

## CHAPTER 13

### INDOOR ENVIRONMENTAL QUALITY

#### **INTRODUCTION**

The indoor environment is the result of the interactions of many factors - the building's location, area climate, construction methods and materials, renovations, occupant activities, and furnishings, to name a few. With the focus on energy conservation in the 1970's came the idea that "tighter is better." Buildings were constructed to prevent infiltration and exfiltration, but there was usually no compensation for the loss of natural ventilation. Employees in office spaces began to complain of symptoms that they associated with being at work, beginning the era of evaluating occupational health issues associated with non-industrial work environments. Over the last several years, indoor environmental quality (IEQ) concerns have increasingly focused on biological contamination, especially molds and their metabolic by-products.

This chapter is not meant to be an exhaustive or exclusive IEQ reference. It is a consolidation of the most current information, guidelines, and references, and provides general procedures to assist you with evaluations. Further, it gives you the resources to obtain more in-depth information if needed. Sections 13.2 – 13.7 have been added to this chapter in response to the growing number of requests for Navy guidance specific to mold evaluations. For more detailed information, Section 13.8 provides a comprehensive resource and reference list.

#### Section 13.1      **General IEQ Investigations** (Coming Soon)

Appendix 13.1-A	Employee Complaint Form; IEQ Questionnaire
Appendix 13.1-B	Employee Symptom Log
Appendix 13.1-C	Sample Interview Form; Sample Interview Questions
Appendix 13.1-D	Walkaround (Visual) Inspection Checklist
Appendix 13.1-E	Sampling Methods
Appendix 13.1-F	IEQ Contaminants Guidelines
Appendix 13.1-G	HVAC Checklist

#### Section 13.2      **Mold Assessments: Investigating, Sampling, and Interpreting Results**

Figure 13.2-1	Bioaerosol Collection Methods
<a href="#">Appendix 13.2-A</a>	Bioaerosol Sampling Methods and Limitations
<a href="#">Appendix 13.2-B</a>	Mycotoxins
<a href="#">Appendix 13.2-C</a>	Microbiological Analysis Laboratories

[Section 13.3](#)      **Mold Cleanup, Remediation, and Clearance Sampling**

Table 13.3-1              Mold Remediation Containment Guide

[Figure 13.3-1](#)              Mold Remediation Wheel

[Figure 13.3-2](#)              Clearance Sampling Process

[Appendix 13.3-A](#)          Commonly Used Indoor Antimicrobial Products

[Section 13.4](#)      **Mold Investigation Medical Guidance**

Section 13.5      **Risk Communication** (Coming Soon)

Section 13.6      **Legal Issues & Legislation** (Coming Soon)

Section 13.7      **Glossary** (Coming Soon)

Section 13.8      **References** (Coming Soon)