reference to the historic characteristics of samples and their level of confidence in the consistency of samples.

A) **9-5.5.6 Compensating Fuel Ballast Water Systems and OW/WO.** Under normal circumstances, compensating fuel ballast water is neither OW/WO nor HW. Chapter 19 requires ships to strictly comply with fuel transfer and ballasting procedures to ensure ballast water does not become contaminated with oil or any other waste. Ships using self-compensating fuel tanks are required to ensure adequate margin is preserved to prevent inadvertent discharges of oil with the compensating water. Some State regulations require supporting shore activities to collect and process compensating fuel ballast water before discharge to the environment. Activities in these states shall address collection, treatment, storage, and disposal of such water in the OW/WO Management Plans.

9-5.5.7 Funding. OW/WO Management Plans shall include a requirements plan specifying the fiscal year of the funding by fund type. This information shall parallel information identified in cognizant major claimant Program Objective Memorandum (POM) and Program Review submissions. A summary of project documentation submitted for approval shall be included for alternatives that require military construction or claimant-approved special projects. Funding types that may be required include: Military Construction, Navy (MCN); Military Construction, Naval Reserve (MCNR); Operations and Maintenance, Navy (O&MN); Operations and Maintenance, Naval Reserve (O&MNR); and Other Procurements, Navy (OPN). (A

9-6 Responsibilities

9-6.1 COMNAVFACENGCOM shall

a. Provide technical advice and prepare revisions to reference (k) to assist shore activities in the preparation of SPCC plans.

b. Provide technical and administrative guidance associated with the collection, segregation, re-refining and disposal of used lubricating oil.

c. Provide technical and administrative guidance associated with the collection, segregation, re-refining and disposal of used contaminated fuels.

d. Provide technical advice and prepare appropriate manuals or other forms of guidance for used oil management.

9-6.2 COMNAVSUPSYSCOM shall provide technical and administrative guidance to Navy shore activities concerning USCG and EPA regulations.

9-6.3 Major claimants shall

a. Ensure that shore activities meet EPA requirements related to the prevention of oil spills and the preparation and review of SPCC plans.

A) b. Provide maximum cooperation with and support to facilities and RECs in the development and implementation of OW/WO Management Plans, including functional transfer of OW/WO facilities or operating responsibilities, and funding of plan requirements under their cognizance.

c. Ensure subordinate commands update area or regional instructions, including SOPA and SOPA ADMIN instructions, consistent with this chapter and approved OW/WO Management Plans.

A) **9-6.4 Area Coordinators** shall review and approve Tier I regional OW/WO Management Plans.

A) **9-6.5 Regional Environmental Coordinators** for regions III and IX shall issue Tier I regional home port OW/WO Management Plans for the Norfolk and San Diego areas respectively, as approved by the Area Coordinator. All RECs shall review and approve Tier II and III installation OW/WO Management Plans or exempt Tier III installations from the requirement.

9-6.6 Commanding officers of shore activities shall

a. Prepare activity SPCC plans per Federal, State, and local requirements; implement and review within prescribed periods.

b. Identify and submit, under chapter 1, environmental compliance projects required for implementation of the activity SPCC plan.

c. Comply with Federal, State, and local requirements concerning oil pollution and used oil fuels for energy recovery.

d. Establish and maintain a used oil-recycling program.

e. Comply with USCG and RSPA regulations for transportation-related oil storage facilities and EPA for non-transportation-related facilities.

f. Ensure that facility operations manuals are prepared, maintained, and submitted per USCG guidance reference (e).

g. Comply with OPA 90 requirements to prepare facility response plans, as discussed in chapter 10.

h. Develop or provide assistance in developing OW/WO Management Plans as follows: (A

(1) Tier I installations shall provide assistance to the cognizant REC in developing and implementing a regional OW/WO Management Plan.

(2) Tier II installations shall develop OW/WO Management Plans and submit them to the cognizant REC. Servicing Engineering Field Divisions/Activities and RECs shall provide technical and legal assistance as needed.

(3) Tier III installations shall develop OW/WO Management Plans and submit them to the cognizant REC for approval unless exempted from this requirement by the REC. Servicing Engineering Field Divisions/Activities and RECs shall provide technical and legal assistance as needed.

CHAPTER 10

OIL AND HAZARDOUS SUBSTANCE SPILLS

10-1 SCOPE

This chapter identifies Navy requirements to plan for and respond to oil discharges and hazardous substance releases (*OHS spills*) from Navy vessels and shore facilities worldwide. This chapter summarizes Navy planning and response requirements for Navy and non-Navy OHS spills. Chapter 12 describes the comprehensive management of hazardous materials and hazardous waste. Chapters 9 and 19 discuss the prevention and minimization of oil pollution at shore facilities and aboard ship, respectively. Chapter 18 covers Navy policy for overseas activities, and chapter 27 identifies Navy responsibility with respect to Natural Resource Damages in the aftermath of OHS spills.

10-1.1 References.

a. 29 CFR 1910.119 and 120, Hazardous Waste and Emergency Response;

b. 40 CFR 117, 302 and 355, Reportable Quantities of Hazardous Substances.

c. 40 CFR 300, National Oil and Hazardous Substances Pollution Contingency Plan.

10-2 LEGISLATION

10-2.1 Federal Water Pollution Control Act of 1972 (FWPCA) as amended by the Oil Pollution Act of 1990 (OPA 90), 33 USC § 1321

a. The FWPCA prohibits the discharge of oil and hazardous substances in such quantities as may be harmful into or upon the navigable waters of the United States, including the contiguous zone, exclusive economic zone and adjoining shorelines.

b. The FWPCA provides the authority for the establishment of the National Response Team, the National Response Center and the National Contingency Plan (NCP).

c. The NCP establishes the roles and responsibilities of various Federal agencies to provide for efficient, coordinated and effective action to minimize damage from oil discharges and hazardous substance releases.

d. The FWPCA, as amended by OPA 90, provides for the preparation and submission of response plans for tank vessels, offshore facilities, and onshore facilities that could reasonably be expected to cause substantial harm to the environment by discharging into or upon the navigable waters, adjoining shorelines, or the exclusive economic zone. The FWPCA must be read carefully as it contains different requirements for commercial and public vessels. The OPA 90 amendments to the FWPCA call for the periodic inspection of response equipment and drills. These amendments also establish new administrative and civil penalties for violations of the FWPCA and expand administrative provisions under the FWPCA.

e. Under the FWPCA, the NCP and Executive Order 12777, the Federal On-scene Coordinator (OSC) is the Federal official predesignated by the Environmental Protection Agency (EPA) or the Coast Guard to coordinate and direct response to OHS spills. The OSC has authority to enforce the administrative and criminal provisions of the law. The FWPCA also requires vessels and facilities to report OHS spills.

10-2.2 Oil Pollution Act of 1990 (OPA 90), 33 U.S.C. §2701 *et seq.*:

a. OPA 90 revises the FWPCA and other statutes to expand Federal and State involvement in the nation's oil and hazardous substances spill prevention, preparedness, and response activities. Public vessels are exempt from the provisions of OPA 90. Navy shore facilities must comply.

b. OPA 90 also establishes the Oil Spill Liability Trust Fund (OSLTF) as a source for funding removal costs, including the cost of monitoring removal actions, consistent with the NCP. The OSLTF is administered by the Coast Guard and consists of the Emergency Fund and the Principal Fund. The Emergency Fund is to fund removal actions by Federal OSCs, initiate Natural Resources Damage Assessments, and fund immediate removal actions by States. The Principal Fund is used to pay claims against the OSLTF and for congressional appropriations to carry out other OPA 90 requirements.

c. OPA 90 provides for natural resource trustees to act on behalf of the public to assess damages and to develop and implement a plan for restoration, rehabilitation, replacement, or acquisition of the equivalent of the natural resources injured, lost or destroyed as a result of a discharge of oil. For additional discussions of trustee responsibilities and natural resource damage assessment procedures, refer to chapter 27.

10-2.3 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. §9601 *et seq.*

a. CERCLA provides the government with authority to compel persons to clean up releases of hazardous substances (HS). It also contains provisions which make responsible parties liable for the costs of clean-up, and the creation of the hazardous substance Superfund which enables an OSC to conduct clean-up.

b. CERCLA also requires facilities to report the release of any of the more than 700 listed hazardous substances to the National Response Center. CERCLA exempts oil from the list of hazardous substances created by the FWPCA/Clean Water Act (CWA) and the Toxic Substances Control Act, among others.

c. CERCLA gives the EPA (for inland zones) and the Coast Guard (for coastal zones) the authority to designate an OSC to direct emergency response and OHS removal activities. The OSC is provided with administrative and enforcement authority to implement the provisions of CERCLA. Under the NCP (40 CFR 300.120), the Department of Defense (DOD) is required to provide the OSC for releases of hazardous substances from DOD facilities or vessels.

10-2.4 The Emergency Planning and Community Right-to-Know Act of 1986, (EPCRA), 42 U.S.C. §11001, *et seq.*

EPCRA requires industry and Federal (by subsequent Executive Order), State and local governments to report hazardous and toxic chemical releases to the public. EPCRA requires these entities to identify potential risks to a surrounding community from a facility or operation that handles hazardous substances and sets forth community notification procedures. (See chapter 4.)

10-2.5 Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §6901, *et seq.*

a. RCRA establishes requirements for facilities which generate, transport, treat, store, or dispose of solid and hazardous wastes. RCRA has several programs, including very detailed and specific requirements for facilities that deal with hazardous wastes, non-hazardous solid wastes, underground storage tanks and used oil. In general, the RCRA regulations address the day-to-day management of hazardous wastes.

b. RCRA requires contingency plans designed to minimize hazards to human health and the environment. These plans should provide information on facility emergency equipment, evacuation, and coordination (40 CFR Parts 260-282). Activities must submit a copy of these plans to all local police and fire departments, hospitals and State and local emergency response teams that may be called upon to provide emergency services.

10-2.6 Clean Air Act Amendments of 1990 (CAA), 42 U.S.C. §7401, *et seq.*

a. One of the goals of the CAA Amendments was to prevent the accidental release of regulated substances and other extremely hazardous substances into the air and to minimize the consequences of those releases. The amendments focus on preventive measures for those chemicals that pose the greatest risk.

b. Section 112(r) establishes a general duty for stationary facilities to identify hazards that may result from the release of regulated substances, to design and maintain a safe facility, and to minimize the consequences of releases when they occur.

c. In 1992, The Occupational Safety and Health Administration (OSHA) issued a Process Safety Management of Highly Hazardous Chemicals Rule, reference (a), under the CAA Amendments. Reference (a) directs employers to establish a process safety management program to prevent or mitigate catastrophic chemical workplace emergencies and requires employers to have an emergency action plan.

10-2.7 Occupational Safety and Health (OSH) Act, 29 U.S.C. §*651, et seq.*

a. OSHA is primarily responsible for protection of worker health and safety under the OSH Act. OSHA has several standards that cover emergency response planning for facilities that handle, store, or transport hazardous substances. These requirements serve to protect facility employees and emergency responders.

b. Reference (a) also includes provisions to clean up uncontrolled hazardous waste sites, implement corrective action and establish routine and emergency hazardous waste operations.

c. OSH is applicable to Federal employees by Executive Order. Employers must implement a program that includes a written safety and health program, site evaluation and control, training, personal protective equipment, monitoring, medical surveillance, decontamination procedures and an emergency response program. Title 40 CFR 302 (Designation, Reportable Quantities, and Notifications) lists reportable quantities of HS. Title 40 CFR 261.3 defines hazardous waste.

10-2.8 State and Local Programs

a. State programs requiring OHS spill prevention, preparedness, and response vary widely. All States require notification of State and local authorities of OHS spills. Certain States, and coastal States in particular, have stringent requirements for vessel and facility spill response plans and prevention measures that exceed Federal standards. DOD facilities, including Navy facilities, are subject to State and local facility prevention and response planning requirements.

b. Navy Shipboard Spill Contingency Plans (SCP) are not subject to State regulations. Commands may, however, provide courtesy copies of SCPs to State regulators to promote strong, cooperative relationships with the local community.

10-3 TERMS AND DEFINITIONS

10-3.1 Area Committees. The Federal, State and local agencies who cooperate to prepare an

Area Contingency Plan and work with State and local officials to pre-plan joint response efforts.

10-3.2 Area Contingency Plans (ACP). A plan prepared by the Area Committee to respond to worst case OHS spill scenarios, which identifies equipment and personnel available for such response activities. The ACP also identifies and prioritizes sensitive areas and natural resources, identifies strategies for their protection, and pre-approves specific countermeasures and removal actions within the planning area.

10-3.3 Contiguous Zone. A zone of the high seas that is contiguous to the territorial sea (see section 10-3.29) and extends 9 nautical miles (nm) seaward from the outer limit of the territorial sea.

10-3.4 Discharge. Includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil. It excludes:

a. Discharges by permit under the CWA.

b. Discharges resulting from circumstances identified, reviewed and made a part of the public record regarding a permit issued or modified under the CWA, and subject to a condition in such permit.

c. Continuous or anticipated intermittent discharges from a point source, identified in a permit or permit application under the CWA and caused by events occurring within the scope of relevant operating or treatment system.

The NCP defines discharge to include a substantial threat of discharge.

10-3.5 Dispersant. Any of several chemical agents that emulsify, disperse, or make soluble oil into the water column or promote the surface spreading of oil slicks to facilitate dispersal of the oil into the water column.

10-3.6 Exclusive Economic Zone (EEZ). A zone extending 200 nm from the territorial sea baseline, or to the maritime boundary of another country closer than 200 nm.

10-3.7 Facility. Any structure, group of structures, equipment or device (other than a vessel) used for one or more of the following purposes: exploring for, drilling for, producing, storing, handling, transferring, processing or transporting OHS. This term includes any motor vehicle, rolling stock or pipeline used for one or more of these purposes.

10-3.8 Facility Incident Commander (FIC). Commanders or commanding officers (COs) of designated naval shore facilities or complexes pre-designated by the cognizant Navy On-Scene Coordinator (NOSC) and required to prepare an OHS Facility Response Plan covering the area assigned by the NOSC. FIC designations are based on OHS spill risk and response capability of the command to ensure rapid, effective response to OHS spills within the assigned area.

10-3.9 Federal On-Scene Coordinator (Federal OSC). The Federal official pre-designated by the U.S. Environmental Protection Agency (EPA) or the United States Coast Guard (USCG) to coordinate and direct Federal responses under the NCP, except for DOD HS releases. In the case of HS releases from DOD facilities or vessels, DOD pre-designates the Federal OSC. The NOSC is the Federal OSC for Navy HS releases.

10-3.10 Hazardous Substance

a. Any substance so designated by the FWPCA.

b. Any element, compound, mixture, solution, or substance so designated by CERCLA.

c. Any solid waste having the characteristics of, or listed as, a hazardous waste as

defined under RCRA (but not including any waste suspended by an Act of Congress).

d. Any toxic pollutant listed under the CAA.

e. Any imminently hazardous chemical substance or mixture upon which the Administrator of the EPA has acted under the Toxic Substances Control Act (TSCA).

The term *does not* include petroleum, crude oil or any refined product (such as gasoline, diesel or fuel oil) not otherwise specifically listed or designated as a hazardous waste. Title 40 CFR Part 261.3.

The term *does not* include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

10-3.11 Incident Command System (ICS). An emergency response structure required by OSHA consisting of an individual in charge of the incident (Incident Commander) and four functional groups (Operations, Logistics, Planning and Finance) that support the Incident Commander. During major oil discharges, Federal agencies establish an ICS under the National Response System. State agencies may also establish an ICS. An ICS becomes a "Unified Command System" when the party responsible for the spill works jointly with State and Federal agencies. Where Navy is the potentially Responsible Party, the Navy Incident Commander, the State OSC, and the Federal OSC make up the Unified Command.

10-3.12 Navy On-Scene Coordinator (NOSC). The Navy official pre-designated to coordinate Navy OHS spill contingency planning and to direct Navy OHS spill response efforts in a pre-assigned area. Shoreside NOSCs are normally Regional Environmental Coordinators (RECs) pre-designated by the cognizant Area Environmental Coordinator (AEC). (See chapter 1.) CINCPACFLT, CINCLANTFLT and CINCUSNAVEUR pre-designate fleet NOSCs for assigned ocean areas. The NOSC is the Federal OSC for all Navy HS releases. The NOSC also acts as the incident commander for OHS spills beyond the FIC's assigned Area of responsibility (AOR), and as incident commander for spills which exceed the response capability of the FIC.

10-3.13 National Contingency Plan (NCP). The legal framework for Federal government OHS pollution contingency planning and response above the facility level. The NCP describes the National Response Team, the Regional Response Team and the National Response Center and designates the roles and responsibilities of DOD in national OHS spill response planning.

10-3.14 National Response Center (NRC). (800-424-8802 or 202-267-2675.) The 24-hour OHS spill notification center, located at USCG headquarters in Washington, DC. The NRC is the single Federal notification point (outside the Navy chain of command) for emergency spill response. Having reported a spill to the NRC, an activity need make no further Federal notifications. The NRC is responsible for notifying the pre-designated Federal OSC of reported OHS pollution incidents.

10-3.15 National Response Team (NRT). The Federal response organization, consisting of 15 Federal agencies (including DOD), that coordinates OHS spill response and contingency planning efforts. The EPA chairs the NRT and the USCG sits as vice chair.

10-3.16 Navigable Waters. The surface waters of the United States, including the territorial seas. The term includes:

a. All waters currently used, used in the past, or susceptible to future use in interstate or foreign commerce, including all waters subject to the ebb and flow of the tide;

b. Interstate waters, including interstate wetlands;

c. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, and wetlands, the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) That are or could be used by interstate or foreign travelers for recreational or other purposes;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(3) That are used or could be used for industrial purposes by industries in interstate commerce;

d. All impoundments of water otherwise defined as navigable waters under this sub-section;

e. Tributaries of waters identified in paragraphs a through d of this sub-section, including adjacent wetlands; and

f. Wetlands adjacent to waters identified in paragraphs a through e of this sub-section: provided that waste treatment systems (other than cooling ponds meeting the criteria of this paragraph) are not navigable waters of the United States.

10-3.17 NOSC Response Plan. The Navy plan to respond to OHS spill incidents within the NOSC's pre-assigned AOR that are beyond the capability of the spilling facility or vessel.

10-3.18 OHS Facility Response Plan. A plan of action for facility spill scenarios (coordinated with the local ACP) which identifies notification procedures, response and cleanup capabilities, management information, environmentally sensitive areas, natural resource protection strategies and measures to protect human health and safety.

10-3.19 Oil. Animal, vegetable or petroleum-based oil of any kind or in any form, including, but not limited to, fuel oil, sludge, oil refuse, oil mixed with wastes other than dredge spoils and refined products such as gasoline, diesel, jet fuel, and cooking oil.

10-3.20 Public Vessel. A vessel owned (or bareboat chartered) and operated by the U.S., or by a State or political sub-division thereof, or by a foreign nation, except when such vessel is engaged in commerce.

10-3.21 Qualified Individual (QI). The term used by the Coast Guard and EPA to designate the individual identified in the Oil and Hazardous Substance Facility Response Plan (OHS FRP) and NOSC OHS Spill Contingency Plan who:

a. Is available on a 24-hour basis and able to arrive at the facility in a reasonable time;

b. Is familiar with the implementation of the plan;

c. Is trained in the responsibilities of the QI under the plan;.

d. Has authority to activate the OHS spill response organization;

e. Has authority to direct the obligation of funds required to carry out response activities; and

f. Will act as a liaison with the pre-designated Federal OSC.

10-3.22 Regional Contingency Plans (RCPs). RCPs are developed by the Regional Response Team to assist the OSC in the event that an incident exceeds the response capabilities identified in the ACP. The RCP sets forth the

criteria permitting the use of alternative response techniques such as dispersants and in-situ burning.

10-3.23 Regional Response Team (RRT). The Federal response network under the NRT, consisting of representatives from regional Federal and State agencies. There are 13 RRTs, one for each of the 10 standard Federal Regions, and one each for Alaska, Oceana (Hawaii and the U.S. Pacific islands), and U.S. Caribbean islands. The RRT has the authority to approve or disapprove the use of alternative response techniques, such as dispersants, in-situ burning, and bioremediation.

10-3.24 Release. Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment, of any hazardous substance (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any HS or pollutant or contaminant). The term "release" *excludes*:

a. Any spilling, leaking, etc. that results in exposure to persons solely within a work place.

b. Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine.

c. Spilling, leaking, etc. of source, byproduct, or special nuclear material from a nuclear incident subject to the jurisdiction of the Nuclear Regulatory Commission, or any spilling, leaking, etc. of source, byproduct, or special nuclear material from any processing site designated under the Uranium Mill Tailings Radiation Control Act of 1978.

d. The normal application of fertilizer and herbicides.

The NCP defines discharge to include a substantial threat of discharge.

10-3.25 Release, Federally Permitted. Any release of HS in compliance with Federal law including the CWA, the CAA, the Solid Waste Disposal Act (SWDA), the Marine Protection, Research, and Sanctuaries Act (MPRSA), and the Atomic Energy Act.

10-3.26 Reportable Quantity. *A release of a* CERCLA-listed HS or an EPCRA-listed Extremely Hazardous Substance (EHS) exceeding the limit for that substance. HS or EHS releases that equal or exceed these limits must be reported to Federal, State, and local authorities immediately upon discovery. See reference (b) for a list of Reportable Quantities.

10-3.27 Responsible Party. The person or persons who have caused, or could potentially cause an HS release or oil discharge, including the following categories:

a. Vessels: Any person owning, operating, or bareboat chartering a vessel;

b. Onshore Facilities (other than a pipeline): Any person owning or operating the facility, except where possession and right to use Navy property has been transferred to another person by lease, assignment, or permit;

c. Offshore Facilities (other than a pipeline or a deepwater port licensed under the Deepwater Port Act of 1974 (33 USC §1501 *et seq.*)): The lessee or permit holder of the area in which the facility is located or the holder of a right of use or easement granted under applicable State law.

10-3.28 Spill of National Significance. A spill which, due to its severity, size, location, actual or potential impact on the public health and welfare, or the environment, or due to the necessary response effort, is so complex that it requires extraordinary coordination of Federal, State, local, and Responsible Party resources to contain and cleanup the discharge.

10-3.29 Territorial Sea. For the purposes of this chapter, the territorial sea extends 3 nm seaward from the mean low water line of the nearest U.S. shoreline, including islands. (For international law purposes, however, the "territorial sea" extends 12 nm from shore.) See also sub-section 10-3.3 of this chapter.

10-3.30 United States (U.S.). The several States, District of Columbia, Commonwealth of Puerto Rico, Commonwealth of the Northern Marianas Islands, Guam, American Samoa, U.S. Virgin Islands, and any other territory or possession over which the U.S. has jurisdiction.

10-3.31 Vessel. Every type of watercraft or other artificial conveyance used, or capable of being used as a means of transportation upon the navigable waters of the U.S.

10-4 REQUIREMENTS

10-4.1 Facility Response Plans (FRP)

a. Facilities must submit FRPs for a broad range of activities. Four Federal agencies regulate the different categories of facilities required to submit FRPs.

(1) The USCG regulates deepwater ports and marine transportation-related facilities. See Title 33 CFR 150, Deep Water Port Operations, and 33 CFR 154, Facilities Transferring Oil or Hazardous Material in Bulk.

(2) The EPA regulates non-transportation-related onshore facilities. See Title 40 CFR 112, Oil Pollution Prevention.

(3) The Research and Special Programs Administration (RSPA) of the Department of Transportation regulates mobile facilities (tank trucks, railroad cars, and portable tanks). See Title 49 CFR 130, Oil Discharge Prevention and Response Plans for Oil Transportation. RSPA also regulates onshore pipelines. See Title 49 CFR 194, Response Plans for Onshore Oil Pipelines.

(4) The Minerals Management Service regulates offshore platforms and offshore pipelines. See Title 30 CFR Parts 250 and 254, Response Plans for Offshore Oil Pipelines.

b. Most Navy facilities fall under either USCG or EPA jurisdiction. Facilities meeting the criteria for more than one type of facility are "complex facilities." Many Navy facilities fall under this category. A few Navy facilities with pipelines that leave the facility may also fall under the RSPA's jurisdiction. Additionally, Navy facilities with mobile sources may also fall under RSPA's jurisdiction. No facility requires more than one OHS FRP. However, each facility must submit an OHS FRP to each Federal agency that has jurisdiction over it. The requirements for the OHS FRP vary widely depending on the type of facility. For example, the information required for a mobile facility is not as extensive as that required for a non-transportation-related facility. There are certain essential elements common to all. These include:

(1) An individual who can be reached on a 24-hour basis and has the authority to take necessary response action.

(2) An emergency section of the plan that provides concise response direction.

(3) Extensive drills and exercises with specified documentation and record-keeping.

(4) A provision for regular update and review of FRPs.

10-4.1.1 Integrated Contingency Plan (ICP). A 1990 revision of the Clean Air Act required a Presidential Review of Federal statutes that addressed prevention, mitigation, and response to hazardous materials releases. The Presidential Review concluded that multiple laws and

regulations, developed independently within the regulatory agencies, resulted in an expansive contingency planning structure. Additionally, the costs associated with developing multiple facility contingency plans, including reviews, updating, and plan re-submissions, represent a heavy financial requirement for plan holders. The NRT recommended consolidating the multiple requirements and revising the formats into a single Integrated Contingency Plan (ICP). The ICP offers a format for combining facility response planning documents into a single response document. An ICP is a single OHS spill response plan that fully complies with the OPA 90 regulations and, in addition, covers applicable response plan requirements from USCG, RSPA, OSHA, and EPA. Activities may elect to develop an ICP instead of a dedicated FRP.

10-4.1.2 ICP Replacement of FRP. Facilities with multiple planning requirements may elect to adopt the ICP format to take advantage of potential cost savings. Facilities should do so when submitting their various plans for agency approval.

The intent of the ICP option is not to create a new document, but to fold existing plans into a basic ICP format as they require resubmission. Facilities do not need to convert all current response plans to the ICP format at one time. A phased approach is encouraged to space the cost of conversion over a period of years.

10-4.2 Reporting OHS Spills

10-4.2.1 Within the U.S. Federal law requires that responsible parties immediately report to Federal authorities all OHS spills within U.S. jurisdiction (including U.S. waters, territories and possessions). Federal law provides criminal penalties for failure to report OHS spills.

a. **Quantities to Report.** Navy commands shall report by voice to the National Response Center at USCG Headquarters (NRC):

(1) Any discharge of oil which causes a sheen upon (or discoloration beneath) the surface of the navigable waters of the United States;

(2) Any discharge of oil which threatens to reach the navigable waters of the United States;

(3) Any release of a hazardous substance in the United States (its territories, possessions or navigable waters) in excess of quantities proscribed by reference (b).

(4) When in doubt call the NRC.

b. Facilities. Navy facility commanders shall immediately report the fact and nature of any OHS spill from Navy installations by voice to the NRC at 1-800-424-8802 or 202-267-2675. Facility commanders shall also comply with State and local reporting requirements immediately thereafter.

c. **Vessels.** While public vessels are generally exempt from State and Federal reporting requirements, commanding officers and masters of Navy vessels shall immediately report the fact and nature of an OHS spill from their vessel by voice to the NRC at 1-800-424-8802 or 202-267-2675.

d. **Excess Navy Property.** Caretakers shall continue to report OHS spills from excess Navy property until the property passes to the management and control of local reuse authorities.

e. **Immediate Voice Report.** Activities should not delay NRC notification in order to obtain more detailed information about the incident. Immediate voice notification to the NRC fulfills all Federal notification requirements. If reporting activities cannot reach the NRC by voice on the first attempt, they shall immediately notify the nearest EPA office or USCG station.

f. **Sheen Sightings.** Responsible environmental stewardship and longstanding maritime tradition require that commanding officers report to proper authorities any oil on the water's surface discovered in the course of daily operations—whether at sea or in port—whether attributable to Navy sources or not. Accordingly, commanding officers shall submit voice and Navy message reports to appropriate Federal, State, local and military authorities for any oil sheen discovered by naval personnel—even if the cause or source of the spill is unknown. Such reports, however, should ***not speculate as to cause or source*** and ***clearly indicate that a Responsible Party cannot be identified*** from information then currently available.

g. **Extremely Hazardous Substances.** In addition to the reporting requirements set forth above, EPCRA requires all activities to report to State Emergency Response Commissions and Local Emergency Planning Committees any release of a reportable quantity of an Extremely Hazardous Substance that crosses the facility boundary or escapes to the atmosphere. See chapter 4.

10-4.2.2 Outside the U.S. For host nation reporting requirements, facility commanders should refer to the final governing standards applicable to overseas installations.

10-4.2.3 Internal Navy Reporting. Commanding officers shall immediately report the fact and nature of any OHS spill from Navy vessels or installations (in any amount, at any location, worldwide) to their chain of command and cognizant NOSC as follows:

a. By voice immediately upon discovering the release.

b. By official Navy Message in the format provided at appendices H and I to this instruction as soon as practicable.

c. By update SITREP message as soon as the reporting activity becomes aware of new information concerning the origin, quantity, type, operation under way or cause of the spill. Similarly, ***if the final estimate of the amount released differs substantially from the amount initially reported,*** the reporting activity must send an update SITREP message to all action and info addresses on the original spill message.

d. By sending a copy of every OHS spill report and follow-up message, including SITREPS and "after action reports" (where required by local instruction), to Chief of Naval Operations (CNO) (N45) and the Naval Facilities Engineering Service Center as addressed in appendices H and I.

NOTE

If you call the NRC, send a Navy message. If you call the State or local authorities, send a Navy message. If you are in doubt, send a Navy message.

10-4.2.4 OHS Release Report Message Format, Appendix H requires

a. Provided that prior voice reports have been made to the USCG National Response Center and the reporting command's chain of command, the reporting command shall use "Routine" precedence for Oil Spill Report Messages. If the command has not made both voice reports, it shall use "Priority" precedence on the written message.

b. To advise the NOSC and Navy leadership of the magnitude of the spill, reporting activities shall enter the following volume classifications on the Subject line of each Oil Spill Report Message:

SUBJ: OIL SPILL REPORT, X GALLONS, [ACTIVITY NAME] ; or

SUBJ: OIL SPILL REPORT, UNKNOWN VOLUME, [ACTIVITY NAME]; or

SUBJ: OIL SPILL REPORT, SHEEN SIGHTING

c. Estimates of volume spilled using sea level visual observation of oil on water are unreliable. To take the uncertainty out of volume estimation, reporting activities should examine loss at the source (i.e. through tank soundings or flow rate calculations). Message writers shall not report estimates of volume by visual observation alone.

d. To remove speculation from the Navy spill reporting process, commanding officers are directed to report only "Unknown" for the following report elements until such time as definitively established: source of spill, volume spilled, type of oil discharged, operation underway when spill occurred/discovered and spill cause. Commands should issue updating SITREP messages as soon as better information becomes available.

e. In the case of unknown volume or type of oil discharged, reporting activities should give particular attention to paragraph 8 in the message on "Slick Description and Movement."

f. Reporting activities should classify the cause of the spill by citing one or more of the following categories and ***then providing a narrative description of specific spill cause:*** Structural; electrical; hose; valve/fitting; tank level indicator; oil/water separator/oil content monitor; other equipment (specify component that failed); collision/grounding/sinking; valve misalignment; monitoring error; procedural or communications error; chronic or recurring discharge; or weather related.

10-4.3 OHS Spill Response. The NCP describes the roles and responsibilities of DOD in responding to DOD OHS spills.

a. In the case of a Navy HS release, the Navy assumes the role of the Federal OSC. As a Federal OSC, Navy will direct the Federal response effort, including coordination with the Area Committee and with other Federal, State, and local authorities.

b. In the case of oil, however, either EPA or the USCG assumes the broader role of the Federal OSC—depending upon the location of the spill. Typically, the EPA or USCG Federal OSC will merely monitor the Navy response effort and advise appropriate action, if necessary. If the EPA or USCG Federal OSC determines, however, that Navy response is inadequate or inappropriate, then the Federal OSC will assume command of response efforts. (In any case, COs and masters of public vessels remain in command of their vessels and personnel.)

c. The USCG or EPA Federal OSC will generally direct the response to a Spill of National Significance.

d. In the event of an OHS release from a Navy facility or vessel, the Navy will always assume initial responsibility for clean-up.

10-4.4 Non-DOD Spills. The Navy also responds to non-DOD spills. As one of 15 Federal agencies that comprise the NRT, DOD and its component Services must provide any response assistance they can upon request of the Federal OSC, insofar as such assistance would not impair DOD mission readiness. Additionally, the Naval Sea System Command's Supervisor of Salvage (SUPSALV) is one of several National Special Teams named in the NCP as available to provide assistance to the OSC. (See reference (c).) In the case of a large or salvage-related pollution incident, the Federal OSC may specifically request SUPSALV personnel, equipment, and expertise. To facilitate mobilization and funding of SUPSALV equipment and personnel for a non-DOD spill, SUPSALV and USCG have established an Interagency Agreement for Pollution Response.

10-4.5 Natural Resource Trusteeship. The NCP assigns responsibilities to certain Federal and State agencies for protecting natural resources held in trust for the U.S. public. In the aftermath of an OHS spill, The Secretary of Defense is responsible for protecting natural resources within Navy management and control. For further details on Natural Resource Trusteeship, see chapter 27 of this instruction.

10-5 NAVY POLICY

10-5.1 Navy Spill Response Planning

a. The Navy shall prepare to respond to Navy OHS spill incidents and undertake immediate, direct action to minimize the effect of a Navy OHS spill upon the environment. The Navy's OHS pollution contingency planning and response organization executes this policy. This organization uses existing chains of command and regional coordination authorities to satisfy the requirements and intent of applicable statutes and regulations.

b. In addition to response assets available from local Navy activities, commercial oil pollution response assets (available through Basic Ordering Agreements pre-negotiated by the USCG) may be a commanding officer's best means of meeting the response requirements of more significant spill scenarios. When engaging commercial spill response assets, Navy commands should carefully assess and monitor legal, financial and technical factors.

c. The NOSC should consider activating SUPSALV for all OHS spills that exceed local capabilities. SUPSALV maintains and operates an extensive inventory of oil discharge containment and recovery equipment with the requisite knowledge and expertise to support such operations.

d. Membership in oil spill cooperatives potentially exposes the Navy to the risk of significant liability. Accordingly, Navy activities considering membership in an oil spill cooperative shall forward to CNO (N45) a request to participate.

10-5.2 Health and Safety. The health and safety of Navy personnel and the public shall be the highest priority of all Navy OHS spill response operations. Responders shall comply with all requirements of reference (a) and OPNAVINSTs 5100.19C and .23E.

10-5.3 Navy Spills. The Navy will respond immediately and effectively to all Navy OHS spills. Navy policy is to conduct all Navy OHS pollution responses in such a manner as to retain control of the response. Should the Federal OSC assume control of an oil spill response—upon a determination that Navy response actions are ineffective or inadequate—commanding officers and masters of Navy vessels will remain in command of and responsible for their vessel and crew.

10-5.4 Military Sealift Command (COMSC). The Navy will manage response to OHS spills from vessels, owned operated or chartered by COMSC, as follows:

a. Any vessel carrying the designation of United States Naval Ship (USNS) is a public vessel of the United States. The NOSC will respond to an OHS spill from a USNS vessel just as it would a spill from any other Navy vessel.

b. Any vessel owned by the U.S. Maritime Administration (MARAD) and operated under MSC control is a public vessel of the United States. The NOSC will respond to an OHS spill from an MSC controlled MARAD vessel just as it would a spill from any other Navy vessel.

c. Vessels under bare-boat charter (or long term build-to-charter lease) to MSC ***and operated by MSC exclusively for the benefit of the United States***, are public vessels of the United States for the purposes of this instruction. The NOSC will

respond to an OHS spill from such a vessel just as it would a spill from any other Navy vessel.

d. *Commercial vessels under time or* voyage charter to MSC are ***not*** public vessels and must comply with all international, Federal and State pollution prevention and control regulations. Such regulations generally do not permit commercial vessels to cite or rely upon Navy response assets in their OHS spill contingency plans.

10-5.5 Non-Navy Spills. The Federal OSC may request Navy response assistance for non-Navy spills. The Navy will respond to such requests under the terms and conditions of the NCP and the Navy SUPSALV/Coast Guard Interagency Agreement for Pollution Response.

10-5.6 Salvage-Related Spills. The Navy shall direct response efforts to pollution incidents resulting from Navy vessel casualties such as grounding and collision. Fleet salvage forces shall take all reasonable precautions to reduce the threat of OHS pollution from stricken Navy vessels.

10-5.7 Collision with Navy Vessels. Where a collision between a Navy vessel and non-Navy vessel results in an OHS spill from the non-Navy vessel, the Navy will provide immediate spill response assistance, regardless of fault. In such situations, the cognizant Navy Fleet Commander shall report the spill, monitor the situation and offer appropriate support to the stricken vessel.

10-5.8 Non-Navy DOD Spills. In the case of large marine oil discharges, requests for Navy assistance from the Defense Logistics Agency, the Marine Corps or other DOD components are particularly likely. Navy response to such requests shall be consistent with procedures established by the DOD and any applicable inter-service agreement.

10-5.9 Natural Resources Damages. In the case of a Navy OHS spill or a non-Navy spill which threatens natural resources within Navy management or control, the Navy will immediately undertake a preliminary assessment of the risk to *natural resources and take all reasonable measures* necessary to mitigate potential injury to same. Chapter 27 of this instruction details Navy policy on Natural Resource Damages.

10-5.10 Training. Navy activities shall train all Navy personnel involved in OHS spill contingency planning and response in accordance with chapter 24 of this instruction, and reference (a).

10-5.11 Drills and Exercises

a. Facilities. Navy shoreside facilities shall conduct one OHS spill notification drill during each calendar quarter. One of these emergency procedure drills shall be unannounced each year. Facilities with spill response equipment shall also conduct one equipment deployment drill in each 6-month period. Each shore facility shall conduct one spill management team table-top exercises each year, in accordance with its OHS Facility Response Plan. Facility spill management team personnel shall, once in each 3-year period, participate in NOSC or USCG sponsored "area exercises" designed to test worst-case spill response capabilities. Activities shall document each of these drills and exercises in accordance with the OHS Facility Response Plan. Navy facilities may take drill and exercise credit for actual spill events, if the events meet drill and exercise objectives. Facility commanders shall periodically evaluate their facility response plans in light of the lessons learned from drills and exercises.

b. NOSCs. NOSCs shall, once in each 3-year period, exercise regional spill management team personnel in NOSC or USCG sponsored "area exercises" designed to test worst-case spill response capabilities. NOSCS shall document these exercises in accordance with the NOSC OHS Response Plan. NOSCs may take credit for actual spill events, provided the events meet triennial area exercise objectives. NOSCs shall periodically

evaluate their NOSC OHS Response Plans in light of the lessons learned from these exercises.

10-6 RESPONSIBILITIES

10-6.1 COMNAVSEASYSCOM shall

a. Assist AECs in the development and update of the area-wide OHS spill contingency planning and response instructions.

b. Develop and issue the NOSC plan format, and assist NOSCs in major OHS pollution response issues as they arise and in decision-making for major or offshore/salvage-related response operations.

c. Assist NOSCs in the development and updating of NOSC plans to include worst case spill scenario planning.

d. Assist NOSCs in meeting drill and exercise requirements for testing and exercising Navy capabilities to respond up to worst case spill scenarios.

e. Provide expertise and equipment at the request of the NOSC for offshore or salvage-related OHS pollution incidents.

f. Coordinate the dissemination of lessons learned from major drills, exercises and spill events.

g. Determine requirements, budget for, and obtain investment category equipment for major and salvage-related spill response.

h. With COMNAVFACENGCOM, assist major claimants' response training needs, and develop and provide associated training curricula and courses.

i. Provide advice, personnel, and equipment, as appropriate for joint salvage/pollution operations.

10-6.2 COMNAVFACENGCOM shall

a. Assist facility commanders and commanding officers with the development of OHS FRP plans.

b. With COMNAVSEASYSCOM, assist major claimants and AECs in the determination of emergency response training needs, and develop and provide associated training curricula and courses.

c. Determine requirements, budget for, and obtain investment category equipment for inland water and harbor oil discharge control.

d. Coordinate Navy access to USCG Basic Ordering Agreements for response to spills beyond the capability of the facility.

e. Review and, if appropriate, approve requests by Navy shore commands to participate in spill cooperatives.

f. Provide Naval Oil and Hazardous Substance Spills Annual Report to CNO.

10-6.3 All Major Claimants shall

a. *Ensure that all staff personnel* within their claimancy who have responsibilities under this chapter (including but not limited to safety, public affairs, logistics, legal, comptroller, security, communications and transportation personnel) receive the general environmental overview training specified in chapter 24 of this instruction and introductory or executive overview training in emergency response management and become familiar with the provisions of this chapter.

b. Fund OHS spill response expenditures beyond the capability of the Navy subordinate activity ultimately responsible for the cost of spill clean-up.

c. Ensure cognizant facilities fully comply with Federal, State and international/foreign, laws and regulations for spill prevention, readiness, and response.

10-6.4 Fleet CINCs/AECs shall

a. Develop and periodically update an area-wide OHS spill contingency planning instruction specifying NOSC and facility responsibilities for OHS spill contingency planning and response in the AOR.

b. Pre-designate NOSCs to plan for and direct response efforts to OHS spills from Navy vessel and shore activities throughout their AOR.

c. Coordinate with SUPSALV for the development, revision and update of the area-wide OHS spill contingency planning instruction and the individual NOSC plans.

d. Establish contingency planning and response policies in their areas consistent with this instruction.

e. Establish a spill response training program consistent with this chapter and regulatory requirements.

10-6.5 Fleet NOSCs shall

a. Develop area-wide fleet NOSC plans in a format prescribed by COMNAVSEASYSCOM and the AEC instructions. Coordinate these plans with adjacent shoreside NOSCs. Plan coverage shall provide for vessels under the Fleet NOSC's operational control and for vessels not under their operational control but outside any adjacent NOSCs AOR.

b. Promptly notify Federal, State, regional, local, or foreign governments when required. Additionally, until January 1, 2000, Fleet NOSCSs shall report OHS spills in the Panama Canal Zone to the NRC.

c. Ensure that Operation Orders and instructions containing guidance or policy for fleet OHS pollution response are consistent with fleet NOSC plans and Senior Officer Present Afloat (SOPA) instructions.

d. Coordinate shoreside NOSC plans with fleet planning and operations and ensure that Navy SOPA instructions contain guidance for fleet OHS spill response that is consistent with the shoreside NOSC plans.

e. Direct response operations and coordinate closely with ongoing fleet salvage operations

f. Ensure the health and safety of response personnel at any point during on-scene response

10-6.6 Shoreside NOSCs (in U.S. Areas) shall

a. Ensure Navy facilities can control, contain and clean up OHS spills, and evaluate impacts to natural resources. The shoreside NOSC may direct all major response efforts for Navy OHS spills within assigned shoreside boundaries to include coastal areas out to the 12 nm zone.

b. Serve as the Federal OSC under the NCP for Navy HS releases within assigned geographic boundaries.

c. Pre-designate shoreside FICs and pre-assign geographic areas for response.

d. Coordinate response operations with adjacent NOSCs, including fleet NOSCs, for Navy OHS spills that may have an impact on more than one NOSC region.

e. Ensure the health and safety of response personnel at any point during on-scene response.

f. Develop, in the general format prescribed by COMNAVSEASYSCOM or the AEC's instructions, area-wide NOSC OHS spill response plans,

and coordinate the development of the plans with the applicable RCPs and ACPs. Shoreside NOSCs shall ensure that an appropriate plan or plans cover all facilities.

g. Coordinate with other DOD component OSC plans, including Marine Corps plans, to the extent specified by the DOD or as required by any Navy/DOD component inter-service agreement.

h. As a minimum, conduct a thorough annual response plan review for all facilities and, if necessary, revise the NOSC plan.

i. Coordinate response operations with the DOD representative to the RRT.

j. Direct and coordinate response operations closely with ongoing fleet salvage operations.

k. Coordinate shoreside NOSC plans with fleet planning and operations.

l. Take the lead in coordinating triennial exercises.

m. Coordinate a drill schedule for all facilities under the NOSC's cognizance to effect cost savings and ensure uniformity and effectiveness of the exercises.

n. Conduct combined exercises, whenever appropriate to reduce costs.

o. Coordinate with SUPSALV to ensure that facilities within the NOSC's cognizance receive credit for oil spill removal organization drills conducted within the response area.

p. Ensure that activities in their area of responsibility act in accordance with all Federal, State, and local OHS spill notification procedures. (See 10-4.2.)

q. Establish a spill response training program consistent with this chapter and regulatory requirements.

10-6.7 Shoreside NOSCs (in Foreign Areas) shall

a. Develop overseas NOSC OHS spill contingency plans in the format prescribed by COMNAVSEASYSCOM, consistent with AEC instructions and Final Governing Standards, and coordinate the development of these plans with applicable host nations.

b. Oversee response operations for Navy OHS spills within assigned areas and coordinate response operations with adjacent NOSCs and with applicable foreign nation agencies.

c. Pre-assign geographic areas for response by USN shore facilities.

d. Ensure that activities in their area of responsibility act in accordance with all required foreign country OHS spill notification procedures, within the guidelines established by the overseas environmental baseline guidance document (OEBGD) and applicable Final Governing Standards.

e. Establish a spill response training program consistent with this chapter and regulatory requirements.

10-6.8 Shoreside Commanding Officers (Designated FICs) shall

a. Oversee response efforts for Navy OHS spills within pre-assigned areas until relieved by the NOSC, as well as support the NOSC for Navy response in areas outside the facility's boundaries.

b. Develop, annually review, and periodically update facility plans in a format prescribed by COMNAVFACENGCOM and coordinate these plans with the NOSC spill contingency plan.

c. Review FRPs for consistency with appropriate State and local environmental and emergency planning authorities.

d. Make all required Federal, State, and local notifications for Navy OHS spills and make Navy chain of command notifications up to the NOSC level.

e. Properly train assigned staff responsible for OHS response.

f. Accomplish all quarterly and annual drill requirements.

g. Incorporate drill and exercise requirements into routine business or other emergency drills wherever practicable.

h. Tailor training curricula to include State and local emergency response laws and regulations.

i. Maintain training records and documentation as required by Federal, State, and local regulations.

j. Maintain the readiness of the Navy spill response capability assigned to the facility.

10-6.9 Shoreside Commanding Officers (Not Designated FICs) shall

a. Develop, annually review and update activity OHS spill contingency plans in a format prescribed by COMNAVFACENGCOM.

b. Coordinate OHS spill contingency plans with NOSC OHS Regional Response Plans.

c. Properly train personnel who respond to or supervise the response to an OHS spill.

d. Accomplish all quarterly, annual and triennial drill requirements.

e. Incorporate drill and exercise requirements into routine business and emergency drills wherever practicable.

f. Tailor training to include State and local emergency response laws, ordinances and regulations.

g. Maintain training records and documentation as required by Federal, State and local regulations.

h. Mitigate and clean up OHS spills from vessels and activities and reimburse, as appropriate, other commands that provide assistance.

CHAPTER 11

PCB MANAGEMENT ASHORE

11-1 Scope

This chapter identifies requirements and responsibilities applicable to the prevention of pollution from polychlorinated biphenyls (PCBs) at Navy shore facilities within the United States, Commonwealth of Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas Islands. Navy policy with respect to activities in foreign countries is provided in Chapter 18.

11-1.1 References. Relevant references are:

a. 40 CFR 125, Best Management Practices Criteria Under Clean Water Act (CWA);

b. 40 CFR 260-270, Environmental Protection Agency (EPA) Regulations Implementing Resource Conservation and Recovery Act (RCRA);

c. 40 CFR 372, EPA Toxic Chemical Release Reporting Regulations;

d. 40 CFR 760-761, EPA Regulations for Controlling PCBs;

e. DoD Directive 4001.1 of 4 September 1986, Installation Management; (NOTAL)

f. DoD Directive 4140.1 of 4 January 1993, Material Management Policy; (NOTAL)

g. DoD Directive 6050.8 of 27 February 1986, Storage and Disposal of Non-DoD Owned Hazardous and Toxic Materials on DoD Installations; (NOTAL)

h. OPNAVINST 5100.23D, Navy Occupational Safety and Health (NAVOSH) Program Manual; (NOTAL)

i. SECNAVINST 5191.1, Storage and Disposal of Non-DoD-Owned Hazardous and Toxic Materials on DON Installations; (NOTAL)

j. Naval Facilities Engineering Services Center (NFESC) 20.2-028C, PCB Program Management Guide (NOTAL).

11-2 Legislation

11-2.1 Toxic Substances Control Act (TSCA). TSCA generally bans the use, manufacture, processing, and distribution in commerce of PCBs. TSCA and the PCB regulations also strictly regulate the marking, storage, and disposal of PCBs. Regulations issued under TSCA require generator identification numbers and the manifesting of PCB wastes. Additionally, in some cases, States regulate PCBs more stringently than the Federal program, including the regulation of PCBs at concentrations less than 50 parts per million (ppm) as RCRA hazardous waste.

11-3 Terms and Definitions

11-3.1 Capacitor. A device for accumulating and holding a charge of electricity consisting of conducting surfaces separated by a dielectric. Types of capacitors are as follows:

a. **Small Capacitor.** A capacitor that contains less than 1.36 kg (3 lbs) of dielectric fluid.

b. **Large, High Voltage Capacitor.** A capacitor that contains 1.36 kg (3 lbs) or more of dielectric fluid and operates at 2,000 volts (ac or dc) or above.

c. **Large, Low Voltage Capacitor.** A capacitor that contains 1.36 kg (3 lbs) or more of dielectric fluid and operates below 2,000 volts (ac or dc).

11-3.2 In or Near Commercial Buildings. Within the interior of, on the roof of, attached to the exterior wall of, in an adjacent parking area serving, or within 30 meters of a non-industrial, non-substation building. Commercial buildings include:

a. Civilian or Navy personnel assembly buildings

b. Educational properties

c. Institutional properties (including museums, hospitals, clinics)

d. Residential properties (living quarters)

e. Stores

f. Office buildings (including administrative buildings)

g. Transportation centers (including airport terminal buildings, bus stations, or train stations).

11-3.3 Non-PCB Transformer. Any transformer that contains less than 50 ppm PCB; except that any transformer that has been converted from a PCB transformer or a PCB-contaminated transformer cannot be classified as a non-PCB transformer until reclassification has occurred per the requirements of reference (d).

11-3.4 PCB or PCBs. Any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances that contain such substance. Prior to stringent regulation of PCBs, PCBs were used in a variety of applications as a fire retardant and for other purposes, such as sound insulating felt in submarines and electrical cables. Often, PCBs were added in these applications without being specified in material or equipment procurement specifications; thus, the presence of PCBs cannot always be determined through review of applicable procurement documents. In the disposal of materials and components, care should be taken to identify all potentially hazardous substances and carry out the disposal accordingly.

11-3.5 PCB Article. Any manufactured article, other than a PCB container, that contains PCBs and whose surface(s) have been in direct contact with PCBs. This includes capacitors, transformers, electric motors, pumps, pipes, and any other manufactured items.

11-3.6 PCB Article Container. Any package, can, bottle, bag, barrel, drum, tank or other device used to contain PCB articles or PCB equipment, and whose surface(s) has not been in direct contact with PCBs.

11-3.7 PCB Container. Any package, can, bottle, bag, barrel, drum, tank, or other device that contains PCBs or PCB articles and whose surface(s) have been in direct contact with PCBs.

11-3.8 PCB-Contaminated Electrical Equipment. Any electrical equipment, including but not limited to transformers, capacitors, circuit breakers, re-closers, voltage regulators, switches, electromagnets, and cable, that contain 50 ppm or greater PCB, but less than 500 ppm PCB.

11-3.9 PCB Equipment. Any manufactured item, other than a PCB container, that contains a PCB article or other PCB equipment. This includes microwave ovens, electronic equipment, and fluorescent light ballasts and fixtures.

11-3.10 PCB Item. Any PCB article, PCB article container, PCB container, or PCB equipment that deliberately or unintentionally contains any PCB or PCBs (50 ppm or greater).

11-3.11 PCB Leak. Any instance in which a PCB item has any PCB on any portion of its external surface or surroundings.

11-3.12 PCB Transformer. Any transformer that contains 500 ppm PCB or greater. The following transformer classifications are given:

a. < 50 ppm Non-PCB Transformer.

b. 50-499 ppm PCB Contaminated Trans

c. > 500 ppm PCB Transformer.

11-3.13 PCB Waste Generator. Any person whose act or process produces PCBs that are regulated for disposal or whose act first causes PCBs or PCB items to become subject to disposal requirements, or who has physical control over the PCBs when a decision is made that the use of the PCBs has been terminated.

11-3.14 Quantifiable Level/Level of Detection. For PCB analysis, quantifiable level/level of detection means 2 micrograms/gram (2 ppm) from any resolvable gas chromatographic peak.

11-3.15 Totally Enclosed Manner. Any manner that will ensure no exposure of human beings or the environment to any concentration of PCBs.

11-4 Requirements

11-4.1 General. Except as authorized in reference (d), EPA regulations ban the use of PCBs in any manner not totally enclosed. Reporting requirements for PCB spills are specified below.

11-5 Navy Policy

11-5.1 Compliance with PCB Management Requirements

a. Navy Activities. Navy activities shall comply with the requirements of reference (d) and applicable State and local PCB management requirements. Reference (j) has been designed to assist Navy activities in complying with the Federal regulations governing PCBs. In addition, Navy activities shall observe the following additional requirements:

(1) PCB Materials. All items or materials containing PCBs or suspected of containing PCBs shall be considered regulated unless excepted by regulation for PCBs exist in Navy electrical equipment and hydraulic and lubricating oils as described and authorized for use (subject to restrictions in reference (d)). The Naval Sea Systems Command (NAVSEASYSCOM) is establishing appropriate authorizations and controls for these materials and is issuing material control requirements as NAVSEASYSCOM PCB Advisories. Repair, removal handling, storage and disposal of all PCB materials shall be done per NAVSEASYSCOM PCB Advisories in addition to Federal, state and local requirements.

(2) PCB Materials. The Federal PCB Spill Cleanup Policy, presented in reference (d), applies to spills that occur after 4 May 1987, and applies to the response to spills resulting from the release of materials containing PCBs at concentrations of 50 ppm or greater. (Spills that occurred before 4 May 1987 are to be cleaned up under requirements established at the discretion of the EPA.) PCBs are listed in Federal regulations as a Hazardous Substance. A spill of a reportable quantity of "pure PCB" shall be immediately reported as required by regulation (see Chapter 10). The quantity of "pure PCB" spilled can be calculated using the PCB concentration of the spilled material, the amount of the material spilled, and the density of the particular type of PCB (if unknown, assume 10 lbs/gallon). Under the National Contingency Plan (NCP), all spills involving 1 pound or more, by weight, of PCBs shall be reported to the National Response Center (NRC) at 1-800-424-8802. (In the Washington, D.C. area, the number is 202-426-2675.)). Spills that directly contaminate surface water, sewers, drinking water supplies, grazing lands, or vegetable gardens shall be reported to the appropriate EPA regional office within 24 hours. States, particularly those which regulate PCBs as a hazardous materials/hazardous waste (HM/HW),

may have a more strict reporting requirement. Regardless of the reporting requirement, all PCB spills shall be cleaned up per reference (d).

(3) Contractors. Activities shall ensure that contractors performing work for the Navy on Navy property comply with all applicable PCB requirements while on-site, including Navy requirements.

11-5.2 Navy PCB Annual Report. All Navy shore activities that generate, use, treat, store, and/or dispose of PCBs shall annually inventory or validate all PCBs and PCB items per the procedures published by NFESC and as required by applicable Federal and State regulations.

11-5.3 Navy and Defense Logistics Agency Interface on PCBs. Reference (f) designates the DLA's DRMS as the responsible agency for worldwide disposal of all PCBs and PCB items. However, reference (e) permits commanding officers (COs) to contract directly for PCB disposal service when, "...they can get a combination of quality, responsiveness, and cost that best satisfies their requirements."

Navy installations shall use the DLA PCB contract disposal services as much as economically and operationally feasible. However, when necessary to get the combination of quality, responsiveness, and cost that best satisfies installations requirements, Navy installations may request some other appropriate contract authority to provide contracting services for PCB disposal. An installation not using DRMS contract services shall insure the contract requirements comply with Federal, State and local PCB regulations, shall ensure contract requirements and contract quality control procedures are at least as stringent as those used by DRMS, shall obtain concurrence by their major claimant, and shall notify CNO (N45) of each contract for such services.

11-5.4 PCB Transformers in Commercial Buildings. PCB transformers in commercial buildings shall be registered with building owners. PCB transformers in or near commercial buildings shall be registered with owners of all buildings located within 30 meters of the PCB transformer(s). For Navy installations, compliance with the requirement is adequate if PCB transformers in or near commercial buildings are registered:

a. For Navy tenants, with the organization that prepares fire evacuation plans.

b. For non-Navy tenants, registration is made to the tenant.

11-5.5 Navy PCB Equipment Removal Policy. Navy policy is to eliminate PCBs from all Navy owned electrical distribution systems and equipment, hydraulic fluids, and cooling and lubricating oils, to the maximum extent practicable. The following procedures shall be followed:

a. **Transformers:**

(1) Determine by EPA-approved method, the PCB concentration for all pad mounted and pole mounted transformers. Transformers shall be marked: Labeled with a tag, or other appropriate means with the sample identification number and concentration of PCBs. PCB test results (in ppm) for each transformer shall be noted in the activity's records.

(2) By October 1998, eliminate all transformers containing 500 ppm or more PCBs. By October 2003, eliminate all transformers containing 50 ppm or more PCBs. To reduce future potential liabilities, transformer elimination shall be accomplished by replacement or removal with load transfer to non-PCB transformers. Retrofill shall be an acceptable alternative to replacement for transformers when it has a clear economic benefit (typically transformers in good condition, less than 25 years old, and 300 kilovolt-ampere (KVA) or larger), and for those transformers that are difficult or impossible to replace due to constraints with their physical location.

b. **Capacitors**:

(1) Establish an accurate inventory of high and low voltage capacitors based on manufacturing information. Large capacitors established to contain PCBs over 50 ppm shall be marked PCB contaminated, labeled with the sample ID number and concentration. Large capacitors established as not containing PCBs shall be marked non-PCB. PCB classification of each large capacitor shall be noted in activity records.

(2) By October 1998, eliminate all large low and high voltage capacitors containing PCBs.

c. **PCB Elimination Plan**. All activities shall prepare a plan for the elimination of PCBs and PCB-contaminated material from all transformers, capacitors, and associated electrical equipment, systems, and hydraulic and lubricating fluids. The plan shall include the proposed date of removal and the requested source of funding for each PCB item. Transformer and capacitor owners shall prioritize corrective projects based on the severity of mission impact if a fire, explosion, or major PCB spill would occur and the likelihood of such an incident occurring. Transformer and capacitor owners shall coordinate priorities with impacted customers. Pay special attention to the redesign of the power grid to accommodate PCB removal. Activity PCB elimination plans shall be submitted to major claimants via the cognizant NAVFACENGCOM Environmental Field Division (EFD) for review and approval. PCB elimination plans shall be updated annually by 31 May until all regulatory requirements and Navy goals concerning the elimination of PCBs have been met.

d. **Funding**:

(1) Defense Business Operation Fund (DBOF) activities shall use DBOF funds for routine replacement of transformers and capacitors in their plant account, except when construction costs require the use of military construction (MILCON) funding.

(2) At non-DBOF activities, major claimants shall fund routine replacements of transformers and capacitors. Major claimants shall identify funding requirements and request any additional needed funds through the Program Objective Memorandum (POM) process.

(3) At both DBOF and non-DBOF activities, PCB transformer and capacitor replacements required by EPA regulation or that are in mission critical areas (i.e., where a spill/fire incident would result in the extended loss of essential facilities) are eligible for environmental operations & maintenance, Navy (O&MN) project funds managed by major claimants.

(4) Activities shall fund testing of electrical equipment to determine PCB content.

e. **Procurement**. All future procurement of transformers or any other equipment containing dielectric or hydraulic fluid shall be accompanied by a manufacturer's certification that the equipment contains no detectable PCBs (less than 2 ppm) at the time of shipment. Such newly procured transformers and equipment shall have permanent labels affixed stating they are PCB-free (no detectable PCBs).

11-5.6 Training

a. Every person who repairs, maintains, replaces inventories or tests PCB, PCB contaminated, or suspected PCB articles and their immediate supervisors shall receive applicable NAVOSH Worker Right-to-Know Training on hazardous materials, shall receive job specific training on marking, inventorying, reporting, inspection, and spill reporting on PCBs, and shall receive job specific training regarding additional requirements specific to their installation. Training curriculum shall be tailored to include State and local PCB laws and regulations. Training records and documentation shall be maintained by

each command as required by Federal, State, and local regulations.

b. Every person involved in PCB program management at Naval shore facilities shall receive general environmental overview training specified in Chapter 24 of this instruction, shall receive specific comprehensive training on Federal, State, and local PCB regulations related to their job assignment, and shall be familiar with the provisions of this chapter.

c. Environmental professionals at COMNAVFACENGCOM and EFDs/Engineering Field Activities (EFAs); Navy Regional Environmental Coordinators, major claimant and type commander environmental staffs, and legal environmental staff shall received general environmental overview training specified in Chapter 24 of this instruction, introductory or executive overview training in PCB management, and shall be familiar with the provisions of this chapter.

11-6 Responsibilities

11-6.1 COMNAVFACENGCOM shall:

a. Provide technical assistance to commands in complying with applicable Federal, State, and local PCB requirements.

b. Evaluate alternatives to the use of PCBs in existing PCB equipment transformers and provide such information to appropriate commands and activities.

c. Make necessary changes to facility design criteria and operating instructions to incorporate Federal, state and local regulations regarding PCBs and PCB items.

11-6.2 COMNAVSUPSYSCOM shall include provisions in inter-service support agreements (ISSAs) with DLA for DLA/DRMS/Defense Reutilization and Marketing Offices (DRMO) support of PCB requirements Navy-wide.

11-6.3 Chief, Naval Education and Training shall develop and provide training on the safety and occupational safety and health aspects of PCBs to applicable Navy personnel. Where possible, this training should be integrated into existing training.

11-6.4 Major claimants and subordinate commands shall:

a. Ensure compliance with applicable requirements, including PCB management at government-owned/contractor-operated (GOCO) facilities.

b. Ensure that all activities develop and implement PCB elimination plans, and that funding is programmed to meet the goals of the elimination plans. Updates of PCB elimination plans shall be completed by 31 May of each year. At a minimum, funding shall be programmed to ensure compliance with all applicable regulations and Navy goals for elimination of PCBs.

c. Ensure that all activities have submitted to the claimant by 31 January a PCB annual report for the previous calendar year. The claimant shall review each report to ensure that it is complete, and forward to NFESC all activity PCB annual reports by 28 February.

11-6.5 Commanding officers of shore activities shall:

a. Comply with applicable Federal, State, and local PCB laws and regulations.

b. Sign and submit, as appropriate, reports and other required data to EPA, State, or local agencies.

c. Ensure the training of personnel involved in PCB operations per paragraph 11-5.6.

d. Transfer accountability and custody of PCBs and PCB items stored for disposal to DRMO, insofar as possible.

e. Handle, store, mark, inspect, and assess risks of PCBs and PCB items according to applicable Federal or State regulations. With regard to PCB transformers and PCB contaminated transformers:

(1) Inspect for PCB leaks

(2) Repair all leaks

(3) Maintain records

(4) Provide notification to EPA.

f. Inventory or validate all PCBs and PCB items annually per procedures required by regulatory agencies. Copies of the completed annual report shall be forwarded annually by 31 January to the major claimant, who is in turn responsible for forwarding the report to NFESC by 28 February. Maintain records, for the life of the equipment (through disposal), for testing of PCB concentrations in hydraulic systems, heat transfer systems, and converted or reclassified transformers.

g. Report PCB spills or incidents involving combustion as prescribed in Chapter 10 when the spill exceeds the reportable quantities established in Federal regulations. Fire-related incidents involving PCB transformers shall be immediately reported to the NRC regardless of quantity.

h. Register all PCB transformers and equipment with cognizant fire departments as applicable.

i. Develop and implement a PCB elimination plan in compliance with Federal, State, and local PCB regulations. This plan shall be updated on an annual basis, with updated information being sent to the major claimant no later than 31 May each year.

CHAPTER 12

HAZARDOUS WASTE MANAGEMENT ASHORE

12-1 Scope

This chapter identifies requirements and responsibilities for the management of hazardous waste (HW) and medical/infectious waste at Navy shore facilities within the United States, Commonwealth of Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas Islands. Navy policy with respect to Navy activities in foreign countries is provided in Chapter 18. Responsibilities for the management of hazardous materials (HM) aboard Navy ships are defined in Chapter 19, and responsibilities for the transfer of HM from Navy ships to shore facilities are defined in section 12-5.2.1.

12-1.1 References. Although this chapter deals primarily with HW management, an effective, overall HW management program must include HW and HM minimization and must integrate occupational safety and health policy into HW management. Relevant references are:

a. 29 CFR 1910.120, Occupational Safety and Health Administration (OSHA) Regulations on Hazardous Waste and Emergency Response;

b. 29 CFR 1910.1200, OSHA Hazard Communication Standard;

c. 40 CFR 116-117, EPA Regulations on Hazardous Substances;

d. 40 CFR 125, Criteria and Standards for the National Pollutant Discharge Elimination System;

e. 40 CFR 260-270, EPA Hazardous Waste Management Regulations;

f. 40 CFR 279, Standards for the Management of Used Oil;

g. 40 CFR 350, Trade Secrecy Claims for Emergency Planning and Community Right-To-Know Information and Trade Secret Disclosures to Health Professionals;

h. 40 CFR 370, EPA Hazardous Chemical Reporting and Community Right-To-Know Requirements;

i. 40 CFR 372, EPA Toxic Chemical Release Reporting Regulations;

j. 49 CFR 171-179, Department of Transportation Hazardous Materials Regulations;

k. DoD Directive 4001.1 of 4 September 1986, Installation Management; (NOTAL)

l. DoD Directive 4210.15 of 27 July 1989, Hazardous Material Pollution Prevention; (NOTAL)

m. DoD Directive 6050.8 of 27 February 1986, Storage and Disposal of Non-DoD Owned Hazardous and Toxic Materials on DoD Installations; (NOTAL)

n. OPNAVINST 4110.2, Hazardous Material Control and Management (HMC&M); (NOTAL)

o. OPNAVINST 5100.19C, Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat; (NOTAL)

p. OPNAVINST 5100.23D, Navy Occupational Safety and Health (NAVOSH) Program Manual; (NOTAL)

q. BUMEDINST 6280.1A, Management of Infectious Waste; (NOTAL)

r. SECNAVINST 5191.1, Storage and Disposal of Non-DoD-Owned Hazardous and Toxic Materials on DON Installations; (NOTAL)

s. National Fire Codes, 307 Chapter 7, Hazardous Materials Storage; (NOTAL)

t. Botsford, J. et al. Regulated Medical Waste Definition and Treatment: A Collaborative Document. AORN JOURNAL *(Association of Operating Room Nurses, Inc)*, vol 58, no 1, pp 111-114, July 1993 (NOTAL).

NOTE:

Reference (n) describes the Navy integrated logistics approach for effective HM control and management. This chapter complements that policy by providing mandatory elements for an effective HW management program. Also see Chapter 3 for information on HM/HW pollution prevention.

12-2 Legislation

12-2.1 Resource Conservation and Recovery Act (RCRA). The Resource Conservation and Recovery Act (RCRA), which amended the Solid Waste Disposal Act, regulates the management of solid waste and HW. The Hazardous and Solid Waste Amendments (HSWA) of 1984 amended RCRA to include the cleanup, through corrective action, of releases of HW at RCRA-regulated facilities. RCRA requires cradle-to-grave management of HW through a record-keeping system that requires the manifesting of HW shipments from point of generation to ultimate disposal. HW treatment, storage, and disposal facilities are regulated through the issuance of operating permits. RCRA provides that EPA may delegate authority to States to regulate HW under State law in lieu of RCRA. Irrespective of whether EPA has delegated HW authority to a State, State HW substantive and procedural requirements, including the requirement to obtain State permits, are applicable to Navy facilities under the Federal Facility Compliance Act (FFCA).

12-2.2 Other Legislation. HM is governed by several laws including the Hazardous Materials Transportation Act, Occupational Safety and Health Act, the Clean Water Act (CWA), the Clean Air Act (CAA), and the Emergency Planning and Community Right-to-Know Act (EPCRA).

12-3 Terms and Definitions

12-3.1 Facility. For the purposes of this chapter, a facility is a contiguous piece of land with structures, other appurtenances, and improvements under common ownership or control, fence line to fence line.

12-3.2 Hazardous Waste. The term "hazardous waste" means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may:

a. Cause or significantly contribute to an increase in mortality or to a serious irreversible, or incapacitating reversible illness; or

b. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

NOTE:

The term solid waste includes solid, liquid, semi-solid and contained gaseous material.

State regulations may be more stringent and take precedence over Federal regulations.

12-3.3 Hazardous Waste Generator. Any person, by site, whose act or process produces HW or whose act first causes a HW to become subject to regulation.

a. **Class I Generator**, (Large Quantity Generator). Monthly generation quantity of 1000 kilograms (kg) (2200 pounds (lbs)) or more HW or 1 kg (2.2 lbs) or more acute HW.

b. **Class II Generator,** (Small Quantity Generator). Monthly generation quantity of 100 - 1000 kg (220 - 2,200 lbs) HW and less than 1 kg (2.2 lbs) acute HW.

c. **Class III Generator**, (Conditionally Exempt Small Quantity Generator). Monthly generation quantity less than 100 kg (220 lbs) HW or less than 1 kg (2.2 lbs) of acute HW. Such generators are exempt from substantially all RCRA requirements. Further discussion is found in reference (e).

12-3.4 Infectious Waste. Infectious waste is liquid or solid waste capable of causing transmission of disease in human when the following factors are present:

a. There must be the presence of a pathogen, which is a microorganism that can cause infection. Many microorganisms are incapable of causing infection in humans.

b. The pathogen must be of sufficient virulence, which is the disease evoking power of the microorganism. Not all pathogens are equally capable of causing infectious disease.

c. The pathogen must be present in sufficient numbers of microorganisms for infection to occur.

d. The microorganisms must have a portal of entry, or a way to get into the body (either through mucous membranes, or a puncture, cut or wound).

e. There must be a susceptible host. All persons are not equally susceptible to infectious diseases (reference (t)). The categories listed below are to be considered infectious waste:

(1) Medical wastes from isolation rooms are often considered infectious waste. However, only those items that are contaminated or likely to become contaminated with infective material are defined as infectious waste.

(2) Microbiological wastes including cultures and stocks of etiological agents containing microbes that, due to their species, type, virulence, or concentration are known to cause disease in humans. Examples include specimens from medical and pathology laboratories, discarded live vaccines, wastes from production of biologicals, cultures and stocks of infectious agents from clinical research and industrial laboratories, and disposable culture dishes and devices used to transfer, inoculate, and mix cultures.

(3) Blood and blood products including waste blood, serum plasma, Pleurevacs, and hemovacs

(4) Pathological wastes including human tissues and organs, amputated limbs or other body parts, fetuses, placentas, and similar tissue from surgery, delivery, or autopsy procedures

(5) Sharps (discarded medical devices that have been used in animal or human patient care), including hypodermic needles, syringes, trocars, blood vials, scalpel blades, Pasteur pipettes, specimen slides, cover slips, glass petri plates, and broken glass potentially contaminated with infectious material

(6) Contaminated animal carcasses, body parts, and bedding, including contaminated animal carcasses, body parts, and bedding of animals that were intentionally exposed to pathogens.

12-3.4.1 The following items are not considered infectious:

a. Absorbent materials containing small amounts (<20 ml) of blood or body fluids and no free flowing or unabsorbed liquid.

b. Used products for personal hygiene, such as diapers, facial tissues and sanitary napkins.

c. Disposable products used during routine medical or dental procedures (e.g., rubber gloves, rubber dams, cotton and paper products, equipment trays, tubing and catheters).

d. Empty pill bottles and intravenous (IV) bags.

e. Expired, unused culture tubes and plates.

f. Packaging and overwrap.

12-4 Requirements

12-4.1 Hazardous Waste

a. **General.** Any activity that generates, transports, treats, stores, or disposes of HW and any activity that produces, burns, distributes, or markets any HW-derived fuels must notify the EPA or State environmental agency of their activities, obtain an EPA or State HW generator identification (ID) number, and comply with applicable Federal, State, and local HW laws and regulations. Federal activities located in a State with an EPA authorized HW program need only comply with such State HW law that has been authorized by the EPA. Federal activities located in a state with only a portion of an EPA authorized HW program will comply with Federal HW laws, and the authorized portion of state HW laws. State HW programs that have been authorized by EPA operate in lieu of RCRA. Compliance with applicable State and local HW regulations is also required.

b. **Identification of HW.** Generators must identify and designate all waste streams to determine if the waste streams are HW. HW is either "listed" (specifically named in Federal/State regulations) or may exhibit any of four characteristics:

(1) Ignitability

(2) Corrosivity

(3) Reactivity

(4) Toxicity (as determined by the toxicity characteristics leaching procedure (TCLP) or additional procedures under State law).

A determination of whether any of these four characteristics apply to a waste can be made by checking the definitions in the appropriate Federal and State regulations, comparing the properties of the waste to those that define HW, or by using EPA-approved test methods. Mixtures of a solid waste and a listed HW are also considered hazardous and are regulated under RCRA, unless such listed HW was listed solely because it exhibits a HW characteristic. Mixtures of solid waste and characteristic HW are considered hazardous only if the mixture still exhibits the hazardous characteristic.

NOTE:

Knowingly diluting a HW for the purposes of avoiding HW regulations is prohibited.

If a material is determined to be a HW, it may be subject to all, some, or none of EPA's HW regulations, depending on specific circumstances. It is the generator's responsibility to determine whether its waste is a HW subject to regulation under RCRA and/or applicable state and local laws.

c. **HW Generation.** Threshold monthly generation rates and accumulation quantities are established in Federal or State regulations. Generation rates between 100 and 1,000 kilograms per month subject the generator, known as a "Small Quantity Generator," to HW generator requirements that include obtaining an EPA ID Number, using the Uniform Hazardous Waste Manifest to ship wastes off-site. Small quantity generators are only allowed to store HW without a permit or interim status for up to 180 or 270 days subject to the requirements of reference (e). If more than 1,000 kilograms per month are generated, the generator and the waste are subject to full regulation under RCRA.

Generators become storers if they accumulate HW for longer than the times prescribed in State and Federal regulations. According to Federal HW regulations, HW accumulation at a satellite accumulation point is limited to a cumulative maximum of 55 gallons of all (not each) HW, or one quarter of acute HW, and such storage must be located at or near the point of generation and be under the control at all times of the operator of the process generating the HW.

For Large Quantity Generators, any wastes in excess of 55 gallons (cumulative) must be moved within 72 hours to a less than 90 day accumulation area or a permitted storage facility. Accumulations of HW in excess of 55 gallons stored for more than 90 days (less in some States) require a storage permit. A Small Quantity Generator may accumulate HW on site for 180 days or less without a permit or without having interim status provided that the quantity of waste accumulated on-site never exceeds 600 kilograms, and provided the Small Quantity Generator complies with all other applicable regulations.

Generators are obligated to send their HW to treatment, storage, or disposal (TSD) facilities that comply with RCRA regulations. The generator must certify that the method the generator has selected for treatment, storage, or disposal is that practicable method available to the generator that minimizes the present and future threat to human health and the environment.

Generators must certify on the HW manifest that they have HW minimization (HAZMIN) programs in place at their sites. The programs will be designed to eliminate the use of HM altogether if possible, or at least reduce the volume and toxicity of the HW.

A generator who generates a HW subject to Federal land disposal restrictions will notify the TSD facility that the waste is a restricted waste or certify that the waste meets the requirements for land disposal.

d. **HW Transportation.** Transportation of HW off-site requires a manifest (see paragraph 12-4.1.f). A transporter is subject to transportation requirements that, in large part, incorporate Department of Transportation (DOT) regulations concerning labeling, marking, placarding, use of proper containers, and spill reporting. Transporters must have a valid HW hauler's license and ID number to pick up and haul within the generator's State and a valid license to haul through those States along the designated route to the TSD facility. Licenses may be checked by contacting the State HW office. Contact the Defense Reutilization and Marketing Office (DRMO) for license information regarding DRMO contractors.

e. **HW Treatment, Storage, and Disposal.** TSD facilities need a permit to continue existing operations or to initiate new operations. EPA initially developed a two-part permitting procedure. A Part A application conferred interim status to an existing TSD facility allowing the TSD facility to operate until a final decision is made on the Part B final permit application.

TSD facilities may only be expanded or significantly changed and still remain in an interim status with the approval of EPA regional offices or the

State HW office. Interim status cannot be conferred on a new TSD facility if operation commenced after 19 November 1980. In such instances, a final permit must be applied for and obtained before operation begin. Any operation before award of a Part B permit or modification of an existing Part B permit must be approved by the cognizant State or EPA.

Any existing facility that becomes subject to RCRA, due to new regulations or amendments to the existing regulations, may be granted interim status after timely submission of a Part A application and may have a 12 month grace period to submit its Part B permit application.

f. **HW Manifest System.** The Uniform Hazardous Waste Manifest, or State equivalent, must accompany all HW transported over any public road. Manifests are normally prepared, and must be signed by the HW generator or designated representative. The manifest does not replace Defense Reutilization and Marketing Office (DRMO) Disposal Turn-in Document (DD 1348-1). In circumstances where DRMO is managing the pickup, transport, and disposal of HW for an activity, DRMO may prepare the manifest, but the responsibility for correct and complete manifest preparation remains with the generator.

NOTE:

DRMO is, in most cases, not the HW generator and assumes none of the HW generator's responsibility for ensuring that wastes are correctly profiled and that manifests and all required documentation and reports are accurate and complete. DRMO may enter the facility's ID number on the manifest, but it remains the facility's responsibility to verify all information and to sign the manifest. If HM is turned-in to a DRMO for resale and is later determined by the DRMO to be HW, the DRMO is then considered to be the generator and will fulfill the generator requirements. Records must be kept and manifests returned to the activity that actually generated the HW.

Sufficient copies of the manifest will be provided to allow the generator, each transporter, and the TSD facility operator designated to receive the HW to keep a copy for their records and to allow copies to be returned to the generator for record-keeping and distribution to the appropriate State(s). Activities will also include a 24-hour manned duty telephone number in the "generator" block on each manifest. Each generator signatory will be authorized in writing to sign the manifest for the installation commander and/or permit holder, as appropriate.

g. **Reporting and Recordkeeping.** Generators will submit biennial reports (EPA Form 8700.13A) to the appropriate EPA regional office or designated State agency by 1 March of each even numbered year (Some States require an annual report, rather than the biennial report. Navy generators will also submit a Navy HW Annual Report to Naval Facilities Engineering Services Center (NFESC) each year. See paragraph 12-5.4). A HW generating activity must contact the TSD facility if a signed manifest has not been received within 35 days of the date the HW was shipped. Generators who do not receive a copy of the manifest with the handwritten signature of the owner or operator of the designated TSD facility within 45 days of the date the HW was shipped, must file an exception report with the EPA or State, as appropriate.

Except as otherwise provided in State law, copies of manifests signed by the generator, the transporter, and the TSD owner or operator must be maintained for 3 years from the date the HW was accepted by the original transporter. Copies of reports filed with EPA will be retained for 3 years. Records of test results or waste analyses

will be kept for 3 years from the date the waste was last sent to a TSD facility.

Generators of waste subject to land disposal restrictions must transmit notification to the TSD and maintain a copy for five years.

Transporters will report any discharge of HW in transit as specified in Federal regulations.

Operators of TSD facilities will, as applicable, submit annual or biennial reports on EPA Form 8700.13B or a State form to EPA regional offices or designated State agencies. A report of unmanifested waste must be filed with the State HW office within 15 days from the time a TSD facility accepts HW that is not accompanied by a manifest. Additional reports are required for specific types of TSD facilities.

h. **Federal Facility Compliance Act (FFCA).** The FFCA of 1992 subjects Federal facilities to all provisions of Federal, State, interstate, and local HW laws and regulations. The full range of available enforcement tools, including civil fines and penalties, are available to EPA, States, and local governments in enforcing these laws and regulations. FFCA exempts agents, employees, and officers of the United States from personal liability for any civil penalty arising from acts or omissions within the scope of their official duties. The installation or command whose activities most directly led to the violation(s) is responsible for payment of possible penalties with its operating budget or other available sources of funds.

FFCA also requires payment of any non-discriminatory fees or service charges assessed in connection with a Federal, State, interstate, or local HW regulatory program. This includes assessment in connection with the processing and issuance of HW permits, amendments to permits, reviews of plans, studies, and other documents; and the inspection and monitoring of facilities.

12-4.2 Radioactive Mixed Waste. Sometimes RCRA HW becomes mixed with radioactive waste, creating a combination that is regulated under both RCRA and the Atomic Energy Act. All policy and other matters pertaining to such radioactive mixed waste are handled by the Director, Naval Nuclear Propulsion (N00N), if the waste resulted from naval nuclear propulsion work, and by DCNO (Logistics) (N4) for all other Navy mixed waste. RCRA Generator requirements apply to mixed waste. Reference Navy Nuclear Propulsion Program (NNPP) policy on HW management.

12-4.3 Infectious Waste Management. Federal facilities that generate infectious waste are responsible for complying with State infectious waste regulations. Federal facilities that transport infectious waste across State lines are also responsible for complying with the transporter, disposal, and manifesting requirements for the State into which it is transported. Requirements for waste generated aboard ships can be found in Chapter 19.

12-5 Navy Policy

12-5.1 General. The following elements of pollution prevention shall be incorporated into Navy HW processes:

a. HM considerations, especially those relating to environment, safety, and health shall be incorporated into the earliest stages of Integrated Logistics System (ILS) planning and acquisition.

b. Navy activities shall establish pollution prevention plans per Chapter 4 that address HM and HW and that encompass all aspects of health and safety of Navy personnel and protection of the environment.

12-5.2 Compliance with HW Management Requirements. Navy activities shall comply with applicable HW management requirements. Compliance with all aspects of an EPA-approved State HW management program is considered compli-

ance with Federal requirements. Activities shall ensure that contractors performing work for the Navy on Navy property comply with all applicable requirements while on-site. If a State has a program that is not approved by EPA, Navy activities shall comply with both the State and Federal program requirements.

12-5.2.1 Applicability of RCRA to Navy Ships and Navy Shore Activities.

a. The 1992 FFCA provides that any HW generated on public vessels (which includes Navy vessels) shall not be subject to the storage, manifest, inspection, or recordkeeping requirements of RCRA until such waste is transferred to a shore facility, unless:

(1) The waste is stored on the public vessel for more than 90 days after the public vessel is placed in reserve or is otherwise no longer in service, or

(2) The waste is transferred to another public vessel within the territorial waters of the United States and is stored on such vessel or another public vessel for more than 90 days after the date of transfer.

Used and/or excess HM and solid waste transferred from a Navy ship to a Navy shore facility shall be managed by the shore facility in compliance with applicable HM, HW and solid waste regulations. For all used HM and solid waste determined by the shore facility to be HW, the shore facility shall be the HW generator and shall assume all responsibility for subsequent management of the HW except for funding. Ships or fleet accounts as appropriate shall reimburse the receiving shore facility for HW handling and disposal, and for lab testing if needed.

Ships' forces are required to follow the requirements of reference (o) with respect to the segregation, packaging, handling, safety, and labeling of HM. In addition ships shall segregate solid wasted in compliance with regulations of the State in which the waste is to be off loaded; the receiving shore facility shall provide information regarding waste segregation requirements. The "Used Hazardous Material" label required by reference (o) for every container of used HM transferred from the ship contains a process description of how the HM was used. If identification and labeling are not provided by the ship, the receiving shore activity may designate ship's used HM and solid waste based on laboratory analysis, and charge the ship or fleet accounts for lab testing, and any additional handling, documentation, administrative and overhead costs. (Accurate process descriptions based on special knowledge will often suffice to allow the receiving shore facility to designate waste, and is preferable to expensive lab testing).

Cooperative, "partnership" relations between shore facilities and ships are encouraged. Ships shall make every effort to ensure HM and solid waste are properly segregated, identified and transferred; receiving shore facilities shall make every effort to provide quality, timely service to the ships. Shore facilities may refuse to accept HM or solid waste from ships if the segregation, identification, or process description is insufficient or incorrect, though to do so would acknowledge a breakdown in the desired cooperative "partnership" relation. Problems experienced with HM or solid waste received from a ship should be reported to the ship's commanding officer (CO), and if flagrant or repeated, to the ship's immediate superior in command (ISIC).

Retrograde of HM/HW from activities outside the continental U.S. (OCONUS) is not considered importation of HW under the RCRA regulations. Following proper arrangements, Navy activities shall accept OCONUS DoD shipments of HW.

A ship scheduled for decommissioning shall remove all HM prior to the date of decommissioning, to the extent practical and appropriate. All HM shall be removed from the ship and processed

by the supporting shore activity within 90 days after decommissioning.

Except where used HM is transferred from a tended unit to a tender, ships shall only transfer used HM to another ship during operations that preclude the ship entering a port in which normal offload may occur. Transfers of HM shall be for the sole purpose of returning the material to a supporting shore activity. Such transfers shall be approved by the operational commander prior to accomplishment. All used HM received by the receiving ship shall be offloaded within 5 working days of arrival at a U.S. Navy port.

b. **HM/HW from Navy Ships in Private Shipyards.** *Federal contract law establishes* several requirements regarding HW management under contracts, other than new construction, for work on board Navy ships in shipyards. Those requirements primarily affect Navy ships entering private shipyards for work administered by COMNAVSEASYSCOM; however, ships undergoing contracted work at Navy activities and under the cognizance of Commander, Military Sealift Command (COMSC) and Commander, Naval Supply Systems Command (COMNAVSUPSYSCOM) are also affected. These requirements are discussed in Chapter 19.

c. **Transporting Shore-Generated Hazardous Waste Aboard Ship.** The Navy has not applied for and ships have not been granted an identification number by EPA for transport of HW. Therefore, ships shall not accept HW from a Navy shore activity, either within or outside the U.S., for transportation to another activity or facility, either within or outside the U.S. for processing and disposal.

12-5.2.2 Applicability of RCRA to Military Munitions and Ordnance. Navy and DoD current policy is that military munitions and ordnance are not a HW subject to regulation under RCRA until there is an intent for DoD to dispose of or destroy them. *Sites used for disposal or* destruction of ordnance by open burning or detonation, not related to training or Explosive Ordnance Disposal (EOD) emergency action, are subject to RCRA regulations. In that regard:

a. Assignment of munitions or ordnance to the Special Defense Property Account or Centralized Demilitarization Account does not by itself constitute a designation as a HW. Those munitions are, rather, awaiting a final decision of use, reuse, reclamation, sales, or demilitarization.

b. RCRA HW requirements are applicable to the demilitarization process at the point where a determination is made in writing by an authorized DoD representative that the munition shall be discarded rather than retained as an item of military ordnance.

c. After the decision is made to dispose of or destroy a military munitions or ordnance, such *items shall be managed per RCRA requirements* and strictly under DoD regulations. Any resultant products generated by a demilitarization process, such as ash, sludge, or a residue, shall be analyzed to determine if it is a RCRA HW and managed according to analytical results.

d. Explosive Ordnance Disposal (EOD) emergency response is a non-routine operation conducted to abate an imminent and substantial hazard to public health, safety, or property, and such operations are not subject to regulation under RCRA. If, however, the site is used for open burning or open detonation to dispose of or destroy munitions or ordnance not related to training or emergency operations, then such sites are subject to regulation under RCRA. RCRA requirements do not apply to EOD sites used solely for training or to sites used for emergency operations.

e. Munitions and ordnance firing/explosive activities for training, research and development, and quality assurance/quality control testing *purposes shall not be considered demilitarization*

or disposal operations. Further, RCRA regulations are not applicable to the associated firing tables or impact ranges (as long as such areas are not used for demilitarization or disposal purposes).

f. Off-specifications small arms ammunition of calibers up to and including 50 caliber shall not be considered "reactive" within the definition in RCRA. They could, however, be HW for some other reason such as toxicity.

g. Navy installations shall comply with appropriate RCRA permitting requirements for demilitarization operations for conventional munitions and ordnance. Permits obtained shall adhere to existing DoD procedures and provide for adequate protection of human health and the environment and shall avoid unnecessary administrative burdens or operational requirements that would limit DoD's flexibility in managing its demilitarization program.

h. The FFCA requires EPA, in consultation with DoD, to issue regulations on the application of RCRA to military conventional and chemical munitions. EPA is to examine DoD safety requirements and take them into account when issuing any regulations necessary to protect human health and the environment. When issued, these regulations shall further clarify the applicability of RCRA to conventional and chemical munitions.

i. The management of explosive HW components and associated explosive wastes shall be included in activity HW Management Plans.

12-5.3 HW Management Plans. Every Navy shore activity that generates HW shall develop and use a HW management plan, or a HW management component in its Pollution Prevention Plan. A HW management plan or component(s) shall:

a. Identify applicable Federal, State, and local regulations pertaining to the generation and management of HW.

b. Identify training requirements, and describe procedures for obtaining training and maintaining training records.

c. Assign responsibilities for the generation, designation, handling, treatment, disposal, and all documentation.

d. Describe all HW generation and management procedures.

e. Include or reference HW minimization plan and goals.

f. Include or reference contingency plans and emergency response procedures.

The plan or component shall be kept up to date to include changes in HW generation and uses, as well as, changes in applicable Federal, State, and local HW regulations. The plan or component shall include or reference minimization procedures sufficient to achieve DoD minimization goals. Tenant activities may be covered by the host CO's HW management plan.

12-5.4 Navy HW Annual Report. All Navy shore activities worldwide that generate, store, treat and/or dispose of HW, shall prepare an annual calendar year report (Report Symbol DD-A&T(SA) 1485 (5090)), per guidance provided by Naval Facility Engineering Service Center (NFESC). The completed annual report shall be mailed by 1 February to NFESC with a copy to the major claimant. Class I and II generators (as defined by EPA regulations), shall report separately and directly to NFESC. Class III generators who are tenants shall be accounted and reported for by their host activity. Class III generators not under a host command shall report separately and directly to NFESC. One-time wastes from spills and installation restoration actions shall be reported as a separate category and not counted as generated quantities for HW minimization purposes. Only waste meeting the definition of HW (listed or characteristic) shall be

reported. See Chapter 14 for a discussion of other solid waste reporting.

12-5.5 Navy and Defense Logistics Agency (DLA) Interface on HW. The DLA's Defense Reutilization and Marketing Service (DRMS) is designated the responsible agency for worldwide disposal of all HW. However, reference (k), permits COs to contract directly for HW disposal service when, "...they can get a combination of quality, responsiveness, and cost that best satisfies their requirements." The Assistant Secretary of Defense (Production and Logistics) (ASD(P&L)) in a memorandum dated 9 August 1989 (NOTAL) reemphasized the CO's prerogative to dispose of HW directly and specifies that, "...such decision should be concurred in by the component chain of command to ensure that installation contracts and disposal criteria are at least as stringent as criteria used by DRMS".

Navy installations shall use DLA HW contract disposal services as much as economically and operationally feasible. However, for those wastes not managed by DLA, or when necessary to get the combination of quality, responsiveness, and cost that best satisfies installations requirements, Navy installations may request some other appropriate contract authority to provide contracting services for HW disposal. An installation not using DRMS contract services shall insure the contract requirements comply with Federal, State, and local HW regulations, shall ensure contract requirements and contract quality control procedures are at least as stringent as those used by DRMS, shall obtain concurrence by their major claimant, and shall notify CNO (N45) of each contract for such services. Generator liability and responsibilities are the same whether using DLA HW contracting services, or any other HW contracting service.

12-5.6 HW Minimization. Navy activities shall reduce HW generation and disposal per reference (n) and by implementing a combination of the following procedures and processes in priority order:

a. Eliminating and/or reducing, at the source, the use of HM by changing the process, requirement, or materials used.

b. Substituting a less hazardous/toxic HM in the process.

c. Reducing and/or eliminating the generation of HW by production process or equipment changes.

d. Recycling/recovery and reuse of HM.

e. Reducing and/or eliminating excess and expired shelf-life HM.

f. Treating HW to reduce the volume or to reduce it to a less toxic or non-hazardous state.

g. Destruction of HW.

h. Disposal, as a last resort.

When requirements in technical directives or weapons system procedures require use of HM beyond the control of the activity, appropriate action shall be taken to advise the cognizant Echelon 2 command of the need for appropriate action.

12-5.6.1 Certification. Federal laws and regulations require certification on HW manifests that the activity, insofar as is economically practicable, has a program to minimize the volume and toxicity of wastes generated. To make such a certification, Navy activities shall have a pollution prevention plan or hazardous waste minimization plan with Plan of Action and Milestones (POA&M). See Chapter 3.

12-5.6.2 Goals. The long-term Navy goal is to eliminate HW disposal to the maximum possible extent by eliminating the use of HM and/or by

implementing best management practices (BMPs) and best demonstrated available technology (BDAT).

12-5.7 Training

a. Every person who produces, packages, handles, treats or transports hazardous waste shall have received applicable NAVOSH Worker Right-to-Know Training on hazardous materials, shall receive applicable training as shown on Figure 12.1, and shall receive job specific training regarding hazardous waste safety, packaging, labeling, handling, documentation, transportation and turn-in procedures specific to their installation. Training curriculum shall be tailored to include State and local HW laws and regulations. Training records and documentation shall be maintained by each command as required by Federal, State and local regulations.

b. Every person involved in hazardous waste management at naval shore facilities shall receive general environmental overview training specified in Chapter 24 of this instruction, shall receive specific comprehensive training on Federal, State and local HW regulations related to their job assignment as shown on Figure 12.1, and shall be familiar with the provisions of this chapter.

c. Environmental professionals at COMNAVFACENGCOM and Engineering Field Division (EFDs)/Engineering Field Activities (EFAs), Navy Regional Environmental Coordinators, major claimant and type commander environmental staffs, and legal environmental staff shall receive general environmental overview training specified in Chapter 24 of this instruction, introductory or executive overview training in hazardous waste management, and shall be familiar with the provisions of this chapter.

12-6 Responsibilities

12-6.1 COMNAVFACENGCOM shall:

a. As requested, provide technical assistance to major claimants and activities in complying with Federal, State, and local HW laws and regulations, and in the preparation of activity HW management, HAZMIN AND Pollution Prevention Plans.

b. Prepare an annual "Navy Hazardous Waste Annual Report." The report shall show plans and progress toward achieving goals by each major claimant and the Navy as a whole, and other information as directed by CNO (N45).

c. Assist ships, claimants, and shore activities in reaching a long-range goal of elimination of HW disposal to the maximum extent possible.

d. Designate and supervise Public Works Centers (PWCs) in receiving, storing, and shipping HW. Designated PWCs shall provide regional HW storage facilities and contract disposal for Navy HW.

e. As requested, assist shore activities in obtaining permits for all new HW management facilities.

f. Pay fees for applications and permits for construction of Military Construction (MILCON) funded HW management facilities from funds appropriated for the project.

12-6.2 COMNAVSUPSYSCOM shall:

a. Establish and implement a HMC&M program as required by reference (n), throughout the supply system.

Health and Safety Training Requirements for Hazardous Waste and Emergency Response

Hazardous Waste Clean-Up Sites

Staff

• **Routine site employees**	40 hours initial 24 hours field 08 hours annual refresher 24 hours supervised field
• **Routine site employees (minimal exposure)**	24 hours initial 08 hours field 08 hours annual refresher
• **Non-routine site employees**	24 hours initial 08 hours field 08 hours annual refresher

Supervisor/Managers of

• **Routine site employees**	40 hours initial 24 hours field 08 hours hazardous waste management 08 hours annual refresher
• **Routine site employees (minimal exposure)**	24 hours initial 08 hours field 08 hours hazardous waste management 08 hours annual refresher
• **Non-routine site employees**	24 hours initial 08 hours field 08 hours hazardous waste management 08 hours annual refresher

Treatment, Storage, and Disposal Sites

Staff

Other Emergency Response Staff

Level 1 - First responder (awareness level)[1]	Sufficient training or proven experience in specific competencies
Level 2 - First responder (operations level)[2]	Level 1 competency and 8 hours initial or proven experience in specific competencies
	Annual refresher
Level 3 - HAZMAT technician[3]	24 hours of Level 2 and proven experience in specific competencies
	Annual refresher
Level 4 - HAZMAT specialist[4]	24 hours of Level 3 and proven experience in specific competencies
	Annual refresher
Level 5 - On-the-scene incident commander[5]	24 hours of Level 2 and additional competencies
	Annual refresher

Note: See 29 CFR 1910.120 (q)(6).

[1] *Witnesses or discovers* a release of hazardous materials and who is trained to notify the proper authorities

[2] *Responds* to releases of hazardous substances in a defensive manner, without trying to stop the releases

• **General Site employees**	24 hours initial or equivalent 08 hours annual refresher
• **Emergency response personnel**	Trained to a level of competency Annual refresher

Note: See 29 CFR 1910.120 (e) and (p)(7).

[3] Responds aggressively to stop the release of hazardous substances

[4] Responds with and in support to HAZMAT technicians, but who has specific knowledge of various hazardous substances

[5] Assumes control of the incident scene beyond the first-responder awareness level

Figure 12.1

b. Maintain and update procedures and instructions to ensure that transportation, storage, and handling of HM/HW fully complies with applicable regulations.

c. Develop a program for the acquisition, stocking, and supply of conforming containers required for the transportation and storage of HW.

d. Include provisions in inter-service support agreements (ISSA) with DLA for DLA/DRMS/DRMO support of HW requirements Navy-wide.

12-6.3 Director, Naval Nuclear Propulsion *(N00N), is responsible for all matters pertaining to* radioactive mixed waste resulting from naval nuclear propulsion plants.

12-6.4 Chief, Naval Education and Training shall develop and provide training on the safety and occupational safety and health aspects of HW and HM to applicable Navy personnel.

12-6.5 BUMED shall:

a. Ensure reference (q) instruction on infectious waste management for Navy medical treatment facilities is current.

b. Ensure that subordinate commands comply with Federal, State, local and Status of Forces Agreement (SOFA) requirements regarding the identification, generation, handling, storage, transport, treatment, and disposal of infectious waste.

12-6.6 Major claimants and subordinate commands shall:

a. *Ensure that their activities comply with* applicable Federal, State, and local HW laws and regulations.

b. Ensure subordinate commands develop and use HW management plans or HW management component of Pollution Prevention Plan as required by section 12-5.3.

c. Budget and allocate sufficient resources to ensure shore activities manage HW per all applicable Federal, State, and local HW laws and regulations, including the assignment and training of operational and management personnel, operation and maintenance of equipment and facilities, transport and disposal of waste, etc.

d. Ensure their activities comply with Navy HM and HW management and reporting requirements.

12-6.7 Commanding officers of shore activities shall:

a. Develop and use a HW management plan, or HW component of a Pollution Prevention plan as required by section 12-5.3 of this chapter.

b. Budget, fund and manage HW in full compliance with applicable substantive and procedural Federal, State and local HW laws and regulations.

c. Cooperate with Federal, State, and local HW regulatory officials.

d. Provide reports and other required data and information to Federal, State and local HW regulatory agencies.

e. Submit an annual Navy HW report to NFESC.

f. *If CO of host activities, serve as the HW* generator for the "site" or "facility" as defined by the applicable regulatory agency, and obtain and maintain applicable HW generator ID number.

g. If CO, or officers in charge of a tenant activity, comply with the policies of this manual, and with written HW management plans established by the host CO.

h. Provide training for all personnel involved in HW management and operations under applicable Federal, State, and local requirements.

i. If in charge of port facilities receive HM from ships and process it for reuse or disposal per applicable Federal, State, and local regulations.

j. If a generator of infectious waste:

(1) Comply with the infectious waste management procedures specified in reference (q).

(2) Determine, evaluate and comply with Federal, State, local, or SOFA regulations that are more stringent than the requirements in reference (q).

(3) Request technical assistance, as required, from cognizant NAVFACENGCOM or BUMED in carrying out required actions.

(4) Budget and fund the operation and maintenance of facilities and equipment necessary to handle, store, transport, treat, and dispose of infectious waste per applicable Federal, State, local, or SOFA regulations.

12-6.8 Commanding officers of shore activities assigned to receive used/excess HM, solid waste or infectious waste from ships and HW from other shore activities shall:

a. Receive ship used/excess HM and solid waste and process it for reuse or for disposal as HW per Federal, State, and local environmental laws and regulations.

b. Provide accessible facilities to receive HW and to store it per applicable EPA and/or State regulations until the material is disposed or transferred to DLA.

c. Provide accessible facilities to receive and store infectious waste per applicable Federal, State, local, or SOFA regulations until disposal of the materials.

d. Provide for disposal of infectious waste per applicable Federal, State, local, or SOFA regulations.

e. Manage infectious wastes in foreign countries to assure protection of human health and the environment as well as meet any applicable SOFA requirements.

12-6.9 Fleet CINCs and type commanders, as appropriate, shall:

a. Reimburse Navy shore activities receiving ship's used/excess HM and solid waste for expenses incurred for laboratory analysis, HW handling, storing, and disposal.

b. Reimburse Navy shore activities receiving ships' infectious waste for expenses incurred in handling, storing and disposing of the material.

