Indoor Air Quality Protocols and Communication

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Call comes in

“I have mold in my apartment, my landlord won’t do anything about it. What can you do for me?”
Regulation

◆ **Short answer**
  - *Nothing, there is no mold standard*

◆ **Long answer**
  - *What other tools can we use?*

◆ **Most important issue**
  - *What is the root cause?*
Regulation

◆ Leaking Pipes
  – RSA 48
  – Local Housing Code
◆ Lack of a bathroom vent
  – Not required
◆ Flooding
Minimum Standards Established. – No landlord, as defined by RSA 540-A:1, I, renting or leasing a residential dwelling in a municipality which has not adopted ordinances, codes or bylaws pursuant to this chapter shall maintain those rented premises in a condition in which:

II. There is defective internal plumbing or a back-up of sewage caused by a faulty septic or sewage system;

IV. The roof or walls leak consistently;

IX. There is an inadequate supply of water or whatever equipment that is available to heat water is not properly operating;
Who Does the Work?

- **American Indoor Air Quality Council**
  - CMI, CMC, CMR, CMRS
- **American Board of Industrial Hygiene**
  - CIH
Purpose

- Establish guidelines and uniformity for conducting indoor air quality and mold related investigations in Manchester schools.
5 Phases:

- 1. Receipt of Complaint
- 2. Data Gathering
- 3. On Site Investigation
- 4. Report
- 5. Discuss Results
Phase 1: Receipt of Complaint

- **Role of Principal**
- **Open Dialogue with Those Concerned**
Phase 2: Data Gathering

- Interviews (Limited)
- Diaries (Limited)
- Questionnaire (Expanded)
- School Nurse Data
- Data Analysis
- Building Design Review (Floor Plans, HVAC)
Phase 3: On Site Investigation

- Walk-through of Building
- Grab Sampling of Basic IAQ Parameters
- Additional Sampling as Indicated
Phase 4: Report

◆ Provide History & Background Information

◆ Include Findings and Non-findings

◆ Include Recommendations
Phase 5: Discussions

- **Principal**
- **Staff**
- **Parents**
- **Building Maintenance**
Important Points

- Rarely is There a Single, Clear Cause IAQ Problems.

- Other Issues Can Mask or Compound IAQ Problems.

- No Magic Test to Find IAQ Problems
Important Points

- Communicate
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Proactive Communication

- Identify an indoor air quality coordinator
  - “Tools for Schools” US EPA
- NH DOE Requirement!!! (see form)
- Staff can go to one person to seek information and/or share a concern
- Anticipate possible triggers
- Chain of Command
WHO??

- School Principal
- School Nurse
- Chief of Facilities
- Person with the least seniority
Reactive Communication

- Share valid information as soon as you can
- Take each concern seriously
- Provide updates to complainants and other affected parties
- Pre-identify media spokesperson
Communication Best Practices

- Respect
- Listen
- Update
- Rumor Control
- Final Report
Goal

- To work collaboratively to assure that a building’s air quality is as good as possible.
IAQ Complaints in the School Setting

Chronic Issue
Middle School

Built into the side of a large hill

Subterranean “Bomb Shelter”
  - Dirt floor, unventilated space
Data Collection

- Symptom questionnaires (journals)
- IAQ parameters via data logger
- School Nurse student asthma data
- Face-to-face interviews with teachers
Symptoms

- Stuffiness
- Burning eyes
- Respiratory
- Rash
What Did We Learn?

- Air exchange was not in balance
  - Negative air in classroom space
- Bomb shelter was being entered
- Humidity levels were >50 %
- Multiple complainants on the floor, all abutting the Bomb Shelter space
What Did We Do?

- Restricted access to bomb shelter, all staff
- Installed a mechanical vent with alarm in the bomb shelter space (negative air)
- Adjusted balance in rooms to be positive
Specific mold related sensitivity complaint

Indoor and Outdoor comparative sampling with no significant difference between the two
Final Steps

- Communicate results
- Establish a mechanism for any further complaints or issues
Special Thanks To:

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Questions & Answers
Resources

- http://www.education.nh.gov/program/school_approval/documents/A24IAQ.doc
- http://www.epa.gov/iaq/schools/
- http://www.ccohs.ca/oshanswers/phys_agents/thermal_comfort.html
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