



West Virginia University

Environmental Health and Safety

Indoor Air Quality Program

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WEST VIRGINIA UNIVERSITY
OFFICE OF ENVIRONMENTAL HEALTH AND SAFETY

Table of Contents

1. Purpose	3
2. Scope	3
3. Roles & Responsibilities	3
4. Sources of Indoor Air Contaminants	3
5. Controls of Indoor Air Contaminants	4
6. Air Quality During Renovations and Construction Projects	4
7. Indoor Air Quality Assessment	5
8. References.....	5
9. Program Review	5
10. Program Revisions.....	5
11. Recordkeeping.....	5

1. Purpose

The University is committed to providing a safe and healthful workplace, including ensuring acceptable air quality in all University owned or leased buildings. The purpose of this program is to establish written procedures to assist in preventing indoor air quality problems, and to respond appropriately when problems occur.

2. Scope

This program covers all West Virginia University employees and students, including Divisional Campuses.

3. Roles and Responsibilities

3.1 Environmental Health and Safety (EHS) Shall:

- Develop and update the WVU Indoor Air Quality Program.
- Conduct indoor air quality investigations when requested.
- Document and report results of indoor air quality investigations.
- Assist Facilities Management and/or other departments in identifying the cause of indoor air quality problems, as well as, make recommendations on mitigation strategies.

3.2 Facilities Management Shall:

- Respond to HVAC related building complaints including temperature and humidity issues.
- Ensure that the building's HVAC units are functioning as designed and are properly maintained.
- Ensure that windows, doors, vents, etc. are operable in occupied areas without mechanical ventilation.
- Ensure that staff and contractors performing work inside buildings prevent the infiltration of dust, debris, odors, vapors, etc. into occupied areas of the building.

3.3 Deans/Directors, Managers, Supervisors, and Employees Shall:

- Report indoor air quality concerns to EHS so that an investigation can be initiated.
- Be familiar with the sources of indoor air contaminants and refrain from activities that unnecessarily contribute to poor indoor air quality.

4. Sources of Indoor Air Contaminants

Indoor environments can contain a variety of contaminants especially when inadequate ventilation does not carry indoor air pollutants out of a building or there is insufficient ventilation to adequately dilute emissions from indoor sources. High temperature and humidity levels can also increase concentrations of some pollutants. There are many sources of indoor air pollution. These can include:

- Cleaning products
- Construction activities
- Carpets and furnishings
- Water-damaged building materials

- Perfumes
- Cigarette smoke
- Fuel-burning combustion appliances
- Office machines
- Outdoor pollutants

5. Controls of Indoor Air Contaminants

Under normal operating conditions, indoor air contaminants are not expected to be above applicable exposure limits for indoor environments. Properly designed and operating HVAC systems and laboratory ventilation hoods generally will provide adequate control of contaminants. There are several other methods to help control unwanted indoor air contaminants. They include:

- Refrain from smoking in and around buildings.
- Refrain from using air fragrances, colognes, or perfumes in the workplace.
- For maintenance and housekeeping activities, consider using products meeting the EPA Safer Choice Standard.
- Prevent moisture intrusion into the building structure by repairing or replacing roofs, soffits, windows, downspouts, drains, etc.
- Promptly drying materials damaged by water (within 48 hours). For additional information please see the Standard Operating Procedures for Moisture Intrusion.
- Promptly remediating building materials contaminated with mold. For additional information please see the Standard Operating Procedures for Mold Remediation.
- Separate employees, student and staff from office equipment, as much as possible.
- Refrain from using air cleaning devices.

6. Air Quality During Renovation and Construction Projects

Building renovation and construction projects can produce a variety of indoor air contaminants. The FM Project Manager is responsible for ensuring that the contractor, or department performing the work, prevents the infiltration of dust, debris, odors, vapors, etc. into the occupied areas of a building. This may be through any of the following means:

- Scheduling work during periods of low occupancy.
- Isolate work areas by blocking return vents in the work area and/or installing temporary barriers.
- Using specialized cleaning procedures such as HEPA vacuums.
- Minimizing emissions from materials processes using wet methods.
- Reviewing Safety Data Sheets (SDS) to determine what control methods should be implemented based on the chemical hazards.
- Using safer building products such as low VOC-emitting and formaldehyde free.

If air contaminants will be introduced into occupied areas, the FM Project Manager must coordinate notification to the building supervisor, building occupants and Environmental, Health and Safety at least 24 hours in advance. Building areas under renovation or construction must be adequately cleaned and ventilated prior to re-occupancy.

7. Indoor Air Quality Assessment

7.1 Conducting the Assessment: Employee and student indoor air quality complaints will be forwarded to Environmental Health and Safety to conduct an assessment. The assessment will include a visual inspection of the affected area and can include environmental monitoring for indoor air contaminants. The assessment will be used to assist Facilities Management and/or other departments in identifying the cause of indoor air quality problems and make recommendations on the mitigation strategies. Request for indoor air quality assessments can be made through the Environmental Health and Safety website Service Request Form.

7.2 Documenting the Assessment: WVU EHS will prepare written findings of the investigation results, including possible causes of IAQ concerns. Copies of the IAQ investigation will be forwarded to the complainant. The report will also be forwarded to the complainant's supervisor, when requested.

8. References

A Guide for Building Owners and Facility Managers, EPA 402-F-91-102, December 1991 – The Building Air Quality (BAQ),
Indoor Air Quality in Commercial and Institutional Buildings, OSHA Publication 3430-04 2011

9. Program Review

EHS will coordinate a review of the program annually or as necessary.

10. Program Revisions

This program replaces the July 2010 revision.

11. Recordkeeping

WVU EHS will document all IAQ findings. Reports will be maintained by WVU EHS.