CHAPTER 13

PESTICIDE COMPLIANCE ASHORE

13-1 Scope

13-1.1 This chapter provides safety and compliance requirements and policy relative to the legal use of pesticides at Navy shore facilities. The requirements apply within the United States, possessions, and trust territories. Chapter 18 describes Navy policy with respect to installations in foreign countries. The Bureau of Medicine and Surgery (BUMED) Preventive Medicine Manual and other Commander in Chief (CINC) directives describe Navy policy with respect to pest management aboard naval vessels.

The use of pesticides applied to property under Navy stewardship is controlled. Reference (a) assigns Navy policy for pesticides applied to property under Navy stewardship to the Naval Facilities Engineering Command; and jointly with the BUMED for disease vector surveillance and control, and safety matters. More detailed requirements and responsibilities relative to the application and regulation of pesticides at Navy installations are in reference (a). Chapter 7 discusses other topics pertinent to pesticides including prevention of pollutants in wastewater, spill prevention and management (chapter 10), and management of hazardous waste (HW) (chapter 12).

13-1.2 References. Regulations and guidance relevant to pesticide use:

a. OPNAVINST 6250.4B, Pest Management Program; (NOTAL);

b. 40 CFR 150-186, Environmental Protection Agency (EPA) Regulations for Pesticide Programs;

c. 40 CFR 262, EPA Regulations for Hazardous Waste Generators

d. OPNAVINST 5100.23E, Navy Occupational Safety and Health (NAVOSH) Program Manual; (NOTAL);

e. Military Handbook 1028/8A of 1 November 1991, Design of Pest Management Facilities; (NOTAL);

f. 29 CFR 1910, Occupational Safety and Health Standards;

13-2 Legislation

13-2.1 Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). CERCLA authorized Federal action to respond to the release, or substantial threat of release, into the environment of hazardous substance (HS), pollutants, or contaminants that may present an imminent and substantial danger to public health or welfare. Section 107(i) exempts application of pesticide products registered under Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) from CERCLA requirements.

13-2.2 Emergency Planning and Community Right-to-Know Act (EPCRA). EPCRA provides for protection and notification of communities in the event of a release of toxic chemicals from installations that store pesticides above established threshold quantities.

13-2.3 Endangered Species Act (ESA). ESA provides for the protection of threatened and endangered species of fish, wildlife, and plants and their habitats. The Act requires Federal agencies to ensure that no agency action is likely to jeopardize the continued existence of endangered or threatened species. The ESA requires EPA to ensure that pesticide use is not likely to jeopardize endangered species or adversely

modify critical habitats. The pesticide label and labeling process and the issuance of State specific bulletins ensure the implementation of critical habitat protection for endangered species.

13-2.4 Federal Facility Compliance Act (FFCA). The FFCA waives immunity for Federal facilities under solid and hazardous waste laws, CERCLA, and the Resource Conservation and Recovery Act (RCRA) by allowing States to fine and penalize for violations. This is applicable only to pesticides that are a hazardous waste, or are managed or disposed of as hazardous wastes requiring management under RCRA. See chapter 12.

13-2.5 Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). FIFRA provides the principal means for preventing adverse effects on the environment from pesticides through product registration and applicator certification. The registration of all pesticide products by EPA results in label instructions on each container for use, storage, and disposal. Label instructions are legally applicable to all users. It is unlawful to purchase, distribute, or use any pesticide that does not have an EPA registration number or for which registration has been canceled or suspended. It is also unlawful to apply, store, or dispose of any pesticide or container in any manner inconsistent with applicable regulations. Although FIFRA does not delegate enforcement responsibilities for Federal facilities to the States, many States have established Memoranda of Understanding (MOU) with the Department of Defense (DOD) regarding the procurement and use of pesticides, and on-site inspection of Navy installations. DOD policy is more restrictive. All pesticides must be applied by appropriately certified personnel except when used for personal relief. Retain indefinitely, all records of pesticide application.

Under FIFRA:

a. The pesticide label, regulated by EPA, establishes directions for use, precautions for preventing adverse environmental effects, and disposal requirements. Failure to adhere to the labeling requirements or using the substance in a manner inconsistent with the product label is a violation of Federal law.

b. EPA approves State and Federal agency plans for training and certification of pesticide applicators.

c. Keep records of all pesticide applications indefinitely; and make such records available for inspection by State or EPA representatives (R

13-2.6 Federal Water Pollution Control Act as amended by the Clean Water Act of 1977 (CWA). The CWA provides for protection of surface waters from contamination by pesticides in wastewater and in land runoff. The National Pollutant Discharge Elimination System (NPDES) permitting program (see chapter 8) exercises control through stringent effluent limitations. The act also requires notification of pesticide spills that exceed the established standards.

13-2.7 Migratory Bird Treaty Act. This act protects migratory birds and their nests and eggs from being hunted, captured, purchased, or traded. If an activity uses pesticides to manage bird populations other than starlings, sparrows, and pigeons, it may be required to coordinate with the U.S. Fish and Wildlife Service. Contractors must have the appropriate permits when performing work of this nature for the Navy. (R

13-2.8 Occupational Safety and Health Act (OSHA). OSHA establishes safety and health standards to ensure that every worker in the nation enjoys safe and healthful working conditions. OSHA is made applicable to Federal facilities through E. O. 12196.

13-2.9 Resource Conservation and Recovery Act (RCRA). The HW management requirements of RCRA integrate the disposal of

excess or waste pesticides as well as pesticide equipment and containers contaminated by pesticides. EPA identifies the criteria, standards, and requirements by which excess pesticides, pesticide containers, and wastes resulting from the cleanup of pesticide spills are considered HW. See chapter 12.

13-2.10 Food Quality Protection Act. The Act amends the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and the Food, Drug and Cosmetic Act (FDCA). The Act contains language directly applicable to the DOD Pest Management Program by defining "maintenance applicator" and establishing a requirement for minimum training; defining vector and public health pesticide; defining the term "IPM"; and promoting IPM through procurement and regulatory policies.

13-3 Terms and Definitions

13-3.1 Integrated Pest Management (IPM). IPM is a planned program incorporating education, continuous monitoring, record-keeping, and communication to prevent pests and disease vectors from causing unacceptable damage to operations, people, property, material, or the environment. IPM uses targeted, sustainable (effective, economical, environmentally sound) methods including habitat modification; biological, genetic, cultural, mechanical, physical, and regulatory controls; and, when necessary, the judicious use of least-hazardous pesticides.

13-3.2 Material Safety Data Sheet (MSDS). A document that accompanies a pesticide product, providing the handler with information on the compound's makeup, handling instructions, and potential hazards.

13-3.3 Pest. Any organism (except for micro-organisms that cause human or animal diseases) that adversely effects the well-being of humans or animals, attacks real property, supplies, equipment or vegetation, or is otherwise undesirable.

13-3.4 Pest Management Quality Assurance Evaluators (PMQAE). Installation personnel trained in contract performance inspection or QAE and pest management, whose duties include surveillance of commercial pest management services to ensure performance complies with contract specifications and legal requirements.

13-3.5 Pest Management Coordinator. The individual officially designated by the installation commander to coordinate and oversee the installation pest management program and installation pest management plan. Pest management coordinators must be certified as pesticide applicators if their job responsibilities require them to apply or supervise the use of pesticides.

13-3.6 Pest Management Consultant (PMC). Professional technical specialists who have command program oversight responsibilities and provide guidance and information on the management of pest management programs for Navy and Marine Corps commands and installations.

13-3.7 Pest Management Plan. This Plan is a written document for the design, implementation, and maintenance of an installation pest management program.

13-3.8 Pesticide. Any substance or mixture of substances intended to destroy, repel, or mitigate a pest. Consider substances used as plant regulators, defoliants, or desiccants as pesticides. Pesticides do not include animal drugs or feed additives.

13-3.9 Pesticide Applicator. Any individual who applies pesticides. An individual who uses self-help pesticide products or uses pesticides for personal relief is not considered a pesticide applicator.

a. **DOD-Certified Pesticide Applicators.** Military or civilian personnel certified per the "DOD Plan for Certification of Pesticide Applicators" in the pest management categories that are appropriate for their type of work.

b. **State-Certified Commercial Pesticide Applicators.** Personnel certified by the State with an EPA-approved certification plan and certified in the category in which a pesticide will be applied.

c. **Uncertified Pesticide Applicators.** Individuals who have not successfully completed certification training. Uncertified military and DOD civilian personnel who are in training to become certified pesticide applicators may apply pesticides when under the direct line-of-sight supervision of a DOD-certified pesticide applicator. Uncertified personnel may apply self-help or personal relief pesticides when the operation has been approved by a command pest management consultant.

13-3.10 Pesticide Cancellation. An action by EPA that may limit the use of a pesticide. EPA often issues instructions, with the pesticide cancellation, to inform pesticide applicators of what to do with the canceled material in their possession.

13-3.11 Pesticide Management Facility. The building and areas designated for handling and storing pesticides.

13-3.12 Pesticide Suspension. An act by EPA that places an immediate ban on a pesticide that may constitute an "imminent hazard" to humans or the environment. In order to issue a pesticide suspension, EPA must have announced either its intention to cancel the pesticide or to change the pesticide classification.

13-3.13 Registered Pesticide. A pesticide registered and approved for sale or use within the United States or the host nation.

13-3.14 Restricted-Use Pesticide. An EPA classification for pesticides that may potentially cause unreasonably adverse effects on the environment, including injury to the applicator even when label directions are followed. Procurement of EPA restricted-use pesticides and their use is limited to certified pesticide applicators.

13-3.15 State Limited-Use Pesticide. A classification used by States to identify pesticides that are State restricted in their uses but not necessarily EPA restricted-use pesticides.

13-4 Requirements

13-4.1 Certification. Federal or State commercial certification is required for all pesticide applicators per reference (b). DOD policy requires that all pesticide applicators be certified within 2 years of their employment. This requirement is one of three pest management measures of merit established under the Secretary of Defense's Comprehensive Pollution Prevention Strategy.

DOD- or State-certified pesticide applicators will perform all pesticide applications on Navy property (whether performed in-house or by contract) except:

a. DOD civilian and military personnel in training to become certified applicators may apply pesticides under the direct supervision of a DOD- certified applicator.

b. Uncertified pesticide applicators may apply self-help and personal relief pesticides once a command pest management consultant has approved the pesticides.

13-4.2 Records and Recordkeeping.

a. Installations, including government owned/contractor operated (GOCO) ones, must maintain on site indefinitely, complete, daily pest

management operation records. Account for all pest management facility operations and provide a historical record of pest control operations and pesticide applications for each building, structure, or outdoor site. Include all pest management operations including surveys and non-chemical control operations performed on the installation, such as work done on golf courses, by non-appropriated fund installations, by contract services, and as part of outleases, land management, morale, welfare and recreation (MWR) and forestry programs) as well as work performed by installation pest management personnel. Archive pest management records indefinitely.

b. Programs or projects that involve aerial application of pesticides have potential for adverse environmental effects. Therefore, Navy installations shall submit plans for these operations before execution to the appropriate pest management consultant or the Armed Forces Pest Management Board (AFPMB).

c. Facilities will make available to the State Emergency Response Commission (SERC) or the Local Emergency Planning Committee (LEPC) copies of MSDSs or a list of hazardous substances within the facility.

d. Reference (a) describes the tri-service computer recordkeeping and reporting requirements, the Integrated Pest Management Information System (IPMIS).

13-4.3 Pesticide Suspension/Cancellation. Do not use canceled pesticides unless allowed by EPA in the cancellation notice. Do not use suspended pesticides until further notice from EPA.

13-4.4 Wastewater Discharges. Prohibit the discharge of any wastewater from any pesticide formulation, mixing, or equipment cleanup area unless permitted under an NPDES. Hazardous waste and storage requirements apply, per reference (c). See also chapter 12.

13-4.5 State and Local Requirements. Facilities shall comply with substantive State and local pesticide regulatory guidance whenever practicable. Where established, follow MOU between DOD and States for the use of pesticides on shore installations.

13-4.6 Pest Management Plans (PMPs)

a. Installations that conduct pest management operations, whether by in-house personnel or by contract, shall develop, implement, and maintain written comprehensive PMPs, or be covered by the plan of another installation. Assistance for writing PMPs is available from the PMCs. PMPs shall be specific to the installation or part of the overall plans where pest management is provided by support installations. Facilities will perform, under the host installation plan, pest management functions accomplished or contracted by tenant installations. Facilities will include major claimants in the distribution of pest management plans. Plans are not required for GOCO facilities. A COMNAVFACENGCOM PMC will monitor the real property and environmental conditions through on-site program reviews (observation).

b. **Program Maintenance.** Facilities shall maintain programs and plans through technical on-site reviews by BUMED and COMNAVFACENGCOM PMCs and under any MOU in effect. Program reviews will determine installation compliance with the plans and project sheets, evaluate effectiveness of management operations, identify deficiencies, and provide additional recommendations to keep the installation plans current. These reviews will confirm that installation programs comply with FIFRA and other applicable Federal and State regulations. The technical review process will support information requirements for other related efforts, such as the Major Claimant Environmental Compliance Evaluations (ECEs). The Major Claimant will conduct pest manage-

ment reviews in conjunction with an ECE whenever possible

13-4.7 MSDS. A copy of MSDS and pesticide label(s) for every pesticide product in the shop inventory shall be available in the pest control shop.

13-4.8 Pesticide Procurement. A pest management consultant shall approve pesticide procurement by any method prior to purchase, except those pesticides used by occupants for their own personal relief. This approval applies to pesticides used by in-house forces, commercial services, agricultural outleases, GOCO operations, Base Operating Standards (BOS) management, non-appropriated fund instrumentalities (MWR services), or any other means.

13-5 Navy Policy

13-5.1 Navy policy is to employ an integrated pest management program that minimizes pesticide use. A performance goal is for each installation to reduce the annual pesticides use by 50 percent by the end of FY 2000 using FY 1993 as a baseline. This requirement is another pest management measure of merit established by the Office of the Secretary of Defense (SECDEF). Further, where additional regulation prevails, the Navy shall comply with substantive State and local pesticide regulatory guidance whenever possible. MOUs between DOD and a State for the use of pesticides on shore installations may also apply. Navy policy is to employ and document integrated pest management techniques in installation pest management plans, reference (a). SECDEF memo on Comprehensive Pollution Prevention Strategy, 11 Aug. 94 (NOTAL) sets the strategic goal to reduce overall pesticide use by 50 percent by the end of fiscal year 2000 using FY 1993 as a baseline. Installations shall establish a pesticide timetable that lists their 1993 pesticide use and projects the yearly reduction required to achieve a 50 percent reduction by the end of FY 2000. Installations should use the timetable as a scale to evaluate the effectiveness of their pesticide reduction programs.

13-5.2 Training and Certification. Installations shall train Navy military and civilian personnel who apply pesticides under the DOD plan for certification of pesticide applicators. Such training consists of correspondence training, on-the-job training, and formal training through attendance at a pesticide applicator training course sponsored by a DOD training center. Applicator training shall include information on hazard communication.

Installations shall train Navy military and civilian personnel who provide quality assurance for commercial pest control services as Pest Management Quality Assurance Evaluators (PMQAE). Every 3 years, installations shall send certified pesticide applicators and PMQAEs to refresher training courses sponsored by the services.

13-5.3 Pesticide Disposal, Pollution Prevention and Spill Management

a. **General.** Stringent regulations govern the disposal of pesticides, their containers, and related wastes. The technology for disposal is changing rapidly. General guidance for HW applies to pesticide waste per reference (c). Pesticide labels list general guidance on the disposal of pesticide containers. Pesticide waste practices include minimization by using rinse water to formulate subsequent pesticides of the same type; ordering and mixing only what is needed for the application; and disposing of any HW per the installation HW management plan. The cognizant PMC shall provide guidance for disposal on a case-by-case basis per reference (a).

b. The installation Pest Management Plan (PMP) shall address a plan for pesticide spill management, coordinated with the installation's hazardous materials (HM)/HW programs, and in-

cluded in the installation's HS spill contingency plans (see chapter 10). The installation shall provide ready-to-use pesticide spill kits in every storage and mixing facility, and in vehicles used to transport or apply pesticides. EPA regulations require the reporting of any spill that may enter groundwater, surface water, or potable water supplies. Personnel working with pesticides shall report spills (exceeding specific quantities) immediately by telephone to the installation on-scene manager for oil and hazardous substance (OHS) spills and within 5 work days to the cognizant PMC. Installations shall report spills of pesticides containing environmentally hazardous substances under EPCRA (chapter 4).

c. **Administration Procedures.** When EPA regulations are issued to cancel or restrict the use of pesticides, an expensive disposal problem may develop if installations do not immediately cease procurement and, if permitted, exhaust current stocks of the pesticides. COMNAVFACENGCOM shall advise Navy commands, in such situations, of the EPA suspense date and whatever actions are required for the proper disposal of the pesticide. The alternatives: to exhaust stocks through use or to return material to the Defense Reutilization and Marketing Offices (DRMO), shall be determined by the AFPMB and the Defense Logistics Agency (DLA) based on inventories prepared by the installations. The cognizant PMC shall disseminate guidance for disposal actions.

A) d. **Pesticides as Hazardous Materials.** Pesticides currently being used in pest control operations shall be maintained in the pest control shop. If any of these pesticides are also classified as hazardous materials, this must be reported to the activity HAZMINCEN. Transfer of these pesticides to the HAZMINCEN may be avoided by having the pest control shop designated as a satellite hazardous material storage facility.

13-5.4 Safety and Health in the Workplace. Installations shall monitor workplace safety through the responsible safety offices.

a. **Industrial Hygiene.** Installations shall thoroughly evaluate their pest management operations under chapter 8 of reference (d) to accurately identify and quantify potential health hazards. They shall accomplish the evaluation through the following industrial hygiene functions: workplace assessment, exposure assessment, workplace monitoring plan development, monitoring records, exposure evaluations, and periodic evaluations. An industrial hygienist shall evaluate the processes to accurately identify and quantify potential human health hazards.

b. **Medical Examinations.** The medical department of each command shall provide medical surveillance for Navy and civilian personnel engaged in routine pest management operations. Reference (a), the Pest Management Program, provides guidance for medical surveillance.

c. **Pesticide Labels.** Installations shall ensure that EPA-approved labels are applied to all pesticide containers (this requirement applies only to installations located in areas under U.S. EPA jurisdiction). A pest management professional shall mark, with the appropriate signal words, the identification of the pesticides and concentrations, and the identification and location of the persons responsible for the containers on all service containers used for formulating or transporting pesticides to job sites. A pest management professional shall make available at each mixing site, a copy of the complete EPA label for each pesticide used. A pest management professional shall place, so as not to obscure the pesticide label information, other labels, such as Department of Transportation placards or National Fire Protection Association labels, if required.

d. **Material Safety Data Sheet (MSDS).** Pest management facilities shall maintain MSDSs

for each pesticide formulation stored or used at the installation. They shall ensure pesticide applicators are familiar with the MSDS information for any pesticide to which they may be exposed in the workplace. They shall make that information readily accessible to all pesticide applicators.

e. **Pest Management Facility Requirements.** Pest management facilities shall direct pest management operations performed by installation personnel. Installations shall install powered ventilation effecting six changes of air per hour at pest management storage areas containing pesticides that emit vapors including liquid, dust, and granular formulations, per reference (e). Installations shall store all liquid, dust, and granular formulations in an area with adequate spill containment for the formulation. Pesticide applicators, whether contractor or in-house personnel, shall perform all pesticide mixing and formulating in an area with adequate spill containment. Installations shall design, construct, operate, and maintain Navy pest management facilities per Federal regulations and State regulations, as appropriate. Guidance on these technical areas and information on pesticide use, storage, and disposal is available from the NAVFACENGCOM Engineering Field Division (EFD) PMC or Engineering Field Activity (EFA) PMC, or Major Claimant PMC where applicable. Reference (f) gives detailed information on the design and operation of pest management facilities and workplace requirements.

f. Installations shall not permit liquid spray and dust pesticide formulations in any space occupied by unprotected personnel. However, pesticides contained in gel or paste bait formulation may be applied in occupied spaces.

13-5.5 Equipment. Installations shall equip individuals working with pesticides with personal protective materials and equipment, shall appropriately train them on their use and shall provide emergency decontamination facilities, and separate laundry facilities for work clothing. Pesticide management facilities are subject to Navy Occupational Safety and Health (NAVOSH) standards, and pesticide handling procedures are subject to EPA regulation.

a. **Personal Protective Equipment.** Installations shall require personnel engaged in pesticide application to use appropriate protective equipment, (i.e., face shields, respirators, eye protection, impermeable gloves, and protective clothing). Occupational safety and health standards in reference (f), the MSDS, reference (d), and the pesticide labels establish the requirements for protective equipment. Installations shall obtain guidance for selection of protective equipment from the cognizant BUMED industrial hygienist or COMNAVFACENGCOM PMC or installation OSHA manager/respiratory protection program manager.

13-5.6 GOCO Facilities. Where pest management services are required as part of the maintenance management program on GOCO facilities, the Navy plant representative shall:

a. Report all pesticide use as outlined in paragraph 13-4.2. Contractors shall report the information to the appropriate NAVFACENGCOM EFD/EFA PMC and claimant PMC where applicable. (R

b. Ensure that commercial pest control contractors are properly licensed and certified by applicable State or local agencies.

c. Review GOCO pest management programs annually with the assistance of NAVFACENGCOM PMC. In the review, the PMC shall emphasize protection of real property and structures from biological deterioration, preventive maintenance, and environmental protection. Whenever possible, the PMC shall make the pest management program reviews part of the claimant ECE.

13-6 Responsibilities (are defined in reference (a)).

13-6.1 COMNAVFACENGCOM shall

a. Provide on-site program planning and assistance to Navy shore installations in developing and maintaining integrated pest management program plans.

b. Maintain regional training and recertification programs in cooperation with BUMED for civilian applicator personnel and training programs for PMQAE.

A) c. Maintain a generic performance work statement for pest control services. Provide contractual assistance to shore installations outsourcing to commercial pest control services.

R) d. Ensure that pest management programs are reviewed annually to include an update of the pest management plan not more than every 3 years.

e. Provide guidance and training on selection, procurement, storage and use of preservative (pesticide) treated wood commodities.

f. Initiate and sponsor applied research, development, testing, and evaluation on pesticides, application equipment, and management procedures suitable for shore facility programs.

g. Provide Base Realignment and Closure (BRAC) support including caretaker pest management plans and specifications for effected shore facilities.

13-6.2 BUMED shall

a. Provide technical guidance, recommendations, and on-site assistance to shore and fleet commands on all matters relating to disease vectors and other medically important pests.

b. Monitor and evaluate vector surveillance and control programs, maintain safe pest control functions, and provide technical guidance for disease vector surveillance, vector control, safety and occupational health issues.

c. Conduct evaluation and testing studies in vector ecology, surveillance, prevention, and control, including ground and aerial dispersal methods, for contingency operations.

d. Provide training, certification, and recertification of vector control specialists and other medical department personnel and provide initial training and certification of civilian applicator personnel and non-medical department personnel per COMNAVFACENGCOM and DOD standards.

e. Provide specialized, area-wide operational services including contingency response, medical entomology information, vector-borne disease assessments, and emergency disease vector control in the event of vector-borne disease outbreaks, disasters, or other situations where vector control is beyond the capability of local commands.

f. Define and coordinate research, development, testing, and evaluation requirements for vector biology and control.

g. Coordinate pest management guidance with the Naval Exchange Service Command (NEXCOM).

h. Provide an industrial hygienist, where requested, to thoroughly evaluate processes in order to accurately identify and quantify potential human health hazards.

13-6.3 Commanders and commanding officers of shore installations shall

a. Budget for pest management program operations and facilities in compliance with legal and Department of Defense requirements.

b. Officially designate, by letter, a Pest Management Coordinator to maintain oversight of the installation program.

c. Develop, implement, and maintain a written pest management plan employing IPM strategies, and documenting pest management operations and related costs.

R) d. Maintain records of all pesticide use on the installation and electronically transmit this data to the Defense Environmental Network and Information Exchange (DENIX). Exclude pesticides used for personal relief.

D) e. Annually, provide a list of pesticides proposed for use during the next fiscal year for review and approval by the command pest management consultant. Ensure that contractors for commercial pest control services provide the same information as required for in-house services. This list must be submitted no later than 15 September.

f. Ensure that contract specifications involving pesticide use are approved by a pest management consultant prior to advertisement for bid.

g. Establish and maintain self-help pest control programs for individuals living in family housing and unaccompanied quarters. (A

h. Ensure that the installation pest management plan and program is in compliance with environmental protection statutes, as applicable. Significant references include: (D

(1) Hazardous Communication (29 CFR 1910);

(2) Hazardous Substance release contingency plan (pesticide transportation, storage and formulation);

(3) Hazardous Wastes (disposal of excess and waste pesticides) reference (c);

(4) Pretreatment or NPDES permit requirements (wastewater discharged from pesticide mixing facilities);

(5) Other Federal, State or local requirements.

CHAPTER 14

SOLID WASTE MANAGEMENT AND RESOURCE RECOVERY ASHORE

14-1 Scope

14-1.1 Summary. This chapter identifies solid waste management, affirmative procurement, waste prevention, and recycling policies. All Navy installations worldwide that generate 1 or more tons of solid waste per day must follow the solid waste reporting, solid waste management planning, recycling requirements, and affirmative procurement requirements outlined in this chapter. Requirements derived from the Resource Conservation and Recovery Act (RCRA) and similar statutes apply to installations within the United States, the Commonwealth of Puerto Rico, Guam, American Samoa, U.S. Virgin Islands and the Commonwealth of the Northern Marianas Islands. Chapter 18 discusses additional Navy policy for overseas installations.

14-1.2 Related Chapters. Chapter 12 discusses the management of Hazardous Waste (HW). Chapter 9 covers reclamation and recycling of used oils. Chapter 19 discusses the handling of solid wastes aboard ship.

14-1.3 References. References:

a. 29 CFR 1910, Occupational Safety and Health Standards;

b. 40 CFR 247, Guidelines for Procurement of Products that Contain Recycled Material;

c. 32 CFR 172 (DOD Instruction 7310.1 of 10 July 1989, Disposition of Proceeds from Sales of Surplus Property);

d. DOD Memorandum, 18 August 1993, DOD Personal Property Disposal and Recycling. Guidance for personal property disposal and recycling operations; (NOTAL);

e. 40 CFR 246, Guidelines for Source Separation for Materials Recovery;

f. DOD Memorandum, 13 May 1998, New DOD Pollution Prevention Measure of Merit; (A

g. 40 CFR 243, Guidelines for Solid Waste Storage and Collection;

h. NAVMED P5010, Manual of Naval Preventive Medicine;

i. 40 CFR 262.11, Hazardous Waste *Determination*; (A

j. 40 CFR 240, Guidelines For The Thermal Processing Of Solid Wastes; (A

k. 40 CFR 268, Regulations on Land Disposal Restrictions;

l. 40 CFR 257, Regulations on Criteria for Classification of Solid Waste Disposal Facilities and Practices;

m. 40 CFR 258, Criteria for Municipal Solid Waste Landfills;

n. Executive Order 13101, Greening the Government through Recycling, Waste Prevention and Federal Acquisition; (A

o. DEPSECDEF Memorandum, 28 January 1983, Sales of Recyclable Materials. Interim Guidance for Establishing and Operating a Qualified Recycling Program Establishment and Implementation; (NOTAL);

p. NEESA 5.0-004, Solid Waste Management Plan (SWMP) Guide; (NOTAL) (available from NFESC);

q. DOD Instruction 4715.4 Pollution Prevention, 1 July 1998 (NOTAL);

A) r. NAVFAC Guide Specification 01572, Waste Management;

A) s. DUSD(ES) Memorandum, 15 May 1998, Recycling of Firing-range Scrap Consisting of Expended Brass and Mixed Metals Gleaned from Firing-Range Clearance Through Qualified Recycling Programs;

A) t. NFESC UG-2003-ENV, Qualified Recycling Program (QRP) Development Guide; (NOTAL);

u. 40 CFR 244, Guidelines for Solid Waste Management of Beverage Containers;

v. Solid Waste Annual Report-Base (SWAR-Base), available from DESCIM, 200 Stoval St. Rm. 12549, Alexandria, VA 22332-2300 or by download from DENIX Website;

w. NFESC UG-2032-ENV, Calendar Year 1998 Pollution Prevention Annual Data Summary (P2ADS) Guide, September 1998 (or the most current year's guide).

14-2 Legislation

14-2.1 Federal Facilities Compliance Act (FFCA). This law significantly expands the enforcement authority of Federal and State regulators with respect to solid and hazardous waste (HW) management at Federal facilities. FFCA requires Federal facilities to pay any nondiscriminatory fees or service charges assessed in connection with a Federal, State, interstate, or local solid or HW regulatory program.

R) **14-2.2 Military Construction Authorization Act of 1975 (amended 1982).** This Act allows an installation to use the proceeds from the sale of recyclable material to cover the costs directly attributable to all installation recycling programs, including, but not limited to, manpower, facilities, equipment, overhead, and other capital investments. After these costs are recovered, installation commanders may use up to 50 percent of the remaining proceeds for pollution abatement, pollution prevention, composting, alternative fueled vehicle infrastructure support and vehicle conversion, energy conservation, or occupational safety and health projects.

Military Construction Codification Act Section 6, 1982. Amends 10 U.S.C 2577 to allow the use of recycling proceeds for morale, welfare, and recreation (MWR) activities.

14-2.3 Occupational Safety and Health Act, *1970, 29 U.S.C. 651 et seq.* This Act assures safe and healthful working conditions for men and women by authorizing enforcement of the standards developed under the Act: by assisting and encouraging the States in their efforts to assure safe and healthful conditions; and by providing for research, information, education, and training in the field of occupational safety and health. See reference (a). OSHA is made applicable to federal facilities through Executive Order 12196.

14-2.4 Solid Waste Disposal Act (SWDA) of 1965, as amended by RCRA. SWDA requires that Federal facilities comply with all Federal, State, interstate, and local requirements concerning the disposal and management of solid wastes. Such requirements include permitting, licensing and reporting. The SWDA encourages beneficial reuse of wastes through recycling and burning for energy recovery. The Act also requires Federal agencies to procure EPA guideline products containing recovered materials to the maximum extent possible. The Comprehensive Procurement Guideline is codified as 40 CFR 247. See reference (b).

14-3 Terms and Definitions

14-3.1 Activity. An independent command performing a specific mission having its own Unit Identification Code (UIC).

A) **14-3.2 Composting.** A controlled process for managing the degradation of plant and other organic wastes to produce a useful product that can be used as mulch or soil conditioner.

14-3.3 Contained Disposal. Landfilling or incineration of solid waste in a permitted facility. This is the least desirable solid waste option and ranks at the bottom of the priority list for integrated solid waste management.

14-3.4 Direct Sales. Competitively selling recyclable materials to a vendor by the managing activity without utilizing the Defense Reutilization and Marketing Office (DRMO).

A) **14-3.5 Diversion Rate.** The rate at which non-hazardous solid waste is diverted from entering a disposal facility. Disposal facilities include landfills (both solid waste and inert) and incinerators. Composting, mulching, recycling, reuse, and donation are generally accepted waste diversion methods. The diversion rate equals:

$$\frac{R}{R+L} * 100 = \text{diversion rate (percent)}$$

R = amount (in tons) of non-hazardous solid waste (including recycled construction and demolition debris) that is composted, mulched, recycled, reused, donated, or otherwise diverted from a disposal facility.

L = amount (in tons) of solid waste (including landfilled construction and demolition debris) transferred to a disposal facility.

R) **14-3.6 Energy Recovery.** Steam or electrical energy produced from solid waste used as a fuel in a waste to energy plant. All incineration, including energy recovery, is counted as disposal in diversion rate calculation.

14-3.7 Excluded Materials. Materials that may not be sold through a Qualified Recycling Program (QRP). Proceeds from the sale of excluded materials SHALL NOT be returned to a QRP. Per U.S.C. 2577 and reference (c), excluded items include, but are not limited to: government-furnished material; precious metal bearing scrap; hazardous waste (including household hazardous waste); ozone depleting substances; electrical components; unopened containers of solvents, paints, or oil; fuels; material that can be sold (as is) as a usable item; repairable items that may be used again for their original purposes or functions, e.g., used vehicles, vehicle or machine parts, etc.; ships, aircraft, weapons, and other material required to be demilitarized or mutilated, and scrap resulting from demilitarization; all Munitions List Items (MLI) and Strategic List Items (SLI) as defined in DOD 4160.21-M-1 of October 1991 (NOTAL), except firing range expended brass and mixed metals gleaned from firing range cleanup; scrap generated from Working Capital Fund (WCF) activities; usable personal property purchased by WCF activities; property purchased with commissary surcharge funds; automatic data processing equipment owned by the General Services Administration; property purchased for the Military Assistance program or purchased with Foreign Military Sales Administration funds; Coast Guard property; property owned by non-appropriated fund activities; lost, abandoned, or unclaimed privately owned personal property; property owned by a country or international organization; bones, fats, and meat trimmings generated by a commissary. (A

14-3.8 Facility. For the purposes of this chapter, a facility is a contiguous piece of land with structures, other appurtenances, and improvements under common ownership or control, fenceline to fenceline.

14-3.9 Managing Activity. An administrative element assigned to manage a recycling program (including personnel, funds, and equipment).

14-3.10 Office Waste. Solid wastes generated by the every day affairs of government workers in government buildings and rooms. Excludes waste generated in cafeterias, snack bars, or other food preparation and sales installations.

14-3.11 Office Workers. Military and civilian personnel other than janitorial and trade specialists.

R) **14-3.12 QRP.** A recycling program organized in accordance with the regulations for the sale of installation-generated recyclable material purchased with appropriated funds. An installation with a QRP can retain the sales revenues of scrap or other recycled materials purchased with appropriated funds.

A) **14-3.13 QRP Recyclable Materials.** Any recyclable material that is not an excluded material as described in 14-3.7.

R) **14-3.14 Recyclable Material.** A material that can be transformed into a new, useable product through the process of recycling.

14-3.15 Recycling. The result of a series of activities by which materials that would become or otherwise remain waste, are diverted from the solid waste stream by collection, separation, and processing, and are used as raw materials in the manufacture of goods sold or distributed in commerce, or the reuse of such materials as substitutes for goods made of virgin materials. For purposes of a QRP, scrap metal is a recyclable material (reference (d)).

14-3.16 Recycling Program. An organized operation that requires concerted efforts to divert or recover scrap or waste from waste streams, as well as efforts to identify, segregate, and maintain the integrity of the recyclable materials in order to maintain or enhance their marketability.

14-3.17 Resource Recovery. The recovery of materials or energy from solid waste.

14-3.18 Resource Recovery Facility. Any physical plant that processes non-hazardous, commercial, or institutional solid waste, biologically, chemically, or physically and recovers useful products, such as shredded fuel, combustible oil or gas, steam, metal, and glass for resale or reuse.

14-3.19 Solid Waste. Any garbage, refuse, or sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but not including solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under section 1342 of Title 33, or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923) [42 U.S.C.A Sect. 2011 *et seq.*].

14-3.20 Source Reduction (Pollution Prevention). Reducing, at the point of introduction into the process, the volume or weight of material used before the products are purchased, used or discarded. This includes reuse of materials, items, or products prior to recycling and/or disposal.

14-3.21 Source Separation. The separation of recyclable materials at their point of generation by the generator. See reference (e).

14-3.22 Waste Office Paper. Letterhead, dry copy papers, miscellaneous business forms, stationary, typing paper, tablet sheets, and computer printouts. Classified wastes are explicitly excluded, except as allowed by applicable security directives.

D)

14-4 Requirements

A) **14-4.1 DOD Measure of Merit.** Per reference (f), DOD has set the following Non-Hazardous Solid Waste Diversion Rate Measure of Merit (MOM) for all DOD installations:

"By the end of FY 2005, ensure that diversion rate for non-hazardous solid waste is greater than 40 percent, while ensuring integrated non-hazardous solid waste management programs provide an economic benefit when compared with disposal using landfilling and incineration alone."

R) **14-4.2 Solid Waste Collection and Storage.** Federal, State, and local requirements concerning collection and storage apply to military facilities generating solid wastes, whether the solid waste is collected by the military or by a non-military collector. See references (g) and (h).

Reference (i) requires any person who generates solid waste to determine if that waste is a hazardous waste. Refer to chapter 12 for hazardous waste determination and management requirements.

14-4.3 Source Reduction Federal, State, and local requirements concerning source reduction (pollution prevention) apply to Navy facilities. This technique of preventing waste is the preferred method of managing solid waste.

14-4.4 Solid Waste Resource Recovery.

D)
R) **14-4.4.1 Resource Recovery Alternatives.** Alternatives for disposition of recovered materials include:

a. Sale of recovered materials through the Defense Logistic Agency (DLA).

b. Participation in existing or planned civilian community or commercial resource recovery facilities or systems. Where warranted, such participation may include funding a pro rata share of a community facility.

c. Donation of waste materials to a voluntary or community organization, even when the materials are located on DOD-owned, -leased, or -occupied facilities if:

(1) Materials were not government purchased or generated.

(2) Materials, while owned or generated by DOD, are uneconomical for government supported collection and disposal.

d. Direct sale of recovered material by authorized shore installations.

14-4.4.2 Recyclable Materials Sales Program. (R Installations with QRP programs shall first use recyclable materials sales proceeds to cover the costs directly attributable to all installation recycling programs, including, but not limited to, manpower, facilities, equipment, overhead, and other capital investments. After these costs are recovered, installation commanders may use up to 50 percent of the remaining proceeds for pollution abatement, pollution prevention, composting, alternative fueled vehicle infrastructure support and vehicle conversion, energy conservation, or occupational safety and health projects, with first consideration given to projects included in the installation's pollution prevention plans. Any remaining proceeds may be transferred to the non-appropriated Morale, Welfare, and Recreation account for any approved programs or retained in the QRP suspense account to cover anticipated future program costs.

14-4.5 Solid Waste Disposal. Local requirements apply to solid waste disposal operations on Federal property, regardless of whether Federal or other sources create the waste. Installations shall comply with local requirements for solid waste disposal operations off Federal property if the

agency has direct management control of the disposal operation.

14-4.5.1 Incineration of Solid Waste. Federal, State, and local requirements apply to incineration facilities designed to process 50 tons of solid waste or more per day. Installations shall interpret the application of capacity emission standards established by EPA, State, or local agencies. They shall sufficiently treat all waters discharged from the facility to meet applicable effluent limitation standards. They shall obtain all necessary permits.

An installation shall operate an incineration facility for solid wastes in conjunction with a final land disposal facility. Land disposal is required, under EPA guidelines and applicable State regulations, for residues from the incineration operation and those non-hazardous wastes that cannot be incinerated for reasons of health, safety, or technological limitation. Installations will use only those land disposal facilities with appropriate operating permits for residues and non-combustible materials. See reference (j).

14-4.5.2 Disposal in Military-Owned Landfills. Installations shall design, construct, and operate land disposal sites to protect the health and safety of personnel associated with their operation. They shall apply pertinent provisions of the Occupational Safety and Health Act and attendant regulations per reference (a).

They shall locate, design, construct, and operate the land disposal site to minimize environmental hazards and conform to the most stringent of applicable Federal, State, or local standards and requirements (references (k), (l), and (m)).

R) **14-4.6 Affirmative Procurement.** Installations shall follow affirmative procurement programs for the purchase of EPA guideline items that contain recycled materials. Section 6002 of RCRA and references (b) and (n) mandate and support Affirmative Procurement. These guidelines recommend procedures for developing the programs to ensure that the specifications for, and the procurement actions taken, shall result in the increased use of recycled materials contained in the following products:

a. Paper and paper products.

b. Vehicular Products: lubricating oil, retread tires, and engine coolants.

c. Construction Products: building insulation, structural fiberboard and laminated paperboard, cement and concrete, carpet, floor tiles and patio blocks.

d. Transportation products: temporary traffic control devices. (A

e. Park and recreation products: playground surfaces and running tracks.

f. Landscaping products: hydraulic mulch, yard trimmings and compost.

g. Non-paper office products: office recycling containers and office waste receptacles, plastic desktop accessories, toner cartridges, binders and plastic trash bags.

Section 6002 of RCRA requires the Navy to review annually the effectiveness of its affirmative procurement program and provide a report of its findings to the EPA's Office of Federal Procurement Policy (OFPP) by 15 December of each year.

Reference (n) requires that procuring agencies purchase printing and writing paper which contains a minimum of 30 percent post consumer content effective 1 Jan 99. This includes all high speed copier paper, offset paper, forms, bond, computer printout paper, carbonless paper, file folders, white woven envelopes, (A

writing and office paper, book paper, cotton fiber paper and coverstock.

14-5 Navy Policy

14-5.1 Property. Navy installations shall consider solid waste generated by Navy operations and actions on a Navy installation as government property for purposes of disposal except in those instances where Navy exchanges and commissary stores salvage and dispose of their recoverable resources. Contractors shall manage solid waste they generate on a Navy installation under the requirements of their contracts (See reference (o).)

R) **14-5.2 Navy Solid Waste Management Programs.** All Navy installations worldwide that generate 1 ton or more of solid waste per day shall develop and implement Solid Waste Management Plans (SWMPs). The SWMP is a comprehensive study of all aspects of the activity's solid waste management program. It is the essential tool for developing and maintaining a solid waste program in compliance with all Federal, State, and local regulations and DOD/Navy instructions. A SWMP includes legal and regulatory framework, waste characterization, existing collection and disposal systems, recycling program assessment, source reduction, record keeping, assessments of future processing and disposal facilities, education and information, institutional needs, and assignment of responsibilities for carrying out various actions required of the plan. Installations shall refer to reference (p) for guidance developing these plans.

Installations shall design these programs as total systems that consider relative economic advantages of the latest technology as well as the potential for resource recovery. Installations shall develop SWMPs using the following priority basis:

a. Source reduction.

b. Reuse.

c. Recycling.

d. Disposal via landfill or incineration.

Note that installations need not containerize all solid waste prior to disposal (but must place it in appropriately designed and constructed landfills).

(D
(A **14-5.3 Solid Waste Disposal Facilities.** The Navy shall not open new solid waste disposal facilities except where it is in the clear interest of the Navy.

Navy-owned landfills shall be designed to meet the most stringent of Federal, State, or local regulations.

Installations shall not burn Navy waste materials including trash, rubbish, dunnage, garbage, construction debris, and liquid wastes, in open fires (except in limited situations as determined by health or safety considerations and with the approval of the appropriate local agency, State agency, and EPA regional office).

14-5.4 Source Reduction. Installations shall incorporate the following in Navy source reduction or pollution prevention programs, where feasible:

a. Reduction of packaging, especially where packaging is used primarily for attractive merchandising or convenience functions.

b. Process modifications.

c. Procurement of materials that generate less solid waste.

d. Reduction of waste generation in the office by:

(1) Reusing materials (i.e., file folders, paper clips, interoffice routing envelopes, etc.).

(2) *Dual-sided copying.*

(3) Using electronic mail instead of paper memos.

(4) Reduced mailing and distribution lists.

(5) Duplex Printing.

e. Maximum use of the General Supply Administration (GSA) supply system for paper and paper products.

f. Good housekeeping or best management practices.

g. Employee training.

h. Any reasonable mechanism that successfully avoids, prevents, or reduces solid waste at the source.

14-5.5 Solid Waste Resource Recovery

R) **14-5.5.1 Recycling.** Navy installations shall comply with Federal, State, and local recycling laws, regulations, and policies. All Navy installations, except small, isolated facilities such as reserve centers, shall implement source separation for recycling and develop a single authorized QRP. The host activity at an installation shall ensure that there is a recycling program at the installation. The host usually administers the QRP. However, the host may delegate the QRP to a tenant activity at the installation.

Commissary and Navy exchanges may operate authorized recycling programs outside a QRP.

Reference (q) provides guidance for the establishment or abolition of resource recovery and source separation programs.

All construction and demolition (C&D) projects awarded to contractors at naval installations shall include a Construction Waste Management Plan for C&D debris, per reference (r). The Construction Waste Management Plan *shall evaluate and determine the extent of* recycling, reuse, and composting possible for the project.

An installation shall establish a recycling program for the following purposes:

a. To comply with Federal, State, and local environmental laws and regulations and reference (n).

b. To reuse readily available resources.

c. To avoid excessive costs for disposal of solid waste by other means (cost avoidance).

d. To reduce the volume of wastes disposed of in landfills and incinerators.

e. To meet DOD MOM goals per reference (f).

f. To obtain proceeds from the sale of recyclable materials.

14-5.5.1.1 Installations shall separate the following materials for recycling:

a. Scrap metal (ferrous and nonferrous).

b. High-grade paper.

c. Corrugated containers (e.g. cardboard).

d. Aluminum cans.

e. Newspapers.

f. Magazines.

g. Office paper.

h. Plastics.

i. Wood.

j. Other materials as market conditions allow.

R) Installations may recycle scrap metal through a QRP, including firing range-expended cartridge cases and mixed metals gleaned from range clearance that do not require demilitarization and that have been certified safe. They shall sell all other scrap from ammunition, explosives and dangerous articles (AEDA), even if certified safe, through the Defense Reutilization and Marketing Service. Trained personnel designated in writing by the commanding officer shall certify safe all firing range scrap consisting of expended cartridge cases and mixed metals gleaned from range clearance prior to any QRP accepting the material for disposal. See reference (s).

R) **14-5.5.1.2** The recycling manager shall either conduct or request from DRMO a recovered materials market analysis, including estimated return from sale and length of market availability prior to any source separation effort.

R) The recycling manager shall maintain economic analysis and market determination on file at the managing activity and incorporate the resulting information into the SWMP.

14-5.5.1.3 The recycling manager is not restricted to the items listed in paragraph 14-5.4.1.1 but may add any suitable material to those being recycled. As a general rule, installations shall recycle all non-hazardous solid waste where the cost of recycling is less than the cost of disposal.

14-5.5.2 Goals. Navy major claimants shall achieve DOD solid waste reduction and recycling goals, known as Measures of Merit (MOM) per reference (f). The Department of Defense has established a Non-hazardous Solid Waste Diversion Rate Of 40 percent by the end of FY 2005. This goal also requires the defense components to ensure that integrated non-hazardous solid waste management programs provide an economic benefit when compared with disposal using landfill and incineration alone. To achieve this goal, shore activities will have to increase source reduction, recycling and composting. The Solid Waste Annual Report software and Pollution Prevention Annual Data Summary (P2ADS) track this goal. BRAC activities which have been officially closed and which have been transferred to Naval Facilities Engineering Command ownership are not required to report solid waste data in their P2ADS. (A

14-5.5.3 Qualified Recycling Programs. Only installations that have a QRP are authorized to receive proceeds from the sales of recyclable materials. (A

Installations that want to conduct direct sales of recyclable materials purchased with appropriated funds shall submit a request to their major claimant for approval. The request is subject to oversight by CNO (N45). Installations shall forward a copy of direct sales approval letter to CNO (N45). Managing activities with a QRP must conduct direct sales in accordance with references (c), (q) and (t) and will be subject to Environmental Compliance Evaluation (ECE), audits, inspections, and other oversight.

Reference (t) provides guidance for setting up a QRP and establishing and operating a qualified recycling program at Navy and Marine Corps installations. A QRP includes the following program requirements:

a. A managing activity designated by the installation commanding officer. Potential managing units are the environmental department, the supply department, the public works department, or the MWR department.

b. Means for maintaining fiscal accountability for all funds received and disbursed.

c. Maintenance of records of the quantity and types of materials sold for recycling.

d. Review of all projects funded with the proceeds of recycling sales by the same chain of command that would normally review such projects if funded from normal appropriations.

e. Specific implementation of recyclable material sales requirements contained in this instruction.

f. Notification of DRMO that the installation has a QRP as established by the Military Construction Codification Act and that the QRP is implemented by a directive or instruction.

14-5.5.3.1 After the establishment of an organized QRP, or concurrent with such program development, the installation shall coordinate with DRMO to determine whether the specific materials to be sold are actually QRP recyclable materials. If a dispute occurs, refer the matter through the chain of command for resolution. The managing activity can sell recycling materials through DRMO or by direct sales if the major claimant grants such authority. DRMO will return net proceeds (selling price of recycled materials minus handing fees) to the QRP.

14-5.5.3.2 Navy installations with a QRP shall deposit proceeds from the sale of recyclable materials to **F3875 "Budget Clearing Account (suspense)." Fiscal year end does not affect the accumulation of funds in **F3875, so installations may carry forward and merge proceeds from one fiscal year with proceeds of subsequent fiscal years. Reference (c) details the disposition of proceeds from the sale of recycled material.

14-5.5.3.3 Installations shall first use sales proceeds to cover the costs directly attributable to all installation recycling programs, including, but not limited to, manpower, facilities, equipment, overhead, and other capital investments. After these costs are recovered, installation commanders may use up to 50 percent of the remaining proceeds for pollution abatement, pollution prevention, composting, alternative fueled vehicle infrastructure support and vehicle conversion, energy conservation, or occupational safety and health projects, with first consideration given to projects included in the installation's pollution prevention plans. Installations may transfer any remaining proceeds to the non-appropriated MWR account for any approved programs or retain them in the QRP suspense account for investment in the recycling program or use them to cover anticipated future program costs.

14-5.5.3 Resource Recovery Facilities. Installations shall consider construction of dedicated Navy resource recovery facilities only after thoroughly studying alternative methods of processing recovered materials.

14-5.5.4 Returnable Beverage Containers. Navy installations in States with beverage container recovery laws already in force shall comply with State laws. The installation should bring any conflicts between Federal (reference (u)) and State requirements, as well as any situations that preclude compliance, to the attention of CNO (N4), DCNO (Logistics).

14-5.5.5 Records. To determine solid waste management requirements, each installation shall keep records of solid waste disposal and of materials recycled. Installations shall keep records by the actual weight measurement (in (R

tons) and also by material and product type. Each installation shall also keep records of quantities (measured by actual weight) and types of wastes that are recycled, proceeds from the sale of recyclable materials, and avoided costs for disposal.

Installations shall maintain records for the quantities of waste disposed and recycled by C&D contractors. Materials recycled by a C&D contractor shall be counted as recycled when calculating the installation's Diversion Rate.

Defense Environmental Security Corporate Information Management (DESCIM) Solid Waste Annual Report (SWAR)-based (reference (v)) software is available from DESCIM for installations to manage their solid waste program and prepare their SWAR. Directions for electronic submittal of the SWAR through the Defense Environmental Network and Information Exchange Bulletin Board System (DENIX BBS) are available from NFESC.

R) **14-5.6 Composting.** Installations shall compost organic waste as an alternative to land filling whenever possible. Installations shall compost landscaping cuttings, yard and green waste, limbs, branches, and other organic materials suitable for composting at a facility at the shore activity or at a municipal or private facility. Installations shall consider the following composting alternatives when determining the most feasible composting method:

a. Establish backyard composting plans for housing

b. Require landscaping contractors to deposit green waste at a composting facility. Records of the amount composted are then reported in the SWAR-Base software or the P2ADS, paragraph 14.5.7

c. Use municipal or regional composting facilities (regional composting facilities' tipping fees are almost always less than landfill tipping fees).

d. Establish composting facilities at the installation if municipal composting facilities are not available or feasible.

14-5.7 Navy Solid Waste Annual Report (R
All Navy shore activities worldwide that generate more than 1 ton per day of solid waste shall prepare an annual report per guidance provided by the Naval Facility Engineering Service Center (NFESC) (Report Symbol DD-A&T(SA) 1485 (5090)). Mail the report to NFESC no later than 16 March following the end of the calendar year, with copies to the major claimant and EFD. Detailed guidance for installation solid waste reporting is provided in a data call package from NFESC, reference (w). Information obtained from the installation solid waste annual report will be used to track the MOM goal progress.

Host installations shall report solid waste data for all DOD detachments and tenants that reside on the installation. Tenants need not submit separate solid waste data reports to their service. For example, a Navy detachment on a Marine Corps installation need not submit a solid waste report to the Navy because the Marine Corps will report their data. (D

14-5.8 Solid Waste Training. Solid waste and (R
recycling managers should budget for necessary training to ensure that their programs make progress to reach the goals and guidelines established in references (f), (n), and (q). Suggested training includes the Combined Services Recycling Workshop held during the National Recycling Coalition Annual Congress and the Annual Navy Pollution Prevention Conference.

14-6 Responsibilities

14-6.1 COMNAVFACENGCOM shall

a. Be the technical focal point for solid waste management issues.

b. Maintain appropriate technical directives, design manuals, and operation manuals concerning solid waste source reduction, collection, storage, disposal, affirmative procurement, and resource recovery.

c. Assist, as requested, commanders and commanding officers of shore activities in developing resource recovery programs and SWMPs.

d. Develop and maintain solid waste reporting and information collecting systems.

R) e. Prepare and issue annual solid waste data from the information collected.

f. Ensure that all contracts include, to the maximum extent practical, clauses or provisions that require contract deliverables that meet the affirmative procurement guidelines for recycled material content.

g. Collect information to prepare the annual affirmative procurement program report for Office of Federal Procurement Policy (OFPP).

14-6.2 COMNAVSUPSYSCOM shall

a. Investigate and develop methods to reduce packaging of materials supplied to the Navy.

b. Develop specifications for the purchase of items manufactured with recyclable materials.

c. Ensure that all contracts include, to the maximum extent practical, clauses or provisions that require contract deliverables that meet the affirmative procurement guidelines for recycled material content.

R) d. Provide affirmative procurement guidance to procurement community-contract officers, purchasing agents, supply corps officers, supply department managers, and customers. The guidance should address identification of NSN, GSA, and local purchase affirmative procurement products and items, keeping records of total value of affirmative procurement items purchased and ensuring that affirmative procurement practices are followed.

14-6.3 Major claimants and subordinate commands shall:

a. Ensure that installations under their command comply with current Federal requirements as well as applicable requirements of State, interstate, or local solid waste management agencies.

b. Ensure that all contracts include, to the maximum extent practical, clauses or provisions that require contract deliverables that meet the affirmative procurement guidelines for recycled material content.

c. Ensure that sufficient quantities of solid waste are diverted from landfilling and incineration across the claimancy to achieve a 40 percent diversion rate by the end of FY 2005. Rather than requiring each separate installation to achieve the 40 percent diversion rate, this requirement applies to the major claimant for all subordinate installations in aggregate. (R

14-6.4 Commanding officers of shore activities shall

a. Establish recycling programs that divert sufficient quantities of solid waste from landfilling and incineration in order to support the major claimant's requirement of meeting a 40 percent diversion rate across the claimancy by the end of FY 2005. (A

b. Develop SWMPs, including source reduction and recycling programs and resource

recovery facilities that incorporate all Federal, State, and local requirements.

c. Cooperate with the installation or lessor providing solid waste collection and disposal services to establish source reduction, separation programs, and affirmative procurement programs, if in a tenant status.

d. Cooperate with the designated standard metropolitan statistical area (SMSA) lead agency, if in a listed SMSA.

R) e. Report annual solid waste information per guidance provided by NFESC.

f. Ensure that all contracts include, to the maximum extent practical, clauses or provisions that require contract deliverables that meet the affirmative procurement guidelines for recycled material content.

14-6.5 Commanding officers of fleet activities shall cooperate with the host activity while in port and comply with the activity's solid waste management requirements.

CHAPTER 15

INSTALLATION RESTORATION

15-1 Scope

This chapter discusses the Navy's Installation Restoration (IR) Program, including requirements, procedures, and responsibilities. The purpose of the IR Program is to identify, investigate and clean up or control releases of hazardous substances (HS) from past waste disposal operations and hazardous material (HM) spills at Navy activities.

The IR Program provides for compliance with the procedural and substantive requirements of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA, commonly referred to as Superfund), as amended by the Superfund Amendments and Reauthorization Act (SARA), as well as regulations issued under these acts or by State law. Although the IR Program is primarily intended to clean up past releases of HS, it may address the cleanup of past releases of any pollutant and/or contaminant that endangers public health, welfare or the environment, including petroleum, oil, and lubricant products. Cleanup of past contamination from underground storage tanks (USTs) and corrective action for past contamination at Resource Conservation and Recovery Act (RCRA) sites may be part of the IR Program.

This chapter provides guidance on the investigation and cleanup of past hazardous waste disposal activities located within Navy installations, sites that have been contaminated by the migration of HS from Navy installations, and non-government-owned sites that have been contaminated by the disposal of Navy-generated waste and other HS for which the Navy is a potentially responsible party (PRP). In general, past hazardous waste disposal activities are those that occurred prior to October, 1986 when SARA was enacted.

The IR Program is limited to the United States, its territories and possessions, and does not apply in foreign countries.

DOD has provided additional specific guidance for cleanup at Base Realignment and Closure (BRAC) installations, in the DOD BRAC Cleanup Plan Guidebook of Fall 1995 (NOTAL) and by Deputy Under Secretary of Defense (Environmental Security) memorandum of 18 May 1996 (NOTAL).

This chapter implements two Executive Orders (E.O.s):

a. E.O. 12088 of 13 October 1978, Federal Compliance with Pollution Control Standards, requires each Executive Agency to comply with applicable pollution control standards. Compliance with applicable pollution control standards means conforming to the same substantive, procedural, and other requirements that would apply to a private person.

b. E.O. 12580, Superfund Implementation, reference (a), delegates the President's authority under CERCLA and SARA to various Federal agencies, including DOD.

15-1.1 References. The Navy/Marine Corps Installation Restoration Manual of February 1997 provides detailed guidance on the execution of the IR Program at Navy installations. Other references are:

a. E.O. 12580 of 23 Jan 1987; 52 FR 2923, Delegation of Presidential CERCLA Authority to Certain Federal Departments and Agencies;

b. 40 CFR 302, EPA Designation, Reportable Quantities and Notification Requirements for Hazardous Substances Under CERCLA;

c. 40 CFR 300, National Oil and Hazardous Substances Pollution Contingency Plan (NCP) The NCP provides the organizational structure and procedures for responding to discharges of oil and releases of HS, pollutants, and contaminants. This regulation guides the CERCLA program;

d. CNO ltr of 9 February 1994, Establishment of Restoration Advisory Boards (RABs); (NOTAL);

A) e. DON Environmental Policy Memorandum 98-04 of 29 Apr 98, Implementation Guidance For Technical Assistance For Public Participation (TAPP) For Community Members of Restoration Advisory Boards (RABs) And Technical Review Committees (TRCs) (NOTAL);

f. 29 CFR 1910.120, Occupational Safety and Health Administration (OSHA) Regulations on Hazardous Waste Operations and Emergency Response;

g. 40 CFR 373, EPA Regulations for Real Property Transactions under CERCLA;

h. Department of the Navy Environmental Policy Memorandum 95-04, Guidance for Environmental Restoration Program at Active Bases, of 26 Oct 95 (NOTAL);

i. Under Secretary of Defense Memorandum of 27 Feb 98, Policy Concerning Cost-Recovery/Cost Sharing Activities Under the Defense Environmental Restoration Program (DERP) (NOTAL).

15-2 Legislation

15-1.2 Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). CERCLA authorizes Federal action to respond to the release, or substantial threat of release, into the environment of HS, pollutants, or contaminants that may present an imminent and substantial danger to public health or welfare. CERCLA's emphasis is on the cleaning up of old/-inactive HS sites and does not include spills of petroleum, oil and lubricants, although the Navy IR Program does include these contaminants.

15-2.2 Superfund Amendments and Reauthorization Act of 1986 (SARA). Congress passed SARA as Public Law 99-499 on 17 October 1986 to amend the authorities and requirements of CERCLA and associated laws. The SARA provisions of primary importance to the IR program are CERCLA section 120, that addresses response actions at Federal facilities, and section 211, that codifies the Defense Environmental Restoration Program (DERP) into law.

15-2.3 Community Environmental Response Facilitation Act of 1992 (CERFA). Congress created CERFA to expedite reuse and redevelopment of Federal facilities that are closing. It amends CERCLA section 120(h) by adding subsection (4) which requires the Federal government to identify excess real property at bases being closed where no HS or petroleum was stored, released, or disposed.

15-2.4 Resource Conservation and Recovery Act (RCRA) as amended by the Hazardous and Solid Waste Amendments (HSWA). RCRA establishes a national strategy for the management of current solid waste and Hazardous Waste (HW) operations. RCRA requires corrective action for releases of HW and hazardous constituents at facilities that manage HW. COMNAVFACENGCOM may take corrective action for past contamination of RCRA solid waste management units under the IR Program.(See 15-3.2)

15-2.5 State Laws. Many States have laws that are analogous to CERCLA. Although CERCLA does not enable delegation of the Superfund program to the States, under CERCLA section 120-(a)(4), State laws concerning removal, remedial action, and enforcement apply to Federal facilities not listed on the National Priorities List (NPL). State laws must be consistent with CERCLA in

order to apply to Federal facilities under section 120(a)(4). To be consistent, State laws must: set out a comprehensive scheme for remedial enforcement; establish health-based standards through an objective process such as applicable or relevant and appropriate requirements; include cost effectiveness as an element; and be free of discriminatory application to Federal facilities.

15-3 Terms and Definitions

15-3.1 Defense Environmental Restoration Account (DERA)/ Environmental Restoration, Navy (ER,N). Section 211 of SARA established DERA to pay the cost of DOD responses to clean up HS sites. Funds from DERA were transferred to the services for uses consistent with the Defense Environmental Restoration Program (DERP). The ER,N account was established by DON in 1996 to support DOD's decision to devolve the DERA to the services in the FY1997 execution year and thereafter.

R) **15-3.2 Discharge.** For purposes of the NCP, discharge, as defined by section 311(a)(2) of the Clean Water Act (CWA), includes, but is not limited to, any spilling, leaking, pumping, pouring, emitting, emptying, or dumping of oil, not covered by a permit under section 402 of the CWA. For purposes of the NCP, discharge also means threat of discharge.

15-3.3 Environment. The environment, as defined under CERCLA section 101(8), includes the navigable waters, the waters of the contiguous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the United States under the Magnuson Fishery Conservation and Management Act; and any other surface water, ground water, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States.

15-3.4 Facility. As defined under CERCLA section 101(9), any building, structure, installation, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft; or any site or area where a HS has been deposited, stored, disposed of, placed, or otherwise come to be located; but does not include any consumer product in consumer use or any vessel.

15-3.5 Federal Facility Agreement (FFA). A negotiated legal agreement between the Navy and the EPA governing the CERCLA and RCRA administrative process for cleanup at NPL sites. The provisions of these agreements are factors in setting project execution priorities through risk management, and are tools for formalizing commitments making selection of remedial action less adversarial. States may participate in the FFA at their discretion.

15-3.6 Federal Facility State Remediation Agreement (FFSRA). A negotiated non-regulatory legal agreement governing the CERCLA and RCRA administrative process for cleanup at certain non-NPL sites. As with FFAs, provisions of FFSRAs are factors in setting project execution priorities through risk management, and are also tools for formalizing commitments making selection of remedial action less adversarial.

15-3.7 Five-Year Review. If an installation (A selects a remedial action resulting in hazardous substances, pollutants, or contaminants remaining at the site above levels allowing unlimited use and unrestricted exposure, it must review that remedy not less often than every 5 years thereafter. Five-year reviews continue after response complete (RC) as long as contamination remains at the site above levels that allow for unlimited use and unrestricted exposure. (See 15-3.27.)

R) **15-3.8 Hazardous Substance.** For purposes of the IR Program, HS is as defined in CERCLA section 101(14) and designated under reference (b). This includes materials that, because of its quantity, concentration, or physical, chemical or infectious characteristics, may pose a substantial hazard to human health or the environment when released or spilled.

15-3.9 Imminent Threat. A threat posed by a site greater than applicable human health or environmental criteria before implementation of an effective remedial action or an operable unit thereof.

15-3.10 Installation. The real property owned, formerly owned, or leased by the Navy, including a main base and any associated contiguous real properties identified by the same real property number.

R) **15-3.11 Interim Remedial Action (IRA) An** IRA is a near-term action taken to address releases of HS that require expedited response. IRAs are often the first response to a release or threatened release and include Emergency, Time Critical and Non-Time Critical Removal Actions.

15-3.12 Lead Agency. The agency that provides the on-scene coordinator (OSC)/remedial project manager (RPM). The OSC/RPM is the person responsible for planning and implementing response action under the NCP. As delegated by E.O. 12580, the Department of the Navy is always the lead agency for response actions on Navy and Marine Corps real property.

15-3.13 Long Term Management (LTMgt). LTMgt is the period of site management (maintenance, monitoring, record keeping, Five-year reviews, etc.) initiated after the remedial action objectives have been met. COMNAVFACENGCOM can only program LTMgt for sites that have achieved RC.

15-3.14 National Priorities List (NPL). The EPA's list of the nation's highest priority sites that need to be cleaned up. The EPA bases this list on a site's threat to the public health, welfare, or the environment using the Hazard Ranking System (HRS). Sites receiving scores above 28.5 (and having the highest potential for affecting public health, welfare, and the environment) are put on the NPL.

15-3.15 No Further Response Action Planned (NFRAP). This term designates sites that do not warrant further action in the site evaluation process. The primary criterion for NFRAP is a determination that the site does not pose a significant threat to public health or the environment. An installation can make an NFRAP decision at several points in the IR process, but must document the reasons for the decision. If future information reveals the need for additional remedial activities, the installation may reverse this decision.

15-3.16 Operable Unit (OU). A discrete action that comprises an incremental step toward comprehensively addressing site problems. This discrete portion of a remedial response manages migration, or eliminates or mitigates a release, threat of a release, or pathway of exposure. The EFD/A can divide the cleanup of a site into a number of operable units, depending on the complexity of the problems associated with the site. Operable units may address geographical portions of a site, specific site problems, or initial phases of an action, or may consist of any set of actions performed over time or any actions that are concurrent but located in different parts of a site.

15-3.17 Pollutant. As defined by section 101(33) of CERCLA, pollutant includes, but is not limited to, any element, substance, compound or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism either directly from the environment or indirectly by ingestion through food chains, will or

may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformation, in such organisms or their offspring. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under section 101(14) (A) through (F) of CERCLA, nor does it include natural gas, liquefied natural gas, or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas). For purposes of the National Contingency Plan (NCP), the term pollutant or contaminant means any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare.

15-3.18 Preliminary Assessment (PA). The NCP defines a PA as a "...review of existing information and an off-site reconnaissance, if appropriate, to determine if a release may require additional investigation or action. A PA may include an on-site reconnaissance if appropriate.

A) **15-3.19 Public Health Assessment.** A public health assessment is the evaluation of data and information on the release of hazardous substances into the environment in order to assess any current or future impact on public health, develop health advisories or other recommendations, and identify studies or actions needed to evaluate and mitigate or prevent human health effects.

A) **15-3.20 Record of Decision (ROD)** ROD is the official term used by CERCLA and the NCP for the documentation of a final remedial response action decision at an NPL site. It describes the remedy selection process and the remedy method selected. The installation commanding officer must sign the ROD before initiation of remedial action. The term "Decision Document" for a non-NPL site is similar to a ROD for an NPL site.

15-3.21 Release. As defined by section 101(22) of CERCLA, release means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any HS or pollutant or contaminant), but excludes any release that results in exposure to persons solely within a workplace, or with respect to a claim that such persons may assert against the employer of such persons, emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine; release of source, byproduct, or special nuclear material from a nuclear incident or any processing site, under conditions specified in CERCLA, and the normal application of fertilizer. For purposes of the NCP, release also means threat of release.

15-3.22 Remedial Action (RA). Actions consistent with permanent remedy taken instead of, or in addition to, removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment. RA covers two periods of activity at the site:

15-3.22.1 Remedial Action Construction (RA-C). (R RA-C is the period during which the EFD/A puts the final remedy in place. RA-Cs may include final remedies such as a soil removal or landfill cap, in which case the site would be considered Response Complete (RC) at the end of the RA-C phase. Alternatively, RA-C may be the construction of a pump and treat system that will have to operate for an extended period before the remedial objectives are met. In the latter case, once construction of the system is complete, the site can be considered a Remedy in Place (RIP). RA-C is a subset of RA and the term is not in the NCP.

15-3.22.2 Remedial Action Operations (RA-O). RA-O (formerly Long Term Operation (LTO)) is that period of Operation and Maintenance (O&M) required after the Remedial Action Construction (RAC) is completed (Remedy in Place (RIP)) but the remedial action objectives have not yet been met (RC has not been achieved). Monitoring programs on a site during the RA-O phase are part of the RA-O. They are not Long Term Management (LTMgt).

15-3.23 Remedial Investigation/ Feasibility Study (RI/FS). The RI/FS is an extensive technical study conducted to determine the nature and extent of the threat presented by a release and, where appropriate, to evaluate proposed remedies. The FS serves as the mechanism for the development, screening, and detailed evaluation of potential remedial alternatives.

15.3.24 Remedy in Place (RIP). RIP is that point in time when Remedial Action Construction (RAC) of a system is complete, all testing has been accomplished, and the remedy will function properly but the remedial objectives have not been met. This term applies only when there is a period of Remedial Action Operations (RAO) following Remedial Action Construction (RAC).

15-3.25 Removal Action. A removal action (also known as an Interim Remedial action (IRA)) is a near-term action taken to address releases of HS that require expedited response. Removal actions are often the first response to a release or threatened release.

15-3.26 Reportable Quantity (RQ). The quantity of an HS that must be reported if released. CERCLA section 102 requires EPA to establish and revise a list of HS and their associated reportable quantities. Reference (b) contains this list.

15-3.27 Response Complete (RC). A site achieves RC when it meets the remedial action objectives. This is a Navy determination with regulatory concurrence where a cleanup agreement (FFA for NPL sites, FFSRA for some non-NPL sites) requires it.

15-3.28 Restoration Advisory Board (RAB). A group established to serve as a focal point for the exchange of cleanup information between an installation and the local community. Navy policy is to establish a RAB at every installation with an IR program, including at bases subject to closure under base closure law. Members of the RAB include the Navy, EPA officials, appropriate State and local authorities, Federal and State natural resources trustees, and representatives of the affected community.

15-3.29 Site. A location on or off an installation's property where HS has been deposited, stored, disposed, or placed, or has otherwise come to be located, due to installation activities before October 1986, the date Congress enacted SARA. Such areas may include multiple sources and may include the area between sources. One should not confuse this with the EPA practice of listing an entire installation on the NPL. An NPL installation will generally have several discrete sites. (R

15-3.30 Site Closeout. This is the final step for IR sites. A site reaches Site Closeout when no further response actions under the IR Program are appropriate or anticipated and the regulatory agencies concur. For NPL sites, this step will include following the proper procedure for deletion from the NPL according to the NCP. Actual NPL site closeout date is the day the deletion appears in the Federal Register. Only under unusual circumstances will a site that has been closed out be reopened.

15-3.31 Site Inspection (SI). An SI is an on-site inspection to determine whether there is a release or potential release and the nature of the associated threats.

15-3.32 Solid Waste Management Unit (SWMU). For the purposes of RCRA corrective action, any unit in which an installation has placed

wastes at any time, regardless of whether the unit was designed to accept solid waste or HW. Such units could include old landfills, wastewater treatment tanks and leaking process or waste collection sewers.

15-3.33 Stakeholder. Interested parties including individual residents who live on or near the installation; representatives of citizen, environmental, and public interest groups whose members live in the vicinity of the installation; workers involved or affected by installation operations; elected and appointed local government officials and representatives of Federal and State regulatory agencies. This chapter uses the term stakeholder in the context of RABs.

15-3.34 Technical Review Committee (TRC). SARA (211) requires an installation to establish a TRC to facilitate community involvement in the review and comment on technical aspects of response actions and proposed actions with respect to releases or threatened releases at Navy installations. Members of the TRC include the Navy, EPA officials, appropriate State and local authorities, Federal and State natural resources trustees, and representatives of the community. Navy policy is to convert all TRCs to RABs.

15-3.35 Uncontrolled Hazardous Waste Site. An area identified as such by a governmental body, whether Federal, State, local or other, where an accumulation of HS creates a threat to the health and safety of individuals or the environment or both. Examples of uncontrolled HW sites include, but are not limited to, surface impoundments, landfills, dumps, and tank or drum farms. This definition does not cover normal operations at treatment, storage and disposal (TSD) sites.

15-4 Requirements

R) **15-4.1 The Installation Restoration Process.** An installation can cleanup a site where hazardous wastes have been improperly disposed of, technically, under either the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) or the Resource Conservation and Recovery Act (RCRA). However, the President has charged the Navy by E.O.12580, section 2d, to perform such cleanups under CERCLA, using EPA regulations and guidance. Therefore, the Navy should conduct hazardous waste site cleanup activities using the CERCLA authority. On occasion, a Federal or State regulator may insist on cleaning a given hazardous waste site by using the regulator's authority under RCRA. When they make such requests, Navy installations should attempt to incorporate the regulator's substantive requirements to the maximum extent possible within the Navy's CERCLA program, and attempt to arrive at compromises that respect both parties' claims of authority. Cleanup agreements, that attempt to spell out how the parties will interact with each other, may be an appropriate vehicle to achieve these necessary compromises.

15-4.1.1 The CERCLA Process. The following general procedures are set forth under the NCP for initiating and carrying out the remedial process under the IR Program. (The IR Manual discusses requirements for these procedures in detail):

a. Site discovery and notification

b. Preliminary Assessment (PA)

c. Site Inspection (SI)

d. Hazard Ranking System (HRS)

e. Remedial Investigation/Feasibility Study (RI/FS)

f. Record of Decision (ROD)

g. Remedial Design/Remedial Action (RD/-RA)

CERCLA PROCESS

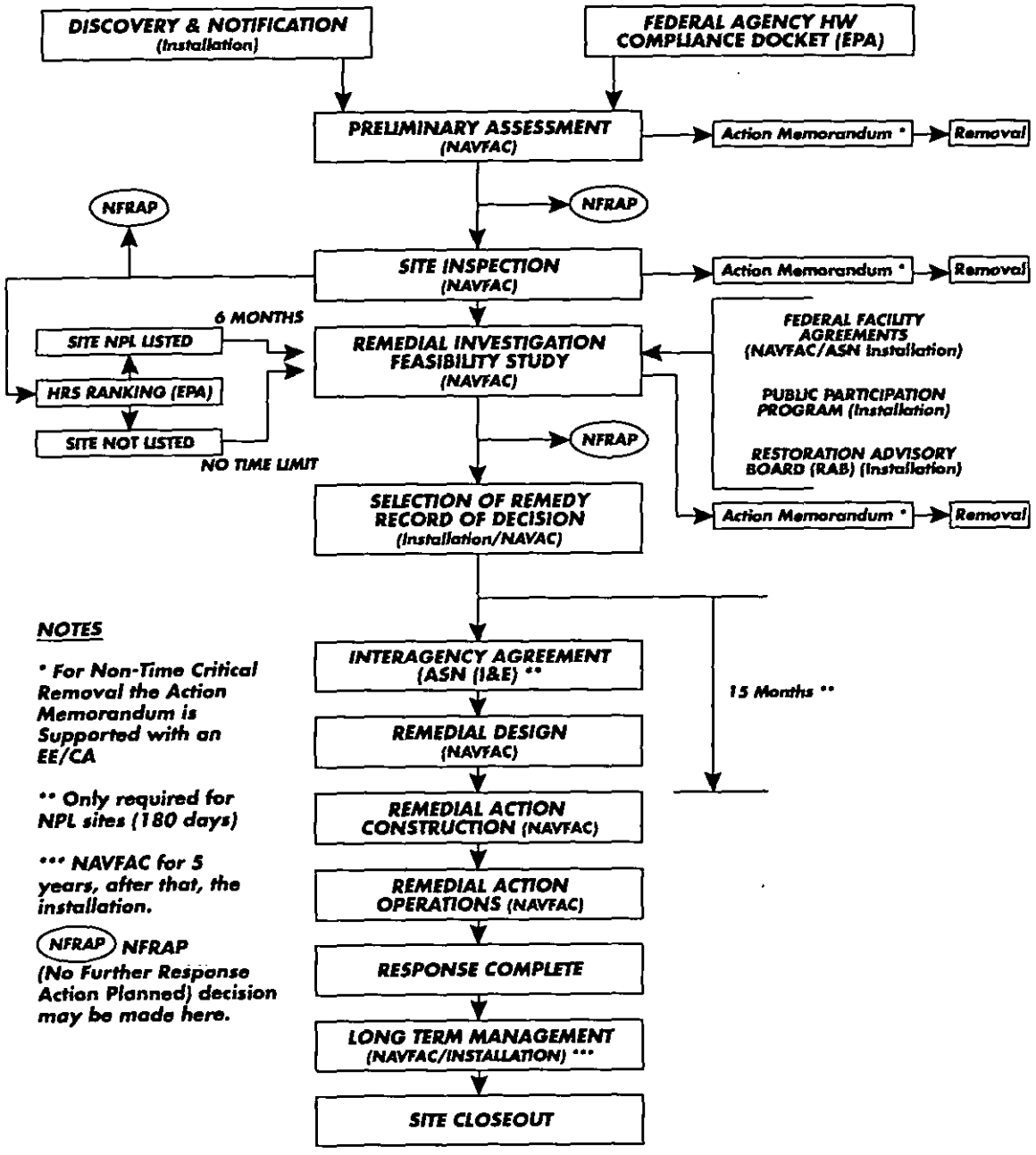


Figure 15-1

h. Remedial Action Operation (RAO)

i. Long-term management (LTMgt)

j. Site Closeout (NFRAP or De-listing).

EPA and appropriate State and local officials and the public must have opportunity to review and comment on assessments/studies and proposals for removal/remedial actions. In addition, installations on the NPL negotiate Federal Facility Agreements (FFAs) with State and Federal regulators early in the study process. (See 15-5.11). Also, see figure 15.1 which outlines the IR Program.

R) **15-4.1.2 Knowledge of a Release.** An installation must report any release or threatened release of a hazardous substance to EPA, the State, and appropriate local authorities. Installations must also report releases, or threatened releases, to the chain of command and the Regional Environmental Coordinator (REC) using the reporting format contained in Appendix I. In addition, if the release exceeds the reportable quantity (RQ) as defined under CERCLA, the installation must also notify the National Response Center (NRC) immediately at 1-800-424-8802 or 202-267-2675. If notification of the NRC is not practical, the installation should notify the regional EPA-designated OSC or the Coast Guard.

R) **15-4.1.3 Federal Agency Hazardous Waste Compliance Docket.** CERCLA requires that EPA maintain a Federal Agency Hazardous Waste Compliance Docket that contains information regarding Federal facilities that manage HS or from which HS may be or have been released. A State governor may petition EPA to add a facility to the docket. The docket lists all installations that have submitted IR information to EPA.

15-4.1.4 Administrative Record. The NCP requires the establishment of an administrative record for all CERCLA sites, (reference (c)). The lead agency must establish an administrative record and make it available to the public at the start of the remedial investigation for remedial actions, and at the time of engineering evaluation/cost analysis for removal actions.

15-4.1.5 Public Participation. The function of public participation activities is to inform the community of planned and ongoing activities, give it an opportunity to comment on and provide input to technical decisions, and allow it to address environmental concerns as early as possible during the remedial process. Navy policy requires opportunities for public participation to begin at initiation of the IR process and continue through cleanup. SARA, section 211, requires that whenever possible and practical, a Technical Review Committee (TRC) will be established for the purpose of enhancing community participation in the review and comment on actions and proposed actions respecting releases or threatened releases at the installation. To expand public involvement beyond that required by section 211, Navy policy, reference (d), is to convert all TRCs to RABs including those at bases subject to closure under base closure law. The provision of Technical Assistance for Public Participation (TAPP) funding may enhance the effectiveness of RABs. Department of the Navy guidance on TAPP is provided at reference (e).

15-4.1.6 Protection of Health and Safety. Response actions under the NCP must comply with the provisions for the protection of the health and safety of workers engaged in HW operations found in reference (f). These provisions include requirements for: developing a site health and safety plan; establishing site access control; enforcing standard operating safety procedures; implementing medical surveillance procedures; providing for environmental and personnel monitoring; providing appropriate personal protective equipment (PPE); and establishing emergency procedures. The IR Manual provides detailed requirements for the protection of worker health and safety and proper personnel training.

R) **15-4.1.7 Public Health Assessment.** The Agency for Toxic Substances and Disease Registry (ATSDR) must perform a public health assessment for each facility listed or proposed for inclusion on the NPL. ATSDR will perform the assessment using available information from IR studies and from site visits. To the maximum extent possible, ATSDR will attempt to complete a public health assessment before the completion of the RI/FS.

15-4.1.8 *Record of Decision* (ROD)/Decision Document. The purpose of a ROD, or decision document is to document the selection of a site-specific remedy. To be consistent with the NCP, the selected remedy must be protective of human health and the environment, attain all State and Federal applicable or relevant and appropriate requirements for that site, be cost-effective, and use permanent treatment technologies or resource recovery technologies to the maximum extent practicable.

As required under CERCLA, section 117(b), an installation must publish notice of the final ROD and make it available to the public in the administrative record before adopting any plan for remedial action. The ROD must document any significant changes from the proposed plan and respond to all comments, written and oral, received during the comment period. The commanding officer of the installation signs the ROD after closure of the public comment period and after addressing all significant comments or issues. The commanding officer signs a decision document for non-NPL sites. At non-NPL sites, an installation follows all procedures for the ROD except that EPA's signature is not required.

15-4.1.9 Interagency Agreement (IAG)/ Federal Facility Agreement (FFA). CERCLA 120(e), requires Federal agencies to enter into an IAG with EPA within 180 days after completion of each RI/FS for an NPL site. The IAG addresses the expeditious completion of all necessary remedial actions. To expedite the cleanup process, DON policy requires entering into an FFA with EPA, and the State where possible, soon after an installation is listed on the NPL. The purpose of an FFA is to define the procedural framework and schedule for developing, implementing, and monitoring response actions at the site earlier than does an IAG. An FFA becomes an IAG for an operable unit or site cleanup at an installation once the ROD is signed and new schedules are negotiated for the actual Remedial Action (RA). The law does not require an FFA. However, DOD and Navy policy requires them unless they are not advantageous to the Navy. (D

15-4.1.10Remedial Design Or Remedial Action (RD/RA). After the commanding officer signs the ROD, the EFD/A will initiate the RD/RA for the selected remedy. The RD converts the conceptual design for the selected remedy into a final design for implementation. The RA commences after completion of the RD with the award of a contract to construct or implement the selected alternative. For NPL sites at Federal activities, CERCLA §120(e)(2) requires that substantial continuous physical on-site remedial action will commence not later than 15 months after completion of the RI/FS. (See figure 15.1.) (R

15-4.1.11Site Closeout. The EFD/A should conduct a site closeout when no further response actions under the IR Program are appropriate for the site and when site cleanup confirms that no significant threat to public health or the environment exists. Wherever possible, an installation should seek EPA and State concurrence.

a. NPL Site Closeout. The NCP, reference (c), part 425(e), states that the EPA may delete a site or recategorize it on the NPL where no further response is appropriate. The EPA, in consultation with the State, will determine whether the installation has met the requirements, and if it has, will prepare a notice of intent to delete. The EPA will obtain State concurrence with the deletion notice before making the notice available to the public. The EPA will also make the final deletion (R

package available to the public, which will contain the response to public comments received.

A Federal installation must close out all sites within it for de-listing from the NPL.

b. Non-NPL Site Closeout. For non-NPL sites, the installation must notify EPA and the State that it has completed appropriate response actions and no further response action is appropriate. The installation will designate the site (or sites) as NFRAP, placing supporting documentation in the information repository, and will notify the public of these actions.

A) **15-4.1.12 Five-year review.** Five-year reviews are required where a selected remedial action results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure. The clock for when the first 5-year review is due for a site starts running with initiation of the selected remedial action for that site.

15-4.1.12Real Property Transactions and Management. As Navy installations are closed and realigned, IR Program efforts must continue. COMNAVFACENGCOM shall identify IR Program requirements and complete them in accordance with CERCLA, SARA, CERFA and the NCP. Congress has established guidelines for funding the necessary investigations and cleanups and has similarly established a specific fund account for IR Program work at BRAC installations.

Reference (g) requires, per CERCLA section 120(h)(1), that all Federal agencies entering into a contract for the sale or other transfer of real property include a notice that identifies whether HS were stored on the property for 1 year or more, or were released or disposed of on the property. This notice must identify the type and quantity of such HS and the time at which such storage, release, or disposal took place.

CERFA expanded CERCLA section 120(h) to require that, before termination of Federal activities on any real property owned by the government and subject to base closure, the head of the agency with jurisdiction over the property must identify the real property on which no HS and no petroleum products or their derivatives were stored for 1 year or more, known to have been released, or disposed of. An installation will identify uncontaminated property based on an investigation of the real property. It must obtain concurrence with the identification from EPA for NPL sites. For non-NPL sites, an installation must provide the State 60 days for review and comment. If the installation receives no comments, it may deem concurrence.

For bases subject to closure or realignment under a base closure law, the CERFA identification must be made, and concurrence must be obtained, within either: 18 months of the CERFA enactment (October 19, 1992); 18 months of the date by which a joint resolution disapproving the closure or realignment must be enacted and such a joint resolution has not been enacted; or 18 months of the date on which the real property is selected for closure or realignment.

15-4.1.13Retention of Records. CERCLA section 103(d)(2) requires that any person responsible for providing notification of known, suspected, or likely releases should also retain records of the facility and the HS release for 50 years. The records include information on the location, title, and condition of the facility and the identity, characteristics, quantity, origin, or condition (including containerization and previous treatment) of any HS contained or deposited on the facility. It is unlawful to destroy, mutilate, conceal, or falsify such records. It is possible, under some circumstances, to obtain a waiver from these requirements by applying to EPA.

15-4.2.1 The RCRA Process. RCRA section 3004(u) requires installations seeking or renewing a permit for a Treatment, Storage or Disposal Facility to take corrective action for past releases

of HW or constituents from any SWMU at the facility. Permits issued by EPA or a State with RCRA authority will contain schedules of compliance for such correction (where it issues a permit before an installation can complete corrective action).

Additional RCRA corrective action requirements include:

a. Section 3004(v), requires corrective action be taken for releases of HW that have migrated beyond the facility's border

b. Section 3008(h), permits EPA to issue an order requiring corrective action to address releases of HW (constituents omitted), whether or not from a SWMU, at facilities authorized to operate under interim status.

The following general procedures are set forth under the Corrective Action (CA) provisions of RCRA. The IR Manual discusses requirements for these procedures in further detail:

a. RCRA Facility Assessment (RFA). The RFA is similar to the CERCLA PA/SI.

b. Interim Measures. Interim Measures are similar to Removal Actions under CERCLA.

c. RCRA Facility Inspection (RFI). The RFI is similar to the CERCLA RI.

d. Corrective Measures Study (CMS). The CMS is similar to the CERCLA FS.

e. Remedy Selection. Remedy Selection under RCRA is essentially the same as Remedy Selection under CERCLA.

f. Corrective Measures Implementation (CMI). The CMI is similar to RD/RA under CERCLA.

An installation must give State and local officials and the public opportunity to review and comment on assessments/studies and proposals for removal/remedial actions. In addition, the installation may negotiate Federal Facility Site Remediation Agreements (FFSRAs) with State regulators early in the study installation restoration process.

15-5 Navy Policy

15-5.1 General. CERCLA is the preferred process for conducting the installation restoration program. An installation shall comply with all applicable requirements of CERCLA/SARA in carrying out actions under the Navy IR program. All terminology used by the Navy IR Program shall be consistent with that used in CERCLA/SARA and RCRA/HSWA. Installations shall accomplish all IR response actions per the NCP, following EPA guidance in determining reasonable interpretation and application of the regulations. The Navy shall not adopt any guidelines or rules inconsistent with EPA's guidelines and rules. The Navy strives to clean up sites with higher risk before those with lower risk. The Navy should continually remind regulators and the public of this concept, especially when funding is constrained.

Congress provides funding through ER,N. It is DON policy to use ER,N as the exclusive source of funding for environmental restoration at active installations. Per reference (h), other types of funding are not authorized instead of, or to supplement, ER,N funds except where the work is within the scope of MILCON or O&MN funded construction projects as discussed in subsection 15-5.19. The Navy shall maintain an open and continuous dialogue with regulatory agencies and the public on all IR activities. The Navy shall use the Defense/State Memorandum of Agreement (DSMOA) process to provide funds to State regulatory agencies for oversight costs. (R

ER,N funds can be used for RCRA corrective action as described above for past releases of HW at permitted facilities, or facilities seeking permits

if these are the same types of releases covered by the IR program.

COMCOMNAVFACENGCOM is the DON agent for executing the ER,N funded IRP with program oversight by CNO N45. COMNAVFACENGCOM has delegated the day-to-day operation of the IRP to the COMNAVFACENGCOM Engineering Field Divisions/Activities (EFD/EFA).

R) **15-5.2 Emergency Response.** Under CERCLA section 104, E.O. 12580 and the NCP, the Navy has the authority to respond to "emergency" situations (i.e., those circumstances that may immediately endanger human life, health or the environment) where the release or threatened release is on, or the sole source of the release is from, a Navy facility. If an IR site appears to be causing an emergency situation, the Navy is responsible for taking appropriate action to protect the public and the environment from the threat. The responsibility for responding to emergency situations at IR sites belongs to COMNAVFACENGCOM through the geographical EFD/EFA using ER,N funds.

15-5.3 HRS. Following completion of a PA/SI, the cognizant COMNAVFACENGCOM EFD/EFA shall prepare a package that includes available information necessary for HRS scoring, and the installation shall forward the package to the EPA.

R) **15-5.4 No Further Response Action Planned (NFRAP).** The Navy should not expend resources on sites that pose little or no threat to humans or the environment. An installation can make "no further action" decisions at several points within the remedial process, but must base this on a defensible and properly documented "assessment of risk to human health and the environment." The Navy may apply this procedure at both NPL and non-NPL installations to describe those locations where it determines that no further action is required, based upon appropriate investigation. COMCOMNAVFACENGCOM or its designee shall prepare NFRAP decision documents for signature by the installation commander. Upon signature, the installation shall forward the NFRAP decision documentation to appropriate regulatory agencies for information and/or concurrence. Remedial project managers shall be alert to identify opportunities for NFRAP decisions.

15-5.5 Administrative Record. CERCLA section 113(k) requires the establishment of an administrative record which will form the basis for the remedy selection. The administrative record shall be initiated as soon as the SI shows that the program will move into the RI/FS phase. The cognizant COMNAVFACENGCOM EFD/EFA shall establish and maintain the administrative record using ER,N funds and in close coordination with the installation. COMNAVFACENGCOM shall provide copies of the Administrative Record to the installation, State, and EPA as appropriate. Installations shall ensure that a copy of the administrative record is available in an information repository. The repository shall be available to the public at or near the site and notice of the availability is part of the record. The Administrative Record is the basis for actions taken by the Navy and any future legal action concerning the site.

The administrative record is a CERCLA requirement and is not required where an installation conducts cleanup actions under RCRA corrective action authority.

15-5.6 Public Participation. Navy public participation requirements, described in detail in the Navy/Marine Corps IR Manual, are more comprehensive than the NCP. Installations, with assistance from the cognizant COMNAVFACENGCOM EFD/EFA, are responsible for implementing proactive public information programs that shall include formal Community Relations Plans (CRPs) for all IR sites, whether or not the installations are on the NPL. In addition, the installation shall appoint a contact or spokesperson for community relations activities who shall be responsible for receiving all

inquiries and releasing information concerning the installation's restoration program.

R) **15-5.7 Restoration Advisory Board (RAB).** DON policy is to have a RAB at all installations with ER,N funded cleanup programs, regardless of the cleanup authority (CERCLA or RCRA) under which the cleanup is taking place. By increasing the diversity and number of community representatives, establishing a Community Co-Chair, and opening the meetings to the public, the RABs shall ensure that all stakeholders have an increased opportunity to actively participate in the timely review of installation restoration documents and plans and to present various points of view for careful consideration. At base closure installations, RABs serve to help facilitate accelerated cleanup and property transfer. RABs shall not make decisions on environmental restoration activities as a group, but shall provide information, suggestions, and community input for use by the Navy in making decisions on actions and proposed actions concerning releases or threatened releases. The Navy does not intend that Federal Advisory Committee Act (FACA) requirements shall apply. RABs shall not take the place of community outreach and participation activities required by law, regulation or policy. The installation must still meet all community relations requirements. The installation shall be responsible for implementing the RAB. Installations should schedule meetings in facilities convenient for public attendance. Installations may adjourn the RAB in consultation with the community when there is no longer any need for it, i.e., when the IRP at the installation is either complete or all remedies are in-place and operating properly, or, if there is no longer sufficient, sustained community interest in the RAB. The installation should use ER,N funding for RAB support. Reference (d) provides DON RAB policy.

A) **15-5.8 Technical Review Team (TRC).** The DERP mandated that whenever possible and practical, all installations with IR programs form TRCs. A subsequent revision permitted the formation of RABs instead of TRCs. DON policy converted all TRCs to RABs.

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15-5.9 Health and Safety. The NAVFAC-ENGCOM RPM and installation restoration coordinator shall be responsible for ensuring that the requirements for protecting site worker health and safety are being enforced.

15-5.10 Public Health Assessment. The Navy Environmental Health Center (NAVENVIR-HLTHCEN) shall coordinate with ATSDR concerning public health assessments. NAVENVIRHLTHCEN shall ensure that ATSDR is aware of new NPL listings and coordinate any ATSDR visits to installations with the installation and cognizant NAVFAC-ENGCOM EFD/EFA. NAVENVIRHLTHCEN shall review public health assessments performed by ATSDR.

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15-5.11 Federal Facility Agreements (FFAs) under CERCLA Section 120. The Navy shall enter into FFAs at its NPL sites as early as possible after identifying the requirement for a RI/FS. These agreements have high priority and function to establish roles and responsibilities and improve communications between all parties by allowing EPA and the State to review all work in support of remedy selection. FFAs also establish the procedural framework and establish schedules for the parties involved. FFAs at NPL sites shall outline the working relationship between the States, EPA, and the Navy. COMNAVFACENGCOM is responsible for negotiating all FFAs on behalf of and in close coordination with the installation. In developing the Navy's negotiating position, COMNAVFACENGCOM shall seek the input of the installation, the cognizant major claimant(s), the Regional Environmental Coordinator (REC), and CNO (N45). After coordination, FFAs shall be forwarded with appropriate endorsements via the Chain of Command and CNO (N45) to the Deputy Assistant Secretary of the Navy (Environment and Safety) (DASN (E&S)) for signature.

15-5.12 ROD/Decision Document. The cognizant COMNAVFACENGCOM EFD/EFA shall prepare a ROD/decision document at the conclusion of a RI/FS and provide the ROD/decision document and a recommendation of action to the installation CO with a copy to the major claimants. The installation CO shall carefully review the proposed ROD/decision document and administrative record. If the CO concurs with the proposed ROD/decision document, then he/she shall sign it. *If the CO disagrees or has questions on the* ROD/decision document, he/she shall present the issues to the cognizant COMNAVFACENGCOM EFD/EFA and the major claimant for discussion and resolution.

For NPL sites, the installation forwards the ROD to the EPA regional office for concurrence. Although neither a ROD nor an IAG is required under CERCLA at non-NPL sites, State remediation laws may contain requirements for decision documentation. Where such requirements apply, the cognizant COMNAVFACENGCOM EFD/EFA shall prepare a decision document for submittal by the installation. If the State remediation law contains no specific requirements for decision documentation, the cognizant COMNAVFACENGCOM EFD/EFA shall prepare a decision document that contains the elements of a ROD. If *the installation CO concurs with the decision* document, he/she shall sign and forward the decision document to EPA and the State.

15-5.13 IAGs. At the completion of an RI/FS at an NPL site, the law requires signing the IAG. The previously negotiated FFA shall become an IAG upon incorporation of the statutory requirements after the ROD. There is no IAG requirement for a No Action ROD.

15-5.14 RD/RA. The RPM shall oversee coordination of the RD/RA with the installation, EPA, the State, and local officials; maintain the administrative record; participate in community relations; and ensure overall quality assurance/quality control. The Navy Resident Officer in Charge of Construction (ROICC) shall manage construction for the RA and shall ensure that the RA meets all specifications and is constructed in a manner that protects human health, welfare, and the environment.

15-5.15 LTMgt. Where HS, pollutants, or contaminants remain on a site after RC, and as required by the decision document, planning for and conduct of LTMgt is the responsibility of the cognizant COMNAVFACENGCOM EFD/EFA using ER,N funds for a period of five years after RC. The purpose of LTMgt is to ensure the site or the OU remains protective of human health and the environment. During the first two years of this five-year period, the cognizant NAVFAC-ENGCOM EFD/EFA will develop and implement a maintenance, monitoring, and management plan (LTMgt Plan). The NAVFAC-ENGCOM EFD/EFA will provide the LTMgt Plan and cost data to the installation to allow the commanding officer to budget in a timely manner for funds required to continue the LTMgt after the first five year period, if needed. The LTMgt Plan will include requirements for five-year reviews after turnover of IRP responsibilities to the installation commanding officer. (R

15-5.16 Five-year review. COMNAVFAC-*ENGCOM conducts Five-Year Reviews* using ER,N funds. (A

Although LTMgt responsibility for a site devolves to the installation five years after RC, in general, five-year review responsibility for the whole installation will remain with NAVFAC using ER,N funds until five years after the LAST site at the installation achieves RC. The installation becomes responsible for conducting and funding five-year reviews using installation O&MN funds commencing five years after the last site achieves RC .

Within the five-year span following final site RC, COMNAVFACENGCOM will include the schedule and cost estimates for conducting

subsequent five-year reviews in the maintenance, monitoring and management plan (LTMgt Plan) provided to the installation commanding officer.

A) **15-5.17 Remedy Optimization.** NAVFAC-ENGCOM is responsible for identifying and implementing remedy optimizations during the RA-O phase and for the first five years after RC, using ER,N funds. Once the commanding officer becomes responsible for the LTMgt, the installation must use O&MN funds for opportunities to reduce remaining costs.

15-5.18 Fines and Penalties. The installation shall not pay fines and penalties assessed concerning environmental restoration work that is currently ER,N funded or planned for future ER,N funding, out of installation operating accounts. Upon receipt of a notice of violation or non-compliance that proposes to assess a fine or penalty relating to work that is ER,N-eligible, and thus under the cognizance of the Naval Facilities Engineering Command (NAVFACENGCOM), the installation shall immediately forward the notice to the cognizant COMNAVFACENGCOM EFD/ EFA for action. Installations shall pay fines and penalties related to ongoing hazardous waste operations (actions that are not eligible for ER,N funding) from the installation's operating account. See Appendix B for additional information pertaining to the reporting of all notices of violation.

Where the Navy agrees to pay any fines and penalties arising under ER,N funded work, the Navy will submit these fines/penalties to Congress for authorization in the first available budget window. This is the case for ER,N work conducted under either CERCLA or RCRA. The funding source (i.e. ER,N) drives the notification requirement, not the particular law under which the work is performed.

R) **15-5.19 Construction Projects on Contaminated Sites.** Installations shall make every effort to avoid construction projects on contaminated sites. However, there may be times during planning for a project, or after it starts, when an installation discovers contamination. In such instances, the following applies:

a. If an installation discovers contamination during the planning stage, it may investigate to determine if the site can be cleaned up following IR procedures using ER,N funds. However, the site investigation/clean up must compete with other IR sites based on risk management. In most cases, this will take several years and the site may not be available in time for the project.

b. If an installation discovers contamination during construction, it can carry out the site investigation/cleanup using ER,N funds. However, the site will compete with other IR sites based on risk management. If IR funding is not available in time to meet the construction schedule, the installation must use project funds to investigate/clean up the site. If neither IR nor project funding is available in time to meet the construction schedule, the installation must stop the project altogether or re-site it. An installation does not have an option to pay for any DERP eligible work with installation O&MN funds except to accomplish DERP eligible work within the scope of an O&MN funded construction project. (D

15-5.20 Contamination on Navy property scheduled for non-BRAC disposal: Installations shall clean up contamination on Navy property scheduled for non-BRAC disposal using ER,N funds following the normal ER,N prioritization process of worst-first/risk management. ER,N-funded cleanup activities will not be accelerated solely to accommodate the claimant's property disposal schedule. (D

15-5.21 Navy as Potentially Responsible Party (PRP). Historically, the Navy has contracted with private companies to transport and dispose of HW generated at its installations. Many of the disposal sites selected by contractors are themselves threatening/contaminating the environment and

need to be cleaned up. Upon receipt of formal notice from the EPA, State or local authorities that a Navy installation is involved in a site as a PRP, the installation shall notify, by message, its chain of command, the REC, COMCOMNAVFACENGCOM, cognizant COMNAVFACENGCOM EFD/A, Judge Advocate General, Office of Assistant General Counsel (Installation and Environment) (OAGC (I&E)), Office of General Counsel (Litigation Office) (OGC (Litigation Office)) and CNO (N45). The message shall describe the salient points of the notice. Simultaneously, the installation will mail a copy of the notice and other appropriate documents to the same addressees. Cognizant COMNAVFACENGCOM activities shall take the lead role in negotiating with EPA, the U.S. Attorney's Office, and the PRP Steering Committee. Cognizant COMNAVFACENGCOM EFD/EFA personnel shall cooperate with the other parties involved in the site response and provide requested information regarding the Navy's HW sent to that site. COMNAVFACENGCOM shall report semiannually to CNO on the status of Navy involvement in off-station CERCLA sites. The cognizant COMNAVFACENGCOM EFD/EFA shall keep the REC apprised of site status.

R) **15-5.22 Formerly Used Defense Sites (FUDS).** The Army Corps of Engineers is responsible for the FUDS Program. The Navy's responsibility for FUDS sites that were formerly Navy sites is informational only. Should local interest arise, naval activities should pass questions regarding the status of FUDS sites to appropriate Corps of Engineers officials. In special circumstances, the Corps can grant authority for the Navy to address FUDS located on property formerly owned or operated by the Navy.

15-5.23 Real Property Transactions and Management. The cognizant COMNAVFACENGCOM EFD/EFA shall consider the IR Program before real property transactions and as part of all land management decisions.

15-5.23.1 Acquisition. The Navy does not acquire known contaminated property without careful consideration of the cleanup liability involved. The Navy should acquire contaminated property only in cases of the most critical operational necessity, and only with CNO approval to ensure insertion of incurred cleanup liabilities into the IRP. (R

a. From Federal Agencies. Although DOD policy requires that a Component acquiring known contaminated real property will normally assume the responsibility for managing restoration actions at the property, Navy policy is to try to negotiate a transfer agreement that leaves the funding and management of restoration actions of the property with the transferring Component. In either case, transfer agreements must clearly assign continuing responsibility for cleanup after the transfer. Where Navy assumes the funding and management of restoration activities, the transferring Component is responsible for providing the Navy with all reports and a history of restoration actions taken prior to the transfer of the property and for transferring the cleanup funding as planned for the property in the Future Years Defense Program (FYDP). The Navy will not accept property from a non-DOD Federal agency unless the agency certifies it has met the requirements of CERCLA section 120(h) and provides supporting reports and documentation. (R

b. From Private Parties. Acquisition of contaminated property from private parties is not encouraged. Where such acquisition is operationally necessary, the acquiring installation should negotiate cleanup costs as an offset to the purchase price. The acquiring installation must carefully balance operational requirement for the property against any cleanup liability that will come with it.

15-5.23.2 Lease/Transfer/Disposal. An Environmental Baseline Survey (EBS) shall be prepared for all leases, easements and transfers of Navy real property. Where appropriate, an EBS should be prepared for other actions involving the

use of real property, e.g., licenses, depending on such factors as proposed use, the term of the use, and the presence of any contaminants on the property

A Finding of Suitability for Transfer (FOST) or Lease (FOSL) shall be prepared for each EBS. The Commander/Commanding Officer of the geographical COMNAVFACENGCOM EFD/ EFA shall execute the FOST or FOSL.

In the preparation of an EBS and the associated FOST/FOSL, an installation shall consult with Federal, State, and local regulators as necessary and appropriate, e.g., EPA where parcel involved is part of an NPL site.

15-5.24 National Environmental Policy Act (NEPA). IR Program actions that follow the NCP and fulfill public participation requirements are deemed to have complied with NEPA.

15-5.25 Government-Owned/Contractor-Operated (GOCO) Plants. The Navy's liability and responsibility for cleanup of sites at GOCO facilities flows from its status as "owner" of the facility. Past and present contractors share this liability since they are "operators" or "generators" at these facilities. Absent special contractual provisions to the contrary, Navy policy shall be to require GOCO contractors to pay for all cleanup costs associated with their operation of Navy facilities.

Navy actions to fulfill its CERCLA responsibilities shall be consistent with its contractual requirements with the GOCO contractor. Failure to coordinate may result in a claim by the operating contractor under a Navy contract or loss of potential claims by the Navy against the operator.

The following policy applies to implementation of the IR program at GOCOs:

a. A PA/SI shall be done by COMNAVFACENGCOM at Navy GOCOs using ER,N funds. COMNAVFACENGCOM shall coordinate with the corresponding Echelon 2 Command before starting the study.

b. Once the EFD/A has completed the PA/SI, it should provide the results to the Echelon 2 Command, via the installation, for action. If the PA/SI recommends additional follow-up work, the Echelon 2 Command shall immediately initiate and document discussions with the contractor pertaining to contractor responsibility for and participation in any cleanup efforts. It is Navy policy, reference (i), to identify, investigate and pursue cost-recovery/cost-sharing activities from DOD contractors or other parties that contribute to environmental contamination at DOD sites. Since the contractor may be liable for the cleanup, the Echelon 2 command shall offer the contractor the opportunity to conduct any follow-up studies. To ensure that any work done by the contractor is consistent with the requirements of CERCLA, the NCP and the IR Program, COM-COMNAVFACENGCOM or its designee shall serve as the Echelon 2 Command's technical representative and shall review and approve all phases of the work, including submittals.

c. If the contractor declines to perform the follow-up studies, the Echelon 2 Command shall document that response and request COMNAVFACENGCOM to conduct the work under the IR Program. COMNAVFACENGCOM shall use ER,N funds and identify all costs associated with the follow-up studies for cost sharing or future cost-recovery actions, if such action is appropriate.

d. Navy commands shall follow similar scenarios as described above for any RD/RAs, including removal actions and interim RAs. The Navy shall pursue Cost-sharing/cost-recovery actions against the contractor where appropriate.

e. All actions (i.e., studies and cleanups) done at GOCOs on Navy property shall be consistent with CERCLA and the NCP. Administrative records and CRPs shall be prepared at all the

GOCOs. RABs are recommended but not mandatory unless an installation is using ER,N funding to conduct the studies and cleanup. If EPA places a GOCO on the NPL, all timetables associated with CERCLA section 120 apply and the Navy shall conform. COMCOMNAVFAC-ENGCOM shall handle negotiations concerning necessary FFAs.

15-5.26 State Laws. Navy policy is to comply with all State laws that are consistent with the CERCLA, SARA and the NCP. In States with a mini-superfund law, installations may find it advantageous to negotiate a Federal Facility/State Remediation Agreement (FFSRA) for non-NPL sites, which spells out the responsibilities of each party to the cleanup. When cleaning up sites under the RCRA corrective action program, the Navy will follow laws and regulations for States that have received primacy.

15-5.27 Coordination with Other Environmental Regulations. Although CERCLA section 121(e) exempts IR Program actions occurring entirely on-site that are consistent with CERCLA section 121 from obtaining Federal, State, or local permits, interagency coordination is often required to ensure consistency with applicable or relevant and appropriate requirements (ARARs) or other environmental laws. RPMs shall solicit early involvement of other Navy specialists including natural and cultural resources personnel to ensure identification and completion of the Endangered Species Act, section 7 consultations, National Historic Preservation Act, section 106 consultations, and related requirements. These requirements may occur at any phase of an IR Program investigation including PA/SI, RI/FS, removal action, interim action, or RA.

15-5.28 Training. SARA requires HW site training. The government issued requirements in reference (f). An installation must train all Navy and contractor employees working on-site exposed to HS, health hazards or safety hazards, and the supervisors and management personnel responsible for the site, meeting the requirements summarized below, before they are permitted to engage in cleanup operations.

a. All employees exposed to HS, health hazards, or safety hazards shall have 40 hours of off-site instruction and 3 days of field experience. Training shall be as practical as possible and include hands-on use of equipment and exercises designed to demonstrate and practice classroom instruction.

b. Installations shall train on-site management and supervisors of personnel engaged in HM operations equal to the above, plus eight additional hours on managing such operations.

c. Installations shall train trainers at a level higher than, and including, the subject matter they are teaching.

d. Installations shall provide employees and managers with eight hours of refresher training annually.

The Navy/Marine Corps IR Manual provides additional details of required and recommended IR training for staff and visitors to IR sites.

15-6 Responsibilities

15-6.1 Echelon 2 Commands/Major Claimants shall:

a. Ensure that subordinate installations identify and forward IR Program requirements to CNO. (R

b. Pass program information and guidance to their installations.

c. Ensure that subordinate installations coordinate base cleanup planning, programming, budgeting, and execution with their cognizant COMNAVFACENGCOM EFD/EFA.

d. Ensure that subordinate installations fulfill their responsibilities under the Navy IR Program and appoint an IR coordinator.

e. Ensure that installations with sites meet public participation and other legal requirements.

f. Ensure that installation budgets reflect resource requirements to support the IR Program, especially any LTMgt requirements five years after RC.

g. Ensure that subordinate commands review all facility siting proposals against the requirements of the IRP, especially where an IRP decision document has identified or put in place land-use restrictions.

A) h. Obtain CNO approval before acquiring known contaminated property from another DOD Component or other federal agency.

15-6.2 COMCOMNAVFACENGCOM shall:

a. Execute the IR Program for CNO.

R) b. Update the IR database semi-annually.

c. Ensure cognizant COMNAVFACENGCOM EFDs/EFAs coordinate overall IR Program with installation commanders.

d. Provide program and technical support as directed by CNO; also provide site specific technical, progress, and budgeting information to satisfy program reporting requirements.

e. Develop and support ER,N resource requests and manage funds allocated for program execution.

f. Resolve issues and problems associated with conduct of the IR Program, and raise the issues to CNO where necessary.

g. Perform IR studies and RA projects and prepare NFRAP documentation by contract, in-house effort, or combination.

h. Identify and train RPMs.

i. Consistent with coordination requirements of paragraph 15-5.12, negotiate FFAs and State remediation agreements on behalf of and in close coordination with Navy installations. *Forward draft final proposed FFAs and State* agreements to CNO for review and submission to Office of Deputy Assistant Secretary of the Navy (Environment and Safety) (DASN (E&S)) for signature. When substantial changes to model language or policy are contemplated, these should be referred to *OAGC (I&E) and CNO (N45)* as early as possible after they are identified. (R

j. Participate in remediation planning meetings with other PRPs and agencies, forward proposed remediation agreements to CNO and OGC (Litigation Office) for review and comment, sign and administer the agreements and disseminate information to all interested parties at all stages of the process.

k. Represent the Navy in matters relating to the assessment of fines and/or penalties associated with IR program.

l. Develop and perform site-specific projects to assess and control contamination in conjunction with installations.

m. Ensure that IR work plans and ecological risk assessments are reviewed by health and safety and natural resources professionals familiar with the site.

n. Track project progress to meet schedule requirements.

o. Coordinate, at all stages, with installation COs and regulatory agencies before initiating projects and through project completion and the first five years of LTMgt.

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p. Support the installation in fulfilling public participation responsibilities as requested, including RAB and CRP actions, and installation specific Community Relations Plans (CRP).

q. Support installations in fulfilling their RAB and CRP responsibilities.

r. Prepare the ROD and/or decision document and forward to the installation CO with a *recommended alternative.*

s. Maintain administrative record files and distribute copies as required.

t. Prepare project plans, reports, and contract documents; coordinate review and comments; and distribute final documents to the appropriate installation and Echelon 2 Command.

u. Provide technical and financial oversight during project performance.

v. Provide IR study results to planning, real estate and natural resources personnel and work with acquisition project managers to ensure that HS site conditions are taken into account by other Navy programs and projects before irreversible decisions are made.

w. Validate installation facility planning proposals against IRP site installation or land-use restrictions.

15-6.3 BUMED shall:

a. Coordinate with ATSDR concerning ATSDR's legally mandated health-related activities, including public health assessments, public health consultations, health surveys and investigations, toxicology databases, emergency response and health education.

b. Review public health assessments, consultations, surveys, and DOD-specific toxicological profiles.

c. Provide health/medical evaluation of risk assessments and other IR and BRAC cleanup program documents including work plans, sampling plans, remedial investigation documents, feasibility study documents, quality assurance plans, and health and safety plans as requested by COMNAVFACENGCOM EFDs/EFAs.

d. Provide technical support for risk communications and other health related training courses.

e. Conduct risk assessments as required.

f. Provide assistance in developing *applicable, relevant and appropriate requirements* (ARARs) for IR and BRAC cleanup program activities.

g. Assist COMNAVFACENGCOM and installations to prepare for public meetings and respond to community concerns regarding program health and safety.

15-6.4 Commanding officers of shore activities shall:

a. Notify Federal, State and local officials and the chain of command upon discovery of a *release.*

b. Meet all applicable statutory and regulatory requirements including, but not limited to, safety and health, training (for installation personnel), and natural resources during site assessment and response actions.

c. Provide necessary review and comment on IR plans of action, reports, etc. to the cognizant COMNAVFACENGCOM EFD/EFA.

d. Forward, or authorize cognizant COMNAVFACENGCOM EFD/EFA to forward, all final primary documents to the EPA and State regulatory agencies prior to deadlines in either FFAs or State agreements/orders.

e. Be responsible for any required O&M funding and support for long-term monitoring and operation and maintenance of sites commencing five years after the site has reached RC.

f. Fund ER,N eligible work with ER,N funds only, since installations are specifically forbidden to use installation O&M funds to perform work that is eligible for ER,N funding.

g. Provide an IR coordinator and logistic support for IR projects at their installation.

h. Establish and conduct periodic meetings of the RAB for IR Program sites.

i. Provide information as required for updating project exhibits to cognizant COMNAVFACENGCOM EFDs/EFAs for IR Program studies and RAs (i.e., studies, RAs, salaries, support costs).

j. Provide information as required for updating project exhibits to cognizant Echelon 2 for IR Program salaries, support, travel and training costs.

k. Prepare and implement a public participation program, including a CRP, for IR Program sites.

l. In conjunction with the cognizant COMNAVFACENGCOM EFD/EFA, select the remedy and sign the decision documents for all IR Program sites.

m. Participate in negotiations of FFAs and State agreements.

n. Notify appropriate commands of any EPA or State notice of PRP action, and support PRP response.

o. Consider IR Program site conditions or land-use restrictions before land use planning, development, or operation, especially for Military Construction (MILCON) and special project development. Incorporate IR program review into the shore facilities planning process.

p. Place appropriate information in the information repository(s).

q. Inform the public of the availability of Navy funding for Technical Assistance for Public Participation (TAPP). (A

CHAPTER 16

STORAGE TANKS

16-1 Scope

This chapter provides information and guidance applicable to the regulation of storage tanks (STs). This includes both underground storage tanks (USTs) and aboveground storage tanks (ASTs). It includes those containing petroleum products and/or hazardous substances (HS) at Navy shore facilities within the United States, the Commonwealth of Puerto Rico, U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas Islands. Chapter 18 describes responsibilities and requirements pertaining to Navy installations in foreign countries. The Spill Prevention Control and Countermeasure requirements described in chapter 9 also give guidance on governing petroleum STs.

16-1.1 References:

a. 40 CFR 112, EPA Regulations on Oil Pollution Prevention;

b. 40 CFR 280, EPA Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks;

c. 40 CFR 110, EPA Regulations on Discharge of Oil;

d. OPNAVINST 5100.23E, Navy Occupational Safety and Health (NAVOSH) Program Manual;

16-2 Legislation

16-2.1 Clean Water Act (CWA). The goal of the CWA is to protect the surface waters of the United States. Under the CWA, EPA published oil pollution prevention regulations in 1973. These regulations, contained in reference (a), were amended in 1974 and again in 1976. The CWA prohibits the discharge of oil into surface waters, if the discharge violates applicable State standards, causes a sheen or film or discolors the surface of the water, or deposits sludge beneath the water's surface. The Federal Oil Pollution Prevention Regulations require the preparation of Spill Prevention Control and Countermeasures (SPCC) Plans and contain specific guidelines for the design and operation of petroleum STs (see chapter 9). The guidelines for oil storage tanks in reference (a) include requirements for secondary containment, control of storm water drainage from containment areas, corrosion protection of buried metallic tanks and piping, inspection and testing of aboveground tanks, testing of underground tanks and pipelines, requirements for spill prevention devices such as high level alarms, security requirements for oil storage areas, and personnel training requirements. In 1991, the EPA proposed extensive revisions to reference (a), to be implemented in two phases. As of November 1998, the Phase I revisions were still not final. However, the Phase II revisions, which included the requirement for facility specific contingency plans, went into effect on 30 August 1994.

16-2.2 Hazardous and Solid Waste Amendments (HSWA). HSWA extended and strengthened the provisions of the Solid Waste Disposal Act (SWDA) as amended by the Resource Conservation and Recovery Act (RCRA). One major portion, Subtitle I, provides for the development and implementation of a comprehensive regulatory program for USTs containing "regulated substances" and releases of these substances to the environment. HSWA requires that Federal facilities comply with all Federal, State, and local requirements regarding USTs, including payment of registration fees or permit fees when such fees are not taxes. Federal

regulations outline procedures by which EPA may approve State programs to operate in place of the Federal UST requirements if those State programs have standards that are no less stringent than the Federal requirements and provide for adequate enforcement of compliance with those standards. States with approved UST programs or Memoranda of Understanding (MOUs) with the EPA will have primary enforcement responsibility regarding UST program requirements in their States. Currently most States have a UST regulatory program in place. After EPA approves the State program, facilities must comply with all applicable provisions of the State UST programs.

16-3 Terms and Definitions

16-3.1 ASTs. All tanks and attached piping containing regulated substances in which greater than 90 percent of the tank volume (including piping) is above the surface of the ground.

16-3.2 Petroleum. Petroleum, including crude oil or any fraction thereof, that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

16-3.3 Regulated Substance. Any hazardous substances (HS) regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), excluding any substances regulated as hazardous waste (HW) under Subtitle C of RCRA, and petroleum substances including crude oil, motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

16-3.4 Release. Any spilling, leaking, emitting, discharging, escaping, leaching, or disposing of hazardous substances or petroleum from an ST into ground water, surface water, or subsurface soils.

16-3.5 Storage Tanks (STs). All STs (both above and underground), containing regulated substances.

16-3.6 Tank Management Plan. An operations and management document, for installation-level use, that stresses above and underground storage tank spill prevention, planning, regulatory compliance, and record keeping.

16-3.7 USTs

a. As defined in RCRA, Subchapter IX, section 6991, the term "underground storage tank" means any one or combination of tanks (including underground pipes connected thereto) which is used to contain an accumulation of regulated substances, and the volume of which (including the volume of the underground pipes connected thereto) is 10 percentum or more beneath the surface of the ground. Such term does not include any:

(1) Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for non-commercial purposes;

(2) Tanks used for storing heating oil for consumptive use on the premises where stored;

(3) Septic tanks;

(4) Pipeline facility (including gathering lines) regulated under The Natural Gas Pipeline Safety Act of 1968, The Hazardous Liquid Pipeline Safety Act of 1979, or an intrastate pipeline facility regulated under State laws comparable to the provisions of law referred to in (1) or (2);

(5) Surface impoundment, pit, pond or lagoon;

(6) Storm water or waste water collection system;

(7) Flow-through process tank;

(8) Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations; or

(9) Storage tank situated in an underground area (such as a basement, cellar, mine, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

The term underground storage tank shall not include any pipes connected to any tank described above in paragraphs 16-3.7a(1) through (9).

b. In addition to the RCRA exclusions, the U.S. Environmental Protection Agency excluded the following underground ST systems from regulation under reference (b):

(1) Any UST system holding hazardous wastes listed or identified under Subtitle C of the Solid Waste Disposal Act, or mixture of such hazardous waste and other regulated substances;

(2) Any wastewater treatment tank system that is part of a wastewater treatment facility regulated under section 402 or 307(b) of the Clean Water Act;

(3) Equipment or machinery that contains regulated substances for operation purposes such as hydraulic lift tanks and electrical equipment tanks;

(4) Any UST system whose capacity is 110 gallons or less;

(5) Any UST system that contains a de minimis concentration of regulated substances;

(6) Any emergency spill or overflow containment UST system that is expeditiously emptied after use.

c. The above UST information concerns Federal statutes and regulations. State laws and regulations occasionally define UST systems differently than the Federal laws and regulations.

16-4 Requirements

16-4.1 General Operating Requirements

16-4.1.1 Installations with STs shall monitor transfer operations to ensure that spilling or overflowing does not occur. They will maintain overfill protection equipment in order to prevent releases.

16-4.1.2 Installations will maintain and inspect corrosion protection measures, including cathodic protection.

16-4.1.3 Installations will install new ST systems and make repairs to existing ST systems according to Federal, State, and local requirements.

16-4.1.4 The installation will also maintain written records demonstrating compliance with operational requirements.

16-4.2 Aboveground Storage Tanks

16-4.2.1 General Operating Requirements. (R
Because of the limited waiver of Federal sovereign immunity in the UST statutory provisions, ASTs are not regulated by RCRA. Though they can, under certain limited circumstances, be regulated under the CWA statute, current Federal regulation is limited to the petroleum pollution prevention and discharge reporting requirements of references (a) and (c). Some States or local governments may have developed AST regulatory standards. However, such standards may or may not apply to the Navy because of these limitations in the UST and CWA statutes. Where the determination has been made that an AST can not properly be regulated under a

State's or local government's AST standards, installations shall apply best management practices to the daily operation of those ASTs.

16-4.2.2 Release Detection, Testing, and Inspection. Whenever possible, installations will install release detection systems on AST systems per references (a) and (c).

16-4.2.3 Release Reporting, Investigation, and Confirmation. Installations should report releases of petroleum or HS from ASTs according to the guidance in chapter 10. Installations will immediately investigate suspected releases from the underground portions of ASTs by integrity testing and/or by performing a subsurface investigation. If regulated substances are found in adjacent properties, then the EPA or State agency can require an installation to conduct a release investigation of suspect STs.

16-4.2.4 Out-of-Service ASTs and Closure. Installations will conduct permanent closure of ASTs per applicable State or local regulations. At a minimum, installations will empty and clean ASTs and associated pipelines. Installations will also cap, blank flange, and mark pipelines as to origin. Installation records will record conditions of the site, which may involve a site assessment.

16-4.3 Underground Storage Tanks

16-4.3.1 General Operating Requirements

16-4.3.1.1 Installations will protect all new UST systems from corrosion, equip them with spill/overfill prevention equipment combined with an approved method of release detection, and install per nationally recognized standards. New underground piping that conveys regulated substances must be properly designed, constructed, and protected from corrosion. Pressurized piping and some types of suction piping must also be provided with automatic leak detection and either annual tightness testing or monthly monitoring. Test repairs for tightness and maintain records of all repairs for at least 5 years.

16-4.3.1.2 Installations had to replace or upgrade existing USTs as regulated by Federal, State, or local regulations, to meet corrosion protection and spill/overfill prevention standards before 22 December 1998 or per applicable Navy/State agreement. Installations must replace or upgrade existing USTs that are either exempt or deferred from the UST regulations if possible, particularly those USTs located in environmentally sensitive areas. They will upgrade existing USTs by the addition of secondary containment, spill/overfill prevention equipment, and corrosion protection as dictated by the installation's SPCC plan. Installations will upgrade or replace existing piping associated with tank systems to meet corrosion protection requirements.

16-4.3.1.3 All new and existing HS USTs and associated underground piping had to have secondary containment by 22 December 1998 or per applicable Navy/State agreement.

16-4.3.2 Release Detection, Testing, and Inspections. Any UST system that stores fuel solely for emergency power generators is exempt from regulatory release detection requirements.

16-4.3.2.1 Installations will install release detection systems on petroleum and HS UST systems as required by Federal, State, or local regulations. Installations will also install release detection systems on non-regulated USTs whenever possible.

16-4.3.2.2 The installation will maintain records demonstrating compliance with release detection requirements and with testing and inspection requirements.

16-4.3.3 Release Reporting, Investigation and Confirmation

16-4.3.3.1 The installation will report releases and suspected releases from USTs to the EPA or State agency within 24 hours of discovery. The installation will report HS releases and releases of petroleum or HS into surface waters from USTs according to the guidance in chapter 10.

16-4.3.3.2 **Installations** will immediately investigate suspected releases from USTs by integrity testing and/or by performing a subsurface investigation. If regulated substances are found in adjacent properties, then the EPA or State agency can require an installation to conduct a release investigation of suspect STs.

16-4.3.4 Release Response and Corrective Action for UST Systems Containing Regulated Substances

16-4.3.4.1 After reporting a confirmed release to either the EPA or State agency, the installation *must stop further release of the regulated* substance from the UST, and mitigate fire, explosion, and vapor hazards, by preventing any further release through the emptying of the UST system. The installation will take steps to prevent further migration of any aboveground or exposed below ground releases. *If the source of an* underground release is not known, conduct subsurface sampling in order to determine the source. Investigate the possible presence of free product and recover free product as soon as practicable. UST releases into surface waters require installations to take the response actions described in chapter 10 in addition to the requirements described in this section, pargraph 16-4.3.4.

16-4.3.4.2 UST releases require an initial abatement report, initial site characterization report, and free product recovery report to be submitted by the installation to the EPA or State agency within the time-frame specified by the agency. In addition, a release investigation report and/or corrective action plan will be submitted by the installation if requested or otherwise required by the EPA or State agency.

16-4.3.4.3 Installations will clean up soil and groundwater contamination resulting from UST releases per an approved corrective action plan or as otherwise authorized or requested by the EPA or State agency. Prior to any cleanup, the installation will notify the EPA or State agency of the installation's intent to begin cleanup.

16-4.3.4.4 Installations will remove free floating product to the maximum extent practicable.

16-4.3.5 Out-of-Service UST Systems and Closure

16-4.3.5.1 Installations will maintain corrosion protection systems during temporary closure of UST system even if the system is empty. *Continue to operate release detection* systems unless the system is emptied.

16-4.3.5.2 When temporarily closing USTs for 3 months or more, leave vent lines open and functioning and cap and secure all other lines, *pumps, manways, and ancillary equipment.*

16-4.3.5.3 Installations will permanently close USTs that do not meet the standards for new or upgraded UST systems within 12 months of temporary closure unless the EPA or State agency grants an extension.

16-4.3.5.4 Installations will notify the EPA or State agency at least 30 days in advance of UST permanent closure. For permanent closure, empty, clean, and either fill USTs with a solid inert material or remove them from the ground. The installation shall conduct a site assessment at the time of permanent closure unless an approved external release detection method was in use prior to closure. If contamination is encountered during closure, the installation will initiate corrective action.

16-4.3.5.5 Continued use of a regulated UST system to store a non-regulated substance is considered a change-in-service. A change-in-service requires that the installation empty and clean out the UST and that a site assessment be performed by the installation. Notify the EPA or State agency 30 days in advance of a change-in-service.

16-4.3.5.6 The EPA or State agency can require investigation and cleanup of USTs that were permanently closed prior to 22 December 1988 if the UST site poses a threat to human health or the environment.

16-4.3.5.7 Installations will retain a permanent closure, site assessment, site characterization, and corrective action records for at least 50 years to protect the Navy from potential future liability.

16-5 Navy Policy

R) **16-5.1** The Navy's AST Program policy is to comply with all applicable Federal, State, and local regulations pertaining to the management of ASTs. However, because of the limited waiver of Federal sovereign immunity to the regulation of ASTs (e.g., the requirement that the AST could have an impact on "navigable water of the U.S." (see 40 CFR §. 112), legal counsel should be contacted if there are any questions concerning compliance with state or local AST regulations.

16-5.2 Whenever possible, the Navy shall replace older, unprotected steel tanks with state-of-the-art ASTs or state-of-the-art double-walled USTs with continuous interstitial monitoring.

The Navy's preferred method of UST system closure is by removal. Installations shall leave a UST system in the ground and fill it with an inert material only when extenuating circumstances preclude the removal of a UST system.

16-5.3 Navy installations with STs shall have a tank management plan containing the following information:

a. Listing of all STs at the installation.

b. For USTs, the regulatory requirements for each.

c. A plan of action for achieving and maintaining compliance through monitoring, removal, repair, retrofit, replacement, and remediation of regulated ST systems.

Installations should include in the ST management plan all STs that have the potential to cause environmental damages and/or health hazards regardless of whether the ST is included in existing regulations. For example, include a currently exempt UST, such as a UST that stores heating oil, in the UST management plan if a release from the UST has the potential to cause environmental problems such as groundwater contamination. Installations should also include in the plan non-regulated ASTs that are likely to be included in future Federal, State, or local regulations.

16-5.4 Training. Commanders of shore installations shall ensure that all personnel involved in design, construction, installation, management and operation of storage tanks, receive appropriate storage tank training. They shall include the following topics in this training as applicable: corrosion protection measures, compliance records, release detection, reporting investigation and confirmation, corrective action plans, closure, site assessment, Federal, State, and local regulations pertaining to STs, monitoring, removal, repair, retrofit, replacement, remediation, leak detection and product inventory requirements, record keeping, and operation of monitoring systems.

16-6 Responsibilities

16-6.1 COMNAVFACENGCOM shall

a. Assist Navy installations in the preparation of ST Management Plans and Environmental Program Requirements (EPR) Reports.

b. Provide technical advice and assistance to Navy installations for leak detection services.

c. Revise technical directives and design manuals to reflect regulatory requirements for new construction of STs, including underground piping and leak detection devices.

d. Provide assistance to major commands and their installations for estimation of resource requirements.

e. Provide funding and execution of ST corrective actions that qualify for Environmental Restoration, Navy ER,N funding, and are within current priorities.

f. Ensure funding is available to train engineering field division (EFD) environmental engineers, environmental planners, environmental protection specialists and other personnel involved with STs.

16-6.2 COMNAVSUPSYSCOM shall provide technical input and assistance to COMNAVFACENGCOM concerning leak detection, construction of new STs, and the disposition of petroleum recovered during site restoration.

16-6.3 Major claimants and subordinate commands shall include requests for resources to meet ST compliance requirements in Program Objective Memorandum (POM)/budget submittals.

16-6.4 Commanding officers of shore installations shall

a. Assemble and collate ST data including storage tank volume, type, installation date, and tank contents for achieving and maintaining compliance with all applicable Federal, State, and local laws and regulations.

b. Ensure that notification forms are completed for regulated STs and forward the notification to the appropriate State agency. (D

c. Prepare and maintain ST Management Plans, with assistance from COMNAVFACENGCOM, to document a plan of action for achieving and maintaining compliance with all applicable Federal, State, and local laws and regulations. The plan shall include or reference compliance records demonstrating storage tank inspection/testing of corrosion protection system, release detection system, secondary containment systems, spill and overflow controls, repair documentation, site investigation results, and closure.

d. Accomplish leak detection and product inventory requirements, record keeping and operation of monitoring systems required by Federal, State, and local ST laws and regulations.

e. Fund the installation of tank leak detection and monitoring systems required by local, State, and Federal regulatory agencies.

f. Budget sufficient resources to replace or repair STs as required by applicable Federal, State, and local laws and regulations or by best management practices.

g. Comply with applicable Federal, State, and local laws and regulations concerning the construction of new ST systems.

h. Prepare EPR and required POM exhibits for all compliance mandated ST projects and Navy policy storage tank projects.

i. Ensure that actions involving upgrading, removing and replacing tanks comply with health and safety requirements per reference (d). Whether government personnel or contractors remove the tanks, they shall plan and conduct associated activities to preclude injury to personnel and accidental damage to the environment.

CHAPTER 17

NOISE PREVENTION ASHORE

17-1 Scope

This chapter identifies requirements and responsibilities for reducing environmental noise from Navy shore operations. Navy policy is to comply with the Noise Control Act, and Federal, State, and local noise control regulations the same as any private person, as required by EO 12088. The requirements apply within the United States, Commonwealth of Puerto Rico, Virgin Islands, American Samoa, Guam, and the Trust Territory of the Pacific Islands. Shipboard noise abatement is addressed in Chapter 19. Navy noise abatement for activities in foreign countries is provided in Chapter 18.

17-1.1 References. Relevant references are:

a. DoD Directive 4165.57 of 8 November 1977, Air Installations Compatible Use Zones; (NOTAL)

b. OPNAVINST 5100.23D, Navy Occupational Safety and Health (NAVOSH) Program Manual; (NOTAL)

a. OPNAVINST 11010.36A, Air Installations Compatible Use Zones (AICUZ) Program (NOTAL).

17-2 Legislation

17-2.1 The Noise Control Act. The Noise Control Act provides that Federal performance standards shall be incorporated into the design of certain new vehicles, railroad equipment, and products to reduce noise emissions. Retrofit modifications are not prescribed for existing noise sources. Military aircraft, combat equipment, and weapon systems are exempt from new product design standards. State and local laws may prescribe maximum noise levels across property lines. Boundary noise limits are attainable by a variety of structural and natural noise path barriers and by source design modifications.

17-3 Terms and Definitions

17-3.1 Air Installations Compatible Use Zones (AICUZ). The AICUZ program is designed to work with local communities on controlling the land uses around military installations. Its objectives are to assess the environmental impact of aircraft operations with regard to generated noise and accident potential produced by proposed actions and both on and off-base noise sources, comply with Federal regulations, ensure the installation's mission is compatible with local land uses, and minimize environmental noise impacts through engineering, operational controls, siting, and architecture.

17-3.2 Environmental Noise. The intensity, duration, and character of sounds from all sources.

17-3.3 Low-Noise-Emission Product. Any product that emits noise at a Sound Pressure Level less than at least one-half the levels specified in noise emission standards under regulations applicable to that type of product under the Noise Control Act, Section 6, at the time of procurement.

17-4 Requirements

17-4.1 Air Installations Compatible Use Zone. The AICUZ was established by reference (c) to identify and address incompatible development in areas that are adjacent to air installation and subject to rated levels of aircraft noise and/or accident potential.

17-5 Navy Policy

17-5.1 General. Noise control and abatement *shall provide:*

a. Maintenance of an active program to protect both on and off base personnel from hazardous noise levels in coordination with other Federal agencies.

b. Procurement, whenever feasible, of lownoise-emission products.

c. Soundproofing, whenever feasible, of Navy owned/operated schools and hospitals affected by noisy military operations.

d. Locating of noise-sensitive housing and other developments away from major noise sources.

e. Cooperation with and support of neighborhood self help programs to identify and address local noise problems.

17-5.2 Workplace Noise. Do not consider workplace noise an environmental noise unless it crosses the facility boundary with sufficient intensity to become regulated by local environmental noise requirements. Reference (b) requires workplace noise abatement.

17-5.3 Aviation Noise Suppression

17-5.3.1 The Navy shall consider ameliorating options such as remote siting, sound suppression equipment, and sound barriers, when developing new aircraft related systems, such as engine test stands.

17-5.3.2 The Navy shall include suitably quiet associated ground support equipment (e.g., starters, hush houses) in procurement (Aircraft Procurement, Navy (APN) funds) of new jet or other aircraft systems.

17-5.4 Restricting Noisy Operations. To the maximum extent practicable, Navy shore activities shall limit the use of power tools, machinery, construction equipment, or other noisy devices to normal working hours.

17-5.5 Training

a. Navy personnel engaged in processes that result in environmental noise at shore activities shall receive training on noise pollution reduction.

b. Engineering Field Division (EFD) environmental engineers and environmental planners shall receive training on noise pollution prevention programs.

17-6 Responsibilities

17-6.1 NAVFACENGCOM shall, if requested, act as technical consultant to major claimants and activities regarding noise abatement, suppression, and development of compliance strategies.

17-6.2 Major claimants and subordinate commands shall:

a. Initiate procurement procedures that ensure products and equipment not designed for combat use meet Federal noise standards.

b. Promote research to define and study noise pollution problems unique to the Navy and coordinate such research with other DOD components and with EPA.

c. Ensure that ground equipment associated with procurement of new and/or follow-on jet aircraft contain necessary noise suppressers.

17-6.3 Commanding officers of shore activities shall:

a. Comply with the policies in this manual.

b. Comply with applicable substantive and procedural Federal, State, and local control and abatement laws and regulations.

c. Cooperate with Federal, State, and local noise pollution regulatory officials.

d. Implement procedures for limiting on-base noisy operations and for reducing property line noise levels as required by local law or regulation.

e. Periodically verify and record that environmental noise levels are within local community requirements, and if not, what corrective actions have been taken or planned to achieve compliance.

CHAPTER 18

OVERSEAS ENVIRONMENTAL COMPLIANCE ASHORE

18-1 Scope

This chapter provides environmental guidance for Navy installations outside the United States, (U.S.) its territories, and possessions, but not to ships, aircraft, and operational and training deployments outside the U.S. Specifically, this chapter does not apply to:

a. U.S. military ship and aircraft operations governed by other DoD policies and directives and applicable international agreements.

b. Facilities and activities covered under Executive Order (EO) 12344, Naval Nuclear Propulsion Program, and conducted under 42 U.S.C. 7158.

c. Facilities located in Antarctica.

Since this chapter applies only to overseas installations, the format is different than the majority of the remaining chapters. Each section covers the appropriate legislation, requirements, policy, and training while the Navy policy subsection is divided by environmental media. Responsibilities are summarized by command at the end of the chapter.

18-1.1 Executive Orders (EOs). This chapter incorporates the following Executive Orders:

a. EO 12088 of October 13, 1978, which requires Federal compliance with substantive pollution control standards of general applicability.

b. EO 12114 of January 4, 1979, which requires a environmental analysis of major Federal actions overseas having potentially significant environmental effects.

18-1.2 References

a. DoD Directive 6050.16 of 20 September 1991, Establishment and implementation of environmental standards at overseas installations; (NOTAL)

b. DoD Overseas Environmental Baseline Guidance Document (OEBGD) of October 1992; (NOTAL)

c. OPNAVINST 5510.1H, Security Requirements; (NOTAL)

d. OPNAVINST 5510.155C, Classified Supplement to the Manual for Disclosure of Classified Military Information to Foreign Governments and International Organizations; (NOTAL)

e. Final Governing Standards (FGSs) as developed by Executive Agents for each country with significant DoD installations (NOTAL).

18-2 Legislation

18-2.1 National Historic Preservation Act (NHPA). With respect to overseas activities, the NHPA requires Federal agencies undertaking actions that may directly and adversely affect property on the World Heritage List or the applicable country's equivalent of the National Register to consider the effect and try to avoid or mitigate any adverse effects.

18-2.2 Toxic Substances Control Act (TSCA). Provides for the Federal regulation of the manufacture, use, distribution in commerce, and disposal of chemical substances that present a hazard to health or the environment. Overseas installations that export from or import to the U.S. may be subject to TSCA Sections 12 and 13. DoD dependents' schools overseas are subject to the asbestos hazard emergency response requirements in TSCA Subchapter II. Section 12 contains export notification obligations, and export exemp-

tions. Section 13 discusses importer regulations, definitions, and exclusions.

18-3 Terms and Definitions

18-3.1 Environment. The natural and physical environment. It excludes social, economic and/or other environments.

18-3.2 Executive Agent (EA). A military service, military command or sub-unified command designated by the Deputy Under Secretary of Defense for Environmental Security (DUSD(ES)) after receiving the recommendations from the Joint Chiefs of Staff (JCOS) and coordinating with the Military Departments. Establishes reference (e) for DoD installations within its geographic area of responsibility. The EA consults with host nation authorities on environmental issues of concern to the DoD components. The following is a list of EAs for different countries:

COMMAND	COUNTRY
CINCUSNAVEUR	Spain, Italy, Greece
CINCLANTFLT	Iceland, Bermuda, Caribbean (including Cuba), and all other Atlantic locations)
CINCPACFLT	Diego Garcia
U.S. Forces Japan	Japan
U.S. Forces Korea	Korea
CINCUSAFE	United Kingdom, Turkey
USAF Space Command	Ascension Islands, Greenland
USAF Air Mobility Command	Azores
CINCAREUR	Germany, Belgium, Netherlands
CINCARSO	Panama and all other countries in U.S. Southern Command
CINCCENT	All countries in area of responsibility (AOR), including Egypt and Bahrain

EAs establish reference (e) for DoD installations within their region under reference (a).

18-3.3 Final Governing Standards (FGS). Country-specific substantive provisions, typically technical limitations on effluent, discharges, etc., or specific management practices with which installations must comply. Reference (e) are derived from reference (b), host nation substantive pollution control laws of general applicability, applicable treaties and U.S. law with extraterritorial application.

18-3.4 Foreign Nation. A geographic area (land, water, and airspace) that is under the territorial jurisdiction of a foreign government or that is under military occupation by the U.S. alone or jointly with any other foreign government.

18-3.5 Overseas Environmental Baseline Guidance Document. A current compendium of criteria, based on consideration of laws generally applicable to similarity-situated DoD installations within the U.S., that is designated to protect the environment at DoD installations outside U.S. territory.

18-3.6 United States. All States, territories, and possessions of the U.S. and all waters and airspace subject to the territorial jurisdiction of the U.S.

18-4 Requirements

Navy shore activities in foreign nations will comply with applicable reference (e). Where

reference (e) have not been issued, Navy shore activities will comply with reference (b), host nation substantive pollution control laws of general applicability (as required by EO 12088), U.S. law with extraterritorial effect and applicable treaties (including the SOFA).

18-5 Navy Policy

18-5.1 Fixed Facilities Provided by the U.S. and Operated by the Navy. *In nations where* there is a reference (e), all Navy facilities and operations shall comply with reference (e). Where reference (e) have not been issued, Navy shore activities will comply with reference (b), host nation substantive pollution control laws of general applicability (as required by EO 12088), U.S. law with extraterritorial effect and applicable treaties (including the SOFA).

18-5.2 Funding of Capital Improvements for Environmental Compliance at Overseas Installations. When capital improvements are required at overseas installations to comply with either the reference (e) or reference (b) and EO 12088, as applicable, funding decisions shall be based on a number of considerations including which country provided the facilities in question and provisions of the pertinent Status of Forces Agreement (SOFA). Navy policy is that unless otherwise provided in the pertinent SOFA, the host nation is expected to fund environmental compliance projects at facilities that the host nation provides. After consultation or negotiation with the host *nation, funding questions may be resolved in a* number of ways including the following:

a. Pollution abatement improvements may be accomplished as a result of inclusion in bilateral or multilateral negotiations on programs not directly involving environmental compliance.

b. In some cases host country-provided facilities have been significantly modified by the U.S. to meet operational requirements. When capital improvements are required to meet the environmental standards of general applicability in the host country or jurisdiction, the Navy may negotiate shared contributions for such improvements. It may be done, after consultation with the ambassador, when it is in the best interest of the Navy and does not establish a precedent. The contribution should normally be no more than the proportion of modification attributable to the U.S. Project funding request documents shall indicate the results of negotiations to include the basis for determination of the U.S. share.

c. If the host country declines to provide funds for required capital improvements or if negotiations with the host country for shared contributions are unsuccessful, the Navy may, *when in the best interests of the Navy and without* establishment of precedent, program for required pollution control capital improvement projects. Project funding request documents shall indicate the circumstances under which the projects are submitted.

18-5.3 Facility Visits and Inspections. Federal law and EOs on information and physical security matters, as implemented in Navy regulations and the SOFA, shall govern access of host country environmental officials to U.S. controlled fixed facilities. Foreign environmental officials shall not be allowed access to Navy vessels for purposes of environmental inspections or examination. Access by foreign officials to propulsion plant spaces of U.S. naval nuclear powered ships, or to naval nuclear propulsion information, is not authorized as established in reference (c) and reference (d) without CNO approval (N00N lead). If there are no provisions governing access, the senior U.S. commander of U.S. forces in the host country shall determine if access is in the best interest of the U.S. If access is recommended, *Deputy Chief of Naval Operations (Logistics)* (DCNO (Logistics)) shall be notified at least 3 working days before the visit. Notification shall include confirmation that the intended access shall not set any adverse precedents for other commands. Access may then be granted to host country environmental officials responsible for national pollution control matters. If access is de-

nied, CNO (N4) shall be notified immediately. The U.S. ambassador to the country shall also be advised if access is denied.

a. Installation commanders shall consult with the Environmental EA for the host nation, or with the commander in chief (CINC) where no EA has been appointed, to pre-establish procedures for access by host nation officials. Procedures shall comply with the applicable SOFA and established practices implementing the SOFA. Installation commanders shall comply with access procedures so established.

b. Where host nation officials request access in addition to those established through the CINC, the installation commander shall immediately notify the Navy component commander in theater, the environmental EA (if applicable) and CNO (N4). The notice shall include the identity of the host nation authority needing access, the extent to which the host nation authority requesting access is delegated national authority for pollution control, the extent of access requested, the date for which access is requested, an explanation why established access procedures (if applicable) are insufficient, the extent to which granting the request would establish precedent and the commander's recommendation whether providing access would be in the best interest of the U.S. Unless otherwise directed, the installation commander may permit access after completing consultation with the environmental EA, component commander and CNO (N4) or 3 working days after providing notification, whichever is earlier. If access is denied, the installation commander shall notify the same parties and shall ensure that the Chief of Mission with the U.S. ambassador to the country has been notified as well.

c. Access by foreign officials to propulsion plant spaces of nuclear powered ships, or to naval nuclear propulsion information is governed by reference (d) and is not authorized without approval by CNO (N00N).

18-5.4 Mobile Sources. Military vessels, aircraft, and vehicles that are operated in a host country and manufactured in the U.S. shall be designed to comply with applicable U.S. or international environmental standards. Reference (e) shall govern the operation and maintenance of mobile sources, other than vessels and aircraft, that are based in a host country where such provisions have been issued. If no reference (e) have been issued, the operation and maintenance of mobile sources, other than aircraft and vessels, based in the host country, shall be governed by applicable provisions of the SOFA, reference (b) and EO 12088. In particular, EO 12088 requires compliance with substantive host nation pollution control laws of general applicability. In most instances, these shall be the pollution control standards observed by the host nation's military forces for similar vehicles. Except for sovereign immune vessels and aircraft and unless otherwise provided in the SOFA, transient mobile sources or those sources temporarily within a foreign jurisdiction are subject to that country's standards for the terms and conditions set forth in the clearance for the visit. Although not subject to enforcement by the host nation, sovereign immune vessels and aircraft shall operate under the environmental protection provisions of their visit clearance. Where no specific environmental protection provisions are included in the visit clearance, sovereign immune vessels and aircraft shall comply with the environmental protection standards used by the host nation's military forces to the extent practical.

18-5.5 If an installation commander believes that compliance with a particular reference (e) would seriously impair the installation's operation, adversely affect relations with the host nation or require substantial expenditure of funds not available for such purpose, he or she may request that the DON, through the chain of command, ask the EA to waive or authorize deviation from the particular standards or guidelines under the procedures set out in reference (b). Navy policy is to minimize requests for waivers and to limit the duration of waivers where requested. Requests for

waivers are appropriate, for example, where the cost of the project to achieve compliance at a base slated for closure is grossly disproportionate to the period during which environmental benefits would be derived from the project. Where this instruction or instructions by Navy component commanders require measure that are more protective the applicable reference (e), installation commanders shall request a waiver from the EA before requesting funding for the project.

18-5.6 National Environmental Policy Act (NEPA). NEPA does not apply overseas; however, EO 12144 addresses environmental effects abroad of major Federal actions. See Appendix E.

18-5.7 Pollution Prevention Ashore. EO 12856, which requires Federal facility compliance with the Pollution Prevention Act, does not apply to facilities outside the customs territory of the U.S. (Although Guam is generally treated as part of the U.S. for environmental laws, it is outside the customs territory. Despite this, as a matter of policy, Navy activities in Guam shall comply with EO 12856). Navy activities shall prepare pollution prevention plans as outlined in Chapter 3.

18-5.8 Emergency Planning and Community Right to Know Act. EO 12856, which requires Federal facility compliance with the Emergency Planning and Community Right to Know Act, does not apply to facilities outside the customs territory of the U.S. (Although Guam is generally treated as part of the U.S. for environmental laws, it is outside the customs territory. Despite this, as a matter of policy, Navy activities in Guam shall comply with EO 12856).

18-5.9 Clean Air Ashore. Navy activities shall manage their air programs under reference (e). In addition, activities shall encourage the use of unleaded fuels.

18-5.10 Ozone Depleting Substances (ODS). Navy activities shall manage their use of ODS under Chapter 6 and reference (e).

18-5.11 Water Programs Ashore. Navy activities shall manage their water programs under reference (e). Commanding officers (COs) shall ensure that overseas Navy treatment plant and collection system operators receive equivalent training and certification as discussed in Chapter 7.

18-5.12 Drinking Water Systems and Water Conservation. Navy activities shall manage their drinking water under reference (e).

COs shall ensure that overseas water system operators receive equivalent water system operator training as discussed in paragraph 8-5.2.

18-5.13 Oil Management. Navy activities shall manage their oily wastes and waste oils under reference (e). Use Chapter 9 as a guide in the development of spill plans, ensuring equivalent personnel training, testing of fuels, meeting specifications, and designating certain waste oils as hazardous wastes.

18-5.14 Oil and Hazardous Substances (OHS) Contingency Planning. Navy activities shall manage OHS planning under reference (e).

18-5.15 Polychlorinated Biphenyls (PCB) Management Ashore. Navy activities shall manage their PCBs under reference (e). This includes the development of management plans, ensuring personnel training, labeling, spill planning/response, and Navy reporting. Navy policy shall be to minimize the use of PCBs and PCB items in foreign countries without degrading mission performance. PCBs manufactured outside the U.S. ordinarily cannot be imported into the U.S., even for disposal. Accordingly, Navy activities shall not purchase or otherwise take control of PCBs or PCB items manufactured outside the U.S. without express permission of CNO (N4). As part of ongoing management programs, Navy activities shall identify those PCBs and PCB items manufactured outside the U.S. to avoid inadvertent importation into the U.S.

18-5.16 Hazardous Waste (HW) Management Ashore. Navy activities shall manage their HW under reference (e). This includes the development of management plans, ensuring equivalent training, labeling, spill planning/response, Navy reporting, and implementing HW minimization.

18-5.17 Pesticide Compliance Ashore. Navy activities shall manage their pesticides under reference (e).

18-5.18 Solid Waste Management and Resource Recovery Ashore. Navy activities shall ensure compliance with solid waste standards under reference (e). Reference (a), as implemented by reference (b), requires an ongoing program to evaluate environmental compliance at overseas installations.

18-5.19 Cleanup and Restoration. The Installation Restoration (IR) program is limited to the U.S., its territories, and possessions, and does not apply to foreign countries. However, past DoD activities have caused the need for environmental cleanup and restoration. International agreements, SOFA, and U.S. government policy shall be used to decide whether cleanup action should be coordinated with the EA.

18-5.20 Storage Tanks. Navy activities shall manage their above and underground storage tanks under reference (e). Use Chapter 16 as a guide in managing storage tanks.

18-5.21 Noise Prevention Ashore. Navy activities shall ensure compliance with the noise abatement measures of reference (e).

18-5.22 Environmental Compliance Evaluation Ashore. Overseas installations shall use checklists developed from reference (e). Prior to the establishment of reference (e), the installation shall use reference (b) and Environmental Compliance Evaluation (ECE) program checklists as guidance in developing appropriate checklists and performing environmental compliance evaluations.

18-5.23 Natural Resources Management. Navy activities shall program and budget for compliance and ensure compliance with reference (e).

18-5.24 Historic and Archeological Resources Protection. Navy activities shall ensure compliance with the historic and archeological resources of reference (e).

18-5.25 Training. Navy activities shall comply with the training measures outlined in Chapter 24 of this instruction. In addition, Navy components delegated authority to act as EAs shall carry out the training responsibilities established by reference (b) within the host nations for which they are responsible. Such Navy components shall also develop environmental audit checklists for the nations for which they are responsible.

18-6 Responsibilities

18-6.1 CNO (N45) shall ensure major claimants allocate the resources required to achieve and maintain compliance with reference (e).

18-6.2 Major claimants and subordinate commands shall:

a. Ensure compliance with reference (e) established by the EA.

b. Conduct environmental compliance evaluations at overseas installations at least once every 3 years or when directed by the Unified Commander.

c. Program and budget for environmental compliance projects.

d. Ensure that contracts for services or construction, where performance takes place at an overseas activity, and DoD contracts for the disposal of HW, include provisions requiring a contractor to comply with reference (e). The

major claimant shall also ensure that contracts are administered to enforce such compliance.

e. Ensure host-tenant agreements address compliance with reference (e).

f. Communicate with EAs on environmental issues.

g. Endorse activity waiver requests from reference (e) or reference (b).

18-6.3 Commanding officers of overseas shore activities shall:

a. Comply with reference (e).

b. Develop and conduct training/education programs to instruct required personnel in the environmental aspects of their job.

c. Perform and document annually (except when external audits are conducted) internal installation environmental compliance evaluations (ECE). The purpose of the internal ECE is to provide an overall compliance assessment status of the installation.

d. Communicate with the EA on environmental issues.

CHAPTER 19

ENVIRONMENTAL COMPLIANCE AFLOAT

19-1 Scope

19-1.1 General. This chapter defines environmental compliance policies and procedures applicable to shipboard operations. Since this chapter applies only to ships and floating drydocks and covers all media, its format is different from the remainder of the manual. Organization is according to the various pollutants produced aboard ship. Each section lists the applicable legislation, definitions, requirements, policy and training. The end of the chapter contains a summary of responsibilities by command.

Topics covered in this chapter are as follows:

19-1.2 Applicability.

a. This chapter applies to U.S. Navy ships and floating drydocks worldwide. As appropriate, it applies to the boats and other craft carried by these ships. This chapter also applies to those ships under contract to the Commander, Military Sealift Command (COMSC) that are public vessels of the United States (U.S.). Vessels owned or bareboat chartered and operated by the MSC are public vessels. This chapter does not apply to those ships under contract to COMSC that are not public vessels, such as ships that are time or voyage chartered.

b. Ships need only refer to this chapter and chapter 21 (Ocean Dumping) for environmental compliance. If differences in policy exist between this chapter and any other chapter in this instruction, this chapter takes precedence.

19-1.3 References. Relevant references for this chapter are:

a. Naval Warfare Publication (NWP) 4-11, Environmental Protection; (NOTAL). (A

b. National Emission Standards for Hazardous Air Pollutants (NESHAP) for Shipbuilding and Ship Repair (Surface Coating/Painting Operations), 40 CFR 63, SUBPART II; (NOTAL) (A

c. Naval Ships' Technical Manual (NSTM); (NOTAL)

d. OPNAVINST 5100.19C, Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat; (NOTAL)

e. OPNAVINST 3100.6G, Special Incident Reporting (OPREP 3, Navy Blue and Unit SITREP) Procedures; (NOTAL)

f. NAVFACENGCOM Manual MO 909 (Oil Ship Waste Offload Barge); (NOTAL)

g. DOD Instruction 4715.4 of 1 July 1998, Pollution Prevention (NOTAL)

h. NAVSEA PCB Advisories; (NOTAL)

(A) i. OPNAV P-45-113-3-99, Afloat Medical Waste Management Guide (NOTAL)

j. NAVMED Publication P-5010-7, Manual for Naval Preventative Medicine, Sewage Disposal Ashore and Afloat; (NOTAL).

19-2 General

19-2.1 Terms and Definitions

19-2.1.1 Contiguous Zone. A zone of the ocean extending from 3-12 nm from the U.S. coastline.

19-2.1.2 Navigable Waters. The territorial sea and internal waters (rivers, lakes) of the U.S.

19-2.1.3 Territorial Sea. For purposes of this instruction, a zone of the ocean extending from the U.S. coastline out to 3 nm from shore.

19-2.1.4 United States. For the purposes of this chapter, the U.S. includes the Commonwealth of Puerto Rico, Virgin Islands, Guam, American Samoa and the Commonwealth of the Northern Marianas Islands.

19-2.2 Navy Policy

19-2.2.1 Environmentally Sound Ships. Protection of the marine environment is mission essential. Navy ships shall conduct operations, in port and at sea, minimizing or eliminating any adverse impact on the marine environment.

19-2.2.2 Shoreside Support to Ships. Compliance with local environmental requirements often requires specialized knowledge, expertise or capability that afloat units may lack. To the maximum extent possible, shore commands and Regional Environmental Coordinators (RECs) shall provide to afloat units, upon request, such assistance as may be necessary to ensure their environmental compliance.

(R **19-2.2.3 Environmental Inspection of Navy Ships.** Within the U.S., Navy ships shall be available for inspection by environmental officials, provided the inspector demonstrates a legitimate basis for requesting access, and subject to the requirements to protect national security information. Section 19-2.2.3.1 addresses access to Navy ships and release of information regarding Navy oil spills. Section 19-2.2.3.2 addresses access to Navy ships for all other environmental purposes.

(A **19-2.2.3.1 Access to Ships and Release of Information During Navy Oil Spills.** Effective oil spill planning and response is an important issue for the Navy, for regulatory agencies, and for the public. Navy ships may receive requests from non-Navy entities for access and/or information pertaining to Navy oil spill planning and response. Commanding officers shall consider several factors in responding to these requests. First, they shall quickly provide officials and agencies responsible under law and regulation responding to an actual spill with the necessary access and/or information to minimize environmental damage and Navy liability. Second, they shall ensure all access granted and information disseminated is consistent with Navy information security requirements. Third, they shall ensure that initial information released about oil spills is as accurate as possible and that it is characterized as preliminary and subject to later verification.

a. **Access to Ships**

(1) During oil spill response emergencies, although not mandated by law, commanding officers and masters should allow Federal On-Scene Coordinator (FOSC) representatives access to their ships if requested, consistent with information security requirements. The U.S. Coast

Guard is designated the FOSC for oil spills in the coastal regions of the U.S.

(2) During non-emergency situations, Navy ships are not subject to inspection by Coast Guard, State, or local officials in connection with oil spill planning. Commanding officers shall cooperate, however, with the Coast Guard and civilian authorities regarding oil spill planning and prevention consistent with information security requirements without impeding mission accomplishment. Commanding officers, at their discretion, may invite Coast Guard, State, and local officials aboard their ships for assist visits or other discussions. They shall coordinate requests for such access with the cognizant Navy On-Scene Commander (NOSC) who in most cases is the Navy REC.

b. **Information Dissemination**

(1) Ships shall promptly and accurately respond to Federal, State, and local government requests for information necessary to coordinate spill response and cleanup efforts or to prevent or reduce environmental damage. Ship commanding officers providing initial information should indicate that the information provided is preliminary and is subject to verification or change during subsequent investigation.

(2) Ships should promptly respond to Federal, State, and local government requests for the following preliminary information about Navy oil spills:

(a) Whether an oil spill has occurred

(b) The specific source of the spill

(c) The type of substance spilled

(d) When the spill occurred

(e) Where the spill occurred

(f) The initial indication as to the general nature of the cause of the incident, e.g., whether due to equipment failure, operator error, or undetermined origin

(g) A preliminary estimate of how much oil was spilled.

Commands providing preliminary information should indicate that the provided information is preliminary and is subject to verification or change during subsequent investigation. Ships receiving requests for investigation reports shall inform requestors that they will forward any Navy investigation reports generated in connection with the spill to the Office of the Judge Advocate General (OJAG). OJAG will control the release of investigation reports.

c. When claims by or against the Navy have been filed or are reasonably anticipated, requests for information pertaining to oil spills shall be referred to the Navy attorney representing the cognizant NOSC.

d. The commanding officer will refer any media requests for information to the public affairs officer on the cognizant NOSC staff.

19-2.2.3.2 Environmental Inspector Access Procedures Within the U.S. If a State or local inspector requests access to inspect a Navy ship, the parties involved shall follow these procedures:

a. The commanding officer shall confirm the inspector's credentials.

b. The inspector shall identify spaces or work sites to which he requests access.

c. The inspector shall make known the nature of the activity to be examined and its relationship to regulations. The commanding officer should consult counsel if there is any question on the applicability of the law or regulation to ships.

d. If the issue is a result of contractor actions aboard ship, a representative of the contractor shall accompany the inspector and ship representative.

e. If practical, the ship shall suggest off-ship alternatives that involve similar operations or training demonstrations conducted ashore.

f. If off-ship alternatives are not practical, commanding officers shall approve inspections that do not involve access by inspectors to classified or restricted information, equipment, technology, or operations.

g. Shipboard air conditioning and refrigeration (AC&R) equipment designed or constructed to general or military specification (GENSPEC/ MILSPEC) requirements on board Navy ships or vessels owned, operated, or bareboat chartered by the Navy or COMSC are not subject to the requirements of U.S. EPA Clean Air Act regulations on refrigerants. Federal, State and local regulatory personnel have no authority to inspect Navy ships or ship records to enforce these requirements. If regulatory personnel request to board Navy ships for this purpose, do not grant access. Follow the procedures of paragraph 19-2.2.3.4 and notify CNO (N45) by routine message with information copies to the chain of command, should this occur.

19-2.2.3.3 Environmental Inspector Security Clearances. If the inspector requests access to sensitive areas such as spaces containing cryptographic equipment, sonar systems, or nuclear propulsion plant spaces (NNPS) or nuclear propulsion plant information (NNPI) and the commanding officer concludes that a legitimate requirement exists for such access, he/she shall forward a message request for access to CNO (N45) with information copies to the fleet commander in chief (CINC) and type commander, for spaces that would involve access to classified information or CNO (N00N) for NNPS/NNPI. The message shall identify the following:

a. The space to which the inspector wants access

b. The nature of the activity that the inspector wants to examine

c. The classified or restricted information, equipment, or operation to which the inspector would have access during the proposed inspection

d. The proposed alternatives which do not involve such access

e. Reasons why the inspector finds the proposed alternatives unsatisfactory

f. Security clearance information, including name of inspecting official(s), date of visit, name of agency which the official(s) represent, and level, basis, and date of security clearance. (R

The commanding officer shall inform State or local inspector(s) that the security implications of their request require consideration at Navy headquarters.

19-2.2.3.4 Environmental Inspection Dispute Resolution. If the commanding officer determines that the inspector does not have a requirement for access to the spaces or information cited above, but the inspector does not agree with that determination, the commanding officer shall promptly refer the matter up the chain of command for resolution by CNO (N45/N00N) as described above.

19-2.2.4 Environmental Inspections of Navy Ships Outside the U.S. Navy ships within the territory of foreign countries (internal waters, ports and seas out to 12 nm from land) are not legally subject to enforcement of environmental requirements by these coastal or port states or local authorities. However, they must operate in due regard for that nation's resource-related laws and regulations. Additionally, Navy ships must comply with any environmental regulations es-

tablished in port visit clearances and the local Status of Forces Agreements (SOFAs).

Environmental officials representing the foreign country or local authority do not have the authority to inspect U.S. Navy ships to determine compliance with that country's laws. If a Navy ship is approached by representatives of a foreign country while in foreign waters with a request to inspect the ship regarding a possible environmental violation, the commanding officer shall refuse to permit the inspection and shall notify the U.S. embassy, CNO (N45/N00N) and the chain of command of the request, the alleged violation, and any amplifying information.

If the ship has violated or is perceived to be in violation of the foreign country's environmental laws or regulations, the country may request the ship to leave port or the ocean area under it's jurisdiction. In this event, the commanding officer shall comply with the request and notify the U.S. embassy, CNO (N45), and the chain of command of this action.

19-2.2.5 Notices of Violations. Ships shall comply with the provisions of appendix B regarding notices of violation or other expressions of environmental regulatory concern.

R) **19-2.2.6 Afloat Environmental Compliance Inspections and Assessments**

a. The afloat environmental compliance inspection process shall consist of oversight Inspections by the Board of Inspection and Survey (INSURV). INSURV shall conduct environmental compliance oversight inspections for forces afloat as a part of the regular INSURV inspection process using appendix K. These inspections shall include equipment operation, program compliance and effectiveness, and training. The President, Board of Inspection and Survey (PRESINSURV) shall report the status of afloat environmental compliance and effectiveness and issues requiring CNO attention as a part of the periodic briefings to the CNO.

b. Since regular INSURV inspections occur every 5 years, immediate superiors in command (ISICs) will schedule "intervening" environmental protection assessments. These "intervening" environmental protection assessments will be conducted inport during the interdeployment training cycle (IDTC) by a small group of INSURV industrial hygiene officers and oil pollution abatement, marine sanitation device, and plastic waste processor equipment experts. The assessment (including training to improve program effectiveness) will take approximately 2 days with a letter report to the commanding officer only. INSURV will combine data collected during these "intervening" environmental protection assessments with that from final contract trials and underway material inspections in the INSURV database for use by type commanders, CNO (N45), NAVSAFECEN, and other environmental protection organizations. For ships not in a normal IDTC cycle, ISICs shall schedule an "intervening" environmental protection assessment at least every 36 months.

c. In the event that a commanding officer may want to evaluate his/her command's environmental compliance practices, the Afloat Environmental Checklist of appendix K will assist in this evaluation.

19-2.2.7 Training (R

a. All hands shall receive environmental training upon reporting aboard (I Division or School of the Boat) and annually thereafter. This training shall include:

(1) The Navy's commitment to environmental protection.

(2) The command environmental program. This training should include pollution prevention, solid waste handling and minimization, plastics management, recycling, air pollution (including ozone depleting substances (ODSs)) and oil and hazardous substance spill response.

(3) The member's responsibility with regard to this program. Ships may accomplish this training with videotapes for general subject matter and by ship's instructors for command specific topics.

b. Watch officers responsible for authorizing the overboard disposal of shipboard wastes shall receive training on the prohibited zones for the discharge of shipboard wastes as a part of the qualification for the watch.

R) c. Personnel assigned as the Afloat Environmental Coordinator (AEPC), per paragraph 19-2.2.11, shall attend the Naval Occupational Safety and Health and Environmental Training Center (NAVOSHENVTRACEN) offered Afloat Environmental Protection Coordinator Course (A-4J-0021) or, if unable to attend this training, complete the Afloat Environmental Protection Coordinator interactive courseware (to be available in 2000). Training should be completed before assignment, if possible, otherwise within 6 months of assignment. The assigned AEPC shall also complete Watchstation 303, Environmental Protection Coordinator, in the Hazardous Material/Environ-mental Protection Programs Afloat Personnel Qualification Standard (PQS), NAVEDTRA 43528-A, within 6 months of assignment. For MSC ships, COMSC shall specify AEPC training requirements.

R) **19-2.2.8 Exclusion of Vessel Discharges from National Pollutant Discharge Elimination System (NPDES) Permitting**

a. Per regulations issued by the U.S. Environmental Protection Agency (EPA), discharges incidental to the normal operation of a vessel do not require a permit under the NPDES program. The following are examples of incidental discharges:

(1) Effluent from properly functioning oil/water separators

(2) Sewage (when discharge is necessary)

(3) Graywater

(4) Cooling water

(5) Boiler and steam generator blowdown

(6) Weather deck runoff, including fresh water washdowns

(7) Ballast water

Naval vessels shall not enter into agreements with environmental agencies regarding ship discharges without CNO (N45) approval.

b. To promote uniformity in treatment of naval vessel discharges nationwide, CNO (N45) and fleet commanders closely monitor local attempts to impose requirements on ships beyond those specifically provided for by U.S. law or U.S. EPA regulation. Commanding officers or masters shall report any interest expressed by environmental regulators in discharges from U.S. Navy ships or COMSC public vessels, by message to CNO (N45) with information copies to the chain of command.

19-2.2.9 Operation Within Foreign Nation Waters. (R Navy ships are not legally subject to enforcement of environmental requirements by coastal or port States. When operating in foreign territorial waters, or when visiting foreign ports, Navy ships shall abide by environmental provisions contained in port visit clearances and/or in status of forces agreements (SOFAs) (see figure 19.1). Such conditions will normally be communicated to visiting ships in the Port Guide or the Logistics Request (LOGREQ) reply. The U.S. Government has agreed to these conditions in advance. Navy ship compliance with such requirements is in no way an inappropriate relinquishment of U.S. sovereignty. When port visit clearances and SOFAs either do not exist, or do not

SUMMARY OF NAVY POLLUTION CONTROL DISCHARGE RESTRICTIONS

AREA	SEWAGE ("BLACK WATER")	GRAYWATER	OILY WASTE
U.S. Internal Waters & Territorial Seas (0-3 nm)	No discharge.	If equipped to collect graywater in CHT system or dedicated graywater system, collect and pump to shore only when pierside. If no collection capability exists, direct discharge permitted.	No sheen. If equipped with OCM, discharge <15 ppm oil. (1)
U.S. Contiguous Zone (3-12 nm)	Direct discharge permitted.	Direct discharge permitted.	No sheen. If equipped with OCM, discharge <15 ppm oil.(1)
12-25 nm	Direct discharge permitted.	Direct discharge permitted.	If equipped with OCM, discharge <15 ppm oil. Ships with OWS or BWPT but no OCM must process all machinery space bilge water through OWS or BWPT. (2) (3)
>25 nm	Direct discharge permitted.	Direct discharge permitted.	Same as 12-25 nm. (2) (3)
>50 nm & High Seas	Direct discharge permitted.	Direct discharge permitted.	Same as 12-25 nm. (2) (3)
MARPOL "Special Areas" In Effect	Direct discharge permitted.	Direct discharge permitted.	Refrain from discharging any oil or oily waste to the extent practicable without endangering ship or impairing operations. Bilge water, same as 12-25 nm. (2) (3)
Foreign Countries	Within foreign territorial seas (12 nm), see Visit Clearance or SOFA (as delineated in the Port Guide or LOGREQ reply). If sufficient guidance not available, no discharges within 3 nm when sewage reception facilities available. If not feasible, follow standards observed by host nation warships.	Within foreign territorial seas (12 nm), see Visit Clearance or SOFA (as delineated in the Port Guide or LOGREQ reply). If sufficient guidance not available, follow guidance above. If not feasible, follow standards observed by host nation warships.	Within foreign territorial seas (12 nm), see Visit Clearance or SOFA (as delineated in the Port Guide or LOGREQ reply). If sufficient guidance not available, follow guidance above. If not feasible, follow standards observed by host nation warships. (3)
Comments	Direct discharge allowed within 3 nm under emergency conditions.	The collection of graywater inside 3 nm from shore and prior to pierside may significantly reduce tank capacity and might result in the unnecessary overboard discharge of sewage before reaching pier facilities or unrestricted waters.	State/local rules may vary; check SOPA regulations. Submarines without BWPTs: After allowing adequate separation time, pump non-oily, water phase outside 50 nm, or as far from shore as practicable if the operations or operational capabilities of the submarine would be impaired by this requirement.

Notes:

OWS - Oil/Water Separator
OCM - Oil Content Monitor
WOCT - Waste Oil Collecting Tank
SOPA - Senior Officer Present Afloat
BWPT - Bilge Water Processing Tank

(1) If operating properly, OWS or BWPT discharge will routinely be less than 15 ppm.
(2) Surface ships without operable OWS must retain oily waste for shore disposal. If operating conditions require at-sea disposal, minimal discharge is permitted beyond 50 nm from nearest land.
(3) If equipped with OWS and OCM and operating conditions prevent achieving <15 ppm, limit discharges to <100 ppm.

Figure 19.1

SUMMARY OF NAVY POLLUTION CONTROL DISCHARGE RESTRICTIONS (Continued)

AREA	GARBAGE (NON-PLASTICS)	GARBAGE (PLASTICS) (NON-FOOD CONTAMINATED) (6)	GARBAGE (PLASTICS) (FOOD-CONTAMINATED) (6)
U.S. Internal Waters & Territorial Seas (0-3 nm)	No discharge.	No discharge.	No discharge.
U.S. Contiguous Zone (3-12 nm)	Pulped or comminuted food and pulped paper and cardboard waste may be discharged >3nm.	No discharge.	No discharge.
12-25 nm	Bagged shredded glass and metal waste may be discharged >12nm. Submarines see note (4).	No discharge.	No discharge.
>25 nm	Direct discharge permitted. See note (5).	No discharge.	No discharge.
>50 nm & High Seas	Direct discharge permitted. See note (5).	No discharge.	No discharge.
MARPOL "Special Areas" In Effect	Discharge pulped or comminuted food and pulped paper and cardboard waste >3 nm. Discharge bagged shredded glass and metal waste >12nm. (5) **Report all non-food, non-pulped, non-shredded garbage discharges to CNO (N45) upon completion of operations.**	No discharge.	No discharge.
Foreign Countries	Discharge pulped or comminuted food and pulped paper and cardboard waste >3 nm from foreign coasts. Discharge bagged shredded glass and metal waste >12nm. Discharge all other garbage >25 nm.	No discharge.	No discharge
Comments	Garbage discharged should be processed to eliminate floating marine debris. Retain surplus material for shore disposal.	Record-keeping requirements exist for at-sea discharge. Minimal discharge authorized if plastic processor inoperable and necessary for safety of ship/ health of crew. Report discharge commencement to appropriate operational commander.	Record-keeping requirements exist for at-sea discharge. Minimal discharge authorized if plastic processor inoperable and necessary for safety of ship/ health of crew. Report discharge commencement to appropriate operational commander.

Notes:

(4) Submarines may discharge compacted, sinkable garbage between 12 nm and 25 nm provided that the depth of water is greater than 1,000 fathoms.

(5) If equipped, use pulpers and shredders for all discharges of food products, paper, cardboard, glass and metal wastes. Shredded metal and glass must be bagged prior to disposal

(6) Submarines are required to discharge only the minimum amount practicable.

SUMMARY OF NAVY POLLUTION CONTROL DISCHARGE RESTRICTIONS (Continued)

AREA	HAZARDOUS MATERIALS	MEDICAL WASTES (INFECTIOUS & SHARPS)
U.S. Internal Waters & Territorial Seas (0-3 nm)	No discharge.	Steam sterilize, store, and transfer ashore. No discharges.
U.S. Contiguous Zone (3-12 nm)	No discharge.	Steam sterilize, store, and transfer ashore. No discharges.
12-25 nm	No discharge except as permitted by appendix L.	Steam sterilize, store, and transfer ashore. No discharges.
>25 nm	No discharge except as permitted by appendix L.	Steam sterilize, store, and transfer ashore. No discharges.
>50 nm & High Seas	No discharge unless >200 or as permitted by appendix L.	If health and safety are threatened, steam sterilize waste, package and weight for negative buoyancy, log, and discharge. No discharge of sharps permitted.
MARPOL "Special Areas" In Effect	No discharge except as permitted by appendix L.	Steam sterilize, store, and transfer ashore. No discharges. If >50 nm and health and safety are threatened, steam sterilize waste, package and weight for negative buoyancy, log, and discharge. No discharge of sharps permitted.
Foreign Countries	No discharge except as permitted by appendix L.	The packaging, handling, storage, transport, treatment, and disposal of infectious waste shall be as prescribed by applicable visit clearance, SOPA regulations, and port guides
Comments		Dispose of all sharps ashore. Do not incinerate plastic, wet materials. Steam sterilization requirement not applicable to submarines. Other non-infectious waste may be disposed of as garbage and does not require steam sterilization.

Figure 19.1 (Continued)

provide sufficient guidance, Navy ships should attempt to abide by the corresponding requirement for U.S. navigable waters or ports, as delineated in this chapter. In some cases, compliance with the corresponding U.S. requirement will not be feasible overseas, due to lack of offload facilities, environmental services, or some other cause. Where compliance with U.S. requirements is not feasible, Navy ships should operate in a manner consistent with the environmental practices of host nation warships.

19-2.2.10 Prohibited Discharge Zones for U.S. Navy Shipboard Wastes. Figure 19.1 provides a summary of pollution control discharge restrictions for ships.

19-2.2.11 Afloat Environmental Protection Coordinator. Commanding officers of ships shall designate a person as the AEPC. The person assigned to this position shall be the commanding officer's advisor on the shipboard environmental protection program. This person shall be knowedgeable regarding the requirements and responsibilities of this chapter and trained per the requirements of paragraph 19-2.2.7c.

A) **19-2.2.12 Environmental Planning.** While carrying out assigned missions, operational commanders and commanding officers have an obligation to avoid unnecessary damage to the environment. Toward that end, commanders must closely observe laws, regulations, and policy for protecting and preserving the environment in all naval operations. Failure to consider environmental requirements or effects early in the planning process could result in operational delays. Early environmental protection actions or mitigating measures should result in minimal or no limitations or impacts on exercise objectives. Environmental planning must be meticulous to achieve compliance, avoid unnecessary environmental degradation, and maintain public support for the continued use of operating areas. Environmental planning may lead to modifying operational objectives to achieve most if not all goals, selecting more favorable operating areas, and establishing environmental "rules of engagement" that will result in operational success while achieving environmental protection.

The Navy developed Naval Warfare Publication (NWP) 4-11, *Environmental Protection* (reference (a)), to provide commanders and their planning staffs with doctrine to accomplish assigned missions while achieving the highest possible degree of environmental protection and compliance. To support environmental planning, commanders shall develop an Environmental Annex for each operational plan or order.

Reference (a) discusses the environmental planning process for peacetime and military operations other than war (MOOTW) in detail. It also contains guidance for developing the Environmental Annex. Chapter 2 and appendix E provides detailed information on compliance with the requirements of the National Environmental Policy Act (NEPA) and Executive Order 12114 for overseas environmental planning.

19-3 Sewage

19-3.1 Legislation (This section contains background material from which Navy policy is derived). The Clean Water Act (CWA) authorizes DOD to issue regulations governing the design, construction, installation and operation of marine sanitation devices (MSDs) on board vessels owned and operated by DOD.

19-3.2 Terms and Definitions

19-3.2.1 Graywater. Discarded water from deck drains, lavatories, showers, dishwashers, and laundries, as well as discarded water from shipboard medical facilities. Does not include industrial wastes, infectious wastes and human body wastes. (R

19-3.2.2 Graywater Collection and Transfer System. An independent, auxiliary graywater collection and transfer system designed to collect graywater and pump the waste to shore facilities (A

in port or direct water overboard at sea. Graywater collection and transfer systems are typically installed on ships with Type III-A marine sanitation devices (MSDs) that may lack the capability to collect and transfer graywater.

19-3.2.3 Industrial Wastewater. Wastewater or semi-solid material generated in shipboard processes such as manufacturing, production and maintenance (for example, metal plating, acid cleaning, photo processing, solvent cleaning and painting materials).

19-3.2.4 *Marine Sanitation Device (MSD).* Any equipment on board a ship or craft designed to receive and treat sewage to a level acceptable for overboard discharge, or which receives or retains sewage on board for later discharge ashore or in waters where discharge is permissible. Within the generic term MSD, the Navy uses the following terms to identify general types:

a. **Type I**: "Flow-through" and "discharge" device designed to receive and treat sewage aboard ship and produce an overboard effluent with a fecal coliform count of not more than 1,000 per 100 milliliters and no visible floating solids.

b. **Type II**: "Flow-through" and "discharge" device that produces an overboard effluent with a fecal coliform count of not more than 200 per 100 milliliters and total suspended solids of not more than 150 milligrams per liter.

c. **Type III-A**: "Non-flow-through" device designed to collect shipboard sewage by means of vacuum or other reduced-flush systems and to hold the sewage while transiting navigable waters (0-3 nm). This type may include equipment for shipboard evaporation or incineration of collected sewage.

d. **Type III-B**: Collection, holding and transfer (CHT) system designed to collect both sewage and graywater while in port; to offload sewage and graywater to suitable shore receiving facilities; to hold sewage while transiting within 0-3 nm; and to discharge both sewage and graywater overboard while operating beyond 3 nm.

19-3.2.5 Sewage. Human body wastes and the wastes from toilets and other receptacles intended to receive or retain body wastes.

19-3.3 Navy Policy

19-3.3.1 Compliance with Regulations. To ensure compliance with regulations regarding sewage and graywater:

a. The Navy shall equip ships with MSDs designed to prevent the discharge of untreated or inadequately treated sewage, or of any waste derived from sewage (e.g., sludge), within 0-3 nm of the U.S. Ships unable to collect and transfer graywater to shore while pierside via the installed MSD shall be equipped with graywater collection and transfer systems as soon as possible. (R

b. All new ships, except for public vessels operated under the direction of COMSC where specifically excluded by Top Level Requirements, shall be equipped only with Type III MSDs certified by COMNAVSEASYSCOM. Type III-A MSDs shall have an auxiliary system capable of collecting and transferring to shore all shipboard graywater generated while pierside. (R

c. Existing ships equipped with Type I or Type II MSDs installed on or before 1 April 1979 are in compliance so long as the device remains satisfactorily operable.

d. Existing ships with installed toilet facilities, but not equipped with Type I or Type II MSDs installed before 1 April 1979 shall be equipped with Type III MSDs certified by COMNAVSEASYSCOM. Public vessels operated under the direction of COMSC shall be equipped with USCG-approved Type II MSDs. Type I or Type II MSDs that become inoperable and require removal shall be replaced with certified Type III MSDs (MSC vessels shall replace

inoperable MSDs with USCG-approved Type II MSDs).

Figure 19.2

Standard Dimensions of Flanges for Discharge Connections

Description	Dimension
Outside diameter	210 mm
Inner diameter (1)	According to pipe outside diameter
Bolt circle diameter	170 mm
Slots in flange	4 holes 18 mm in diameter equidistantly placed on a bolt circle of the above diameter, slotted to the flange periphery. The slot width to be 18 mm.
Flange thickness	16 mm
Bolts and nuts: quantity and diameter	4, each of 16 mm diameter and of suitable length

The flange is designed to accept pipes up to a maximum internal diameter of 100 mm and shall be of steel or other equivalent material having a flat face. This flange, together with a suitable gasket, shall be suitable for a service pressure of 6 kg/cm^2.

(1) For ships having a molded depth of 5 m or less, the inner diameter of the discharge connection may be 38 mm.

e. MSD installations shall include the capability for pumping collected sewage and graywater to appropriate shoreside reception facilities. Surface ships, submarines and service craft/boats shall be fitted with cam-lock sewage discharge connections in 4-inch (MS 27025-18), 2-1/2-inch (MS 27025-14) and 1-1/2-inch (MS 27025-10) sizes, respectively. Such fittings shall allow quick connect/disconnect with shoreside offloading hoses.

f. Navy ships visiting foreign ports shall be equipped with adapters to accommodate hoses having international-standard flanges specified by the International Maritime Organization in Annex IV, Regulation 11 of the International Convention on the Prevention of Pollution from Ships (MARPOL). Figure 19.2 provides specifications for such adapters.

g. Ships shall not dispose of industrial wastewater through ships' sewage or graywater collection and transfer systems. Following use, ships shall deliver shipboard industrial wastewater to a shore activity for processing to determine if it has further use and, if not, disposal as waste.

19-3.3.2 Shipboard Procedures. Ships shall operate MSDs following these procedures:

a. Ships shall properly operate and maintain MSDs installed aboard Navy ships to prevent the overboard discharge of untreated or inadequately treated sewage, or any waste derived from sewage (e.g., sludge), within 0-3 nm of the U.S. shore.

b. MSDs aboard Navy ships shall collect only sewage while operating or transiting within 3 nm of shore. The collection of graywater would significantly reduce tank–holding capacity and might result in the unnecessary overboard discharge of sewage before reaching pier facilities or unrestricted waters.

c. If equipped, ships shall collect graywater in installed MSDs or graywater collection systems while in port. If not yet equipped to collect graywater, ships may directly discharge it overboard while in port. (R

d. Navy ships shall not discharge any treated or untreated sewage into freshwater lakes (excluding the Great Lakes), freshwater reservoirs or other freshwater impoundments, or into rivers

not capable of interstate navigation. Navy ships that operate in such waters shall be modified to preclude accidental discharge.

e. While operating beyond 3 nm from shore, Navy ships may discharge all sewage and graywater directly overboard. Vessels equipped with a USCG-approved Type I or II MSD shall treat all sewage prior to discharge.

R) f. Ships shall not dispose of used solvents or other industrial wastes to MSDs or graywater collection systems or dump them down sinks or deck drains. They shall containerize used solvents and industrial wastes for disposal ashore.

g. COMSC ships equipped with USCG-approved Type II MSDs may discharge via installed MSD.

19-3.3.3 Ship-to-Shore Transfer. Navy ships shall follow these procedures in port:

a. While visiting Navy ports, Navy ships equipped with Type III-A and Type III-B MSDs shall periodically pump their collected sewage and graywater to shoreside reception facilities. The shore activity shall provide the transfer hoses and associated fittings to connect the ship discharge line with the shore equipment.

b. While visiting non-Navy ports, Navy ships shall request sewage reception facilities in LOGREQs or other pertinent documentation. Ships shall use pier sewers when available. If sewers are not available, ships shall use other sewage collection facilities such as barges or tank trucks unless it is impractical to do so.

A) c. When in port, food service garbage grinders shall be diverted to the MSD system for discharge ashore.

19-3.3.4 Exceptions. Navy ships may discharge minimal quantities of sewage within 0-3 nm of shore, but only under certain circumstances and with due consideration for environmental effects. Because certain State or local water quality authorities may require notification of sewage or graywater discharges, ships shall coordinate reporting requirements through fleet and port environmental coordinators. Ships may discharge sewage overboard within 3 nm of shore only under the following conditions:

a. The ship's holding capacity is insufficient because transit time through the zone 0-3 nm from shore is of long time duration. The ship shall minimize any necessary sewage discharge and shall pump out as far as possible from land.

b. The ship is conducting or participating in military operations or exercises (including training or readiness evolutions) within the zone 0-3 nm from shore, and terminating operations to offload sewage pierside or beyond 3 nm from shore would impair operational effectiveness or the mission.

c. The ship is at anchor or moored where sewage reception facilities or services are not reasonably available, or where use of such services or facilities is not feasible because of foul weather, poor visibility, or unsafe environmental conditions, and where on board retention of sewage is not practicable.

d. The ship's MSD is inoperable because of equipment malfunction or maintenance, its use would interfere with an overhaul or repair effort, or its use would pose a hazard to the health or welfare of the crew. Ships shall minimize those periods prompting use of this exemption.

Ships shall discharge any sewage underway under this section as far as possible from shore. If in port, the ship shall obtain the concurrence of the shore activity environmental manager before the overboard discharge of sewage.

19-3.4 Training. Ships shall train personnel who operate or maintain sewage and graywater disposal or transfer equipment on the proper procedures for sewage or graywater disposal, in- (R

cluding hookup and transfer of sewage or graywater to shore facilities and at sea discharge restrictions. Personnel assigned to supervise sewage or graywater disposal operations shall complete the Shipboard Sewage Collection, Holding, and Transfer (CHT) course, K-652-2141, prior to assuming these duties. All personnel who operate or maintain sewage or graywater disposal equipment shall complete the Shipboard Sewage Collection, Holding, Transfer (CHT), and Treatment PQS, NAVEDTRA 43199-C, prior to assignment to those duties.

19-4 Air

19-4.1 Legislation (This section contains background material from which Navy policy is derived).

a. The Clean Air Act (CAA) authorizes State and local governments to set standards for emissions of air pollutants. Federal law requires Federal agencies to comply with Federal, State, interstate and local air pollution requirements. Although most air pollution regulations address shoreside sources, Navy ships operating within U.S. and State waters may also be subject to certain regulation.

R) b. Reference (b) (NESHAP for Shipbuilding and Ship Repair) considers ship's force coating operations as an EPA-regulated activity when a ship is pier side at an affected source. "Affected source" is an EPA determination and, therefore, affects both Navy shore activities (shipyards and naval stations) and private ship repair facilities. The shore activity is required to include information about marine coating use by ship's force in their semi-annual reports.

For ships at affected source sites, reference (b) imposes recordkeeping requirements, proscribes use of certain types of paint, and restricts use of paint thinners.

Despite the applicability of the requirement, EPA headquarters has recommended that regional EPA offices grant waivers to relieve Navy activities classified as affected source sites of the *requirement to record and report ships' force* marine coating use on "operational ships" (all ships other than those in an overhaul availability). Overhaul is a depot level maintenance availability that occurs at Navy or commercial shipyards. EPA will not automatically grant waivers. The Navy must apply to EPA regional offices to obtain them. Therefore, recordkeeping and reporting requirements will be administered and enforced on a variable basis by EPA regions and state environmental agencies.

19-4.2 Terms and Definitions (A

19-4.2.1 Affected Source. A major source of Hazardous Air Pollutants (HAPs) that emits more than 25 tons/year of HAPs aggregate or more than 10 tons/year of any single HAP and uses at least 264 gallons of marine coating per year.

19-4.2.2 Coating. Any material that can be applied as a thin layer to a substrate and which cures to form a continuous solid film. Coatings include paints, primers, varnishes, lacquers, etc. Marine coatings meeting this definition are regulated under reference (b).

19-4.2.3 Domestic. Within the United States, its possessions, and territories.

19-4.2.4 General Use Coating. Any coating that is not a specialty coating. Marine coatings meeting this definition are regulated under reference (b).

19-4.2.5 Volatile Organic Compounds (VOCs). Photochemically reactive organic compounds that evaporate readily under normal temperature and pressure conditions. As a result of the tendency to evaporate readily, VOCs are primary contributors to the formation of ground level ozone.

19-4.3 Navy Policy

19-4.3.1 Compliance with Regulations. Navy ships shall comply with applicable Federal, State and local regulations governing air pollution emissions.

19-4.3.2 Shipboard Procedures. Ships shall follow these procedures:

a. Navy ships at pierside shall implement operation and maintenance procedures to prevent stack emissions in violation of State and local regulations. Specifically, Navy ships shall comply with regulations on the opacity of smoke during normal operation of boilers and special periods, such as lighting off, securing, baking out, or testing of boilers.

b. In port, Navy ships shall minimize operation of boilers and diesel engines by using shore-provided "hotel" services whenever operational requirements permit. Ships shall limit blowing of boiler tubes in port to the minimum necessary to conform with provisions of reference (c), chapter 221.

c. Ships shall use only approved solvents, paints, fuels, lubricants and chemicals on board. Reference (d) includes a list of materials prohibited on ships. The Ships Hazardous Material List (SHML) or the Submarine Material Control List (SMCL) contains nomenclature of HM approved for use aboard ship. For submarines, additional restrictions may apply to solvents, paints, fuels, lubricants and other chemicals per the Nuclear Powered Submarine Atmosphere Control Manual (S-9510-AB-ATM-010/(U)).

d. Only properly trained personnel equipped with appropriate personal protective equipment shall perform shipboard emergency or operational readiness repairs on thermal insulation containing asbestos. See reference (d), chapter B1 for guidance. This reference also discusses other asbestos work, including the removal of asbestos-containing deck tiles, replacement of asbestos-containing gasket/packing material and preventive maintenance on asbestos-containing brake assemblies. Ships shall properly containerize any asbestos material removed during shipboard repair actions performed by ship's force and dispose of it without release of asbestos fibers into the environment (see reference (d), chapter B1). In preparation for disposal ashore, repair personnel must adequately wet asbestos residue before double bagging it in heavy-duty (6 mil thickness) plastic bags or other suitable impermeable containers. Repair personnel shall provide standard asbestos danger labels on all bags or containers containing asbestos material. Other applicable laws, regulations and contract requirements govern asbestos removal by Navy shore facilities or contractors.

e. Navy and COMSC ships with AC&R systems with an installed refrigerant charge of more than 50 pounds that contain ODSs such as CFC-11, CFC-12, or CFC-114 or ODS substitute material such as HFC-134a or HFC-236fa shall meet the following annual performance goals:

(1) Maintain maximum annual leakage rate of no more than 15 percent of total installed refrigerant charge of air conditioning equipment.

(2) Maintain maximum annual leakage rate of no more than 35 percent of total installed refrigerant charge of ship stores and cargo refrigeration.

f. Ships shall recover ODSs prior to maintenance on air conditioning and refrigeration systems and fire protection systems. Navy personnel shall not intentionally release chlorofluorocarbons (CFCs) or halons during the servicing, maintenance, repair and disposal of any AC&R or firefighting equipment. Only maintenance personnel trained per paragraph 19-4.3.3 shall perform maintenance on equipment containing such substances. Under these procedures, maintenance personnel shall use only approved procedures for minimizing loss of ODSs, regardless of the ship's location.

g. Navy personnel who perform maintenance on shipboard AC&R systems shall keep records of maintenance actions, names of technicians performing work, pounds of refrigerant removed and pounds of refrigerant added. Ships shall keep records to calculate annual equipment leakage rates addressed in paragraph 19-4.3.2e and retain them for 3 years.

h. Ships shall restrict the use of ODS-containing solvents for shipboard equipment to those procedures specifically required.

R) i. **ODS Reserve.** The Navy established the ODS reserve to support mission-critical ODS requirements. Shipboard CFC for use in air conditioning and refrigeration systems and halon for use in firefighting systems are mission-critical-designated. The ODS reserve material is set aside for these shipboard systems. Navy ODS Advisory 96-01 (series), produced by NAVSEASYSCOM (SEA 03L) provides procedures for deposits to and requisitions from the reserve. CNO (N45), COMNAVSEASYSCOM, COMNAVAIRSYSCOM, COMSC and Fleet CINCs monitor requisitions from the ODS reserve.

j. **Shipboard Galley Equipment.** Class I ODS refrigerants used in shipboard galley equipment were phased out of production on 31 December 1995. Existing supplies are limited. Ships shall replace existing equipment with new equipment when it is no longer usable or repairable. Replacement equipment must be EPA-approved (complying with their significant new alternatives policy (SNAP) program) and must use a refrigerant with an ozone depletion potential (ODP) of 0.05 or less. Replacement equipment must also meet safety and health criteria. NAVSEA Catalog S6161-Q5-CAT-010 lists replacement equipment. Ships are authorized to use material from the ODS reserve to support galley equipment until the year 2005. After that date, ships will satisfy any remaining material requirements through local sources.

k. **Shipboard Marine Coating Use** (A

(1) Since the EPA does not consider all shore activities to be "affected sources", Navy activities and SUPSHIPs shall notify ships of their reporting responsibilities prior to entering the activity. Fleet CINCs shall direct Navy activities, at affected sources, to work with the RECs to request recordkeeping waivers from EPA regional offices for ships in "operational status".

(2) Ships in an overhaul availability at Navy NESHAP affected source sites shall maintain records of ships' force marine coating use *for coatings distributed from ships' stores.* The installed Hazardous Material Inventory Control System (HICS) may be used to keep these records. If regional EPA offices grant appropriate waivers, operational ships located at Navy affected sources sites will *not* be required to maintain records of ship's force marine coating use. Ships' force, however, shall record and report coating use when located at commercial affected source sites (e.g., private shipyards and maintenance facilities) regardless of availability type or operational status.

(3) Ship Recordkeeping and Reporting Requirements. When requested by the Navy activity or SUPSHIP, ships must record and report marine coating used each day. Records shall include the following information: (the Hazardous Material Inventory Control System (HICS) may be used to track this information.)

(a) Coating Type (e.g. general use, non-skid, special marking, etc.)

(b) Color

(c) National Stock Number (NSN)

(d) Manufacturer Name and/or Commercial and Government entity (CAGE) code

(e) Manufacturer product name

(f) Manufacturer part number

(g) Volume of coating used

(h) VOC content of coating

(i) Coating certification (when available)

(j) Date used.

Records shall be provided by the seventh day of the month for the previous month, and/or prior to departure.

Figure 19.3

Application	EPA VOC Limit (Metric)	Conversion (U.S.)
Air Flask	(340 g/l)	(2.53 lbs/gal)
Antenna	(530 g/l)	(4.42 lbs/gal)
Antifoulant	(400 g/l)	(3.33 lbs/gal)
Heat Resistant	(420 g/l)	(3.33 lbs/gal)
High Gloss	(420 g/l)	(3.50 lbs/gal)
High-Temperature	(500 g/l)	(4.17 lbs/gal)
Inorganic Zinc High-Build Primer	(340 g/l)	(2.53 lbs/gal)
Military Exterior	(340 g/l)	(2.83 lbs/gal)
Mist	(610 g/l)	(5.08 lbs/gal)
Navigational Aids	(550 g/l)	(4.50 lbs/gal)
Nonskid	(340 g/l)	(2.83 lbs/gal)
Nuclear	(420 g/l)	(3.50 lbs/gal)
Organic Zinc	(360 g/l)	(3.00 lbs/gal)
Pre-Treatment Wash Primer	(780 g/l)	(6.50 lbs/gal)
Repair and Maintenance of Thermoplastic Coating	(550 g/l)	(4.58 lbs/gal)
Rubber Camouflage	(340 g/l)	(2.83 lbs/gal)
Sealant Coat For Thermal Spray Aluminum	(610 g/l)	(5.08 lbs/gal)
Special Marking	(490 g/l)	(4.08 lbs/gal)
Specialty Interior	(340 g/l)	(2.83 lbs/gal)
Tack Coat	(610 g/l)	(5.08 lbs/gal)
Undersea Weapons Systems	(340 g/l)	(2.83 lbs/gal)
Weld-Through Shop Primer	(650 g/l)	(5.42 lbs/gal)
*General Use	(340 g/l)	(2.83 lbs/gal)

*General use coating is defined as "any coating not defined as a specialty coating".

(4) Restrictions on Marine Coating Use. Ships are responsible for not using materials exceeding permissible volatile organic compound (VOC) limits for applications as listed in figure 19-3. (This information is on the paint can.) If ship's force cannot obtain materials meeting these standards through the Navy supply system, they should contact COMNAVSEASYSCOM (SEA03M) for a compliant substitute.

(5) Restrictions on Use of Thinners. Ship's forces are prohibited from thinning marine coatings with anything except water. Ships shall label paint lockers with a placard stating, "Thinning of marine coatings/paints is prohibited."

(6) Marine Coating Certification. Infrequently, ships and shore activities may direct purchase select marine coatings from the domestic open market (commercially) due to mission necessity. Marine coatings bought on the domestic open market shall meet reference (c), chapter 631 VOC content standards and certification criteria.

(7) Ships shall implement the following marine coating work practices: (a) minimize spills of marine coatings, (b) insure marine coating containers are intact and leak-free and (c) insure marine coating containers are closed when not in use.

19-4.3.3 Training

a. Ships shall train personnel whose watch duties may result in air pollution (for example, diesel engine operators, boilermen, or gas turbine operators) in the minimization of air pollution as a part of their watch qualification.

b. Ships shall train personnel whose task assignments may result in air pollution (for example, topside painters or users of volatile solvents) on the proper use of the material prior to performing the task, to minimize the release of pollutants.

c. All Navy AC&R technicians who perform maintenance on air conditioning and refrigeration equipment shall attend EPA certified

training on handling, recovery and recycling ODS. Ships shall provide these personnel with training on ODS regulations as well as spent/recyclable ODS labeling prior to assigning them to perform these duties.

d. Ships shall train personnel who work with other ODSs (e.g., halons and solvents) or perform maintenance on equipment containing such substances on methods to prevent release prior to assigning them to such work.

e. Personnel assigned to operate the incinerator shall complete the Incinerator Operator PQS, NAVEDTRA 43558, prior to assignment.

19-5 Oil and Oily Waste

19-5.1 International Convention and Legislation

R) **19-5.1.1** Annex I of **MARPOL** addresses oil pollution from ships at sea. Annex I establishes "special areas" in which all discharge of oil or oily mixture from oil tankers and other ships in excess of 400 gross tons is prohibited. This prohibition does not apply to the discharge of processed bilge water from machinery spaces provided all of the following conditions are met:

a. The ship is proceeding en route.

b. The oil content of the overboard discharge without dilution does not exceed 15 parts per million (ppm).

c. The ship has in operation oil filtering equipment that will alarm if an output of greater than 15 ppm is exceeded (ships greater than 10,000 tons).

d. The filtering system is equipped with a stopping device that will ensure that the discharge is automatically stopped if the effluent oil content exceeds 15 ppm.

Annex I special areas in effect include the (R
Mediterranean Sea, the Baltic Sea, the Black Sea, and the Antarctic area. Annex I limits the oil content of discharges from ships into all other ocean areas of the world at 15 ppm. Annex I requirements do not apply strictly to warships, but party states (including the U.S.) are required to establish standards for their warships that require such vessels to conform as closely as practicable with the international standard, without compromising operational effectiveness.

19-5.1.2 The Act to Prevent Pollution from Ships (APPS) implements the stringent oil and oily waste discharge requirements of Annex I of MARPOL. Although public vessels are not strictly subject to MARPOL Annex I, the Act requires heads of Federal departments to prescribe standards for ships under their authority that are consistent with those of the MARPOL Protocol "so far as it is reasonable and practicable without impairing the operations or operational capabilities of such ships." APPS applies to U.S. vessels worldwide.

19-5.1.3 The Clean Water Act prohibits the discharge of oil in a harmful quantity into all waters within 12 nm of the U.S. coast. U.S. EPA regulation provides that a discharge of oil in a harmful quantity is one that violates applicable water quality standards or causes a sheen on the water. The oil content within a discharge that is sufficient to cause a sheen varies with type of oil, sea state, lighting, and viewing angle. In general, in excess of 15 to 20 ppm of oil may be sufficient to cause a sheen.

19-5.2 Terms and Definitions

19-5.2.1 Bilge Water. A mix consisting primar- (A
ily of water, with some oil (normally less than 5 percent) and other unspecified substances, resulting from the normal operation of a vessel. Bilge water is considered an oily waste. Under normal circumstances, bilge water does not contain HM or other constituents that would classify it as a hazardous waste.

R) **19-5.2.2 Oil.** For the purposes of compliance with MARPOL and the Act to Prevent Pollution from Ships, the term "oil" refers to any petroleum-based fluid or semisolid, including crude oil, liquid fuels (like gasoline, kerosene, diesel), lubricating oil, waste oil, oil sludge and oil refuse. Oil also includes synthetic-based lubricating and transmission products. MARPOL, Annex II classifies non-petroleum-based oils, such as vegetable oils, as noxious liquid substances.

For the purposes of Clean Water Act compliance, the term "oil" refers to oil of any kind or in any form, including petroleum, fuel oil, sludge, oil refuse, vegetable oil, and oil mixed with waste other than dredge spoils.

A) **19-5.2.3 Oily Rags.** Cleaning rags or other sorbents contaminated with oil as defined in paragraph 19-5.2.2. Does not include sorbents contaminated with vegetable oils, liquid or solid shortening, or animal fat/lard used in food preparation.

19-5.2.4 Oily Waste. Oil mixed with water or other fluids such that the mixture is no longer useful.

19-5.2.5 Reclamation. The processing of used oil to recover useful oil products.

19-5.2.6 Sheen. An iridescent appearance on the surface of the water.

19-5.2.7 Used Oil. Oil whose characteristics have changed since being originally refined but which may be suitable for future use and is economically reclaimable. Used oil excludes synthetic-based lubricating and transmission products.

A) **19-5.2.8 Waste Oil.** Oil whose characteristics have changed markedly since being originally refined and has become unsuitable for further use, and is not considered economically recyclable.

19-5.3 Requirements. Chapter 9, Oil Management Ashore, requires shore activities to develop an Oily Waste/Waste Oil (OW/WO) Management Plan. These plans are required to include activity-specific policies for collecting, treating, and disposing of bilge water from naval vessels and other shipboard and shoreside oily wastes. These plans are required to be consistent with the policy set forth in this section. They will address the management of shipboard OW/WO from ships where oil/water separators (OWSs) and oil content monitors (OCMs) are either not installed or installed, but not operational. Although the format of the plan is not specified, it may be in the form of an activity or naval base directive with which ships will be required to comply. (A

19-5.4 Navy Policy

NOTE: (A

When seeking to comply with international and US oil discharge regulations, commanding officers should be aware that the definition of oil may not be consistent worldwide. For example, a discharge of vegetable oil that causes a sheen, while not a violation of MARPOL Annex I, is a violation of the U.S. Clean Water Act.

19-5.4.1 Clean Water Act Compliance. In compliance with the Clean Water Act, no discharge that produces a sheen is permitted within the territorial sea and contiguous zone of the U.S.

19-5.4.2 APPS Compliance. Ships operating in MARPOL Annex I special areas (Mediterranean Sea, Black Sea, Baltic Sea, and the Antarctic area) shall refrain from discharging any oil or oily waste to the extent practicable without endangering the ship or impairing its operations or operational effectiveness. Oil and oily waste discharges that are necessary in Annex 1 special areas or elsewhere on the high seas shall comply with the requirements listed below. Refer to (R

paragraph 19-5.4.4 for operational and management requirements.

R) a. **Surface Ships With Oil/Water Separators (OWSs) and Oil Content Monitors (OCMs).** Navy ships equipped with OWS and OCM shall attempt to limit oil and oily discharges to 15 ppm oil worldwide. OWSs will generally operate more effectively if the processed oily waste does not contain mechanical emulsions generated by shipboard equipment, chemical emulsions produced by detergents or other emulsifying agents and/or solid waste that could clog the OWS. If operating conditions prevent achieving less than 15 ppm, limit discharges to less than 100 ppm and only when beyond 12 nm from the nearest land.

R) b. **Ships With OWSs or Bilge Water Processing Tanks (BWPTs) But Without OCMs** shall process all machinery space bilge water through an OWS or BWPT before discharge.

R) c. **Surface Ships Without an Operating OWS But With an Oily Waste Holding Tank (OWHT)** shall, to the maximum extent possible, without endangering the ship or impairing its operations or operational effectiveness, direct all oily bilge water to the OWHT for shore disposal. Discharges are permitted beyond 50 nm from the nearest land if operating conditions are such that oily bilge water must be disposed of at sea. The ship shall pump the bottom, water phase overboard and ensure that the upper, oily phase is not pumped, except to a shore collection facility. Such discharges of oily bilge water shall take place only while the ship is underway.

R) d. **Surface Ships With Neither an Operating OWS nor OWHT** shall retain all oily bilge water for shore disposal to the maximum extent possible, without endangering the ship or impairing its operations or operational effectiveness. Discharges are permitted beyond 50 nm from the nearest land if operating conditions are such that oily bilge water must be disposed of at sea. Such discharges of oily bilge water shall take place only while the ship is underway.

(R e. **Submarines Without BWPTs.** When bilge water is to be discharged, after allowing for adequate separation time, submarines shall pump the bottom, non-oily water phase of bilge water overboard. The non-oily, water phase of bilge water shall not be pumped overboard within 50 nm except when the operations or operational capabilities of the submarine would be impaired by this requirement. In this case, the non-oily, water phase should be pumped as far from shore as practicable. In any case, the oily phase shall be held onboard and pumped to a shore collection facility. Submarines shall ensure this policy is met by written procedure.

(R **19-5.4.3 Shipboard Equipment.** The Navy shall install the following equipment/systems on ships to allow proper segregation and collection of shipboard waste oil:

(R a. OWSs, OCMs, OWHTs, and waste oil tanks (WOTs) to allow adequate processing of shipboard oily waste prior to its discharge overboard and to allow proper segregation and collection of shipboard waste oil; including oily waste ultrafiltration polishing systems installed on some new construction ships

b. Bilge pumps (oily waste transfer pumps), piping risers, and weather-deck connections to allow safe and convenient ship-to-shore transfer of oily waste

c. Cam-lock discharge connections, 2-1/2-inch (MS 27023-14), for OW/WO discharge to allow quick connect/disconnect with shoreside offloading hoses

(R d. OW/WO adapters to accommodate hoses with standard International Maritime Organization (IMO) flanges for use by Navy ships visiting foreign or non-Navy ports

e. Mechanical seals on appropriate shipboard pumps to minimize the quantity of oily wastewater collected in ship bilges

f. Improved tank level indicators to reduce the potential for overboard spills during fueling and oil and oily waste handling and transfer operations

g. Contaminated fuel settling tanks to receive and assist reclamation of fuel tank strippings that might otherwise be discharged overboard

h. Oil-water interface detectors, cargo tank cleaning systems, and where appropriate, segregated ballast tanks on oilers and oil tankers.

All oil pollution abatement equipment/systems shall be inspected prior to the issuance of a user's certificate to verify proper installation and operation.

R) **19-5.4.4 Operational and Management Requirements.** Shipboard operational and management requirements for bilge water, oil, oily waste, and shipboard oil pollution abatement are described in the following paragraphs. Reference (c), chapter 593, section 3 provides detailed procedural instructions implementing these requirements.

A) a. **Bilge Water and Oily Waste.**

(1) Bilge water and oily waste minimization. Ships shall minimize oil contamination of bilge water. Mechanical seals in oil and water pumps and proper segregation of oily and non-oily wastewater will greatly reduce the generation of oily waste.

R) (2) Contaminated bilge water and oily waste. Ships shall not use bilge cleaners or chemical agents that promote chemical emulsion (i.e., detergents and surfactants) for machinery space cleaning. Prohibition of these substances will enable OWSs to perform more effectively. NAVSEASYSCOM recommends short-lived detergents for bilge cleaning. In port, ships shall offload oily waste containing chemical emulsion agents or contaminants from other than routine sources of bilge water to shore receiving facilities. If oily waste has become contaminated from other than routine sources, such as aqueous film-forming foam (AFFF), solvents, anti-freeze, or other HM, ships shall advise the receiving shore facility prior to offload. Since some States may consider bilge water to be contaminated, ships in those States shall consult with the host receiving facility for collection and discharge requirements.

Chapter 9 requires shore activities to periodically sample/test bilge water and other OW/WO batches to see if the waste contains any material that would classify it as hazardous. If it exceeds established standards, the shore activity must manage it as a hazardous waste. The activity OW/WO Management Plan will provide sampling protocols and procedures and require actions to trace and eliminate the source of any contamination in the OW/WO. Activities will determine the frequency of testing by referencing the historic characteristics of samples and the level of confidence in the consistency of samples. Ships shall comply with shore activity established bilge water and oily waste sampling requirements. (A

(3) Bilge water and oily waste disposal in port. Navy policy is to maximize separation, recycling, and reuse of oil. While in a Navy port, ships shall dispose of bilge water and oily wastes per supporting activity guidance using one or more of the following approaches: (R

(a) Permanent shore reception facilities. In Navy ports that provide shore oily waste collection, shoreside collection of bilge water and oily wastes followed by recovery of recyclable products is the preferred method of dealing with these shipboard wastes. (R

(b) OWS system. Ships equipped with bilge water OWS and OCM systems may use them, provided the effluent does not exceed 15 (R

ppm, cause a sheen, or violate any other applicable water quality standard. Prior to discharging in a Navy port via an OWS, ships shall consult with the supporting shore facility host command for discharge requirements. In non-Navy ports, use of the OWS is the preferred method of dealing with these wastes.

(c) Ship waste offload barges (SWOBs). Supporting shore activities shall operate SWOBs per reference (e) and their OW/WO Management Plan. Ships not equipped with an operable OWS shall use waste oil collection lines ashore, if available, or shall discharge to a SWOB.

R) (4) Emergency dewatering. Ships shall not use eductors to dewater bilges containing oily waste, except in emergency situations when OWS systems (including OWHTs) are not available or are not of sufficient capacity to handle the immediate flow requirements. If a ship must use an eductor, it shall make every effort to discharge beyond 12 nm from land and while underway. The ship shall make an engineering log entry concerning eductor use to discharge bilge waste overboard.

b. **Waste/Used Oil**

(1) Shipboard personnel shall make maximum use of available port facilities for disposal of all waste/used oil products prior to departing from and upon returning to port. Those facilities include SWOBs, pierside collection tanks, tank trucks, bowsers, and contaminated fuel barges.

(2) Shipboard personnel shall collect, store separately and label used lubricating oils for eventual shore reclamation. They shall not discharge lubricating oils into the bilge, OWHTs or WOTs.

(3) Shipboard personnel shall collect synthetic lube oils and hydraulic oils separately from other used/ waste oils. Ships that do not have a system dedicated to collect used synthetic oils shall use 5- or 55-gallon steel containers, properly labeled per reference (f) for eventual shore recycling. All personnel handling synthetic oil shall wear protective clothing, as specified in material safety data sheets (MSDSs).

(4) Ships shall retain containers (such as drums, cans, etc.) in which oil products were originally packaged and properly label them per reference (f) for storing and transferring oil ashore.

c. **Fuel Transfer**. Ships shall fuel, defuel, transfer fuel internally, and offload oil in restricted waters during normal daylight working hours, when operating schedules permit. They shall conduct these evolutions with well-trained personnel (see paragraph 19-5.5). They shall observe the following precautions to minimize oil spills:

(1) Maintain topside watches at all locations of possible spills and rig direct communication to fuel transfer pump stations.

(2) Establish check-off lists and procedures for valve alignment and transfer operations. Double-check alignment of all transfer system valves.

(3) Use only qualified personnel to perform the detailed transfer procedures.

(4) Continuously monitor each tank level while filling with fuel. Use remote tank-level indicators as the primary method of obtaining tank levels.

(5) Prior to actual fuel transfer, transfer personnel shall inform the responsible ship's officer (commanding officer, command duty officer, or officer of the deck) and the fuel supplier that the ship is ready to commence fueling operations.

d. **Fuel Tank Stripping**

(1) Ships shall not use eductors to strip fuel or cargo tanks.

(2) On ships equipped with fuel tank stripping systems, ships shall discharge the strippings to contaminated fuel settling tanks (CFSTs) for reuse. Ships shall not discharge fuel tank strippings overboard.

(3) CFSTs are for strippings from fuel storage and service tanks only. Ships shall not discharge bilge water and waste or other wastewater into CFSTs.

A) e. **Compensated Fuel/Ballast Water Systems and OW/WO.** Under normal circumstances, compensated fuel/ballast water is neither OW/WO nor HW. Ships with compensated fuel/ballast systems shall comply strictly with fuel transfer and ballasting procedures to ensure ballast water does not become contaminated with oil or any other waste. Ships utilizing self-compensating fuel tanks shall ensure adequate margin is preserved in tanks to prevent inadvertent discharges of oil with the compensating water. Some State regulations require supporting shore activities to collect and process compensated fuel/ballast water prior to discharge to the environment.

A) f. **Oil-contaminated Solid Waste**

(1) Ships shall containerize oil and fuel filters and other items coated or soaked with oil for shore disposal. They may weight these items for negative buoyancy and jettison them beyond 50 nm of shore if necessary for safety of ship or health of crew.

(2) If a ship has the necessary equipment, it may process oily rags/sorbents on board.

(a) Ships equipped with marine solid waste incinerators shall not burn heavily soaked oily rags or rags contaminated with hazardous materials. Ships may only dispose of rags that are lightly soiled (i.e., less that 50 percent of the rag surface area wetted and not dripping without wringing) with petroleum products or other non-hazardous liquids via incinerators beyond 12 nm from shore.

(b) Ships equipped with rag recycling machines should process rags for recycling.

(3) Ships should store all rags that are not incinerated or recycled aboard in suitable closed containers designed to contain flammable or combustible materials in a space fitted with adequate ventilation and fire suppression systems.

19-5.4.5 Exemption From Oily Waste Restrictions. Exemption from oily waste restrictions may be necessary at certain times and under certain circumstances. Instances of specifically authorized exemptions include the following:

a. While operating in waters beyond 50 nm from land, with shipboard oily waste processing equipment inoperable due to equipment malfunction, a Navy ship may discharge oily bilge water directly to the sea if the on board retention of such water poses a safety hazard. They may conduct the discharge only after a concerted effort has been expended to repair the equipment malfunction. Commanding officers shall minimize discharges under such circumstances. The ship shall duly note the details of a discharge (nature, quantity and geographic location) in the engineering log. Ships shall report equipment casualties that either threaten or result in a discharge of oily water through the Casualty Report (CASREP) system. The initial report shall note the potential for discharge. All subsequent status reports shall report the frequency and approximate amount of actual discharges.

b. A Navy ship may discharge oily waste to the sea in any other situation in which a commanding officer decides that a discharge of such wastes is required to ensure crew or ship safety, or to prevent machinery damage. For example, the ship shall not allow oily bilge water to reach levels that threaten chloride contamination of shipboard condensate systems. Commanding of-

ficers shall minimize such discharges and ensure the recording of details of the discharge (nature, quantity and geographic location) in the engineering log. If such a discharge is necessary within 12 nm from shore, ships shall treat the discharge as an oil and hazardous substance (OHS) spill.

c. While operating in waters beyond 50 nm from land, a Navy ship may discharge directly overboard oily waste from isolated spaces, such as JP-5 pump rooms, if the ship does not have the capability to collect and transfer such waste for processing through the OWS system. Such discharges shall contain only distillate (non-persistent) oils and shall result in discharges of minimal quantities of oily waste.

R) **19-5.5 Training.** Ships shall train personnel who operate or maintain waste oil and oily waste holding, processing, disposal, or transfer equipment on the proper procedures for oily waste disposal, including hookup and transfer of waste oil and oily waste to shore facilities and at sea discharge restrictions. Personnel assigned to supervise oily waste processing and disposal operations shall complete the Oil Pollution Abatement (OPA) Equipment Operation and Maintenance course, K-652-2196, prior to assuming these duties. All personnel who operate or maintain oil processing, transfer or disposal equipment shall complete the Oil Spill Control and Removal Equipment PQS, NAVEDTRA 43195-B, prior to assignment to those duties.

19-6 Hazardous Waste (HW) and Hazardous Material (HM)

19-6.1 Legislation (This section contains background material from which Navy policy is derived.)

19-6.1.1 The CWA prohibits the discharge of harmful quantities of hazardous substances (HS) into or upon U.S. waters out to 200 nm.

19-6.1.2 The Resource Conservation and Recovery Act (RCRA) regulates generation, treatment, storage and disposal of hazardous waste. RCRA provides that HW generated on public vessels is not subject to storage, manifest, inspection or record keeping requirements until the ship transfers such waste ashore or transfers it to another public vessel within the territorial waters of the U.S. and then only after that vessel stores it aboard for more than 90 days after the date of transfer.

19-6.1.3 Through the Toxic Substances Control Act (TSCA), Federal restrictions govern the manufacture, use, labeling and disposal of polychlorinated biphenyls (PCBs), asbestos and asbestos-containing waste.

19-6.1.4 Federal law pertaining to national defense requires that contracts for work on board naval vessels (other than new construction) identify the type and amount of HW expected to be generated and responsibility for the disposal. The law further provides that a Navy generator number be used for Navy-generated HW, a contractor generator number for contractor-generated HW, and both a Navy and contractor generator number for HW co-generated by the Navy and the contractor, regardless of who owns the site where the waste is generated. The law further requires naval vessels to offload HW to the maximum extent feasible prior to arrival at a private repair facility.

19-6.2 Terms and Definitions

19-6.2.1 Hazardous Material. Any material that, because of its quantity, concentration or physical, chemical or infectious characteristics, may pose a substantial hazard to human health or the environment. In the case of ships, this includes used or excess HM.

19-6.2.2 HM Contaminated Rags. Cleaning rags or other sorbents contaminated with solvents, adhesives, paint, or other HM defined in paragraph 19-6.2.1. (A

R) **19-6.2.3 Used or Excess Hazardous Material.** HM for which there is no further, immediate use on board the ship possessing the material. Such material may ultimately be used on another ship or within the shore establishment for the same purpose or a purpose other than initially manufactured or by commercial industry. Used HM is material that has been used in a shipboard process. Excess HM is unused material in full, properly sealed containers.

19-6.2.4 Hazardous Substance. HM or HW.

19-6.2.5 Hazardous Waste. A solid waste or combination of solid wastes, which because of its quantity, concentration or physical, chemical or infectious characteristics may:

a. Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or

b. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

The term solid waste includes liquid, semisolid or contained gaseous material.

19-6.3 Requirements. Reference (g) establishes policy and assigns responsibilities for HM pollution prevention. It requires that HM be selected, used and managed over its life cycle so that the DOD achieves the lowest costs required to protect human health and the environment. Additionally, State and local regulations prescribe requirements for the proper storage, packaging, labeling, transportation and disposal of HM.

19-6.4 Navy Policy

19-6.4.1 Shipboard Procedures. Ships shall follow these procedures in the management of used/excess HM:

a. Navy ships shall not discharge overboard untreated used or excess HM generated aboard the ship within 200 nm of land unless specifically allowed by appendix L. To the maximum extent practicable, ships shall retain used/excess HM on board for shore disposal. Appendix L provides detailed guidance for HM discharges.

b. Under no circumstances may a ship collect used/excess HM from other ships or HW from shore facilities and transport it to sea for the purpose of disposal.

c. Reference (d), chapters B3, C23 (surface ships), and D15 (submarines), govern shipboard labeling, handling and storing of HM.

d. Reference (d), chapters C23 and D15; reference (c), chapter 593; and applicable PCB advisories govern shipboard labeling, handling and storing of PCBs and items containing PCBs.

NOTE: (R

Recently, the Navy discovered many uses of PCBs not recognized or authorized by 40 CFR 761. At the direction of CNO, COMNAVSEASYSCOM provided guidance on shipboard PCB issues through serialized NAVSEA PCB Advisories (beginning with Advisory 93-1) (reference (h)). Advisories applicable to ships have been incorporated into reference (d). Ships shall implement the PCB requirements of reference (d).

e. Ships shall turn over used HM received from another ship within U.S. territorial waters to a supporting shore activity for processing within 90 days of receipt.

f. To the maximum extent practicable, ships shall remove all HM from a ship before decommissioning, but in no case later than 90 days after decommissioning or removal from service. Any HW created by shipboard operations, preser-

vation or maintenance after decommissioning shall be removed within 30 days of the time it is created.

19-6.4.2 Ship-to-Shore Transfer. Ships shall transfer used or excess HM to a shore activity for determination of disposition. If the shore activity determines that used/excess HM has no further use, it will declare the material to be waste and process it per RCRA requirements governing generation of HW.

a. Prior to transfer ashore, ships shall segregate, containerize and label used HM per reference (d), chapters B3, C23 (surface ships), and D15 (submarines). Ships shall fill containers with only one type of HM (i.e., all the used HM in a container shall normally be of only one stock number (except where different stock numbers are issued to specify different sized containers)). Failure to do so may result in a charge to the fleet for laboratory analyses if it is determined that the material will be disposed of as HW. If the contents of the container are unknown, the label shall so state, and the cost of chemical analysis to determine specific content shall be paid out of fleet accounts.

b. When visiting Navy ports, Navy ships shall request used/excess HM pickup by the cognizant shore activity representative (the Hazardous Material Offload Team (HOT) coordinated by the Fleet and Industrial Supply Center (FISC) and including the public works center (PWC). Person-to-person contact is required during the actual transfer of HM to the shore activity. Ship's force shall provide used HM in a suitable container (either the original container or one specified in reference (d), appendix C23-A or D15-C), properly labeled, accompanied by an MSDS (if the material originated outside the supply system or an MSDS is unavailable in the Hazardous Material Information System (HMIS)) and a completed DD 1348-1 at the time of transfer.

c. When visiting non-Navy ports and foreign ports, Navy ships shall offload used HM only when necessary and feasible. The ship shall identify in the LOGREQ the types and amount of used HM to be offloaded. If unable to find adequate facilities at non-Navy ports, the ship shall hold HM for offloading at a Navy port. All HM shall be properly labeled and containerized. If offload is necessary in foreign ports, commanding officers must ensure compliance with applicable customs laws and the SOFA.

d. Prior to entering a private shipyard for an availability, naval vessels (except contractor-operated vessels) shall:

(1) To the maximum extent feasible offload used/excess HM at a Navy or other public facility.

(2) Identify to the SUPSHIP or Port Engineer responsible for the private shipyard, a ship HM coordinator for the availability. Give this individual authority and resources to ensure shipboard compliance with HM and HW management procedures and site specific management practices established by the SUPSHIP or port engineer.

(3) Identify to the SUPSHIP or Port Engineer during preavailability planning conferences the types and amounts of HW anticipated by ship's force during the availability.

(4) Comply with all established HW and HM management practices and those site-specific procedures delineated by the SUPSHIP or port engineer.

Type commanders responsible for ships in private shipyards for availabilities shall monitor ship compliance with established procedures.

19-6.4.3 Ship-to-Ship Transfers.

a. Except where used/excess HM is transferred from a tended unit to a tender, ships shall only transfer used HM to another ship during operations that preclude the ship entering a port in

which normal offload may occur. Transfers of HM shall be for the sole purpose of returning the material to a supporting shore activity. Ships shall offload all used HM within 5 working days of arrival at a U.S. Navy port.

b. Prior to transfer to the receiving ship, ships shall properly segregate, containerize and label used HM per reference (d), chapters B3, C23 and D15. Responsibility for packaging, documentation and labeling shall rest with the originating ship.

c. After receiving used HM within U.S. territorial waters from another ship for eventual shore processing, the receiving ship shall offload that material to a shore facility within 90 days of receipt. This includes transfer from another ship while in port. For information on shore activity requirements, see paragraph 12-5.2.1.

19-6.4.4 Transporting Shore-Generated Hazardous Waste Aboard Ship. Navy ships shall not accept HW from shore facilities in the U.S. for transportation to another location. Navy ships may accept HW from a shore activity outside the U.S. for transportation to the U.S. or to a foreign country only when specifically tasked by competent authority. The authority shall include specific instructions on procedures to be used to ensure proper notice to the receiving authorities and compliance with applicable laws and regulations at the destination.

19-6.5 Training. Reference (d), chapter B3, provides training requirements for personnel handling, storing and disposing of HM.

19-7 Solid Waste

19-7.1 International Conventions and Legislation (This section contains background material from which Navy policy is derived.)

19-7-1.1 MARPOL. Annex V of MARPOL addresses shipboard solid waste discharge at sea. Annex V establishes three major requirements:

a. No plastic discharges at sea worldwide.

b. Outside of special areas, ships shall not discharge solid waste within 3 nm from shore. Ships may discharge comminuted, pulped, or ground wastes including food wastes, paper, rags, or glass whose discharge is able to pass through a screen with a mesh size no larger than 25 mm between 3 and 12 nm from shore. They may discharge non-floating solid waste beyond 12 nm from shore. Ships may discharge floating waste beyond 25 nm from shore.

c. Within special areas, food waste is the only solid waste discharge authorized. Ships may discharge food waste beyond 12 nm from shore. To date, three special areas are in effect internationally: the Baltic Sea, the North Sea and the Antarctic Region (south of 60 degrees south latitude).

NOTE:

MARPOL Annex V special areas and special areas that are in effect are not necessarily the same as those specified in MARPOL Annex I.

The MARPOL Convention provides that the above Annex V requirements do not strictly apply to warships. Party states (including the U.S.) must, however, establish standards for their warships that require such vessels to conform as closely as practicable with the international standard, without compromising operational effectiveness.

19-7.1.2 Act to Prevent Pollution from Ships (APPS). APPS implements MARPOL Annex V for the U.S. APPS requires that U.S. public vessels, including warships, to comply with MARPOL Annex V requirements by established deadlines: Surface ships must comply with the plastic discharge prohibition not later than 31 December 1998 and with the special area limitations by 31 December 2000. Once surface ships are equipped with plastic processors, surface ships

must immediately comply with the plastic discharge prohibition. Submarines must comply with both the plastic discharge prohibition and the special area requirements after 31 December 2008. However, APPS permits U.S. Navy ships to discharge in MARPOL Annex V special areas in the following manner:

a. Ships may discharge a slurry of seawater, paper, cardboard or food waste capable of passing through a screen with openings no larger than 12 millimeters in diameter outside 3 nm from land.

b. Ships may discharge metal and glass that have been shredded and bagged to ensure negative buoyancy outside 12 nm from land.

19-7.1.3 Ocean Dumping Act (ODA). ODA prohibits U.S. entities from transporting material from the U.S. or from any other place for the purpose of dumping it into ocean waters, unless a permit has been obtained from the U.S. EPA. ODA does not apply to waste that is generated aboard ships while underway.

19-7.1.4 Clean Water Act. Prohibits the discharge of pollutants (including solid waste) from ships into waters of the U.S. within 3 nm from shore. (Discharge of solid waste pollutants beyond 3 nm from shore is regulated under APPS.)

19-7.1.5 Other Statutes. Various statutes authorize the U.S. Department of Agriculture (USDA) to regulate the handling of foreign food and foreign source garbage entering the U.S. via ship and aircraft. U.S. Navy ships must comply with those regulations.

19-7.2 Terms and Definitions

19-7.2.1 Foreign Source Garbage. Goods, food wastes, wrappers, containers and disposable materials originating in any foreign country (excluding Canada) or Hawaii, Puerto Rico, U.S. Virgin Islands, American Samoa, Guam and the Trust Territories of the Pacific Islands.

19-7.2.2 Food Waste. Spoiled or unspoiled victual substances, such as fruits, vegetables, dairy products, meat products, food scraps and food particles.

19-7.2.3 Garbage. For consistency with international law, this chapter adopts the MARPOL Annex V definition of garbage: All kinds of victuals and domestic and operational waste generated during the normal operation of the ship. The MARPOL term "garbage" therefore encompasses shipboard solid waste, including plastics, food waste and dry waste such as paper, cardboard and wood, traditionally referred to as "trash."

19-7.2.4 Pulped Garbage. Pulped, ground or comminuted garbage capable of passing through a screen with openings no greater than 12 millimeters (0.47 inch). (R

19-7.2.5 Plastic Processor. A device that melts, compresses and sanitizes plastic waste so that it can be efficiently and safely stored aboard ship for shore disposal. The Navy installed plastic processors in most Navy surface ships (excluding those operating at the direction of COMSC) before 31 December 1998, requiring them to meet the plastics discharge prohibition following installation.

19-7.2.6 Special Area. A sea area where, for recognized technical reasons in relation to its oceanographic and ecological condition and to the particular character of its traffic, enhanced efforts are required to minimize pollution from ships. The IMO designates Annex V special areas. Their designation becomes effective internationally after IMO determines that littoral nations have sufficient capacity to manage the potential waste from ships after special area status becomes effective. Three Annex V special areas are in effect: the Baltic Sea, the North Sea and the Antarctic Area (south of 60 degrees south latitude). Other Annex V special areas are designated but not yet in effect are: Mediterranean Sea, Black Sea, Persian Gulf, Red Sea and Wider Caribbean Area.

19-7.3 Requirements and Navy Policy. Requirements applicable to garbage discharge at sea include both legal requirements and requirements that the Navy has adopted as a matter of policy to enhance protection of the marine environment. For ease of comprehension, the legal requirements and the requirements of Navy policy regarding shipboard solid waste discharges have been combined below.

19-7.3.1 Plastic Discharges

a. Ships shall minimize the volume of plastic material taken to sea that may become waste while at sea. They shall replace plastic disposable items with non-plastic items where possible. *If appropriate, ships shall remove plastic* wrapping and shipping materials from supply items before bringing them on board. They shall minimize the amount of plastic supplies used.

NOTE:

The Navy will increasingly use plastic CD-ROM disks for distribution of directives. When superseded, they become plastic wastes and ships at sea shall dispose of them as such.

R) b. When available, ships should use combat logistics force (CLF) ships (including COMSC ships) to transfer plastic waste ashore rather than disposing of it overboard per paragraph 19-7.3.1c. If transferring processed or non-food contaminated plastic waste to another ship, ships shall observe the following practices:

(1) The sending ship shall contact the receiving ship to determine if space is available to accommodate the plastic waste. The sending ship shall not transfer waste without the receiving ship's concurrence.

R) (2) The sending ship shall transfer only processed or non-food contaminated plastics. Ships shall develop procedures to ensure that packages for transfer do not contain articles such as food contaminated plastics, other trash, garbage and hazardous material.

(3) The sending ship shall package the plastic waste to permit safe handling by both the sending and receiving ships. Securely banded trimalls are the preferred method of transferring processed or non-food contaminated plastic waste. If compactors are installed aboard, ships should compact plastic waste prior to packaging. (R

(4) Ships shall clearly mark the content of processed or non-food contaminated plastic waste packages on the outside. (R

c. **Surface Ship Plastic Retention.** Discharges of plastics to the marine environment from Navy surface ships are prohibited by law. Ships with an inoperable plastics waste processor may discharge plastics overboard outside 50 nm from land only to secure the safety of the ship, health of the crew, or save a life at sea. The ship *shall make such discharges in weighted bags only* after making an effort to repair the equipment malfunction. Commanding officers shall minimize the amount of plastics discharged under these circumstances. The commanding officer shall note the details of such a discharge (date, time, and location of discharge, approximate weight and cubic volume of the discharge, and nature of the material discharged) in the Ship's Deck Log. Ships shall report equipment casualties that either threaten or result in a discharge of plastics through the CASREP system. The initial CASREP shall note the potential for discharge. The ship shall report the commencement of plastics discharges to the appropriate operational commander. (R (D

d. **Submarine Plastic Discharge Requirements.** Submarines shall limit plastics discharges to the minimum amount practicable. Buoyant garbage discharges from submarines are prohibited.

e. **Plastic Discharge Record Keeping.** Surface ships or submarines shall record any dis-

charge of plastic in the Ship's Deck Log. See paragraph 19-7.3.1c for details.

f. **Release of Military Equipment Containing Plastic.** The plastic retention requirements apply only to disposal of plastic waste. These requirements do not apply to normal use of expendable military equipment that contains plastic, such as targets, weather balloons, sonobuoys, etc., because the plastic in these items is not considered "waste" when normal use of the items results in their release into the ocean. However, in keeping with Navy policy to protect the marine environment, expendable items that can be retrieved after use, particularly targets, should be retrieved, if safe and practicable to do so. Once collected after use, plastic components of such items should be regarded and managed as plastic waste.

19-7.3.2 Non-Plastic Garbage Discharges. All references to "garbage" within this subsection refer to non-plastic garbage discharges.

a. No garbage discharges shall occur within 3 nm of any coastline.

b. Ships equipped with an operable pulper shall use it worldwide. Ships shall limit the discharge of pulped food products, paper and cardboard to beyond 3 nm of any coastline. Ships may discharge pulped garbage into shipboard MSDs only when a ship is docked and the MSDs are discharging to pier facilities. Ships shall not use garbage pulpers within 3 nm of any coastline in order to maximize necessary sewage holding capacity and thus reduce the risk of inadvertent overboard discharges of sewage.

c. Ships equipped with an operable shredder shall use it worldwide. They shall limit the discharge of shredded glass and metal products that are contained in a sinkable, burlap bag to beyond 12 nm from any coastline.

NOTE: (A

Fluorescent light bulbs contain a small amount of mercury and shall not be shredded, but shall be retained for shore disposal (see appendix L). Ships equipped with a fluorescent bulb crusher shall retain debris for shore disposal.

d. If a ship does not have pulper/shredder (R equipment or this equipment is inoperable, it may discharge unprocessed garbage beyond 25 nm from any coastline. Surface ships shall use available means to cause unprocessed garbage to sink as rapidly as possible. When required to make unprocessed garbage discharges to an in effect special area, the commanding officer shall note the details of such a discharge (date of discharge, special area involved, and nature and amount of discharge) in the ship's Deck Log. Ships shall report equipment casualties that either threaten or result in a discharge of unprocessed garbage to an in effect special area through the CASREP system. The initial CASREP shall note the potential for discharge. Reports of such discharges will by made to CNO (N45) per paragraph 19-7.3.3.

e. Submarines may discharge compacted, sinkable garbage between 12 nm and 25 nm from land, provided that the depth of water is greater than 1,000 fathoms. When greater than 25 nm from land, direct discharge is permitted.

f. Surface ships equipped with incinerators may use them when operating beyond 12 nm from land for the disposal of non-plastic and non-hazardous garbage only.

g. Transporting any material to sea for the purpose of dumping requires a permit from the U.S. EPA. In most cases, obtaining a permit is a complex undertaking and beyond the capability of afloat units. To ensure compliance with ODA, Navy ships are prohibited from taking on any material in port for the purpose of dumping it at sea unless permission has been obtained from CNO (N45).

h. Although the at-sea disposal of garbage by ships is permissible (as indicated above), international guidelines encourage the use of port reception facilities as the primary means of shipboard garbage disposal, whenever practical. This means that surplus materials that can reasonably and safely be stored on board, such as damaged equipment or office furniture, shall be retained aboard for shore disposal.

19-7.3.3. *Special Area Discharge Reports.* Under APPS, the Secretary of Defense must report annually in the Federal Register on the amount and nature of discharges in special areas in effect in which the discharge did not meet Annex V limitations. Accordingly, upon completion of operations in special areas in effect, Navy ships shall report the following information to CNO (N45), information copies to the chain of command, regarding all discharges *other than food waste, pulped garbage and shredded and bagged metal and glass*:

a. Date of discharge

b. Special area involved

c. Nature and amount of discharge (estimated pounds of plastic; unshredded metal and glass; unpulped wood, paper and cardboard; ceramic; or other non-food material).

Negative reports are required.

19-7.3.4 Foreign Food and Garbage

a. Navy ships shall comply with USDA regulations pertaining to ship introduction of foreign source garbage into the U.S., its territories and possessions.

b. If practicable, ships shall totally consume all produce (fruits and vegetables) bought in any foreign port or dispose of it beyond 25 nm from U.S. shores. If not disposed of before entering within 25 nm from shore, ships shall segregate such produce as food wastes and dry materials (packaging, etc.) for special disposal ashore by one of the following USDA-approved methods:

(1) Cooking by steam or other heat source in a leakproof container at 212°F for 30 minutes and disposal of residues by burying (sanitary landfill methods).

(2) Incinerating in an incinerator approved by the EPA.

(3) Grinding and flushing through a ship's CHT system (when installed) to a USDA-approved sewage system ashore.

c. The standards given above do not preclude discharge of any solid waste in an emergency when failure to do so would clearly endanger the health or safety of shipboard personnel.

19-7.4 Training

a. Ships shall train personnel responsible for handling ship's garbage on the discharge restrictions applicable to the waste before assignment to those duties. Such training shall include the proper collection, treatment and disposal of plastics waste.

b. Ships shall train personnel responsible for the supervision and approval of overboard disposal of solid waste on the legal requirements applicable to this waste category.

c. All personnel assigned to operate and maintain solid waste processing equipment (plastics waste processors, shredders, and pulpers), shall complete the Plastics Processor Computer-Based Training (CBT), A-690-0003, and the Pulper/Shredder CBT, A-690-0004, interactive courseware, as applicable, prior to assignment. (A

19-8 Medical Waste

19-8.1 Legislation (This section contains background material from which Navy policy is derived)

19-8.1.1 U.S. Public Vessel Medical Waste Anti-Dumping Act. Prohibits public vessel dumping of medical waste into ocean waters during peacetime, except under emergency conditions.

19-8.2 Terms and Definitions

19-8.2.1 Medical Waste. Medical waste is any waste generated during patient diagnosis, treatment or immunization. Medical waste is of two categories, infectious waste and noninfectious waste.

A) a. **Infectious Medical Waste.** Infectious medical waste is liquid or solid waste that contains pathogens in sufficient numbers and with sufficient virulence to cause infectious disease in susceptible hosts exposed to the waste. Specific examples of infectious wastes are provided in reference (i).

A) b. **Non-infectious Medical Waste.** Non-infectious medical waste includes disposable medical supplies and materials that do not fall into the category of infectious medical waste. Specific examples of non-infectious medical wastes are provided in reference (i).

19-8.3 Navy Policy

R) a. Ships shall steam sterilize, suitably package and store infectious medical waste for ultimate disposal ashore.

b. Reference (i) governs shipboard labeling, handling and storage of potentially infectious medical waste.

c. After steam sterilizing, ships properly equipped may incinerate infectious paper and cloth-based medical waste.

d. Ships shall not incinerate plastic and wet materials.

e. Ships shall collect sharps in plastic autoclavable sharps containers. They shall never recap, clip, cut, bend or otherwise mutilate needles or syringes to avoid causing accidental puncture wounds and infectious aerosols. Ships shall retain all sharps on board for proper disposal ashore. They shall dispose of unused sharps ashore in the same manner as medical waste.

f. Ships may dispose of liquid wastes by discharging them into the sanitary system.

g. Ships may dispose of non-infectious waste as garbage, not requiring steam sterilizing or special handling. Ships shall process and dispose of this material in the same method as prescribed for similar material in section 19-7 (e.g., plastics will be sent to the plastics waste processor; paper and cardboard will be pulped; and glass and metal (excluding sharps) will be shredded). (R

h. Ships shall establish a system of tracking storage and disposal of infectious medical waste as required by reference (i). (A

i. If retention of potentially infectious wastes would threaten the health or safety of personnel on board, create an unacceptable nuisance condition or compromise combat readiness, overboard discharge (excluding sharps) is authorized (using the methods prescribed for similar material in section 19-7) beyond 50 nm provided such waste has been steam sterilized and packaged for negative buoyancy. Ships shall record in the deck log the overboard discharge of infectious medical wastes. (R

j. The requirement to steam sterilize before disposal at sea does not apply to submarines.

19-8.4 Training. Ships shall train personnel responsible for processing and disposing of shipboard medical waste to ensure that such actions comply with the requirements governing this waste.

19-9 Oil and Hazardous Substance Spills

19-9.1 Terms and Definitions

R) **19-9.1.1 Facility Response Team (FRT).** Emergency response personnel (formerly known as On-Scene Operations Teams) who are designated, trained and equipped to provide rapid response to OHS releases that occur on or from their facility.

19-9.1.2 Navy On-Scene Coordinator (NOSC). The Navy official designated to coordinate contingency planning and direct Navy OHS spill/release response operations within a preassigned area. Shoreside NOSCs are normally the RECs designated by area environmental coordinators to coordinate environmental and other broad Navy shore activity issues on a regional basis (see chapter 1). Fleet NOSCs are fleet commanders who direct all fleet operations within assigned ocean areas. See chapter 10 for further clarification of NOSC assignment and responsibilities.

D) **19-9.1.3 Spill.** An accidental or not permitted discharge of OHS into or upon the water. In this chapter, the definition does not apply to spills on board ship that do not go over the side.

19-9.1.4 Supervisor of Salvage (SUPSALV) Spill Response Team (SSRT). Specially trained and equipped mobile spill response team maintained by COMNAVSEASYSCOM SUPSALV (NAVSEA 00C). COMNAVSEASYSCOM maintains the team and an extensive inventory of offshore and large-scale spill response equipment to support NOSCs and commanding officers for offshore, salvage-related, or major inland oil spills and HS releases.

19-9.2 Policy

19-9.2.1 Designation of Fleet Navy On-Scene Coordinators. Fleet CINCs shall designate the fleet NOSCs.

19-9.2.2 Shore-Based Facility Response Teams (FRTs). (R FRTs maintain trained personnel and specialized equipment to contain and recover OHS spilled into harbor waters. The primary functions of the FRTs are to respond to port spills and spills that can be readily contained and recovered using local facility equipment.

19-9.2.3 SUPSALV Spill Response Capability. (R SUPSALV maintains an extensive inventory of salvage and large-scale oil spill response equipment to support pre-designated NOSCs in offshore- and salvage-related spill control operations. SUPSALV's salvage inventory includes all equipment needed to remove oil and repair and salvage a stranded or damaged vessel. The spill response inventory includes booms; skimmers; tow vessels; pumps for offloading petroleum, oil, and lubricants (POL); portable storage; and related equipment. These inventories are located in response centers in Williamsburg, VA; Stockton, CA; Pearl Harbor, HI; and Anchorage, AK and are designed for rapid mobilization to spill sites worldwide. Salvage equipment is also maintained in Livorno, Italy; Sasebo, Japan; Bahrain; and Singapore.

Trained operators, mechanics, and supervisory personnel deploy from U.S. response centers with the equipment. SUPSALV, headquartered in Washington, DC also maintains access to a full range of technical experts and advisors as well as specialty equipment from other government agencies, industry and academic institutions.

19-9.2.4 Ship Spill Response Capability. For spills over the side, ship's personnel under the commanding officer or master shall initiate immediate actions to mitigate the effects of the spill.

R) a. Each ship shall maintain a minimum of one Mk II Oil Spill Containment and Cleanup Kit, AEL 2-550024006, for overboard oil and hazardous substance spill response. The Hazardous Material Spill Response Kit, AEL 2-550024007, discussed in reference (d), is available for spills that occur on board the ship. If the response to Navy ship spills/releases is considered beyond the ship's limited capability, the cognizant shore activity commanding officer or fleet NOSC will provide appropriate assistance and direct response efforts.

R) b. While mitigating the spill, in all cases of spills/releases, the ship's commanding officer or master shall immediately report the incident to the cognizant shore activity commanding officer, the NOSC, and other officials as required by the ship's SCP. The Hazardous Material Control and Management (HMC&M) CD-ROM program lists spill response points of contact.

19-9.2.5 OH Spill Response Within the U.S. Contiguous Zone. Ships shall comply with the following OHS spill response procedures when within the U.S. contiguous zone:

a. In Navy ports, the ship's commanding officer shall:

(1) Notify the shoreside NOSC/cognizant facility commanding officer by the most expeditious means possible. For environmentally significant spills, see paragraph 19-9.2.8.

(2) Notify the National Response Center (NRC) by telephone at (800) 424-8802.

(3) Take, insofar as practical, immediate actions to mitigate the effects of the spill.

(4) Follow up by submitting a naval message. Appendices H and I provide formats for OHS spill reports.

b. In non-Navy ports (and elsewhere within the contiguous zone), the ship's commanding officer shall:

(1) Notify the appropriate shoreside NOSC and cognizant shore facility commanding officer specified in the shoreside NOSC contingency plan. For environmentally significant spills, see paragraph 19-9.2.8.

(2) Notify the NRC by telephone at (800) 424-8802.

(3) Take, insofar as practical, immediate actions to mitigate the effects of the spill. Rapid action by the ship's crew can result in containment and collection of the spill. Shipboard personnel shall use available means to clean up minor spills before requesting assistance from shore-based personnel.

(4) Follow up by submitting a naval message. Appendices H and I provide formats for OHS spill reports.

c. See section 10-5 of this manual for information on NOSC responsibilities and reporting requirements. (A

19-9.2.6 OHS Spill Response Outside the U.S. Contiguous Zone as Defined in Governing Contingency Plans. For OHS spills in these areas, ships shall:

a. Initiate immediate action to mitigate the effects of the spill.

b. Notify the predesignated fleet NOSC by naval message using the format in appendix H for oil and appendix I for HS. For information on environmentally significant spills, see paragraph 19-9.2.8.

c. The fleet NOSC shall implement the applicable fleet NOSC Oil and Hazardous Substance Spill Response Plan. (R

19-9.2.7 OHS Spill Response in Waters of Foreign Countries. Ships shall take the following action for an OHS spill in these waters:

a. The ship's commanding officer shall initiate immediate action to mitigate the effects of the spill.

b. The ship's commanding officer shall immediately notify the predesignated fleet NOSC and/or shoreside NOSC (as defined in governing contingency plans) by naval message. Appendices H and I contain formats for OHS spill/release messages.

R) c. The fleet and shoreside NOSC shall implement the applicable NOSC Oil and Hazardous Substance Spill Response Plan.

19-9.2.8 Environmentally Significant Spills. For spills anywhere resulting from catastrophic events, causing significant adverse public reaction, having geopolitical implications or for other causes warranting OPREP-3 special incident reports per reference (d), ships shall make the initial report by the OPREP-3 system. Following the OPREP-3 report, the cognizant fleet or shoreside NOSC shall forward an amplifying report in the format prescribed in appendix H (for oil) or appendix I (for HS).

R) **19-9.2.9 Fleet Oil and Hazardous Material Spill Response Plans.** Fleet CINCs, when acting as the NOSC, shall prepare fleet OHS Spill Response Plans for spills that occur outside the U.S. contiguous zone. Such plans shall include spills in foreign waters and ports. COMNAVSEASYSCOM (SUPSALV) shall provide assistance to Fleet CINCs in preparing the plans.

R) **19-9.2.10 Shipboard Spill Contingency Plans (SCPs).** Each Navy and MSC ship shall develop a written Oil/HS SCP. Ships may consolidate the SCP with the HM SCP required by reference (d), but shall address the unique procedures for spills over the side and use of the MK II Oil Containment and Cleanup Kit. The plan(s) shall contain procedures for reporting, containment, control, recovery, and disposal of spilled material, protective clothing, and spill clean-up materials; information sources for oil and HS; and names and telephone numbers of fleet as well as shoreside NOSCs. Although neither Coast Guard nor State officials have authority to require preparation of public vessel OHS SCPs, the Navy will provide Navy ship OHS SCPs to Coast Guard and State officials upon request.

19-9.3 Training

a. Ships shall conduct and document at least one OHS spill response drill for each duty section annually. These drills shall include deployment of the Mark II Oil Containment and Cleanup Kit or Hazardous Material Spill Response Kit and exercising notification practices, including simulated telephone calls and the drafting of "do not release" messages to higher authority. Ships may take credit for responding to actual spills, when such spills meet drill objectives. Where possible, the ship shall include OHS spill response requirements into other routine shipboard emergency drills. Responsible officers shall incorporate lessons learned during these drills into the ship's SCP. Ships are encouraged to participate in local area OHS spill command post exercises and in NOSC/ U.S. Coast Guard-sponsored triennial "area exercises" designed to test worst case spill response capabilities. (R

b. The ship shall train in-port watchstanders and command duty officers on in port OHS spill response procedures, the ship's SPC, and local notification requirements prior to assignment.

c. One petty officer in each inport fireparty and each repair party shall qualify on Watchstation 304, Oil/Hazardous Material (Substance) Spill Response Scene Leader, in the Hazardous Material/Environmental Protection Programs Afloat PQS, NAVEDTRA 43528-A, within 6 months of assignment. For submarines, type commanders shall specify requirements for completion of Watchstation 304 of the PQS, so that (R

appropriately qualified individuals are present at the scene of any HM or oil spill.

19-10 Ship Ballast Water and Anchor System Sediment Control

19-10.1 Ballast Water Guidelines. The Marine Environmental Protection Committee of the International Maritime Organization (IMO) has developed guidelines for the control of ship ballast water to prevent the introduction of unwanted aquatic organisms and pathogens. The U.S. Coast Guard published these guidelines for adoption as voluntary standards to decrease the possibility of further introduction of cholera and other pathogens into U.S. waters. Since Navy ships operate worldwide, the Navy has chosen to adopt the intent of the Coast Guard standards.

19-10.2 Pollution potentially infects water in harbors, rivers, inlets, bays, landlocked waters and the open sea within 12 nm of the entrance to these waterways. Fleet surgeons or their representatives may declare other areas polluted. Some species if taken up with ballast water and transferred to a different location or ecosystem could cause damage or be harmful to the ecosystem. These species are more prevalent within 3nm from the shore or within the polluted areas described above.

19-10.3 Policy

a. If it is necessary for a surface ship to load ballast water in an area that is either potentially polluted (as defined in paragraph 19-10.2) or within 3 nm from the shore (e.g., amphibious ships operating in such waters and ballasting to operate landing craft or tankers ballasting to replace offloaded cargo), the ship shall pump the ballast water out when outside 12 nm from shore and twice fill the tank(s) with clean sea water and pump prior to the next entry within 12 nm from shore. Surface ships will effect a ballast exchange twice in clean water, even if ballast water was pumped out before exiting the polluted waters or 3 nm limit, since residual water remaining in a tank after emptying it may still contain unwanted organisms, that could be transferred during the next ballasting evolution.

NOTE:

Ballast water exchange is not required during local operations or when reentering within 12 nm in the same locale as the ballast water was initially loaded.

b. Surface ships' engineers shall record in the ship's engineering log the loading of ballast water in potentially polluted areas or within 3 nm from land and the flushing of ballast tanks to rid them of possible pollutants or unwanted species. The entry shall include the geographical position and the amount of ballast water taken on.

c. Surface ships with seawater compensated fuel stowage systems shall also record seawater intake occurring in potentially polluted areas or within 3 nm of shore during routine internal fuel transfer for propulsion plant operation (but need not effect a ballast water exchange).

d. Surface ships shall routinely wash down anchors, chains and appendages with seawater when retrieving them to prevent on board collection of sediment, mud and silt. Where possible following anchor retrieval, surface ships shall also wash down chain lockers outside 12 nm from land to flush out sediment, mud or silt.

e. Amphibious vessels launching and recovering amphibious vehicles shall ensure those vehicles, including their treads, are washed down after completion of operations. Ships shall dispose of wash water before entering within 12 nm of the next operating area.

19-11 Protection of Marine Mammals

19-11.1 Legislation (This section contains background material from which Navy policy is derived.)

19-11.1.1 Marine Mammal Protection Act. Protects marine mammals by prohibiting unauthorized "taking" of marine mammals in the U.S. or on the high seas.

19-11.2 Terms and Definitions

19-11.2.1 Marine Mammal. Any ocean dwelling mammal, including sea otters, manatees, dugongs, sea cows, seals, walruses, whales, dolphins and porpoises or ones that primarily inhabit the marine environment (such as polar bears).

19-11.2.2 Taking. To harass, hunt, capture or kill or attempt to harass, hunt, capture or kill any marine mammal.

19-11.3 Navy Policy.

19-11.3.1 Marine Mammal Protection. Marine mammals enjoy protection under the Marine Mammal Protection Act. Therefore, no Navy vessel shall deliberately harass a marine mammal. Commanders and commanding officers shall plan and act to protect marine mammals during operations and planning.

19-11.3.2 Whale Strikes

R) a. To assess the Navy's compliance with the Marine Mammal Protection and Endangered Species Acts, ships shall report all instances of whale strikes to CNO (N45). Reports are intended to assist the Navy in assessing compliance status only. Ships are not expected to report to outside agencies unless special circumstances apply.

A) b. For ease of reporting, ship shall use the OPREP/Unit SITREP format text fields of reference (e) without the flagword "Unit SITREP", or if the incident requires an actual OPREP/Unit SITREP report, ships shall submit the report per normal procedures with CNO (N45) included as an information addressee. For an actual OPREP/Unit SITREP, the ship should include the whale strike details in the initial report or subsequent updates as time allows.

c. The following is an example message with general text fields to include: (A

PRIORITY
FM: [REPORTING SHIP]
TO: CNO WASHINGTON DC//N45//
INFO: [APPROPRIATE CHAIN OF COMMAND]

UNCLAS//N05090//
MSGID/GENADMIN/[REPORTING SHIP]//
SUBJ/WHALE STRIKE REPORT//
RMKS/1. WHALE STRIKE DETAILS
A. DATE, TIME, AND LOCATION
B. VESSEL'S COURSE AND SPEED
C. OPERATIONS BEING CONDUCTED BY THE SHIP
D. WEATHER CONDITIONS, VISIBILITY AND SEA STATE
E. DESCRIBE THE WHALE IN AS MUCH DETAIL AS POSSIBLE; E.G., LENGTH, COLOR, OTHER DISTINGUISHING FEATURES
F. NARRATIVE OF INCIDENT, INCLUDING RELATIVE POSITION AND MOVEMENTS OF SHIP AND WHALE
G. INDICATE IF PICTURES/VIDEOS WERE TAKEN.

d. Reporting of other direct interactions with whales, such as instances where naval units assist whales entangled in nets, is also encouraged. (A

19-12 Floating Drydocks

19-12.1 Terms and Definitions

19-12.1.1 Floating Drydock. A mobile dock, floating in water, capable of lifting a host ship for repairs to its underwater hull.

19-12.2 Navy Policy. Drydocks shall follow these procedures in handling solid waste:

a. **Industrial Wastes**

(1) Using vacuum methods, drydocks shall periodically remove and send to shore facilities for disposal: spent sand, metals, wood, liquid wastes, solid wastes and all other industrial waste from the floor of the drydock. Drydocks shall prevent those wastes from entering the air or surrounding waters. Prior to flooding the dock, they shall remove all loose materials and floors and vacuum clean the chainways.

(2) Floating drydocks equipped with industrial waste collection systems shall use the systems to the maximum possible extent for processing waste from hull-blasting or anti-fouling paints. If the drydock discharges the processed water into the sewer system or directly into surface waters, it shall comply with applicable Federal, State and local regulations. Discharges into the surface waters, may require a NPDES permit.

b. **Sewage and Graywater**. Where possible, drydocks and hosted vessels shall transfer all sewage and graywater ashore for proper disposal.

c. **Discharge Permits**. Floating drydocks may be required to obtain Federal or State Clean Water Act discharge permits. See paragraph 19-2.2.8 for details.

19-13 Noise

19-13.1 Legislation. The Noise Control Act provides for Federal performance standards, which the Navy must incorporate into the design of new ship systems and equipment to reduce noise emission. Retrofit modifications are not prescribed for existing noise sources. Military aircraft, combat equipment and weapon systems are exempt from new product design standards. Workplace noise is not environmental noise. Reference (d) prescribes workplace noise abatement.

19-13.2 Navy Policy. The use of powered tools, machinery, outboard loudspeakers or any other devices that emit excessive noise, either directly or indirectly through re-radiation, shall be restricted to normal daylight working hours to the maximum possible extent.

19-14 Responsibilities

19-14.1 COMNAVSEASYSCOM shall

a. Develop, procure and install the necessary shipboard sewage systems, solid waste processing equipment, oil pollution abatement equipment and associated support designed to minimize health and safety hazards and to comply with applicable standards.

b. Develop, procure and install the necessary pollution abatement equipment and associated logistic support to allow Navy floating drydocks to operate in full compliance with guidelines and standards.

c. Continue the inspection and certification program to ensure that shipboard oil pollution abatement systems and sewage systems are properly installed and fully operational and to ensure adequate technical documentation, spare parts support and crew indoctrination are provided. (R

d. Provide engineering and technical assistance to the fleet, as required, to ensure the safe and effective operation of shipboard pollution abatement systems and equipment, the proper management of HM and the meeting of air pollution control requirements.

e. Provide support and hardware for shipboard environmental training programs established by CNET.

f. Acquire, distribute and install appropriate disposal and treatment systems, containers, labels, handling equipment, clean-up materials and protective clothing to allow safe and effective control of HM aboard Navy ships. Ships shall use reference (d) as guidance for proper management of HM aboard.

g. Initiate procurement procedures to ensure the major noise products and equipment, not designed for combat use, meet Federal noise emission standards.

h. Ensure that all ships have proper material support, including adequate spare parts for installed sewage systems.

i. Ensure that associated funding requirements are properly identified, budgeted and programmed.

j. Promote research to define and study noise pollution problems unique to the Navy and coordinate such research with other DOD components and with EPA.

k. Identify, evaluate and correct Navy ships' systems and equipment that are major sources of environmental noise.

l. Develop improvements to shipboard processes to reduce the use of HM and the generation of shipboard used HM.

m. Periodically assess, by means of regularly scheduled pierside surveys, the compliance status of Navy ships regarding applicable air pollution control requirements and report all findings to commanding officers, fleet commanders and other appropriate command levels.

n. Provide assistance and guidance to fleet and shoreside NOSCs in the preparation of oil spill and HS release response plans.

o. Provide general shipboard OHS SCPs to Navy ships for use in preparation of ship-specific OHS SCPs.

R) p. Develop Shipboard OHS Spill Kits containing appropriate equipment and protective clothing for personnel use in responding to OHS spills.

q. Provide specialized equipment and trained personnel to assist NOSCs/commanding officers in responding to offshore, salvage-related and major inland oil spill and HS release response operations.

r. Provide proper reception capabilities at COMNAVSEASYSCOM facilities for receipt of ship-generated oily waste and waste oil, sewage and graywater, solid waste and used HM. This includes transfer hoses, associated fittings and adequate tank holding capacity at each COMNAVSEASYSCOM facility for all visiting ships, Navy and non-Navy.

s. Ensure that operating forces obtain adequate system documentation with particular emphasis on ensuring that the documentation contains health, sanitation, and safety guidance. Documentation shall include:

(1) Equipment technical manuals for all installed equipment/systems

(2) Maintenance Requirements Cards (MRCs) covering a comprehensive sewage system preventive maintenance program and certification criteria

(3) Sewage Disposal Operation Sequencing System (SDOSS) which consists of systematic and detailed written procedures using charts, instructions and diagrams developed for the operations of a specific ship's sewage system

(4) Reference (c), chapter 593

(5) PCB Advisories. (R

t. Develop contract requirements for ship availabilities in private shipyards to process ship generated waste in compliance with the law.

u. Apply for required HW generator numbers required to manage Navy-generated and co-generated HW at private shipyards. Manage the HW manifest program and provide annual man-

agement reports to CNO and the fleets on program cost and effectiveness.

v. Develop and issue to the fleet site-specific HW management procedures for private shipyards. Provide on-site coordination from the SUPSHIP office with the identified ship HM coordinator.

w. Identify to the type commander or type commander representative any unresolved issues of ship noncompliance with SUPSHIP-generated procedures.

19-14.2 Chief of Naval Education and Training (CNET) shall

a. Establish formal training programs on the operation, maintenance, sanitation and safety of all shipboard sewage systems. Monitor and update training programs as required.

b. Develop shipboard indoctrination programs on sanitation, safety and basic operation of all sewage systems. Review and revise indoctrination programs as necessary.

c. Establish formal training programs at appropriate facilities on the operation and maintenance of shipboard oil pollution abatement systems and equipment. Monitor and update training programs as required.

d. Provide shipboard indoctrination programs on oil spill control, oil reclamation and the basic operation of all oil pollution abatement systems and equipment. Review and revise indoctrination programs as necessary.

e. Establish formal training programs on the handling, storage, treatment, disposal and cleanup of shipboard oil and HS. Monitor and update training programs as required.

19-14.3 Commander, Naval Legal Service Command shall establish training courses on environmental compliance afloat for military lawyers assigned to afloat billets, fleet staffs and shore stations providing support to afloat units.

19-14.4 Chief, Bureau of Medicine and Surgery (BUMED) shall

a. Issue guidance for shipboard medical department personnel concerning health and sanitation aspects of shipboard sewage systems.

b. Ensure that training programs for shipboard medical personnel include all aspects of health and sanitation associated with shipboard sewage systems.

c. Determine, validate and establish health criteria and standards relating to chemical and physical environmental health standards.

d. Collect, evaluate and disseminate data related to health problems associated with lead and zinc chromate paint removal aboard ship.

e. Perform research and evaluation in environmental medicine to determine the health impacts of Navy sources of environmental noise.

f. Provide, at Navy ports, the required services for disposal of medical waste generated by ships and ensure that disposal ashore complies with applicable Federal, State and local laws or regulations and SOFAs or international agreements. (A

19-14.5 Fleet CINCs shall

a. Ensure that ships under their command are provided with appropriate sewage systems, air emission and oil pollution abatement equipment, solid waste treatment and disposal systems and low-noise emission equipment.

b. Ensure that ships under their command possess appropriate disposal/treatment systems, containers, labels, handling equipment, clean-up materials, spill kits and protective clothing to allow safe and effective control of shipboard HM.

c. Provide, at Navy ports under their command, proper facilities for receipt of ship-generated solid waste, sewage and wastewater, HM and oily waste and waste oil. Such facilities will include appropriate discharge hoses, fittings and holding capacity for wastes. (D)

d. Ensure that ships operate their sewage systems; air, oil and solid waste control systems; and other pollution abatement systems per the requirements of this instruction.

e. Provide for repair and maintenance of air, oil, sewage and solid waste pollution abatement systems that are beyond the capability of ship's force to accomplish.

f. Issue operational guidelines and reporting procedures for compliance with the policies set forth in this instruction for ship-generated plastic waste.

g. Predesignate fleet NOSCs.

h. Provide the names and addresses of fleet NOSCs to fleet units.

i. Fund the cleanup of OHS spills from Navy vessels under their command.

j. Ensure that assigned Navy floating drydocks possess appropriate pollution abatement systems and equipment.

k. Provide proper reception facilities at cognizant Navy ports for receipt of shipboard-generated industrial waste and sewage.

l. Ensure that assigned drydocks operate their pollution abatement systems per paragraph 19-12.2.

m. Provide for repair and maintenance of pollution abatement systems beyond the capability of assigned drydock's force to accomplish.

n. Establish procedures to ensure, to the maximum extent feasible, that used and excess HM is offloaded at a Navy or other public facility prior to a ship's entering a private shipyard for an availability. Such procedures shall include the offloading of HM not anticipated for use by ship's force during the availability.

o. Ensure that ships identify a shipboard HM coordinator to the SUPSHIP for each ship availability at a private shipyard. Ensure that this individual has the authority and resources commensurate with the assigned responsibility to ensure shipboard compliance with HM and HW management procedures and site specific management practices established by the SUPSHIP.

p. Ensure that ships identify, in preavailability planning conferences, the types and amounts of used HM anticipated by ships' force during the availabilities.

q. Direct ships to comply with all established HM and HW management practices and those site-specific procedures delineated by the SUPSHIP.

r. Ensure type commanders monitor ship compliance with established HM/HW procedures while in private shipyards.

s. Consider the protection of marine mammals during operational planning and vessel operations. (D

t. Inform ship commanding officers of reference (b) compliance requirements for marine coatings at Navy and commercial affected source sites activities. Promptly request marine coating reporting waivers from regional EPA offices with assistance from RECs, for operational ships arriving at naval activities that are "affected sources" sites (A

19-14.6 Commander, Naval Supply Systems Command (COMNAVSUPSYSCOM) shall implement programs for source reduction of plastics aboard ship by identifying non-plastic packaging products and non-plastic consumables for shipboard use.

19-14.7 Commander Military Sealift Command (COMSC) shall

a. Properly equip assigned ships with appropriate sewage systems, air emission and oil pollution abatement equipment, solid waste treatment/disposal systems and low-noise emission equipment.

b. Equip assigned ships with appropriate disposal/treatment systems, containers, labels, handling equipment, clean-up materials, spill kits and protective clothing to allow safe and effective control of shipboard HM.

c. Ensure that assigned ships operate installed sewage systems, air, oil and solid waste control systems and other pollution abatement systems per the requirements of this instruction.

d. Provide for repair and maintenance of air, oil, sewage and solid waste pollution abatement systems that are beyond the capability of ship's force to accomplish.

e. Issue operational guidelines and reporting procedures for compliance with the policies set forth in this instruction for ship-generated plastic waste.

f. Fund the cleanup of OHS spills from assigned Navy and contract ships.

g. Establish procedures to ensure, to the maximum extent feasible, that used HM is offloaded from assigned ships at a Navy or other public facility before entering a private shipyard for an availability. Such procedures shall include the offloading of HM not anticipated for use by ship's force during the availability.

h. Identify a shipboard HM coordinator for each assigned ship's availability at a private shipyard. Provide this individual the authority and resources commensurate with the assigned responsibility to ensure shipboard compliance with HW management procedures and site-specific management practices established at the private shipyard.

i. Ensure that ships identify, in preavailability planning conferences, the types and amounts of HW anticipated by ships' force during the availabilities.

j. Direct ships to comply with all established HM and HW management practices and those site-specific procedures delineated for the private shipyard.

k. Monitor ship compliance with established HM/HW procedures while in private shipyards.

19-14.8 PRESINSURV shall

a. Conduct environmental compliance oversight inspection as a part of the regular ship inspection process. These inspections shall include equipment operation, program compliance and training.

b. Conduct 2-day "intervening" environmental protection assessments as scheduled by ISICs during an IDTC in which a underway material inspection is not conducted. Provide a letter report on results to commanding officer only. Combine data collected with that from final contract trials and underway material inspections for use by type commanders, CNO (N45), NAVSAFECEN, and environmental protection organizations. (A

c. Train assigned inspectors on the requirements of this chapter. (A

d. Report to the CNO the status of afloat environmental compliance and issues requiring CNO attention as a part of the periodic brief.

19-14.9 Regional Environmental Coordinators shall

a. Coordinate with the cognizant port clearance authority to ensure LOGREQ replies fully apprise arriving ships of local environmental requirements and port practices.

b. Notify the cognizant area environmental coordinator and CNO (N45) in advance when anticipating regulatory concern over arriving ship environmental compliance. Recommend a course of action to resolve the issue.

c. Maintain close liaison with SUPSHIP offices and naval shipyards to ensure proper resolution of environmental issues regarding ships in overhaul.

d. Report to CNO (N00N) and COMNAVSEASYSCOM (SEA-08) any regulatory attempt to assert authority over radioactive or non-radioactive discharges from naval nuclear propulsion plants.

e. Upon request, assist both U.S. and foreign Navy ships in resolving environmental issues, including but not limited to inspection of ships, air emissions, water discharges, oil spill planning and response and natural resource damage assessments following oil spills.

f. Provide information on the Federal, State and local environmental regulations that apply to ships in port. Such information shall describe necessary actions by ship commanding officers to comply with the requirements of this instruction and all other Federal, State and local regulations applicable to the port.

19-14.10 Commanding officers of Navy ships and masters of MSC vessels shall

a. Obtain certification and recertification for, properly operate, periodically inspect and properly maintain the ship's sewage and oil pollution abatement systems. Carry out ship-to-shore transfers of sewage and graywater in a safe and effective manner. (R

b. Operate and maintain his or her ship to conform with applicable State and local air pollution emission regulations and HM regulations.

c. Ensure that ships comply with the guidelines, standards and procedures of this instruction.

d. Dispose of no medical materials in a manner that poses a risk or perception of a risk to the public health and welfare or to the marine environment. (R

e. Complete and document training of shipboard personnel as prescribed in paragraphs 19-2.2.7, 19-3.4, 19-4.3.3, 19-5.5, 19-6.5, 19-7.4, 19-8.4 and 19-9.3. (R

f. Schedule periodic inspections (at least quarterly) per reference (j) by senior medical department personnel to maintain sanitary and hygienic conditions of MSD systems and operational practices. Sanitation and hygiene inspections should also be made of solid waste processing equipment (when installed and operating).

g. Post appropriate health and sanitation precautions as required by reference (d); General Specifications for Ships of the United States Navy (GENSPECS); reference (c), chapter 593; and reference (j).

h. Report, as required and established by the chain of command, sewage discharge within 0-3 nm from U.S. shores.

i. Report to the fleet commander any conditions or system/equipment malfunctions that could result in unlawful air pollutant emissions.

j. Report to the fleet commander any conditions or system/equipment malfunctions that would necessitate oily waste, HM or solid waste discharge into waters in which discharge is restricted.

k. Ensure that the engineering log or equivalent oil record book records any oily waste discharge that causes a sheen. When a sheen-producing discharge occurs, determine the cause. Record keeping shall consist of the date, time of occurrence, ship location at the beginning and end of the incident, substance discharged, quantity discharged and the cause of the discharge.

l. Designate an officer as HM coordinator to ensure that all shipboard personnel comply with reference (d) requirements for HM handling, packaging, storing, labeling, treating and disposal. Prior to the ship leaving port, the HM coordinator shall reconcile all HM left on the pier.

R) m. Predesignate one or more shipboard action officers to be responsible for shipboard spill/release contingencies planning and response.

R) n. Prepare shipboard OHS SCPs and coordinate with the cognizant NOSC plan. Provide these plans to Coast Guard and State officials for information, upon request.

R) o. Properly train shipboard personnel and make them fully aware of applicable OHS SCPs. Conduct required OHS spill drills.

R) p. Report OHS spills as prescribed in paragraph 19-9.2.5 through 19-9.2.8.

R) q. Take immediate actions to contain, control and mitigate all spills caused by the ship.

r. Appoint an officer or petty officer to oversee drydock operations to ensure that industrial waste and sewage collection and treatment systems are properly operated and maintained and that ship-to-shore transfers of the waste are handled in a safe and effective manner.

s. Offload used and excess HM, to the maximum extent feasible, to a Navy or other public facility prior to entering a private shipyard for an availability. Also offload HM not anticipated for use by ship's force during the availability before entering the private shipyard.

t. Identify to the SUPSHIP responsible for a private shipyard the ship's HM coordinator for the availability. Provide that individual the authority and resources to ensure shipboard compliance with HW management procedures and site-specific management practices established by the SUPSHIP.

u. Identify to the SUPSHIP, in preavailability planning conferences, the types and amounts of used HW anticipated by ship's force during the availability.

v. Comply with all established HM and HW management practices and those site-specific procedures delineated by the SUPSHIP.

w. During paint removal operations, to the maximum extent feasible, collect the debris, dust and residual materials from the paint removal operation and properly package them for disposal ashore.

x. Report to the chain of command, cognizant REC, area environmental coordinator and CNO (N45) any regulatory request that the Navy apply for permits involving ship discharges or implement measures regarding ship discharges beyond the requirements contained in this chapter. Enter into no agreements with environmental agencies regarding ship discharges without CNO (N45) approval.

y. If it is necessary to load ballast water in a potentially polluted area or within 3 nm from land (i.e., amphibious ships operating in such waters and ballasting to operate landing craft or tankers ballasting to replace offloaded cargo), offload the water outside 12 nm from shore and take on clean sea water and discharge it twice

prior to entry within 12 nm from shore. This action need not be taken during local operations in which the ballast water may be discharged into essentially the same waters. Record in the ship's engineering log the loading of ballast water in potentially polluted areas or within 3 nm from shore and the flushing of ballast tanks to rid them of possible pollutants or unwanted species. The entry should include the geographical position and the amount of ballast water taken on.

R) z. Properly enter reports of all plastic discharges in the deck log. Personally approve any plastic discharges.

aa. Avoid deliberately harassing marine mammals. Consider marine mammal protection during ship operations and planning.

bb. Ensure that the requirements of references (d) and (h) are followed for all activities associated with PCBs, PCB-containing materials or systems potentially contaminated with PCBs (e.g., ventilation systems that employ PCB-containing felt gaskets).

R) cc. Assign a crewmember as the AEPC. Train the AEPC per paragraph 19-2.2.7c.

A) dd. Maintain records of ships' force marine coating use for coatings distributed from ships' stores for domestic Navy and commercial affected source sites, as appropriate. Deliver a monthly report of daily coating use by the seventh day of the month following use or before departure, if departing before the end of the month or after a short visit (i.e. several days). Deliver the report to the affected source site Navy shore activity or, when located at a commercial affected source site, to the appropriate SUPSHIP office.

A) ee. Use only marine coatings that meet VOC content standards of reference (c), chapter 631, table 3-7. These coatings are compliant with reference (b). When approved marine coatings are not available or there is uncertainty whether a material is regulated under reference (b), contact COMNAVSEASYSCOM (SEA03M) for information on compliant substitutes. Remove noncompliant coatings from shipboard stores and return them to the supply system as excess HM as soon as possible.

ff. Prohibit the thinning of marine coatings with materials such as coating thinners, solvents, and varnishes. Label paint lockers with a placard stating, "Thinning of marine coatings/paints is prohibited." (A

gg. Implement the following marine coating work practices: (1) minimize spills of marine coatings, (2) use intact and leak-free marine coating containers and (3) close marine coating containers when not in use. (A

19-14.11 Commanding officers of floating drydocks shall

a. Appoint an officer or petty officer to ensure that drydock personnel properly operate and maintain oil and oily waste collection and treatment systems and that they safely and effectively handle ship-to-shore transfers of the waste.

b. Properly train drydock personnel working with oil pollution systems, send them to appropriate schools, and fully document this training.

c. Coordinate with the shore activity commanding officer to ensure compliance with State or local regulatory requirements.

d. Report to the fleet commander any conditions or system/equipment malfunctions that would necessitate solid waste discharge upon or into restricted waters.

e. Properly operate drydock systems for the collection and transfer of sewage and wastewater from the ship in drydock to shoreside receiving facilities. Periodically inspect and properly maintain the systems. Handle transfers of sewage and wastewater in a safe and effective

manner. Reference (c), chapter 593; GENSPECS, section 593; and reference (e) provide guidance concerning CHT systems.

f. Ensure discharges from floating drydocks are permitted as required.

19-14.12 Fleet NOSCs shall

a. Develop fleet SCPs.

b. Provide coordination and direction for the cleanup of OHS spills from Navy ships outside the U.S. contiguous zone.

c. Provide coordination and assistance, as requested, to predesignated shoreside NOSCs assigned in chapter 10.

(D

CHAPTER 20

ENVIRONMENTAL QUALITY ASSESSMENT ASHORE

20-1 Scope

This chapter provides policy and outlines procedures and responsibilities for the assessment and oversight of Navy shore installations' environmental quality.

20-1.1 References

a. DODINST 4715.6 of 24 April 1996, Environmental Compliance

b. Environmental Protection Agency (EPA) Environmental Auditing Policy Statement of 9 July 1986

c. EPA Environmental Policy Statement on Incentives for Self-Policing: Discovery, Disclosure, Correction and Prevention of Violations of 22 December 1995

d. DODINST 4715.5 of 22 April 1996, Management of Environmental Compliance at Overseas Installations; (NOTAL)

e. DUSD (ES) Memorandum of 23 April 1997, Root Cause Analysis Methodology and Implementation; (NOTAL)

f. NAVOP 004/97 of 23 June 1997, Regionalization

g. NAVOP 015/97 of 19 December 1997, Streamlining Shore Installation Management

h. SECNAVINST 5720.42F; Department of the Navy Freedom of Information Act (FOIA) Program; (NOTAL)

i. DOD Directive 5405.2 of 23 July 1985, Release of Official Information in Litigation and Testimony by DOD Personnel as Witnesses; (NOTAL)

j. SECNAVINST 5820.8A; Release of Official Information for Litigation Purposes and Testimony by DON Personnel; (NOTAL)

k. DUSD (ES) Memorandum of 3 February 1997, Invocation of State Audit Privilege Laws; (NOTAL)

l. ASN Memorandum of 24 March 1997, Invocation of State Audit Privilege Laws; (NOTAL)

20-2 Legislation

20-2.1 Freedom of Information Act (FOIA). This act provides for release of government documents to the public upon request, unless the government specifically exempts them from release.

20-3 Terms and Definitions

20-3.1 Environmental Management System. That part of the overall management system which includes organizational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental program, and achieving environmental goals.

20-3.2 Environmental Quality. That level of environmental excellence that has a baseline of consistent regulatory compliance, adding continuous process improvement with a concerted focus on pollution prevention.

20-3.3 Environmental Quality Assessment (EQA) Guide. A guidance document to assist

activities and Major Claimants in the implementation of the policy for Environmental Quality Assessments (EQA) ashore.

20-3.4 Environmental Requirements. Federal, State, regional, local, Navy, Final Governing Standards, Status of Forces Agreements, Overseas Environmental Baseline Guidance Document and environmental and natural resources requirements.

20-3.5 External Assessment. A systematic, documented, objective and periodic review of the installation's environmental management system that may include compliance reviews of selected program areas. Designated persons from outside the organization of the inspected installation conduct the assessment. Those designated persons may be members of the Major Claimant, Naval Inspector General, Naval Audit Service and/or others. In terms of the EQA program, regulatory inspections are not considered external assessments.

20-3.6 External Assessment Plan. The Major Claimant's plan depicting the schedule and scope of the external assessments planned for each of the activities within its claimancy.

20-3.7 "Fenceline." The boundary of the contiguous Navy property and satellite areas under the direct control of the host activity. In Navy Concentration Areas, "fenceline" refers to all properties under direct control of the Regional Commander.

20-3.8 Installation. The term used in this chapter to refer collectively to the host and tenant activities within the "fenceline" as defined in 20-3.7.

20-3.9 Internal Assessment. A systematic, documented, objective, and comprehensive environmental compliance review of installation processes, facilities and practices completed within a 12-month period. Installation personnel or their designees conduct the assessment.

20-3.10 Internal Assessment Plan. The host activity's plan, coordinated with tenants, that describes how a comprehensive internal assessment will be accomplished within the "fenceline" over the course of the year. The plan addresses assessment of all applicable compliance requirements on a schedule based on the environmental aspects, vulnerabilities, and risk to the environment and may include the environmental management system.

20-3.11 Root Cause. The cause of an occurrence that, if corrected, would prevent recurrence of that and similar occurrences. There may be a series of identifiable causes, one leading to another. Activities should pursue that series of causes until identifying the fundamental, correctable cause.

20-4 Requirements

Reference (a) requires and Federal regulations and EPA policy, including reference (b) and (c), recommend environmental assessments as a tool to help achieve and maintain compliance with environmental laws and regulations. Reference (d), as implemented by the Overseas Environmental Baseline Guidance Document (OEBGD), requires an ongoing program to evaluate environmental compliance at overseas installations. Reference (e) requires DOD Components to incorporate root cause analysis in their environmental compliance assessment programs.

References (f) and (g) directed all commands to support infrastructure cost reduction by regionalizing installation management functions, including environmental services, in shore concentration areas and reducing the number of claimants in the installation management business. In shore concentration areas, the Navy is undergoing regionalization to determine better

and more economical ways to deliver services at shore installations, by streamlining services and merging similar functions under one commander. Commands must implement the EQA Program in light of regionalization and its guiding principles presented in reference (f).

20-5 Navy Policy

20-5.1 Policy. Navy policy is to: monitor compliance with environmental requirements; identify problems, their root causes, process improvements, and pollution prevention opportunities; and, ensure appropriate corrective actions and process improvements are completed.

20-5.2 Program Structure

a. **Internal Assessment.** The host activity, in coordination with tenant activities, will conduct an internal assessment annually. The internal assessment is a comprehensive environmental compliance review of installation processes, facilities and practices, completed within a 12-month period. The internal assessment addresses all applicable compliance requirements on a schedule based on the environmental aspects, vulnerabilities, and risk to the environment and may include the environmental management system.

b. **External Assessment.** The Major Claimant of the host activity, in coordination with Major Claimants of tenant activities with significant environmental aspects, will conduct an external assessment that consists of two parts: (1) an annual document review of the installation's Internal Assessment Plan and the annual EQA Report plus any other information available on the installation's environmental performance; and (2) a site visit on a schedule determined by the Major Claimant. The schedule and scope of the site visit are flexible and should be tailored to meet the installation's needs, which allows for varied degrees of compliance or oversight inspections.

(1) **Schedule.** Based on the results of the annual document review, the Major Claimant may elect to visit the installation immediately, once a year, once every 2 years, or less often, if appropriate, depending on the installation's condition and circumstances. At a minimum, the Major Claimant will accomplish the external assessment site visit during the traditional Command Inspection Process.

(2) **Scope.** At a minimum during the site visit, the Major Claimant will evaluate the environmental management system and Internal Assessment Program. A site visit may also include compliance reviews of all environmental program areas or more narrow reviews of particular problem areas.

20-5.3 EQA Integration and Coordination

a. **At Navy installations.** The host activity shall establish a means to communicate and coordinate with Navy and non-Navy tenants with significant environmental aspects located within the "fenceline" for the purpose of planning and implementing the EQA Program. Arrangements for EQA Program support will be documented in interservice and intragovernmental support agreements as appropriate. Examples include such forums as Environmental Compliance Boards and Commanding Officer's Executive Management Boards. Environmental compliance boards of host and tenant management personnel, are required where appropriate by chapter 1 (1-2.14), and are in place within many organizations. These boards function effectively to integrate environmental, natural resources and cultural resources considerations into all aspects of operations.

b. **Where a Navy activity is a tenant on a non-Navy installation.** The Navy activity will participate in the host's environmental compliance assessment program in accordance with the interservice or intragovernmental support agreement. Where the non-Navy host's

environmental compliance assessments are not consistent with Navy or claimant objectives, Navy activities must develop internal assessment plans and conduct assessments that fulfill the objectives established in the Claimant's External Assessment Plan.

20-5.4 Root Cause Analysis. Root cause analysis is a problem solving process to identify root causes and best prevention solutions to compliance deficiencies. Additional information on root cause analysis is available in the EQA Guide.

20-5.5 Checklists of Compliance Requirements. The Department of the Navy Automated Compliance Evaluation (ACE) Software is a tool available to installations, Major Claimants, and NAVFACENGCOM Environmental Field Divisions/Activities (EFD/EFA). The ACE Software provides checklists of Federal, State, and regional compliance requirements, Navy policy requirements, requirements under the Final Governing Standards (FGS) and requirements of Status of Forces Agreements (SOFA), and the Overseas Environmental Baseline Guidance Document (OEBGD). The software allows for tailoring of the checklists to include those requirements applicable to a particular installation. For example, an activity can add local requirements such as permit conditions and operating procedures and delete non-applicable requirements. The ACE software also provides for tracking follow-up actions in the plan of action and milestones (POA&M). Other environmental compliance checklists are available through various public forums or through the commercial market.

20-5. 6 Plans and Reports. Additional information on formats for the following plans and reports is available in the EQA Guide.

a. **Installation Level**

(1) **Internal Assessment Plan.** The Internal Assessment Plan describes how the comprehensive internal assessment will be accomplished within the "fenceline" over the course of the year. The plan addresses assessment of all applicable compliance requirements on a schedule based on the environmental aspects, vulnerabilities, and risk to the environment. The plan may also include an environmental management system review. Activities shall review the Internal Assessment Plan annually and update it as necessary. The host activity will provide the Internal Assessment Plan to its Major Claimant annually.

(2) **Internal Assessment Documentation.** Internal Assessment documentation provides the results of assessments and includes identified deficiencies, assigned root cause(s), and POA&Ms for corrective actions and process improvements. The documentation contains deficiencies identified in internal and external assessments conducted during the assessment period as well as those that remain open from previous assessment periods. The POA&M provides proposed corrective actions, process improvements and schedules to address the deficiency and its root cause(s). The documentation also serves as a record of completed corrective actions and to verify problems are resolved. The Major Claimant may request the host activity to submit POA&Ms or, at a minimum, the Major Claimant will review the POA&Ms during the external assessment site visit.

(3) **EQA Report.** The EQA Report provides a summary of the health of the installation's environmental program and information on issues requiring Major Claimant attention and/or resources. The host activity will provide the EQA Report to its Major Claimant and the appropriate Navy Regional Environmental Coordinator annually.

b. **Major Claimant Level**

(1) **External Assessment Plan.** The External Assessment Plan describes the schedule and scope of oversight planned for the external assessment site visit at each of the Major Claimant's installations and the basis for the decisions. The Major Claimant of the host activity, in coordination with Major Claimants of tenant activities with significant environmental aspects, determines the schedule and scope of oversight based on the document review of the Internal Assessment Plan and EQA Report provided by each host activity and any additional information available on each installation's environmental performance. The plan will also indicate those installations that serve only administrative functions with minimal environmental requirements where exemptions are justifiable. The Major Claimant shall review the plan annually and update it as necessary. The Major Claimant will provide the updated External Assessment Plan to CNO (N45) annually.

(2) **External Assessment Report.** The External Assessment Report provides the results of the external assessment conducted during a site visit and includes identified deficiencies and recommendations for corrective actions and process improvements. The Major Claimant shall give a working draft report to the host activity commanding officer/executive officer at the end of the site visit. The Major Claimant shall present an out brief to the host activity commanding officer/executive officer. The Major Claimant should release the final report to the host activity within 60 days of the site visit completion. The Major Claimant legal counsel should review the External Assessment Report before releasing it.

(3) **Claimant EQA Summary.** The Claimant EQA Summary is a report summarizing the health of the environmental program at the installations in the claimancy. It also provides information on issues requiring CNO attention and/or resources. The Major Claimant will provide the Claimant EQA Summary to CNO (N45) annually.

c. **Report Releasability.** The activities will consult legal counsel for advice on the releasability and exemptions under the Freedom of Information Act (FOIA). Reference (h) applies to all FOIA requests. If the request is made by a third party involved in litigation, reference (i) and reference (j) also apply.

20-5.7 State Audit Privilege Laws. Installations must not invoke the protections of any of the various State Audit privilege or immunity laws without proper consultation with and approvals by the chain of command. References (k) and (l) provide the procedures for required consultation with the Office of the Deputy Assistant Secretary of the Navy (Environment and Safety) and the Office of the Deputy Under Secretary of Defense (Environmental Security).

20-5.8 *EQA at Closing and Closed Bases.* All EQA Program requirements apply to closing and closed bases, including those bases that have already undergone operational closure and are assigned to the COMNAVFACENGCOM claimancy for caretaking until transfer of ownership.

20-5.9 Exemptions. The Navy has numerous shore activities that serve only administrative functions. Those shore activities typically have minimal environmental requirements and therefore pose little risk to the environment. Major Claimants with activities that serve only administrative functions may elect to exempt them from EQA Program requirements. The Major Claimant's External Assessment Plan shall reflect exemptions.

20-5.10 Training and Awareness. Every person conducting, reviewing, or approving internal and external assessments shall receive general environmental awareness training

specified in chapter 24 and specific comprehensive training in assigned subject matter or environmental media. Every person so assigned shall familiarize himself or herself with the provisions of this chapter.

20-6 Responsibilities

20-6.1 Commanding Officers of Host Activities shall

a. In coordination with the affected commands, develop and execute a plan to implement an internal assessment to cover all processes, facilities and practices with environmental aspects within the "fenceline." Review the Internal Assessment Plan annually and update as necessary. On an annual basis, provide the updated Internal Assessment Plan or a summary of significant amendments to the Major Claimant.

b. Perform annual internal assessments, identify deficiencies and their root causes, develop POA&Ms with corrective actions and process improvements to address the root causes of deficiencies and document corrective actions and process improvements.

c. For pertinent deficiencies identified in external assessments, identify root causes, develop POA&Ms with corrective actions and process improvements to address the root causes of deficiencies and document corrective actions and process improvements.

d. Coordinate identification and funding of corrective actions and process improvements to address deficiencies and their root causes and fund as appropriate. If necessary and appropriate, submit to the Major Claimant funding requests to support projects required to correct the deficiencies and root causes identified.

e. In coordination with the affected commands, prepare an annual EQA Report and provide to the Major Claimant and the appropriate Navy Regional Environmental Coordinator.

f. Document arrangements for providing EQA Program support in interservice and intragovernmental support agreements as appropriate.

g. Advise the Navy Regional Environmental Coordinator and the Major Claimant, as soon as possible, if a deficiency or problem identified may result in significant adverse public relations and/or require regional coordination to solve.

h. Ensure environmental compliance is a factor in the performance evaluations of appropriate personnel.

20-6.2 Commanding officers or senior managers of tenants with significant environmental aspects shall

a. Support and participate with the host activity in developing and executing a plan to implement an internal assessment to cover all processes, facilities and practices with environmental aspects within the "fenceline."

b. For pertinent deficiencies identified in internal and external assessments, identify root causes, develop POA&Ms with corrective actions and process improvements to address the root causes of deficiencies, and document corrective actions and process improvements.

c. Coordinate identification and funding of corrective actions and process improvements to address deficiencies and their root causes and fund as appropriate. If necessary and appropriate, submit to the Major Claimant funding requests to support projects required to correct the identified deficiencies and root causes identified.

d. Support and participate with the host activity in preparing an annual EQA Report and provide to the Major Claimant.

e. Advise the host activity and the Major Claimant, as soon as possible, if a deficiency or problem identified may result in significant adverse public relations and/or require regional coordination to solve.

h. Ensure environmental compliance is a factor in the performance evaluations of appropriate personnel.

20-6.3 Major claimants of host activities shall

a. Implement the EQA Program. Major Claimants may delegate implementation responsibility to lower echelon claimants or Regional Commanders.

b. On an annual basis, review the host activities' Internal Assessment Plans and annual EQA Reports to ensure they conduct internal assessments and identify deficiencies for correction.

c. In coordination with other affected Major Claimants of tenant activities with significant environmental aspects, to accommodate host-tenant relationships, develop and execute an External Assessment Plan addressing all shore installations in the claimancy. Review the External Assessment Plan annually and update as appropriate. On an annual basis, provide the updated External Assessment Plan to CNO (N45).

d. Issue notification of an upcoming external assessment site visit and the external assessment report to the host activity.

e. Prepare an annual Claimant EQA Summary based on input from the claimancy's host activities and provide to CNO (N45).

f. Assist in identification and programming for funding of corrective actions and process improvements to address deficiencies and their root causes and fund as appropriate. If necessary, submit funding requests as part of a midyear review to address emergent requirements.

g. Advise CNO (N45), as soon as possible, if a deficiency or problem identified may result in significant adverse public relations and/or require national coordination to solve.

20-6.4 Major Claimants of tenant activities with significant environmental aspects shall

a. Implement the EQA Program. Ensure the claimancy's tenant activities support and participate with the host activity in developing and executing a plan to implement an internal assessment to cover all processes, facilities and practices with environmental aspects within the "fenceline."

b. Coordinate with the Major Claimant of the host activity in developing and executing a plan to implement an external assessment site visit as appropriate.

c. For pertinent deficiencies identified in internal and external assessments, assist in identification and programming for funding of corrective actions and process improvements to address deficiencies and their root causes and fund as appropriate. If necessary, submit funding requests as part of a midyear review to address emergent requirements.

d. Advise CNO (N45), as soon as possible, if a deficiency or problem identified may result in significant adverse public relations and/or require national coordination to solve.

20-6.5 Regional Environmental Coordinator shall

a. Review the annual EQA Reports from all host activities within the region and take any required coordinating actions, consistent with chapter 1.

b. Advise the Area Environmental Coordinator, as soon as possible, if a deficiency or problem identified may result in significant adverse public relations and/or require broader coordination to solve.

20-6.6 Area Environmental Coordinator shall:

a. Advise CNO (N45), as soon as possible, if a deficiency or problem identified may result in significant adverse public relations and/or require broader coordination to solve.

20-6.7 COMNAVFACENGCOM shall

a. Provide support to Major Claimants and shore activities in the use of the ACE Software that provides automated checklists of Federal and State regulations, final governing standards, overseas requirements, and Navy policy requirements and ensure ACE Software checklists are maintained and available.

b. Upon request, assist Major Claimants in conducting and preparing reports on external assessments.

c. Prepare and update guidance documents and training materials for conducting internal and external assessments including root cause analyses.

d. Support the Chief of Naval Education and Training (CNET) in developing and providing training in conducting internal and external assessments for personnel at shore activities, Major Claimants, EFDs, EFAs, and other commands.

20-6.8 CNET shall

a. Through the Naval School, Civil Engineers Corps Officers School (CECOS), and in coordination with COMNAVFACENGCOM and the Interservice Environmental Education Review Board (ISEERB), provide training courses and materials on internal and external assessments including root cause analysis and environmental management system reviews.

20-6.9 Chief of Naval Operations shall

a. Ensure the implementation of the EQA Program by reviewing External Assessment Plans and claimant EQA Summaries that cover results of internal and external assessments.

b. Support resource requirements, as appropriate.

c. Act on those issues requiring broad coordination, as identified by the Major Claimant or Area Environmental Coordinator.

d. Provide comments and guidance on common problems and innovative solutions identified in the EQA process.

CHAPTER 21

OCEAN DUMPING

21-1 Scope

This chapter identifies requirements and responsibilities for ocean disposal of material, other than dredged or fill material (see Chapter 7) and those discharges covered in Chapter 19.

21-1.1 References. Relevant references are:

a. 33 CFR 324, Permits for Ocean Dumping of Dredged Material;

b. 40 CFR 220-225, 227-229, Ocean Dumping Regulations and Criteria;

c. NAVMEDCOMINST 5360.1 of 17 September 1987, Decedent Affairs Manual; (NOTAL).

21-2 Legislation

21-2.1 Marine Protection, Research, and Sanctuaries Act (MPRSA). Bars the transport of any material from the U.S. for the purpose of dumping into the ocean waters without a permit issued by the Environmental Protection Agency (EPA), and dumping material from outside the U.S. within the territorial sea or contiguous zone. The primary means of regulation is a Federal permit system; violations carry civil penalties of $50,000 per violation, and criminal penalties of one year imprisonment and/or $50,000 fine.

21-2.2 Ocean Dumping Act. Prohibits the transportation of material from the U.S. or any other location for the purpose of ocean dumping unless an EPA permit has been obtained. Violation of this requirement is punishable under Federal law. In practical terms, this Act requires that trash and garbage generated in port be off-loaded for shore disposal before getting underway. It also means that wastes generated during exercises ashore cannot be loaded aboard ships for subsequent ocean disposal.

21-3 Terms and Definitions

21-3.1 Dumping. The intentional disposition of wastes generated ashore or materials onloaded in port for the express purpose of disposal at sea. Does not include routine discharge of materials or wastes generated on board ship and/or effluent incidental to the propulsion or operation of motor driver equipment on vessels. It does, however, include the discharge of contaminated material, including bilge water, received from another ship or shore source.

21-3.2 Material. Matter of any kind or description, including, but not limited to, solid waste, incinerator residue, garbage, sewage, sewage sludge, munitions, radiological, chemical and biological warfare agents, and discarded equipment, but does not include sewage from vessels processed through an approved marine sanitation device (MSD) as described in Chapter 19.

21-3.3 Ocean Waters. Waters seaward of the baseline from which the boundary of the territorial sea is measured.

21-4 Requirements

Unless specifically permitted, dumping of material in ocean waters is prohibited without a permit.

21-5 Navy Policy

21-5.1 Ocean Dumping

21-5.1.1 Ocean dumping may only be authorized on a case-by-case basis by Chief of Naval Operations (CNO) (N43). Except in emergency conditions, requests for such authorization shall be accompanied by documentation per the criteria established in reference (b). Following CNO approval, full compliance with EPA permitting procedures is required.

21-5.1.2 Any material may be dumped from ships and aircraft in an emergency to safeguard life at sea.

21-5.2 Transport of Target Vessels

21-5.2.1 The transportation of naval ships and craft from the U.S. or from any other location for the purpose of conducting a sinking exercise (SINKEX) concerning tests and evaluations of conventional ammunition and weapons systems is subject to EPA permit requirements.

21-5.2.2 Necessary measures shall be taken to ensure that the vessel sinks to the bottom rapidly and permanently and that marine navigation is not impaired by the sunken vessel.

21-5.2.3 All such vessel sinkings shall be conducted in water of at least 1,000 fathoms (6,000 feet) and at least 50 nm from land, as measured from that portion of the baseline from which any territorial sea is measured (as provided for in the Convention on the Territorial Sea and the Contiguous Zone) that is the closest proximity to the proposed disposal site.

21-5.2.4 Under permit conditions and before sinking, appropriate measures shall be taken by qualified personnel at a Navy or other appropriate facility to remove, to the maximum extent practicable, all materials that may degrade the marine environment, including, but not limited to:

a. Emptying of all fuel tanks and lines to the lowest point practicable, flushing of such tanks and lines with water, and again emptying such tanks and lines to the lowest point practicable so that tanks and lines are essentially free of petroleum.

b. Removing from the hulls other pollutants and all readily detachable material capable of creating debris or contributing to chemical pollution.

21-5.2.5 Each SINKEX operation shall be conducted only after approval by CNO (N43) and preparation of the target per the EPA permit and specific OPNAV directives.

21-5.2.6 Requests for conducting SINKEX exercises shall be forwarded via chain of command to CNO (N43) on a case-by-case basis and shall include:

a. User activity

b. Requirements for, or purpose of the sinking

c. Designated target hulls and approximate tonnage

d. Statement that the designated hull has been prepared per the specification of paragraph 21-5.2.4

e. Approximate date and location of the sinking.

21-5.2.7 After the sinking, a report (Report Symbol OPNAV 5090-12) shall be made to CNO (N43) (copies to N44, N45, and appropriate fleet and force commanders) with the name of each vessel sunk, approximate tonnage, and the location and date of sinking.

21-5.3 Burial at Sea

21-5.3.1 The EPA has granted a general permit to transport human remains from any location for the

purpose of burial at sea and to bury such remains at sea.

21-5.3.2 Human remains shall be prepared for burial at sea and be buried per Chapter 8 reference (c). (Report Symbol OPNAV 5090-9).

21-5.3.3 For non-cremated human remains, burial at sea shall take place no closer than 3 nm from U.S. land and 12 nm from foreign land and in water of no less than 100 fathoms (600 feet) depth. All necessary measures shall be taken to ensure that the encased remains sink to the bottom rapidly. For purposes of this paragraph, "land" means that portion of the baseline from which any territorial sea is measured (as provided for in the Convention on the Territorial Sea and the Contiguous Zone) that is in closest proximity to the proposed disposal site.

21-5.3.4 Cremated remains shall be buried in or on ocean waters without regard to the depth limitations specified above, provided that such burial take place no closer than 3 nm from U.S. land and 12 nm from foreign land.

21-6 Responsibilities

21-6.1 CNO (N43) shall prepare and submit an annual report to the EPA Administrator setting forth the name of each vessel sunk as a target, its approximate tonnage, and the location and date of sinking (Report Symbol OPNAV 5090-12).

21-6.2 COMNAVFACENGCOM shall provide technical assistance to Navy commands, vessels, and activities, as requested, in matters concerning ocean dumping.

21-6.3 Fleet Commanders in Chief shall:

a. Ensure that all naval vessel and shore activity commanders comply with the policies and criteria as stated herein.

b. Ensure that ship sea detail checklists include a requirement to collect and offload all trash and garbage before getting underway.

c. Ensure that planning for exercises includes provisions for appropriate disposal of wastes generated ashore during the exercise.

21-6.4 Commanding officers of a vessel or aircraft conducting burials at sea shall report within 30 days the date, longitude and latitude, number, and type of burial (whole body or cremated remains) to the fleet commander in chief (CINC), with copies to the type commander and the regional environmental coordinator.

21-6.5 Area environmental coordinators shall submit a monthly report to the appropriate EPA regional office detailing all burials at sea conducted during the previous 30 days.

21-6.6 Commanding officers of ships shall, prior to getting underway from port, see that all trash and garbage is collected and off-loaded. This requirement shall be included in the ship's sea detail checklist.

CHAPTER 22

NATURAL RESOURCES MANAGEMENT

22-1 Scope

22-1.1 *This chapter establishes* Chief of Naval Operations (CNO) program requirements, guidelines, and standards for complying with resource protection laws, and conserving and managing natural resources in the United States and its territories and possessions for both appropriated and non-appropriated fund activities. This chapter also summarizes the natural resources management (NRM) program for managing Navy lands, waters, forests, fish and wildlife, and outdoor recreation resources.

22-1.2 Reference (a) discusses more detailed program requirements, guidelines, and procedures for all elements of the NRM program.

In addition to implementing statutes governing natural resource management, this chapter establishes policy and provides guidance to implement the requirements of six Executive Orders (E.O.s). E.O. 13112, Invasive Species, of 3 February 1999, *requires executive agencies to restrict* the introduction of exotic organisms into natural ecosystems. EO 11988, Floodplain Management of 24 May 1977, provides direction regarding actions of Federal agencies in floodplains. EO 11644, as amended by EO 11989, Use of Off-Road Vehicles on Public Lands of 24 May 1977, establishes policies and provides for procedures to control use of off-road vehicles on public lands. EO 11990, Protection of Wetlands of 24 May 1977 as amended, directs the preservation and enhancement of wetlands. EO 12962, Recreational Fisheries of June 7, 1995 directs Federal agencies to cooperate in conservation of aquatic resources and enhancement of opportunities for recreational fishing. EO 13089, Coral Reef Protection of 11 June 1998 requires Federal agencies to protect and enhance coral reefs and coral reef systems.

22-1.3 Chapter 18 addresses Navy NRM policies for activities in foreign countries.

22-1.4 References. Relevant references are:

a. NAVFAC Natural Resources Management Procedural Manual, P-73, Vol. II

b. DOD 3210.6-R, DOD Grant and Cooperative Agreement Regulations OF April 1998 (NOTAL);

c. 32 CFR 190, DOD Natural Resources Management Program (A

d. *DODINST 4715.3 of 3 May 1996, Environmental Conservation Program;* (A

e. DODDIR 4715.1 of 24 February 1996, Environmental Security;

f. 15 CFR 923, National Ocean and Atmospheric Administration Coastal Zone Management Program Development and Approval Regulations;

g. 16 CFR 3501, Coastal Barrier Resources,

h. 17 CFR, Endangered and Threatened Wildlife and Plants; (A

i. 50 CFR 17.11 & 17.12, Fish and Wildlife Service List of Threatened Wildlife and Plants;

j. *50 CFR 10, 18, 216, & 228, Regulations* Concerning Marine Mammals;

A) k. 62 FR 66531 of December 1997, Magnuson-Stevens Act Provisions; Essential Fish Habitat.

l. 50 CFR 10.13, List of Migratory Birds;

m. 33 CFR 320-330, Clean Water Act Section 404 and Rivers and Harbors Act Section 10 Regulatory Programs;

n. NAVFAC Real Estate Procedural Manual, P-73, Vol. I;

o. 7 CFR 658, Farm Land Protection Pol-
D) icy;

p. DOD Financial Management Regulation 7000.14-R, Volume 11A, chapter 16, Accounting for Production and Sale of Forest Products;

q. NAVCOMPT Manual Volume 3; (NOTAL);

r. CNO ltr of 11 June 1994, Department of the Navy Natural Resources Strategic Plan.

s. CNO ltr of 25 September 1998, Sikes Act Improvement Act with Guidelines for Preparing Integrated NRM Plans.

t. "Conserving Biodiversity on Military Lands- A Handbook for Natural Resources Managers, 1996;

D) u. ASN (I&E) memo of 12 August 1998, DON Policy Memo 98-06: Review of INRMPs Under NEPA.

A) v. CNO ltr of 30 November 1998, Guidance on Preparing NEPA Documents for INRMPs.

w. 15 CFR 930, Federal Consistency with Approved Coastal Management Programs;

A) x. NAVFAC ltr of 2 July 1996, Guidelines for establishment of Ecological Areas.

22-2 Legislation

This chapter lists below the laws that control the management of natural resources on Navy lands and that regulate the Navy's operations with respect to natural resources. Appendix A includes legal citations.

22-2.1 Bald Eagle Protection Act, 16 U.S.C. 668. Provides for the protection of bald and golden eagles.

22-2.2 Coastal Barrier Resources Act of 1982, 16 U.S.C. 3505. Regulates the expenditure of Federal funds to discourage development within boundaries of undeveloped, unprotected coastal barriers of the Coastal Barrier Resources System established by the Act, unless the expenditures are for military activities essential to national security.

22-2.3 Coastal Zone Management Act (CZMA), 16 U.S.C. 1451. Establishes goals and a mechanism for States to control use and development of their coastal zone. Authorizes States to administer approved coastal nonpoint source pollution programs.

22-2.4 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. 9601. As amended by the Superfund Amendments and Reauthorization Act (SARA), CERCLA establishes a series of programs for the cleanup of hazardous waste disposal and spill sites nationwide. It requires protection of human health and the environment. Work under this legislation is conducted through the Navy Installation Restoration (IR) Program (chapter 15).

22-2.5 Conservation Programs on Military Reservations (Sikes Act), 16 U.S.C. 670. The Sikes Act identifies requirements and provides the framework for management of natural resources on military lands. The Sikes Act also authorizes the use of Cooperative Agreements (A

with State agencies, local governments, universities, and non-governmental organizations to implement natural resources projects. The Sikes Act Improvement Act of 18 November 1997 requires installations to prepare and implement Integrated Natural Resources Management Plans (INRMP).

22-2.6 *Defense Appropriations Act of 1991* Legacy Program, P.L. 101-511, § 8120. The Defense Appropriations Act established a program for the stewardship of biological, geophysical, cultural and historic resources on Department of Defense (DOD) lands.

22-2.7 Endangered Species Act (ESA), 16 U.S.C. 35. The ESA provides for the identification and protection of Federally listed threatened and endangered species of animals, plants and their critical habitats.

22-2.8 Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. 136. Governs the use and application of pesticides in natural resource management programs.

22-2.9 Federal Noxious Weed Act of 1974, 7 U.S.C. 2801. Establishes control and eradication of noxious weeds and regulates them in interstate and foreign commerce.

22-2.10 Federal Water Pollution Control Act as amended by the Clean Water Act of 1977 (CWA), 33 U.S.C. 1251. Regulates dredging and filling of wetlands and establishes procedures for identifying and regulating nonpoint sources of polluted discharge into waterways.

22-2.11 Fish and Wildlife Conservation Act, 16 U.S.C. 2901. Encourages management of nongame species.

22-2.12 Fish and Wildlife Coordination Act, 16 U.S.C. 661. Provides mechanism for wildlife conservation to receive equal consideration and be coordinated with water-resource development programs.

22-2.13 Forest Resources Conservation and Shortage Relief Act, 16 U.S.C. 620. Regulates the export of unprocessed timber originating from Federal lands in western States.

22-2.14 Marine Mammal Protection Act, 16 U.S.C. 1361. Protects marine mammals and establishes a marine mammal commission.

22-2.15 Marine Protection, Research, and Sanctuaries Act of 1972, 16 U.S.C. 1431. Establishes regulations relating to dumping specific material into open waters and establishes a program for designation and regulation of national marine sanctuaries.

22-2.16 Migratory Bird Treaty Act, 16 U.S.C. 703. Protects migratory birds through various migratory bird conventions with other countries. The Navy will consult with the USFWS informally to ensure that actions result in minimal loss (or takes) of migratory birds.

22-2.17 Military Construction Authorization Act - Leases; Non-excess property, 10 U.S.C. 2667. Provides for the out-leasing of public lands.

22-2.18 Military Construction Authorization Act - Military Reservations and Facilities - Hunting, Fishing, and Trapping, 10 U.S.C. 2671. Establishes requirements for regulating hunting, fishing, and trapping on military lands.

22-2.19 Military Construction Authorization Act - Sale of Certain Interests in Lands; Logs, 10 U.S.C. 2665. Provides for the production and sale of forest products.

22-2.20 National Defense Authorization Act of 1989 - Volunteer and Partnership Cost-Share Programs, P.L. 101-189. Expands existing authority to use volunteers to include acceptance of voluntary services for natural resources programs at military installations.

22-2.21 National Environmental Policy Act (NEPA), 42 U.S.C. 4321. Provides a national charter for protection of the environment and requires Federal agencies to prepare a statement of environmental impact in advance of each major action that may significantly affect the quality of the human environment.

22-2.22 National Invasive Species Act of 1996, 16 U.S.C. 4701. Mandates a ballast water management program for armed forces vessels to demonstrate technologies and practices to prevent introduction of aquatic non-indigenous species into waters of the United States.

22-2.23 Oil Pollution Act of 1990 (OPA 90), 33 U.S.C. 2701. Redefines the requirements of the National Contingency Plan (NCP) to include planning for, rescue of, minimization of injury to, and assessment of damages for injury to, fish and wildlife resources.

22-2.24 Outdoor Recreation - Federal/State Programs Act, 16 U.S.C. 460 P-3. Defines a program for managing lands for outdoor recreation.

22-2.25 Soil Conservation Act, 16 U.S.C. 3B. Provides for application of soil conservation practices on Federal lands.

22-3 Terms and Definitions

R) **22-3.1 Agricultural Outleasing.** Use of DOD lands under a lease to an agency, organization, or person generally for growing crops or grazing domestic animals. The term "agriculture" includes activities related to producing, harvesting, processing, or marketing an agricultural, maricultural, or horticultural commodity, including the breeding, raising, shearing, feeding, caring for, training, and management of livestock, bees, poultry, fish, shellfish, and fur-bearing animals and wildlife, and the planting, cultivating for harvest, or processing short rotation (less tha A) years) forest products.

22-3.2 Annual Increment. An INRMP addendum prepared annually, to facilitate implementation of the INRMP. The annual increment provides concise detail and cost estimates of proposed work or projects planned for a fiscal year.

22-3.3 Bird Aircraft Strike Hazard (BASH) Prevention Program. (A An integrated program on air installations, based on a BASH Plan, that promotes land management practices to minimize natural bird attractants, and air operations and safety procedures to recognize, control, and avoid hazardous bird concentrations. A critical part of the BASH Program also involves disciplined reporting of bird strikes. BASH activities should be coordinated with the Navy Safety Center.

22-3.4 Best Management Practices (BMP). Within the scope of this chapter, BMPs are practical, economical and effective management or control practices that will reduce or prevent water pollution. Usually BMPs are applied as a system of practices based on site-specific conditions rather than a single practice. State agencies usually prepare BMPs for land disturbing activities related to agriculture, forestry, and construction.

22-3. 5 Biodiversity. The variety of life and its processes; it includes the variety of living organisms, the genetic differences among them, the communities and ecosystems in which they occur, and the ecological and evolutionary processes that keep them functioning, yet ever changing and adapting.

22-3. 6 Biological Assessment. A biological evaluation conducted as part of the interagency consultations process under the ESA. The purpose of the assessment is to allow the regulatory agency to determine whether or not the proposed action is likely to adversely affect the continued existence of a species listed as endangered or threatened, or proposed for listing.

22-3.7 Biological Opinion. A document stating the opinion of the U.S. Fish and Wildlife Service

or National Marine Fisheries Service about whether or not a Federal action, described in a Biological Assessment, is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat.

22-3.8 Candidate Species. Any species being considered by the Secretary of Interior or Commerce for listing under the Endangered Species Act as an endangered or a threatened species, but not yet the subject of a proposed listing.

22-3.9 Carrying Capacity (Outdoor Recreation). The maximum sustainable amount of recreation activity and number of participants that a land or water area can support in a manner compatible with the objectives of the INRMP and without impairing or degrading existing natural resources.

22-3.10 Carrying Capacity (Wildlife). The maximum density of wildlife that a particular area or habitat will support on a sustained basis without deterioration of the habitat.

22-3.11 Coastal State. A State of the United States in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes. The term also includes Puerto Rico, the U.S. Virgin Islands, Guam, and America Samoa.

22-3.12 Coastal Zone. An area specifically identified or otherwise delineated by a coastal State in its approved Coastal Zone Management Plan. It is an area of coastal waters and adjacent shorelines strongly influenced by each other and in proximity to the shorelines of the several coastal States, including islands, transitional and intertidal areas, salt marshes, wetlands, and beaches.

22-3.13 Conservation. The prudent care, protection, and management of natural resources that best reflect sound resource stewardship for present and future generations.

22-3.14 Cooperative Agreement. A cooperative agreement is an instrument used to acquire goods or services or stimulate an activity undertaken for the public good. Cooperative agreements assume substantial involvement between the Federal agency and recipient during performance of the activity. Cooperative agreements may be used to accomplish work identified in the INRMP, and may be entered into with States, local governments, nongovernmental organizations, and individuals to provide for the maintenance and improvement of natural resources on, or to benefit natural resources research on DOD installations. Agreements authorized by the Sikes Act (22-2.5) are not subject to the provisions of the Federal Grant and Cooperative Agreement Act, but must comply with the procedural requirements of the DOD Grant and Cooperative Agreement Regulations, reference (b). Funds approved for a particular fiscal year may be obligated to cover the costs of goods and services provided under a cooperative agreement during any 18-month period beginning in that fiscal year in accordance with the Sikes Act Improvement Act of 18 November 1997. (A

22-3.15 Critical Habitat. The geographic area on which are found those physical or biological features essential to the conservation of a species listed and published by the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) under the authority of the ESA.

22-3.16 Ecological Reserve Areas. Those areas dedicated primarily or exclusively to preserving examples of ecosystems and genetic diversity and to scientific research and education on ecological and environmental problems. Guidance for selection and establishment of Ecological Reserve Areas is in reference (a).

22-3.17 Ecological Risk Assessment. A quantitative and/or qualitative appraisal of the actual or potential effects of a hazardous waste (HW) site on plants and animals other than people or domesticated species.

22-3.18 Ecosystem. A system formed by the interaction of a community of organisms with each other and the environment.

22-3.19 Ecosystem Management. Ecosystem management in DOD draws on a long-term vision of desired future ecological conditions, integrating ecological, economic and social factors. The goal of ecosystem management is to maintain and improve the sustainability and native biological diversity of ecosystems while supporting human needs, including the military mission.

22-3.20 Endangered or Threatened Species. A species of fauna or flora that has been listed by the USFWS or the NMFS for special protection and management under the ESA.

22-3.21 Environmentally and Economically Beneficial Landscaping. Landscaping, construction and design practices which support the president's memorandum on Environmentally and Economically Beneficial Practices on Federal Landscaped Grounds, including use of locally native plants and other practices which reduce the need for irrigation and fertilization and which improve soil stabilization and wildlife habitat.

22.3.22 Fish and Wildlife Management. Actions designed to preserve, enhance and regulate indigenous wildlife and its habitats, including conservation of protected species and non-game species, management and harvest of game species, bird aircraft strike hazard (BASH) reduction, and animal damage control.

22.3.23 Forest Management. Actions designed for the commercial production and sale of forest products, including timber management, forest administration, timber sales, reforestation, timber stand improvement, timber access road construction and maintenance, forest protection, and other directly related functions; and for maintaining the health and vigor of forest ecosystems.

22.3.24 Forest Products. All plant materials in wooded areas that have commercial value.

22.3.25 Game Species. Fish and wildlife harvested per applicable Federal and State hunting and fishing laws.

22.3.26 Geographic Information Systems (GIS). An organized collection of computer hardware, software, geographic data, and personnel designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced data.

22-3.27 Grounds. All land areas not occupied by buildings, structures, pavements, and other facilities. Depending on the intensity of management, grounds may be classified as improved, as those near buildings, semi-improved, or unimproved.

22-3.28. Habitat. An area where a plant or animal species lives, grows, and reproduces, and the environment that satisfies it's life requirements.

22-3.29 Integrated Natural Resources Management Plan (INRMP). The INRMP is a long term (5-year) planning document to guide the installation commander in the management of natural resources to support the installation mission, while protecting and enhancing installation resources for multiple use, sustainable yield, and biological integrity. The Sikes Act now formally requires the INRMP. Installation commanders shall prepare it in cooperation with the USFWS and the appropriate State Fish and Wildlife Agency. It should reflect mutual agreement of the parties concerning the conservation, protection, and management of fish and wildlife resources. Where feasible, INRMPs should be based on data (A

maintained in a geographic information system (GIS).

22-3.30 Land Management. *Programs and* techniques to manage lands, wetlands, and water quality, including soil conservation, erosion control and nonpoint source pollution, surface and subsurface waters, habitat restoration, control of noxious weed and poisonous plants, agricultural outleasing, range management, identification and protection of wetlands, watersheds, floodplains management, landscaping, and grounds maintenance.

22-3.31 Multiple Use. The sustainable use of natural resources for the best combination of purposes to meet the long-term needs of the DOD and the public.

22-3.32 Natural Resources. Landforms, soils, waters, and their associated flora and fauna.

22-3.33 Natural Resources Coordinator. An individual who has been delegated the responsibility for implementing the INRMP as a collateral duty, and coordinates these management functions with natural resources professionals.

22-3.34 Natural Resources Damage Assessment. The process of collecting and analyzing information to determine injury to, or destruction of, or loss of, natural resources, and the assessment of damages for that injury, including the costs of assessing the injury, loss or destruction resulting from a past or present hazardous substance (HS) release or oil spill. chapter 27 fully discusses Natural Resources Damage Assessments.

22-3.35 Natural Resources Management Procedural Manual (NRMPM). Reference (a), which provides comprehensive guidance for implementing requirements of pertinent laws, EOs, and Federal regulations, DOD directives, SECNAV and OPNAV instructions.

22-3.36 Natural Resources Management Professional. Individual with an undergraduate or graduate degree from an accredited U.S. college *or university in a natural resources-related science* and who has the responsibility for managing natural resources on a regular basis.

22-3.37 Non-game Species. Fish and wildlife species not classified as game species and that are *not harvested for recreation or subsistence purposes.*

22-3.38 Nonpoint Source (NPS) Pollution/-Polluted Runoff. Pollution caused by diffuse sources that are not regulated as point sources and normally associated with runoff from construction activities, urban, agricultural and silvicultural runoff, and other land disturbing activities such as military training and operations that disturb lands, soils, and waters. NPS pollution can result from land runoff, precipitation, atmospheric deposition, or percolation. This definition is necessarily general; legal and regulatory decisions have sometimes resulted in the assignment of certain sources to either the point or NPS categories because of considerations other than their manner of discharge. For example, section 402(1) of the CWA designates irrigation return flows as "nonpoint sources", even though the discharge is through a discrete conveyance.

22-3.39 Noxious Weeds. Plant species identified by Federal or State agencies as requiring control or eradication.

22-3.40 Off-road Vehicle. A vehicle designed or used for recreational travel on natural terrain. The term excludes a registered motorboat confined to use on open water and a military, emergency, or law enforcement vehicle during use by an employee or agent of the government or one of its contractors in the course of carrying out their tasks.

22-3.41 Outdoor Recreation. Program, activity, or opportunity dependent on the natural environment. Examples are picnicking, bird-watching, off-road vehicle use, hiking, wild and scenic river use, and primitive camping. Outdoor recreation shall be predominantly muscle-powered activities that will not impair or degrade natural resources. Developed or constructed facilities such as golf courses, tennis courts, riding stables, lodging facilities, boat-launching ramps and marinas are not included.

22-3.42 Outdoor Recreation Management. Management of natural resources to provide recreation opportunities that are sustainable, within the military mission, within established carrying capacities, and consistent with the natural resources upon which they are based.

22-3.43 Projects. Includes studies, plans, surveys, inventories, and land/water treatments as well as physical improvements, minor construction, and public relations.

22-3.44 Proposed Species. Any species of fish, wildlife or plant that is proposed in the Federal Register to be listed under section 4 of the ESA.

22-3.45 State Listed Species. Any species of fish, wildlife, or plant protected by an appropriate State agency as issued in a State's endangered species law and other pertinent regulations.

22-3.46 Stewardship. The responsibility to inventory, manage, conserve, protect, and enhance the natural resources entrusted to one's care in a way that respects the intrinsic value of those resources, and the needs of present and future generations.

22-3.47 Sustainable Yield. Production of renewable natural resources at a level such that harvest or consumptive use does not exceed net growth.

22-3.48 Watchable Wildlife Area. Areas which have been designated as a site for participation in the Watchable Wildlife Program.

22-3.49 Watchable Wildlife Program. A national program designed to promote viewing areas for the American public to observe, experience, and enjoy native North American wildlife and habitat.

22-3.50. Watershed. The ridge or crestline dividing two drainage areas; the area drained by a river or stream.

22-3.51. Wetlands. Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions, such as swamps, marshes, and bogs.

22-4 Requirements

This section contains a general discussion of the requirements of the many laws, regulations, EOs or directives that apply to natural resources. It organizes these requirements loosely by subject areas, including general or program-wide requirements for fish and wildlife, land management, forest management, outdoor recreation, and environmental restoration.

22-4.1 General

a. **Natural Resources Management.** Each military installation within the U.S. must manage its natural resources to provide for sustained multi-purpose uses and to provide public access appropriate for uses consistent with the mission or the management of natural resources. References (c), (d) and (e) require preparation and maintenance of plans for the integrated management of those natural resources. They direct the military departments to develop, implement, and enforce the management plan through personnel with professional training in natural resources.

b. **Integrated Natural Resources Management Plans (INRMP).** Each installation having custody of Class I property (land and water) suitable for the conservation and management of natural resources will prepare (or ensure preparation of) and implement a comprehensive INRMP that fulfills the requirements of the Sikes Act. Professionally trained personnel will prepare INRMPs to support the installation operational mission, meet stewardship and legal requirements, enhance the quality of life on the installation; and ensure installation resources are managed through an ecosystem approach. The CNO authorizes cooperative agreements to implement these plans. Installation commanders will continuously monitor INRMPs, review them annually, and revise them if necessary. They will reapprove INRMPs at least every 5 years.

c. **Pesticide Use in NRM Programs.** If any multiple-use program of land management involves pesticides, users will ensure that use complies with applicable requirements. (See chapter 13). Pesticide use will be minimized and applied per the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

d. **Public Access Associated with the NRM Program.** Military lands will be available to the public and DOD employees for enjoyment and use of natural resources, except when a commander specifically determines a military mission prevents such access for safety or security reasons, or that the natural resources will not support such usage. The determination will be included and explained in the INRMP.

e. **Access by Federal and State Conservation Officials.** Commanders shall permit Federal, State and local officials access to natural resources after taking proper safety and security measures.

f. **Consistency with Coastal Zone Plans.** The CZMA, reference (f), requires that Navy installations ensure their operations, activities, projects, and programs, in or on coastal lands or waters, that affect the coastal zone are consistent to the maximum extent practicable with the Federally approved Coastal Zone Management Plan of the State.

g. **Protection of Coastal Barriers.** Before construction, maintenance, military activities, or other Federal expenditures may take place in designated Coastal Barrier Resources, the Navy is required to consult with the Secretary of the Interior. Navy activities may expend funds in areas designated as coastal barriers only for uses listed in reference (g), which include military activities essential to national security, projects for the study, management, protection and enhancement of natural resources, scientific research, essential emergency actions, maintenance (but not expansion) of publicly owned structures, and nonstructural projects for shoreline stabilization.

h. **Protection of Coral Reefs.** The Navy recognizes that coral reefs and related endemic mangrove and sea grass ecosystems are biologically rich and diverse habitats and gives high priority to their protection in accordance with Executive Order 13089 and DOD and Navy policy statements on coral reef protection. The identification and conservation of coral reefs should be addressed in INRMPs, where appropriate, to ensure their protection. (R

i. **Nonindigenous Organisms.** The Navy shall prevent the introduction of non-native organisms into natural ecosystems. Section 19-10, Ship Ballast Water and Anchor System Sediment Control provides measures to prevent such aquatic introductions, as mandated by the National Invasive Species Act of 1996 (P.L. 104-332). This law mandates the establishment of an armed services ballast water management program to prevent such introductions.

j. **Invasive Species.** E.O. 13112 requires Federal agencies to prevent the introduction of invasive species and provide for their control.

Other applicable legal requirements include the Federal Noxious Weed Act of 1974, Endangered Species Act of 1973, and the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 as amended.

22-4.2 Fish and Wildlife

a. **Endangered Species.** The Navy, as a Federal agency, is required by reference (h) to consult with the USFWS (or the NMFS for oceanic species) on any action that may affect an endangered or threatened species listed in reference (i) that results in adverse modification to critical habitat, or that is likely to jeopardize the continued existence of any species formally proposed to be listed under the Endangered Species Act. Such consultations can be either formal or informal. When necessary, the Navy will prepare a biological assessment of the effects of a proposed action on listed species to assist the USFWS or NMFS in issuing a Biological Opinion as to whether the action will jeopardize the continued existence of the species. In addition, the Navy will use its authority to further programs for the conservation of endangered and threatened species.

b. **Marine Mammals.** Under the provisions of the Marine Mammal Protection Act, it is unlawful for any person or Federal agency to take (harass or kill) any marine mammal on the high seas, in U.S. waters or on land under the jurisdiction of the U.S. In addition, many marine mammals are also endangered species, and protected by the Endangered Species Act. Permits for a take that may be incidental to a legitimate operation can be obtained through a lengthy rulemaking procedure detailed in reference (j). Navy activities will evaluate their operations that may affect marine mammals in keeping with section 19-11 of this instruction, which details the Navy policy for protection of marine mammals.

c. **Essential Fish Habitat.** Under the provisions of the Magnuson-Stevens Fishery Conservation and Management Act, as reauthorized by the Sustainable Fisheries Act Amendments, Federal agencies must consult with the National Marine Fisheries Service prior to undertaking any actions that may adversely affect Essential Fish Habitat (EFH). EFH means "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." EFH applies to all species covered by a fisheries management plan. Full consultation requirements are contained in reference (k).

d. **Bald and Golden Eagles.** It is illegal for anyone to take a bald or golden eagle. The Navy, as a Federal agency, must cancel any lease, license, or other agreement that authorizes grazing of domestic livestock by anyone convicted of a bald or golden eagle violation.

e. **Migratory Birds.** Navy installations should coordinate with the USFWS to minimize the effects of actions that may harm or kill migratory birds listed in reference (l), their young or eggs. Contractors must have the appropriate permits when performing work for the Navy.

f. **Fish and Wildlife Coordination.** When the Navy proposes to take an action that modifies any stream or body of water, the Fish and Wildlife Coordination Act requires that Navy activities first consult with the USFWS and the cognizant State wildlife agency with a view to the conservation of wildlife resources possibly affected by the proposed action. The Navy must include recommendations of the USFWS and State in reports to Congress or to persons authorizing the construction. The Navy must fully consider the wildlife aspects of the proposed action. This is not applicable to activities in connection with programs primarily for land management and use carried out by Federal agencies with respect to Federal lands under their jurisdiction.

g. **Fish and Wildlife Conservation.** Congress encourages all Federal agencies to use their statutory and administrative authority, to the maximum extent practicable and consistent with

each agency's responsibilities, to conserve and to promote conservation of non-game fish and wildlife and their habitats.

h. **Fish and Wildlife Management.** Navy installations will obtain the services of a professional biologist for management of fish and wildlife resources. When contracting fish and wildlife work on military-controlled lands, installations will give priority to Federal and State agencies having responsibilities for conservation and management of fish and wildlife. Where installations collect fees or proceeds from hunting, fishing, aquaculture, and trapping, they will use the fees only for funding or supplementing wildlife management programs. Uses may include funding of partnerships, cooperative and research agreements with appropriate agencies. Installations must handle fees according to specific procedures set forth in chapter 4 of reference (a).

i. **Recreational Fisheries.** In keeping with E.O. 12962, Federal agencies shall improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities by restoring degraded habitat, fostering conservation, providing access and awareness of opportunities for recreational fishing.

A) j. **BASH Reduction Program.** Naval air installations are required to prepare and implement BASH plans. BASH plans should be an integral part of the INRMP, updated on the same INRMP cycle, and prepared in close cooperation with the installation Safety and Air Operations Officers. Reference (a) details basic guidance for the preparation of BASH plans. Personnel responsible for BASH programs should ensure that bird strike reporting and information exchange is closely coordinated with the Naval Safety Center.

22-4.3 Land Management

Navy installations with land management programs will obtain the services of a natural resources professional for guidance of land management programs such as grounds maintenance, landscaping, wetland protection and enhancement, erosion control, non point source pollution prevention and agricultural outleasing.

a. **Wetlands Protection.** Section 404 of the CWA prohibits discharges of dredged or filled material into waters of the U.S., including wetlands, without first obtaining a permit from the U.S. Army Corps of Engineers (COE), reference (m). The Navy will comply with the national goal of no net loss of wetlands, and will avoid loss of size, function and value of wetlands. In addition, the Navy will preserve and enhance the natural and beneficial values of wetlands in carrying out its activities.

b. **Nonpoint Source Pollution.** Section 319 of the CWA describes guidelines for the control of nonpoint source pollution. These guidelines assign the States responsibility to implement nonpoint source programs. Federal consistency provisions also authorize States to review Federal activities for consistency with State nonpoint source programs. Section 6217 of the CZMA establishes authority for States to administer coastal nonpoint pollution programs when approved by National Oceanic and Atmospheric Administration (NOAA) and the Environmental Protection Agency (EPA).

c. **Agriculture.** As part of the integrated management of natural resources, DOD lands will be managed to conserve lands suitable for agriculture, and will be reviewed for suitability for agricultural outlease purposes when compatible with military needs. Installations will deposit rentals received by the installations from agricultural leases as directed in chapter 19 of reference (n).

d. **Soil Conservation.** Federal agencies must manage lands to control and prevent soil erosion and preserve natural resources by conducting surveys and implementing soil conservation measures.

e. **Farmland Protection.** Federal agencies must identify prime and unique farmland. They must consider the adverse effects of Federal programs on the preservation of farmland; consider alternative actions, as appropriate, to reduce such adverse effects; and assure that such Federal programs to the extent practicable, are compatible with State, local government, and private programs and policies to protect farmland. See reference (o).

f. **Control of Noxious Weeds.** Navy installations will cooperate with States in which there is a program for controlling noxious plants, and will provide access for that control, provided that: access is consistent with installation security procedures, control measures are acceptable and control measures have been implemented on privately owned lands.

g. **Floodplain Management.** As it carries out land management, construction and land use activities, the Navy will provide leadership in avoiding direct or indirect development of flood plains, and in restoring and preserving the natural and beneficial values served by floodplains. The Navy must evaluate potential effects of actions in floodplains and provide early opportunity for public review of proposals in floodplains.

h. **Environmentally and Economically Beneficial Landscaping.** Because the Federal Government owns and landscapes large areas of land, our stewardship presents opportunities to develop practical and cost-effective methods to complement and enhance our local surroundings by employing landscaping practices and technologies that conserve water and prevent pollution. To promote the President's April 26, 1994 Memorandum on Environmentally Beneficial Landscaping, it is Navy policy to:

(1) Use regionally native plants for landscaping,

(2) Design, use and promote construction practices that minimize adverse effects on natural habitat,

(3) Prevent pollution by reducing fertilizer and pesticide use, integrated pest management practices, recycling green waste (composting) and minimizing runoff,

(4) Implement water-efficient practices, use efficient irrigation systems and recycled water, and use landscaping to conserve energy,

(5) Create demonstration projects to promote awareness of environmental and economic benefits of these practices.

These landscaping practices should benefit the environment and generate long-term cost savings. The use of native plants not only protects our natural heritage and provides wildlife habitat, but can also reduce fertilizer, pesticide, and irrigation demands and their associated costs.

i. **Invasive Species Management.** Proper ecosystem management requires the control of noxious weeds, aquatic nuisance species, and other invasive species. Use of native plants in landscaping, grounds maintenance, and land restoration projects is required. Installation natural resources managers shall ensure that invasive species prevention recommendations are incorporated into new construction programs and operations. Land or ecosystem restoration projects shall require the use of native species only. Natural resources managers shall monitor invasive species populations and identify areas where research and new technology may be needed to better control invasive species in the military environment.

22-4.4 Forest Management

This section discusses laws that govern natural resources management relating to protection and management of forest resources.

R) a. **Management Requirements.** Navy installations with forests or lands with the potential for the growth and production of forest products will provide for optimum sustainable yield of forest products and the improvement of forest resources, consistent with the military mission and installation INRMP. INRMPs will, when appropriate, include current forest inventories, conditions, trends, and potential uses; silvicultural goals; maintenance of forested areas and access roads; forest and stand improvement methods; harvesting and reforestation methods and schedules; and protection and enhancement of other natural resources. All Navy installations with commercial forestry programs shall employ a professional forester to manage forest resources. This includes preparation and oversight of all forestry service and sales contracts and monitoring the use of reimbursable forestry funds provided to support the program.

b. **Product Sales.** Navy contracts for sale of timber and forest products will include requirements for orderly harvesting, operational procedures, and payment for sold products. The Navy will not give away, nor abandon, nor carelessly destroy forest products, nor use them to offset costs of contracts, nor trade them for products, supplies, or services. Proceeds collected from the disposal or sale of all merchantable forest products produced on a Navy installation will be turned over to the servicing Navy accounting and finance officer. For each installation generating forest product sales, records will be kept to show sales proceeds generated by fiscal year for determining payments to States as required by 10 U.S.C. 2665. Criteria and procedures for administering timber sale contracts are contained in chapter 3 of reference (a).

c. **Accounting and Use of Forestry Proceeds.** Navy installations or commands incurring obligations for the production and sale of forest products shall receive reimbursement from collections made from the sale of such products. Forest management program obligations must be related directly to the economic production and sale of forest products and the enhancement, protection, conservation and management of Navy forests. Insofar as they meet this test, obligations may include funding of cooperative agreements and research agreements with appropriate agencies. Reimbursable program obligations do not include expenses incurred for operations that, while related to the land and forest, are for other purposes, nor do they include expenses for the protection of forests that are incapable of economic production of forest products. Nonessential program expenses will be limited to ensure a balanced program as required by reference (p), reference (q) and chapter 3 of reference (a).

d. **Export Lumber.** The 1990 Forest Resources Conservation and Shortage Relief Act (16 U.S.C. 620 et seq.) prohibits the export of unprocessed timber originating from Federal lands west of the 100th meridian in the contiguous 48 States and restricts substitution of unprocessed Federal timber for timber exported from private lands. All Navy solicitations and contracts for timber sales affected by this statutory limitation will contain a provision restricting the export of unprocessed timber obtained on Navy lands.

e. **Forest Pest Suppression.** Navy installations with forest resources will cooperate fully in the planning, coordination, and execution of field operations to prevent and suppress damaging forest insect and disease outbreaks, consistent with the terms of the Forest Pest Suppression Memorandum of Agreement (MOA) between the Department of Agriculture and the DOD of 11 December 1990, and whenever it is determined to be necessary by either the Regional U.S. Forest Supervisor or cooperating State forestry department or commission.

22-4.5 Outdoor Recreation

a. **Recreation Opportunities.** The Sikes Act requires that installations provide public access for natural resources uses to the extent it is appropriate and consistent with the military mission and in accordance with the INRMP.

b. **National Park Service.** A Memorandum of Understanding (MOU) between the Department of Defense and the Department of the Interior provides guidance on the management of natural resources for outdoor recreation. Cooperative agreements with the National Park Service, in conjunction with the INRMP, are the mechanism for a program of planning, development, maintenance, and coordination of outdoor recreation on Navy lands.

R) c. **Off-Road Vehicles.** Off-road recreational vehicle use on Navy land is permissible only in designated areas and trails. See chapter 5 of reference (a) for policies, procedures, and criteria for establishing designated off-road areas and trails.

22-4.6 Environmental Restoration

a. **Natural Resources Damage Assessments.** Entities designated as natural resource trustees must determine the injury to and loss of natural resources that occur as the result of a release of hazardous substances or oil. Chapter 27 more fully discusses these requirements.

b. **Ecological Risk Assessments (ERAs).** Through the authority found in CERCLA and other statutes, the EPA has directed the performance of ecological risk assessments at all National Priority List sites in order to protect wildlife, fisheries, endangered, and threatened species and valued habitats. During the remedial investigation/feasibility study (RI/FS) stages, installations must examine ecological effects and routes of exposure to avoid overlooking important impacts and transport pathways, and make reasonable estimates of health and environmental effects of various remedial alternatives. ERAs require natural resource expertise in site reviews, work plans, reviews of contractor qualifications and final products, as well as remedial action decisions.

22-5 Navy Policy

22-5.1 General

a. **Stewardship.** Responsibility for good stewardship of natural resources shall be an important and identifiable function of all echelons of command management. Each command shall establish procedures to continuously inform Navy decision makers of the conditions of natural resources, the objectives of INRMPs, and potential or actual conflicts between Navy actions/management plans and the policies/procedures herein. Commands shall recognize stewardship as a major requirement in retaining control and use of Navy lands for mission needs.

The policy of the Navy is to act responsibly in the public interest to restore, improve, preserve, and properly use natural resources on Navy-administered lands. There shall be a conscious and active concern for the inherent value of natural resources in all Navy plans, actions, and programs. Proposals for new and continuing actions that affect natural resources shall be coordinated with the managers of those resources. Commands shall incorporate recommendations to minimize impacts to natural resources to the maximum extent practicable.

Since the management of natural resources is inherently a governmental function, the management, implementation, planning and enforcement of Navy NRM programs shall not be included in the DOD Commercial Activities Program or base operating services contracts.

The principles of good stewardship shall also be applied to natural resources not administered by the Navy, preserving resources such as marine

mammals, coral reefs, and other resources potentially affected by Navy operations.

b. **Multiple Use.** Commands shall manage natural resources under the jurisdiction of the Navy to support the military mission, while practicing the principles of multiple use and sustainable yield, using scientific methods and an interdisciplinary approach.

c. **Ecosystem Management.** It is Navy policy to incorporate ecosystem management as the basis for planning and management of Navy installations. This approach shall take a long-term view of human activities, including military uses, and biological resources as part of the same environment. The goal is to preserve and enhance ecosystem integrity, and to sustain both biological diversity and continued availability of those resources for military and other human uses.

Ecosystem-based management shall include:

(1) A shift from single species to multiple species conservation.

(2) Formation of partnerships necessary to consider and manage ecosystems that cross boundaries.

(3) Use of the best available scientific information in decision-making and adaptive management techniques in natural resource management.

A) d. **Evaluation of Need for An INRMP.** Major Claimants shall determine if an installation requires preparation and implementation of an INRMP. They should accomplish this evaluation with input from the local EFD/EFA natural resources manager and should base it upon a minimum of one site visit to assess installation natural resources. The evaluation should take into account military uses of the area and capacity to support the mission; acreage, habitat types, and special natural features; aesthetics and outdoor recreational opportunities; the ecological context of the installation within it's physiographic region; and the local community relationship. If the Major Claimant determines that an INRMP is not required, it shall document this determination and provide it to COMNAVFACENGCOM. Even if the Major Claimant does not require an INRMP for a particular installation, it may consider it prudent to address natural resources stewardship issues in a less formal document. A Major Claimant must re-evaluate an installation without an INRMP every 5 years to reconsider its status.

e. **Navy NRM Program Goals.** The conservation of natural resources and the military mission need not and shall not be mutually exclusive. Commands shall accomplish the following when managing natural resources on Navy lands:

(1) Assign specific responsibility, provide centralized supervision and assign professionally trained personnel to this program; and provide natural resource personnel the opportunity to participate in NRM job-training activities and professional meetings.

(2) Protect, conserve, and manage the watersheds, wetlands, natural landscapes, soils, forests, fish and wildlife, prime and unique farmland, and other natural resources, as vital elements of an optimum natural resources program.

(3) Manage natural resources to provide outdoor recreation opportunities. Commands shall recognize this as an important objective in the conduct of all Navy NRM programs.

(4) Use and care for natural resources in the combination best serving the present and future needs of the U.S. and its people.

(5) Provide for the optimum use of land and water areas and access thereto while maintaining ecological integrity.

A) (6) Interact with the surrounding community to develop positive and productive community involvement, participation and educational opportunities.

R) f. **INRMP.** The INRMP is a long term planning document to guide the installation Commander in the management of natural resources to support the installation mission, while protecting and enhancing natural resources for multiple uses, sustainable yield, and biological integrity. The primary purpose of the INRMP is to ensure that natural resources conservation measures and military operations on the installation are integrated and consistent with stewardship and legal requirements. INRMPs should reflect the goals and objectives in the SECNAV Natural Resources Strategic Plan issued by reference (r). The Sikes Act requires development and implementation of INRMPs. Reference (s) contains the most recent Sikes Act amendments and guidelines for preparing INRMPs. Natural resources managers are encouraged to use geographic information systems as the basis of their INRMP and to use reference (t), "Conserving Biodiversity on Military Lands-A Handbook for Natural Resources Managers" as a basic reference document.

(1) *Required Plan Elements. Consistent* with military operations on the installation, each INRMP will, where appropriate and applicable, provide for:

(a) Fish and wildlife management, land management, forest management, and fish and wildlife-oriented recreation.

(b) Fish and wildlife habitat enhancement or modifications.

(c) Wetland protection, enhancement, and restoration.

(d) Integration of, and consistency among, the various activities conducted under the Plan.

(e) Establishment of specific natural resources management objectives and time frames for proposed actions.

(f) Sustained use by the public of natural resources to the extent such use is consistent with the needs of fish and wildlife management and subject to installation safety and security requirements.

(g) Enforcement of natural resources laws and regulations.

(h) No net loss in the capability of military lands to support the military mission of the installation.

(2) Authorship. It is a good idea to prepare the INRMP in-house by installation natural resources personnel and coordinate it with the appropriate EFD/EFA wherever possible. This will ensure the involvement of all appropriate stakeholders and the development of practical projects for plan implementation. If commands must contract for plan preparation, it is critical that the installation natural resources coordinator maintain a sufficient level of quality control to ensure proper coordination and ease of implementation of the plan, and that it addresses the appropriate issues.

(3) Coordination and Review. The installation is encouraged to work with other organizations, agencies, and individuals both on and off the installation throughout the planning process. Building partnerships with the right organization(s) is essential for ecosystem management. Coordination of preparation of the INRMP with installation personnel responsible for military operations is especially critical.

(4) Cooperative Preparation. The Sikes Act requires preparation of INRMPs in cooperation with the USFWS and the appropriate State Fish and Wildlife Agency. The act requires that the INRMPs reflect mutual agreement of the parties concerning the conservation, protection, and management of covered fish and wildlife resources. A MOU between the Installation, FWS, and State may serve to address the responsibilities, expectations, and commitments of the various partners. The MOU, or signatures of the appropriate FWS and State officials on the INRMP title page (while not required), satisfies the Sikes Act mutual agreement requirement. Letters of endorsement, attached to the INRMP can also indicate mutual agreement.

A) (5) Reference (u) requires NEPA documentation before approval of all new or newly revised INRMPs. Under normal circumstances, an EA will suffice. However, if the goals, objectives, or essential projects identified in the INRMP will have a significant environmental impact, an EIS may be required. Reference (v) contains guidelines for preparing NEPA documents for INRMPs.

(6) Public Involvement. Installations shall provide an opportunity for the submission of public comments on INRMPs as well as changes to the plans.

R) (7) Endorsement. The INRMP Title page shall include a signature block for the installation commanding officer, installation natural resources manager/coordinator, regional commander/area coordinator, and the EFD/EFA natural resources manager to reflect concurrence and acceptance of the Plan. Copies of completed INRMPs should go to the Major Claimant environmental office.

(8) Implementation. INRMPs should reflect an annual strategy that addresses legal requirements, other priorities, funding, and manpower. The installation, Major Claimant, or COMNAVFACENGCOM natural resources fund sources should provide funding. Legacy funds are typically not for installation specific projects, rather for regional efforts. A Sikes Act Cooperative Agreement, developed with State agencies, universities, non-governmental organizations, and individuals, typically gives shape to the organization formed to accomplish work addressed in the INRMP. Other options include contracts, in-house self-help processes, and use of volunteers from conservation programs such as the Student Conservation Association.

(9) Recordkeeping and reporting. Commands should endeavor to keep a narrative and photographic record of projects implemented through the INRMP to document accomplishments and facilitate monitoring programs and data calls.

(10) Updating INRMPs. INRMPs shall be reviewed annually, and updated at least every 5 years. Commands should contract with the local EFD/EFA for technical assistance.

g. **Natural Resources Awards.** Navy installations are encouraged to participate fully in the Navy, DOD, and other awards programs open to them, in order to promote conservation and demonstrate a leadership role in protecting the environment. Guidance on military awards programs is included as appendix D.

h. **Coastal Zone Management**

(1) Support of State Programs. The Navy shall support the development and implementation of State coastal nonpoint pollution control programs on Navy lands by identifying nonpoint sources, specifying corrective measures and coordinating nonpoint source compliance efforts with State programs. The Navy shall also identify areas of sensitive natural resources of the coastal zone, minimize the loss or degradation of coastal wetlands, enhance the natural value of wetlands, and protect water quality. The Navy

shall encourage research and development efforts to address nonpoint sources of pollution to identify and understand Navy impacts on the coastal and marine environment.

(2) Consistency with State Programs. Navy activities shall ensure their operations, activities, projects, and programs in or on coastal lands or waters that affect coastal zones, comply with the coastal State's approved management program to the maximum extent practicable and shall cooperate in resolving concerns identified during the consistency review process, in accordance with reference (w).

A) i. **Coral Reef Protection.** It is Navy policy to comply with E.O. 13089, Coral Reef Protection. In an effort to protect them, the Navy will avoid impacting coral reefs to the maximum extent feasible. Navy commands are to conduct environmental reviews of proposed actions that are likely to affect coral reef systems as outlined in chapter 2. In cases where significant adverse impact is likely and NEPA documentation is required, a statement regarding the selection of a preferred alternative, emphasizing special considerations for coral reef protection and mitigation measures, shall be included in the final environmental document. Any action that is likely to adversely affect a U.S. coral reef system or that may qualify as an exemption under the E.O. must be promptly reported to CNO (N45).

j. **Partnerships.** Navy activities shall encourage the use of partnerships and volunteers to complete projects under the direction and approval of Navy professional natural resources personnel. Programs that foster pride in accomplishment among volunteers, partners and the Navy are encouraged. Examples of effective partnership programs are Coastal America, Partners in Flight, Student Conservation Association, and the Chesapeake Bay Initiative.

k. **Use of Volunteers.** Navy installations shall use appropriate volunteers to enhance natural resource conservation programs whenever practicable. Professionally trained natural resources managers shall direct the performance of this work, following procedures and guidelines described in 10 U.S.C. 1588(a)(2) and in the draft Resource Manager's Guide to Volunteer and Partnership Programs, provided as interim guidance by the Deputy Under Secretary of Defense (Environmental Security) in a 12 January 94 memo to the Assistant Secretaries of the military services.

l. **Ecological Reserve Areas.** Recognizing (R
the national and international need to maintain areas in natural and near-natural conditions, and the need to have available such areas for baseline research and scientific manipulation, natural areas on Navy lands that warrant special conservation efforts may be identified as Ecological Reserve Areas. These special natural areas should include characteristic or outstanding botanical, ecological, geological, and scenic features or processes. Reference (x) details procedures to establish Ecological Reserve Areas.

m. **Funding for Natural Resource Programs.** Funding to implement an INRMP is an important responsibility of Navy commands and shall be included in activity Program Objective Memorandum (POM) submittals. Funds may be available from other sources to supplement portions of these programs such as agricultural outleasing, forestry programs, Sikes Act user fees, and the Legacy Resource Management Program. A command should make every effort to seek funding to implement the INRMP.

22-5.2 Fish and Wildlife

a. **Endangered species.** The Navy shall conduct surveys of threatened or endangered species, review its mission activities, identify those that may affect Federally listed species or habitats, and consult formally or informally with the appropriate agency. The cognizant EFD/EFA will usually perform the formal consultations unless

delegated to the activity. Navy installations shall keep EFD/EFA personnel appraised of all planned or ongoing consultations. The Navy shall use its authority to enhance the recovery of Federally listed endangered and threatened species and their habitats. Legal mandate does not require protection of State/territory listed rare and endangered species. However, the Navy encourages cooperation with States and territories to protect such species.

b. **Fish and Wildlife Management.** It is Navy policy to comply with applicable laws for the protection and management of wildlife resources, and to develop, where compatible with the mission, programs for the development, enhancement, and use of wildlife resources. Where appropriate, the Navy shall perform those programs under cooperative agreements with State and Federal wildlife agencies.

c. **Enforcement of Resource Protection Laws.** Enforcement of laws, primarily aimed at protecting natural resources (and recreation activities that depend on natural resources) shall be an integral part of a natural resources program and shall be coordinated with or under the direction of the natural resources manager for the affected area.

R) d. **Marine Mammals.** The Navy shall continue to act to avoid or minimize adverse impacts to marine mammals. Navy vessels shall report all marine mammal strikes according to chapter 19.

e. **Recreational Fisheries.** As applicable, Navy installations shall incorporate into natural resource management planning provisions for habitat restoration projects, public access where feasible, and participation in outreach programs for recreational fisheries.

22-5.3 Land Management

a. **Land Management Issues.** When appropriate, INRMPs shall address land management issues such as ecosystem management, wetlands and watersheds, estuaries, soil and water conservation, biodiversity, grounds maintenance, nonpoint source pollution control, landscaping, agricultural uses and potential, fire management, insect and disease management, rangeland conditions and trends, management for multiple use, and critical or unique coastal barrier systems, coral reef systems, critical habitats and other areas of special interest.

b. **Funding.** Land management is an important use of appropriated funds. Additionally, revenues from the agriculture and grazing outlease program are available for:

(1) Administrative expenses of agricultural leases. (The Navy shall give priority to funding natural resources professionals directly responsible for the administration of agricultural programs).

(2) Initiation, improvement, and perpetuation of agricultural outleases.

(3) Preparation and revisions of INRMPs.

(4) Implementation of INRMPs.

c. **Wetlands.** In order to comply with the "No Net Loss Wetlands Policy" of the Navy, commands with land management responsibilities shall ensure the following: (R

(1) That the Navy plan all construction and operational actions to avoid, to the maximum degree feasible, adverse impacts to or destruction of wetlands. Any construction requirement that (R

cannot be sited to avoid wetlands shall be designed to minimize wetlands degradation and shall include compensatory mitigation as required by wetlands regulatory agencies in all phases of the project's planning, programming, and budgeting process. Within this policy, use of Navy lands and lands of other entities are permissible for mitigation purposes for Navy projects when consistent with EPA and COE guidelines or permit provisions. Requests by non-Navy entities to mitigate the effects of non-Navy projects on Navy property should be reviewed on a case-by-case basis for their effect on the environment, Navy mission, and appropriateness of economic compensation to the Navy for the long-term use of the site.

(2) That any action significantly affecting wetlands is addressed by the environmental review and public notification process per chapter 2.

(3) That boundaries of legally defined wetlands, on all Navy lands, are identified and mapped with sufficient accuracy to protect them from potential unplanned impacts, and that the maps are distributed to all potential users, including facilities planners, operational units, and tenant commands.

(4) That adequate NRM expertise is available to installation commanding officers (COs) for the protection, management, identification, and mapping of wetlands.

(5) That land suitable for wetlands creation is identified in all INRMPs and master plans.

(6) That implementation of wetlands creation or enhancement projects and wetlands banking, where compatible with the installation mission, is encouraged.

d. **Nonpoint Source Pollution.** The Navy shall support and accelerate the development and implementation of NPS pollution management programs that ensure water quality protection. The Navy shall place special emphasis on preventing NPS pollution from ground disturbing actions (e.g., construction, military training, farming, timber harvesting, and training activities) in shoreline/streamside areas. Installations that control land areas shall evaluate the scope of nonpoint source pollution with assistance from EFDs/EFAs. INRMPs should be used as a primary tool for identifying NPS problem areas, specifying corrective measures, and coordinating nonpoint source compliance planning with State coastal and nonpoint source programs when addressing land management issues.

e. **Prime and Unique Farmlands.** Navy installations shall identify and take into account the adverse effects of their actions on the protection of farmlands. They shall fully consider alternative actions that lessen such adverse effects.

f. **Environmentally and Economically Beneficial Landscaping.** Navy installations shall support the goals of the President's memorandum on all new or extended landscaped areas, and shall consider native plants when replacement or rejuvenation of existing landscaping is required.

g. **Invasive Species.** Navy installations will prevent the introduction of invasive species and provide for their control. The Navy will identify actions that affect the introduction of invasive species, prevent their introduction, respond rapidly to their control, monitor populations, restore affected native species and their habitat, conduct research and develop technologies to prevent further introductions, and promote public education of the issue. The Navy will not authorize, fund, or implement actions that are likely to cause or promote the introduction or spread of invasive species in the U.S. or abroad.

22-5.4 Forest Management

a. **Management of Navy Forests.** Navy forest management shall accommodate and improve the economic and ecological value, health and diversity of the forest, conserve natural resources through wise use, provide financial returns to the government, and contribute commercial forest products to the economy. It is Navy policy to manage intensively forestlands for restoration, enhancement and improvement of forest resources. The Navy shall accomplish this through an active program of professional forest management, based on soil-site capabilities, in a multi-disciplinary, ecologically sound manner commensurate with the forest resources and species. Navy forest management shall include harvest, reforestation, afforestation, and silvicultural treatments that shall foster forest health and vigor, structural and biological diversity, and regeneration and plant community succession.

b. **Use of Clearcutting.** Installations shall use clearcutting as a standard harvest management practice only where essential to meet specific forest plan objectives as defined in the installation-specific INRMP. The Navy shall judiciously use alternative harvest methods, instead of clearcutting, whenever possible.

R) c. **Management of Late Successional Forests.** The harvest of mature/late successional forests shall be based on balanced economic, social, and environmental values identified during the management/planning process. It is Navy policy to maintain old-growth forests in their natural state to preserve their biological, scientific, and aesthetic benefits. Installation commanders are encouraged to apply for Tree City USA status.

R) **22-5.5 Outdoor Recreation.** Opportunities for natural resources-based outdoor recreation improve quality of life for Navy personnel, allow close partnership with the local community, improve knowledge of the natural world and the Navy's stewardship of natural resources. It is Navy policy to provide these educational and recreation opportunities as appropriate to the mission and the resources. Through their INRMP, installations are encouraged to develop their own programs and cooperate with other groups in programs such as Watchable Wildlife. Natural resources managers are encouraged to continue the development and enhancement of hunting, fishing, and other outdoor uses of natural resources by the disabled.

22-5.6 Environmental Restoration

a. **Natural Resources Damage Assessments.** Navy policy is to restore, rehabilitate, or replace natural resources within its management or control injured by spills of oil or hazardous substances. The process and responsibilities for assessment of damage and restoration of natural resources are discussed in chapter 27.

b. **Ecological Risk Assessment.** The Navy shall use natural resources professionals, familiar with the site, to assist in assessing ecological risks in site cleanup decisions. Where sensitive habitats are involved, they shall also review sites and work plans, evaluate contractor qualifications, and assist in remedial action and site restoration planning.

22-5.7 Training. Every person preparing, implementing, supervising and managing natural resources programs shall receive environmental and natural resources training outlined in chapter 24 of this instruction. They shall receive comprehensive natural resources training specific to their job assignment, and familiarize themselves with the provisions of this chapter and the procedures outlined in reference (a). Continued professional training shall be an integral part of responsible NRM.

22-6 Responsibilities

22-6.1 General

A) Although SECNAV has the ultimate decision-making authority, responsibility for compliance with laws and regulations governing the Natural Resources Program rests at many levels throughout the Navy chain of command. As the Navy shore infrastructure continues to change through regionalization, NRM functions, formerly the responsibility of installation commanders, will become regional commander/area coordinator responsibilities. NRM functions traditionally performed at COMNAVFACENGCOM and the EFDs/EFAs will continue to be performed there and should be relied upon by regional commanders and area coordinators to fulfill both compliance and stewardship obligations.

22-6.2 Deputy Chief of Naval Operations (DCNO) (Logistics) shall

a. Ensure an adequate, Navy-wide organizational capability at headquarters and in the field to meet the demands and challenges of natural resource management dictated by DOD and legislative requirements.

b. Ensure the programming of resources necessary to establish and maintain an integrated natural resources program consistent with legislative requirements, DOD policy, and stewardship of Navy lands and resources.

c. Provide policy needed to establish and maintain a program for the management, conservation, and enhancement of natural resources on Navy lands.

d. Coordinate and ensure resolution of natural resources issues affecting the Navy mission.

e. Assign a natural resources professional to serve on the DOD Conservation Committee.

f. Coordinate pertinent aspects of natural resources issues with the Navy Natural Resources Program Manager.

g. Ensure natural resources program staffing, grades and organizational alignment receive the same high priority as other staff elements responsible for environmental compliance and stewardship.

22-6.3 Regional Commanders/Area Coordinators shall

a. Participate in the preparation of INRMPs for installations within their area of cognizance.

b. Endorse INRMPs and promote and coordinate their implementation with the appropriate Major Claimant and EFD/EFA.

c. Advise CNO (N45) of situations that require national-level coordination with other Federal agencies.

d. Maintain close liaison with COMNAVFACENGCOM and EFDs/EFAs, to promote and ensure regional efficiencies.

e. Use the services of the EFDs/EFAs for preparation of INRMPs and development/administration of Cooperative Agreements and contracts to implement INRMPs. (A

22-6.4 COMNAVFACENGCOM shall

a. As Navy Natural Resources Program Manager, serve as principal advisor for the Navy in matters related to NRM and implement Navy policy to ensure stewardship of Navy lands and resources and compliance with natural resources laws and regulations, including but not limited to:

(1) Providing a representative to serve on the DOD Conservation Committee,

(2) Coordinating pertinent aspects of the Navy Natural Resources Program and issues with headquarters elements of other Federal agencies, military services, and other environmental organizations.

(3) Providing technical expertise to evaluate and validate POM submittals and other requests for funds for natural resource projects.

(4) Providing leadership and coordination to Navy commands in the management of natural resources.

(5) Making staffing recommendations for natural resources personnel, including designation or assignment of Navy natural resources representatives for DOD, DON or other natural resources working groups, initiatives, commitments of programs.

A) b. Provide and ensure natural resources professional staffing, grades and organizational structure and alignment receive the same high priority as other staff elements responsible for environmental compliance or impacts. Natural resources staffing and grades shall be sufficient to oversee and provide technical and administrative support needed by Navy commands and installations to ensure integrated, multiple use management, conservation, and enhancement of natural resources on DON lands including, but not limited to:

(1) Implementing policy for managing and conserving soil, water, forest, land, grounds, fish and wildlife, wetlands, floodplains and natural areas.

(2) Determining the possibilities and requirements for NRM programs on installations that contain land and water areas suitable for the conservation and management of natural resources.

(3) Gathering information from installations, EFDs/EFAs, and Major Claimants; maintaining NRM Program information needed to satisfy reporting requirements, legislative information requests and to support project requests.

c. Serve as Program Manager for the NRM Program of the Navy, and provide professional staffing on a regional basis via the EFDs/EFAs to:

(1) Develop, issue and coordinate the program management guidance and appropriate Navy-wide instructions for implementation of INRMPs.

(2) Approve budgets and plans for management of Navy forests; and allocate forestry program funds.

(3) Manage and allocate agricultural outlease program funds.

(4) Provide technical oversight and budget approval of installation fish and wildlife/hunting and fishing fee and permit programs.

d. Ensure that natural resources professionals evaluate the NRM program during Environmental Quality Assessments (EQAs) as described in chapter 20.

22-6.5 Regional EFDs/EFAs shall (A

a. Provide technical and administrative guidance and assistance necessary for the development of INRMPs.

b. Evaluate and incorporate new methods, policies, technologies, and procedures for the preservation, management and enhancement of natural resources.

c. Coordinate NRM requirements with other Federal, State or local professional authorities, including all section 7 consultations under the ESA.

d. Provide technical oversight, documents and contracts for the Navy forestry program.

e. Develop, manage and execute agricultural out-leasing programs, provide appropriate technical expertise and conservation planning, prepare documents and contract for real estate management actions.

f. Develop and maintain liaison with appropriate Federal, State, local agencies, and other organizations to facilitate implementation of INRMPs.

g. Provide the technical and administrative guidance for the development of cooperative agreements to implement natural resources plans and execute cooperative agreements on behalf of installation commanders upon request.

h. Provide functional sponsorship for funding and support of national and regional professional workshops, forums, and conferences for information/technology transfer and exchange.

i. Resolve natural resources impact issues in support of the environmental impact analysis process, including identification, location and quantification of compensatory, remedial or mitigative NRM measures to offset project impacts.

j. Ensure that current and planned activities (e.g. master planning, construction requests and design) are effectively coordinated in a timely manner with appropriate natural resources managers.

k. Provide technical assistance to regional environmental coordinators, area commanders, and installations in carrying out their responsibilities.

l. Provide natural resources expertise and contract authority for natural resource real estate matters to Marine Corps installations, upon funded request.

m. Provide technical expertise in management of BASH reduction.

22-6.6 Major Claimants and intermediate commands shall:

a. Require, ensure, and assist subordinate installation's NRM planning and program implementation, and training for NRM professionals and coordinators at the installations.

b. Program and budget resources to fund both routine and recurring costs to operate and maintain NRM planning and program implementation.

c. Ensure that subordinate installation COs act as stewards of natural resources under their jurisdiction. Promote cooperative projects with Federal, State, and local organizations.

d. Ensure that effective NRM is an identifiable function, and is specifically accountable in performance evaluations, at each command level.

e. Ensure that installation NRM program implementation and effectiveness are evaluated by natural resources professionals as part of EQAs (See chapter 20).

f. Ensure that adequate NRM expertise is available to installation COs for the protection, management, identification, and mapping of wetlands and other natural resources features.

g. Ensure that contracts for operation of government owned, contractor operated (GOCO) installations include provisions for complying with policies and procedures as prescribed in this chapter and instruction.

h. Ensure adequate natural resources programs are in place at installations scheduled for closure to continue to manage and protect the resources until land has been officially transferred to another owner.

i. Maintain records necessary to monitor and evaluate natural resources under their management, and provide requested information to agencies with jurisdiction and to the public.

j. Take appropriate action necessary to assure that actions authorized, funded, or carried out comply with the ESA.

k. Coordinate proposals for new and continuing actions that affect natural resources with the managers of those resources, and ensure that State best management practices for nonpoint source pollution are incorporated into these proposals.

22-6. 7 COs of shore activities holding Class 1 plant accounts shall

a. Act as stewards of natural resources under their jurisdiction, develop and maintain an effective conservation program as outlined in this instruction, and use technical assistance from the EFDs as necessary.

b. Integrate natural resources requirements into the day-to-day decision-making process.

c. Request funding sufficient to ensure support of an integrated program as prescribed by this chapter and the NAVFAC P-73, Vol. II, including personnel support and training.

d. Ensure the preparation of INRMPs and systematically apply the conservation practices set forth in such plans.

e. Appoint, by letter, an installation Natural Resources Manager/Coordinator whose duties include ensuring that the CO is informed regarding: natural resources issues, conditions of natural resources, objectives of the INRMP, and potential or actual conflicts between mission requirements and natural resources mandates.

f. Implement programs to reduce the potential for collisions between aircraft and birds or other animals if the installation has a flying mission.

g. Ensure that current and planned mission activities are effectively coordinated in a timely manner with appropriate natural resource managers.

h. Ensure incorporation of soil and water conservation measures and landscaping in the preliminary engineering, design, and construction of facilities involving ground disturbance in coordination with EFDs. Ensure that state-approved erosion prevention/control measures are included as requirements in the specifications for all ground disturbing construction projects. Include these costs as a specific item in new project investigations and preliminary engineering reports.

i. Review all non-excess land to identify areas that may be suitable and available for agricultural outleasing or commercial forestry. Document the results of this review as described in chapters 2 and 3 of reference (a).

j. Enter into fish and wildlife and outdoor recreation cooperative agreements developed on behalf of the Secretary of Defense as required by the Sikes Act.

k. Seek the aid of, and coordinate the NRM program with, Federal, State, and local agencies.

l. Coordinate proposals for new and continuing actions that affect natural resources with the managers of those resources.

m. Conduct surveys and other appropriate actions as necessary to document the presence of threatened or endangered species, identify currently used and periodically/indirectly used habitat for these species and assist in the determination of whether any such habitats should be designated as "critical habitats." COs shall conduct

surveys to determine the presence and distribution of candidate species and State/territory rare and endangered species.

n. Request the appropriate EFD NRM function to conduct necessary consultations under the ESA with the USFWS and/or NMFS.

o. Conduct surveys and other actions as necessary to document the presence and location of wetlands, and take appropriate action to avoid direct or indirect adverse impacts of new construction on wetlands.

A) p. Conduct surveys and environmental reviews, develop management recommendations and implement other actions as necessary to protect coral reefs and coral reef systems.

q. Properly consider any action affecting natural resources in the environmental review and public notification process. (See chapter 2).

r. Maintain records necessary to monitor and evaluate natural resources under their management, and provide requested information to agencies with jurisdiction and to the public.

s. Integrate NRM principles with environmental protection programs to coordinate an effective overall environmental program.

CHAPTER 23

HISTORIC AND ARCHEOLOGICAL RESOURCES PROTECTION (D

23-1 Scope

23-1.1 General. This chapter states Navy policy regarding the protection of historic and archeological resources and establishes Navy responsibilities under pertinent legislation. It conforms with reference (a), which provides policy and assigns responsibilities for the management of historic and archeological resources under DON control.

23-1.2 Applicability. Historic and archeological resources protection requirements apply to all properties under the control of the Navy by ownership, lease, or similar instrument that are located in the United States, the District of Columbia, and the commonwealths, territories and possessions of the U.S. (reference (b)). Waters contiguous to land areas may contain archeological resources and historic Navy properties or may be significant due to a historic event; therefore, this instruction applies to land and water areas under direct control of the Navy and to submerged historic properties owned by the Navy. Activities in foreign countries shall manage their historic and archeological resources per Chapter 18.

23-1.3 References. Relevant references are:

a. SECNAVINST 4000.35, Department of the Navy Cultural Resources Program; (NOTAL);

b. 36 CFR 800, Protection of Historic and Cultural Properties;

c. 32 CFR 229, Protection of Archeological Resources: Uniform Regulations;

d. 53 Federal Register 4742, Guidelines for Federal Agency Responsibilities under section 110 of the National Historic Preservation Act;

e. 43 CFR 10, Native American Graves Protection and Repatriations Act Regulations;

f. 36 CFR 79, Curation of Federally-owned and Administered Archeological Collections;

g. DOD Instruction 4715.3 of 3 May 1996, Environmental Conservation Program (NOTAL). (R (D

23-2 Legislation

23-2.1 American Indian Religious Freedom Act (AIRFA). Requires Federal agencies to consult with native traditional religious leaders and to consider, but not necessarily defer to, Native American religious values. Agencies should permit access to religious sites, when possible.

23-2.2 Antiquities Act of 1906. Requires the issuance of permits for study, removal, or excavation of any ruins, sites, structures, or objects of historical or scientific interest.

23-2.3 Archeological Resources Protection Act (ARPA). Requires the issuance of permits for authorized professional excavation or removal of archeological resources. ARPA also imposes civil and criminal penalties for unauthorized excavation, removal, damage, alteration, or defacement of archeological resources or attempts to perform such unauthorized acts. Additional requirements include scheduling Phase 1 archeological surveys on 100 percent of Class I property to identify resources and scheduling phase 2 investigations of resources with most scientific value. ARPA also requires Federal agencies to create public awareness programs promoting resource protection. See reference (c).

23-2.4 National Historic Preservation Act (NHPA). Requires an expanded National Register

of Historic Places (National Register) and establishes the Advisory Council on Historic Preservation (Advisory Council). Additionally, requires each Federal agency to designate a qualified Federal Preservation Officer who will coordinate that agency's activities under this Act. Section 106 of the Act requires Federal agencies to allow the Advisory Council an opportunity to comment whenever their undertakings may affect National Register resources or resources that are eligible for listing on the National Register. See reference (b). Section 110 of the Act requires Federal agencies to identify, evaluate, inventory, and protect National Register resources (or resources that are eligible for listing on the National Register) on properties that they control. NHPA imposes no absolute preservation requirement, as long as the Navy follows and documents mandated procedures for any Navy decision not to preserve. See reference (d).

23-2.4.1 The National Register of Historic Places. NHPA authorizes the Secretary of the Interior to maintain a National Register that lists sites, districts, buildings, structures, and objects of significance in American history, architecture, archeology, engineering, and culture. National Register resources may be of local, State, or national significance. Each Federal agency is authorized to include preservation costs of National Register resources as eligible project costs for all undertakings.

23-2.5 Native American Graves Protection and Repatriation Act (NAGPRA). Requires each Federal agency to summarize and inventory Native American human remains, funerary objects, sacred objects, and cultural items in their collections; to identify relationships of these objects with descendant Native Americans; and to

negotiate their repatriation in consultation with related, Federally recognized, culturally affiliated Indian tribes. Section 3 requires notification and consultation with descendant Native Americans regarding disposition of threatened archeological sites containing NAGPRA objects. See reference (e).

23-3 Terms and Definitions

23-3.1 Advisory Council on Historic Preservation. An independent Federal agency charged with advising the President, Congress, and Federal agencies regarding historic and archeological resources protection.

23-3.2 Archeological Resources. Material remains of past human life that are capable of contributing to scientific or humanistic understanding of past human behavior, cultural adaptation, and related topics through the application of scientific or scholarly techniques.

23-3.3 Archeological Survey. Phase 1 surveys are characterized by intensive pedestrian surface inspection augmented by subsurface shovel testing in areas with high probability for intact archeological deposits. Phase 1 surveys include archeological testing sufficient to determine eligibility for inclusion on the National Register. (A

23-3.4 Architectural Survey. A survey to determine which real properties, sites, buildings, structures, works of engineering, industrial facilities, fortifications, and landscapes, are eligible for the National Register of Historic Places. (A

23-3.5 Cultural Resources. A generic term commonly used to include buildings, structures, districts, archeological sites, historic landscapes, Traditional Cultural Places, Indian sacred sites, and objects of significance in history, architecture, archeology, engineering or culture. The term also includes associated documents and records.

23-3.6 Cultural Resources Coordinator. A staff person without the professional qualifications of a cultural resources professional who performs routine cultural resources compliance functions (often as a collateral duty), and con-

tracts out for professional expertise as needed for specific projects.

23-3.7 *Cultural Resources Professional.* A qualified anthropologist, archeologist, architectural historian, historic architect, historian, or preservation planner with specialized training/experience in Federal preservation legislation compliance.

23-3.8 Indian Tribe. Any Tribe, band, nation, or other organized group or community, including any Alaska native village that is recognized by the Bureau of Indian Affairs as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

23-3.9 Memorandum of Agreement (MOA). Written product of Section 106 consultation, signed by the Navy, the State Historic Preservation Officer (SHPO) and the Advisory Council that resolves incompatibilities between a Navy undertaking and preservation requirements by stipulating measures to reduce adverse effects or accepts adverse effects as being unavoidable and in the public interest.

23-3.10 National Historic Landmark. A National Register resource designated by the Secretary of the Interior as having exceptional significance in the nation's history and which is subject to the most stringent preservation requirements.

23-3.11 National Register Resource. Broad concept that includes all resources that meet National Register significance criteria, even if the resources have not been formally registered, identified or acknowledged as significant. Current Federal regulations use the term "historic property" as a synonym for National Register resource. Regulations set the criteria for definition of a historic property. Consider structures 50 years old or more as potentially eligible for listing on the National Register.

23-3.12 Native American. An Indian, Native Hawaiian, or Native Pacific Islander.

23-3.13 Native Hawaiian. Any descendant of the aboriginal people who, prior to 1778, occupied and exercised sovereignty in the area that now constitutes the State of Hawaii.

23-3.14 Overview. Literature search and surface inspection, including inspection of erosion cuts, performed by a cultural resources professional, to determine the likelihood that any National Register resources may be present.

23-3.15 Programmatic Agreement. Written agreement among the Navy, the SHPO, and the Advisory Council that streamlines Section 106 consultation requirements and stipulates how an entire program or class of undertakings repetitive in nature or similar in effect will be carried out so as to avoid or mitigate adverse effects.

23-3.16 Recordation. Measured drawings, photographs and other techniques permanently recording National Register resources that must be destroyed or substantially altered. Recordation must meet the standards of the Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER), as administered by the appropriate regional office of the National Park Service.

23-3.17 Significance or Significant. Those attributes or characteristics of a resource that make it valuable, usually determined by National Register eligibility criteria.

23-3.18 (SHPO). Official appointed by the governor of each State and territory, responsible for administering cultural resources programs within a given jurisdiction.

23-3.19 Undertaking. Any Federal, Federally assisted, or Federally licensed action, activity, or program, new or continuing, that may affect Na-

tional Register resources and therefore triggers Section 106 consultation responsibilities.

23-4 *Requirements*

23-4.1 Advisory Council Process; NHPA Section 106

23-4.1.1 General. Prior to the approval of the expenditure of any Federal funds for an undertaking that may affect a National Register resource, the agency will initiate interagency consultation procedures by contacting the SHPO, explaining the undertaking, its area of potential effect, and a preliminary determination on whether or not National Register Resources will be affected. The possible outcomes are: No Effect, Adverse Effect, or No Adverse Effect.

23-4.1.2 Determination of No Adverse Effect. If the agency and SHPO concur that there will be an effect but it will not be adverse, the agency will send supporting documentation to the Advisory Council staff. The Advisory Council staff has 30 days in which to file an objection. If the Advisory Council staff does not object, the undertaking may proceed.

23-4.1.3 Determination of Adverse Effect. If the Advisory Council staff objects to a determination of no adverse effect, or if the SHPO or the agency determines that there is an adverse effect, then the agency will initiate formal consultation to consider alternatives. An MOA may be negotiated that allows the undertaking to proceed after specified mitigation actions are implemented.

23-4.1.4 Failure to Agree. In case of a failure to agree on conditions for accepting or mitigating the adverse effect, after all other procedures specified in current regulations have been followed and documented, the agency will afford the full Advisory Council an opportunity to comment. After taking the Advisory Council's comments into consideration, the Secretary of the Navy may formally notify the Advisory Council that the undertaking will proceed, in the public interest, without agreement having been reached regarding alternative courses of action or mitigation measures to be taken.

23-4.2 Managing National Register Resources; NHPA Section 110

23-4.2.1 General. Per the NHPA, each Federal agency must establish a preservation program for the identification, evaluation, nomination, and protection of National Register resources. Federal agencies shall ensure that such resources are not inadvertently transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly. Agencies shall manage and maintain National Register resources in a way that considers the possible preservation of their historic, archeological, architectural and cultural values, in coordination with Section 106 and other preservation legislation. Agencies shall carry out related activities in consultation with other Federal, State and local agencies, Indian tribes, Native Hawaiian organizations engaged in historic preservation planning, and the private sector. Failure to identify resources that meet National Register criteria does not exempt an agency from any legal responsibilities.

23-4.2.2 Phased Compliance. A cultural resources professional will survey all military land holdings to locate National Register resources. Phase 1 is a historic structures overview and archeological survey of an entire installation or complex to delineate probable areas, if any, for the existence of cultural resources. Phase 2, usually carried out as part of Section 106 compliance, consists of detailed surveys to determine National Registry eligibility of resources that might be affected by an agency undertaking. Finally, as funds become available, complete detailed National Register nomination forms in coordination with the SHPO, and nominate resources to the Keeper of the National Register (via the appropriate Navy chain of command).

23-4.2.3 Use of Historic Structures. Federal agencies will use available historic buildings prior to new construction, lease, or any acquisition of a building for the purpose of carrying out its responsibilities.

23-4.3 National Historic Landmarks

23-4.3.1 General. NHPA Section 101(a)(1)(B) provides for inclusion of National Historic Landmarks in the National Register. Section 110(f) affords landmarks more stringent protection than other National Register resources. Federal regulations outline procedures for consultation with the SHPO and the Advisory Council, and possible National Park Service (NPS) review, in order to minimize harm to landmarks from Federal agency undertakings.

23-4.3.2 Monitoring of National Historic Landmarks. The NPS maintains a continuing relationship with owners of National Historic Landmarks. Agencies will cooperate in periodic visits or contacts with SHPOs and other appropriate means that the NPS uses to compile its annual report to Congress on threats to the integrity of landmarks, to advise agencies concerning accepted preservation standards, and to update administrative records on landmark properties. The Department of the Interior provides an annual report to Congress on damaged or threatened National Historic Landmarks.

23-4.3.3 Landmark Designation Actions. Although property owners and SHPOs may nominate National Historic Landmarks, designation ordinarily occurs after a study by the NPS. Preservation is not absolutely required, as long as mandated procedures are followed and documented in any decision not to preserve.

R) **23-4.4 Archeological Permits.** Any person proposing to study, remove, and/or excavate archeological resources from public lands will request a permit under the Antiquities Act and/or ARPA. Permit requests must explicitly address and ensure professional curation of removed artifacts in accordance with 36 CFR 79 (reference (f)).

COMNAVFACENGCOM, in consultation with affected commands and preservation agencies, will issue permits for archeological work on Navy lands. In cases where the Navy contracts with an archeologist (or a Navy contractor subcontracts with an archeologist) to perform archeological work for the Navy, consider a brief compliance statement in the contract or subcontract as the equivalent of a permit. In cases where employees of the Navy perform archeology on Navy lands, satisfy legal permitting requirements by ensuring that such employees are professionally qualified archeologists (as defined by current Federal regulations).

23-4.5 Interagency Exchange of Information. Every Federal land manager, when requested by State and Federal preservation agencies, is to supply such information as is necessary concerning programs and projects for historic and archeological resources protection. Keep records to facilitate responses to such requests for information. Note that ARPA and NHPA mandate caution, and in some cases confidentiality, regarding cultural resources information about archeological sites.

23-4.6 Public Exchange of Information. ARPA and NHPA authorize public officials to withhold disclosure of information from the public regarding the location and character of a historic or archeological resource if disclosure could mean risk of potential harm to the historic resource. The Freedom of Information Act (FOIA) Exemption b(3) (NHPA 16 U.S.C. 470w-3) permits the restriction of such information. Every command that manages an inventory of cultural resources will develop an explicit policy regarding released or restricted cultural resources information and who may have access to such information.

23-4.7 Professional Standards and Qualifications; NHPA Section 112. Each Federal agency will ensure that all preservation actions meet professional standards in archeology, architecture, conservation, curation, history, landscape architecture, and planning. Agencies will ensure that agency personnel and contractors responsible for historic and archeological resources meet professional skills and expertise qualifications established by the Secretary of the Interior and professional societies of the disciplines involved.

23-5 Navy Policy

23-5.1 Navy Policy is:

a. Incorporate preservation considerations into routine Navy management of historic buildings, districts, sites, ships, aircraft, and other cultural resources. The Navy shall use preservation-specific materials and techniques to achieve cost-effective cultural resources stewardship.

b. Initiate timely consultation with SHPOs, the Advisory Council on Historic Preservation, Native Americans, Native Hawaiians, other interested agencies, and the public whenever the DON conducts or supports undertakings that may affect any National Register property. The Navy retains ultimate authority over treatment and use of its National Register properties.

23-5.2 Recordkeeping

23-5.2.1 Integrated Cultural Resource Management Plan (ICRMP) Implementation. Navy installations shall have knowledge of National Register resources located on or adjacent to Navy lands and waters. Beginning with Phase 1 surveys and updating to include information gathered in Phase 2 and later survey work of phased compliance, shore installations shall implement ICRMP plans that:

a. Identify the areas of probability for National Register resources, based on overviews and surveys performed by cultural resources professionals.

b. Contain an evaluation and inventory of all known historic and archeological resources on Navy lands and waters or resources that are eligible for listing on the National Register.

c. Recommend priorities and describe applicable legal compliance strategies that avoid potential conflicts between Navy mission and preservation mandates.

d. Prescribe specific compliance actions to be taken if Navy undertakings affect National Register resources.

23-5.2.2 Development of ICRMP. Shore installations shall: (R

a. Develop plans in consonance with State and Federal preservation programs and other Navy planning documents and processes.

b. Secure endorsement of draft and final ICRMP endorsed by the major claimants environmental office via the chain of command.

c. After endorsement by the major claimant environmental office, secure signatures of the installation commander, SHPO and supporting engineering Field Division (EFD) on the finalized ICRMP. Department of Defense planning guidance requires completion of all plans by FY 2001, with scheduled 5-year updates.

d. Forward a copy of the finalized signed ICRMP to the major claimant environmental office and the DON Federal Preservation Officer (FPO) in the Office of the Assistant Secretary of the Navy (Installations and Environment).

23-5.3 Training

Navy installations shall ensure every person preparing, implementing, supervising, and managing cultural and historic resource programs receives comprehensive cultural resources training specific to his or her job assignment as outlined in the Navy Training Plan and Chapter 24 of this instruction; and is familiar with the provisions of this chapter.

23-6 Responsibilities

23-6.1 Deputy Chief of Naval Operations (DCNO) (Logistics) (N4) shall:

a. Provide guidance for cultural resources programs related to historic and archeological resources at Navy shore installations, historic ships in the inactive fleet, and cultural resources aspects of Navy environmental programs (reference (g)). As resource sponsor, the DCNO (Logistics) provides fiscal support for qualified cultural resources staffing, training, surveys, plans, and other management requirements to achieve compliance with applicable statutes, regulations, and instructions.

b. Establish a Navy-wide Historic and Archeological Resources Protection (HARP) program.

c. Designate a qualified staff person to oversee and coordinate the Navy's cultural resources programs.

d. Identify Navy-wide priorities for historic and archeological resources surveys and other stewardship actions so as to achieve compatibility with Navy missions and budgets.

e. Provide guidance on implementation of cultural resources policy and advise all levels of command regarding compliance with cultural resources legislation, regulations, and professional standards.

f. Review interagency cultural resources agreements and National Register nominations, as recommended by subordinate commands, and prepare nominations for DON FPO signature.

g. Coordinate interagency consultation concerning cultural resources: at shore installations, in the inactive fleet, underwater, or affected by Navy programs.

h. Ensure full coordination with Marine Corps and other military services to avoid duplication of effort.

i. Coordinate response(s) to Congressional inquiries and requests for cultural resources information from Federal, State or private interests.

23-6.2 COMNAVFACENGCOM shall:

a. Act as principal advisor for the Navy in matters related to historic buildings, structures (except ships, shipwrecks, and aircraft), sites, districts, archeological sites, Traditional Cultural Properties, Indian sacred sites, and disposition of archeological collections.

b. Designate and train specific qualified staff to perform historic and archeological resources protection functions.

c. Maintain a list of the Navy's National Register resources and a record of undertakings affecting them.

d. Provide technical assistance to identify, evaluate, inventory, nominate, plan, maintain, and protect historic and archeological resources under Navy control.

e. Cooperate with SHPOs and other preservation officials in their regions so as to expedite Navy projects and programs affecting historic and archeological resources.

f. Assist installations in negotiating MOAs and Programmatic Agreements that both protect historic and archeological resources and facilitate Navy projects and programs.

g. Provide technical and legal support in resolving questions related to legal preservation requirements, as requested.

h. Provide preservation training opportunities and guidance concerning appropriate preservation procedures, techniques and material.

i. Process applications for and issue ARPA permits authorizing professional excavation and removal of archeological resources, as appropriate.

23-6.3 COMNAVSEASYSCOM shall:

a. Manage certain shore installations, historic ships afloat, and historic ships in the inactive fleet, and coordinate with other commands.

b. Fully comply with the NHPA and other legislation applicable to stewardship of historic and archeological resources under COMNAVSEASYSCOM control.

c. Coordinate with the Naval Historical Center for the protection, preservation, and management of historic ships afloat and historic ships in the inactive fleet and other historic artifacts under COMNAVSEASYSCOM control.

d. Designate and train qualified staff responsible for compliance actions regarding historic and archeological resources.

23-6.4 Major claimants, through subordinate commands, as applicable, shall:

a. Program, budget, and allocate funds for qualified staffing, training, surveys, plans, and studies to facilitate the identification, evaluation, inventory, planning, maintenance, and protection of National Register resources and Indian sacred sites at installations under their cognizance.

b. Revise instructions and other appropriate documents, if necessary, to reflect requirements of this chapter.

c. Ensure subordinate commands and shore installations, as applicable, designate and train a cultural resources coordinator responsible for compliance with applicable cultural resources laws, regulations and policy.

23-6.5 Director, Naval Historical Center shall:

a. Act as principal advisor for the Navy in matters related to historic naval ships, shipwrecks, and aircraft.

b. Designate a qualified professional to oversee and coordinate the Navy's cultural resources programs related to historic ships, shipwrecks, and aircraft.

c. Designate and train qualified staff responsible for compliance actions regarding historic and archeological resources.

d. Identify priorities for historic ship and aircraft surveys, inventories, and other stewardship actions so as to achieve compatibility with missions and budgets.

e. Advise all levels of commands having historic ships and aircraft regarding compliance with cultural resources legislation, regulations, and professional standards.

f. Review interagency agreements and National Register nominations of historic ships, shipwrecks, and aircraft as recommended by subordinate commands, and prepare nominations for DON FPO signature.

g. Negotiate MOAs and Programmatic Agreements that protect, preserve, and manage naval shipwrecks and aircraft wrecks as historic properties or archeological resources.

h. Process applications for and issue ARPA permits authorizing professional excavation of historic naval shipwrecks and aircraft wrecks and removal of submerged archeological materials, as appropriate.

23-6.6 Commanding officers of shore installations shall:

a. Plan, program, and budget for adequate compliance with historic and archeological resources protection legislation that applies to resources under their control.

b. When warranted by the existence of historic and/or archeological resources, designate and train a staff person to serve as Cultural Resources Coordinator.

c. Provide cultural resources training to all staff persons who deal with cultural resources.

d. Provide for the professional identification, evaluation, inventory, nomination, and protection of resources under their control that appear to be eligible for the National Register.

e. Follow all legally mandated procedures if National Register resources under their control are to be transferred, sold, demolished, substantially altered, or allowed to deteriorate significantly.

f. Develop, implement, and integrate a ICRMP plan with other planning documents and routine procedures applicable to activity projects and programs.

g. Consult with the SHPO and the Advisory Council whenever proposed undertakings may have an effect on National Register resources, and enter into MOAs regarding mitigation of such effects.

h. Consult with Native American tribes prior to any Navy action that may impact Native American interests regarding Environmental Conservation, Compliance, or access. (A

i. Ensure that inadvertently discovered archeological resources are protected at the site of discovery. Within 24 hours of discovery, notify the cognizant COMNAVFACENGCOM Cultural Resource Professional for appropriate action and simultaneously notify the DON FPO. (R

j. Use historic buildings when available and practical instead of new acquisition(s), construction, or leasing to satisfy mission requirements.

k. Provide for storage and professional curation of salvaged archeological resources. Provide for storage of records that might accrue in carrying out legal compliance actions.

23-6.7 Navy commands, installations and other components in foreign countries shall:

a. Take into account the effect of any Federal undertaking outside the United States that may directly or adversely affect a property that is on the World Heritage List or on the applicable country's equivalent of the National Register.

b. Take into account applicable provisions of status of forces agreements, international agreements, Admiralty law.

CHAPTER 24

ENVIRONMENTAL AND NATURAL RESOURCES TRAINING

R) **24-1 Scope**

This chapter directs environmental and natural resources training required for Navy personnel (including military personnel and civilian employees of non-appropriated fund activities), to accomplish all Navy missions in an environmentally responsible manner, and to comply with Federal, State, and local laws and regulations. This chapter provides Navy policy regarding environmental and natural resources training, and a plan for implementing it. Environmental training courses described in this chapter are official courses for the training of Navy personnel. Specific training mandated by law or regulation is included in individual technical chapters, as applicable.

A) We revised this chapter concurrently with the development of the Environmental and Natural Resources Program (ENRP) Navy Training System Plan (NTSP) (reference (a). It reflects the environmental training strategy of the NTSP. The NTSP, in turn, develops and programs the personnel, courses, training aids, etc. required to support this directive.

A) We developed training requirements by researching laws, regulations, and directives in response to Fleet requirements; and in response to guidance provided by the Chief of Naval Operations (CNO), Environmental Quality Management Board (EQMB), and the ENRP NTSP Steering Committee.

A) This chapter is applicable to shore and afloat commands (including aviation commands) for the training, briefing, and orientation of personnel assigned environmental responsibilities. Additionally, it directs all hands training, so that newly reporting personnel are provided with a meaningful environmental and natural resources summary. Consider Civil Service masters of Military Sealift Command (MSC) ships as commanding officers regarding all training requirements, unless otherwise directed by Commander, Military Sealift Command (COMSC). The chapter also provides broad guidance for the training of Naval Reservists.

Commanding officers should note that formal school training does not eliminate the requirement for a comprehensive command environmental and natural resources training program. (R

24.1.1 Navy Policy

The training courses described in this chapter are the only formal, Navy environmental training courses. The Navy discourages the use of locally available, non-standard courses as they do not promote implementation of identical environmental policy and standards Navy-wide. Ad Hoc and informal environmental training must be reviewed through the sub committees (ISEERB PILLAR SUB COMMITTEE), and the working groups afloat and ashore. These committees are responsible for advising CNET, NAVSCOLCECOFF and NAVOSHENVTRACEN of emergent course requirements as well as changes to existing requirements. (R

The Navy's policy regarding environmental and natural resources training is:

a. To provide all Navy personnel, military and civilian, active duty and reserve, with quality initial training and annual refresher training.

b. To accomplish officer and enlisted environmental awareness training during initial accession training.

c. To conduct training required for a specific billet or assignment en route to the assignment, or as soon thereafter as practicable.

d. To provide training that is both command-specific and general.

e. To stress the roles and responsibilities of the individual as well as the command during *environmental and natural resources training.*

f. To emphasize that compliance with Federal, State, and local laws and regulations is mandatory, and that failure to comply may result in civil penalties being imposed against the command. Moreover, some violations may subject individuals as well as commands to disciplinary action by the Navy, or to civil or criminal penalties imposed by Federal or State courts or regulators.

A) g. Naval Reserve commanders and commanding officers shall work closely with active duty counterparts to provide appropriate environmental and natural resources training for Naval Reservists.

h. Commands shall conduct environmental and natural resources training needs assessment surveys as required to evaluate training effectiveness and to identify areas for additional training

i. Per NTSP, commands shall obtain required training through Navy sources unless:

(1) A specific course is unavailable through Navy sources, or

(2) A commercially available course equivalent to a Navy source course, is more economical (*i.e.*, cost of travel, per diem, etc.).

24-1.2 References. Relevant references are: (D

a. N45-NTSP-X-10-96-01, Environmental and Natural Resources Navy Training System Plan; (NOTAL); (A

b. OPNAVINST 5100.19C, Navy Occupational Safety and Health Program Manual for Forces Afloat; (NOTAL); (A

c. OPNAVINST 5100.23D, Navy Occupational Safety and Health Program Manual; (NOTAL). (A

24-2 Legislation

Environmental laws or implementing regulations specify certain training requirements. Additional training requirements exist, not specifically required by the laws or regulations, because untrained personnel probably cannot comply with requirements unless they receive them. (R

24-3 Terms and Definitions (D

There are no terms specifically applicable to this chapter.

24-4 Environmental Training Requirements (R

24-4.1 General Environmental Awareness Training. Commanders and COs shall conduct general environmental awareness training annually for all hands afloat and ashore, and include: (D (A

a. The Navy's Environmental and Natural Resources Program and policy.

b. Navy environmental and natural resources initiatives, and the impact of these initiatives on the individual.

c. The role of the individual in achieving Navy environmental and natural resources compliance.

d. Pollution prevention and recycling.

e. Environmental planning and assessment as required by NEPA and Executive Order (E.O.) 12114 (for shore personnel only).

f. Consequences of non-compliance.

The Navy produces and provides environmental awareness training videotapes and accompanying user's guides as well as computer-based training modules for distribution to all commands. Commands should use these videos to assist in accomplishing general environmental awareness training.

R) **24-4.2 Command Orientation.** Commanders and COs shall provide each individual reporting to a command with command-specific environmental awareness training, as part of the Command Orientation Program, including a survey of the following topics:

a. The command's commitment to a strong, protective environmental ethic and stewardship of natural resources.

b. The command's specific environmental responsibilities and its accompanying environmental awareness and compliance programs, including employee liability (shore personnel only) and protection of natural resources, pollution prevention, recycling, and hazardous material control and management (HMC&M).

c. The responsibility, commitment, and contribution of the individual to the environment.

d. The command's environmental points of contact and telephone numbers and emergency telephone numbers.

e. Federal, State, and local environmental laws and regulations (shore personnel only).

24-4.3 Specialty Training.

24-4.3.1 Surface warfare officers. Surface warfare officers shall receive environmental and pollution prevention training through the Surface Warfare Officers' School Command (SWOSCOLCOM) as part of their curriculum. (A

24-4.3.2 Supply officers. Supply officers shall receive environmental training at the Naval Supply Corps School as part of an appropriate curriculum. (A

24-4.3.3 Naval aviators. Naval aviators shall receive environmental compliance and pollution prevention training as part of flight training, or soon thereafter. Embarked squadrons or detachments shall participate in their ship's training program. (A

24-4.3.4 Submarine officers. Submarine officers shall receive environmental compliance and pollution prevention training at the earliest opportunity as part of prospective commanding officer or prospective executive officer (PCO/PXO), department head (D.H.), and basic submarine officer training. (A

24-4.3.5 Navy Judge Advocate General (JAG) officers. JAG officers shall receive environmental training in the Staff Judge Advocate Course at Naval Justice School. (A

24-4.3.6. Afloat Environmental Protection Coordinators (AEPC) AEPCs shall attend the Afloat Environmental Protection Coordinator course (A-4J-0021) or equivalent. They shall complete Watchstation 304 in the Hazardous Material (HM)/Environmental Protection Programs Afloat Personnel Qualification Standards (PQS), (NAVEDTRA 43528), within 6 months of assignment. One petty officer per firefighting or repair party shall qualify on Watchstation 303 - HM Spill Response Scene Leader. One petty officer will also qualify as Watchstation 305 - Oil/Hazardous Spill Response Scene Leader

(NAVEDTRA 43528). For submarines, type commanders shall specify requirements for completion of PQS 303 and 305, such that appropriately qualified individuals shall be present at the scene of any HM or oil spill. For MSC ships, COMSC shall specify AEPC requirements.

A) **24-4.4 Shipboard Training Enhancement Program (STEP).** STEP is a program of computer-based training used in Navy shipboard training as an alternative to formal, classroom training, and to satisfy course completion requirements. Testing is included in STEP to evaluate student understanding of the material. STEP courses have the potential for effectively and economically delivering environmental and natural resources training.

A) **24-4.5 Billets Requiring Billet-Specific Environmental Training.** Navy personnel ashore and afloat will receive billet specific environmental training for the following:

Regional Environmental Coordinator (RECs)
Commanding Officers and Executive Officers
Commander's Staff
Supply Officers
Public Affairs Officers (Ashore)
ROICC/OICC
Afloat Environmental Coordinators
Public Works Officers
Environmental Managers, Engineers, and Planners
Natural and Cultural Resources Managers
Installation Restoration Personnel
Environmental Staff Personnel
Response Personnel
IMA Asbestos Removal
IMA Asbestos Removal
Hazardous waste site workers or other personnel working with refrigerants.
Industrial Hygiene Officer
Safety Officer

(A **24-4.6 Billet-Specific Formal Environmental Training Courses.** Following are the Navy environmental training courses available through the Navy Occupational Safety and Health and Environmental Training Center (NAVOSHENVTRACEN), Norfolk, VA and through the Naval School Civil Engineer Corps Officer school (NAVSCOLCECOFF), Port Hueneme, CA. Commands desiring course quotas should contact those schools directly.

a. NAVOSHENVTRACEN Courses:

Afloat Environmental Protection Coordinator (A-4J-0021)
IMA Asbestos Removal (A-493-0069)*
IMA Asbestos Removal Refresher (A-493-0070)*
CHRIMP/HICS Workshop
Oil On-Scene Operations Team
Navy On Scene Commander (NOSC)/Facility Incident Commander (FIC)
Hazardous Substance Incident Response Management (HSIRM) (A-493-0077).
Hazardous Material Supervisor (A-322-0010)*
Hazardous Material Coordinator (A-8B-008)*

* Occupational Safety and Health (OSH) Courses of environmental interest

b. NAVSCOLCECOFF Courses:

Environmental Protection (A-4AP-0036)
Advanced Environmental Protection (A-4A-0063)
Executive Environmental Seminar for CO/XO (A-4A-0054)
PWO Senior Environmental Forum (A-4A-0059)
Environmental Law for Non-Lawyers (A-4A-0058)
Advanced Environmental Law for Non-Lawyers Seminar
Environmental Negotiation

RAC Field Administration and Technology - (A-4A-0061)
Navy Environmental Restoration Implementation (A-4A-0064)
Quality Assurance in Environmental Analysis
Quality Assurance in Field Screening, Sampling, and Analysis
HAZWOPER - Site Worker
HAZWOPER - Site Worker Refresher
HAZWOPER For Uncontrolled HW Sites, for Supervisors
Hazardous Waste Facility Operators
Hazardous Waste Generators
Hazardous Waste Annual Refresher
NEPA Executive Overview
Historic Preservation Compliance Executive Overview
Historic Preservation Law and Section 106 Compliance
Introduction to Cultural Resources
Management Laws and Regulations.

c. Interservice Environmental Education Review Board (ISEERB)/NAVSCOLCECOFF Courses:

NEPA Application
Environmental Risk Communication and Public Dialogue
Natural and Cultural Resources Compliance
Natural and Cultural Resources Management
Pollution Prevention Tools, Techniques, and Technologies
Air Quality Management
Air ODS Certification
Pollution Prevention Program Operations and Management
Environmental Audit.

A) **24-4.7 Regional Environmental Coordinators (RECs).** Regional Environmental Coordinators will receive the following formal training:

a. Executive Environmental Seminar for CO/XO

b. Environmental Law for Non-Lawyers

c. Advanced Environmental Law For Non-Lawyers

d. Environmental Negotiation

e. NEPA Executive Overview.

24-4.8 Commanding Officers of Shore Activities. (A Personnel assigned command of shore activities (including shore-based aviation commands) will receive general and command-specific training on Federal, State, and local environmental compliance laws and regulations within 6 months of taking command, as follows:

a. Environmental Negotiation

b. NEPA Executive Overview

c. Historic Preservation Compliance Executive Overview.

24-4.9 Commander's Staff (Deputy Commanders, and Key Major Staff). (A Deputy commanders and senior personnel assigned environmental responsibilities on major claimant staffs will receive the following training, as appropriate:

a. Advanced Environmental Protection

b. Environmental Law For Non-Lawyers

c. Advanced Environmental Law for Non-Lawyers

d. NEPA Executive Overview

e. Historic Preservation Compliance Executive Overview

f. Environmental Risk Communication and Public Dialogue

g. Pollution Prevention Program Operations and Management

h. Environmental Audit.

A) **24-4.10 Supply officers whose duties involve hazardous material control and management** will attend the CHRIMP/HICS Workshop.

A) **24-4.11 Public Affairs Officers.** Public affairs officers assigned to shore activities will receive both general and command-specific training on environmental compliance laws and regulations, including:

a. Environmental Protection

b. Environmental Law for Non-Lawyers

c. NEPA Executive Overview

d. Historic Preservation Compliance Executive Overview

e. Environmental Risk Communication and Public Dialogue.

R) **24-4.12 Resident Officers in Charge of Construction/Officers in Charge of Construction (ROICC/OICC).** ROICC/OICC training will include:

a. RAC Field Administration

b. HAZWOPER - Site Workers

c. HAZWOPER - Site Workers Refresher

d. HAZWOPER - For Uncontrolled HW Sites, Supervisors

e. Historic Preservation Law and Section 106 Compliance

f. Introduction to Cultural Resources Management Laws and Regulations

g. Natural and Cultural Resources Compliance

h. Natural and Cultural Resources Management.

24-4.13 Public Works Officers (PWO). Civil Engineering Corps (CEC) officers assigned as public works officers will receive the following training: (A

a. PWO Senior Environmental Forum

b. Historic Preservation Compliance Executive Overview

c. NEPA Application.

24-4.14 Civil Engineering Corps (CEC) Officers. CEC officers will receive the following training: (A

a. Advanced Environmental Protection

b. Environmental Law for Non-Lawyers.

24-4.15 Environmental Managers. Environmental managers will receive training appropriate to duties assigned, including the following formal courses, as applicable. Provide training before assignment of environmental project or program management responsibilities: (A

a. Environmental Protection

b. Advanced Environmental Protection

c. Executive Environmental Seminar for CO/XO

d. PWO Senior Environmental Forum

e. Environmental Law for Non-Lawyers

f. Advanced Environmental Law for Non-Lawyers

g. Environmental Negotiation

h. Hazardous Waste Facility Operators

i. Hazardous Waste Annual Refresher

j. NEPA Executive Overview

k. Historic Preservation Compliance Executive Overview

l. Historic Preservation Law and Section 106 Compliance

m. Introduction to Cultural Resources Management Laws and Regulations

n. NEPA Application

o. Air Quality Management

p. Environmental Audit.

A) **24-4.16 Environmental Engineers.** Environmental engineers and environmental protection specialists advise on all environmental matters and ensure command compliance. They will receive the following training as applicable, prior to assignment of environmental project or program management responsibilities:

a. Environmental Protection

b. Advanced Environmental Protection

c. Environmental Law for Non-Lawyers

d. Advanced Environmental Law for Non-Lawyers

e. Environmental Negotiation

f. NEPA Executive Overview

g. Historic Preservation Law and Section 106 Compliance

h. Introduction to Cultural Resources Management Laws and Regulations

i. Pollution Prevention Tools, Techniques, and Technologies

j. Pollution Prevention Program Operations and Management

k. Environmental Audit.

24-4.17 Environmental Planners. Command (A environmental planners will receive the following training as applicable to specific job assignments:

a. Environmental Protection

b. Environmental Negotiation

c. NEPA Executive Overview

d. Historic Preservation Law and Section 106 Compliance

e. Introduction to Cultural Resources Management Laws and Regulations

f. NEPA Application

g. Environmental Risk Communication and Public Dialogue

h. Natural and Cultural Resources Compliance

i. Natural and Cultural Resources Management.

24-4.18 Natural and Cultural Resources Managers. (A Personnel assigned natural and cultural resources management responsibilities will receive the following training as applicable to their specific job assignments:

a. Environmental Protection

b. Environmental Law for Non-Lawyers

c. Advanced Environmental Law for Non-Lawyers

d. Environmental Negotiation

e. NEPA Executive Overview

f. Historic Preservation Law and Section 106 Compliance

g. Introduction to Cultural Resources Management Laws and Regulations

h. NEPA Application

i. Environmental Risk Communication and Public Dialogue

j. Natural and Cultural Resources Compliance

k. Natural and Cultural Resources Management

l. Environmental Audit.

A) **24-4.19 Installation Restoration Managers.** Personnel assigned to duties involving installation restoration or remediation will receive the following training, as applicable to their specific job assignments:

a. Environmental Protection

b. Advanced Environmental Law for Non-Lawyers

c. Environmental Negotiation

d. RAC Field Administration

e. Navy Installation Restoration Implementation

f. QA in Environmental Analysis

g. QA in Field Sampling, Screening, and Analysis

h. HAZWOPER for Site Workers

i. HAZWOPER For Site Workers - Refresher

j. HAZWOPER for Supervisors

k. Hazardous Waste Facility Operators.

24-4.20 Environmental Staff. COs and commanders will provide personnel, not otherwise described above and assigned general environmental staff or support duties, with the following training, as applicable to their specific duties and billet assignment: (A

a. Oil On-Scene Operations Team

b. Navy On Scene Commander or Facility Incident Commander (NOSC)/ (FIC)

c. Environmental Protection

d. Environmental Negotiation

e. RAC Field Administration

f. Navy Installation Restoration Implementation

g. QA in Environmental Analysis

h. QA in Field Sampling, Screening, and Analysis

i. HAZWOPER For Site Workers

j. HAZWOPER For Site Workers - Refresher

k. Hazardous Waste Facility Operators

l. Hazardous Waste Annual Refresher

m. Introduction to Cultural Resources Management Laws and Regulations

n. NEPA Application

o. Pollution Prevention Tools, Techniques, and Technologies

p. Air Quality Management

q. Pollution Prevention Program Operations & Management --

r. Environmental Audit.

A) **24-4.21 Incident Responders.** Designated incident responders (military and civilian) will receive the following training, as appropriate:

a. Oil On-Scene Operations Team

b. Navy On Scene Commander or Facility Incident Commander (NOSC)/(FIC)

c. Hazardous Substance Incident Response Management

d. Hazardous Waste Facility Operators

e. Hazardous Waste Annual Refresher.

A) **24-4.22 Supervisors.** COs will ensure personnel assigned to supervisory positions involving asbestos removal receive the following environmental training as appropriate:

a. IMA Asbestos Removal*

b. IMA Asbestos Removal Refresher.*

* Occupational Safety and Health (OSH) Courses of environmental interest.

24-4.23 Workers. Workers assigned asbestos removal tasks will receive the following formal training: (A

a. IMA Asbestos Removal*

b. IMA Asbestos Removal Refresher.*

* Occupational Safety and Health (OSH) Courses of environmental interest.

24-4.24 Other. Environmental training (along with awareness training) is necessary for other positions at shore commands, in which work practices have a significant potential impact on the environment. Law requires commanding officers to provide the following training to these personnel, as appropriate: (A

a. HAZWOPER For Site Workers

b. HAZWOPER For Site Workers Refresher

c. Hazardous Waste Generators

d. Air ODS Certification.

24-4.25 Reserve Component Environmental Training. Commanders and COs of Naval Reservists will provide environmental training appropriate for mobilization duties to the greatest extent possible. Naval Reserve unit commanders and COs will obtain training for reservists that they consider the minimum for individual mobilization missions and responsibilities. (A

24-5 Responsibilities (D

24-5.1 The Chief of Naval Operations (CNO (N45)) will: (R

a. Establish policy for the accomplishment of environmental and natural resources compliance training in the Navy.

b. Act as the Resource Sponsor for Navy environmental and natural resources compliance training.

c. Work with the other Armed Services in the development and conduct of environmental training.

R) **24-5.2 The Chief of Naval Education and Training (CNET)** will:

a. Develop and recommend sources to obtain training in each of the environmental topics for personnel identified in this chapter.

b. Determine equivalent sources of training, if any, for those training courses specified in this chapter. Maintain a list of equivalent training courses and training resources and distribute Navy-wide.

c. Establish formal training programs on the operation and maintenance of all environmental compliance systems and equipment developed for use aboard Navy ships.

d. Develop, budget for, and carry out the Navy Environmental and Natural Resources Program Navy Training System Plan.

e. Oversee development of standard lesson plans, audio-visual aids, and computer-based training packages to assist commands in establishing effective environmental general and orientation training programs.

f. Develop a program to measure the effectiveness of the training, identify shortfalls, and provide for response to those shortfalls, to correct them quickly.

24-5.3 Commander, Naval Legal Service Command will:

a. Ensure that effective environmental and natural resources compliance training for military lawyers is developed and maintained.

b. Develop, budget for, and carry out the Environmental and Natural Resources Navy Training System Plan, as it pertains to military lawyers.

c. Continually review the effectiveness of environmental training for military lawyers, and make recommendations to CNO (N45) for incorporation into the Environmental and Natural Resources Navy Training System Plan.

24-5.4 Commander, Naval Facilities Engineering Command (COMNAVFACENGCOM) will:

a. Provide technical guidance to CNET on environmental and natural resources training, existing laws and regulations, actual experiences (lessons learned), and comments.

b. Provide technical guidance on environmental and natural resources training to CNO (N45).

c. Assist in the development of environmental and natural resources compliance training in the Navy.

24-5.5 Major Claimants will: (R

a. Ensure the development and implementation of effective environmental and natural resources training programs at both shore and afloat commands within their claimancies, providing amplifying guidance in support of this directive as required.

b. Ensure suitable personnel receive environmental audit training.

c. Monitor and fund the conduct of the training required per this chapter.

d. Coordinating with CNET, develop standard environmental and natural resources compliance orientation packages tailored for commands under their claimancies.

e. Provide comments to CNET on environmental and natural resources training needs.

f. Coordinate with RECs to consolidate environmental training and work towards reducing duplication of effort within a region.

24-5.6 Commanders and Commanding Officers will:

a. Comply with the training requirements of this chapter, and amplifying guidance from major claimants. Request funding or billet support as required.

b. Carry out effective command general and orientation training programs.

c. Provide feedback on the adequacy and effectiveness of training received via the chain of command.

24-5.7 Regional Environmental Coordinator (A will:

a. Coordinate regional training requirements, and needs.

b. Coordinate with CNET schools (NAVSCOLCECOFF/NAVOSHENVTRACEN) to establish regional training classes that can be attended by multiple activities and installations.

c. At the invitation of the chairperson, Environmental Natural Resources Program Steering Committee, attend the steering committee meeting and advise the committee as to the status of environmental training in specific regions.

d. Coordinate with major claimants to consolidate environmental training and work towards reducing duplication of effort within regions.

e. Coordinate State specific training.

f. Provide recommendations and feedback to ISEERB regarding specific emergent issues and training requirements.

CHAPTER 25

SAMPLING AND LABORATORY TESTING

25-1 Scope

25-1.1 This chapter contains policy and guidance applicable to environmental sampling and laboratory testing for Navy shore facilities. It identifies requirements and responsibilities to ensure that measurements and collected data are accurate, that they meet requisite data quality objectives, and are appropriate for use by the Navy in making decisions concerning the environment. The provisions of this chapter apply to all organizations, public and private, that perform environmental sampling and testing for the Navy. Chapter 19 discusses afloat issues.

25-1.2 This chapter sets uniform standards to ensure high quality, timely, and cost effective environmental sampling and testing for Navy.

25-1.3 For the purposes of this chapter, environmental sampling and testing is defined as sampling and testing performed to comply with, or to determine the need to comply with, regulatory requirements. This chapter does not supersede more stringent requirements that may be invoked by other documents issued by the Environmental Protection Agency (EPA), the Navy Occupational Safety and Health Program (NAVOSH), the Navy Installation Restoration (IR) and Base Realignment and Closure (BRAC) Cleanup Program, other Federal, State and local regulations, or the Navy Nuclear Propulsion Program.

25-1.4 References. Although this chapter deals primarily with guidance on environmental sampling and testing, an effective program for the management and control of these activities must also integrate sampling and testing requirements with other policies provided in references (a) through (cc):

a. ISO Guide 25, "General Requirements for the Competence of Calibration and Testing Laboratories" 1990;

b. 29 CFR 1910.1200, Occupational Safety and Health Administration (OSHA) Hazard Communication Standard;

c. 29 CFR 1910.1450, OSHA Occupational Exposure to Hazardous Chemicals in Laboratories;

d. NFESC Interim Guidance Document, Navy Installation Restoration Laboratory Quality Assurance Guide (Feb 1996);

e. OPNAVINST 5100.23D, Navy Occupational Safety and Health Program Manual;

f. 40 CFR 141-143, National Primary Drinking Water Regulations;

g. 40 CFR 150-186, Federal Insecticide, Fungicide, and Rodenticide Act Regulations;

h. 40 CFR 260-270, Resource Conservation and Recovery Act Regulations;

i. 40 CFR 279, Standards for Management of Used Oil;

j. 40 CFR 300, National Oil and Hazardous Substances Pollution Contingency Plan;

k. 40 CFR 350, 355, 370, and 372, Emergency Planning and Community Right-To-Know Act Regulations;

l. 40 CFR 401 - 433, Effluent Guidelines and Pretreatment Guidelines for Wastewater;

m. 40 CFR 700-763 and 790-799, Toxic Substances Control Act Regulations;

n. 40 CFR 792, EPA Good Laboratory Practice Standards;

o. 40 CFR 797, EPA Environmental Effects Testing Guidelines;

p. 49 CFR 100 - 199 Department of Transportation (DOT) Hazardous Materials Regulations; particularly 49 CFR 172-199;

q. EPA SW-846, Test Methods for Evaluating Solid Waste Physical/Chemical Methods;

r. EPA 540/G-93/071 Data Quality Objectives Process For Superfund, Interim Final Guidance;

s. International Standardization Organization (ISO) Guide 2, "General Terms and Their Definitions Concerning Standardization and Certification" 1990;

t. ASTM E 548-91, "Standard Guide for General Criteria Used for Evaluating Laboratory Competence;"

u. ASTM E 1187-90, "Standard Terminology Relating to Laboratory Accreditation;"

v. 40 CFR 50-80 Clean Air Act Regulations;

w. 40 CFR 110-140, Clean Water Act Regulations; particularly 40 CFR 136, Guidelines Establishing Test Procedures For the Analysis of Pollutants;

x. Department of the Navy Report, "Study on Navy Environmental Testing Costs and Environmental Laboratory Improvements," July 1994;

y. EPA, QAMS, Quality Assurance Glossary and Acronyms (11 Feb 1991);

z. EPA PB83-124503, Handbook for Sampling and Sample Preservation of Water and Wastewater, Sept 82;

aa. EPA 833-B-92-001, NPDES Storm Water Sampling Guidance Document, July 92;

bb. EPA/600/4-85/013, Methods for Measuring the Acute Toxicity of Effluents to Freshwater and Marine Organisms, March 85;

cc. Navy Environmental Compliance Sampling and Field Testing Procedures Manual, NAVSEA T0300-AZ-PRO-010;

25-2 Legislation

25-2.1 The Navy requires sampling and testing to determine compliance with environmental regulations. States and local agencies may invoke more stringent laws and regulations including requirements such as certification for sampling and testing. It is imperative that managers consult the applicable regulations and/or regulatory agencies in order to identify specific requirements.

25-3 Terms and Definitions

These terms and definitions come principally from ISO Guide 25, reference (a). Other documents may provide more specific detail than the following general definitions. Where the terms are defined in laws, regulations, and associated test methods, those definitions take precedence.

25-3.1 Accreditation. A formal recognition that an organization (i.e., laboratory) is competent to carry out specific tasks (i.e., tests) or specific types of tasks.

25-3.2 Calibration. The set of operations, which establishes, under specified conditions, the relationship between values indicated by a measuring instrument, measuring system, or values represented by a material measure, and the corresponding known values of a measurand.

25-3.3 Certification. Procedure by which a regulatory agency or third party gives written assurance that a product, process or service conforms to specified requirements.

25-3.4 Data Quality Objectives. (DQOs). Qualitative and quantitative statements that specify the study objectives, domain, limitations, the most appropriate types of data to collect, and specify the levels of decision error that will be acceptable for the decision.

25-3.5 Laboratory. A body that calibrates and/or tests. In cases where a laboratory forms part of an organization that carries out other activities besides calibration and testing, the term "laboratory" refers only to those parts of the organization that are involved in the calibration and testing process. As used herein, the term "laboratory" refers to a body that carries out calibration or testing at or from a permanent location, at or from a temporary facility, or in or from a mobile facility. Specifically, the Navy defines an environmental laboratory as any fixed or mobile facility, in whole or in part, that performs testing for the purpose of environmental regulatory reporting and/or to determine compliance with federal, state, regional and/or local environmental laws and regulations. Note: This excludes process environmental control laboratories, provided none of the results are reported to a regulatory agency to determine compliance.

The Navy has both single service and multi-service laboratories. Single service laboratories are defined as those laboratories that exist to perform testing in support of a particular function at an activity, such as wastewater treatment. Multi-service laboratories are defined as those laboratories that exist to perform testing in support of multiple functions at an activity (i.e., hazardous waste disposal, drinking water monitoring, wastewater treatment, etc.).

25-3.6 Method. (reference method) A sampling or measurement procedure that has been officially specified by an organization as meeting its data quality requirements.

25-3.7 Procedure. A set of systematic instructions for performing an operation.

25-3.8 Proficiency testing. Determination of field or laboratory testing performance by means of inter-laboratory comparisons.

25-3.9 Quality Assessment. The evaluation of data to determine if they meet the quality criteria required for a specific application.

25-3.10 Quality Assurance. An integrated system of activities involving planning, quality control, quality assessment, reporting and quality improvement to ensure that sampling and testing meet defined standards of quality with a stated level of confidence.

25-3.11 Quality Control. The aggregate of activities whose purpose is to measure and control the quality of sampling and testing so that it meets the needs of users and provides assurance that the appropriate level of confidence is achieved.

25-3.12 Quality Manual. A document stating the quality policy, quality system, and quality practices of an organization. The quality manual, however named, may call up other documentation relating to the operation's quality arrangements.

25-3.13 Quality System. The organizational structure, responsibilities, procedures, processes, and resources for implementing quality management.

25-3.14 Raw data. Any worksheets, records, memoranda, notes, or exact copies thereof, that are the result of original observations and/or activities of a study and are necessary for the reconstruction and evaluation of the report of that study. Raw data may include photographs, microfilm or microfiche copies, computer printouts, magnetic media, including dictated observations, and recorded data from automated instruments.

25-3.15 Reference substances. Any chemical substance, mixture, analytical standard, or material other than a test substance administered or used in analysis for the purpose of establishing a basis of comparison with the test substance of a known chemical or biological measurement.

25-3.16 Test. A technical operation that consists of the determination of one or more characteristics or performance of a given product, material, equipment, organism, physical phenomenon, process or service according to a specified procedure. A document sometimes called a test report or a test certificate normally records the test result.

25-3.17 Traceability. The property of a sample or measurement relating it to appropriate international or national standards through an unbroken chain.

25-3.18 Verification. Confirmation by examination and provision of evidence that specified requirements have been met.

25-4 Requirements

25-4.1 General

a. Navy activities shall perform environmental sampling and laboratory testing per Federal, state and local regulatory requirements, and Navy policy and procedures. Individuals and/or laboratories involved in sampling and testing shall have appropriate certifications, accreditations or evaluations as required by the applicable regulation, policy, or procedure.

b. Requirements and interpretations of requirements vary widely, and some regulations provide advisory or recommended guidelines for sampling and testing. To ensure consistent quality in the test data collected for environmental determinations, all commands shall ensure that sampling and testing are performed per regulatory requirements.

25-5 Navy Policy

25-5.1 Conformance with Uniform Standards. Navy activities shall perform sampling and testing per a documented quality system. The quality system shall be appropriate to the type, range, and scope of sampling and testing performed. As a minimum, sampling and testing programs shall meet the following Uniform Standards. A quality system that meets the requirements of ISO Guide 25, reference (a) meets the intent of this chapter.

25-5.2 Uniform Standards for Sampling

a. **Quality System.** Activities shall document, implement, communicate, and make understood to all personnel concerned, the elements of the quality system. Documentation may be in the form of a sampling quality assurance manual or other written instruction.

b. **Organization and Management.** Sampling operations shall have an organizational structure that allows it to maintain satisfactory sampling functions. Activities shall clearly define and document overall authority and responsibility.

c. **Personnel.** The sampling operation shall have a sufficient number of personnel who have the necessary education, training, technical knowledge and experience relative to their assigned functions. Keep training of personnel up-to-date, and maintain records on their relevant qualifications, training, skills, and experience. See paragraph 25-5.8 for specific requirements.

d. **Quality Assurance/Quality Control (QA/QC) Coordinator.** There shall be a designated QA/QC coordinator, however named, who has responsibility for the quality system. The QA/QC coordinator shall continually monitor operations to ensure conformance with the documented quality system. This function should be separate from, and independent of, personnel engaged in the performance of the work although the assignment may involve collateral duties. When staffing does not allow for an independent function, the activity shall ensure that an individual does not perform QA/QC oversight of his or her own work. Activities must document the separation of QA/QC functions from work performed.

e. **Environment.** The environment in which sampling activities are undertaken shall not invalidate the subsequent results or adversely effect the representativeness of the sample. (Take particular care when undertaking such activities at sites other than permanent facilities). The sampling operation shall provide for the effective monitoring, control and recording of environmental conditions as appropriate. Note: it is the sampling operation's responsibility to comply with the relevant health and safety requirements as defined in references (b), (c), (d) and (e).

f. **Equipment, Instruments, Reference Materials and Supplies.** All equipment, instruments, reference materials, and associated supplies shall be available for the correct performance of work. Label, mark, or otherwise identify each instrument or item of sampling equipment used for measuring to indicate calibration status. Maintain instruments to meet the requirements of the manufacturer's specifications and/or approved maintenance procedures.

g. **Measurement Traceability and Calibration.** Activities shall calibrate, standardize, and verify at appropriate intervals all measuring devices having an effect on the validity of a sampling event before placing them into service. The calibration of instruments and equipment shall meet the requirements of the manufacturer, applicable regulations, or specific methods, whichever is more stringent. As applicable, the calibration of instruments and equipment shall also meet the requirements of the Navy Metrology Calibration Program. Measurements made shall be traceable to national or international standards of measurement or physical constants, where such standards exist. Retain for the same period as the field or laboratory analytical data, all calibration and

standardization records for sampling instruments and equipment.

h. **Reagents and Solutions.** Activities shall label all reagents, solutions, preservatives, (including water type) to indicate identity, concentration (where applicable), and the grade or quality of the material. Labeling shall also indicate the preparation or receipt date and the shelf life. Document working reagents and solutions as to their preparation, traceability to lot or batch of stock solution and protected from deterioration and contamination. Do not use outdated reagents and solutions unless their integrity is verified by testing. In certain instances, pre-authorization by appropriate program managers may be required in order to use outdated reagents or standards.

The operation must comply with waste disposal requirements as defined by Resource Conservation and Recovery Act (RCRA) regulations, and state, local and Navy requirements.

i. **Sampling Procedures and Methods.** Activities shall perform sampling in compliance with written procedures based on approved methods issued by environmental regulations where applicable. They shall document routine sampling operations in step by step procedures to provide for consistent and uniform sampling operations. Activities shall maintain an historical file of SOPs, and all revisions thereto, including the dates of such revisions so that the procedure used is retrievable for correlation with the sampling event. They shall retain this file for the same period of time as the analytical data.

j. **Handling of Samples or Test Items.** A documented system for uniquely identifying samples or test items shall be established. Document sample preparation, storage, and handling including any departures from documented procedures or standard conditions. They shall maintain, monitor, and record storage conditions where necessary.

Activities shall perform sample tracking using chain of custody documentation. Include a chain-of-custody (COC) document with all samples taken for environmental determinations. COC and sample tracking shall be maintained from the time the sample is taken, until the time the analyses are complete.

49 CFR 172 applies when samples are shipped by common (commercial) carrier or sent through the United States mail. The person offering such material for transportation is responsible for ensuring compliance. 49 CFR 172 also provides some exemptions for regulating transportation of preserved samples, (i.e., reference Table II of 40 CFR 136). When shipping samples from overseas locations, ensure applicable host nation regulations are followed.

Samples must be traceable from collection to disposal. Sample disposal shall comply with Federal, State and local requirements relative to environmental compliance and protection of human safety and health.

k. **Records and Documentation.** The sampling operation shall maintain all records as required to comply with any applicable regulations. Sampling records will contain the following information: sampling date, sampling time, location sampled (supported by tables, graphs, sketches and photographs as appropriate), name of individual(s) collecting sample, number/unambiguous identification of sample, type of sample, description of sample, reference to sample collection procedures used, preservation used, COC documentation, measurements, examinations and derived results, and records of

calibration relative to equipment used. Record and document data in a system that provides for the ability to retrieve and trace the sample source, associated sample collection, and test data.

l. **Data Verification and Retention.** Activities shall record and report sampling data with sufficient figures to be statistically significant. Review field records for accurate reporting and adherence to documented procedures. Duly note any record modifications or amendments. (At a minimum include date, the person making the change, and the reason.) Retain as required by specific regulations, contract requirements, or for at least 3 years, all field records including raw data. Field records will be retrievable within a reasonable time.

m. **Sampling Reports.** Activities shall report accurately, clearly, and objectively within the guidance of any procedures or instructions for the operation, all sampling data for each sampling event. Reports may be in the form of field log book notes, standardized field form records or formal consolidated reports describing the sampling operation or event.

(1) Each report will include at least: the identification of the operation; location where the sampling was carried out; unique identification of the report (such as serial number) and of each page, the total number of pages and the date of issue; name and address of customer; description and unambiguous identification of the sample; characterization and condition of the sample; information on the sampling event including environmental conditions; date of sampling event; unambiguous description of any non-standard method used; reference to sampling procedure; reported measurements and units of measure; and a signature and title, or equivalent, of the person(s) accepting responsibility for the content of the report.

(2) Where subcontractors are used they shall be clearly identified.

(3) Formally document in the form of an amended report, all amendments to a sampling report. The project manager will notify customers promptly, in writing, with an explanation of any event (such as the identification of defective measuring equipment) that casts doubt on the validity of results given in a report or amendment to a report.

n. **Contracting and/or Sub-contracting of Sampling.** Place, with a sampling operation complying with the requirements of this chapter, any sampling operation contracts, sub-contracts, or any part of its sampling responsibilities. All contractors and sub-contractors involved with the sampling event must demonstrate proficiency and the ability to perform sampling by prescribed procedures through a documented training program. Maintain records and details of the investigation regarding the proficiency and conformance of the contractor/sub-contractor to the requirements of this chapter.

o. **Complaints.** The sampling operation shall have a documented procedure for the resolution of complaints or circumstances raising doubt concerning the sampling. Make a record of the complaint or circumstance. It shall include the substance of the complaint and its resolution.

p. **Audits.** Organizations responsible for sampling work performed for the Navy shall arrange for and/or submit to audits of its activities at appropriate intervals. Audits shall verify that the operations continue to comply with the requirements of the quality system.

Sampling operations shall be subject to evaluation as part of the Navy's Environmental Compliance Evaluation (ECE) program and/or Installation Restoration and BRAC Cleanup Laboratory Evaluation Program, as appropriate. Conduct and document on a continual basis, and at least once per year for repeat sampling events, all internal audits by the QA/QC Coordinator.

25-5.3 Uniform Standards for Laboratory Testing

a. **Quality System.** Laboratories shall document, implement, communicate to, and make understood by all personnel concerned, the elements of the quality system. Documentation may be in the form of a laboratory quality assurance manual or other written instruction.

b. **Organization and Management.** The laboratory shall have an organizational structure that allows it to operate and maintain satisfactory testing functions. Clearly define overall authority and responsibility.

c. **Personnel.** The testing laboratory shall have a sufficient number of personnel having the necessary education, training, technical knowledge and experience relative to their assigned functions. The laboratory shall ensure that the training of its personnel is kept up-to-date. The laboratory shall maintain records on the relevant qualifications, training, skills and experience of the technical personnel. See paragraph 25-5.8 for specific requirements.

d. **Quality Assurance/Quality Control (QA/QC) Coordinator.** There shall be a designated QA/QC coordinator, however named, who has responsibility for the quality system. The QA/QC coordinator shall continually monitor operations to ensure conformance with the documented quality system. This function shall be separate from, and independent of, personnel engaged in the performance of the work although the assignment may involve collateral duties. When staffing does not allow for an independent function, the activity shall ensure that an individual does not perform QA/QC oversight of his or her own work. Document all separation of QA/QC functions from work performed.

e. **Accommodation and Environment.** Each test facility shall be of suitable size and construction to facilitate the proper conduct of testing. Design testing facilities so that there is a degree of separation that will prevent any adverse effects on testing. The laboratory will provide facilities for the effective monitoring, control and recording of environmental conditions as appropriate. Note that it is the laboratory's responsibility to comply with the relevant health and safety requirements as defined in references (b), (c), (d) and (e).

f. **Equipment, Instruments, Reference Materials and Supplies.** All equipment, instruments, reference materials, and associated supplies shall be available for the correct performance of work. Label, mark, or otherwise identify each item to indicate calibration status of equipment (measuring instruments and reference materials). Maintain equipment to meet the manufacturer's specifications and the requirements of approved calibration procedures and schedules.

g. **Measurement Traceability and Calibration.** Laboratories shall calibrate, standardize, and verify before being placed into service and at appropriate intervals thereafter, all measuring and testing equipment having an effect on the accuracy or validity of calibrations or tests. The calibration of instruments and equipment shall meet the requirements of the manufacturer,

applicable regulations, or specific methods, whichever is more stringent. As applicable, the calibration of instruments and equipment shall also meet the requirements of the Navy Metrology Calibration Program. Measurements made shall be traceable to national or international standards of measurement or physical constants, where such standards exist. Retain calibration and standardization records for the same period as the field or laboratory analytical data.

h. **Reagents and Solutions.** Laboratories shall label all reagents, solutions, preservatives, (including water type) to indicate identity, concentration (where applicable), and the grade or quality of the material. Labeling shall also indicate the preparation or receipt date and the shelf life. Document working reagents and solutions as to preparation, traceability to lot or batch of stock solution and protected from deterioration and contamination. Do not use outdated reagents and solutions unless their integrity is verified by testing. In certain instances pre-authorization, by appropriate program managers, may be required in order to use outdated reagents/standards.

The operation must comply with waste disposal requirements as defined by Resource Conservation and Recovery Act (RCRA) regulations, and state, local and Navy requirements.

i. **Test Methods.** Perform laboratory testing in strict compliance with the test methods approved by environmental regulations. The laboratory will establish step by step "bench procedures" for the analyst, such as standard operating procedures (SOP). These procedures will establish the exact steps to be taken by the laboratory where one or more options is available in the method. Maintain a historical file of SOPs, and all revisions thereof, including the dates of such revisions so that the method used is retrievable for correlation with reported data.

j. **Handling of Test Items.** The laboratory shall have a documented system for uniquely identifying the sample to be tested. Upon receipt, record the condition of the sample including any departures from standard conditions. Maintain, monitor, and record appropriate storage conditions where necessary.

The laboratory shall have documented procedures for the receipt and retention of samples. Include a chain-of-custody (COC) document with all samples taken for environmental determinations. COC and sample tracking shall be maintained from the time the sample is taken, until the time the analyses are complete.

49 CFR 172 applies when samples are shipped by common (commercial) carrier or sent through the United States mail. The person offering such material for transportation is responsible for ensuring compliance. 49 CFR 172 also provides some exemptions for regulating transportation of preserved samples, (i.e., reference Table II of 40 CFR 136).

Laboratories shall establish sample disposal procedures and dispose of unused samples as agreed upon with sample originators. Sample disposal shall comply with Federal, State and local requirements relative to environmental compliance and protection of human safety and health.

k. **Records and Documentation.** The laboratory shall maintain all records as required to comply with any applicable regulations, pursuant to the work performed. Record and document data in a system that provides for the ability to retrieve and trace the sample source and

associated sample collection and test data. (Sampling and test data may be stored separately; however, all data associated with a sample must be documented and retrievable.)

Testing records will contain the following information: sampling date, sampling time, location sampled (supported by tables, graphs, sketches and photographs as appropriate), name of individual(s) collecting sample, number/unambiguous identification of sample, type of sample, description of sample, reference to sample collection procedures used, preservation used, laboratory verification of preservation, COC documentation, analytical method(s) used, name of person(s) performing each test, date and time of test, measurements, examinations and derived results, and records of calibration relative to equipment used.

l. **Data Verification and Retention.** Laboratories shall record and report test results with sufficient figures to be statistically significant. Review data for accurate reporting and adherence to documented procedures. Duly note all data modifications or amendments. (At a minimum include date, the person making the change, and the reason.) Retain records as required by specific regulations, contract requirements, or for at least 3 years including raw data. Records will be retrievable within a reasonable time.

m. **Reports.** Laboratories shall report accurately, clearly, unambiguously, objectively, and within the guidance of any instructions within the test methods, the results of each test or series of tests.

(1) Each report will include at least: the identification of the laboratory and the location where the test was carried out if different from the address of the laboratory; unique identification of the test report (such as serial number) and of each page, the total number of pages and the date of issue; name and address of customer; description and unambiguous identification of the item tested, characterization and condition of the item(s) tested; date of receipt and date(s) of performance of test; identification of the test method used, unambiguous description of any non-standard method used; reference to sampling procedure, where relevant, reported measurements and units of measure; and a signature and title, or equivalent, of the person(s) accepting responsibility for the content of the report.

(2) Where the report contains results of tests performed by sub-contractors the results shall be clearly identified.

(3) Formally document amendments to a test report in the form of an amended report. The laboratory will notify customers promptly, in writing, with an explanation, of any event (such as the identification of defective measuring or test equipment) that casts doubt on the validity of results given in a test report or amendment to a report.

n. **Sub-contracting of Testing.** When any laboratory sub-contracts any part of the testing, place this work with a laboratory complying with the requirements of this chapter. The laboratory shall ensure and be able to demonstrate that its sub-contractor(s) is able to perform the activities in question, and able to comply with the same criteria of competence as the laboratory sub-contracting the work. The Navy shall approve, in advance, any sub-contracting by private laboratories.

o. **Complaints.** The laboratory shall have a documented procedure for the resolution of complaints or circumstances raising doubt

concerning the data. Make a record of the complaint or circumstance and include in the file the substance of the complaint and its resolution.

p. **Audits.** All laboratories performing work for the Navy shall arrange for and/or submit to audits of its activities at appropriate intervals to verify that its operations continue to comply with the requirements of the quality system. Laboratories (in-house and private) shall be subject to evaluations as part of the Navy's Environmental Compliance Evaluation (ECE) program and/or Installation Restoration Laboratory and BRAC Cleanup Evaluation Program, as appropriate. Conduct and document on a continual basis (at least once per year) internal audits by the QA/QC Coordinator.

q. **Field and Mobile Facility Testing Requirements.** Testing performed in the field or in a mobile facility is subject to the same requirements as testing performed in a permanent laboratory facility.

25-5.4 Environmental Laboratory Advisory Council. The Navy has established an Environmental Laboratory Advisory Council, (ELAC) under the auspices of the CNO (N45), to provide overall guidance and direction for environmental sampling operations and laboratory testing improvement initiatives. The Council shall coordinate efforts across commands. The Council shall provide a forum for continuous process improvement and cost efficiencies for Navy sampling and laboratory support services. The Council helps ensure compliance with the Navy's Uniform Standards as outlined in this document.

25-5.5 Laboratory Certification. Testing shall be performed by certified laboratories having appropriate credentials to perform testing, as required by the applicable regulatory agency. Require credentials for the specific type of regulatory testing (i.e., Safe Drinking Water Act (SDWA)), and for a specific test and/or parameter. Typically, credentials are obtained as certifications or accreditations from Federal, State or sometimes local regulatory agencies. Certification in one program or State cannot be used as justification to perform testing in another program or State (unless reciprocity or equivalency of certification is recognized by the appropriate regulatory agency).

25-5.6 Laboratory Accreditation. In the absence of certification requirements, laboratories shall demonstrate competency to perform environmental testing, required by their customers, through accreditation. All laboratories shall acquire the required accreditation from a Federal (including Navy), State, or third party, nationally recognized accreditation system, for all environmental testing performed by the laboratory. Accrediting agencies shall evaluate laboratories performing IR and BRAC Cleanup testing by means of the IR and BRAC Cleanup Laboratory Quality Assurance Program before beginning work.

Accreditation requirements shall include laboratory site assessments, requirements for QC data, and participation in on-going proficiency testing. Process exemptions to this accreditation requirement as waivers from CNO (N45). All laboratories must either be accredited or have sought and obtained waivers within 2 years from the issuance of this chapter.

25-5.7 Contract Improvement. The Navy shall amend the technical requirements of contracts by incorporating the Uniform Standards and require Contracting Officers Representatives (CORs) to be or to consult technically qualified personnel when providing contract support services. Use the source selection mechanism whenever

practicable as a means of ensuring the quality and cost effectiveness of sampling and testing services provided by contract. The Navy shall document quality problems, identify poor performance, and execute default clauses, where appropriate.

25-5.8 Specific Training Requirements. Personnel involved in sampling and testing shall have the appropriate education, experience, and training to perform their assigned tasks. Laboratories shall document training and keep records up to date.

a. **Training Requirements for Navy Environmental Professionals, Specialists and Technicians.** Personnel acting as environmental program managers, who routinely request sampling and testing and/or develop sampling and testing plans as part of their management of a program(s) shall have the following minimum training, provided via a documented training plan:

(1) Environmental laws and regulations, relative to proper sampling (i.e., 40 CFR 136, 40 CFR 141, etc.);

(2) Basic determinations of Data Quality Objectives (DQOs);

(3) Training, applicable to the specific area(s) of program management relative to sampling plan development (i.e., sampling and testing for National Pollutant Discharge Elimination System (NPDES) compliance, hazardous waste management plan development, etc.).

b. **Training Requirements for Sampling Personnel.** A documented plan shall exist which, minimally, must include the following training:

(1) Basic sampling techniques (grab sampling, composite sampling, how to avoid contamination, use of preservatives, etc.);

(2) Specific sampling techniques as required (i.e., NPDES sampling, potable water bacteriological sampling, etc.);

(3) Completion of environmental sampling paperwork including sample container labeling, sample field logs and sample notebooks, COC documentation;

(4) Field testing techniques. Certain tests (i.e., pH, chlorine residual, dissolved oxygen, turbidity, temperature, etc.) due to method requirements must be performed in the field. Sampling personnel performing field analyses are subject to the same requirements as laboratory analysts, and therefore, shall be properly trained. See the training requirements for laboratory technicians;

(5) Health and safety training.

c. **Training Requirements for Laboratory Personnel.** The laboratory shall have a policy and procedures for identifying training needs and providing training of personnel. Appropriately supervise personnel undergoing training.

Laboratory scientists and technicians shall have education or training appropriate to the tasks assigned. As a minimum, this shall include:

(1) Training in the laboratory quality system;

(2) Training in general laboratory operations;

(3) Specific training applicable to the tests to be performed;

(4) Health and safety training.

The laboratory shall have a written training plan and maintain documentation of all training including demonstrations of proficiency. Demonstration of proficiency must take place within established guidelines that are documented in the laboratory's quality manual or other referenced instruction.

The laboratory shall maintain records of the relevant competence, education and professional qualifications, training and experience of all personnel concerned with testing. These records shall include the date of authorization to perform particular types of tests, to authorize test reports and to operate particular types of equipment or to make professional judgment.

25-6 Responsibilities

25-6.1 CNO (N45) shall:

a. Chair the Navy's Environmental Laboratory Advisory Council (ELAC).

b. Issue policy/guidance, as appropriate, based on recommendations made by the ELAC.

c. Issue policy/guidance and approve, as appropriate, requests for waivers as outlined in this chapter.

25-6.2 Environmental Laboratory Advisory Council (ELAC) shall:

a. Coordinate claimant approval and implementation of ELAC recommendations.

b. Develop an integrated approach to environmental sampling and testing.

c. Recommend improvements in the Navy's sampling and testing program.

25-6.3 Major claimants shall:

a. Provide technical assistance and prepare appropriate manuals or other forms of guidance for implementing proper sampling and testing techniques at Navy activities.

b. Plan, program and budget for current and future environmental sampling and testing.

c. Provide a member to the Environmental Laboratory Advisory Council (only applies to major claimants that perform environmental sampling in-house, have environmental testing laboratories, or contract for at least $25,000 in laboratory services annually).

d. Ensure shore activities comply with the requirements of this chapter.

25-6.4 Commanding Officers of Shore Activities shall:

a. Ensure that in-house environmental sampling operations and laboratories, under their command, comply with the requirements of this chapter.

b. Ensure that mechanisms are in place so that environmental sampling and testing, contracted out by the shore activity, as a minimum, meet all baseline Uniform Standards set forth in this chapter, as well as Federal, State, local and other Navy sampling and laboratory testing requirements.

c. Ensure that CORs), under their command, involved in oversight of sampling and testing contracts, consult with or be technically qualified scientists or technicians.

d. Ensure that training programs are established and maintained for sampling and testing personnel under their command, and that training is performed and properly documented.

CHAPTER 26

RADON ASSESSMENT AND MITIGATION

26-1 Scope

This chapter discusses the Navy aspects of the Department of the Navy's Radon Assessment and Mitigation Program (NAVRAMP). The purpose of NAVRAMP is to identify, assess, and mitigate the effects of infiltration of radon into existing Navy buildings and to incorporate preventive practices in the design and construction of new buildings. NAVRAMP provides for compliance with the procedural requirements of the Toxic Substances Control Act (TSCA).

Mitigation and Prevention requirements of section 26-5.3b and c, respectively, do not apply to non-Navy owned buildings. Navy tenant activities should consider mitigation and advise the lessor when applicable radon action levels exceed the action limit. Activities should adhere to the prevention requirements of section 26-5.3c when considering the design and construction of new buildings for long term leases (e.g., lease, limited partnerships, etc.). Activities must evaluate all existing and new lease agreements to ensure Navy occupancy is or will be under similar radon exposure protection obtained by implementing NAVRAMP in Navy owned buildings.

26-1.1 References. Relevant references are:

a. Toxic Substance Control Act (TSCA) 15 U.S.C. 2601 et seq.;

b. 29 CFR 1910.20C (8) OSHA Access to Employee Exposure and Medical Records.

26-2 Legislation

26-2.1 Toxic Substance Control Act (TSCA). TSCA (reference (a)) required that all Federal departments or agencies that own Federal buildings conduct a study to determine the extent of radon contamination in such buildings. They must provide results of the study to the Environmental Protection Agency (EPA). As required by the TSCA, EPA submitted to Congress a consolidated report of the studies from Federal departments or agencies, including one submitted by the Navy.

26-3 Terms and Definitions

26-3.1 Mitigation System. Any system or steps designed to reduce radon concentrations in the indoor air of a building.

26-3.2 Occupied Building. A building occupied more than 4 hours per day.

26-3.3 Picocuries. A unit of measurement used to describe certain types of nuclear radiation. A curie is the amount of any radionuclide that undergoes exactly 3.7×10^{10} radioactive disintegrations per second. A picocurie is one trillionth (10^{-12}) of a curie, or 0.037 disintegrations per second.

26-3.4 Picocurie per liter (pCi/L). A common unit of measurement of the concentration of radioactivity in a fluid (liquid or gas). A picocurie per liter corresponds to 0.037 radioactive disintegrations per second in every liter of fluid.

26-3.5 Radon. A colorless, odorless, radioactive gas formed by the decay of radium. Radon exists in soils, rocks, and some groundwater supplies. It can infiltrate into buildings.

26-3.6 Validated Monitoring Results. A radon test that meets the requirements of NAVRAMP (e.g., a type of radon detection device; sampling strategies, procedures, and

intervals; quality assurance/quality control (QA/QC); etc.).

26-4 Requirements

26-4.1 General. Section 309(a) of TSCA required the head of each Federal department or agency that owned Federal buildings to conduct a study to determine the extent of radon in such buildings. In the case of Federal buildings using a nonpublic water source (such as a well or other groundwater), TSCA also required an evaluation of radon in the water.

The TSCA required the study submitted to the EPA not later than 1 June 1990. The Navy submitted the results available at that date, and submitted updated information two times since to EPA. Besides assessing the level of radon in Navy buildings, NAVRAMP, under certain conditions requires the mitigation of radon in existing buildings and the prevention of radon buildup in new buildings.

26-5 Navy Policy

26-5.1 General. The EPA approved NAVRAMP as the plan to identify, mitigate, and prevent radon in Navy-occupied buildings. All Navy installations shall implement the NAVRAMP testing program to identify the level of indoor radon. Navy installations shall undertake mitigation measures in buildings determined to have indoor radon levels above 4pCi/L. They shall incorporate appropriate radon reduction techniques into the design and construction phases of new structures as a preventive measure where necessary because of regulatory requirements, historical data, or geological conditions.

Naturally occurring radon exposure is part of natural radiation background, and background exposures are not considered occupational exposure. Reference (b) notes that, "Exposure or exposed means that an employee is subjected to a toxic substance or harmful physical agent in the course of employment ... but does not include situations where the employer can demonstrate that the toxic substance or harmful physical agent is not used, handled, stored, generated, or present in the workspace in any manner different from typical non-occupational situations."

26-5.2 Applicable Provisions. The U.S. Navy shall institute the following provisions under NAVRAMP:

a. Identify activities where indoor concentration of radon in occupied buildings exceeds the Environmental Protection Agency (EPA)-recommended action level, currently 4 picocuries per liter(4pCi/L).

b. Maintain a central data management system containing all validated monitoring results of Navy and Marine Corps buildings (both housing and non-housing) tested for radon under NAVRAMP.

c. Mitigate the indoor radon levels in buildings to below EPA-recommended action level.

d. Ensure that building designs include appropriate radon resistant (prevention) techniques where necessary due to applicable regulatory requirements, historical data, and geological conditions at the location.

26-5.3 The NAVRAMP Program. The NAVRAMP consists of testing, mitigation, and prevention.

a. **Testing.** Activities shall test occupied buildings to determine indoor levels of radon. Radon testing of buildings in an activity typically consists of the following phases:

(1) **Screening.** Activities shall select a statistically significant sample of structures, mainly housing, hospitals, bachelor quarters, schools, child-care centers, and brigs. A

"screening" becomes an "assessment" if the minimum statistically significant number of buildings (31 buildings per installation or 31 housing units per housing area) is equal to or greater than the total number of occupied buildings.

(2) **Assessment.** If during the screening process activities detect radon and confirm the level exceeds the EPA-recommended action level, then the activity shall measure every occupied building in the activity for radon.

(3) **Periodically Monitoring.** Activities shall periodically monitor mitigated structures. They shall re-test structures that have been significantly modified to ensure that levels are below the action level. Incorporate re-testing as part of the project. A "modified structure" is one significantly altered by either changing the original number or type of windows, doors, ground slabs, walls, or otherwise making modifications in any manner to significantly affect the air change or flow in the structure.

b. **Mitigation.** Activities shall use a mitigation system in buildings determined to have indoor radon levels above the EPA-recommended action level to reduce levels below the EPA-recommended action level. They shall schedule mitigation steps conforming to the following priority scheme:

Cat.	Radon Levels (pCi/L)	Action
1	0 to 4	No action required
2	4 to 20	Mitigation within 5 yr.
3	20 to 200	Mitigation within 6 mo.
4	> 200	Mitigation within 3 wk.

c. **Prevention.** Activities shall incorporate appropriate radon reduction techniques into the design and construction phases of new structures (where necessary due to applicable regulatory requirements, historical data, and geological conditions at the location) to prevent indoor radon levels from exceeding the action level.

26-5.4 Program Funding Requirements

a. CNO will centrally fund the cost of managing NAVRAMP as part of the Naval Environmental Protection Support Service (NEPSS) centrally-managed funds.

b. The cost of providing technical support (e.g., testing, diagnostics, mitigation, and prevention) specifically related to an activity, is reimbursable to COMNAVFACENGCOM by the activity or its chain of command.

c. Projects for mitigation and prevention beyond the funding capability of the activity may be eligible for centrally-managed funds in the Operations and Maintenance, Navy (O&MN), Housing, and Military Construction (MCON) appropriations. Conditions covered in OPNAVINST 11010.20F, Facilities Projects Manual, further restrict the availability of centrally managed funds in O&MN appropriations.

26-6 Responsibilities

26-6.1 *Deputy Chief of Naval Operations* (Logistics) (N4) shall:

a. Assess the impact of proposed radon legislation and regulations on the Navy.

b. Issue radon policy and guidance as needed.

26-6.2 Commander, Naval Facilities Engineering Command (COMNAVFACENGCOM) shall:

a. Manage NAVRAMP

b. Designate within its organization a Radon Center of Expertise.

c. Develop and manage a Navy-wide radon testing data system.

d. Revise technical documents and manuals to reflect designs required to reduce indoor radon levels in buildings.

e. Provide technical assistance regarding:

(1) Monitoring of radon levels within buildings

(2) Diagnostics for selection of mitigation practices

(3) Design of mitigation and prevention practices

(4) Construction of mitigation and prevention practices

(5) Operation and maintenance plans for mitigation equipment.

f. Implement as requested the requirements of NAVRAMP at Navy activities.

g. Ensure that testing data meets the requirements of NAVRAMP (i.e., quality assurance/quality control (QA/QC)).

h. Maintain an integrated Navy-wide database and management information on radon testing data and mitigation projects planned and performed.

i. Produce an annual Navy-wide radon testing and mitigation summary report.

26-6.3 Chief, Bureau of Medicine and Surgery shall:

a. Assist COMNAVFACENGCOM in areas of radon public health assessment and communication.

b. Evaluate the appropriateness of radon action levels and mitigation schedules for Navy installations.

26-6.4 Commanding officers of shore activities shall:

a. Identify and submit environmental compliance projects required to bring activities into compliance with applicable regulations and Navy policy requirements.

b. Budget sufficient resources to maintain and demonstrate compliance with Navy policy and Federal radon monitoring, mitigation, and prevention requirements.

CHAPTER 27

NATURAL RESOURCES DAMAGE

27-1 SCOPE

27-1.1 General.

a. This chapter establishes Chief of Naval Operations (CNO) requirements, guidelines and standards for the assessment of damages arising from the release of oil or hazardous substances (OHS) that injures or threatens to injure the natural resources of the United States. This chapter also describes the responsibilities and conduct of the Navy Regional Environmental Coordinator (Navy REC) when acting as the Federal Trustee for Natural Resources (the Trustee) on behalf of the Secretary of Defense (SECDEF).

b. SECDEF has not permanently delegated Trustee authority under the Oil Pollution Act of 1990 (OPA 90) to the Services; nor has the Assistant Secretary of the Navy for Installations and Environment permanently delegated Trustee authority to CNO under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Accordingly, Navy RECs should ask CNO (N45) for assistance in securing authority to proceed as a Natural Resource Trustee when required.

27-1.2 Application. This chapter applies to OHS releases from ***any source,*** that injure or threaten to injure natural resources of the United States ***within Navy management or control.*** In addition, this chapter also applies to OHS releases originating from ***Navy sources (including public vessels),*** that injure or threaten to injure the natural resources of the United States ***wherever found.***

27-1.3 References.

a. 15 CFR 990, National Oceanic and Atmospheric Administration (NOAA), Department of Commerce, Natural Resource Damage Assessment Procedures.

b. 43 CFR 11, Department of Interior (DOI), Natural Resource Damage Assessment Procedures.

c. 40 CFR 300.600, National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

d. Department of Defense (DOD) Instruction 4715.3, Environmental Conservation Program of 3 May 1996 (NOTAL).

e. Executive Order 12777, Oil Pollution Act Implementation.

f. Executive Order 12580, Superfund Implementation (as amended by Executive Order 13016).

g. DOD Instruction 4715.7, Environmental Restoration Program of 22 April 1996 (NOTAL).

h. 40 CFR 6, United States Environmental Protection Agency (EPA), National Environmental Policy Act Procedures.

i. United States Coast Guard (USCG), National Pollution Funds Center (NPFC) User Reference Guide, June 1996 (NOTAL).

27-2 LEGISLATION

The following Federal statutes assign Trustee responsibilities for the protection of natural

resources and the assessment of damages caused by OHS releases:

27-2.1 Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). CERCLA, 42 U.S.C. 9601, et seq., authorizes Natural Resource Trustees to recover damages for injury to, destruction of or loss of natural resources resulting from the release of a hazardous substance. Federal and State officials are designated to serve as Natural Resource Trustees under CERCLA. CERCLA also recognizes the authority of Indian Tribes to act as Natural Resource Trustees.

27-2.2 Federal Water Pollution Control Act of 1972 (FWPCA) as amended by the Clean Water Act of 1977 (CWA). The FWPCA, 33 U.S.C. 1251, et seq., authorizes the President, in the case of an OHS release, to take any action necessary to mitigate damage to the public health and welfare; including, but not limited to fish, shellfish, wildlife, public and private property, shorelines and beaches. Natural Resource Trustees are authorized to recover damages for injury to, destruction of or loss of natural resources resulting from a discharge or the substantial threat of discharge, of oil into navigable waters. Federal and State officials may be designated to serve as Natural Resource Trustees.

27-2.3 National Environmental Policy Act (NEPA). NEPA, 42 U.S.C. 4321 et seq., requires Federal agencies to disclose the environmental impact of each major Federal action that may significantly affect the quality of the human environment. Reference (a) suggests procedures for compliance with NEPA, 15 CFR 990.23, but only where consistent with regulations adopted by each Federal Trustee. Guidance on NEPA regulations is provided at chapter 2.

27-2.4 Oil Pollution Act of 1990 (OPA 90). OPA 90, 33 U.S.C. 2701, et seq., provides for the prevention of, liability for, removal of and compensation for the discharge or substantial threat of discharge, of oil into or upon the navigable waters, adjoining shorelines or the Exclusive Economic Zone of the United States.

The Act provides for the designation of Federal, State, Indian Tribe and Foreign Natural Resource Trustees. The Trustees determine whether injury to, destruction of or loss of use of natural resources has resulted from such a discharge. The Act authorizes Trustees to present claims for damages (including the reasonable cost of assessing damages), to collect such damages and to restore, rehabilitate or replace natural resources under their Trusteeship.

27-3 TERMS AND DEFINITIONS

In some cases, references (a) and (b) define identical terms differently. In those cases, the definitions provided below combine elements of each reference to best accommodate Navy policy. In any case, the following definitions are provided only for the purpose of issuing Navy policy.

27-3.1 Baseline. The condition of the natural resources and services that would have existed had the OHS release not occurred. Baseline data may be estimated using historical data, reference data, control data or data on incremental changes, alone or in combination, as appropriate.

Types of information that may be useful in evaluating baseline include: information collected regularly for a period of time prior to the incident; information identifying historical patterns or trends; information collected from areas unaffected by an incident that are similar to the affected area; and information from the area of the incident after particular natural resources or services have recovered. This information may be obtained from Integrated Natural Resource Management Plans, Base Master Plans, Natural Resource Management Plans, NEPA Documents, special studies and other such documents.

27-3.2 Cost-effective. The least costly activity among two or more activities that, in the judgment of the Trustee, provides the same or comparable level of benefit.

27-3.3 Damages. Each party responsible for the release or threatened release of OHS affecting the natural resources of the United States is liable for monetary compensation for injury to, destruction of, loss of or loss of use of natural resources, including the reasonable assessment costs. (See 27-3.23.)

27-3.4 Discharge (Spill). Any emission (other than natural seepage), intentional or unintentional, including, but not limited to, leaking, pumping, pouring, emitting, emptying or dumping.

27-3.5 Exclusive Economic Zone. A zone extending 200 NM from the territorial sea baseline, unless a maritime boundary with another country is closer than 200 NM.

27-3.6 Exposure. Direct or indirect contact with the released OHS, including indirect injury as a result of disruption within an organism's food web. Exposure does not apply to response-related injuries and injuries resulting from a substantial threat of an OHS release.

27-3.7 Facility. Any structure, group of structures, equipment or device (other than a vessel) that is used for one or more of the following purposes: exploring for, drilling for, producing, storing, handling, transferring, processing, or transporting OHS. This term includes any motor vehicle, rolling stock, or pipeline used for one or more of these purposes.

27-3.8 Facility Response Team (FRT). Emergency response personnel (formerly known as On-Scene Operations Teams) who are designated, trained and equipped to provide rapid response to OHS releases that occur on or from their facility.

27-3.9 Federal On-Scene Coordinator (Federal OSC). The United States government official pre-designated by the EPA or the USCG to coordinate and direct the Federal Response under the NCP. In the case of HS releases from Navy facilities or vessels, the Navy OSC is the Federal OSC.

27-3.10 Federal Trustees for Natural Resources. OPA 90 and CERCLA designate the President as the Trustee for Federally protected or managed natural resources on behalf of the public. Executive Orders, in turn, designate the heads of specified departments, including SECDEF, as Natural Resource Trustees.

27-3.11 Hazardous Substance (HS).

a. Any substance so designated by the CWA;

b. Any element, compound, mixture, solution or substance so designated by CERCLA;

c. Any solid waste having the characteristics of or listed as, a Hazardous Waste (HW) as defined under Resource Conservation and Recovery Act (RCRA) (but not including any waste that has been exempted by Act of Congress);

d. Any toxic pollutant listed under the Clean Air Act;

e. Any imminently hazardous chemical substance or mixture for which the administrator of the EPA has taken action under the Toxic Substances Control Act.

f. The term does not include crude oil or any refined petroleum product (such as gasoline

g. or fuel oil) that is not otherwise specifically listed or designated as a HS;

h. The term does not include natural gas,

natural gas liquids, liquefied natural gas or synthetic gas useable for fuel (or mixtures of natural gas and synthetic gas), unless otherwise defined by State regulations.

27-3.12 Incident. Any occurrence or series of occurrences having the same origin, involving one or more vessels, facilities or any combination thereof, resulting in the release or substantial threat of release of OHS.

27-3.13 Injury. An observable or measurable adverse change in a natural resource or the impairment of its services. Injury includes the destruction, loss or loss of use of a natural resource or service resulting from an OHS release or the threat of such release. Injury may be found to have occurred directly or indirectly so long as a pathway from the release to the injury can be established. Reference (b) contains resource-specific conditions for injury.

27-3.14 Lead Administrative Trustee (LAT). The Trustee selected by mutual agreement among Trustees having jurisdiction over the natural resources affected by an OHS release to coordinate joint assessments, to avoid duplicate damage claims and to serve as the Trustees' primary point of contact with response agencies, the Responsible Party and the public. The LAT provides general administrative support to the restoration process, unless the Trustees decide otherwise.

27-3.15 NCP. The National Oil and Hazardous Substances Pollution Contingency Plan, reference (c), addresses the identification, investigation and study of, as well as response to OHS release incidents.

27-3.16 Natural Resource Damage Assessment. The process of collecting and evaluating information to determine the nature and extent of injury to natural resources resulting from an incident; determining whether and which restoration measures may be necessary to bring the injured resources and services back to baseline; and seeking to make the public whole for interim lost use of those resources and services.

27-3.17 Natural Resources. Includes land, fish, wildlife, biota, air, surface water, ground water, drinking water, and other such resources belonging to, managed by, held in trust by or otherwise controlled by the United States (including the resources of the **Exclusive Economic Zone**).

27-3.18 Navigable Waters. The waters of the United States, including the territorial seas and:

a. All waters that are currently used, were used in the past or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide;

b. Interstate waters, including interstate wetlands;

c. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, and wetlands, the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) That are or could be used by interstate or foreign travelers for recreational or other purposes;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(3) that are used or could be used for industrial purposes by industries in interstate commerce;

d. Any impoundment of waters otherwise defined as navigable waters above;

e. Tributaries of waters identified in paragraphs (a) through (d) above; and

f. Wetlands adjacent to waters identified in paragraphs (a) through (e) above, provided that waste treatment systems (other than cooling ponds that otherwise meet the criteria of this subsection) are not waters of the United States. (See also the definition of wetlands in the COE 1987 Wetlands Delineation Manual).

27-3.19 Navy On-Scene Coordinator (NOSC). The Navy official pre-designated to coordinate Navy OHS pollution contingency planning and direct Navy OHS pollution response efforts in a pre-assigned area. U.S. shoreside NOSCs are normally RECs pre-designated by the area environmental coordinators. (For a complete discussion of these designations, please see chapter 10).

27-3.20 Oil. Animal, vegetable or petroleum-based oil of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse and oil mixed with wastes other than dredged spoil. In practice, this includes refined products such as gasoline, diesel, jet fuel and cooking oil.

27-3.21 OPA 90. The Oil Pollution Act of 1990, 33 U.S.C. 2701, et. seq., See subsections 27-2.4 and 27-4.1(a) of this chapter.

27-3.22 Preliminary Impact & Exposure Report (PIER). A rapid "first order" report made on-site by the FRT to determine whether and the extent to which natural resources have been exposed to an OHS release. (See appendix M for an exemplar.)

27-3.23 Reasonable Assessment Costs. Generally, the costs of assessments conducted under references (a) and (b). Trustees may recover their reasonable assessment costs, even absent restoration, provided that assessment actions undertaken were premised on the reasonable likelihood of injury and need for restoration. Reasonable assessment costs also include administrative and some legal costs necessary to restoration planning, implementation and monitoring as well as the costs associated with public participation in these processes.

27-3.24 Rebuttable Presumption. An evidentiary rule of law that presumes without further proof that damages assessed by the Trustees using the procedures specified in either references (a) or (b) are reasonable—shifting the burden of proof to the Responsible Party to demonstrate that the damages so assessed are not reasonable.

27-3.25 Recovery. The return of injured natural resources and services to baseline.

27-3.26 Release. Any actual or threatened spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing of OHS into the environment; the abandonment or discarding of barrels, containers, or other closed receptacles containing OHS. The term "release" does ***not*** include:

a. Activities that result in exposure to persons solely within a work space;

b. Emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel or pipeline pumping station engine;

c. The release of nuclear material; or

d. The normal application of fertilizer and herbicides.

27-3.27 Response. The containment and/or removal of OHS released into the natural environment; The taking of other actions as may be necessary to minimize or mitigate damage to the public health or welfare, including, but not limited to, injuries to fish, shellfish, wildlife, public or private property.

27-3.28 Responsible Party (RP). Any person (legal or natural) who, in the view of the Trustees, may ultimately be found liable for damages resulting from the actual or threatened release of OHS affecting natural resources under their Trusteeship, including the following:

a. **Vessels**, including the owner, operator or bare boat charter of such vessel;

b. **Onshore Facilities,** including the owner or operator of such facilities; and

c. **Offshore Facilities,** including the owner or operator of such facility, the lessee or permit holder of the area in which the facility is located or the holder of a right of use and easement within such area;

d. **Pipelines**, including the owner or operator of it.

Any person who owns or operates an HS disposal facility; arranges for the disposal, treatment or transportation of HS; or accepts HS for transport to a disposal or treatment facility may also be deemed an RP under CERCLA.

27-3.29 Restoration. Any action (or alternative) or combination of actions (or alternatives) intended to restore, rehabilitate, replace or acquire the equivalent of injured natural resources and services.

27-3.30 Services or Natural Resource Services/Functions. The physical or biological functions performed by a natural resource that benefit another natural resource or the public. For example, the delivery of oxygen and nutrients to aquatic life would be a "natural resource service" provided by a healthy river. Similarly, recreational fishing at the river would be a "natural resource service" to the public.

27-3.31 Trustees (Natural Resource Trustees). Resource agencies designated by the President, State Governors and American Indian Tribes who prosecute claims for damages and act on behalf of the public to protect and restore natural resources within their jurisdiction. (Section 27-4 of this chapter provides an overview of the legal authority for those appointments, while section 27-7 outlines Trustee responsibilities under controlling statute and regulation.)

27-3.32 Value. The maximum amount of goods, services or money an individual is willing to forgo to obtain other goods or services. The minimum amount of goods, services or money an individual is willing to accept to forgo other goods or services. A measure of the public's willingness to pay for a service.

27-4 REQUIREMENTS

Reference (d) states "All DOD Components shall develop and promulgate criteria and procedures for assessing natural resource damage claims in the event natural resources under DOD control are damaged [injured] by oil or a hazardous substance released by another party." The requirements of this chapter, however, go beyond reference (d) and apply to natural resource injury occasioned by OHS releases from both DOD and non-DOD sources. This instruction maintains a distinction between physical *injury* to natural resources and the monetary *damages* arising at law from such injury.

27-4.1 In the Case of Oil Spills.

a. The Oil Pollution Act (OPA 90), 33 U.S.C. 2701, et seq., provides for the designation of Federal, State, Indian Tribe and Foreign Natural Resource Trustees empowered to determine if injury to natural resources and services under their Trusteeship has resulted from a discharge, or substantial threat of discharge, of oil into or upon the navigable waters or adjoining shorelines of the United States. Trustees are responsible for the assessment of natural resource damages resulting from those injuries; the

presentation of claims for damages; the recovery of damages; and the development and implementation of a plan for the restoration, rehabilitation, replacement or acquisition of equivalent natural resources or services.

b. OPA 90 also provides that the President, acting through the Department of Commerce, NOAA, shall issue regulations for the assessment of natural resource damages resulting from a discharge of oil. Assessments performed by Federal, State or Tribal Trustees under these regulations, are accorded a rebuttable presumption of reasonableness.

c. Accordingly, NOAA has issued a Final Rule, reference (a), for the use of authorized Trustees in executing such assessments.

d. Executive Order 12777, reference (e), in turn, designates SECDEF as an authorized Federal Trustee for Natural Resources and directs Trustees to exercise the duties defined in the NCP, reference (c). This Order also designates the Secretaries of Interior, Agriculture, Commerce and Energy as Federal Trustees for Natural Resources.

e. At the time of this writing, SECDEF has not delegated standing Trustee authority under OPA 90 to the component services.

27-4.2 In the Case of Hazardous Substance Releases

a. The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. 9607 et seq., provides for the designation of Federal and State Natural Resource Trustees who assess damages for injury to, destruction of, loss of or loss of use of, natural resources under their Trusteeship as a result of the release of a hazardous substance. CERCLA also recognizes the authority of Indian Tribes to commence actions as Natural Resource Trustees. Damages recovered by the Federal and State Trustees are available for use only to restore, replace or acquire the equivalent of the natural resources impacted by the release.

b. CERCLA requires the issuance of two types of regulations for the assessment of these natural resource damages. Assessments performed by Federal and State Trustees under either regulation are accorded a rebuttable presumption of reasonableness. The President delegated the promulgation of these regulations to The Department of the Interior (DOI) under Executive Order 12580, reference (f).

c. Accordingly, DOI has issued reference (b), establishing two types of natural resource damage assessment regulations: Types A and B. The Type A rule sets forth standard procedures for simplified assessments requiring minimal field observation and relies upon a computer model to measure injury to the natural resources using historical data or reference data from appropriate literature. The Type A rule is only applicable to minor spills in coastal and marine environments or the Great Lakes. The Type B rule establishes alternative protocols for calculating natural resource damages based upon the cost of restoring, rehabilitating, replacing or acquiring equivalent resources and is used when the Type A rule is not applicable. The Type B rule also allows for the assessment of all uses lost to the public pending restoration or rehabilitation of the injured resource.

d. Reference (f) also designates the Secretaries of Defense, Interior, Agriculture, Commerce and Energy as Federal Trustees for Natural Resources under CERCLA. Paragraph 6(a) of reference (g), in turn, delegates that authority to the Secretaries of the Military Departments.

e. At the time of this writing, the Assistant Secretary of the Navy for Installations and Environment has not delegated standing Trustee authority under CERCLA to CNO.

27-4.3 Disposition of Funds Recovered. Reference (d) directs that "funds recovered by the Department of Defense as a result of natural resource damage claims shall be used for restoration, replacement or acquisition of equivalent natural resources ... on the installation where the [injury] occurred."

27-5 NAVY POLICY

The Navy is committed to the restoration, rehabilitation or replacement of natural resources and services within its management or control injured by OHS releases to the environment. Where releases from Navy vessels and/or facilities may be responsible for injury to natural resources not within Navy control, the Navy will participate in natural resource damage assessment and restoration processes instituted by lawfully directed Natural Resource Trustees. The policy of the United States Navy, when acting on behalf of SECDEF as Federal Trustee for Natural Resources, is to seek compensation and/or financial participation from parties responsible for injuries to natural resources within Navy management or control.

27-5.1 Oil. Where an oil spill, regardless of source or physical location, injures or threatens to injure natural resources within Navy management or control, reference (a) shall serve as guidance to Navy activities in the mitigation, assessment and collection of natural resource damages occasioned by such spill. Where oil spills from Navy vessels and/or facilities result in injury to natural resources not within Navy control, the Navy will encourage Trustees conducting NRD assessments to use the procedures in reference (a).

27-5.2 Hazardous Substances. Where the release of hazardous substances, regardless of source, injures or threatens to injure natural resources within Navy management or control, reference (b) shall serve as guidance to Navy activities in the assessment and collection of natural resource damages occasioned by such release. Where HS releases from Navy vessels and/or facilities may be responsible for injury to natural resources not within Navy control, the Navy will encourage Trustees conducting NRD assessments to use the procedures in reference (b).

27-6 RESPONSIBILITIES

27-6.1 CNO (N45) shall

a. Develop, issue, review and provide execution oversight of Navy policy on Natural Resource Trusteeship;

b. Develop, issue, review and provide execution oversight of Navy policy on natural resource damage assessment and restoration procedures; and

c. Provide assistance to the Navy REC in securing authority to proceed as a Natural Resource Trustee when appropriate.

27-6.2 The Navy Regional Environmental Coordinator (Navy REC) shall

a. Act on behalf of SECDEF as Federal Trustee for natural resources within Navy management or control when so authorized by CNO. (The Navy REC's specific responsibilities when acting as Federal Trustee are enumerated in section 27-7)

b. Establish procedures consistent with the provisions of this chapter and references (a) and (b) to assess damages resulting from OHS releases into or upon natural resources within the Navy REC's management or control.

c. Provide executive oversight to the efforts of the following Navy personnel under this chapter:

(1) Regional counsel,

(2) Regional comptrollers

(3) Facility Commanders

(4) Engineering Field Division (EFD) and Engineering Field Activity (EFA) representatives.

d. Ensure that activities within the REC's Area of Responsibility (AOR) incorporate a PIER report into the standard operating procedure of the local FRT.

e. Annually exercise local EFD/EFA representatives, local counsel, comptrollers and FRTs in the execution of Natural Resource Trustee responsibilities.

(1) Annual exercises may take the form of comprehensive tabletop drills or RECs may conduct them in combination with area spill response exercises, including Preparedness for Response Exercise Program (PREP) events.

(2) Contracted support personnel relied upon in local contingency plans should also be invited to participate in these exercises.

27-6.2.1 The Navy REC Counsel shall

a. Coordinate the Navy REC's communications and negotiations with the RP and/or non-Navy Trustees having jurisdiction over natural resources affected or threatened by the release.

b. Negotiate with the RP and/or Trustees a Memorandum of Understanding (MOU) regarding the funding of and procedures to be used in natural resource damage assessment and restoration planning. (See also paragraph 27-7.2.5.)

c. Attend relevant Trustee meetings and report the status of Trustee negotiations in writing to the Admiralty Claims Division of the Navy Judge Advocate General and CNO (N45) biannually.

d. Periodically advise the Environment and Natural Resources Division of the Department of Justice (DOJ) on the status of natural resource damage claim negotiations and refer such claims to DOJ when negotiations with the RP have reached an impasse or have otherwise failed to implement the Trustees' restoration plan within a reasonable period of time.

e. Assist the Navy REC in the planning and execution of natural resource damage assessment and restoration activities within the REC's AOR.

f. Annually exercise the responsibilities identified above.

27-6.2.2 The Regional Comptroller shall

a. Document all Navy costs related to natural resource damage assessment and restoration activities, including but not limited to pre-assessment, restoration planning, plan execution and monitoring costs. (See 43 CFR 11.15 and 15 CFR 990.30)

b. Report these costs in writing to CNO (N45) each year that natural resource damage assessment or restoration activities are pending in the REC's AOR.

c. Assist the Navy REC in the planning and execution of natural resource damage assessment and restoration activities within the REC's AOR.

d. Annually exercise the responsibilities identified above.

27-6.3 COMNAVFACENGCOM shall

a. Act as natural resource technical consultant to the Navy, providing technical

support in the planning and execution of natural resource damage assessment and restoration activities.

b. Coordinate with the EFDs/EFAs to develop expertise in natural resource damage mitigation, assessment and restoration.

27-6.4 Regional EFDs/EFAs shall upon request

a. Act as the Navy REC's primary point of contact for the planning and execution of natural resource damage assessment and restoration activities within the REC's AOR.

b. Act as the Navy RECs primary repository of natural resource baseline information until the REC determines that local activities in his/her AOR have sufficient resources and training to assume this function. (See paragraph 27-7.1.3.)

c. Assist the REC in developing local area guidance on natural resource damage assessment and restoration procedures in consonance with the provisions of this chapter and references (a) and (b). Coordinate the development of this guidance with installation/facilities, where they have knowledge concerning on-site resources.

d. Act as the Navy RECs primary contracting authority in retaining technical assistance from the private sector to facilitate the planning and execution of natural resource damage assessment and restoration activities within the REC's AOR.

e. Assist the Navy REC in the planning and execution of natural resource damage assessment and restoration activities within the REC's AOR.

f. Annually exercise the responsibilities identified above.

27-6.5 Facility Response Teams shall

a. Report whether and the extent to which natural resources have been exposed to an OHS release.

b. Compile and sign a PIER report (an example of which is provided in appendix M) within 6 hours of being notified of an OHS release in their AOR.

c. Deliver the PIER report to the cognizant Navy REC not later than the close of business on the next business day following notification of an OHS release in their AOR.

d. Annually exercise the responsibilities identified above.

27-6.6 The RP. When a Navy vessel or facility is deemed the RP for an OHS release, the cognizant Navy command shall:

a. Fully cooperate with the Trustees in the natural resource damage assessment planning, restoration and monitoring process.

b. Enter into an MOU with the Trustees to fund the reasonable cost of pre-assessment activities and to meet the other objectives of subparagraph 27-7.2.5 (b).

c. Pay to the Trustees the reasonable cost of natural resource damage assessment planning, restoration and monitoring activities as may be negotiated between the RP and the Trustees.

27-7 TRUSTEESHIP

As described in section 27-4 of this chapter, the President appointed SECDEF to act as Federal Trustee for Natural Resources within DOD management or control.

27-7.1 Prior to the Incident. As a Trustee of these resources, the Secretary is responsible for conducting pre-incident planning to help ensure that the assessment results in technically sound

and cost effective restoration and to restore to baseline resources injured by OHS releases.

27-7.1.1 Pre-incident Planning. As described in section 27-6, CNO (N45) may call upon the Navy REC to act on behalf of SECDEF as Federal Trustee for natural resources within Navy management or control. Consequently, the Navy REC shall coordinate with OHS response organizations and other Trustees in its AOR to identify:

a. Natural resource damage assessment teams;

b. Trustee notification systems;

c. Support services;

d. Natural resources and services at risk;

e. Area and regional response agencies and officials;

f. Available baseline information;

g. Data management systems;

h. Assessment funding issues and options; and

i. State Trustee natural resource damage assessment methodologies with reduced procedural requirements for small-scale restoration plans.

27-7.1.2 Regional and Area Contingency Planning. The Navy REC shall represent the interests of the Navy in regional and area contingency planning activities, including but not limited to contingency plan development, drills and exercises. The Navy REC shall ensure that NOSC plans incorporate Navy natural resource expertise into the management of spill response -- both real time and on-scene -- to evaluate and to mitigate potential injury to natural resources. NOSC plans should be seamlessly integrated with Regional and Area Contingency Plans and provide for coordination between DOD and non-DOD Natural Resource Trustees.

27-7.1.3 Baseline Assessment. The collection and maintenance of ecological information required by chapter 22 are essential to pre-incident planning on behalf of the Navy REC. Baseline data may include, but should not be limited to:

a. USCG Shoreline Assessment Maps;

b. NOAA Environmental Sensitivity Index Maps;

c. Studies conducted by and/or reports issued by regional educational institutions and/or governmental agencies that describe natural resources within Navy management or control;

d. Integrated Natural Resource Management Plans; and

e. Navy studies and/or reports including those conducted for purposes other than natural resource management describing natural resources within Navy management or control (such as Environmental Assessments and Impact Statements).

27-7.2 During the Incident

27-7.2.1 Pre-assessment Phase. Upon notification of an OHS release incident, the Trustees must first determine whether certain threshold criteria have been met to authorize commencement of the damage assessment process and to establish which assessment procedure, if any, may be applicable.

a. Each Navy activity FRT shall execute a PIER report (an example of which is provided in appendix M) within 6 hours of release notification.

b. The PIER report records observable injury to natural resources and services by an OHS release.

c. The FRT shall, by close of business the next business day, deliver the PIER report to the Navy REC.

d. When, in the view of the Navy REC, the PIER report warrants a more detailed survey of natural resource injuries, the Navy REC shall activate local EFDs/EFAs, counsel and comptrollers to execute the responsibilities outlined in section 27-6 above.

e. The Navy REC staff shall, in turn, maintain a record of all command PIER reports for at least 3 years.

27-7.2.2 Mitigation of damages. Upon notification or discovery of an injury or threat of injury to natural resources within Navy management or control, the Navy REC shall take appropriate action to mitigate such injury both during and after spill response activities.

27-7.2.3 Coordination with the Federal OSC. Some damage assessment activities, such as data collection and analysis, will require coordination with the OSC in charge of the spill response. The OSC will also require advice from the Trustees regarding potentially affected resources, environmental sensitivities and environmentally prudent response alternatives. Trustees should communicate requirements and advice to the OSC via the LAT and/or the government liaison official in the OSC's Unified Command.

27-7.2.4 Coordination with other Trustees. Trustee responsibilities for natural resources may overlap between various agencies depending upon the resource threatened and the extent to which Trustee authority has been vested in a particular agency.

a. For example, the Secretary of Commerce acts as the Federal Trustee for natural resources found in, under or using the navigable waters of the United States, its Exclusive Economic Zone and outer continental shelf. These resources include marine fisheries, anadromous (migrating) fish, endangered species, marine mammals and the resources of National Marine Sanctuaries and National Estuarine Research Reserves.

b. The Secretary of Interior, on the other hand, acts as Federal Trustee for natural resources managed or controlled by DOI. These resources include migratory birds, anadromous fish, endangered species, marine mammals, Federally-owned minerals, certain Federally–owned lands and certain Federally managed water resources.

c. These agencies have broad authority over the resources within their management or control, as well as over resources within the management or control of other Federal agencies.

d. Similarly, the States and Indian Tribes may exercise Trustee roles. For example, SECDEF may share Trustee responsibilities with the Governor of the State of Alaska and the Secretary of the Interior for the same migratory birds located on property managed by the U.S. Navy in Alaska.

e. Consequently, the coordination of damage assessment, mitigation and restoration activities with non-DOD Trustees is an important part of the Navy REC's responsibilities and should be among his/her primary and immediate concerns when notified of potential injury to natural resources.

27-7.2.5 Coordination with the RP. The Trustees are required to invite the party or parties responsible for natural resource damages to participate in the damage assessment and restoration planning process. Reference (a) requires delivery of such invitations in writing to

the RP not later than the Notice of Intent to Conduct Restoration Planning. Reference (b) requires delivery of written invitations to the RP before preparation of an Assessment Plan.

a. To mitigate the adversarial nature of the damage assessment process, however, the Navy REC shall endeavor to include the RP in Trustee activity at the earliest possible opportunity to promote a climate of cooperation and mutual trust.

b. To facilitate cost-effective cooperation, the Navy REC shall negotiate with the RP and endeavor to enter into a MOU that provides, among other things, for:

(1) the funding of Navy assessment and restoration activities;

(2) the consolidation of technical expertise;

(3) the review of relevant data;

(4) assessment, planning, implementation and monitoring milestones; and

(5) dispute resolution procedures.

27-7.3 After the Incident. The Trustees are responsible for the assessment of damages to natural resources, the presentation of claims for damages to the RP, the recovery of damages and the development and implementation of a plan for restoration of the injured natural resources or services.

27-7.3.1 Formal Assessment. The Trustee must quantify the degree and extent of injuries to natural resources. The Trustees must determine the source of exposure, pathway and adverse change to natural resources or services because of an OHS release incident. The Trustees must also assess injuries to a natural resource caused by spill response and clean-up activities.

27-7.3.2 Restoration Planning. The Trustees must also develop and implement a plan for restoration. Reference (a) requires that restoration planning by Federal Trustees be subject to NEPA. "NEPA becomes applicable when Federal Trustees propose to take restoration actions, which begins with the development of a Draft Restoration Plan." 15 CFR 990.23(b).

Restoration actions required by reference (b) are ***not*** subject to NEPA because these actions occur under CERCLA authority which has procedures and public involvement requirements that are "functionally equivalent" to NEPA.

a. **Evaluation and Selection of Restoration Alternatives.** The Trustees must evaluate the restoration alternatives developed. This evaluation must be based upon the criteria listed in references (a) or (b) as appropriate.

b. **Draft Restoration Plan.** The Trustees may use a Regional Restoration Plan or existing restoration project where such a Plan or project is determined to be the best alternative among a range of feasible restoration alternatives considered. In any case, the Draft Restoration Plan must be capable of meeting the Trustees' obligation to restore the injured natural resources and services and endeavor to compensate the public for interim loss of use.

Because Federal agencies have adopted differing NEPA procedures, Trustees must agree upon the NEPA procedures to use when assessing NRD for a particular spill.

Where the Navy is a Trustee, the Navy REC should promote the Navy's NEPA procedures found at chapter 2 of this Instruction. The Navy REC shall consult with CNO (N45) on relevant NEPA requirements before initiating negotiations with co-Trustees.

c. **Public Review and Comment.** Once the Trustees have decided to proceed with

restoration, they must publish a written Notice of Intent to Conduct Restoration or make available to the public an administrative record documenting the basis for the Trustees' decision to proceed with restoration. The Notice must give the public a reasonable opportunity to review and comment upon the record and Draft Restoration Plan.

d. **Final Restoration Plan.** Once Trustees have taken public comment on the Draft Restoration Plan, they must develop a Final Restoration Plan.

27-7.3.3 Damage claims

a. **Oil.** Under reference (a), the Trustees may settle claims for natural resource damages, with or without completing the damage assessment process, provided that the settlement is fair, reasonable and in the best interest of the public. In the judgment of the Trustees, the settlement must satisfy the goals of OPA 90 with particular consideration for the ability of the settlement to restore injured natural resources or services. Funds recovered in the settlement of such claims may be expended only in accordance with the restoration plan. Costs incurred by the Trustees in the assessment, planning and implementation process, however, may be reimbursed from these funds. (See paragraph 27-9.1.1.)

b. **Hazardous Substances.** Under reference (b), the Trustees may settle claims for natural resource damages, with or without completing the damage assessment process, provided that the settlement is fair, reasonable and in the best interest of the public. Funds recovered in the settlement of such claims may be expended only to restore, replace, rehabilitate or acquire the equivalent of the injured natural resources or services in accordance with the Final Restoration Plan. Costs incurred by the Trustees in the assessment, planning and implementation process, however, may also be reimbursed from these funds.

27-7.3.4 Restoration Implementation. At the conclusion of damage assessment and restoration planning activities, as described by references (a) and (b), the Trustees:

a. Shall open an administrative record to document restoration implementation phase decisions, actions and expenditures, as well as modifications to the Final Restoration Plan;

b. Shall present the RP with a written demand for the damages determined per references (a) and (b) by certified mail or such other means to establish the date of receipt by the RP. The demand must also include:

(1) Identification of the incident from which the claims arise;

(2) Identification of the Trustees asserting the claims and a statement of the statutory basis for Trusteeship;

(3) A brief description of the injuries for which the claim is being sought;

(4) An index to the administrative record;

(5) A Final Restoration Plan or Notice of Intent to Use a Regional Restoration Plan or Existing Restoration Project; and

(6) A request for reimbursement of reasonable assessment costs, the costs of emergency restoration and interest on the amounts so claimed.

c. Shall open an account for recovered damages per references (a) and (b). Joint Trustee recoveries may be deposited in a joint account under the registry of the applicable Federal court

where an enforceable agreement is established to govern management of such an account.

27-7.3.5 Restoration Monitoring. The Trustees shall assess the success of restoration implementation under the monitoring provisions of the Final Restoration Plan.

27-8 DAMAGE ASSESSMENT

27-8.1 Oil Spills. Under reference (a), the natural resource damage assessment process incident to a discharge of oil includes three phases: Pre-assessment; Restoration Planning; and Restoration Implementation. This subsection summarizes those damage assessment procedures as detailed in reference (a). Navy policy (see subsection 27-5.1 of this chapter) calls for the use of reference (a) procedures regardless of the location of the spill, the provisions of OPA 90 (33 U.S.C. 2702) notwithstanding.

27-8.1.1 Pre-assessment Phase. The Pre-assessment Phase is a preliminary fact-finding exercise that provides the information necessary to determine whether: (a) the Trustee has jurisdiction over a particular incident and (b) if restoration planning is necessary.

a. **Determining Jurisdiction under OPA 90.** Upon notification of a spill or release incident, the Trustees must first determine whether an incident has occurred as defined by reference (a) subpart (c), and whether natural resources within Navy management or control have been or may be, injured as a result of the Incident. If the conditions of subpart c are met, the Trustees may assume jurisdiction and pursue restoration under OPA 90, provided that the release is not:

(1) Permitted under a permit issued by Federal, State or local authority;

(2) From a public vessel; or

(3) From an onshore facility subject to the Trans-Alaska Pipeline Authority Act, 43 U.S.C. 1651.

b. **Determining Need to Conduct Restoration Planning.** If jurisdiction under OPA 90 is satisfied, Trustees must decide whether to conduct restoration planning. Criteria to determine whether restoration planning may be appropriate include:

(1) Whether injury to natural resources has resulted from or is likely to result from the Incident;

(2) Whether response actions have adequately addressed or are expected to address the injury;

(3) Whether feasible primary and compensatory restoration alternatives exist to address potential injury.

c. **Threshold Requirements.** If the criteria of either subpart (a) or (b) of this part are not met, the Trustees may not take additional action to pursue restoration under OPA 90. However, the Trustees may take additional action to finalize these determinations and to recover from the RP all reasonable assessment costs.

d. **Notice of Intent to Conduct Restoration.** If the criteria recited at subparts (a) and (b) above have been met and the Trustees decide to proceed with damage assessment, they must prepare a Notice of Intent to Conduct Restoration Planning. Trustees must make this Notice available to the public and deliver it to the RP. (See 15 CFR 990.44.)

e. **Public Record.** If Restoration Planning is to proceed, the Trustees are required to make available to the public an administrative record documenting the basis for all decisions pertaining to the Restoration Plan. (See 15 CFR 990.45.)

27-8.1.2 Restoration Planning. If Restoration Planning is justified, the Trustees must conduct injury determination, injury quantification and restoration selection.

a. **Injury Determination.** The Trustees must determine whether:

(1) the definition of injury has been met; and

(2) the injured resource has been exposed to the oil, a pathway can be established from the discharge to the injured resource and the injury resulted from the discharge; or

(3) an injury to a resource or an impairment of a natural resource service has occurred as a result of response actions or a substantial threat of discharge of oil.

When selecting the potential injuries to assess, the Trustees should consider the following factors:

(1) the natural resources and services of concern;

(2) the procedures available to evaluate and quantify injury including time and cost requirements;

(3) the evidence indicating exposure;

(4) the pathway from the incident to the natural resource and/or service of concern;

(5) the adverse change or impairment constituting injury;

(6) the evidence indicating injury;

(7) the mechanism by which injury occurred;

(8) the potential degree, spatial and temporal extent of the injury;

(9) the potential natural recovery period; and

(10) the kinds of primary and/or compensatory restoration actions that are feasible.

b. **Injury Quantification.** Upon determining that injury has occurred, the Trustees must quantify the extent of injury relative to baseline. To quantify injury, the Trustees must estimate, quantitatively or qualitatively, the time for natural recovery without restoration, considering the following factors:

(1) The nature, degree and spatial and temporal extent of injury;

(2) The sensitivity and vulnerability of the injured resource or service;

(3) The reproductive and recruitment potential;

(4) The resistance and resilience of the affected environment;

(5) The natural variability; and

(6) The physical/chemical processes of the affected environment.

c. **Primary Restoration.** Primary restoration is action, including natural recovery, that returns injured natural resources and services to baseline.

(1) *Natural Recovery* – The Trustees must consider a natural recovery option in which no human intervention would be taken directly to restore injured natural resources and services to baseline.

(2) *Active Primary Restoration* – The Trustees should also consider whether accelerated recovery due to direct human intervention may be

preferable to natural recovery to restore natural resources and services to baseline.

d. **Compensatory Restoration.** For each alternative, the Trustees must consider compensatory restoration actions to compensate for the interim loss of natural resources and services pending recovery. When evaluating compensatory restoration actions, the Trustees must consider if the actions provide services of a comparable type, quality and value to those injured and scale the actions accordingly.

e. **Draft Restoration Plan.** The Draft Restoration Plan is generally subject to the requirements of NEPA and reference (h). Trustees should make the plan available for public review and comment. Where appropriate, the Trustees may propose a Regional Restoration Plan or existing restoration project as a feasible restoration alternative. These plans or projects must satisfy the Trustees' obligation to "restore, rehabilitate, replace or acquire the equivalent of the injured natural resources and services and compensate for interim losses". At a minimum, the Draft Restoration Plan must include:

(1) a summary of injury assessment procedures used;

(2) a description of the nature, degree, spatial extent and temporal extent of injuries resulting from the incident;

(3) the goals and objectives of restoration;

(4) the range of restoration alternatives considered and a discussion of how they were developed and evaluated under 15 CFR 990;

(5) the Trustees' tentative preferred alternatives;

(6) a description of the past and proposed involvement of the responsible parties in the assessment; and

(7) a description of the monitoring procedures required to document the effectiveness of the restoration action taken, including performance criteria used to determine the success of restoration or the need for interim corrective action.

f. **Final Restoration Plan.** Following an opportunity for public review and comment, the Trustees develop a Final Restoration Plan to include the elements recited at subparagraph 27-8.1.3, responses to public comment, indicating where changes were made to the Draft Restoration Plan, if any. The Trustees must then present a written demand to the RP under 15 CFR 990.62.

27-8.1.3 Restoration Implementation. The Trustees should give the RP a reasonable opportunity—90 days under National Pollution Fund Center (NPFC) rules—to either implement the Final Restoration Plan or to fund the Trustees' implementation of the Plan. While RP implementation and management of the restoration project is probably in the best interest of the public, the guiding principle should be the settlement of damage claims without litigation. Should the RP decline to settle the claim, the Trustees should refer the claim to the Environment Division of the Department of Justice for collection and civil action in Federal Court if required.

27-8.1.4 Restoration Monitoring. In accordance with the monitoring component of the final restoration plan, see subparagraph 27-8.1.2(e)(7), the Trustees should gauge the success of restoration implementation by monitoring both reference and control sites reasonably calculated to assess the progress and performance of the action taken.

27-8.2 Hazardous Substances. Under reference (b), the natural resource damage assessment process for hazardous substances has

four phases: Pre-assessment, Assessment Planning, Assessment and Post-assessment.

27-8.2.1 Pre-assessment. The first phase of a natural resource damage assessment conducted under reference (b) involves a Pre-assessment screen to determine if further assessment actions are warranted and to determine the procedures most appropriate to Assessment Planning in the instant circumstances. The Pre-assessment screen includes the following criteria:

a. whether a HS release has occurred;

b. whether natural resources have been or are likely to be adversely affected by the release;

c. whether the quantity or concentration of HS sufficient to cause injury;

d. whether assessment data is readily obtainable or likely to be obtained at reasonable cost; and

e. whether response actions will sufficiently remedy the injury to natural resources without further action.

27-8.2.2 Assessment Planning. The goal of this phase is to draft an Assessment Plan that adequately describes the methods that the Trustees intend to use to conduct natural resource damage assessment in the most cost-effective manner. Trustees must make the Assessment Plan available for public review and comment. The Assessment Plan must include a description of the natural resources and geographic area involved; a statement of the authority for asserting Trusteeship; and a description of the procedures that the Trustees intend to use to conduct injury determination, quantification and damage determination. During the planning phase, the Trustees must choose between Types A and B assessment methodology. The methodology so chosen will facilitate the execution of the Assessment Plan.

27-8.2.3 Assessment. During this phase, the Trustees execute the protocol described in the Assessment Plan determining injury and quantifying damages under Type A or B assessment procedures.

a. **Type A Procedures.** In a Type A Assessment, the Trustees perform Injury Determination, Quantification and Damage Determination using standardized procedures involving minimal fieldwork. Typically, Type A procedures involve the use of a computer model to assess damages from small HS releases in coastal and marine environments.

b. **Type B Procedures.** In a Type B Assessment, the Trustees perform the same determinations using a range of alternative scientific and economic methodologies. Type B procedures are more labor intensive in the collection and analysis of available data and, consequently, significantly more expensive and time consuming.

27-8.2.4 Post-assessment. Whether the Trustees elect Type A or Type B assessment procedures, reference (b) requires the Post-assessment preparation of a Report of Assessment, the establishment of an escrow account to receive damage payments and the development of a Restoration Plan.

27-9 FUNDING

27-9.1 Oil Spill Liability Trust Fund (OSLTF). OPA 90 (33 U.S.C. 2712) states funds shall be made available from the OSLTF for the payment of costs incurred by the Trustees in assessing natural resource damages and in developing and implementing plans for the restoration, rehabilitation, replacement or acquisition of equivalent natural resources. The NPFC administers the OSLTF.

27-9.1.1 Assessment Costs. Federal Trustees have access to the OSLTF to fund the cost of:

a. notifying and coordinating with other Trustees and the Federal OSC;

b. pre-assessment determination;

c. damage assessment determination;

d. data collection and analysis; and

e. report preparation

27-9.1.2 Damage Claims. Under a 1997 inter-agency ruling, the NPFC may pay uncompensated NRD claims from the OSLTF Funds without seeking further appropriation.

27-9.1.3 Requests for Funds. The Trustees should first seek funding from the RP for both the costs of assessment and natural resource damage claims. If the RP is unknown, unable or unwilling to cooperate with the reasonable requests of the Trustees, the Trustees may petition the NPFC for funding from the OSLTF.

a. **Inter-Agency Agreement.** To access the Fund, the LAT must conclude an interagency agreement with the NPFC for each OPA 90 Incident requiring OSLTF Funds. The LAT must submit the request on behalf of all of the affected Trustees to the cognizant NPFC Regional Manager. The request for OSLTF Funds must provide the information specified in chapter 2 of reference (i), Procedures for Accessing the OSLTF to Initiate Natural Resource Damage Assessments.

b. **Reimbursement and Cost Recovery.** According to the interagency agreement, the NPFC will review the Trustees' request and advise them whether funding will be available for assessment costs and/or damage claims. To trigger access to OSLTF Funds, the Trustees must submit to the NPFC an USCG SF-180 or equivalent together with cost documentation.

27-9.1.4 Record keeping.

a. **Cost Documentation.** The LAT and each participating Trustee are required to establish a system to record and to document costs, including the cost of personnel, equipment and services.

b. **Content of Documentation.** The NPFC does not specify a format that cost documentation must take; however, Navy RECs are advised to follow the format identified in chapter 6 of reference (i).

c. **Trustee Reports.** Where the OSLTF advances funds, Trustees are required to submit a final report of costs to the NPFC. Trustees must submit documentation to the NPFC within 60 days of completing the funded activity. The LAT should review the cost documentation submitted by each of the Trustees and certify that the expenses were both reasonable and necessary. A narrative summary in layman's language describing the activity and the rationale for it must accompany the cost documentation.

27-9.2 CERCLA Superfund. Section 111 of CERCLA establishes a Hazardous Substance Response Trust Fund (the "Superfund"). Section 112 directs the President to establish forms and procedures for the filing of claims against the Superfund. Congressional appropriations language, however, expressly prohibits the payment of natural resource damage claims or assessment costs from the Superfund.

27-9.3 RP Funding

27-9.3.1 MOU Accounts. Where a Memorandum of Understanding between the Trustees and RP so provides, the RP may establish an account from which funds may be drawn to cover the cost of pre-assessment and/or damage assessment activities. The availability of such accounts notwithstanding, Trustees may ultimately be required to invoke the statutory funding mechanisms described at subsection 27-9. Accordingly, Trustees may be well advised to

cstablish a cost accounting system similar to that described in paragraph 27-9.1.4.

27-9.3.2 Revolving Escrow Accounts. DOI and NOAA have secured, via special legislation, Congressional authorization to establish a revolving escrow account for the receipt of funds from non-Federal sources in the settlement of natural resource damage claims. DOI also has used its account to receive funds in settlement of claims interposed by Federal Trustees other than DOI where DOI served as co-Trustee in the same action. Whether the DOI or NOAA account would be available to receive funds in settlement of claims interposed by Navy RECs acting on behalf of SECDEF as Federal Trustee for Natural Resources has yet to be determined by inter-agency agreement.

TABLE 27-1 NATURAL RESOURCE DAMAGE ASSESSMENT (NRDA) PLANNING CONSIDERATIONS
Designate point of contact for NRDA issues.
Publish the point of contact in Area and Regional Contingency Plans (ACPs/RCPs).
Provide technical/scientific assistance/information on NRDA in the preparation of ACPs/RCPs.
Identify special concerns related to natural resources under your management.
Identify sources for baseline condition information (Natural Resource Management Plans, Environmental Impact Statements, Area and Regional Contingency Plans, etc.).
Identify local agency NRDA contacts in your Facility Response Plan.
Identify funding protocol for contracting private sector NRDA expertise.

TABLE 27-2 NATURAL RESOURCE DAMAGE ASSESSMENT PROCESS FLOWCHART	
ACTION	**PARTIES RESPONSIBLE**
Notification of spill or release Incident	Party discovering spill/release
Survey injury to natural resources within 6 hours of notification: Preliminary Impact & Exposure Report (PIER). Deliver PIER to Regional Environmental Coordinator (REC) NLT COB next business day.	Facility Response Team
Review PIER. Determine whether further assessment will be required. Notify other Trustees *(Federal, State, Indian, Foreign Government).*	REC
Determine whether injury has occurred to resources. Notify Responsible Party of intent to conduct NRDA.	Trustees
Assess extent of injury by comparing to baseline condition. Determine monetary damages using: Type A Assessment (for OHS), Type B Assessment (for HS) or Any other mutually agreeable assessment method	Trustees
Seek monetary damages from Responsible Party. Seek participation from Oil Spill Liability Trust Fund.	Lead Administrative Trustee
Develop restoration plan. Seek public comment on proposed plan.	Trustees
Implement restoration plan. Monitor implementation as required by NEPA.	Trustees

APPENDIX A

PERTINENT LAWS, EXECUTIVE ORDERS, REGULATIONS, AND DIRECTIVES

PART 1

LAWS

1 ACT TO PREVENT POLLUTION FROM SHIPS, 33 U.S.C. 1901 et seq.

Implements for the United States the International Convention on the Prevention of Pollution from Ships (MARPOL). Except as to garbage discharges, requires federal entities to establish regulations to conform agency vessel operations to MARPOL requirements, to the extent reasonable and practicable. Mandates full compliance by U.S. government vessels with MARPOL garbage discharge requirements. With respect to Navy ships, mandates 3/20 day plastic retention rule, plastic processor installation schedule, and public reporting on non-food waste discharges into in-effect special areas. Establishes deadlines for Navy surface ship and submarine plastic discharge termination and special area compliance.

2 ANTIQUITIES ACT OF 1906, 16 U.S.C. 431 et seq.

Requires the issuance of permits for study, removal, or excavation of any ruins, sites, structures, or objects of historic or scientific interest on Federal and Indian land.

3 ARCHAEOLOGICAL RESOURCES PROTECTION ACT OF 1979 (ARPA), 16 U.S.C. 470aa et seq.

Requires the issuance of permits for authorized professional excavation or removal of archeological resources on Federal and Indian land.

4 BALD EAGLE PROTECTION ACT, 16 U.S.C 668 et seq.

Provides for the protection of bald and golden eagles.

5 CLEAN AIR ACT (CAA), 42 U.S.C. 7401 et seq.

The major federal legislation addressing air pollution control. Establishes national ambient air quality standards (NAAQS) for common air pollutants ("criteria pollutants") and requires States to institute controls with established air quality control regions to achieve the NAAQS. Requires U.S. EPA to establish necessary air quality control where States fail to do so. Severity of controls increases as degree of nonattainment with NAAQS increases. Mandates EPA regulation of 138 identified "hazardous air pollutants." Implements the Montreal Protocol on Ozone Depleting Substances (ODS), mandating phase out of ODS production, prohibiting intentional venting of ODS refrigerants during appliance servicing, and requires technician certification.

6 COASTAL BARRIERS RESOURCES ACT, 16 U.S.C. 3501 et seq.

Restricts federally subsidized development of undeveloped coastal barriers along the Atlantic and Gulf of Mexico coasts.

7 COASTAL ZONE MANAGEMENT ACT OF 1972 (CZMA), 16 U.S.C. 1451 et seq.

Provides incentives for coastal States to develop and implement coastal area management programs. Plays a significant role in water pollution abatement, particularly with regard to nonpoint source pollution. State coastal zone management

programs frequently incorporate flood control, sediment control, grading control, and storm water runoff control statutes. Federal actions that impact the coastal zone must be consistent to the maximum extent practicable with the State program.

8 COMMUNITY ENVIRONMENTAL RESPONSE FACILITATION ACT (CERFA), 42 U.S.C. 9601 note, 9620.

Amends CERCLA Section 120(h) to allow expedition of reuse and redevelopment of Federal facilities being closed.

9 COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 (CERCLA), 42 U.S.C. 9601 et seq.

The major federal legislation addressing cleanup of hazardous substance releases. (Other cleanup requirements are imposed under Resource Conservation and Recovery Act (RCRA) corrective action and underground storage tank provisions.) Empowers EPA to identify and prioritize sites for cleanup, and to order or carry out environmental remediation. Subject to limited defenses, imposes strict liability for environmental cleanup on persons whose actions caused release into the environment. Mandates reporting to National Response Center of hazardous substance releases. With Clean Water Act, mandates preparation of the National Contingency Plan for responding to oil or hazardous substance releases. The Superfund Amendments and Reauthorization Act of 1986, *inter alia* established the Defense Environmental Restoration Account, codified at 10 U.S.C. 2701.

10 CONSERVATION PROGRAMS ON MILITARY INSTALLATIONS (SIKES ACT), 16 U.S.C. 670(a) et seq.

Requires each military department to manage natural resources and to ensure that services are provided which are necessary for management of fish and wildlife resources on each installation; to provide their personnel with professional training in fish and wildlife management; and, to give priority to contracting work with Federal and State agencies that have responsibility for conservation or management of fish and wildlife. Authorizes cooperative agreements (with States, local governments, non-governmental organizations, and individuals) which call for each party to provide matching funds or services to carry out natural resources projects/initiatives.

11 DEFENSE APPROPRIATIONS ACT OF 1991.

Establishes the Legacy Resource Management Program for the stewardship of biological, geophysical, cultural and historic resources on DoD lands.

12 EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 (EPCRA), 42 U.S.C. 11001 et seq.

This Act is also known as Title III of the Superfund Amendments and Reauthorization Act (SARA). EPCRA focuses on the hazards associated with toxic chemical releases. Most notably, specific sections of EPCRA require immediate notification of releases of oil and hazardous substances and CERCLA-defined hazardous substances to State and local emergency response planners. Requires State and local coordination in planning response actions to chemical emergencies. Requires certain industries to submit information on chemical inventories and fugitive emissions.

13 ENDANGERED SPECIES ACT OF 1973 (ESA), 16 U.S.C. 1531 et seq.

Provides for listing of endangered and threatened species of plants and animals, and designation of critical habitat for animal species. Establishes federal policy that federal agencies, in exercise of their authorities, shall seek to conserve endangered species. Prohibits federal agencies from taking any action that would adversely affect any endangered or threatened species, or critical habitat.

Establishes a consultation process involving federal agencies generally and federal wildlife management agencies, to facilitate avoidance of agency action that would adversely affect species or habitat. Prohibits all persons subject to U.S. jurisdiction including federal agencies, from "taking" endangered species. Taking prohibition includes any harm or harassment, and applies within the U.S. and on the high seas.

14 FEDERAL ANTI-DEFICIENCY ACT, 31 U.S.C. 1341 et seq.

Provides that no Federal official or employee may obligate the government for the expenditure of funds before funds have been authorized and appropriated by Congress for that purpose.

15 FEDERAL FACILITY COMPLIANCE ACT OF 1992 (FFCA), 42 U.S.C. 6901 note, 6908.

Expands the enforcement authority of Federal and State regulators with respect to solid and hazardous waste management at Federal facilities. FFCA requires Federal facilities to pay any non-discriminatory fees or service charges assessed in connection with a Federal, State, interstate, or local solid or hazardous waste regulatory program. Waives immunity for Federal facilities under solid and hazardous waste laws by allowing States to fine and penalize for violations.

16 FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT (FIFRA), 7 U.S.C. 136 et seq.

Provides the principal means for preventing environmental pollution from pesticides through product registration and applicator certification. The registration of all pesticide products by EPA results in label instructions on each container for use, storage, and disposal. Label instructions are legally applicable to all users. Under FIFRA, EPA is required to accept certain pesticides under recall for safe disposal. It is unlawful to purchase, distribute, or use any pesticide that does not have an EPA registration number or for which registration has been canceled or suspended, or to apply, store, or dispose of any pesticide or container in any manner inconsistent with applicable regulations.

17 FEDERAL NOXIOUS WEED ACT OF 1974, 7 U.S.C. 2801 et. seq.

Provides for the control of noxious plants on land under the control or jurisdiction of the Federal government.

18 FEDERAL WATER POLLUTION CONTROL ACT (CLEAN WATER ACT (CWA)), 33 U.S.C. 1251.

The major federal legislation addressing water pollution control. Establishes the National Pollution Discharge Elimination System (NPDES) permitting program, to control the discharge of pollutants from point sources into navigable waters. NPDES permits must incorporate industry-specific technology based effluent standards, as well as water quality based effluent standards. Establishes the Dredge and Fill Permit Program, to control the discharge of dredged or fill material in to navigable waters. Requires federal agencies to accommodate concerns of States regarding the consistency of federal projects with State nonpoint source pollution control programs.

19 FISH AND WILDLIFE CONSERVATION ACT OF 1980, 16 U.S.C 2901 et seq.

Provides for conservation, protection, restoration, and propagation of certain species; including migratory birds threatened with extinction.

20 FISH AND WILDLIFE COORDINATION ACT, 16 U.S.C. 661 et seq.

Provides for effective integration of fish and wildlife conservation programs with Federal water resources development and conservation projects having an impact on water resources.

21 FOREST RESOURCES CONSERVATION AND SHORTAGE RELIEF ACT OF 1990, 16 U.S.C. 620 et. seq.

Regulates the export of unprocessed timber originating from Federal lands in the western States, and prohibits sale of such timber from Federal lands west of the 100th meridian in the contiguous 48 States to persons for the purpose of exportation, or to substitute for timber exported from private lands. Provides for exceptions and development of a program defining species and grades of timber excepted.

22 HISTORIC SITES, BUILDINGS, AND ANTIQUITIES ACT, 16 U.S.C. 461 et. seq.

Requires Federal agencies to consider the existence and location of landmarks on the National Registry of Natural Landmarks to avoid undesirable impacts on such landmarks.

23 MARINE MAMMAL PROTECTION ACT OF 1972 (MMPA), 16 U.S.C. 1431 et seq.

Subject to limited exceptions, prohibits the "taking" of marine mammals in the United States or on the high seas. "Taking" includes any harm or harassment.

24 MARINE PROTECTION, RESEARCH, AND SANCTUARIES ACT, 33 U.S.C. 1401.

Implements for the United States the London Dumping Convention. Requires EPA permit for transportation from the U.S., or from elsewhere in the world, of any "material" for the purpose of disposing of it in the ocean. Establishes the National Marine Sanctuary program, under which the National Oceanic and Atmospheric Administration (NOAA) designates and establishes regulations pertaining to national marine sanctuaries. NOAA regulations in some cases restrict discharges from vessels and aircraft overflight.

25 MIGRATORY BIRD TREATY ACT, 16 U.S.C. 703.

Prohibits taking or harming of migratory and certain other birds, their eggs, nests, or young without the appropriate permit.

26 MILITARY CONSTRUCTION AUTHORIZATION ACT OF 1975, 10 U.S.C. 2665.

Allows the proceeds from the sale of recyclable material to be credited to the installation to cover specified costs.

27 MILITARY CONSTRUCTION CODIFICATION ACT, 10 U.S.C. 2577 et seq.

An Act to provide guidance for the sale of certain recyclable material.

28 NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 (NEPA), 42 U.S.C. 4321 et seq.

Mandates federal agency consideration and documentation of environmental impacts of proposed actions and legislation. Mandates preparation of comprehensive environmental impact statement where proposed action is "major" and significantly affects the quality of the human environment.

29 NATIONAL HISTORIC PRESERVATION ACT, 16 U.S.C. 470 et seq.

Requires Federal agencies to take account of the effect of any federally-assisted undertaking or licensing on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places. Provides for the nomination, identification (through listing on the National Register), and protection of historical and cultural properties of significance. Specific procedures are established for compliance, including initial review authority by the cognizant State Historical Protection Officer.

30 NOISE CONTROL ACT OF 1972, 42 U.S.C. 4901 et seq (as amended by the Quiet Communities Act).

Authorizes establishment of Federal noise emission standards for products distributed in commerce, and coordinates Federal research efforts in noise control.

31 OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (OSHA), 29 U.S.C. 651 et seq.

Assures safe and healthful working conditions for men and women by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and healthful conditions; by providing for research, information, education, and training in the field of occupational safety and health.

32 OIL POLLUTION ACT OF 1990 (OPA 90), 33 U.S.C. 2701 et seq.

Mandates extensive planning for oil spills from tank vessels and onshore and offshore facilities. Establishes comprehensive elements of damage for oil spills, and imposes strict liability on those responsible for oil spills. Inapplicable to public vessels.

33 OUTDOOR RECREATION PROGRAMS ORGANIC ACT, 16 U.S.C. 4601 et seq.

Defines a program for managing of lands for outdoor recreation. Requires Federal departments to consult with the Secretary of Interior on plans and activities relating to outdoor recreation, and to manage outdoor recreation programs in general conformity to the nationwide plan.

34 POLLUTION PREVENTION ACT OF 1990 (PPA), 42 U.S.C. 13101, et seq.

Establishes the national policy that "pollution should be prevented or reduced at the source whenever feasible. Pollution that cannot be prevented should be recycled in an environmentally safe manner. Disposal or other release of pollutants into the environment should be employed only as a last resort and should be conducted in an environmentally sound manner."

35 RESOURCE, CONSERVATION AND RECOVERY ACT OF 1976 (RCRA), 42 U.S.C. 6901 et seq.

The major federal legislation addressing hazardous waste management. RCRA amends the Solid Waste Disposal Act (SWDA). Establishes duties and responsibilities of hazardous waste generators, transporters, storers, treaters and disposers. Authorizes U.S. EPA to mandate cleanup of hazardous waste releases through "corrective action" orders. Regulates underground storage tanks, imposing structural integrity and management practice requirements.

36 SAFE DRINKING WATER ACT (SDWA), 42 U.S.C. 300f et seq.

Creates a system for the protection of drinking water supplies through establishment of contaminant limitations and enforcement procedures. The SDWA requires EPA to issue primary drinking water standards to protect public health. Allows EPA to designate Sole Source Aquifers as the principal source of drinking water for communities. Requires each State to adopt a Wellhead Protection program to prevent contamination of surface and subsurface areas that surround wells within their jurisdiction from contamination. States have primary responsibility to enforce compliance with national primary drinking water standards and sampling, monitoring, and notice requirements.

37 SOIL CONSERVATION AND DOMESTIC ALLOTMENT ACT, 16 U.S.C. 590a et seq.

Provides for the application of soil conservation practices on Federal lands.

38 TOXIC SUBSTANCES CONTROL ACT (TSCA), 15 U.S.C. 2601 et seq.

Provides for the Federal regulation of the manufacture, use, distribution in commerce, and disposal of chemical substances that present a hazard to health or the environment. The major objective of TSCA is to characterize and understand the risks that a chemical poses to humans and the environment before it is introduced into commerce. The Act also contains specific requirements relative to Polychlorinated Biphenyls (PCBs), asbestos, and radon.

PART 2

FEDERAL REGULATIONS

1 CODE OF FEDERAL REGULATIONS

The Code of Federal Regulations (CFR) consists of 50 titles representing broad areas subject to Federal regulation. All general and permanent regulations published in the daily Federal Resister by executive agencies and departments of the Federal government appear in the CFR, which is updated annually. For example, all regulations issued by the EPA under the subject heading "Protection of the Environment" are codified in Title 40 of the CFR.

Relevant CFRs are:

1. 15 CFR 923, National Oceanic and Atmospheric Administration Coastal Zone Management Program Development and Approval Regulation;

2. 15 CFR 930, Federal Consistency with Approved Coastal Management Programs;

3. 18 CFR 1312, Archeological Resource Protection Act Regulations;

4. 29 CFR 1910, Occupational Safety and Health Standards;

5. 29 CFR 1910.120, Occupational Safety and Health Administration (OSHA) Regulations on Hazardous Waste and Emergency Response;

6. 29 CFR 1910.1200, OSHA Hazard Communication Standard;

7. 32 CFR 172 (DoD Instruction 7310.1), DoD Regulations for the Disposition of Proceeds from Sales of Surplus Property;

8. 32 CFR 190, Natural Resources Management Program;

9. 32 CFR 775, DON Procedures for Implementing the National Environmental Policy Act (NEPA);

10. 33 CFR 154, Oil Pollution Prevention Regulations for Marine Oil Transfer Facilities;

11. 33 CFR 330, Dredge & Fill Nationwide Permit Program;

12. 36 CFR 800, National Historic Preservation Act (NHPA) Regulations for the Protection of Historic Properties;

13. 40 CFR 6, EPA Regulations on Implementation of National Environmental Policy Act Procedures;

14. 40 CFR 50, Environmental Protection Agency Regulations on National Primary and Secondary Ambient Air Quality Standards;

15. 40 CFR 51-52, EPA Requirements for Preparation, Adoption, Submittal, Approval and Promulgation of Implementation Plans;

16. 40 CFR 53, EPA Regulations for Ambient Air Monitoring Reference and Equivalent Methods;

17. 40 CFR 55, Outer Continental Shelf Air Regulations;

18. 40 CFR 56, EPA Regulations on Regional Consistency Under the Clean Air Act;

19. 40 CFR 58, EPA Ambient Air Quality Surveillance Regulations;

20. 40 CFR 60, EPA Regulations on New Source Performance Standards;

21. 40 CFR 61, National Emissions Standards for Hazardous Air Pollutants;

22. 40 CFR 62, EPA Regulations on State Plans for Designated Facilities and Pollutants;

23. 40 CFR 65, EPA Regulations on Delayed Compliance Orders Under the Clean Air Act;

24. 40 CFR 66, EPA Regulations for Assessment and Collection of Noncompliance Penalties;

25. 40 CFR 68, Chemical Accident Prevention Provisions;

26. 40 CFR 69, EPA Special Exemptions from Requirements of the Clean Air Act;

27. 40 CFR 70, State Operating Permit Programs;

28. 40 CFR 80, Regulation of Fuels and Fuel Additives;

29. 40 CFR 81, EPA Regulations Designating Areas for Air Quality Planning;

30. 40 CFR 82, EPA Stratospheric Ozone Protection Regulations;

31. 40 CFR 86, Control of Air Pollution from New and In-Use Motor Vehicle Engines: Certification and Test Procedures;

32. 40 CFR 87, EPA Regulations on Control of Air Pollution and Aircraft and Aircraft Engines;

33. 40 CFR 104, EPA Regulations on Public Hearings on Effluent Standards for Toxic Pollutants;

34. 40 CFR 109, EPA Regulations on Criteria for State, Local, and Regional Oil Removal Contingency Plans;

35. 40 CFR 110, EPA Regulations on Discharge of Oil;

36. 40 CFR 112, EPA Regulations on Oil Pollution Prevention;

37. 40 CFR 113, EPA Regulations on Liability for Small Onshore Oil Storage Facilities;

38. 40 CFR 116-117, EPA Regulations on Hazardous Substances;

39. 40 CFR 122, EPA National Pollutant Discharge Elimination System Permit Regulations;

40. 40 CFR 125, EPA Regulations on Criteria and Standards for the National Pollutant Discharge Elimination System;

41. 40 CFR 129, EPA Toxic Pollutant Effluent Standards;

42. 40 CFR 130, EPA Requirements for Water Quality Planning and Management;

43. 40 CFR 141-143, EPA National Drinking Water Regulations;

44. 40 CFR 148, EPA Regulations on Hazardous Waste Disposal Restrictions for Class I Wells;

45. 40 CFR 150-186, EPA Regulations for Pesticide Programs;

46. 40 CFR 162, EPA Regulations on Insecticide, Fungicide, and Rodenticide Use;

47. 40 CFR 220-225, 227-229, Ocean Dumping Regulations and Criteria;

48. 40 CFR 230, EPA Interim Regulations on Discharge of Dredged or Fill Material into Navigable Waters;

49. 40 CFR 231, EPA Regulations on Disposal Site Determination Under the Clean Water Act;

50. 40 CFR 240-241, EPA Guidelines for the Thermal Processing of Solid Wastes and for the Land Disposal of Solid Wastes;

51. 40 CFR 243, EPA Guidelines for Solid Waste Storage and Collection;

52. 40 CFR 244, EPA Guidelines for Solid Waste Management of Beverage Containers;

53. 40 CFR 245, EPA Guidelines for Resource Recovery Facilities;

54. 40 CFR 246, EPA Guidelines for Source Separation for Materials Recovery;

55. 40 CFR 247, EPA Guidelines for Procurement of Products that Contain Recycled Material;

56. 40 CFR 248, EPA Guidelines for Federal Procurement of Building Insulation Products Containing Recovered Materials;

57. 40 CFR 249, EPA Guidelines for Federal Procurement of Cement and Concrete Containing Fly Ash;

58. 40 CFR 250, EPA Guidelines for Federal Procurement of Paper and Paper Products Containing Recovered Materials;

59. 40 CFR 252, EPA Guidelines for Federal Procurement of Lubricating Oils Containing Re-refined Oil;

60. 40 CFR 253, EPA Guidelines for Federal Procurement of Retread Tires;

61. 40 CFR 255, EPA Guidelines for Identification of Regions and Agencies for Solid Waste Management;

62. 40 CFR 257, EPA Regulations on Criteria for Classification of Solid Waste Disposal Facilities and Practices;

63. 40 CFR 259, EPA Medical Waste Regulations;

64. 40 CFR 260-270, EPA Regulations Implementing RCRA;

65. 40 CFR 262, EPA Regulations for Hazardous Waste Generators;

66. 40 CFR 264, EPA Regulations for Owners and Operators of Permitted Hazardous Waste Facilities;

67. 40 CFR 268, EPA Regulations on Land Disposal Restrictions;

68. 40 CFR 280, Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks;

69. 40 CFR 300, National Oil and Hazardous Substances Pollution Contingency Plan under CERCLA and CWA;

70. 40 CFR 300.600, National Oil and Hazardous Substances Pollution Contingency Plan (NCP), Designation of Federal Trustees;

71. 40 CFR 300.615, Responsibilities of Trustees;

72. 40 CFR 302, EPA Designation, Reportable Quantities and Notification Requirements for Hazardous Substances under CERCLA;

73. 40 CFR 355, EPA Regulations for Emergency Planning and Notification Under CERCLA;

74. 40 CFR 370, EPA Hazardous Chemical Reporting and Community Right-To-Know Requirements;

75. 40 CFR 372, EPA Toxic Chemical Release Reporting Regulations;

76. 40 CFR 373, EPA Regulations for Real Property Transactions under CERCLA;

77. 40 CFR 403, General Pretreatment Regulations for Existing and New Sources of Pollution;

78. 40 CFR 413, EPA Effluent Guidelines and Standards for Electroplating;

79. 40 CFR 414, EPA Effluent Guidelines and Standards for Organic Chemicals;

80. 40 CFR 415, EPA Guidelines and Standards for Inorganic Chemicals;

81. 40 CFR 417, EPA Effluent Guidelines and Standards for Soaps and Detergents;

82. 40 CFR 433, EPA Effluent Guidelines and Standards for Metal Finishing;

83. 40 CFR 504, State Sludge Management Program Regulations;

84. 40 CFR 760-761, EPA Regulations for Controlling PCBs;

85. 40 CFR 1500-1508, Council on Environmental Quality Regulations on Implementing National Environmental Policy Act Procedures;

86. 41 CFR Subchapter H Parts 41-47, GSA Disposal Regulations;

87. 49 CFR 100-199, Department of Transportation Hazardous Materials Regulations;

88. 49 CFR 126, Requires training and written examination of personnel that transport pesticide on public highways;

89. 49 CFR 194, DOT Research and Special Programs Administration (RSPA) Oil Pollution Prevention Regulations for Onshore Pipelines;

90. 50 CFR 10, Regulations Concerning Marine Mammals;

91. 50 CFR 10.13, List of Migratory Birds;

92. 50 CFR 17.11 and 17.12, Fish and Wildlife Service List of Endangered and Threatened Wildlife;

93. 50 CFR 18, 216, 228, Regulations Concerning Marine Mammals;

94. 50 CFR 402, Interagency Cooperation - Endangered Species Act of 1973.

PART 3

EXECUTIVE ORDERS (EOs) AND REORGANIZATION PLANS

1 EXECUTIVE ORDER 11644, 8 February 1972, Use of Off-Road Vehicles on the Public Lands. Amended by EO 11989 and EO 12608.

Requires federal land managing agencies, including the Department of Defense, to issue regulations governing use of off-road vehicles on the public lands. Regulations shall be designed to protect natural resources and protect safety of individuals involved. *Clarifies agency authority to define* zones of use by off-road vehicles on public lands and amends EO 11644 of 8 February 1972, by exempting fire, military, emergency, law enforcement, or combat/combat support vehicles.

2 EXECUTIVE ORDER 11990, 24 May 1977, Protection of Wetlands.

Requires federal agencies to avoid undertaking or providing assistance for new construction located in wetlands unless there is no practicable alternative, and all practicable measures to minimize harm to wetlands have been implemented.

3 EXECUTIVE ORDER 12088, of 13 October 1978, Federal Compliance with Pollution Control Standards.

Provides that the head of each federal agency is responsible for compliance with "applicable pollution control standards," defined as "the same substantive, procedural and other requirements that would apply to a private person." Requires federal agencies to cooperate with the U.S. EPA, States, and local agencies in the prevention, control and abatement of environmental pollution. Requires the EPA Administrator to provide technical advice and assistance to Executive agencies in order to ensure their cost effective and timely compliance with applicable pollution control standards. Provides that disputes between the U.S. EPA and another federal agency regarding environmental violations shall be elevated to the Office of Management and Budget for resolution.

4 EXECUTIVE ORDER 12114, 4 January 1979, Environmental Effects Abroad of Major Federal Actions.

Requires environmental study, under delineated circumstances, of actions proposed to be undertaken outside the geographical borders of the United States.

5 EXECUTIVE ORDER 12146, Management of Federal Legal Resources.

Provides that federal agencies whose heads serve at the pleasure of the President shall submit interagency legal disputes to the Attorney General.

6 EXECUTIVE ORDER 12344, 1 February 1982, Naval Nuclear Propulsion Program.

Provides that the Director of the Naval Nuclear Propulsion Program shall prescribe and enforce standards and regulations for the safety of reactors and associated naval nuclear propulsion plants, and for control of radiation and radioactivity associated with naval nuclear propulsion activities, as such activities affect the environment and the safety and health of workers, operators and the general public.

7 EXECUTIVE ORDER 12580, 23 January 1987, Superfund Implementation.

Delegates to various federal agencies, including the Department of Defense, various responsibilities assigned to the President under the Comprehensive Environmental Response, Compensation and Liabilities Act.

8 EXECUTIVE ORDER 12777, 18 October 1991, Implementation of Section 311 of the Federal Water Pollution Control Act of October 18, 1972, and the Oil Pollution Act of 1990.

Delegates to the U.S. EPA and the Coast Guard various responsibilities assigned to the President under Clean Water Act section 311 and the Oil Pollution Act of 1990.

9 EXECUTIVE ORDER 12780, 31 October 1991, Federal Agency Recycling and the Council on Federal Agency Recycling and Procurement Policy.

Requires federal agencies to promote cost-effective waste reduction and recycling of reusable materials, and to establish federal preferences for procurement of items made from recycled materials.

10 EXECUTIVE ORDER 12843, 23 April 1993, Procurement Requirements and Policies for Federal Agencies for Ozone-Depleting Substances.

Mandates federal agency use of non-ozone-depleting substances where economically practicable, and demonstration of leadership to phase out ozone depleting substances.

11 EXECUTIVE ORDER 12856, 3 August 1993, Federal Compliance With Right-to-Know Laws and Pollution Prevention Requirements.

Requires Federal agency compliance with various sections of EPCRA.

12 EXECUTIVE ORDER 12873, 20 October 1993, Federal Acquisition, Recycling and Waste Prevention.

Requires federal agencies to promote waste prevention, to recycle, and to expand markets for recovered materials.

13 EXECUTIVE ORDER 12898, 11 February 1994, Environmental Justice.

Deals with Federal actions to address environmental justice in minority populations and low-income populations.

14 EXECUTIVE ORDER 12902, 8 March 1994, Energy Efficiencies and Water Conservation at Federal Facilities.

Federal agency use of energy and water resources is directed towards the goals of increased conservation and efficiency.

PART 4

OMB CIRCULARS

1 OFFICE OF MANAGEMENT AND BUDGET (OMB) CIRCULAR NO. A-106, 31 December 1974.

This circular provides procedures to be followed by Federal agencies in carrying out the provisions of EO 12088 pertaining to the control of environmental pollution from existing Federal facilities. All Federal agencies must report specific environmental requirements semiannually, in a standard format, to EPA.

PART 5

DEPARTMENT OF DEFENSE DIRECTIVES

1. DoD Directive 4001.1 of 4 September 1986, Installation Management; (NOTAL)

2. DoD Directive 4140.1 of 4 January 1993, Material Management Policy; (NOTAL)

3. DoD Directive 4150.7 of 24 October 1983, DoD Pest Management Program; (NOTAL)

4. DoD Directive 4165.57 of 8 November 1977, Air Installations Compatible Use Zones; (NOTAL)

5. DoD Directive 4165.60 of 4 October 1976, Solid Waste Management - Collection, Disposal, Resource Recovery, and Recycling Program; (NOTAL)

6. DoD Directive 4700.2 of 15 July 1988, Secretary of Defense Award for Natural Resources and Environmental Management; (NOTAL)

7. DoD Directive 4710.1 of 21 June 1984, Archeological and Historical Resources Management; (NOTAL)

8. DoD Directive 6050.1 of 30 July 1979, Environmental Effects in the United States of DoD Actions; (NOTAL)

9. DoD Directive 6050.4 of 16 March 1982, Marine Sanitation Devices for Vessels Owned or Operated by the Department of Defense; (NOTAL)

10. DoD Directive 6050.7 of 31 March 1979, Environmental Effects Abroad of Major Department of Defense Actions; (NOTAL)

11. DoD Directive 6050.8 of 27 February 1986, Storage and Disposal of non-DoD Owned Hazardous or Toxic Materials on DoD Installations; (NOTAL)

12. DoD Directive 6050.15 of 14 June 1985, Prevention of Oil Pollution from Ships Owned or Operated by the DoD. (NOTAL)

APPENDIX B

PROCESSING NOTICES OF VIOLATION (NOVs) OR NONCOMPLIANCE (NONs) UNDER ENVIRONMENTAL LAWS AND REGULATIONS

1 Framework

Various environmental laws subject Federal facilities to Federal, State, and local substantive and procedural requirements. Accordingly, activities in those jurisdictions may receive notices of violation (NOVs) or notices of noncompliance (NONs). In general, Federal facilities must comply with substantive and procedural requirements imposed by Federal, State, interstate, and local authorities. Where regulators detect suspected violations of those requirements, Federal EPA officials may issue NONs; State and local officials may issue NOVs. The Federal Facility Compliance Act authorizes the EPA to seek monetary penalties from Federal installations for violation of hazardous waste management laws and regulations.

In addition, State regulatory agencies may seek monetary penalties for various environmental media violations. This appendix applies to the investigation of violations of, or noncompliance with, environmental laws and regulations by Navy activities and subsequent payment of fines or penalties, where warranted. Before honoring requests for payment of fines and penalties for violation of environmental laws and regulations CO's of facilities shall seek the advice of legal counsel. NOVs and NONs may trigger formal legal proceedings with specific deadlines, procedures and consequences. Accordingly, facilities shall seek early consultation with legal counsel in determining how to respond.

2 Responsibilities

2.1 Legal assistance is available from Major Claimants, regional environmental coordinators (RECs), and COMNAVFACENGCOM Engineering Field Divisions (EFDs). Upon receipt of any such NOV, NON, warning letter, citizen suit notice, warning notice, consent order, or any other such notice of deficiency of Federal, State, interstate, or local environmental control laws or regulations, the commanding officer of the cited *facility shall:*

a. Inform Chief of Naval Operations (CNO), the chain of command and the Navy REC by message, with information copies to the Navy Judge Advocate General (JAG), Navy Office of Assistant General Counsel (Installations and Environment) (OAGC(I&E)), appropriate COMNAVFACENGCOM Engineering Field Division (EFD) and Naval Facilities Engineering Service Center (NFESC) Port Hueneme, CA. (R

(1) Send the initial message upon receipt of the written citation and conform to the format described in paragraph 2.2 of this appendix.

(2) When the NOV or other notice is promptly resolved, the activity may report receipt and closure in a single message.

(3) Send a follow-up message containing additional details when the information requested in paragraph 2.3 is known, or within 6 months of receipt of the NOV, whichever occurs first. In the final follow-up message for a specific NOV, the facility should state that all issues are resolved, and that the issuing agency considers the action complete.

(4) If the NOV or other notice, etc. has potential for significant adverse public relations, inform CNO, the chain of command and the Navy REC within 24 hours of receipt.

b. Request that attorneys with special environmental law expertise in the area provide support and representation to ensure the most favorable outcome where: (1) shutdown of operations is threatened; (2) a significant penalty is possible; (3) the action involves significant DON legal precedent. Upon receipt of any oral, informal, or formal notice of noncompliance, the commanding officer shall seek technical and legal support from the command environmental technical personnel and from the assigned Staff Judge Advocate (SJA) or Office of General Council (OGC) command counsel. If no attorney is assigned, seek advice from counsel advising the chain of command or from counsel at the servicing EFD.

c. Conduct a preliminary inquiry into the facts and circumstances of the violation, obtain legal and technical support, and take corrective action. Upon request for payment of a fine or penalty, prepare a written investigative report per procedures established by the Major Claimant or delegated representative. Commands should consult with counsel to ensure that when the investigation is convened, it is structured and conducted in such manner to give maximum benefit to the command's defense and is privileged from disclosure to regulators. Include in the investigative report the facts and circumstances of the incident, such documents, statements, photographs, claims for damage, notice of fine or penalty, and further data as may be required in the particular case. Format the report as either a JAG Manual investigation or letter report. Forward the investigative report to the Major Claimant via the chain of command with copies to CNO(N457), Shore Compliance Branch, Navy OAGC(I&E), NFESC, the regional environmental coordinator, and the appropriate COMNAVFACENGCOM EFD.

d. Prepare responses to regulatory agencies per policies provided in this manual.

e. Consult with on-site or command counsel, and if no factual or legal defense exists, negotiate the lowest possible amount of penalty. Prepare a penalty analysis and develop a negotiation strategy before negotiation. Suggested elements of the penalty analysis and negotiation strategy would include:

ANALYSIS OF VIOLATIONS

Report of violation (assertion by the regulatory agency)

BACKGROUND

1. Applicable regulations
2. Responsible agency
3. Direct supervisor (if known)
4. Specific circumstances
5. Date of corrective action
6. Description of corrective action

OPINIONS

1. Did the violation occur?
   a. Is this a repeat violation?
   b. Is Federal Facility Compliance Act applicable?
2. Liability of responsible agency or individual?

FINE OR PENALTY ANALYSIS

Class of Violation (as defined by regulatory agency)

FACTORS ASSOCIATED WITH THE VIOLATION

1. Determine the actual or potential harm associated with the violation (classification such as Major, Moderate or Minor as defined by regulatory agency schedule of penalties.)

   a. Characteristics of the substance involved:

      (1) Hazardous Material (HM) or Hazardous Waste (HW)

      (2) Characteristics (Corrosive, toxic, ignitable, reactive, etc.) Listed or Characteristic waste? Extremely Hazardous? Carcinogen?

      (3) Degree of hazard? (classification such as Major, Moderate, or Minor as defined by regulatory agency schedule of penalties.)

   b. Amount of material involved:

      Based on the characteristics, does regulatory agency consider the amount large or small?

   c. Specific situation:

      (1) Was human life or health threatened? Extent?

      (2) Were natural resources threatened? Extent?

      (3) Was the environment threatened? Extent?

      (4) Were water supplies or resources threatened? Extent?

      (5) Can potential damage be minimized or prevented?

2. Determine extent of deviation from regulatory standards (classification such as Major, Moderate, or Minor as defined by regulatory agency schedule of penalties).

3. Calculate initial penalty or fine from regulatory agency schedule of penalties.

4. Calculate multi-day penalties if applicable.

5. Calculate base total penalty.

6. Adjust penalty for factors associated with the violator, for economic benefit of non-compliance, and all other adjustments allowed by regulatory agency schedule of penalties.

RECOMMENDATION

1. Recommended settlement amount:

2. Recommended corrective action:

3. Recommended disciplinary or personnel action: If there is a defense, forward the investigative report to the Major Claimant via the chain of command with a copy to Navy OAGC(I&E) and recommend that the fine or penalty be contested. In cases where the recommendation to contest the violation or noncompliance is not accepted, follow procedures outlined in paragraph 2.1d.

2.1.1 NOV Close-out Procedures

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Major Claimants shall maintain a current listing of all NOVs or other notices, etc. received by activities under their command. The chain of command shall closely monitor the resolution status of each. After a Navy activity has completed all action necessary to correct the circumstances surrounding an enforcement action, the activity shall take one of the following actions:

1. Contact the regulatory agency in person or by telephone and discuss the corrective action taken and request regulator concurrence that the NOV or other notice, etc. is considered closed.

Follow up with a memorandum to the regulator confirming the communication.

2. Address a letter to the regulatory agency detailing the corrective action taken and requesting regulator concurrence by return receipt mail. Include a statement such as, "We will consider this matter closed and remove it from the active database if we do not receive a reply from you within the next 60 days." Activities may accept telephonic/oral confirmation from the regulatory agency that the action is closed. If the regulator responds by telephonic/oral communication, follow up with a memorandum to the regulator confirming the communication.

3. In cases where the regulator acknowledges in the NOV or other notice that no further action is required by the activity, then report the NOV or other notice as closed without additional coordination with the regulator.

4. Negotiate and enter into a compliance agreement with the regulatory agency. A compliance agreement may be used as justification to close out associated NOVs or other notices, etc. Activities will follow the close-out procedures described in this paragraph for this subsequent compliance agreement. An enforcement action received later for similar circumstances is considered a separate instance of non-compliance.

R) **2.2 Required Initial Information on NOVs**

CNO requires initial information for each NOV, written citation, etc. received. Submit the information using the following message format and include a brief title for each item in the message:

FM: NAVY ACTIVITY/SHIP//CODE//

TO: CNO WASHINGTON DC//N45//
CHAIN OF COMMAND
NAVY REGIONAL ENVIRON MENTAL COORDINATOR//JJJ//

INFO: LEGSVCSUPPGRU OGC WASHINGTON DC//OAGC(I&E)//
NFESC PORT HUENEME CA//424//
NAVFACENGCOM EFD//JJJ//
NAVY JAG ALEXANDRIA VA//012//

//UNCLAS //N05090//

SUBJ: RECEIPT OF NOTICE OF ENVIRONMENTAL VIOLATION/NONCOMPLIANCE

MSGID/GENADMIN/ORIGINATOR//CODE//
REF/A/DOC/OPNAVINST 5090.1B//
RMKS/

1. *Activity or ship name in violation.*

2. Navy Unit Identification Code (UIC) number.

3. Activity address/ship homeport.

4. City (for ships, where violation occurred).

5. State (use 2 letter State abbreviations).

6. County.

7. Point of contact for additional information.

8. Point of Contact (POC) telephone number.

9. EPA region.

10. Was an NOV received (yes or no); if so, how many? For this purpose, an NOV is any formal written notification by the EPA or an authorized State or local environmental regulatory agency of a

violation or violations of law or regulation, which applies to the regulatory agency's first level of enforcement action. Warning letters or notices of deficiencies are not NOVs, but include them on line 11.

One written notice, regardless of the number of individual violations, findings or citations counts as one NOV. Do not include on line 10 items found to be out of compliance by a regulator, but not set forth in writing.

If the NOV cites violations in more than one media (see NOV Table C-1), count it as multiple NOVs, one under each of the applicable media categories. Only one message is required, however, include the specific information in this message separately for each media. Generally, make lines 1 through 14 of this message the same for the different media violations that result from a multimedia inspection. Repeat lines 15 through 24 for each cited media.

11. Violation description, other than NOV (e.g., NON, Warning letter, Regulatory agency Inspectors Report identifying deficiencies, oral inspection outbriefs). Handle violations involving more than one media in the same manner as NOVs (see line #10).

12. Name of issuing agency and violation number(s).

13. Date of notification (mm/dd/yy). The date the regulatory agency initiated the NOV, etc., (preferably the date on the letterhead).

14. Date of inspection (mm/dd/yy). The date of the inspection during which the violation was detected. If the inspection took several days use the date noted on the NOV, etc., or, if none, then use the date the inspection started.

15. Media (refer to Table B-1). The law under which the violation was issued. If a State or local violation is received, report under the applicable Federal statutes from which the State law or local regulation was derived.

16. Regulation or act cited (with specific section).

17. Permit numbers related to violation.

18. Total number of individual findings issued by regulatory agency. A finding is a specific violation with citation of environmental law or regulation.

19. List each violation separately and classify into one of the following (list should equal total in item 18):

Class A. Releases to the environment

Class B. Violations with the potential to cause a release or damage

Class C. Administrative violations. A specific violation, citation, or finding that occurs as a result of improper paperwork, report filings, or labeling. This does not include paperwork associated with permit applications.

If NOV cites violations for more then one media, then indicate, for each violation, the media that is applicable.

20. Was a fine assessed or requested?

21. Dollar amount of fines assessed. Total dollar amount of the fine assessed.

22. Total report fees/reimbursable costs paid to a regulatory agency. Reimbursable costs are those dollars paid to a regulatory agency (above assessed fines) for required reimbursement of regulatory agency costs in conducting regulatory and enforcement activities.

23. Summary of demand for payment.

24. Was a compliance agreement, Supplemental Environmental Projects (SEPs), negotiation, or agreement requested by the regulatory agency?

25. Summary of Proposed Agreements, SEPs, or schedule.

26. Nature of response required and date due to the regulatory authority (e.g., Answer to complaint is due 25 September 01).

27. Have corrective actions been completed? Y or N

28. Is the NOV resolved? Y or N

29. Date of NOV resolution.

30. Has issuing agency concurred with resolution of the issues? Y or N

31. Date of concurrence (mm/dd/yy).

32. Date of last annual or Major Claimant Environmental Compliance Evaluation (ECE), nature of the ECE (i.e., annual or Major Claimant) and whether the discrepancy cited was noted on the ECE (e.g., last annual ECE conducted 5 JAN 02 did not disclose cited violations).

33. Additional information (i.e., unusual circumstances or events leading to NOV).

R) **2.3 Required Follow Up Information on NOVs.** A follow up message is required for each open NOV, written citation, etc. for which an initial message was sent under paragraph 2.2. As with the initial message, use one message if desired to report on more than one media as a result of multimedia inspections and violations. Use the following format and include a brief title for each item in the message:

FM: NAVY ACTIVITY/SHIP//CODE//

TO: CNO WASHINGTON DC//N45//
CHAIN OF COMMAND
NAVY REGIONAL ENVIRONMENTAL COORDINATOR//JJJ//

INFO: LEGSVCSUPPGRU OGC WASHINGTON DC//OAGC(I&E)//
NAVFACENGCOM EFD//JJJ
NFESC PORT HUENEME CA//424//
COMNAVFACENGCOM//40//
NAVY JAG ALEXANDRIA//012//

UNCLAS//N05090//

SUBJ: FOLLOW-UP REPORT OF NOTICE OF ENVIRONMENTAL VIOLATION/ NONCOMPLIANCE

MSGID/GENADMIN/ORIGINATOR//CODE//
REF/A/DOC/OPNAVINST 5090.1B//
REF/B/DTG OF INITIAL MESSAGE/-VIOLATION NUMBER//RMKS/

1. Activity or ship name in violation.

2. Navy UIC number.

3. Activity address/ship homeport.

4. City (for ships, where violation occurred).

5. State.

6. County.

7. Point of contact for additional information.

8. POC telephone number.

9. EPA region.

10. Date of original notification. The date the regulatory agency initiated the NOV.

11. Was a fine paid? Y or N

12. Dollar amount of fine paid.

13. Defense Environmental Restoration Account (DERA) paid. Total dollar amount of fines disbursed out of the Defense Environmental Restoration Account for Compliance Environmental Response, Compensation and Liability Act (CERCLA) violations.

14. Was compliance agreement, Supplemental Environmental Project (SEP), negotiation, or schedule accepted? Y or N.

15. Date of agreement (mm/dd/yy).

16. Is the compliance agreement closed? (Compliance Agreement resolved to the satisfaction of the issuing agency).

17. Financial obligation, past and planned, resulting from the Compliance Agreement.

18. Fiscal year(s) for which the financial obligations have been incurred.

19. Dollar amount and appropriation of projected costs resulting directly from Compliance Agreements.

20. Is the NOV resolved? Y or N. For final resolution, an NOV requires the satisfaction of the issuing agency. Note that all individual findings, violations, or citations within the NOV must be resolved for the NOV to be considered resolved. Have all issues of the NOV or other enforcement notice been resolved?

21. Date of resolution (mm/dd/yy).

22. Has the issuing agency concurred with resolution of the issues and removed the violation from their active files? Y or N

23. Date of concurrence (mm/dd/yy). The date on which the regulatory agency confirms that all findings are resolved. Notification may be in formal written form or documented conversation.

24. Expected completion date for issues not yet corrected (mm/dd/yy).

25. Summary of reasons for not resolving the issues.

26. Is a compliance project required to achieve compliance with NOV?

27. Has project/Environmental Protection Requirement (EPR) exhibit been submitted to the Major Claimant? If Military Construction (MIL - CON) is required, provide project number and program year.

28. EPR project number. The unique identification number assigned to the project in the EPR Project Report Form.

29. Additional information.

30. Original Naval Message Number (Date/Time Group) day, zulu time, month, and year (Example - 171300Z MAR 02)

MEDIA TYPES

Applicable law	Code
Clean Air Act	A
Clean Water Act	B
Safe Drinking Water Act	C
Resource Conservation and Recovery Act	
Subtitle C: Hazardous wastes	D
Subtitle D: Non hazardous solid wastes	E
Subtitle I: Underground storage tanks	F
Toxic Substances Control Act	G
Comprehensive Environmental Response Compensation, and Liability Act	H
Federal Insecticide, Fungicide, and Rodenticide Act	I
Endangered Species Act	J
Historic Preservation Act	K
Archaeological Protection Act	L
Other	Z

Table B-1

APPENDIX C

EPA REGIONAL OFFICES

Region I
U.S. Environmental Protection Agency
John F. Kennedy Federal Building
One Congress Street
Boston, MA 02203-0001
Phone: (617) 565-3420

Region II
U.S. Environmental Protection Agency
290 Broadway
New York, NY 10007-1866
Phone: (212) 637-4000

Region III
U.S. Environmental Protection Agency
841 Chestnut Building
Philadelphia, PA 19107
Phone: (215) 566-5000

Region IV
U.S. Environmental Protection Agency
61 Forsyth Street, S.W.
Atlanta, GA 30303
Phone: (404) 562-8174

Region V
U.S. Environmental Protection Agency
77 West Jackson Blvd.
Chicago, IL 60604-3507
Phone: (312) 353-2000

Region VI
U.S. Environmental Protection Agency
Fountain Place 12th Floor Suite 1200
1445 Ross Avenue 12th Floor Suite 1200
Dallas, TX 75202-2733
Phone: (214) 665-6444

Region VII
U.S. Environmental Protection Agency
726 Minnesota Avenue
Kansas City, KS 66101
Phone: (913) 551-7000

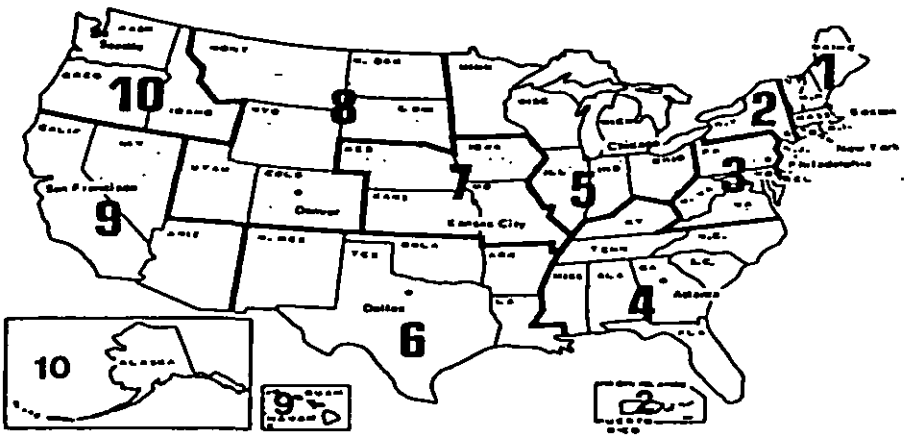
Region VIII
U.S. Environmental Protection Agency
999 18th Street, Suite 500
Denver, CO 80202-2466
Phone: (303) 312-6312

Region IX
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105-3901
Phone: (415) 744-1305

Region X
U.S. Environmental Protection Agency
1200 Sixth Avenue
Seattle, WA 98101-9797
Phone: (206) 553-1200

STANDARD EPA REGIONAL BOUNDARIES

TEN REGIONS



Regions

4 - Alabama
10 - Alaska
9 - Arizona
6 - Arkansas
9 - California
8 - Colorado
1 - Connecticut
3 - Delaware
3 - D.C.
4 - Florida
4 - Georgia
9 - Hawaii
10 - Idaho
5 - Illinois
5 - Indiana
7 - Iowa
7 - Kansas
4 - Kentucky
6 - Louisiana

Regions

1 - Maine
3 - Maryland
1 - Massachusetts
5 - Michigan
5 - Minnesota
4 - Mississippi
7 - Missouri
8 - Montana
7 - Nebraska
9 - Nevada
1 - New Hampshire
2 - New Jersey
6 - New Mexico
2 - New York
4 - North Carolina
8 - North Dakota
5 - Ohio
6 - Oklahoma
10- Oregon

Regions

3 - Pennsylvania
1 - Rhode Island
4 - South Carolina
8 - South Dakota
4 - Tennessee
6 - Texas
8 - Utah
1 - Vermont
3 - Virginia
10 - Washington
3 - West Virginia
5 - Wisconsin
8 - Wyoming
9 - American Samoa
9 - Guam
2 - Puerto Rico
2 - Virgin Island

APPENDIX D
ENVIRONMENTAL AND NATURAL RESOURCES AWARDS PROGRAM

1 Chief of Naval Operations and Secretary of the Navy Environmental Awards Program

R) **1.1 Awards Program.** CNO and SECNAV each separately grant annual Environmental Quality awards to ships, shore activities, and personnel of the Navy Department. They present 19 categories of awards in six major areas:

R) (1) Natural Resources Conservation
Large Installation (> 10,000 acres)
Small Installation (≤ 10,000 acres)
Individual/Team

A) (2) Cultural Resources Management
Installation
Individual/Team

(3) Environmental Quality
Industrial Installation
Non-Industrial Installation
R) Individual/Team
Large Ship (Crew size > 400)
Small Ship (Crew size ≤ 400)

(4) Pollution Prevention
Industrial Installation
Non-Industrial Installation
A) Individual/Team
Weapon System Acquisition Team
D)

(5) Recycling
Industrial Installation
Non-Industrial Installation
Individual/Team

(6) Environmental Cleanup
Installation
Individual/Team

CNO and SECNAV present environmental awards to stimulate outstanding performance in promoting natural resources conservation and the protection and enhancement of human health and the environment.

Besides determining the winners of the CNO awards, CNO will nominate a total of three entries in each category to SECNAV. SECNAV then independently selects winners from these nominees for the SECNAV awards in the same categories. SECNAV submits the winners for competition in the Secretary of Defense Environmental Security Awards Program.

1.2 Guidelines and Standards

1.2.1 Applicability. The Ship Award Categories apply to all Navy ships. The Installation Award Categories apply to all Navy Department installations world-wide. The Individual Award Categories apply to all Navy personnel, both military and civilian, world-wide. If nominated for a team award, one or more, but not all, of the members of the team may be contractor employees; the other team members must be DOD civilian employees or members of the U.S. Armed Forces. Activities should compete on an installation-by-installation basis, even for areas where a regional staff supports the environmental department. (R

1.2.2 Nomination Schedule for CNO Awards. The nomination schedule for the CNO Environmental Awards is as follows:

a. Nominating commands will forward nomination packages to CNO for the appropriate award category by 1 December. Competing activities will prepare a nomination package conforming to SECNAV nomination criteria. (See

1.3.1, SECNAV Nominations, page D-2.) A forwarding letter will accompany the nomination package through the chain of command. The letter must furnish activity and major claimant points of contact, telephone numbers (voice and facsimile, DSN and commercial) and e-mail addresses.

R) b. CNO (N45) staff (assisted by non-staff advisors as necessary) shall evaluate nominations and select finalists by 17 January.

R) **1.2.3 CNO Award Package Nomination Submission.** Each Echelon 2 Commander may submit up to five nominations for each award category to CNO (N45), for the period ending the preceding September 30. Major Claimants, at their discretion, may nominate three **ships** per applicable category. Nominations shall be in a narrative style, and include responses to the applicable items listed in tabs A-F. Each package shall consist of single-spaced, double-sided text; and typewritten or printed on 8½ x 11- inch sheets of recycled paper. The nominations shall be concise and describe the program and accomplishments accurately

1.2.4 Judging Criteria. CNO will use the following criteria in judging nomination packages:

a. Program Management

b. Technical Merit

R) c. Orientation to Mission

d. Transferability

e. *Community Interaction*

f. Program Breadth

Tab G describes this judging criteria in greater detail.

1.3 SECNAV Awards Nomination Schedule. Nomination packages for SECNAV Environmental Awards must arrive at SECNAV (ASN(I&E)) not later than 1 February. SECNAV will convene a panel of experts from government, industry and academia to evaluate the nomination package and select a winner and runner-up in each award category. The winners will compete in comparable categories for the DOD Environmental Security Awards.

1.3.1 SECNAV Nominations. CNO will (R submit the top three nomination packages in each award category to SECNAV, in a narrative style, including responses to applicable items listed in tabs A-F. Each nomination shall consist of single-spaced text and may use graphics, e.g., tables, charts, diagrams, photographs, maps, to clarify accomplishments, but not videos or music. The text of installation nominations shall consist of 7,000 words or less. The text of individual and team nominations shall consist of 3,000 words or less. The text of ship nominations shall consist of 3,000 words or less.

Each nomination shall also include: (1) the name, mailing address, e-mail address, and telephone number (commercial and DSN) of the nominee, i.e., installation point of contact (POC) , individual or team point of contact (POC), ship point of contact (POC); (2) name, mailing address, e-mail address and telephone and fax numbers (commercial and DSN) of the financial POC for the nominee's installation (for use in the event the nominee wins a cash award); and (3) a paragraph of up to six sentences summarizing the achievements of the nominee, using quantitative examples, suitable to print in the awards ceremony handout, and be read during the awards ceremony (the latter should the nominee win).

A panel of judges will evaluate nominations using key points (tab G) covered in the information provided in the nominations.

1.3.2 Award Announcement and Presentation. CNO and SECNAV will announce the winners of their awards by message, e-mail and facsimile. (The immediate superior in command of each winner will schedule an awards ceremony to present appropriate items of award recognition.)

1.4 Responsibilities

1.4.1 DCNO (Logistics) (CNO (N45)) or designee shall coordinate and administer the CNO contribution to the SECNAV awards program, including amplification of the guidelines provided in section 1.2. CNO (N45) shall establish an awards committee to assist in the selection process.

1.4.2 Echelon 2 commanders shall:

R) a. Conduct initial evaluations and submit up to five nominations per category to CNO(N4), DCNO (Logistics). At their discretion, major claimants may nominate three ships per category.

b. Enter nominations only when the activities are truly outstanding.

c. Assist the program by giving appropriate command recognition to subordinate commands excelling in pollution avoidance, abatement and control, and to individuals engaged therein.

R) **2 Awards** Tabs A-F include Categories and Judging Criteria, adapted from Deputy Under Secretary for Environmental Security (DUSD (ES)) guidance.

a. Tab A Criteria for Nomination of Large Installation, Small Installation and Individual/Team for the CNO and Secretary of the Navy Natural Resources Conservation Award (R

b. Tab B Criteria for Nomination of Installation and Individual/Team for the CNO and Secretary of the Navy Cultural Resources Management Award (R

c. Tab C Criteria for Nomination of Industrial Installation, Non-Industrial Installation, Individual/Team, Large Ship and Small Ship for the CNO and Secretary of the Navy Environmental Quality Award (R

d. Tab D Criteria for Nomination of Industrial Installation, Non-Industrial Installation, Individual/Team, and Weapon System Acquisition Team for the CNO and Secretary of the Navy Pollution Prevention Award (R

e. Tab E Criteria for Nomination of Industrial Installation, Non-Industrial Installation and Individual/Team for the CNO and Secretary of the Navy Recycling Award (R

f. Tab F Criteria for Nomination of Installation and Individual/Team for the CNO and Secretary of the Navy Environmental Cleanup Award (R (D

g. Tab G Guidance for Judging the CNO and Secretary of the Navy Environmental Awards

2.1 Supplemental Guidance. SECNAV may modify these formats based upon changes in the DUSD (ES) award categories and criteria. (R

TAB A

CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY NATURAL RESOURCES CONSERVATION AWARD (A

PART 1, AWARD CATEGORIES: NATURAL RESOURCES CONSERVATION—LARGE INSTALLATION NATURAL RESOURCES CONSERVATION—SMALL INSTALLATION

1 Introduction

1.1 Describe the mission, approximate civilian and military population (unless classified) and total acreage of the nominee.

1.2 List the total acres under the nominee's integrated natural resources management plan, followed by a description of the component acreage under the natural resources management program. (For example, this includes improved, semi-improved, and unimproved acreage; acres of managed forests, wildlife, grazing, agriculture, unique natural areas, lakes, or wetlands; miles of streams or coastline; and acres available for hunting, fishing, and other outdoor recreation.)

1.3 List significant natural features of the nominee, such as geological, botanical, and archeological assets.

2 Background

2.1 List all components of the integrated natural resources management plan and the dates of preparation or revision of its component parts.

2.2 List the cooperative agreements that support the integrated natural resources management plan and their dates of preparation or revision.

2.3 Describe the organization and staffing of the nominee's natural resources management program.

2.4 Describe any committees or boards that influence the nominee's natural resources management program.

3 *Program Summary*

3.1 Describe the most outstanding program features of the preceding 3 fiscal years (inclusive of the award fiscal year). Describe the objectives of the natural resources management plan and the degree of attainment of each objective during that period.

4 Accomplishments. Describe the most outstanding accomplishments during the preceding 3 fiscal years (inclusive of the award fiscal year) in the following areas, as applicable:

4.1 Overall Conservation Management

a. Multiple-use coordination of forestry, land use management, outdoor recreation, wildlife, esthetics, and threatened and endangered species with the military mission and other operations.

b. Improvements in planning, programming, and budgeting to support the conservation program.

c. Use of alternative management approaches, technologies, and staffing to enhance the conservation program.

4.1.2 Ecosystem Management

Application of principles and guidelines of ecosystem management in a regional planning context, to include consideration of economic, social, and environmental factors.

4.1.3 Land Use Management

a. Erosion control and other water quality protection.

b. Water conservation.

c. Agricultural land management, including prime and unique farmland protection and out-leasing programs.

d. Natural resources improvements and benefits due to out-leases.

e. Environmentally beneficial landscaping and native plant conservation.

f. Coordination and cooperation with U.S. Department of Agriculture Natural Resources Conservation Service, County Agricultural Extension Service, and/or other land management agencies.

4.1.4 Forest Management

a. Reforestation.

b. Timber stand improvement.

c. Use of prescribed burning.

d. Establishment and protection of unique forest areas.

e. Cooperative efforts with U.S. Forest Service, state forester, and similar groups or agencies.

f. Commercial forestry program.

4.1.5 Fish and Wildlife

a. Variety of species and habitats.

b. Protection of Federal and State listed threatened and endangered species and their habitats.

c. Game and non-game fish and wildlife habitat improvements

d. Reintroductions and stockings of native species.

e. Degree of access and use of hunting and fishing opportunities by the nominee's personnel and the general public.

f. Improvements in permit program; fee schedule for hunting, fishing, or other opportunities.

g. Identification and protection of significant wildlife resources.

h. Protection and enhancement of biodiversity.

i. Coordination and cooperation with U.S. Fish and Wildlife Service, and other fish and wildlife agencies.

4.1.6 Other Natural Resources

a. Camping, bird watching, and trails (nature, hiking and watchable wildlife).

b. Off-road vehicle use and control.

c. Permit program.

d. Estimated number of users (e.g., general public and DOD personnel).

e. Cooperation and coordination with Federal, State, and local outdoor recreation agencies.

4.1.7 Pest Management

a. Applications of integrated pest management that support and improve the nominee's natural resources management program, especially procedures that reduce required pesticide applications.

b. Efforts to control pests and nuisance and nonnative invasive species that affect the installation's natural resources.

4.1.8 Conservation Education (on and off installation)

a. Natural resources management regulations and enforcement program.

b. Gun and water safety, woodsmanship, camping, and outdoor ethics programs.

c. Scouting, public school classes, and other group activities related to natural resources conservation.

d. Research, development and demonstration/validation activities.

4.1.9 Community Relations

a. Public awareness programs and involvement in natural resources conservation programs on and off the nominee's property.

b. Affiliation of the nominee's personnel with civic and private natural resources conservation organizations and academic institutions.

c. Cooperation with Federal, State, local, and private natural resources conservation organizations and academic institutions.

d. Volunteer and partnership programs, e.g., level of participation, benefits to the nominee.

4.1.10 Environmental Enhancement. How accomplishments and improvements in the natural resources management program have improved the quality of life for the nominee's personnel and for surrounding communities.

4.2 Mission Enhancement. How accomplishments and improvements in the natural resources management program have enhanced the ability of the installation to carry out its military mission.

4.2.1 Natural Resources Compliance Program

a. Interaction with regulators, inspectors, auditors, etc.

b. Budget data to illustrate adequate funding budgeted and received.

c. Natural resources damage assessment efforts.

CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY NATURAL RESOURCES CONSERVATION AWARD

PART 2, AWARD CATEGORY: NATURAL RESOURCES CONSERVATION—INDIVIDUAL/TEAM

1 Background

1.1 List the name, title or position, and employing organization of each individual or team member.

2 Position Description

2.1 Provide a summary of the nominee's major routine duties and responsibilities during the preceding 3 fiscal years, inclusive of the award fiscal year.

3 Accomplishments

3.1 Describe the most outstanding accomplishments of the nominee during the preceding 3 fiscal years, inclusive of the award fiscal year. (See tab A, part 1, section 4)

3.2 Describe:

a. How well the nominee managed the program.

b. The program's technical merits.

c. How well the program supported the military readiness mission.

d. How effectively the program's lessons learned may be transferred from the nominee to others.

e. The nominee's success in involving the local community in the program.

f. The breadth of the program (see tab G).

4 Awards and Services

4.1 List and describe awards and other special natural resources conservation recognition given to the nominee during the proceeding 5 fiscal years, inclusive of the award fiscal year.

4.2 Describe related professional achievements, including community service work and participation in professional organizations.

TAB B

A) **CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY CULTURAL RESOURCES MANAGEMENT AWARD**

PART 1, AWARD CATEGORY: CULTURAL RESOURCES MANAGEMENT—INSTALLATION

1 Introduction

1.1 Describe the mission, approximate military and civilian population (unless classified), and total acreage of the nominee.

1.2 List the total acres covered by the nominee's integrated cultural resources management plan.

1.3 Summarize the historical context of the nominee.

1.4 Summarize types of cultural resources managed.

2 Background

2.1 List all components of the integrated cultural resources management plan and the dates of preparation or revision of its component parts.

2.2 List major resource features and their National Register status.

2.2.1 List the programmatic agreements, memoranda of agreement, and/or comprehensive agreements developed between the nominee and governmental or other organizations, and their dates of preparation or revision.

2.2.2 Describe the organization and staffing of the nominee's cultural resources management program.

2.2.3 Describe any committees or boards that influence the nominee's cultural resources management program.

3 Program Summary

3.1 Describe the most outstanding program features of the preceding 3 fiscal years, inclusive of the award fiscal year.

3.2 Describe the objectives of the integrated cultural resources management plan and the degree of attainment of each objective during that period.

4 Accomplishments. Describe how well the nominee managed the program, the program's technical merits, how well the program supported the military readiness mission, how effectively the program's lessons learned may be transferred from the nominee to others, the nominee's success in involving the local community in the program, and the breadth of the program (see tab G). Describe the most outstanding accomplishments during the preceding 3 fiscal years, inclusive of the award fiscal year, in the following areas:

4.1 Overall Cultural Resources Management

a. Improvements in planning, programming, and budgeting to support cultural resources management

b. Use of alternative management approaches, techniques, and staffing to enhance the program

c. Coordination of cultural resources management with mission operations, natural resource management operations, and general operations such as construction, building maintenance and repair, etc.

d. Status of cultural resources management plan, inventory status including percent complete, and status of National Register nominations.

4.2 Historic Buildings and Structures

a. Maintenance and repair (including cost effective measures)

b. Rehabilitation (including economic analysis)

c. Adaptive reuse.

4.3 Archaeological Resources

a. Sites inventoried and/or evaluated for National Register nomination

b. Site protection/compliance enforcement

c. Data recovery efforts

d. Public interpretation efforts

e. Research initiatives and scientific contributions

f. Artifact recovery vs. In situ protection.

4.4 Native American Program

a. Cultural items

b. Sacred sites

c. Natural resources uses (including subsistence and ceremonial)

d. Access provisions

e. Consultation.

4.5 Curation

a. Curation facility provisions

b. Collections management.

4.6 Cultural Resources Awareness and Education (on and off nominee property)

a. Awareness programs for the nominee's military and civilian personnel

b. Scouting, public school classes, and other group activities related to cultural resources conservation

c. Contributions to educational programs at academic institutions.

4.7 Community Relations

a. Public awareness programs and involvement in cultural resources preservation efforts on and off the nominee's property

b. Affiliation of the nominee's personnel with civic and private cultural resource conservation organizations and academic institutions

c. Cooperation with Federal, State, Tribal, local, and private cultural resources conservation organizations and academic institutions

d. Volunteer and partnership programs, e.g. level of participation, benefits to the nominee.

4.8 Environmental Enhancement and Mission Enhancement

a. How accomplishments and improvements in the cultural resources management program have improved the quality of life for the nominee's personnel and for surrounding communities

b. How accomplishments and improvements in the cultural resources management

program have enhanced the ability of the nominee to carry out its military mission.

4.9 Cultural Resources Compliance

a. Interaction with National Park Service, State Historic Preservation Office, Advisory Council on Historic Preservation, Native American tribes, and community groups

b. Budget data to illustrate adequate funding is budgeted and received

c. Enforcement of requirements for consultations prior to initiating actions with effects on cultural resources

d. Enforcement of legal protections

e. Examples of success in managing significant or complex cultural resources compliance issues.

TAB B

CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY CULTURAL RESOURCES MANAGEMENT AWARD

PART 2, AWARD CATEGORY: CULTURAL RESOURCES MANAGEMENT—INDIVIDUAL/TEAM

1 Background

1.1 List the individual, or each team member's, name, title or position, and employing organization.

2 Position Description

2.1 Provide a summary of the nominee's major routine duties and responsibilities during the preceding 3 fiscal years, inclusive of the award fiscal year.

3 Accomplishments

3.1 Describe the most outstanding accomplishments of the nominee during the preceding 3 fiscal years, inclusive of the award fiscal year. (See tab B, part 1, section 4.)

3.2 Describe

a. How well the nominee managed the program

b. The program's technical merits

c. How well the program supported the military readiness mission

d. How effectively the program's lessons learned may be transferred from the nominee to others

e. The nominee's success in involving the local community in the program

f. The breadth of the program (see tab G).

4 Awards and Services

4.1 List and describe awards and other special cultural resources management recognition given to the nominee during the preceding 5 fiscal years, inclusive of the award fiscal year.

4.2 Describe related professional achievements, including community service work and participation in professional organizations.

A)

TAB C

CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY ENVIRONMENTAL QUALITY AWARD

PART ONE, AWARD CATEGORIES: ENVIRONMENTAL QUALITY—INDUSTRIAL INSTALLATION ENVIRONMENTAL QUALITY—NON-INDUSTRIAL INSTALLATION

1 Introduction

1.1 Describe the mission, approximate civilian and military population (unless classified), and total acreage of the nominee. Describe the environmental, geographical, political, economic, and community setting of the nominee.

2 Background

2.1 Summarize the environmental challenges affecting the nominee.

2.2 Describe the organization and staffing of the nominee's environmental management program and the management approach employed.

2.3 Describe any nominee and community committees, boards, and partnerships that influence the nominee's environmental management program.

2.4 Describe significant environmental plans and agreements, including the dates of preparation or latest revision.

3 Program Summary

3.1 Describe the objectives of the environmental management program and the degree to which the nominee attained each objective during the preceding 2 fiscal years (inclusive of the award fiscal year).

3.2 Describe the most outstanding features of the program during that period.

3.3 Describe what is unique about the program, its cost effectiveness, and whether it goes beyond meeting statutory and regulatory requirements.

4 Accomplishments. Describe the most outstanding accomplishments during the preceding 2 fiscal years (inclusive of the award fiscal year) in the following areas, if applicable:

4.1 National Environmental Policy Act (NEPA) Implementation

a. **National Environmental Policy Act Planning**

(1) NEPA reinvention, application of innovative environmental analysis, partnering, flexibility in analysis, and cost reduction

(2) Scoping and/or focusing analysis in order to streamline the process of identifying the proposed action, appropriate alternatives, and mitigation measures

(3) Setting objectives and goals

(4) Developing a plan of action.

b. **NEPA Analysis**

(1) Proposals analyzed, decisions made, and the NEPA process executed for each proposal

(2) Coordination and public involvement techniques employed, and their effectiveness

(3) Methodology for integrating environmental analysis into planning and decision making

(4) Results of impact mitigation measures.

c. **NEPA Implementation**

(1) Actions to engage in cooperative consultation with other Federal, State, and local agencies and Indian tribes

(2) Management of public participation

(3) Examples of ensuring editorial excellence, including readability and brevity

(4) Use of time management techniques and the results, including the amount of time that elapsed between scoping and issuance of the final product

(5) Innovative approaches used in environmental analysis and whether the innovations were institutionalized

(6) Controls incorporated to monitor the environmental effects of the proposed action and the mitigation measures adopted.

d. Compliance with Executive Order (EO) 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Population," February 11, 1994

(1) How the nominee incorporated the analysis required by EO 12898 into the NEPA process

(2) How the nominee identified, and the methods used to analyze, any disproportionate impacts on minority or low-income communities, as appropriate.

4.1.1 Air Pollution Control

a. Permits, compliance records, and operating plant/facility improvements

b. Emission sampling and ambient air monitoring

c. Control of activities in consideration of meteorological conditions

d. Participation in regional air quality planning and protection.

4.1.2 Water Pollution Control

a. Permits, compliance records, and operating plant/facility improvements

b. Management of point and non-point sources

c. Spill prevention and response

d. Water conservation

e. Drinking water protection

f. Ground water protection.

4.1.3 Noise Pollution Control

a. Noise sources and management methods

b. Planning and zoning activities.

4.1.4 Radiation Pollution Control

a. Radiation sources (unclassified only)

b. Control and management methods.

4.1.5 Waste Management and Resource Recovery

a. Solid (municipal) waste management

b. Toxic and hazardous waste management.

4.1.6 Pest Management

a. Integrated pest management program elements and management methods

b. Reductions in pesticide use (e.g., pounds of active ingredients and use of safer pesticides).

4.1.7 Environmental Research and Education (on and off nominee's property)

a. Programs to enhance environmental ethics and awareness

b. Environmental research, development, and technology demonstration/validation projects

c. Community involvement and activities, and affiliation of the nominee's personnel with civic and local environmental organizations

d. Cooperation with Federal, State, and local agencies, organizations, and academic institutions.

4.1.8 Environmental Compliance Assessment and Management Program

a. Self assessments and follow-up

b. Interaction with regulators regarding inspections, notices of violation (NOVs), agreements, fines and penalties, and other regulatory actions

c. Budget data to illustrate adequate funding is budgeted and received

d. Long-term planning for full and sustained compliance

e. Training programs.

TAB C

CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY ENVIRONMENTAL QUALITY AWARD

PART TWO, AWARD CATEGORY: ENVIRONMENTAL QUALITY—INDIVIDUAL/TEAM

1 Background

1.1 List the individual's, or each team member's, name, title or position, and employing organization.

2 Position Description

2.1 Provide a summary of the nominee's major routine duties and responsibilities during the preceding 2 fiscal years, inclusive of the award fiscal year.

3 Accomplishments

3.1 Describe the most outstanding accomplishments of the nominee during the preceding 2 fiscal years, inclusive of the award fiscal year. (See tab C, part 1, section 4.)

3.2 Describe:

a. How well the nominee managed the program

b. The program's technical merits

c. How well the program supported the military readiness mission

d. How effectively the program's lessons learned may be transferred from the nominee to others

e. The nominee's success in involving the local community in the program

f. The breadth of the program (tab G).

4 Awards and Services

4.1 List and describe awards and other special environmental management recognition given to the nominee during the preceding 5 fiscal years, inclusive of the award fiscal year.

4.2 Describe related professional achievements, including community service work and participation in professional organizations.

TAB C

CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY ENVIRONMENTAL QUALITY AWARD

PART THREE, AWARD CATEGORIES: ENVIRONMENTAL QUALITY—LARGE SHIP ENVIRONMENTAL QUALITY—SMALL SHIP

1 **Introduction.** List the ship's mission (unless classified), approximate crew size, and homeport.

2 Background

2.1 Summarize the ship's environmental challenges in the past 2 fiscal years, inclusive of the award fiscal year.

2.2 Describe the ship's environmental management organization and staffing.

2.3 List all the ship's environmental guidance, directives, and plans (i.e., spill contingency plans) and dates of preparation or last review.

3 Program Summary

3.1 Describe the ships environmental program and degree of compliance with Chapter 19 and Appendix K during the past 2 fiscal years.

3.2 Describe the most outstanding program features and accomplishments (3 or less) of the past 2 fiscal years.

4 Accomplishments. Describe activities and achievements during the past 2 fiscal years in the following areas, if applicable:

4.1 Air Pollution Control. Describe air pollution control practices and improvements. Include management efforts to control engine emissions, to reduce refrigerant use, and to minimize volatile organic compound releases.

4.2 Water Pollution Control

4.2.1 Delineate collection, holding, and transfer (CHT) system management practices.

4.2.2 Describe oil and hazardous substance spill prevention/response efforts.

4.2.3 Describe shipboard practices for waste oil/oily waste management. Include identification of bilgewater management practices. Identify the operating capabilities of the oil/water separator and oil content monitor during the past 2 fiscal years and efforts, if any, to improve these capabilities.

4.3 Solid Waste Management and Resource Recovery

4.3.1 Summarize solid waste management practices.

4.3.2 List source reduction techniques used by the command.

4.3.3 Enumerate resource recovery recycling techniques used by the command.

4.4 Hazardous Material (HM)/Hazardous Waste (HW) Management. Describe hazardous material control and management efforts. Describe the ship's efforts for reutilization and inventory management. Describe the ship's efforts to reduce the amount of used HM transferred ashore. Describe the ship's efforts to use material from shoreside Hazardous Waste Minimization Centers (HAZMINCEN).

4.5 Environmental Awareness. List command-initiated programs to enhance environmental protection and awareness.

TAB D

(A

CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY POLLUTION PREVENTION AWARD

PART ONE, AWARD CATEGORIES: POLLUTION PREVENTION—INDUSTRIAL INSTALLATION POLLUTION PREVENTION—NON-INDUSTRIAL INSTALLATION

1 Introduction

1.1 Describe the mission, approximate civilian and military population (unless classified), and total acreage of the nominee.

2 Background

2.1 Summarize the environmental challenges affecting the nominee.

2.1.2 Describe the organization and staffing of the nominee's environmental program, including the functional offices represented and the management approach used.

2.1.3 Describe any organization, community, or boards that influence the pollution prevention program.

3 Program Summary

3.1 Describe the objectives of the pollution prevention program and the degree of attainment of each objective during the preceding 2 fiscal years, inclusive of the award fiscal year.

3.2 Describe the most outstanding features of the program during that period.

4 Accomplishments. Describe the most outstanding accomplishments during the preceding 2 fiscal years, inclusive of the award fiscal year, in the following areas, as applicable:

4.1 Material Substitution

a. Steps taken to identify standardization documents (e.g., military specifications and standards, technical orders, technical manuals, and maintenance requirements cards) that required the use of substances regulated by Federal and State environmental laws. If standardization documents exist, describe steps taken to revise them to eliminate language that requires use of environmentally regulated substances

b. Efforts to identify possible alternatives to environmentally harmful substances

c. Efforts to determine whether or not the substitutes were effective

d. Environmental problems that the substituting material can or did eliminate

e. Processes impacted by the material substitution. Explain if the substitution is transferable to other processes on the nominee's property or at other DOD locations.

4.2 Process Modification or Improvement

a. Original process, including cost to operate, length, efficiency, and environmental impacts

b. Changes to the process, including cost to operate, length, efficiency, and environmental impact

c. Risk, cost, emissions, and/or hazardous material use reductions achieved

d. Ability to transfer the improvement or modification to other processes within the installation, the Service's other installations, and other Military Departments' locations.

4.3 Improved Material Management

a. How the nominee has changed its material management practices to reduce environmental liabilities

b. Measurable results achieved with the change. For example: decrease in hazardous waste generated; decrease in hazardous waste disposed of by volume and cost; reduced risk to workers; reduced fines, penalties and notices of violation; and cost savings, (e.g., reduced procurement of materials).

4.4 Compliance with Executive Order (E.O.) 12856, "Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements," August 3, 1993

a. How the nominee has met the requirements of section 3-302, "Toxic Chemical Reduction Goals," of EO 12856

b. How the nominee has met the requirements of section 3-304, "Toxics Release Inventory/Pollution Prevention Act Reporting," of EO 12856

c. How the nominee has met the requirements of section 3-305, "Emergency Planning and Community Right-to-Know Reporting Responsibilities," of EO 12856.

4.5 Education and Outreach

a. Programs to enhance pollution prevention awareness at any level or any functional area of the Military Department or Defense Agency

b. Community involvement, activities and affiliations of the team with civic and environmental organizations

c. Cooperation with Federal, State, and local agencies, organizations, and academic institutions.

4.6 Research, Development, and Technology Demonstration/Validation

a. Relationship to user needs

b. Demonstration of results

c. Plans for implementation.

4.7 Reductions Achieved

a. Start and end point

b. Method of measurement

c. Cost savings

d. Life cycle cost implications

e. Risk reduction.

TAB D

CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY POLLUTION PREVENTION AWARD

PART TWO, AWARD CATEGORY: POLLUTION PREVENTION—INDIVIDUAL/TEAM

1 Background

1.1 List the individual's or each team member's name, title or position, and employing organization.

2 Position Description

2.1 Provide a summary of the nominee's major routine duties and responsibilities during the preceding 2 fiscal years, inclusive of the award fiscal year.

3 Accomplishments

3.1 Describe the most outstanding accomplishments of the nominee during the preceding 2 fiscal years, inclusive of the award fiscal year. (See tab D, part 1, section 4.)

3.2 Describe:

a. How well the nominee managed the program

b. The program's technical merits

c. How well the program supported the military readiness mission

d. How effectively the program's lessons learned may be transferred from the nominee to others

e. The nominee's success in involving the local community in the program

f. The breadth of the program (see tab G).

4 Awards and Services

4.1 List and describe awards and other special pollution prevention recognition given to the individual or team during the preceding 5 fiscal years, inclusive of the award fiscal year.

4.2 Describe related professional achievements, including community service work and participation in professional organizations.

TAB D

CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY POLLUTION PREVENTION AWARD

PART THREE, AWARD CATEGORY: POLLUTION PREVENTION—WEAPON SYSTEM ACQUISITION TEAM

1 Introduction.

1.1 Describe the mission of the weapon system acquisition team. List the approximate civilian and military population (unless classified) of the installation or activity supported by the team.

2 Background

2.1 Summarize the weapon system acquisition team's involvement with environmental matters.

2.1.2 Describe the organization and staffing of the team, including functional offices represented and the management approach used.

2.1.3 Describe other organizations that influenced the team's activities.

2.1.4 Summarize the team's major duties and responsibilities during the preceding 2 fiscal years, inclusive of the award fiscal year.

3 Program Summary

3.1 Describe the extent to which the weapon system acquisition team incorporated environmental concerns and pollution prevention in its decision-making process.

4 Accomplishments. Describe the weapon system acquisition team's most outstanding environmental accomplishments during the preceding 2 fiscal years, inclusive of the award fiscal year, in the following areas, as applicable:

a. Incorporating Environmental Analysis Into The Acquisition Decision-Making Process. Describe the extent to which the weapon system acquisition team met the requirements of: (1) DOD Directive 5000.1, "Defense Acquisition," March 15, 1996, and DOD 5000.2-R, "Mandatory Procedures for Major Defense Acquisition Programs (MDAPS) and Major Automated Information System (MAIS) Acquisition Programs, " March 15, 1996, and (2) Under Secretary of Defense (Acquisition & Technology) memorandum, "Acquisition Pollution Prevention Initiative," May 15, 1997.

b. Describe the extent to which the team considered environmental issues associated with:

(1) Weapon system design

(2) Weapon system manufacturing

(3) Weapon system test and evaluation

(4) Weapon system operations

(5) Weapon system logistics support

(5) Weapon system disposal, and

(6) Overall weapon system life cycle costs.

4.1 Material Substitution

a. Steps taken to identify standardization documents (e.g., military specifications and standards, technical orders, technical manuals, and maintenance requirements cards) that required the use of substances regulated by Federal and State environmental laws. If standardization documents

exist, describe steps taken to revise the standardization documents to eliminate language that required use of environmentally regulated substances.

b. The nominee's efforts to identify possible alternatives to environmentally harmful substances

c. The nominee's efforts to determine whether or not the substitutes were effective and met the safety, health, reliability, and other mission-related requirements of the weapon system

d. Environmental problems that the substituting material did or can eliminate

e. Processes impacted by the material substitution and whether the substitution is transferable to other DOD systems.

4.2 Process Modification or Improvement

a. Original process, including cost to operate, length, efficiency, and environmental impacts

b. Changes to the process, including cost to operate, length, efficiency, and environmental impact

c. Risk, cost, emissions, and /or hazardous material use reductions achieved

d. Ability to transfer the improvement or modification to other DOD systems.

4.3 Improved Material Management

a. How the nominee has changed its material management practices to reduce environmental liabilities

b. Measurable results achieved with the change. For example: decrease in hazardous waste generated; decrease in hazardous waste disposed of by volume and cost; reduced risk to workers; reduced fines, penalties and notices of violation; and cost savings (e.g., reduced procurement of materials).

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4.4 Education and Outreach

a. Programs to enhance pollution prevention awareness at any level or any functional area of the Military Department or Defense Agency

b. Community involvement activities and affiliations of the nominee with civic and environmental organizations

c. Cooperation with Federal, State, and local agencies, organizations, and academic institutions.

4.5 Research, Development, and Technology Demonstration/Validation

a. Relationship to user needs

b. Demonstration of results

c. Plans for implementation.

4.6 Reductions Achieved

a. Identify start and end point

b. Describe the method of measurement

c. Explain the cost savings/avoidance

d. Identify life cycle cost implications and benefits

e. Describe risk reduction.

A) TAB E

CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY RECYCLING AWARD

PART ONE, AWARD CATEGORIES: RECYCLING—INDUSTRIAL INSTALLATION RECYCLING—NON-INDUSTRIAL INSTALLATION

1 Introduction

1.1 Describe the mission, approximate civilian and military population (unless classified), and total acreage of the nominee.

2 Background

2.1 Summarize the environmental challenges of the nominee.

2.1.2 Describe the organization and staffing of the installation recycling program and the management approach used.

2.1.3 Describe the nominee's affirmative procurement program, including the involvement of environmental, procurement and supply personnel.

2.1.4 Describe any installation, community, or boards that influenced the recycling program.

3 Program Summary

3.1 Describe the objectives of the recycling program and the degree of attainment of each objective during the preceding 2 fiscal years, inclusive of the award fiscal year.

3.1.2 Describe the most outstanding features of the program during that period.

4 Accomplishments. Describe how well the nominee managed the program, the program's technical merits, how well the program supported the military readiness mission, how effectively the program's lessons learned may be transferred from the nominee to others, the nominee's success in involving the local community in the program, and the breadth of the program (see tab G). Describe the performance of the program during the preceding 2 fiscal years, inclusive of the award fiscal year, in the following areas, as applicable:

4.1 Recycling Program

a. Type and size of recycling program

b. Types of solid waste materials recycled

c. Other materials recycled (including hazardous)

d. Composting program

e. Solid waste reductions achieved

f. Cost savings

g. Closed loop recycling projects

h. Source reduction projects

i. New recycling technologies or techniques used

j. Activities or communities benefited.

4.2 Affirmative Procurement

a. Type and size of the affirmative procurement program

b. Functional areas participating in the affirmative procurement program

c. EPA guideline items purchased

d. Other recycled content items purchased

e. Increases achieved in the purchase and use of recycled content items

f. Modifications of specifications, statement of work, and contracts to promote purchases of recycled content items.

4.3 Education, Outreach, and Partnering

a. Programs to enhance awareness of recycling and affirmative procurement within DOD

b. Community involvement and activities, including affiliations with civic and environmental organizations

c. Partnering with other recycling and affirmative procurement programs (DOD, other Federal, State, local government, industry).

4.3 Reductions Achieved

a. Start and end point

b. Method of measurement

c. Cost savings

d. Life cycle implications

e. Risk reductions.

TAB E

CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY RECYCLING AWARD

PART TWO, AWARD CATEGORY: RECYCLING—INDIVIDUAL/TEAM

1 Background

1.1 List the individual's or each team member's name, title or position, and employing organization.

2 Position Description

2.1 Provide a summary of the nominee's major routine duties and responsibilities during the preceding 2 fiscal years, inclusive of the award fiscal year.

3 Accomplishments

3.1 Describe the most outstanding accomplishments of the nominee during the preceding 2 fiscal years, inclusive of the award fiscal year. (See tab E, part 1, section 4.)

Describe:

a. How well the nominee managed the program

b. The program's technical merits

c. How well the program supported the military readiness mission

d. How effectively the program's lessons learned may be transferred from the nominee to others

e. The nominee's success in involving the local community in the program

f. The breadth of the program (see tab G).

4 Awards and Services

4.1 List and describe awards and other special recycling and/or affirmative procurement recognition given to the nominee during the preceding 5 fiscal years, inclusive of the award fiscal year.

4.2 Describe related professional achievements, including community service work and participation in professional organizations.

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TAB F

CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY ENVIRONMENTAL CLEANUP AWARD

PART ONE, AWARD CATEGORY: ENVIRONMENTAL CLEANUP—INSTALLATION

1 Introduction.

1.1 Describe the mission, approximate civilian and military population (unless classified), and total acreage of the nominee.

1.2 Describe the environmental, geographical, political, economic, and community settings of the nominee.

2 Background

2.1 Summarize the nominee's environmental cleanup challenges at the installation.

2.1.2 Describe the organization and staffing of the nominee's environmental cleanup program and the management approach used.

2.1.3 Describe any community involvement in the cleanup program, such as restoration advisory boards (RABs) or technical review committees (TRCs).

2.1.4 List any environmental restoration agreements and the dates of their preparation or last revision.

2.1.5 List any relevant environmental cleanup plans, schedules, or associated documents (e.g., records of decision, engineering evaluation/cost analysis).

2.1.6 List any initiatives undertaken in the cleanup program.

3 Program Summary

3.1 Describe the objectives of the environmental cleanup program and the degree of success reached for each objective during the preceding 2 fiscal years, inclusive of the award fiscal year.

4 Accomplishments. Describe how well the nominee managed the program, the program's technical merits, how well the program supported the military readiness mission, how effectively the program's lessons learned may be transferred from the nominee to others, the nominee's success in involving the local community in the program, and the breadth of the program (see tab G). Describe the most outstanding accomplishments during the preceding 2 fiscal years, inclusive of the award fiscal year, in the following areas, as applicable:

4.1 Fast Track Cleanup

a. Accomplishments of the base cleanup team (BCT), including proposals analyzed and decisions made

b. Number of acres, or percentage of land, cleaned up and subsequently transferred back to the community

c. Initiatives of the re-use plan

d. Examples of streamlining the environmental cleanup process that have resulted in an accelerated cleanup.

4.2 Innovative Technology Demonstration Or Validation and Implementation

a. Provide examples of innovative technologies that reduced the nominee's cleanup costs.

b. Describe innovative technologies demonstrated and validated and/or implemented.

4.3 Partnerships Addressing Environmental Cleanup Issues Between DOD and Other Entities.

a. How the installation has teamed with the State, local government, affected community, or other Federal agencies to improve the environmental cleanup effort

b. Tangible results and decisions and/or agreements reached.

4.4 Restoration Advisory Boards (RABs)

a. For a RAB that has been operating for at least 1 year, significant accomplishments achieved

b. How the community reacted to the RAB

c. If there has been a positive change in public opinion regarding the cleanup program since the RAB's formation.

4.5 Opportunities for Small and Small Disadvantaged Businesses in Environmental Cleanup

a. Describe small business community involvement in, and how they received information regarding opportunities under, the nominee's environmental cleanup program

b. Number of jobs the nominee generated in-house and in the community as a result of the nominee's environmental cleanup program

c. Awards or recognition received for promoting small business opportunities.

4.6 Reducing Risk to Human Health and the Environment

a. Interim actions taken by the nominee

b. Improvements in the nominee's site management techniques

c. Improvements in the nominee's site characterization technique.

TAB F

CRITERIA FOR NOMINATION FOR THE CNO AND SECRETARY OF THE NAVY ENVIRONMENTAL CLEANUP AWARD

PART TWO, AWARD CATEGORY: ENVIRONMENTAL CLEANUP—INDIVIDUAL/TEAM

1 Background

1.1 List the individual's or each team member's name, title or position, and employing organization.

2 Position Description

2.1 Provide a summary of the nominee's major routine duties and responsibilities during the preceding 2 fiscal years, inclusive of the award fiscal year.

3 Awards and Services

3.1 List and describe awards and other special environmental cleanup recognition given to the nominee during the preceding 5 fiscal years, inclusive of the award fiscal year.

3.2 Describe related professional achievements, including community service work and participation in professional organizations.

4 Accomplishments. Describe how well the nominee managed the program, the program's technical merits, how well the program supported the military readiness mission, how effectively the program's lessons learned may be transferred from the nominee to others, the nominee's success in involving the local community in the program, and the breadth of the program (see tab G). Describe the most outstanding accomplishments of the individual/team during the preceding 2 fiscal years, inclusive of the award fiscal year, in the following areas, as applicable:

4.1 Accelerating Cleanup/Reducing Risk to Human Health and the Environment

a. Give examples of streamlining the cleanup process that have resulted in an accelerated cleanup.

b. Describe interim actions taken.

c. Describe improvements in site characterization techniques implemented.

d. Describe management techniques utilized to keep the program within schedule and budget.

4.2 Stakeholder Involvement

a. Describe contributions to the Restoration Advisory Board (RAB)

b. Explain if public opinion changed positively regarding the cleanup process.

c. Describe stakeholders' involvement in the cleanup decision making process.

d. List efforts to increase community involvement.

4.3 Regulatory Coordination

a. Describe teaming with Federal, State and local government agencies to improve the cleanup effort.

b. Describe the management techniques used to maintain regulator involvement.

4.4 *Cost Avoidance*

a. Describe attempts to minimize costs of the cleanup program.

b. Give examples of innovative technologies implemented that reduced cleanup costs.

4.5 Other Benefits

a. Explain how we can implement these significant accomplishments at other locations.

b. Give examples of enhancing stewardship, readiness, and quality of life.

c. Give examples of perseverance in the face of mounting difficulties

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TAB G

GUIDANCE FOR JUDGING THE CNO AND SECRETARY OF THE NAVY ENVIRONMENTAL AWARDS

1 General

a. It is not desirable to compare installations, teams or individuals *quantitatively* for the environmental awards. Rather, judges should compare them *qualitatively*.

b. Using the six categories below, judges will base selection on:

(1) How well the nominee managed the program

(2) The program's technical merits

(3) How well the program supported the military readiness mission

(4) How effectively the program's lessons learned may be transferred from the nominee to others

(5) The nominee's success in involving the local community in the program and

(6) The breadth of the program.

2 Program Management

a. How much improvement did the nominee demonstrate during the period under consideration?

b. Was there an appropriate management structure (including sufficient personnel) to effectively manage the program?

c. Did the program demonstrate coordination with other internal offices (e.g., funds manager, master planner, real property manager, utilities engineer, etc.)?

d. Were all required plans prepared and were they up-to-date?

e. Did the program comply with all applicable statutes and regulations?

f. Were all sources of funding explored? Successfully?

g. Did the nominee clearly identify program milestones?

h. What cost savings and benefits were derived?

3 Technical Merit

a. Did the nominee use sound environmental management techniques?

b. Did the nominee use innovative, new techniques and good judgment? Of the techniques used, were any successful? In what way?

c. Was the program effective in protecting, enhancing, and/or restoring the environment?

d. Did the program target source reduction of waste and harmful discharges and emissions?

e. While enhancing one sector of the environment, did the program subject other parts of the environment to real or potential hazards?

f. Did the program promote more efficient use of resources?

4 Orientation To Military Readiness

a. Did the program demonstrate coordination with individuals responsible for the military readiness mission at the installation (e.g., trainers and operators)?

b. Did the program contribute to the successful execution of the nominee's military readiness mission?

c. Did the program help identify and develop "mitigation measures" as necessary? Were these measures effective?

5 Transferability

a. Can others adopt this program elsewhere within and/or outside of DOD?

b. Will program results outlive the presence of the specific individual(s) responsible for the program's success?

6 Community Interaction

a. Did the program interact with the surrounding community?

b. Did the nominee establish volunteer and partnership programs? What were the contributions of these partners?

c. Did the nominee develop public and in-house education programs?

d. Did the program promote public access?

7 Program Breadth

a. Did the program include the following areas, as applicable to specific award categories:

7.1 Natural Resources Conservation

a. Ecosystem Management

b. Hunting and Fishing

c. Commercial Forestry

d. Agricultural Out-Leasing

e. Management of Sensitive Ecosystems and Species

f. Soil and Water Conservation

g. Habitat Enhancement, Restoration, and Creation

h. Outdoor Recreation and Public Access

i. Wetlands and Coastal Zone Protection

j Volunteer and Partnership Programs

7.2 Cultural Resources Management

a. Historical Buildings and Structures

b. Archaeological Resources

c. Native American Program

d. Curation

e. Awareness and Education

f. Cultural Resources Compliance

7.3 Environmental Quality

a. Full Environmental Compliance

b. Air Pollution Abatement

c. Water Supply and Waste Water Management

d. Hazardous Materials and Hazardous Waste Management

e. Spill Prevention, Preparedness, and Planning for Emergency Response

f. Underground Storage Tank Management

g. Noise Pollution Abatement

h. Solid Waste Management

i. Asbestos, Lead Paint, and Radon Control

j. Pest Management

k. Environmental Education and Training

l. Environmental Planning and Management

m. Cost Controls and Efficiency of Analysis

n. Innovations in Procedures and/or Analysis

o. Monitoring Impacts and Mitigation Measures

p. Usefulness in the Decision-Making Process

q. Incorporation of Executive Order 12898, as appropriate.

7.4 Pollution Prevention And Recycling

a. Increased Recycling Activities

b. Reduction in Solid, Hazardous, and Toxic Waste

c. Use of Substitute Materials

d. Increased Efficiency in the Use of Energy, Water, and/or Raw Materials

e. Procurement/Acquisition of Environmentally Sound Products

f. Life Cycle Cost Analysis.

7.5 Environmental Cleanup

a. Involved Affected States, Communities, and Other Stakeholders

b. Management of Risk Reduction

c. Full Environmental Compliance

d. Demonstration/Validation and/or Implementation of Innovative Cleanup Technologies.

APPENDIX E

ENVIRONMENTAL EFFECTS ABROAD OF MAJOR NAVY ACTIONS

1 References

1.1 Executive Order (EO) 12114

1.2 DoD Directive 6050.7 of 31 March 1979; (NOTAL)

1.3 DoD Overseas Environmental Baseline Guidance Document (OEBGD)

2 Purpose

Reference 1.1 requires environmental consideration for actions that significantly affect the environment outside the U. S., i.e, the global commons, the environment of a foreign nation, or impacts on protected global resources. By court decision, however, the National Environmental Protection Act (NEPA) and not EO 12114 is applicable to actions that would impact the environment of Antarctica. Applicability is determined by where the impacts on the physical environment occur rather than where a particular action takes place. Reference 1.2 implements reference 1.1 within the Department of Defense (DoD). Reference 1.3 restates, without modifying, the requirements set out in references 1.1 and 1.2.

3 Responsibilities

3.1 Assistant Secretary of the Navy (Installations and Environment) (ASN (I&E)) shall:

a. Serve as the single point of contact for implementation of EO 12114 as required by reference 1.2.

b. Coordinate formal communications with foreign governments concerning environmental agreements, studies or other matters through the Office of the Secretary of Defense/International Security Agency (OSD/ISA) and the Department of State (DOS).

3.2 Deputy Chief of Naval Operations (DCNO) (Logistics) shall:

a. Oversee compliance of subordinate commands with the requirements of reference 1.1, reference 1.2, and this appendix, and initiate timely corrective action as required.

b. As directed by ASN (I&E), coordinate with the President's Council on Environmental Quality (CEQ), Assistant Secretaries of Defense (ASDs), ASN (I&E) and other DoD components and Federal agencies concerned with analysis of environmental effects of major Navy actions.

c. Distribute environmental analyses per reference 1.2 and applicable Federal Register publication(s).

d. Review, coordinate and determine whether to grant requests to modify the requirements for preparation of environmental analysis documents under this appendix or to grant requests for additional exemptions from further analysis in this case of extraordinary circumstances under section 6.g of this appendix.

3.3 Major claimants shall:

a. Oversee compliance with reference 1.1, reference 1.2, and this appendix, initiating timely corrective action as required and keeping DCNO (Logistics) informed.

b. Conduct required analyses of the environmental effects of actions, including operations

and training exercises, for which they are the action proponent.

3.4 Commanders, commanding officers shall:

a. Complete analyses of the environmental effects of proposed actions per the requirements of this appendix before engaging in any action concerning the proposal that does significant harm to the environment or limits the choice of reasonable alternatives, subject to section 3.3c.

b. Forward all documentation under this appendix for which review by the major claimant or superior authority is required.

c. Determine as soon as possible whether emergency circumstances, situations involving exceptional foreign policy and national security sensitivities or similar special circumstances preclude the completion of an overseas environmental impact statement (OEIS), an overseas environmental assessment (OEA), an environmental study, or an environmental review (ER) that would otherwise be required and take steps prescribed in section 6.g.

4 Definitions

4.1 Armed Conflict. Hostilities for which Congress has declared war or enacted specific authorization for the use of armed forces, hostilities or situations for which a report is required by 50 U.S.C. sec. 1543(a)(1) and other actions by the Navy that involves defensive use or introduction of weapons in situations where hostilities occur or are expected.

4.2 Environment. The natural and physical environment. It excludes social, economic and/or other environments.

4.3 Environmental Review (ER). An analysis of the likely environmental issues involved in a proposed action where the environmental impacts of the action will occur in the territory, territorial sea, contiguous zone, or fishery zone of another country. ERs will be prepared either unilaterally by DoD or in conjunction with another U.S. agency, but do not include foreign government participation.

4.4 Environmental Study (ES). An analysis of the likely environmental issues involved in a proposed action where the environmental impacts of the action will occur in the territory, territorial sea, contiguous zone or fishery zone of another country. ESs will be prepared by the United States in conjunction with one or more foreign nations, or by an international body or organization in which the U.S. is a member or participant.

4.5 Federal Action. An action that is implemented or funded directly by the U.S. Government. It does not include actions in which the U.S. participates in an advisory, information gathering, representational, or diplomatic capacity nor does it include actions taken by a foreign government in a foreign country in which the U.S. is a beneficiary of the action or actions in which foreign governments use funds derived indirectly from the U.S.

4.6 Foreign Nation. Any geographic area (land, water, and airspace) that is under the jurisdiction of one or more foreign governments; any area under military occupation by the U.S. alone or jointly with any other foreign government; and any area that is the responsibility of an international organization of governments. Foreign nation includes contiguous zones and fisheries zones regardless of whether recognized by the U.S.

4.7 Global Commons. Geographical areas that are outside the jurisdiction of any nation, and include the oceans outside territorial limits and Antarctica. Global commons do not include contiguous zones and fisheries zones or foreign nations.

4.8 Lead Agency. The agency among many preparing, or having taken the primary responsibility for preparing, the environmental documenta-

tion required under this appendix, reference 1.1, or reference 1.2.

4.9 Major Action. Action involving substantial expenditure of time, money, and resources that affect the environment on a large geographic scale or has substantial environmental effects on a more limited geographical area and one that is substantially different or a significant departure from other actions previously analyzed with respect to environmental consideration. Whether deployment of ships, aircraft, or other military equipment and manpower constitutes a major action depends on the activities associated with the deployment, the size and duration of the deployment, and the circumstances in the receiving environment.

4.10 Navy Action. A Federal action where the Department of the Navy, Navy or a Navy component has a lead role as compared to other DoD components or U.S. agencies.

4.11 Negative Decision. A record of decision not to prepare an ER, ES, OEA, or OEIS and the facts supporting this decision.

4.12 Overseas Environmental Assessment (OEA). A concise analysis to assist DoD components in determining whether there is potential for significant environmental impacts associated with the proposed action and whether an overseas environmental impact statement (OEIS) is required.

4.13 Overseas Environmental Impact Statement (OEIS). An analysis of the likely environmental consequences of a proposed major federal action. An OEIS is to be considered by DoD components in deciding whether to approve the proposal.

4.14 Protected Global Resource. Natural or ecological resources of global importance that have been designated for protection by the President or, in the case of such a resource protected by international agreement binding on the United States, that have been designated by the DOS.

4.15 United States. All States, territories, and possessions of the U.S. and all waters and airspace subject to the territorial jurisdiction of the U.S.

4.16 Prohibited or Strictly Regulated Toxic Product, Effluent or Emission. For purposes of this appendix, the following materials will be considered to be products, emissions, or effluents that are prohibited or strictly regulated because their toxic effects on the environment create a serious public health risk.

a. Any chemical substance or mixture subject to an order under 15 U.S.C. sec. 2606.

b. Any toxic water pollutant as defined in section 33 U.S.C. sec. 502(13) and regulated under sec. 1317.

c. Any hazardous air pollutant under 42 U.S.C. sec. 112.

d. Any extremely hazardous substance described in 42 U.S.C. sec. 11002(a)(2).

e. Any of the following if not previously prescribed:

(1) Asbestos
(2) Vinyl Chloride
(3) Acrylonitrile
(4) Isocyanates
(5) Polychlorinated Biphenyls (PCBs)
(6) Mercury
(7) Beryllium
(8) Arsenic
(9) Cadmium
(10) Benzene

5 Policy

5.1 The Navy shall take account of environmental considerations under the general rules of Section 6 and the following sections of this appendix: section 7, when the Navy acts in the global com-

mons and section 8, when the Navy acts in a foreign nation or a protected global resource.

5.2 Foreign policy considerations require coordination through OSD/ISA with DOS concerning environmental agreements, and other formal arrangements. Consultation with DOS is also required in connection with the utilization of additional exemptions from this instruction under paragraph 8.2.2. All coordination and consultation will be accomplished by ASN (I&E) who will in turn coordinate through the OSD/ISA. Informal, working-level communications and arrangements are not included in this coordination requirement. Other than informal working level arrangements, no communication concerning environmental matters shall be transmitted without coordination with DCNO (Logistics).

6 Requirements for All Forms of Analysis. The following requirements apply to all forms of environmental analysis under this appendix:

6.1 A command proposing a major Navy action that has the potential for significantly harming the environment outside the territory of the U.S. shall, before taking any action that significantly harms the environment or eliminates a reasonable alternative, complete an OEIS, OEA, ER or ES, under the provisions of this appendix and references 1.1 and 1.2, unless the proposed action is exempted under section 6.e or is properly the subject of a categorical exclusion in which case the command will document a negative decision.

6.2 Overseas Categorical Exclusions (OCE). Overseas categorical exclusions are routine, recurring, factual situations for which it has been administratively predetermined by the Office of the Under Secretary of Defense, Acquisition and Technology, in consultation with DOS and CEQ, that there will be no significant environmental impact, individually or cumulatively, absent certain extraordinary circumstances. Currently, no OCEs have been approved. Recommendations for establishment of OCEs shall be submitted via the chain of command to ASN (I&E) for submission to OSD. Should OCEs be approved, action proponents will screen the action against approved OCEs, determine whether and OCE is applicable, whether any extraordinary circumstances preclude use of the OCE and if application is still appropriate, document the decision to rely on the OCE using a "negative decision".

6.3 Tiering. Under a tiered analysis only the issues associated with a proposed actions that are currently ripe for decision are studied and subsequent issues are slated for discussion in other documents. Tiered analysis frequently proceeds from broader, programmatic issues in initial analysis to more specific analysis of individual actions. Use of tiered analysis is often more cost effective because it eliminates multiple analyses of the same issues and results in better focused analysis. Action proponents and authorities responsible for oversight should review plans to complete environmental analysis of new actions to determine whether the environmental issues have been the subject of previously tiered analysis or whether the issues can be more effectively analyzed by tiered analysis. Where a decision is reached to use tiered analysis, the earlier analytical documents should identify those reasonably foreseeable issues the analysis of which has been deferred for analysis in subsequent tiers.

6.4 Combining Documents. Environmental documents required by this appendix may be combined with other agency documents to reduce duplication. If an environmental statement for a particular action already exists, no new statement is required by this appendix unless substantially changed circumstances exist from those considered in the earlier analysis.

6.5 The commanding officer for the action proponent is responsible for approving a negative decision. The document for the negative decision shall identify the proposed action, succinctly state the decision to forego the preparation of an OEIS, OEA, ER or ES, shall set out the applicable OCE or exemption on which it is based and shall summarize the facts that make up the OCE or

exemption applicable. For OCEs, the factual summary shall also include facts that demonstrate that no exceptions to the OCE are applicable. The action proponent shall retain the negative decision document in command files.

6.6 Actions Exempt from Further Analysis. Once it is determined that an action fits into one of the following categories and a negative decision is prepared to document the fact, no further analysis or action under this appendix is required:

a. Navy actions determined not to do significant harm to the environment outside the United States as determined on the basis of an OCE or OEA.

b. Actions taken by the Navy to prepare or assist in preparing recommendations, advice or information in connection with actions taken personally by the President, for example, by signing treaties or other international agreements or Presidential decisions. This exemption does not include Navy actions taken to carry out Presidential decisions after they are issued.

c. Actions taken by or under the direction of the President or a cabinet officer in the course of armed conflict, continuing as long as the armed conflict continues.

d. Actions taken by or under the direction of the President or a cabinet officer when the national security or national interest is involved where the determination that the national security or national interest is involved in the actions of the Department of Defense has been made in writing by the Under Secretary of Defense for Acquisition and Technology.

e. The activities of the office of the Director of Naval Intelligence or other Navy activity utilized under EO 12036.

f. The decisions and activities of the Navy International Programs Office and other responsible Navy offices with respect to arms transfers to foreign nations.

g. Votes and other actions in international conferences and organizations including decisions with respect to representation of U.S. or Navy interests in international organizations and at multilateral conferences, negotiations and meetings.

h. Navy participation in or assistance to disaster and emergency relief actions.

i. Navy action involving export licenses, export permits or export approvals, including advice to the DOS, Department of Commerce (DOC) and, where permitted by law, direct exports of DoD defense articles and services to foreign governments and international organizations.

j. Actions relating to nuclear activities and nuclear material, except actions that provide a foreign nation with a nuclear production or utilization facility, as defined in the Atomic Energy Act, or a nuclear waste management facility.

6.7 Action proponents shall comply with the procedures established in section 6, 7 and 8 unless the DCNO (Logistics) has previously approved modifications in the contents, timing and availability to other Federal agencies and affected nations. The DCNO (Logistics) may, upon request, and proper justification, approve such modifications as are necessary to:

a. Enable Navy authorities responsible for approving a proposed action to decide and act promptly where the exercise of reasonable judgement and application of normal procedures are insufficient to reach a timely decision or take effective action.

b. Avoid adverse impacts on foreign relations in fact or appearance of other nations' sovereign responsibilities.

c. Ensure appropriate reflection of diplomatic factors; international commercial, competitive and export promotion factors; need for government or commercial confidentiality; national security considerations; difficulties in obtaining information or analyzing meaningfully the environmental effects of a proposed action; and the degree to which the Navy is involved in or able to affect a decision. The DCNO (Logistics) shall keep ASN(I&E) advised of all such decisions.

6.8 Emergencies and Other Special Circumstances. With the approval of the Under Secretary of Defense for Acquisitions and Technology and ASN (I&E), the DCNO (Logistics) may exempt a particular action, on a case-by-case basis, from further environmental analysis under reference 1.1, reference 1.2 and this appendix where such exemption is necessary to meet emergency circumstances, national security consideration, exceptional foreign policy requirements and other special circumstances. Action proponents requesting such exemptions must provide sufficient information to justify why modification to the procedure under 6a is insufficient or untimely. Requests for such exemptions will be limited to those specific actions that cannot be accommodated by modified procedures and shall be submitted as expeditiously as possible to allow OSD/ISA consultation with the DOS the CEQ.

7 Requirements for Overseas Environmental Impact Statements

7.1 When to Prepare an OEIS

a. **Actions Affecting the Global Commons and U.S. Exclusive Economic Zone (EEZ).** Under reference 1.1 and reference 1.2, proponents of major Navy actions that significantly harm the environment of the global commons shall prepare an OEIS according to the requirements below. By Navy policy, proponents of major Navy actions that significantly harm the environment between the seaward limit of the U.S. territorial sea and the seaward limit of the U.S. EEZ (200 nautical miles) shall also prepare an OEIS according to the requirements below.

b. **Protected Global Resources.** Reference 1.1 allows an agency to use an OEIS to analyze actions that significantly harm natural or ecological resources of global importance designated by the President or, where protected by treaty, designated by the Secretary of State. By reference 1.2, however, DoD has determined that such actions will be analyze only the use of an ER or ES.

7.2 Overseas Environmental Assessment (OEA)

a. **When to Prepare an OEA.** A component may use an OEA to determine whether preparation of an OEIS is required. OEAs are prepared unilaterally by the U.S. under reference 1.2 and are internal DoD documents that do not require public participation or other attributes under domestic law. The completed OEA shall be made available upon request under the Freedom of information Act (FOIA), 5 U.S.C. sec. 552, subject to restrictions on the release of classified information and other applicable exemptions.

b. **Requirements for Preparation of an OEA.** The OEA should be concise, normally not exceeding 35 pages. The OEA must include sufficient information, however, to allow the action proponent reasonably to determine whether the proposal is a major Navy action (see Table E-1) that will significantly harm the environment of the global commons or the U.S. EEZ outside the territorial sea. It shall include:

(1) A brief description of the proposed action including its physical features, timetable and operating plan.

(2) The need for action.

(3) Concise discussion of the environmental effects of the proposed action.

(4) Any modifications to the proposed action to minimize any environmental impacts.

c. The last page of an the OEA should summarize the findings and any mitigation measures essential to the final determination of whether the environment will be significantly harmed. The last page should expressly conclude either that (1) No significant harm will occur to the environment, or (2) That on the basis of the OEA the action proponent is unable to determine that no significant harm will occur to the environment and that accordingly an OEIS must be prepared before the proposal is approved.

d. The commanding officer or commander of the action proponent shall sign the OEA and forward it via the major claimant and DCNO (Logistics) to ASN(I&E) for approval. No action will be taken on the proposal that will significantly harm the environment or limit the choice of reasonable alternatives until approval by ASN (I&E). Once approval is obtained, no further delay is required.

7.3 Requirements for Preparing Overseas Environmental Impact Statements (OEIS)

a. Preparation of an OEIS involves a multistage process designed to ensure that the decision-maker on a proposed major Navy action gives the environmental consequences a hard look along with other relevant factors such as mission performance, diplomatic considerations, cost and similar factors. Once the requirements of the process are complete, the decision-maker remains free to approve a proposal even if it is not the environmentally preferable alternative. OEISs should be concise and analytical rather than encyclopedic and descriptive.

b. OEISs shall be prepared unilaterally by the United States but may be made available to foreign governments after coordination through the chain of command and OSD/ISA with the DOS. Informal, working-level communications and arrangements (for example, to obtain unclassified environmental data) are not subject to this coordination requirement. If an action requiring an OEIS also significantly harms the environment of a foreign nation or a resource designated as one of global importance, the OEIS need not consider those additional effects, which will be covered by an analysis covered by section 8.

c. When other Federal agencies are also involved in a proposed major Navy action or other Federal agencies possess specialized expertise relevant to the environmental issues involved in the action, the Navy command preparing the OEIS shall coordinate with the other Federal agency.

d. The last page of an OEIS will summarize the document's findings including any constraints and/or mitigative measures designed to avoid environmental impacts. A responsible official for the action proponent should sign the OEIS recommending approval of its findings and indicating it has been considered in the decision-making process. It should then be forwarded to Chief of Naval Operations (CNO), the major claimant, and the Executive Agent for concurrence and further action.

e. OEISs shall consist of a concise discussion of the environmental effects associated with the proposed action. Normally they will not exceed 100 pages. They shall include the following elements:

(1) A consideration of the purpose and need of the proposed action.

(2) A review of the affected environment.

(3) A description of any adverse environmental impacts that cannot be avoided if the proposal is adopted.

(4) Alternatives to the proposed action (including a no-action alternative).

(5) Actions taken to avoid environmental harm or otherwise to better the environment.

(6) Environmental considerations and actions by other participating nations, bodies or organizations.

f. The OEIS should evaluate reasonably foreseeable significant adverse effects using the best scientific information reasonably available. For purposes of this section, "reasonably foreseeable significant adverse effects" includes those effects that have catastrophic consequences, even if their probability of occurrence is low provided that their analysis is supported by credible scientific evidence, is not based on pure conjecture and is within the rule of reason. If the information on a relevant issue is incomplete or unavailable, and is necessary for a reasoned choice, the action proponent should obtain the information unless the overall costs of doing so are exorbitant when judged against the cost, scope and potential impact of the proposed action. Where the information is not reasonably available because it is restricted by a foreign government, this requirement may be modified under section 6f. Where the information is not reasonably available, the OEIS must identify what information is incomplete or unavailable, discuss its relevance to the evaluation of reasonably foreseeable impacts, summarize existing credible scientific evidence relevant to evaluation of reasonably foreseeable impacts and analyze the reasonably foreseeable impacts based upon theoretical approaches or research methods that are generally accepted in the scientific community.

g. The action proponent for a Navy action requiring an OEIS shall, through the major claimant and Deputy CNO (Logistics), recommend preparation of such a document to ASN(I&E). If ASN(I&E) concurs, the action proponent shall prepare a draft OEIS that is sufficiently complete to permit meaningful analysis and comment. The draft OEIS shall be forwarded via the major claimant, Deputy CNO (Logistics) and ASN(I&E) to provide the DOS, CEQ and other interested Federal agencies with an opportunity to comment. The draft OEIS shall also be made available to the public in the United States for comment. The public OEIS is not normally made available for comment by foreign governments, but may be made available in special circumstances after coordination through the chain of command with the DOS. The comment period normally will last 45 days unless modified under section 6f. Public hearings are not required but may be held, if directed by ASN(I&E) after consultation with OSD/ISA, the DOS, and the CEQ after consideration of the factors listed in section 6f and whether meaningful information can be obtained through such a hearing.

h. After consideration of the comments the draft OEIS will be reviewed as appropriate in light of the issues raised and any new information. A final OEIS will be prepared that responds, either individually or collectively, to the substantive comments received on the draft OEIS. The final OEIS shall include a concise statement that has been considered in the decision-making process and recommending approval of its findings. The commanding officer or commander of the action proponent shall sign the OEIS and forward it through the major claimant and Deputy CNO (Logistics) to ASN(I&E) for approval. Action proponents shall not take any action on the proposal that would do significant harm to the environment or eliminate reasonable alternatives until final approval by ASN(I&E), however no additional delay is necessary after approval is obtained.

8 Requirements for Environmental Reviews and Environmental Studies

8.1 When to Prepare an Environmental Review or Environmental Study

a. Under reference 1.1 and 1.2, a proponent of a major Navy action that significantly harms the environment of a foreign nation that is not participating and is not otherwise involved in the action shall prepare either an Environmental

TABLE E-1
Actions Included

ACTION	REQUIREMENT
Major Navy actions with the potential to significantly harm the environment of the Global Commons or U.S. EEZ outside the territorial sea. See section 7.2	Overseas Environmental Assessment
Major Navy actions that will do significant harm to the environment of the Global Commons or U.S. EEZ outside the territorial sea, or actions for which significant harm cannot be ruled out on the basis of an OEA or OCE. See section 7.1.	Overseas Environmental Impact Statement
Major Navy actions significantly harming the environment of a nation not involved in the action. See section 8.1a	Environmental Review or Environmental Study
Major Navy actions significantly affecting the environment of a foreign nation where the action provide to the affected nation either (1) a prohibited or strictly regulated toxic product, effluent or emission, or (2) a physical project that is prohibited or strictly regulated in the U.S. by Federal law to protect the environment against radioactivity. See section 8.1b	Environmental Review or Environmental Study
Major Navy actions outside the U.S. that significantly harm natural or ecological resources of global importance. See section 8.1c	Environmental Review or Environmental Study
Major Navy actions significantly harming the environment of a nation participating or otherwise involved in the action that do not provide the affected nation with either (1) a prohibited or strictly regulated toxic product, effluent, or emission; or (2) a physical project prohibited or strictly regulate in the U.S. by environmental laws on radioactivity. See sections 7.1 and 8.1.	Negative Decision
The proposed action is determined not to be a major Navy action, is a major Navy action but is exempt under section 6b - 6e, or is determined to lack the potential to significantly harm the environment.	Negative Decision

Review (ER) or an Environmental Study (ES) according to the requirements below.

b. Action proponents for major Navy actions shall prepare an ER or ES according to the requirements below if the proposed actions do significant harm to the environment of a foreign nation and would provide to the affected nation: (1) a prohibited or strictly regulated toxic product, effluent or emission, or (2) a physical project that in the United States is prohibited or strictly regulated by Federal law to protect the environment against radioactive substances.

c. Action proponents for major Navy actions outside the United States that significantly harm natural or ecological resources of global importance shall prepare either an ER or ES according to the requirements below.

d. For those major Navy actions where either an ER or an ES are called for, the action proponent should utilize an ES unless the analysis will be done unilaterally by the United States. Questions whether the analysis will be unilateral will be referred via the major claimant and Deputy CNO (Logistics) to ASN(I&E), who will consult with OSD/ISA and the DOS as necessary.

8.2 Requirements for Environmental Reviews (ERs)

a. ERs are concise surveys of the important environmental issues involved in a proposed action and are prepared *unilaterally* by the U.S. for actions that significantly harm the environment of a nation not participating with the U.S. and not otherwise involved in the action. They are internal documents for use by the decision-maker and do not involve formal contact/consultation with the host-nation. ERs should be based on reasonably available information and should discuss the issues analytically but in enough depth to allow a reasoned decision on the important issues. Normally should not exceed 25 pages. ERs should include a discussion of the following:

(1) A statement of the action to be taken including its timetable, physical features, general operating plan, and other broad-gauge descriptive factors as appropriate.

(2) Identification of the important environmental issues involved.

(3) Any mitigative actions planned or taken to minimize the impact on the environment.

(4) Reasonably available information on actions of any participating or affected nations relevant to the environmental issues.

b. The last page of an ER will summarize the document's findings including any constraints and/or mitigative measures designed to avoid environmental impacts. The commanding officer should sign the ER recommending approval of its findings and indicating it has been considered in the decision-making process. The completed ER shall be forwarded via the major claimant and Deputy CNO (Logistics) for concurrence by ASN(I&E). The action proponent will not take any action significantly harming the environment or eliminating reasonable alternatives until ASN(I&E) concurs.

8.3 Requirements for an Environmental Study (ES)

a. ESs are *bilateral or multilateral environmental studies*, of the likely environmental consequences of the proposed action, prepared by the U.S. and one or more foreign nations or by an international body or organization in which the U.S. is a member or participant. An environmental study is used by Navy decision-makers in determining whether to approve or participate in the proposed action. ESs should incorporate guidelines established for ERs above, and/or guidelines set forth in reference 1.2. Document length will be as required to adequately address the action; usually from 10 to 50 pages.

b. Because an ES is a cooperative, multilateral effort, careful coordination with the DOS through the major claimant, Deputy CNO (Logis-

tics), ASN(I&E) and OSD/ISA is required. The decision whether a proposed action would do significant harm to the environment of a nonparticipating nation normally reached only after consultation with other participating nations. ASN(I&E) will decide for the Navy whether to participate in an ES after consultation with OSD/ISA. Once a decision to conduct an ES has been made, the Navy action proponent will not take any action that would significantly harm the environment of a non-participating nation or eliminate reasonable alternatives until the ES is completed and approved by ASN(I&E).

c. An Environmental Study is generally more detailed than an ERs. It should provide the decision-maker with sufficient information to make an informed decision on the environmental involved in the action before proceeding, but will normally not exceed 50 pages. Although the contents of an ES must be flexible to accommodate both the information that is reasonably available and possible diplomatic concerns, it should include the following:

(1) A general review of the affected environment.

(2) The predicted environmental effects.

(3) Significant known actions taken by the nations participating in the action to protect or improve the environment of the nonparticipating, affected nation.

(4) If no actions are being taken by the participating nations to protect or improve the environment, whether the decision that no such actions would be taken was made by the affected nation or by the participating nations or international organizations.

d. As with ERs, the last page of an ES should adequately summarize the document's findings including any constraints and/or mitigative measures designed to avoid environmental impacts. The commanding officer should sign the ES recommending approval of its findings and indicating it has been considered in the decision-making process. After initial signature on behalf of the Navy and other participants, the ES shall be forwarded via the major claimant and the Deputy CNO (Logistics) to ASN(I&E). ASN(I&E) will coordinate final approval with OSD/ISA and the DOS.

APPENDIX F

CHIEF OF NAVAL OPERATIONS INTERIM GUIDANCE ON COMPLIANCE WITH THE CLEAN AIR ACT GENERAL CONFORMITY RULE

Appendix F, Chief of Naval Operations Interim Guidance on Compliance with the Clean Air Act General Conformity Rule, was not available at the time of publication. The appendix will be included in a future change of OPNAVINST 5090.1B

APPENDIX G

GUIDANCE ON DEVELOPING FACILTY POLLUTION PREVENTION PROGRAMS AND IMPLEMENTING POLLUTION PREVENTION PROGRAM ELEMENTS

1. Introduction. This appendix is for guidance only. Its purpose is to provide assistance in the development of shore facility Pollution Prevention (P2) Programs in conjunction with Federal, State, and local laws and requirements, to outline the principal P2 Program elements, and to offer guidance on implementing those elements.

NOTE:

Applicable State and local codes, standards, and regulations may be and often are more stringent than Federal requirements, especially in regard to environmental programs and hazardous waste (HW) issues.

2. P2 Program Development. The P2 Program outlined herein is essentially a revision to, and expansion of, the Hazardous Material Control and Management (HMC&M) Program previously outlined in guidance enclosed with OPNAVINST 4110.2 (NOTAL). That guidance is herein revised to reflect additional and updated P2 requirements, planning, and nomenclature changes, as well as incorporation of Emergency Planning and Community Right-To-Know Act (EPCRA). All Navy shore facilities should already have well-established HMC&M Programs developed per OPNAVINST 4110.2 (NOTAL). Some shore facilities may also have EPCRA Programs or facility P2 Plans. A facility P2 Program which unifies HMC&M, EPCRA, and P2 planning requirements will provide a single vehicle through which all facility hazardous material acquisition, use, substitution, reduction, accounting, disposition, and emergency planning can be assessed and controlled.

3. P2 Program Elements. The guidance contained herein is based upon the policies and requirements of Chapter 3 and 4 and other Department of Defense (DoD) and Navy instructions that relate to P2, hazardous material (HM) and HW management. This appendix incorporates aspects of existing programs together into a complete P2 effort. Included with the development and implementation of the facility P2 Plan, the P2 Program should incorporate the following elements, which are individually discussed below:

.P2 Committee
.HM Inventory
.Material Safety Data Sheets (MSDSs)
.Labeled HM and HW Containers
.The Safe Use of HM
.HM Acquisition Controls and Authorized User List (AUL)
.Safe and Controlled Receiving, Distribution, Issuing, and Shipping of HM
.Storage of HM
.Management of HW
.Emergency Response Planning
.Shore Facility Oversight of P2 Activities
.Recordkeeping and Reporting.

a. **P2 Committee.** The P2 Committee should be established to advise the commander or commanding officer on the policies and procedures to implement a facility P2 Program and to assist in the implementation of that Program. The P2 Committee should be multi-disciplinary and bring together the various organizations and groups having functional responsibilities and authority over HM acquisition, use, etc. The chairperson of the committee should

be the commander, or designee (e.g., command staff officer). Tab A of this appendix provides a typical committee charter, committee composition, and functions.

b. **HM Inventory**. A current inventory of HM, hazardous chemicals, or chemical substances known or suspected to contain HM should be developed and maintained to control and manage material, per this instruction and OPNAVINST 5100.23D (NOTAL), and should be maintained in a central reference location. Each HM on the inventory should be identified by storage and use location(s) and should be assigned a unique identifier that relates it to a specific MSDS. Also, a list of hazardous chemicals is a requirement of the Occupational Safety and Health Act (OSHA) Hazard Communication (HAZCOM) Standard (29 CFR 1910.1200) and including the identifier information on the inventory will also help fulfill that requirement. A HM inventory which provides a MSDS identifier and which identifies material storage and use locations will also be an aid in:

(1) MSDS filing and providing a ready means of MSDS access for use by non-technical or emergency response personnel.

(2) Assuring that proper controls are in place for HM storage and use, HAZCOM training, Spill Prevention, Control and Countermeasures (SPCC) Plans, and Spill Contingency Plans (SCPs).

(3) Facilitating emergency notification of a Local Emergency Planning Committee (LEPC) per EPCRA Section 304, in the event of a release of a reportable quantity of material.

(4) Determining EPCRA Sections 302 and 311 reporting thresholds and EPCRA Section 313 releases.

(5) Completing EPCRA Sections 311 and 312 reports, including Section 312 Tier II reports.

(6) Creating and maintaining an AUL to be used to control HM acquisition and use (see paragraph 3.g).

(7) Forming the basis for eliminating or disposing of unneeded materials safely and properly.

c. **MSDSs.** The HAZCOM Standard requires that each shore facility using HM in its work operations and processes possess a manufacturer's MSDS for each HM item on hand and that it be easily accessed by workers. For material not having a MSDS, a shore facility should take the necessary action to obtain one. MSDSs are a key to identifying HM at the shore facility and for supporting the facility's MSDS focal point in the following functions:

(1) Reviewing manufacturer-supplied MSDSs to ensure that required data elements are completed and to identify materials containing hazardous ingredient(s).

(2) Participating in the DoD Hazardous Material Information System (HMIS) for locally procured HM.

(3) Ensuring proper labeling and the using of safe working quantities of HM in the workplace.

(4) Informing employees and contractors of hazards (see paragraph 3f(4)) and safeguards for those HM to which they may be potentially or occupationally exposed.

d. **Labeled HM and HW Containers.** Each container of material possessing hazardous ingredients should be properly labeled by the manufacturer and/or shipper(s) to warn personnel of the potential dangers of the material. In the

event warning labels are inadvertently removed or damaged in shipping prior to receipt by shore facilities, commercial suppliers should be required to provide HAZCOM-compliant replacement labels. Facilities are not required to put DoD or other HM warning labels on new stocks because the manufacturer is responsible for placing HAZCOM-compliant labeling on such stock. Shore facilities are not to relabel existing stocks that conform with the HAZCOM Standard. Requirements for labeling are described below:

(1) 29 CFR 1910.1200 provides labeling requirements for workplace use of HM. This OSHA standard requires that containers of HM be labeled, tagged, or marked with the identity of the hazardous chemical(s); appropriate hazard warnings; and the name and address of the chemical manufacturer, importer, or other responsible party. In addition to OSHA labeling requirements, Federal and military marking standards (Federal Standard No. 123 (NOTAL) and Military Standard 129 (NOTAL)) require precautionary labeling to guide those who use and handle HM.

(2) The Environmental Protection Agency (EPA), Consumer Product Safety Commission (CPSC), Food and Drug Administration (FDA), and Bureau of Alcohol, Tobacco, and Firearms (BATF) also require labeling of HM and HW under their jurisdiction. When labeling requirements are met under EPA, CPSC, FDA, or BATF, specific labeling requirements under the OSHA HAZCOM Standard are not required.

(3) DOT labeling and marking requirements apply to the transportation and shipping of HM. Facilities are to use 40 CFR 172.101 to determine labeling requirements.

(4) Bulk storage tanks, piping, vats, or similar vessels should be labeled using the DoD Hazardous Chemical Warning Label, DD 2521 and DD 2522, when other means, such as placards, are not available or adequate to meet HAZCOM requirements. Repackaged containers or breakdown quantities of hazardous chemicals and unlabeled or improperly labeled HM already in the Navy inventory should be labeled using the DoD Hazardous Chemical Warning Label.

(5) The DoD label can be applied with variations. Color DoD labels may be used. The size of the DoD label may be locally varied to fit the size and shape of the container being labeled. Local reproduction of the DoD label is authorized.

NOTE:

National Fire Protection Association (NFPA) Labels used alone or without a HAZCOM compliant label are not adequate to meet the HAZCOM standard.

e. **The Safe Use of HM.** HM should be handled and used only under the following minimum safety conditions:

(1) The HM appears on the HM AUL for the workplace/workcenter in which it is used. This implies that procedures for and conditions of HM use have been evaluated and approved.

(2) The HM is stored and used in only the minimum quantity required to accomplish the mission.

(3) Personal protective equipment and requisite safety, emergency, and spill cleanup and containment equipment are readily available.

(4) Employees are adequately informed and understand HM hazards and necessary protective measures via HAZCOM training (i.e., training on the safe use of the material, HM warning properties, needed safeguards and personal protective equipment, proper disposal

techniques and procedures, and access to MSDSs). OPNAVINST 5100.23D (NOTAL) provides information concerning HM/HAZCOM training programs. In addition to training, the OSHA HAZCOM Standard requires that each facility prepare and keep current a HAZCOM Program Plan.

(5) Contractors are to be informed of HM that they may be exposed to and inform a designated facility person of HM to which Navy personnel may be exposed. Similarly, contractors must make MSDSs for their HM available to the supported facility. Pending a change to the Defense Federal Acquisition Regulations Supplement (DFARS), a locally developed clause to the effect that "Contractors shall inform the designated facility representative of all contractor used HM to which Navy personnel are exposed and shall provide MSDSs for those materials to the facility representative" should be developed.

(6) Local procedures are developed and implemented to ensure that employees performing non-routine tasks involving HM are trained, equipped, and kept under appropriate medical surveillance in advance of such work to the same extent as required for routine exposure situations.

f. **HM Acquisition Controls and AUL.** Local procurement controls and audits should be established that are sufficiently stringent to ensure that only HM on the facility AUL is procured and that manufacturers are complying with labeling and warning requirements and are supplying MSDSs with their material. The baseline facility AUL can be developed directly from the facility HM inventory. At a minimum, the AUL should denote a specific MSDS identifier, storage and usage location, and local workcenter or code authorized to request the purchase and use of a HM (for each HM listed in the inventory). Facility-specific acquisition and AUL policies and procedures should address the following:

(1) Requestors of HM be required to request only authorized HM in approved, minimum quantities, whenever possible. Likewise, workcenter-specific AULs should be made available to those responsible for requesting HM.

NOTE:

Obtaining and reviewing a MSDS should be a prerequisite for placement of HM on the AUL.

(2) Requisition review prior to the issuance of any purchase order for HM be instituted to ensure that only authorized HM is being purchased. Also, conditions and procedures for adding or deleting HM or authorized workcenters from the AUL should be established.

(3) All purchase orders for HM should include appropriate clauses to ensure proper labeling of HM containers and delivery of an MSDS with the HM shipment.

(4) HM requisitions should clearly designate the user code, workcenter, or shop so that incoming MSDSs can be routed to the central MSDS reference files, HM user codes, and others having a need for current MSDS data.

g. **Safe and Controlled Receiving, Distribution, Issuing, and Shipping of HM.** Local policy should address specific functions as follows:

(1) Material inspection upon receipt to determine if it is HM and if it is on the AUL, if it is adequately labeled, and if a MSDS is supplied. If the material is HM and does not conform to established standards, specifications, and regulations, it should be placed in appropriate temporary hold until manufacturer-supplied labels, MSDSs, or acceptable substitutes are obtained.

(2) Prompt and safe storage for

incoming HM deliveries.

(3) Obtaining and maintaining MSDSs and technical data for stocked HM.

h. **Storage of HM.** HM should be stored in minimum required quantities. MSDSs and HMIS provide useful information on warehouse storage and storage compatibility codes for HM. All locations for temporary and permanent storage for HM and HW, including bulk storage and tanks, must be approved by the commanding officer or designated representatives (the use of underground storage tanks is discouraged). Navy shore facilties shall not store or dispose of non-Navy-owned HM except in certain specific instances. Questions may be referred to the *Engineering Field Divisions* (EFDs) of the Naval Facilities Engineering Command (NAVFACENGCOM).

i. **Management of HW.** HW Management plans must be referenced in, or incorporated into P2 Plans. See Chapter 12 for HW management requirements.

j. **Emergency Response Planning.** Written emergency procedures or Spill Contingency Plans (SCPs) shall be referenced in, *or incorporated into P2 Plans. See Chapter 10* for SCP requirements.

k. **Shore Facility Oversight of P2 Activities.** The commanding officer should designate a person(s) or organizational entity to develop a written annual review of the shore facility's P2 Program to assess its attainment of objectives, the effectiveness of its P2 Plan, and to recommend changes and improvements to the plan. The review should be provided to the P2 Committee for discussion and development of *appropriate responses*, including changes to the P2 Plan.

l. **Recordkeeping and Reporting.** Recordkeeping and reporting is essential to P2. The following summarizes recordkeeping and reporting requirements of OPNAVINST 5100.23D (NOTAL): (It should also be noted that EPA has authorized State environmental agencies to administer HW programs; consequently, many of the following reports will be submitted to States depending upon circumstances.)

(1) Inventory of HM. Data elements identified in paragraph 3b may be supplemented with additional ones to meet shore facility needs for inventory control, occupational health surveillance, hazard communication training requirements, and EPCRA planning requirements.

(2) Training Records. Records of individuals' HAZCOM training accomplishments should be maintained at the shore facility per OPNAVINST 5100.23D (NOTAL). See the basic instruction for the additional recordkeeping requirements needed to conform with Resource Conservation and Recovery Act (RCRA) training requirements.

(3) HW Generator Recordkeeping. See Chapter 12.

(4) Approaches to Implementing the Program Elements. Commanders and commanding officers have options for organizing and implementing the P2 Program. Principal among these are:

(a) Formally establish the P2 Committee as discussed in paragraph 3a. and staff and charter that committee as recommended in Tab A of this appendix.

(b) Use available command or shore facility staff to plan, direct, manage and administer the P2 Program. Utilize standard staff direction, coordination and interaction requirements. Refine the existing responsibilities and functions of Supply, Procurement,

Occupational Safety and Health, Medical, Industrial Hygiene, Public Works (and Facilities Engineering), etc., to include specifics with regard to P2. Assign, as needed, P2 tasks and program responsibilities to other staff and organizational elements. These include production, maintenance, personnel, supervisors, and others. A formalized command and shore facility P2 instruction which establishes actions and responsibilities should be issued.

TAB A

POLLUTION PREVENTION COMMITTEE
(Typical Committee Charter - For Guidance, Not Mandatory)

Purpose: To provide multidisciplinary and interdepartmental advice to the commander on the implementation of the shore facility Pollution Prevention (P2) Program and to assist in the implementation of that program.

Chairperson: The commander or designee (e.g., the command staff officer).

Membership: Committee membership should be tailored to local needs and requirements and should include at least one alternate member for each designee. Personnel from tenants and other supporting organizations should be included as needed. Representatives of the following shore facility organizations or functions are appropriate for committee membership:

Environmental Engineering/Compliance

Occupational Safety and Health

Supply (Material Procurement, Receiving, and Shipping)

Operations (Production, Mission, etc.)

Public Works Center

Technical Specialist (chemist)

Production Planning/Engineering

Quality and Reliability Assurance Department

Emergency Response Personnel

Functions:

a. Integrate facility pollution prevention planning, Hazardous Material Control and Management (HMC&M) and Emergency Planning and Community Right-To-Know (EPCRA) programs into a coordinated P2 Program.

b. Formulate recommendations to the commander on all aspects of the facility P2 Program, including hazardous material (HM) source reduction and reuse, hazardous waste (HW) minimization and recycling; environmental concerns and impacts, and the safe storage, use, treatment, and disposal of HM.

c. Manage the facility HM authorized use list (AUL) and advise the commander on procedures to develop, review, edit, audit, and approve the AUL.

d. Prepare the facility P2 Plan in which P2 opportunities (i.e. substitute processes or materials which will reduce HM usage and/or HW generation) are identified and a plan of action and milestones (POA&M) for implementation of those opportunities are established.

e. Periodically review facility operations that involve HM to identify P2 opportunities and to reconcile actual HM present with the AUL. Report any HM on-hand/AUL discrepancies with suggestions for corrective action to the commander.

f. Recommend limitations on HM both used and stored for various operations and processes.

g. Meet quarterly or upon the call of the chairperson, whichever is shorter, and maintain records of all meetings and actions of the P2 Committee.

h. Maintain HM and HW storage site approval authority.

i. Approve all methods and procedures for P2, HM and HW management and EPCRA data collection.

j. Establish P2 awareness training program.

k. Review internal HM and HW reviews and audits, monitor HM storage and usage and HW generation trends, make recommendations designed to improve P2 Program effectiveness, and formulate and propose annual pollution reduction goals to the Commander.

l. Make recommendations to facilitate worker access of Material Safety Data Sheets (MSDSs) and concerning local exemptions and exclusions of occupations and locations involved with HM (e.g. administrative areas, offices).

APPENDIX H

OIL SPILL REPORT (MESSAGE FORMAT)

1. **Precedence (for messages only).** Provided that prior voice reports have been made both to the US Coast Guard National Response Center and the reporting command's Chain of Command, use "Routine" precedence for Oil Spill Report Messages. If either voice report has not been made, use "Priority" precedence.

2. **Classification or Special Handling Marks.** Oil Spill Report Messages are unclassified and do not warrant special handling marks unless classified or sensitive business information must be incorporated. Avoid inclusion of such information to the maximum extent possible to allow Oil Spill Report Messages to be handled on a solely unclassified basis.

3. **Spill Volume Classification:** To better advise the Navy On-Scene Coordinator and Navy leadership of the magnitude of each oil spill, the Subject line of an Oil Spill Report Message should bear a volume estimate of the spill, if known, in the following format:

- OIL SPILL REPORT, X GALLONS, [ACTIVITY NAME] (MINIMIZE CONSIDERED); or
- OIL SPILL REPORT, UNKNOWN VOLUME, [ACTIVITY NAME] (MINIMIZE CONSIDERED); or
- OIL SPILL REPORT, SHEEN SIGHTING (MINIMIZE CONSIDERED).

4. **Updating Oil Spill Report Messages:** Oil Spill Report Messages should be updated with a follow-up SITREP message as soon as the reporting activity becomes aware of new information concerning the origin, quantity, type, operation under way or cause of the spill. Similarly, ***if the final estimate of the amount spilled differs substantially from the amount initially reported,*** the reporting activity must send a SITREP update message to all action and info addresses on the original spill message.

5. **Action and Info Addressees:**

FM: Navy Activity or Ship responsible for or discovering the spill
TO: Navy On-Scene Coordinator
Chain of Command
INFO: Area Environmental Coordinator
Host Activity
CNO WASHINGTON DC//N45//
CHINFO WASHINGTON DC//JJJ//
COMNAVSEASYSCOM WASHINGTON DC//00C//
NFESC PORT HUENEME CA//424//
NAVPETOFF ALEXANDRIA VA//JJJ//

[Add the following Info Addressee for spills into or upon the navigable waters of the United States, its contiguous zone (generally within 12 nautical miles of US shores) and adjacent shorelines.]

COGARD NATIONAL RESPONSE CENTER WASHINGTON DC//JJJ//

6. **Body of Report:** Use the following format for the body of all Oil Spill Report Messages:

UNCLAS//NO5090//
SUBJ: OIL SPILL REPORT, X GALLONS, [ACTIVITY NAME] (MINIMIZE CONSIDERED) or
OIL SPILL REPORT, UNKNOWN VOLUME, [ACTIVITY NAME] (MINIMIZE CONSIDERED) or
OIL SPILL SHEEN SIGHTING, (MINIMIZE CONSIDERED)
MSGID/GENADMIN/ORIGINATOR//
RMKS/
1. LOCAL TIME AND DATE SPILL [OCCURRED/DISCOVERED].

2. [FACILITY/VESSEL] ORIGINATING SPILL:
   - For Navy ships, list ship name, hull number and unit identification code (UIC).
   - For Navy shore facilities, list facility name and UIC.
   - For non-Navy spills, list name of responsible party, if known.
   - For organizations under contract to Navy, list firm name and contracting Navy activity.
   - If source unknown at time of this report, list only "Unknown" until such time as definitively established.

3. SPILL LOCATION:
   - For spills at sea, list latitude, longitude and distance to nearest land.
   - For spills in port, list port name, host naval command (NAVSTA, Shipyard) and specific location (pier or mooring designation).
   - For spills ashore, list city, state, facility name and specific location (building designation).

4. VOLUME SPILLED IN GALLONS:
   - Estimates must be made by examining loss at source: i.e. sounding tank, calculating flow rate of spill.
   - If amount unknown at time of this report, list only "Unknown" until such time as definitively established.
   - Estimating volume by visual observation of oil on water can be very unreliable.
   - If volume estimate can only be made by visual observation of oil on water, do not report estimate here.
   - If oil/water mixture, indicate percent oil.

   - 5. TYPE OF OIL SPILLED:
   - List whether diesel fuel marine (DFM); naval distillate; jet fuel (JP-4 or 5); aviation/automotive gasoline; automotive diesel; heating fuels (grade 1 or 2, kerosene); residual burner fuel (grade 4, 5 or 6); lubricating oil; hydraulic oil; oil/oil mixture (including slops and waste oil); oil/water mixture (including bilge waste).
   - If type unknown at time of this report, list only "Unknown" until such time as definitively established.

6. OPERATION UNDER WAY WHEN SPILL [OCCURRED/DISCOVERED]:
   - If fueling/defueling, list whether underway or in port by pipeline, truck or barge.
   - Whether conducting internal fuel oil transfer operations (including movement from one storage tank to another); pumping bilges; conducting salvage operations; aircraft operations; or "Other" (specify).
   - If operation unknown at time of this report, list only "Unknown" until such time as definitively established.

7. SPILL CAUSE:
   - Classify the cause of the spill by citing one or more of the following categories and then provide a narrative description of specific spill cause: Structural; electrical; hose; valve/fitting; tank level indicator; oil/water separator/oil content monitor; other equipment (specify component that failed); collision, grounding, or sinking; valve misalignment; monitoring error; procedural/communications error; chronic/recurring; or weather related.
   - If cause unknown at time of this report, list only "Unknown" until such time as definitively established.

8. SLICK DESCRIPTION AND MOVEMENT:
   - Size: length and width (yards or nm) and percentage of that area covered.
   - Color: silver transparent, gray, rainbow, blue, dull brown, dark brown, black, brown-orange mousse.
   - Odor: noxious, light, undetectable.
   - Slick movement: set (degrees true toward) and drift (knots).

9. SPILL ENVIRONMENT:
   - Weather: clear, overcast, partly-cloudy, rain, snow, etc.
   - Prevailing wind at scene: direction (degrees true from), speed (knots), fetch (yards or nautical miles).
   - Air and water temperature: indicate ice cover.
   - Sea state: Beaufort Force number.
   - Tide: high, low, ebb, flood or slack / Current: set (degrees true toward) and drift (knots).

10. AREAS DAMAGED OR THREATENED:
   - Body of water, area or resources threatened or affected.
   - Nature and extent of damage to property, wildlife or other natural resources (if any).

11. TELEPHONIC REPORT TO NATIONAL RESPONSE CENTER [WAS/WAS NOT] MADE:
   - If not made, provide reason why: beyond 12 nm from US shores, no threat to navigable water, etc.
   - If made, list: DTG of telephonic report; NRC report/case number; name of NRC official taking report; and
   - Navy Command making telephonic report.

12. SAMPLES [WERE/WERE NOT] TAKEN:
    - If taken, identify location(s) from which taken: tanks, hoses, piping, slip, jetty, etc.
    - If taken, identify collecting officer by name, rank and agency.

13. CONTAINMENT METHOD [PLANNED/USED]:
    - If none, state reason.
    - Otherwise, indicate equipment utilized: boom; ship's hull; camel; water spray; chemical agent.

14. SPILL REMOVAL METHOD [PLANNED/USED]:
    - If none, state reason.
    - Equipment planned/used: used: Rapid Response Skimmer or Dip 3001 skimmer; portable skimmer, absorbent materials (oil absorbent pads, chips, etc.); dispersants; vacuum trucks/pumps; other (specify).

15. VOLUME OF PRODUCT RECOVERED IN GALLONS: (Decanted pure product:)

16. PARTIES PERFORMING SPILL REMOVAL:
    - Identify lead organization in charge: Navy Command; USCG; EPA.
    - Identify all other parties involved: commercial firms; supporting Navy activities; State or local agencies.

17. FEDERAL, STATE OR LOCAL REGULATORY ACTIVITY DURING THIS INCIDENT:
    - Identify by name and agency any official attending on-scene or making telephonic inquiry.
    - Note whether officials boarded vessel and include date, time and spaces inspected.

18. ASSISTANCE REQUIRED/ADDITIONAL COMMENTS:

19. LESSONS LEARNED: How could this spill have been avoided?

20. ACTIVITY CONTACT FOR ADDITIONAL INFORMATION: List name, rank/rate, command, code, DSN and/or commercial telephone numbers. //

APPENDIX I

HAZARDOUS SUBSTANCE RELEASE REPORT (MESSAGE FORMAT)

1. **Precedence (for messages only).** Provided that prior voice reports have been made to the US Coast Guard National Response Center and the reporting command's Chain of Command, use "Routine Precedence" for Hazardous Substance (HS) Release Report Messages not classified as an "Extremely Hazardous Substance." If either voice report has not been made, use "Priority Precedence". If Extremely Hazardous Substance, always use "Priority Precedence."

2. **Classification or Special Handling Marks.** HS Release Report Messages are unclassified and do not warrant special handling marks unless classified or sensitive business information must be incorporated. Avoid inclusion of such information to the maximum extent possible to allow HS Release Report Messages to be handled on a solely unclassified basis.

3. **Correcting HS Release Report Messages:** HS Release Report Messages should be updated with a follow-up SITREP Message as soon as the reporting activity becomes aware of new information concerning the origin, amount, nature of substance, type of operation at source or cause of release. Similarly, ***if the final estimate of the amount released differs substantially from the amount initially reported,*** the reporting activity must send a SITREP update message to all action and info addresses on the original message.

4. **Action and Info Addressees:**

FM: Navy Activity or Ship responsible for or discovering the spill
TO: Navy On-Scene Coordinator
Chain of Command
INFO: Area Environmental Coordinator
Host Activity
CNO WASHINGTON DC//N45//
CHINFO WASHINGTON DC//JJJ//
COMNAVSEASYSCOM WASHINGTON DC//00C//
NFESC PORT HUENEME CA//424//
LEGSVSSUPGRU OGC//ELO//

[Add the following Info Addressee for releases into or upon the navigable waters of the United States, its contiguous zone (generally within 12 nautical miles of US shores) and adjacent shorelines.]

COGARD NATIONAL RESPONSE CENTER WASHINGTON DC//JJJ//

5. **Body of Report:** *Use the following format for the body of all HS Release Report Messages:*

UNCLAS//N05090//
SUBJ: HAZARDOUS SUBSTANCE RELEASE REPORT (REPORT SYMBOL OPNAV 5090-3) (MIN: CONSIDERED)
MSGID/GENADMIN/ORIGINATOR//
RMKS/

1. LOCAL TIME AND DATE RELEASE [OCCURRED/DISCOVERED]:

2. [FACILITY/VESSEL] ORIGINATING RELEASE :
   - For Navy ships, list ship name, hull number and unit identification code (UIC).
   - For Navy shore facilities, list facility name and UIC.
   - For release occurring during transportation, list name of activity responsible for shipment.
   - For non-Navy spills, list name of responsible party, if known.
   - For organizations under contract to Navy, list firm name and contracting Navy activity.
   - If source unknown at time of this report, ***list only "Unknown"*** until such time as definitively established.

3. RELEASE LOCATION:
   - For release at sea, list latitude, longitude and distance to nearest land.
   - For release in port, list port name, host naval command (NAVSTA, Shipyard) and specific location.
   - For release ashore, list city, state, facility name and specific location (building designation).
   - For release during transportation, give exact location (highway mile marker or street number and city).

4. AMOUNT RELEASED:
   - Use convenient units of weight or volume (kg, lb., gallons, liters, etc.).
   - For continuous release, estimate rate of release and amount left in container.
   - Estimates should be made by examining loss at source: sounding tank, calculating flow rate of spill.
   - ***Unreliable estimates of volume using visual observation of HS on water may not be reported here.***
   - If amount unknown at time of this report, ***list only "Unknown"*** until such time as definitively established.

5. HAZARDOUS SUBSTANCE RELEASED:
   - If Extremely Hazardous Substance, headline this paragraph "EXTREMELY HAZARDOUS SUBSTANCE RELEASED:" See chapter 10, subsection 10-4.2 for additional notification requirements.
   - Consult container labels, user directions, reference books, expert advice.
   - Provide chemical/product names, formula, synonym, physical/chemical characteristics, and inherent hazards.
   - "Container label identifies substance as acrylonitrile. Synonyms: cyansethylene, vintleyanide. Characteristics/hazards: poisonous liquid and vapor, skin irritant, highly reactive/flammable."
   - Describe appearance, physical/chemical characteristics, actual/potential hazards observed. For example:
   - "Substance released is colorless to light yellow unidentified liquid; highly irritating to eyes and nose; smells like kernels of peach pits; vaporizing quickly, posing ignition problem."

6. TYPE OF OPERATION AT SOURCE: Plating shop, painting shop, hazardous waste (HW) facility, truck, ship, pipeline, ship rebuilding, entomology shop, etc.

7. CAUSE OF RELEASE:
   - Provide narrative description of specific cause of release.
   - Account for personnel error, equipment failure, etc. directly contributing to release.

- For example: "Railing supporting 55-gal drums on a flatbed truck gave way because it was not securely fastened, causing seven drums to fall and rupture."
- If cause unknown at time of this report, ***list only "Unknown"*** until such time as definitively established.

8. TYPE OF CONTAINER FROM WHICH SUBSTANCE ESCAPED:
   - 55-gal drums, 5-lb. bags, tank truck, storage tank, can, etc.
   - Estimate number of containers damaged or dangerously exposed.

9. RELEASE ENVIRONMENT:
   - Describe scene of release.
   - Include information on physical characteristics, size and complexity of release and weather conditions.
   - For Example: "Solvent released formed shallow pool covering area about 30 ft by 45 ft of bare concrete. Solvent slowly running into storm drain. Pool emitting highly toxic, flammable vapors. Dark clouds threatening rain. Light wind drifting vapors northbound to residential area about 30 ft above ground."

10. AREAS DAMAGED OR THREATENED:
    - Describe actual and potential danger or damage to surrounding environment,
    - Identify body of water, area or resources threatened or affected.
    - Nature and extent of damage to property, wildlife or other natural resources (if any).

11. NOTIFICATIONS MADE AND ASSISTANCE REQUESTED:
    - List all organizations informed of release within and beyond Navy jurisdiction.
    - Include Navy, federal, state, and local authorities, response teams, fire departments, hospitals, etc.
    - Specify type of assistance requested from these organizations.
    - If telephonic report to National Response Center made, list: DTG of telephonic report; NRC report/case number; name of NRC official taking report; and Navy Command making telephonic report.

12. FIELD TESTING:
    - Indicate findings and conclusions as to concentration, pH, etc.

13. CONTROL AND CONTAINMENT ACTIONS [PLANNED /TAKEN]:
    - If none, explain why.
    - Specify method used to control and contain release.
    - For example: "Gas barriers used to control and contain vapor emissions. Runoff contained by excavating ditch circumscribing affected area."

14. CLEAN-UP ACTIONS [PLANNED /TAKEN]:
    - If none, explain why.
    - Identify on-site or off-site treatment, method used, parties involved in clean-up/removal and disposal area.

- For example: "No clean-up action taken. Toxic vapors present, potential danger to clean-up crew. Contaminated soil will be excavated and shipped by NAS personnel to Class I HW disposal site in Portstown, CA when conditions allow."

15. AMOUNT OF SUBSTANCE RECOVERED [VOLUME/WEIGHT] (Pure product.):

16. PARTIES PERFORMING [CONTAINMENT/CLEAN-UP] ACTIVITIES:
    - Identify lead organization in charge: Navy Command; USCG; EPA.
    - Identify all other parties involved: commercial firms; supporting Navy activities; State or local agencies.

17. FEDERAL, STATE OR LOCAL REGULATORY ACTIVITY DURING THIS INCIDENT:
    - Identify by name and agency any regulatory official attending on-scene or making telephonic inquiry.
    - Note whether officials boarded vessel and include date, time and spaces inspected.

18. ASSISTANCE REQUIRED/ADDITIONAL COMMENTS.

19. LESSONS LEARNED: How could this release have been avoided?

20. ACTIVITY CONTACT FOR ADDITIONAL INFORMATION: List name, rank/rate, command, code, DSN and/or commercial telephone numbers.//

APPENDIX J

SOLID WASTE - SOURCE SEPARATION FACTORS FOR ECONOMIC ANALYSIS

1.1 Determine the approximate quantity of materials that will be source separated, locations where each type of material would be stored for pick up and frequency of required pick up as influenced by economic, environmental, hygienic, aesthetic and safety requirements.

1.2 Request from Defense Reutilization and Marketing Office (DRMO) a determination of local markets for those items listed in paragraph 14-4.4.1.1 and 14-5.4.1.4, as applicable. Information to be obtained from DRMO should include:

a. Market price, including cost for disposal

b. Prognosis of price future

c. Pick up point changes

d. Any preparation required, such as baling, special tying, etc.

1.3 If there is no market, determine cost avoidance for disposal as municipal solid waste.

1.4 Determine how and the cost of any necessary preparation of the material is to be accomplished, i.e., baling, tying, banding, etc.

1.5 Determine the cost and how the program would be implemented and publicized. Examples are:

a. Directives

b. Bulletins

c. Base newspapers

d. Other.

1.6 Determine the cost and the reduction in general refuse quantity that would result from source separation. Examples are:

a. Office white ledger paper. Experience has shown that 0.5 lbs per office worker per day could be source separated. Vary to suit local conditions.

b. Computer printout and other high grade paper. Variable. Must be estimated locally.

c. Corrugated cardboard. Variable. Must be estimated locally.

d. Newspaper. Experience has shown that 0.3 lbs of newspaper per resident per day could be source separated. Vary to suit local conditions.

APPENDIX K

AFLOAT ENVIRONMENTAL CHECKLIST

The following checklist is to guide afloat commands in the event they might want to evaluate command environmental compliance procedures, practices, and training. The President of the Board of Inspection and Survey shall use this checklist in conducting environmental compliance oversight inspections as part of regular INSURV inspections and when conducting intervening environmental protection assessments between INSURV inspections.

Indicate the answer to each of the questions below by an X. If a question is not applicable to the command, put NA in the YES block. Explain or describe the conditions warranting any NO answer in the space at the end of the checklist or on additional sheets, if necessary. An underlined question does not apply to all ships, but only to the category indicated.

The chapter 19 reference is in parenthesis at the end of the question.

	YES	NO
TRAINING		
1. Is there a designated Afloat Environmental Protection Coordinator who is trained and knowledgeable? (19-2.2.1)		
2. Are all hands trained in environmental protection in I Division or School of the Boat as required by paragraph 19-2.2.7? (19-2.2.7)		
3. Are ship watch officers responsible for authorizing overboard disposal of shipboard wastes trained on prohibited zones for discharge as part of their watch qualification? (19-2.2.7b)		
4. Are personnel who operate or maintain sewage and graywater disposal or transfer equipment trained on the proper procedures for sewage or graywater disposal, including hookup and transfer of sewage or graywater to shore facilities and at sea discharge restrictions? (19-3.4)		
5. Have personnel assigned to supervise sewage or graywater disposal operations completed the Shipboard Sewage Collection, Holding, and Transfer (CHT) course (K-652-2141) and PQS? (19-3.4)		
6. Have all personnel who operate or maintain sewage or graywater disposal equipment completed the Shipboard Sewage Collection, Holding, Transfer (CHT), and Treatment PQS, NAVEDTRA 43199-C, prior to assignment to those duties? (19-3.4)		
7. Are personnel whose watch duties may result in air pollution (for example, diesel engine operators, boilermen, or gas turbine operators) trained on minimizing air pollution as a part of their watch qualification? (19-4.3.3)		
8. Are personnel whose task assignments may result in air pollution (for example, topside painters or users of volatile solvents) trained on the proper use of the material to minimize the release of pollutants? (19-4.3.3)		

	YES	NO
9. Have the AC&R technicians who perform maintenance on air conditioning and refrigeration equipment received EPA certification on handling, recovery and recycling ozone depleting substances (ODSs) and training on ODS regulations and spent/recyclable ODS labeling? (19-4.3.3)		
10. Are personnel who work with other ODSs (e.g., halons and solvents) or perform maintenance on equipment containing such substances trained on methods to prevent release? (19-4.3.3)		
11. Have personnel assigned to operate the incinerator completed the Incinerator Operator PQS, NAVEDTRA 43558? (19-4.3.3)		
12. Are personnel who operate or maintain waste oil and oily waste holding, processing, disposal, or transfer equipment trained on the proper procedures for oily waste disposal, including hookup and transfer of waste oil and oily waste to shore facilities and at sea discharge restrictions? a. Have personnel assigned to **supervise** oily waste processing and disposal operations completed the Oil Pollution Abatement (OPA) Equipment Operation and Maintenance course, K-652-2196? b. Have all personnel who **operate or maintain** oil processing, transfer or disposal equipment completed the Oil Spill Control and Removal Equipment PQS, NAVEDTRA 43195-B, before assignment to those duties? (19-5.5)		
13. Are personnel who handle, store and dispose of HM trained per OPNAVINST 5100.19C, chapter B3? (19-6.5)		
14. Are personnel responsible for handling ship's garbage trained on the discharge restrictions applicable to the waste? (19-7.4)		
15. Are personnel responsible for the supervision and approval of overboard disposal of solid waste trained on the requirements for this waste category? (19-7.4)		
16. Have personnel assigned to operate and maintain solid waste processing equipment (plastics waste processors, shredders, and pulpers), completed the Plastics Processor Computer-Based Training (CBT), A-690-0003, and the Pulper/Shredder CBT, A-690-0004, interactive courseware, as applicable? (19-7.4)		
17. Are personnel responsible for processing and disposing of shipboard medical waste trained to ensure such actions comply with the requirements governing this waste? (19-8.4)		
18. Has at least one OHS spill response drill for each duty section been held annually? (19-9.3a)		
19. Has the ship trained in-port watchstanders and command duty officers on in port OHS spill response procedures, the ship's SPC, and local notification requirements prior to assignment? (19-9.3b)		
20. Is at least one petty officer in each inport fireparty and each repair party qualified on Watchstation 304, Oil/Hazardous Material (Substance) Spill Response Scene Leader, in the Hazardous Material/Environmental Protection Programs Afloat PQS, NAVEDTRA 43528-A? (19-9.3c)		

	YES	NO
21. For submarines only Are type commander requirements for Watchstation 304 of the PQS followed so that appropriately qualified individuals are present at the scene of HM or oil spill? (19-9.3c)		
EQUIPMENT OPERATION		
22. Does the ship have a Marine Sanitation Device (MSD) of the type appropriate to its status and year of construction? Is the MSD certified per NAVSEAINST 9593.1, and is it operable? (19-3.3.1)		
23. Does the ship observe the following procedures: a. Does the ship operate and maintain the installed MSD to prevent the overboard discharge of untreated or inadequately treated sewage, or any waste derived from sewage (e.g., sludge), within 0-3 nm of the U.S. shore? b. Does the ship operate the MSD to collect only sewage while operating or transiting within 3 nm of shore? c. In port, does the ship collect graywater in the installed MSDs or graywater collection systems (if so fitted), and pump the waste ashore? d. If the ship operates in fresh water other than the Great Lakes, does it refrain from discharging treated or untreated sewage into freshwater lakes, freshwater reservoirs or other freshwater impoundment, or into rivers not capable of interstate navigation? e. With reference to d. above, is the ship modified to preclude *accidental* discharge? f. Are used solvents or other industrial wastes prohibited from being discharged to MSDs or graywater collection systems or dumped down sinks or deck drains? g. For COMSC ships only If a ship is equipped with USCG-approved Type II MSD, does it discharge sewage via the installed MSD? (19-3.3.3)		
24. While visiting non-Navy ports, does the ship request sewage reception facilities (barge or installed sewage hookups) in LOGREQs or other pertinent documentation? When in port, does the ship divert food service garbage grinders to the MSD system for discharge ashore? (19-3.3.3)		
25. Is installed Oil/Water Separator (OWS) and Oil Content Monitor (OCM) fully operable and routinely used? Is oil pollution abatement equipment certified per NAVSEAINST 9593.2?		
26. For a ship equipped with OWS and OCM Are bilgewater discharges limited to 15 ppm oil worldwide? If operating conditions prevent achieving less than 15 ppm, does the ship limit discharges to less than 100 ppm and only when beyond 12 nm from the nearest land? (19-5.4.2a)		
27. For a ship equipped with Oil/Water Separator or Bilge Water Processing Tanks (BWPT) but without OCM, is all machinery space bilge water processed through an OWS or BWPT before discharge? (19-5.4.2b)		

	YES	NO
28. For a ship equipped without OWS but with an Oily Waste Holding Tank (OWHT): a. To the maximum extent possible, without endangering the ship or impairing its operations or operational effectiveness, is all oily bilge water directed to the OWHT for shore disposal? b. Is only the bottom, water phase pumped overboard, ensuring that the upper, oily phase is not pumped, except to a shore collection facility? c. Are such discharges of oily bilge water made only while the ship is underway? (19-5.4.2c)		
29. For a ship equipped with neither an operating OWS nor OWHT:) Is oily bilge water retained for shore disposal to the maximum extent possible, without endangering the ship or impairing its operations or operational effectiveness? (19-5.4.2d)		
30. For submarines without BWPTs: Is bilge water discharged, after allowing for adequate separation time? Is only the bottom, non-oily water phase of bilge water pumped overboard? (19-5.4.2e)		
31. Is oil contamination of bilge water minimized? (19-5.4.4a(1))		
32. Does the ship refrain from use of emulsifying bilge cleaners? (19-5.4.4a(2))		
33. While in port, does the ship dispose of bilge water only by pumping to a permanent shore reception facility, using its installed OWS, or pumping to a ship waste offload barge (SWOB), and use eductors only in an emergency? (19-5.4.4a(3))		
34. Is waste/used oil disposed of in port and not at sea; collecting and storing it separately for eventual shore reclamation, keeping hydraulic and synthetic oils separate from other lubricants? (19-5.4.4b)		
35. Does the ship conduct fuel operations in port or restricted waters during daylight hours only, with trained personnel, using topside watches in communication with pumping stations, using check-off lists, continuously monitoring each tank level while filling it, and conduct fueling operations only after informing either the commanding officer, command duty officer or officer of the deck? (19-5.4.4c)		
36. Does the ship refrain from use of eductors to strip fuel or cargo tanks? Does the ship avoid stripping tanks overboard, but instead strip to contaminated fuel settling tanks? (19-4.4d)		
37. Does the ship properly dispose of oil-contaminated solid waste? (19-5.4.4f)		
38. For ships equipped with incinerators and or rag washers a. Are rags burned only if lightly petroleum-soiled and when beyond 12 nm from shore? b. When using the rag washer, is the effluent directed to the waste oil tank or to pierside retention facilities for processing? c. When at sea beyond 12 nm from land, is rag washer effluent directed to the rag washer mixing tank prior to educting overboard? (19-5.4.4f)		
39. Unless allowed by appendix L, does the ship refrain from discharging HM overboard within 200 nm of land? (19-6.4.1a)		

	YES	NO
40. Is chapter 19, part 19-6.4. pertaining to ship-to-shore transfers and ship to ship transfers of excess HM or used HM followed? (19-6.4.1)		
41. Do the ships plastics processor, pulper and metal/glass shredder operate as designed?		
42. Are the plastics processor, pulper and metal/glass shredder operated and is processed material handled per chapter 19, part 19-7.3? (19-7.3)		
43. If any solid waste equipment is inoperable, has a CASREP been submitted?		
44. For submarines: Does the compactor operate fully as designed? If it does not, is there a CASREP?		
45. Are responsible personnel aware of requirement to report discharges of solid waste into "in effect" special areas? (19-7.3.3)		
46. Is the autoclave functional so that medical personnel may sterilize medical waste? (19-8.3)		
47. Does the medical department representative understand medical waste management requirements? (19-8.3)		
48. Does the ship possess Mk II Oil Spill Containment and Cleanup Kits, AEL 2-550024006 for overboard oil and hazardous substance spill response? (19-9.2.4)		
49. Does the ship possess Hazardous Material Spill Response Kits, AEL 2-550024007 for spills that occur on board the ship? (19-9.2.4)		
50. Are the commanding officer and command duty officers familiar with oil and hazardous spill cleanup and reporting requirements? (19-9.2)		
51. Do command duty officers know how to contact the NOSC? (19-9.2.8)		
52. Does the ship have pre-formatted, correctly addressed messages, modeled on Appendices H and I, prepared and available for OHS spills? (19-9.2.8)		
53. Are solvents, paints, fuels, lubricants and chemicals prohibited in OPNAVINST 5100.19C not ordered or used? (19-4.3.2c)		
54. Are only properly trained personnel equipped with appropriate personal protective equipment permitted to perform shipboard emergency or operational readiness repairs on thermal insulation containing asbestos? (19-4.3.2d)		
55. Is asbestos material removed during shipboard repair actions performed by ship's force properly containerized and disposed of without release of asbestos fibers into the environment? (19-4.3.2c)		
56. For Navy and COMSC ships with AC&R systems with an installed refrigerant charge of more than 50 pounds that contain ODSs such as CFC-11, CFC-12, or CFC-114 or ODS substitute material such as HFC-134a or HFC-236fa : Does the ship meet the following annual performance goals: (1) Maintain a maximum annual leakage rate of not more than 15 percent of total installed refrigerant charge of air conditioning equipment? (2) Maintain a maximum annual leakage rate of not more than 35 percent of total installed refrigerant charge of ship stores and cargo refrigeration? (19-4.3.2e)		
57. Are ODSs recovered prior to maintenance on air conditioning and refrigeration systems and fire protection systems? (19-4.3.2f)		

	YES	NO
58. Do personnel who perform maintenance on AC&R systems keep records of maintenance actions, names of technicians performing work, pounds of refrigerant removed and pounds of refrigerant added and retain them for 3 years? (19-4.3.2g)		
59. When replacing inoperable galley refrigeration equipment, is new equipment EPA-approved (complying with their significant new alternatives policy (SNAP) program), using refrigerant with an ozone depletion potential (ODP) of 0.05 or less? (19-4.3.2j)		
60. If the ship has had an overhaul availability at Navy NESHAP-affected source sites, were records of ships' force marine coating use maintained *for coatings distributed from ships' stores*? (Hazardous Material Inventory Control System (HICS) may be used to keep these records.) (19-4.3.2k(2))		
61. If the ship has had an overhaul availability at a commercial NESHAP-affected source site, was the use of paint recorded and reported regardless of availability type or operational status? (19-4.3.2k(2))		
62. Are paint lockers labeled with placards stating, "Thinning of marine coatings/paints is prohibited." (19-4.3.2k(5))		
63. Are the following paint work practices observed: (a) paint spills are minimized, (b) only intact and leak free paint containers are stored, and (c) paint containers are stored when not in use? (19-4.3.2k(7))		
64. Is a monthly report of daily coating use delivered by the seventh day of the month following use or before departure, if departing before the end of the month or after a short visit (i.e. several days) to the affected source site (Navy shore activity) or, when located at a commercial affected source site, to the appropriate SUPSHIP office? (19-4.3.2k(3))		
PROGRAM COMPLIANCE AND EFFECTIVENESS		
65. Is the ship operated and maintained to conform with applicable State and local air pollution emission regulations and HM regulations? (19-4.3.1)		
66. Does the ship comply with the guidelines, standards and procedures of chapter 19 of this instruction? (chapter 19)		
67. Are periodic inspections (at least quarterly) by senior medical department personnel conducted to maintain sanitary and hygienic conditions of MSD systems and operational practices? Are periodic sanitation and hygiene inspections of solid waste processing equipment conducted? (19-14.10f)		
68. Are appropriate health and sanitation precautions posted as required by OPNAVINST 5100.19C ; General Specifications for Ships of the United States Navy (GENSPECS); Naval Ships Technical Manual, chapter 593; and NAVMED P-5010-7? (19-14.10g)		
69. Are sewage discharges within 0-3 nm from U.S. shores reported? (19-14.10h)		
70. If there are any conditions or system/equipment malfunctions that could result in unlawful air pollutant emissions, are they reported to the fleet commander? (19-14.10i)		

	YES	NO
71. If there are any conditions or system/equipment malfunctions that could necessitate oily waste, HM or solid waste discharge into waters in which discharge is restricted, are they reported to the fleet commander? (19-14.10j)		
72. Are the date, time of occurrence, ship location at the beginning and end of the incident, substance discharged, quantity discharged and the cause of the discharge for any oily waste discharge that causes a sheen recorded in the engineering log or equivalent oil record book? (19-14.10k)		
73. Do personnel comply with OPNAVINST 5100.19C requirements for HM handling, packaging, storing, labeling, treating and disposal? Is an HM coordinator appointed by the commanding officer? (19-14.10l)		
74. Is one or more shipboard action officers designated to be responsible for shipboard spill/ release contingencies planning and response? (19-14.10m)		
75. Does the ship have an OHS Spill Contingency Plans (SCPs), that is coordinated with the cognizant NOSC plan? (19-14.10n)		
76. Are personnel aware of and do they understand the OHS SCPs?		
77. Are OHS spills reported as prescribed in paragraph 19-9.2.5 through 19-9.2.8? (19-14.10p)		
78. Is immediate action taken to contain, control and mitigate any spills caused by the ship? (19-14.10q)		
79. Is an officer or petty officer appointed to oversee dry-dock operations to ensure that industrial waste and sewage collection and treatment systems are properly operated and maintained and that ship-to-shore transfers of the waste are handled in a safe and effective manner. (19-14.10r)		
80 Is used and excess HM offloaded, to the maximum extent feasible, to a Navy or other public facility prior to entering a private shipyard for an availability?. Does the ship also offload HM not anticipated for use by ship's force during the availability before entering the private shipyard? (19-14.10s,t)		
81 Does the ship collect the debris, dust and residual materials from the paint removal, to the maximum extent feasible, and properly dispose of these materials ashore? (19-14.10w)		
82. Is the ship aware of the requirement to report to the chain of command, cognizant REC, area environmental coordinator and CNO (N45) any regulatory request that the Navy apply for permits involving ship discharges or implement measures regarding ship discharges? Do responsible officers understand they should not make agreements with environmental agencies regarding ship discharges without CNO (N45) approval? (19-14.10x)		
83. Is the loading of ballast water in potentially polluted areas or within 3 nm from shore and the flushing of ballast tanks to rid them of possible pollutants or unwanted species recorded in the engineering log? (19-14.10y)		
84. If plastic discharges have occurred, are they properly recorded in the log? Are plastic discharges personally approved by the commanding officer? (19-14.10z)		

	YES	NO
85. Does the ship avoid deliberately harassing marine mammals and consider marine mammal protection during ship operations and planning? (19-14.10aa)		
86. Are the requirements of OPNAVINST 5100.19C and NAVSEA PCB advisories followed for all activities associated with PCBs, PCB-containing materials or systems potentially contaminated with PCBs (e.g., ventilation systems that employ PCB-containing felt gaskets)? (19-14.10bb)		
87. Are only marine paints that meet VOC content standards of NSTM, chapter 631, Table 3-7 used? (19-14.10ee)		
88. Are non-compliant paints removed from shipboard stores and returned to the supply system as excess HM as soon as possible? (19-14.10ee)		

APPENDIX L

DISPOSAL OF SHIPBOARD HAZARDOUS MATERIAL

(R

The HM listed in appendix L are representative of materials used during conduct of normal shipboard operations and in performance of planned maintenance and general housekeeping procedures. If disposal guidance is sought for a material not listed in this appendix, contact your ship's HM coordinator.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Acid, spent	Cleaning.	Acetic, citric, hydrochloric, sulfuric, and sulfamic acids.	Carefully neutralize with a weak base, dilute and flush overboard beyond 12 nm of shore using large amounts of water; within 12 nm containerize for shore disposal. See NSTM chapter 593, Pollution Control for spent acid disposal procedures.
Aerosol cans	Empty paint, lubricant deodorant, and shaving cream cans.	Flammable products, flammable propellants (propane, butane), oxidizer (nitrous oxide).	If the ship is equipped with a NAVSEASYSCOM-approved aerosol puncturing/draining device, puncture and drain the exhausted aerosol container. The container shall be marked "empty" and treated as an empty HM container. If the ship is <u>not</u> equipped with a NAVSEASYSCOM-approved aerosol puncturing/draining device, containerize for shore disposal.
Alkali, spent	Cleaning, deoxidizing.	Sodium hydroxide, potassium hydroxide.	Carefully neutralize with a weak acid, dilute and flush overboard beyond 12 nm of shore using large amounts of water; within 12 nm containerize for shore disposal. See NSTM chapter 593, Pollution Control for spent alkali disposal procedures.
Asbestos containing materials *(to be removed by properly trained personnel equipped with appropriate personal protective equipment only.)*	Thermal insulation, pipe lagging, flooring tile, safety curtains, gasket and packing materials.	Asbestos.	Dispose in accordance with requirements set forth in OPNAVINST 5100.19C, chapter B1.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Batteries			
Lead-acid batteries	Propulsion systems auxiliary lighting, communication and power systems.	Lead, lead sulfate, lead dioxide, antimony, sulfuric aid electrolyte.	Containerize for shore disposal. Do not empty electrolyte from battery.
Alkaline batteries: Nickel-cadmium Silver-zinc Nickel-iron Silver-cadmium Nickel-zinc	Auxiliary power systems, power supply for portable equipment.	Nickel, silver, zinc, cadmium, potassium hydroxide electrolyte.	Containerize for shore disposal. Do not empty electrolyte from battery.
Dry cell batteries: Lelanche cells Mercury cells Low-temperature cells	Power supply for portable equipment.	Manganese dioxide, mercuric oxide, zinc.	Containerize for shore disposal.
Lithium batteries	Power supply for portable equipment.	Lithium, acetonitrile.	Containerize for shore disposal.
Biocide, VANTOCIL IB©	Water from MK41 vertical launch deluge system.	Polyhexamethalene biguanide hydrochloride, sodium hypochlorite.	Overboard discharge permitted beyond 25 nm of shore. In port, containerize for shore disposal.
Boiler wastewater	Boiler blowdown, boiler water, continuous boiler water treatment tank.	Trisodium and disodium phosphate, hydrazine, ethylenediamine-tetraacetic acid (EDTA).	Overboard discharge of blowdown effluents and boiler water permitted** inside 12 nm. Continuous boiler feedwater treatment tank contents or diluted 7 percent hydrazine solution may be discharged outside 50 nm of shore. 7 percent hydrazine stock solution must be disposed of ashore.
	Boiler treatment chemicals	Anhydrous disodium phosphate, trisodium phosphate dodecahydrate, trisodium EDTA, 7 percent hydrazine, caustic soda	Containerize excess boiler water treatment chemicals for shore disposal. 7 percent hydrazine stock solution must be disposed of ashore.

* Contact local public works center/public works department for authorized procedures.
** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Boiler wastewater (continued)	Boiler water/feedwater test chemicals.	Nitric acid, ethylenediamine-tetraacetic acid (EDTA), mercuric nitrate, potassium chloride, phenolphthalein, methyl purple, chloride indicator, hydrazine ampoules, caustic soda, oxygen ampoules, molybdate reagents, hardness indicator, hardness buffer, dimethylglyoxime.	Containerize excess reagents (including oxygen and hydrazine ampoules) and samples containing mercuric contaminated wastewater for shore disposal. If available, process mercuric samples through ion exchange cartridge. Overboard discharge of cartridge effluent permitted. Containerized exhausted cartridges for shore disposal. Boiler water/feedwater samples, except samples containing mercuric compounds, discharge overboard permitted outside 12 nm of shore
	Boiler waterside cleaning solutions.	Ethylenediaminetetraacetic acid (EDTA), citric acid and sulfamic acid.	Overboard discharge permitted beyond 50 nm of shore. In port, offload to tank, barge, or truck.* Offloading to bilge and shore bilgewater collection system is not permitted.
	Boiler layup solutions	Hydrazine/morpholine, sodium nitrate	Overboard discharge permitted beyond 50 nm of shore. In port, offload to tank, barge, or truck. Offloading to bilge and shore bilgewater collection system is not *permitted.* For hydrazine/morpholine* layup, boiler light-off with subsequent steaming direct from layup permitted. Refer to NSTM chapter 220, Volume2, Boiler Water/ Feedwater Test and Treatment for details.
	Acid cleaning solutions.	Hydrochloric, sulfamic, and citric acids.	Overboard discharge not permitted. In port, offload to tank, barge, or truck. Offloading to bilge and shore bilgewater collection system is not permitted. *

* Contact local public works center/public works department for authorized procedures.
** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Boiler wastewater (continued)	Passivator solutions.	Sodium nitrate.	Overboard discharge not permitted. In port, offload to tank, barge or truck. Offloading to bilge and shore bilgewater collection system is not permitted.*
	Boilout and degreasing solutions.	Trisodium phosphate, sodium metasilicate, nonionic wetting agent, degreaser.	In port, offload to tank, barge, or truck. Offloading to bilge and shore bilgewater collection system is not permitted.*
	Waterjet wastewater	Sodium nitrate	Overboard discharge permitted outside 50 nm of shore. In port, offload to tank, barge or truck. Offloading to bilge and shore bilgewater collection system is not permitted.*
	Feedwater and mercuric sample demineralizer resins	Ion exchange resin with absorbed metal ions (including mercury).	Containerize for shore disposal as used hazardous material.
Canisters			
Battery water purification Canister	Cation exchanger, mixed bed exchanger.	Ion exchange resin with adsorbed metal ions.	Containerize for shore disposal.
Used/expired OBA canisters	Damage control operations	Potassium superoxide, sodium chlorate.	Label and containerize for shore disposal. **Contact with oil, grease, or water during storage is prohibited.** Follow guidelines within NSTM chapter 077, Personal Protective Equipment.
Chemical Light Sticks	Underway replenishment operations	Tert-Butyl Alcohol, Dimethylphtalate, Dibutyl Phthalate, Hydrogen Peroxide	Containerize for shore disposal.

* Contact local public works center/public works department for authorized procedures.
** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Distilling plant cleaning wastes	Off-line distilling plant chemical cleaning.	Citric acid, sulfamic acid, disodium EDTA, tetrasodium EDTA, trisodium phosphate.	In port, offload to tank, truck, or barge. Offloading to bilge and shore bilgewater collection system is not permitted.*
	On-line distilling plant chemical cleaning.	Citric acid, sulfamic acid, disodium EDTA, tetrasodium EDTA, trisodium phosphate.	Overboard discharge permitted beyond 50 nm of shore. In port, offload to tank, truck, or barge. Offloading to bilge and shore bilgewater collection system is not permitted.*
Film processing wastes			
Color film	Continuous processor effluent, small quantities of processing liquids.	Hydroquinone, sodium thiosulfate	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. **Do not discharge to CHT tank.**
	Excess film, batch quantities of developer, fixer and intensifier solutions.	Hydroquinone, sodium thiosulfate, cellulose acetate.	Containerize for shore disposal
Black & white film	Continuous processor effluent, stop bath, photo-flo, detergents and hardener solutions.	Acetic and sulfuric acids, potassium chrome alum.	Overboard discharge permitted beyond 12 nm of shore. Within 12 nm and in port, containerize for shore disposal if facilities are available. **Do not discharge to CHT tank.**
	Excess film, batch quantities of developer and intensifier solution.	Hydroquinone, ethanolamine, diethylene glycol, cellulose acetate.	Containerize for shore disposal
	Fixer solutions	Sodium thiosulfate, silver, halides	Containerize for shore disposal. If available process fixer through silver recovery unit. Overboard discharge of unit effluent permitted beyond 12 nm of shore. In port, containerize effluent for shore disposal.

* Contact local public works center/public works department for authorized procedures.

** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Film processing wastes (continued) **Black & white film (continued)**	Fixer solutions (continued)	Sodium thiosulfate, silver, halides	**For submarines:** Containerize fixer solutions for shore disposal at all times.
Emerency Escape Breathing Devices (EEBDs)	Emergency Escape Operations	Sodium Chlorate, barium peroxide, iron, lithium hydroxide, potassium perchlorate	Label and containerize for shore disposal. Contact with oil, grease, or water during storage is prohibited. Follow guidelines within NSTM, chapter 077, Personal Protective Equipment.
Firefighting materials	Firefighting, testing of fire-fighting equipment.	AFFF (perfluorocarbon compounds mixed with polyoxyethylene compound).	Overboard discharge permitted beyond 12 nm of shore, preferably while ship is underway. In port and within 3 nm of shore, discharge to tank, barge or truck.* Between 3 to 12 nm overboard discharge permitted with minimum 12-knot speed.
Fluorescent light bulbs, other light bulbs containing mercury	Normal shipboard operation.	Mercury.	Retain for shore disposal.
Greases	Machine maintenance, motors, roller bearings.	Greases and antisieze compounds such as: MIL-G-18458; MIL-G-21164; MIL-G-24139; MIL-L-15719; DOD-G-24508	Containerize for shore disposal.
Hazardous material contaminated items **Contaminated sorbents, rags, unrecoverable personal protective clothing**	Normal ship maintenance operations, spill response operations.	Items contaminated with hazardous materials that must be containerized for shore disposal (find specific contaminants in this appendix to learn if containerization is required)	Containerize for shore disposal.

* Contact local public works center/public works department for authorized procedures.
** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Hazardous material contaminated items (continued)			
Contaminated sorbents, rags, personal protective clothing (continued)	Normal ship maintenance operations, spill response operations.	Items contaminated with hazardous materials that may be discharged overboard (find specific contaminants in this appendix to learn if overboard discharge is permitted).	Jettison beyond 25 nm or specified disposal distance in this table, whichever is greater. Discharged material must be negatively buoyant. Containerize for shore disposal if within 25 nm or disposal restriction distance of land.
Empty hazardous material containers	Cleaning operations.	Containers with residual hazardous material.	Follow guidance set forth in OPNAV P-45-114-95, CNO Policy Guide for Shipboard Hazardous Material Container Disposal.
Hydraulic fluids			
Petroleum-based hydraulic Fluids	Machinery, heavy lift elevators, trucks.	Fluids in accordance with MIL-H-17672, MIL-L-17331, MIL-F-17111, MIL-H-5606	Hold for shore disposal. Keep separate from synthetic hydraulic fluids.
Synthetic hydraulic fluids	Aircraft elevators, weapons handling systems, some ballast valve operating systems and replenishment-at-sea systems.	Fluids in accordance with MIL-H-19457 contain tertiary butylated triphenyl phosphate.	Hold for shore disposal. Keep separate from petroleum hydraulic fluids.
	Catapult retracting engines, jet blast deflectors, weapons elevators.	Fluids in accordance with MIL-H-22072 contain 30-60 percent ethylene glycol, 10-30 percent polyoxypropylene glycol, and 30-60 percent water	Hold for shore disposal. Keep separate from petroleum hydraulic fluids.
	Weapon and combat systems.	Synthetic fluids such as MIL-S-81087 and MIL-H-83282	Hold for shore disposal. Keep separate from petroleum hydraulic fluids.
Insecticides, pesticides	Pest control operations.	Diazinon, Baygon, Dyrethrin, Resmethrin, Dursban, Malathion.	Containerize for shore disposal.
Lubricants, dry-film	Machine maintenance, motors, roller bearings	Dry lube, molybdenum disulfide, graphite, talc	Containerize for shore disposal.

* Contact local public works center/public works department for authorized procedures.

** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Medical/dental lab chemicals and materials	Dental amalgam used as filling material, thermometers, mercury from broken thermometers	Silver, silver nitrate, mercuric nitrate, mercury	Containerize for shore disposal.
	Antiseptics, disinfectants	Isopropyl alcohol	Overboard discharge permitted beyond 12 nm of shore. In port, containerize for shore disposal.
X-Ray film processing wastes	X-Ray film processing	X-ray film processing chemicals	Containerize for shore disposal.
Oils			
Waste oils	Non-PBC containing capacitors, coils	Mineral, silicone, paraffin-based oils	Containerize for shore disposal
	Cutting fluids	Chlorinated and sulferized minerals oils, MIL-C-47220	Containerize for shore disposal
	Damping fluids	Silicone-based oils, dimethylpoly-siloxane	Containerize for shore disposal
	Lubricating oils from machinery, turbines, engines, and motors	Lubricating oils such as MIL-L-9000, MIL-L-15019, MIL-L-17331, and MIL-L-23699	Containerize for shore disposal
Oily sludge	Residue from oil/water separators, fuel tanks, degreasing operations	Oil mixed with lead, zinc, chromium, copper, tin residues	Containerize for shore disposal
Oily solid waste	Contaminated sorbents/rags, oil and fuel filters.	Items contaminated with residual oil	Containerize for shore disposal.
Paint wastes from painting, resurfacing operations	Paints, enamels, varnishes, lacquers, paint chips and debris.	Unusable paint. Paint contaminated solvents, strippers, application and clean-up materials.	Containerize for shore disposal.
Personal Items			
Disposable butane lighter	Lighters no longer usable.	Butane, plastics	Containerize for shore disposal.

* Contact local public works center/public works department for authorized procedures.
** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Polychlorinated biphenyl (PCB) contaminated components	Capacitors, coils (usually with radar systems) (a listing of components containing PCBs has been provided to each ship), electrical cables, felt gaskets.	PCBs	Containerize for shore disposal.
Propellants	Torpedo overhaul.	OTTO Fuel II, substituted hydrazine.	Containerize for shore disposal.
Solvents			
Chlorinated solvents	Cleaning operations.	Perchloroethylene, trichloroethylene, trichloromethane, trichloroethane, freon™.	Containerize for shore disposal. Keep separate from chlorinated solvents.
Non-chlorinated solvents	Cleaning operations.	Ethyl acetate, acetone, morpholine, methyl ethyl ketone, toluene, xylene, kerosene, petroleum naptha, petroleum ether, petroleum distillates.	Containerize for shore disposal. Keep separate from chlorinated solvents.
		Ethylene and propylene glycols. Methyl, ethyl, isopropyl and butyl alcohols.	Overboard discharge permitted beyond 12 nm of shore. In port, containerize for offload.
Vitreous fibers, materials containing man-made fibers	Thermal insulation, pipe lagging.	Man-made vitreous fibers (MMVF).	Dispose in accordance with requirements set forth in OPNAVINST 5100.19C chapter B1
Water, waste			
Water with corrosion Inhibitors	Diesel generator cooling water, diesel engine cooling water, electronic cooling water, closed loop cooling water, locked-in ballast, fuel ballast.	MIL-A-46153, Paxcool, Catcool (ethylene glycol based antifreezes).	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal
		MIL-A-53009 (sodium metaborate, potassium silicate, mercaptobenzothiazole)	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal

* Contact local public works center/public works department for authorized procedures.

** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Water, waste (continued)			
Water with corrosion Inhibitors (continued)	Diesel generator cooling water, diesel engine cooling water, electronic cooling water, closed loop cooling water, locked-in ballast, fuel ballast. (continued)	Nalcool 2000, Nalfleet 9-111	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal
		Soluble Oil	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal
	Residue from diesel engine coolant testing	Chloride test residues; copper sulfate mixed with MIL-A-46153 antifreeze or MIL-A-53009 or Nalcool 2000 or a combination treatment	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal
		Sodium chromate solution mixed with residual fuel or soluble oil.	Overboard discharge permitted beyond 50 nm of shore. Within 50 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal.
	Detergent flush of engine cooling systems	MIL-D-16791 detergent	Overboard discharge permitted beyond 12 nm of shore. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal
	Acid cleaning of engine cooling systems	Diammonium citrate, DETU, MIL-D-16791 detergent	Beyond 12 nm of shore, overboard discharge permitted after neutralizing with sodium bicarbonate. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal

* Contact local public works center/public works department for authorized procedures.
** Except when a State has a no-discharge zone applicable to this discharge.

Shipboard Hazardous Material Type	Examples of Generation Sources	Examples of Associated Hazardous Materials	Authorized Disposal Methods
Water, waste (continued)			
Water with corrosion Inhibitors (continued)	Acid cleaning of IF diesel engine cooler cores	Sulfamic acid, MIL-D-16791 detergent	Beyond 12 nm of shore, overboard discharge permitted after neutralizing with sodium bicarbonate. In port and within 12 nm, containerize for shore disposal. Containerize excess stock chemicals for shore disposal
Aircraft engine washdown wastewater	Water solutions with detergents, solvents, marine salts, and engine corrosion products.	Glycols, triethanolamine, naptha, 2-butoxyethanol, cadmium, chromium.	Overboard discharge permitted beyond 12 nm of shore. Inside 12 nm and in port, collect and containerize for shore disposal.

* Contact local public works center/public works department for authorized procedures.
** Except when a State has a no-discharge zone applicable to this discharge.

APPENDIX M

PRELIMINARY IMPACT & EXPOSURE REPORT (PIER)

Natural Resource Damages

Name of Surveyor:	Rank / Rate:
Command:	Code: Phone:

1. SURVEY ENVIRONMENTAL IMPACT

a. Survey area to assess imminent danger to the public (i.e. water intakes close to spill).

b. Survey area to assess imminent danger to wildlife or environmentally sensitive areas. (i.e. marshes, hatcheries, rookeries).

c. ***If spill threatens human health and safety, wildlife or environmentally sensitive areas, call:***

2. SURVEY THE SPILL

a. Date and Time of Spill:	b. Location:
c. Suspected Substance:	d. Estimated Amount:
e. Likely Source:	f. Proximity of slick edge to nearest shoreline:

g. Describe the visual impact of spill (sheen, emulsion, slick size, color, movement). Photograph or videotape if appropriate.

h. Describe predicted spill pathways (to assist in the strategic positioning of response assets).

3. WEATHER CONDITIONS:

a. Air Temp:	b. Water Temp:
c. Wave Height:	d. Wave Period:
e. Wind Direction:	f. Wind Speed:
g. Tide: Ebb / Flood:	h. Current: Direction / Speed:

4. ODORS

Describe Odors Observed:

5. WITNESSES

List name, address, phone of witnesses on scene at time of survey:

6. NATURAL ENVIRONMENT EXPOSED TO OHS.
a. reef structure
b. bluffs
c. beaches
d. rocky shoreline
e. river banks
f. mangroves
g. tidal flats
h. marshes
i. other vegetation

7. MANMADE STRUCTURE EXPOSED TO OHS.
a. seawalls
b. breakwaters
c. piers
d. dolphins
e. riprap
f. other structure

8. WILDLIFE EXPOSED TO OHS.
a. oiled or dead birds
b. dead fish / fish pens / fishing grounds
c. shellfish beds
d. marine mammals
e. amphibians / reptiles
f. other animal life

9. OPERATIONS
a. Describe relevant operations occurring at or near spill site (i.e. refueling, construction, salvage, etc.).
b. Describe in narrative summary the operations undertaken to minimize injury to natural resources, if any.
This PIER report must be filed with the Navy Regional Environmental Coordinator (REC) by close of business on the next business day following notification of the spill / release.

Signature of Surveyor:	Date:	Time:
Reviewing REC Officer:	Date:	Time:

10. RECOMMENDATION	
Do you recommend a more detailed damage assessment survey? (Yes / No)	
Receiving Natural Resource Officer:	Date:

APPENDIX O

ANNUAL ODS INVENTORY REPORT FORMAT

WEAPON SYSTEMS CONTAINING CLASS I ODSs AS OF 1 JANUARY 19___

	Platform	Platform	Platform	Platform	Platform
Number of systems					
Type of Class I ODS installed					
Application–select from the following: Shipboard air conditioning and refrigeration, shipboard fire protection, aircraft environmental control, aircraft fire protection					
System capacity (lbs)					

CLASS I ODS AIR CONDITIONING AS OF 1 JANUARY 19___

CONVERSION FACTORS
12000 Btu/hr = 1 ton
1 ton = 4.716 hp
1 ton = 3.51 kw

R-11 UNITS	5-20 Tons	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-12 UNITS	5-20 Tons	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-114 UNITS	5-20 Tons	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-500 UNITS	5-20 Tons	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-502 UNITS	5-20 Tons	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-503 UNITS	5-20 Tons	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-13 UNITS	5-20 Tons	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-113 UNITS	5-20 Tons	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

CLASS I ODS REFRIGERATION AS OF 1 JANUARY 19___

CONVERSION FACTORS

12000 Btu/hr = 1 ton

1 ton = 4.716 hp

1 ton = 3.51 kw

* Refrigeration units with more than 5 pounds installed refrigerant charge but less than 5 Tons cooling capacity should be included in the 5-20 Ton category

R-11 UNITS	5-20 Tons*	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-12 UNITS	5-20 Tons*	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-114 UNITS	5-20 Tons*	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-500 UNITS	5-20 Tons*	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-502 UNITS	5-20 Tons*	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-503 UNITS	5-20 Tons*	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-13 UNITS	5-20 Tons*	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

R-113 UNITS	5-20 Tons*	21-99 Tons	100+ Tons
Number of units			
Pounds of refrigerant installed			

FIRE PROTECTION EQUIPMENT

CLASS I ODS
INSTALLED FIRE SUPPRESSION EQUIPMENT
AS OF 1 JANUARY 19___

Agent	Halon 1301
Number of systems	
Total pounds installed	

CLASS I ODS
MOBILE FIRE SUPPRESSION EQUIPMENT
AS OF 1 JANUARY 19___

Halon 1211

Number of units/systems	
Application description--select from the following: crash, fire, rescue vehicle, 150-pound flight line cylinder, handheld extinguishers, fire fighting vehicles, other--please describe	
Unit/system capacity (lbs installed)	

Halon 1301

Number of units/systems	
Application description--select from the following: handheld extinguishers, other--please describe	
Unit/system capacity (lbs installed)	

CLASS I ODS SOLVENT APPLICATIONS INVOLVING EQUIPMENT* AS OF 1 JANUARY 19___

Type of solvent	CFC-113	Methyl Chloroform	Carbon tetrachloride
Quantity of solvent installed in equipment (in gallons)			
Number of units			

* Equipment includes vapor degreasers, dip tanks, flushing rigs, ultrasonic cleaners, etc. Equipment does not include aerosol cans or wipe solvents

APPENDIX Y
GLOSSARY

ACL: Alternate Concentration Limit

ACNO: Assistant Chief of Naval Operations

AECs: Area Environmental Coordinators

AESO: Aircraft Environmental Support Office

AFPMB: Armed Forces Pest Management Board

AHERA: Asbestos Hazard Emergency Removal Act

AICUZ: Air Installations Compatible Use Zone; established by DOD Directive 4165.57 of 8 November 1977 (NOTAL).

AMFA: Alternate Motor Fuels Act

AOR: Area of Responsibility

APM: Activity Pest Manager

APN: Aircraft Procurement, Navy

AQD: Air Quality District

ARARs: Applicable or relevant and appropriate requirements

ARPA: Archaeological Resources Protection Act

ASN (FM&C): Assistant Secretary of the Navy (Financial Management and Comptroller)

ASN (I&E): Assistant Secretary of the Navy (Installations and Environment) (A

ASN (RD&A): Assistant Secretary of the Navy, (Research, Development and Acquisition)

AST: Aboveground Storage Tank

ATSDR: Agency for Toxic Substance and Disease Registry

BACM: Best Available Control Measures

BACT: Best Available Control Technology

BASH: Bird Aircraft Strike Hazards

BAT: Best Available Technology

BATEA: Best Available Technology Economically Achievable

BCP: BRAC Cleanup Plan

BCT: Best Conventional Technology

BDAT: Best Demonstrated Available Technology

BEC: BRAC Environmental Coordinator

BMP: Best Management Practice

BPCT: Best Practicable Control Technology

BRAC: Base Realignment and Closure

BUMED: Bureau of Medicine and Surgery

CA: Cooperative Agreement

CA: Corrective Action

CAA: Clean Air Act

CAP: Corrective Action Plan

CE: Categorical Exclusion

CEC: Civil Engineering Corps

CEQ: Council on Environmental Quality

CERCLA: Comprehensive Environmental Response, Compensation and Liability Act

CERFA: Community Environmental Response Facilitation Act

CFC: Chlorofluorocarbon

CFR: Code of Federal Regulations; codification of the general and permanent rules published in the Federal Register.

CFST: Contaminated Fuel Settling Tank

CHINFO: Chief of Information

CHT: Collection, holding and transfer system (for shipboard sewage and waste water)

CINC: Commander in Chief

CINCLANTFLT: Commander in Chief, U.S. Atlantic Fleet

CINCPACFLT: Commander in Chief, U.S. Pacific Fleet

CMI: Corrective Measures Implementation (A

CMS: Corrective Measurers Study (A

CNET: Chief of Naval Education and Training

CNO: Chief of Naval Operations

CO: Commanding Officer

Coastal Zone: An area of Federal responsibility for response action under the National Contingency Plan; includes all U.S. waters subject to the tide, U.S. waters of the Great Lakes, specified ports and harbors on the inland rivers, waters of the contiguous zone, other waters of the high seas subject to the National Contingency Plan, and the land surface or land substrata, ground waters, and ambient air proximal to those waters.

COC: Chain of Custody

COE: Corps of Engineers, Army

COMNAVFACENGCOM: Commander, Naval Facilities Engineering Command

COMNAVSEASYSCOM: Commander, Naval Sea Systems Command (A

COMNAVSUPSYSCOM: Commander, Naval Supply System Command

COMSC: Commander, Military Sealift Command

CONUS: Continental United States

COTR: Contracting Officer's Technical Representative

CRP: Community Relations Plan

CTG: Control Techniques Guidelines

CWA: Clean Water Act

CY: Calendar year

CZARA: Coastal Zone Act Reauthorization Amendments

D) **CZMA:** *Coastal Zone Management* Act

DCNO: Deputy Chief of Naval Operations

DCO: Delay Compliance Order

DEIS: Draft Environmental Impact Statement

DEMIS: Defense Environmental Management Information System

DERA: Defense Environmental Restoration Account

R) **DERP:** Defense Environmental Restoration Program.

DESR: Defense Environmental Status Report

DFM: Diesel Fuel, Marine

DLA: Defense Logistics Agency

(D

DOC: Department of Commerce

DOD: Department of Defense

DODDIR: Department of Defense Directive

DOE: Department of Energy

DOI: Department of Interior

DOJ: Department of Justice

DOL: Department of Labor

DON: Department of the Navy

DOS: Department of State

DOT: Department of Transportation

DPM: Defense Priority Model

DQO: Data Quality Objectives

DRMO: Defense Reutilization and Marketing Office

DRMS: Defense Reutilization and Marketing Service

DSMOA: Defense/State Memorandum of Agreement

DUSD(ES): Deputy Under Secretary of Defense (Environmental Security)

DWCF/NWCF: Defense Working Capital Fund/Navy Working Capital Fund

EA: Environmental Assessment

EA: Executive Agent

A) **EBS:** Environmental Baseline Survey

ECE: Environmental Compliance Evaluation

A) **Echelon 2 Command:** A command designated with the number 2 in the Standard Navy Distribution List that reports administratively to the Chief of Naval Operations. This category includes CINCLANTFLT, CINCPACFLT, CNET, COMNAVSEASYSCOM, COMSC, etc.

ECP: Energy Change Proposal

ECRS: Environmental Compliance Reporting System

EE/CA: Engineering Evaluation/Cost Analysis

EFA: Engineering Field Activity

EFD: Engineering Field Division

EHM: Extremely Hazardous Material

EIS: Environmental Impact Statement

Emission Offset: Reduction in the air emissions from one source equal to or greater than the increase in emissions from another source.

Emission Standard: Permissible limit of air emissions established by Federal, State, and local authorities.

EMR: Environmental Monitoring Report

E.O. (EO): Executive Order (R

EOD: Explosives Ordnance Disposal

EPA: Environmental Protection Agency

EPACT: Energy Policy Act

EPCRA: Emergency Planning and Community Right-to-Know Act

ERA: Ecological Risk Assessment

ERC: Emission Reduction Credit

ER,N: Environmental Restoration, Navy (A
This is a category of budgeted funds, controlled by COMNAVFACENGCOM

ESA: Endangered Species Act

Federal Register (FR): A document published daily, Monday through Friday, by the Office of the Federal Register, National Archives and Records Administration.

FEIS: Final Environmental Impact Statement

FEMA: Federal Emergency Management Agency

FFA: Federal Facility Agreement

FFCA: Federal Facility Compliance Act

FGS: Final Governing Standards

FIC: Facility Incident Commander

FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act

FIP: Federal Implementation Plan

FMP: Fleet Modernization Program

FOIA: Freedom of Information Act

FONSI: Finding of No Significant Impact

A) **FOSL:** Finding of Suitability for Lease

A) **FOST:** Finding of Suitability for Transfer

A) **FRT:** Facility Response Team

FS: *Feasibility study*

FUDS: Formerly Used Defense Site

FWPCA: Federal Water Pollution Control Act

FY: Fiscal Year

Gal: *Gallon*

GOCO: Government-Owned-Contractor-Operated Facilities

GSA: General Services Administration

GWTP: Ground Water Treatment Plant

HABS/HAER: Historic American Buildings Survey/Historic American Engineering Record

HARP: Historic Archaeological Resources Protection

HAZCOM: Hazard Communication

HAZMIN: Hazardous Waste Minimization

HAZWOPER: Hazardous Waste Operations and Emergency Response

HM: Hazardous Material

HMC&M: Hazardous Material Control and Management

HMIS: Hazardous Material Information System

HPP: Historic Preservation Plan

HRS: Hazard Ranking System

HS: Hazardous Substance

HSWA: Hazardous and Solid Waste Amendments

HW: Hazardous Waste

IAG: Interagency Agreement

IAS: Initial Assessment Study

IG: Inspector General

I/M: Inspection and Maintenance

IMO: International Maritime Organization (formerly IMCO)

IPM: Integrated Pest Management

IR: Installation Restoration

IRA: Interim Remedial Action

IRP: Installation Restoration Program

ISIC: Immediate Superior In Command

ISSA: Interservice Support Agreement

ISV: In-situ Volatilization

IWPP: Industrial Waste Pretreatment Process

IWTP: Industrial Waste Treatment Plant

JAG: Judge Advocate General

kg: Kilogram

KVA: Kilovolt-ampere

LAER: Lowest Achievable Emission Rate

LAT: Lead Adminstrative Trustee

LEPC: Local Emergency Planning Committee

LOGREQ: Logistics requirements

R) **LTMgt:** Long-term Management

MACT: Maximum Achievable Control Technology

Major Claimant: A bureau/office/command headquarters that is designated as an administering office under the operation and maintenance appropriations in NAVCOMPT Manual, volume 2, chapter 2; receives Major Claimant operating budgets directly from the Fiscal Management Division, CNO (N82).

MARCORPS: U.S. Marine Corps

MARPOL: International Maritime Convention for the Prevention of Pollution from Ships

MBTA: Migratory Bird Treat Act

MCL: Maximum Contaminant Level

MESO: Marine Environmental Support Office

MILCON: Military construction

MO: Manual of Operation

MOA: Memorandum of Agreement

MOU: Memorandum of Understanding

MPRSA: Marine Protection, Research and Sanctuaries Act

MRC: Maintenance Requirement Card

MSC: Military Sealift Command

MSD: Marine Sanitation Device

MSDS: Material Safety Data Sheet

MWR: Morale, Welfare, and Recreation

NAAQS: National Ambient Air Quality Standards

NACIP: Navy Assessment and Control of Installation Pollutants

NAGPRA: Native American Grave Protection and Repatriation Act

NAPC: Naval Air Propulsion Center

NAVAIRSYSCOM: Naval Air Systems Command

NAVCOMPTINST: Comptroller of the Navy Instruction

NAVFACENGCOM: Naval Facilities Engineering Command

NAVFACENGCOMEFA: Naval Facilities Engineering Command Field Activity

NAVFACENGCOM EFD: Naval Facilities Engineering Command Engineering Field Division

NAVOSH: Navy Occupational Safety and Health

D)

NAVSEASYSCOM: Naval Sea Systems Command

NAVSPAWARSYSCOM: Naval Space and Warfare Systems Command

NAVSUPSYSCOM: Naval Supply Systems Command

NCP: National Oil and HS Pollution Contingency Plan

NECIS: Navy Environmental Information System

NEHC: Navy Environmental Health Center

NEESA: see NFESC

NEPA: National Environmental Policy Act

NEPMG: Navy Environmental Program Management Group

NEPSS: Naval Environmental Protection Support Service

NESHAP: National Emission Standards for Hazardous Air Pollutants

NESO: Navy Environmental Support Office

NFESC: Naval Facilities Engineering Services Center

NFRAP: No Further Response Action Planned

NHPA: National Historic Preservation Act

NIF: Navy Industrial Fund

NAVY JAG: Navy Judge Advocate General (R

nm: Nautical mile

NMFS: National Marine Fisheries Service

NNPI: Nuclear Propulsion Plant Information

NNPS: Nuclear Propulsion Plant Space

NOAA: National Oceanic and Atmospheric Administration

NOI: Notice of Intent

N00N: Director, Naval Nuclear Propulsion Program, CNO

NON: Notice of Non-compliance

NOSC: Navy On-Scene Coordinator

NOSCDR: Navy On-Scene Commander

NOTAL: Not to All

NOTW: *Navy Owned Treatment Works*

NOV: Notice of Violation

NPDES: National Pollutant Discharge Elimination System

NPL: National Priorities List

NPS: Non-point source

NPS: National Park Service

NRC: National Response Center

NRC: Nuclear Regulatory Commission

NRHP: National Register of Historic Places

NRM: Natural Resources Management

NRMPM: Natural Resources Management Procedural Manual

NRT: National Response Team

NSPS: New Source Performance Standards

NSTM: Naval Ships Technical Manual

NSWC: Naval Surface Warfare Center

N45: Environmental Protection, Safety and Occupational Health Division, CNO

OASN (I&E): Office of Assistant Secretary of the Navy (Installations & Environment)

OCM: Oil Content Monitor

ODS: Ozone-Depleting Substance

OEBGD: Overseas Environmental Baseline Guidance Document

OESO: Ordnance Environmental Support Office

OEW: *Ordnance and Explosive Waste*

OFPP: Office of Federal Procurement Policy

OGC: General Counsel of the Navy

OHS: Oil or Hazardous Substances

OICs: Officers in Charge

Oily Waste Water: An oil/water mixture that has a water content of greater than 50 percent. The mixture may also contain other non-petroleum matter.

OLA: Office of Legislative Affairs

OMB: Office of Management and Budget

O&M: Operations and Maintenance

R) **O&M,N:** Operations and Maintenance, Navy This is a category of budgeted funds, for the operation of the Navy.

OPA: Oil Pollution Act

OPN: Other Procurement, Navy

OPNAV: Office of the Chief of Naval Operations

OPNAVINST: CNO instruction

A) **OPO:** OPNAV Principal Official

OPORDS: Operational Orders

OPREP: Operational Report

OSC: On-Scene Coordinator

OSCDR: On-Scene Commander

OSD: Office of the Secretary of Defense

OSHA: Occupational Safety and Health Administration

OSOT: On-Scene Operation Team

OSRO: Oil Spill Removal Organization

O-SWOB: Oil-Ship Waste Offload Barges

OU: Operable Unit

OWHT: Oily waste holding tank

OWS: Oil/water separator

PA: Pollution abatement

(A **PA:** Preliminary Assessment

PAH: Polynuclear Aromatic Hydrocarbon

PA/SI: Preliminary Assessment/Site Inspection

PCB: Polychlorinated biphenyl

PCB Article: Any manufactured article, other than a PCB container, that contains PCB and whose surface has been in direct contact with PCB; includes transformers and capacitors.

pCi/L: Picocurie per liter

PCQAE: Pest Control Quality Assurance Evaluator

PCR: Pollution Control Report

PIRP: Public Involvement and Response Plan

PL: Public Law

PMC: Pest Management Consultant

PMP: Pest Management Plan

POA&M: Plan of Action and Milestones

POC: Point of Contact

POL: Petroleum-Oil-Lubricant

POM: Program Objective Memorandum

POTW: Publicly Owned Treatment Works

PPA: Pollution Prevention Act

ppb: Parts per billion

ppm: Parts per million

PRP: Potentially Responsible Parties

PSC: Potential Sources of Contamination

PSD: Prevention of Significant Deterioration

PWC: Public Works Center

PWD: Public Works Department

QA/QC: Quality Assurance/Quality Control

QAP: Quality Assurance Plan

QI: Qualified Individual

QRP: Qualified recycling program

RA: Remedial Action

RAB: Restoration Advisory Board

A) **RA-C:** Remedial Action Construction

A) **RA-O:** Remedial Action Operations

RACM: Reasonable Available Control Measures

RACT: Reasonably Available Control Technology

A) **RAO:** Remedial Action Operation

RC: Response Complete (A

RCRA: Resource Conservation and Recovery Act

R&D: Research and Development

RD/RA: Remedial Design/Remedial Action

RDT&E: Research, Development, Test, and Evaluation

RECs: Regional Environmental Coordinators

RESO: Regional Environment Support Office

RFA: RCRA Facility Assessment

RFI: RCRA Facility Inspection (R

RI/FS: Remedial Investigation/Feasibility Study

RIP: Remedy In Place (A

RMA: Resource Management Area

ROD: Record of Decision

ROICC: Resident Officer in Charge of Construction

RPM: Remedial Project Manager

RQ: Reportable Quantity (A

RRT: Regional Response Team

RSPA: Research and Special Projects Office

SARA: Superfund Amendments and Reauthorization Act

SARA Title III: Superfund Amendments and Reauthorization Act Title III (Emergency Planning and Community Right-to-Know Act)

SCN: Ship Construction, Navy

SCP: Spill Contingency Plan

SCR: Site Characterization Report

SDOSS: Sewage Disposal Operation Sequencing System

SDWA: Safe Drinking Water Act

SECDEF: Secretary of Defense

SECNAV: Secretary of the Navy

SECNAVINST: SECNAV Instruction

SERC: State Emergency Response Commission

SESO: Ships Environmental Support Office

SHIPALT: Ship Alteration

SHPO: State Historic Preservation Office

SI: Site Inspection

SINKEX: Sinking Exercise

SIP: State Implementation Plan

SJA: Staff Judge Advocate

SMSA: Standard Metropolitan statistical area

SOFA: Status of Forces Agreement

SONS: Spills of National Significance

SOP: Standard Operating Procedure

SOPA: Senior Officer Present Ashore (or Afloat)

SPCC Plan: Spill Prevention Control and Countermeasure Plan

SSIC: Standard Subject Identification Code

ST: Storage Tank

SUPSALV: Supervisor of Salvage

SUPSHIPS: Supervisor of Shipbuilding

SWDA: Solid Waste Disposal Act

SWMP: Solid Waste Management Plan (A

SWMU: Solid Waste Management Unit

SYDP: Six Year Defense Plan

TAG: Technical Assistance Grant

TAPP: Technical Assistance for Public Participation A category of funding. (A

TCLP: Toxicity Characteristics Leaching Procedure

TPQ: Threshold Planning Quantity

TRC: Technical Review Committee

TSCA: Toxic Substances Control Act

TSDF: Treatment, Storage and/or Disposal Facility

UIC: Unit Identification Code

UORA: Used Oil Recovery Act

U.S.C.: United States Code

USCG: United States Coast Guard

USDA: United States Department of Agriculture

USFWS: U.S. Fish and Wildlife Service

USNPS: U.S. National Park Service

USNS: U.S. Naval Ship

UST: Underground Storage Tank

UXO: Unexploded Ordnance

VOCs: Volatile Organic Compounds

VS: Verification Study

Water Quality Standards: Standards and related implementation plans that have been adopted by each of the States and approved by the Office of Water Programs of the EPA under the FWPCA as amended.

WOCT: Waste Oil Collecting Tank

WPN: Weapons Procurement, Navy

WQS: Water Quality Standard

YCC: Youth Conservation Corps

APPENDIX Z

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