

1.0 PURPOSE and APPLICABILITY

- 1.1 It is the policy of the University of Pennsylvania (Penn) in coordination with the Office of Environmental Health and Radiation Safety (EHRS) to provide the University community with a healthful and safe environment. The purpose of this program is to provide guidance to help ensure that Penn owned, or leased facilities are free of recognized indoor air quality hazards and that when IAQ hazards are identified, they are promptly mitigated.
- 1.2 This program applies to facilities owned or leased by Penn and to Penn students, faculty, and staff.

2.0 DEFINITIONS

- 2.1 **Indoor Air Quality (IAQ) Hazard** - A building condition that has the potential to adversely impact the health of building occupants. It includes exposures to chemicals, biological agents and physical conditions that may cause irritation, illness or exacerbate existing health conditions. IAQ hazard does not include thermal comfort unless conditions place occupants at risk from heat or cold stress. IAQ hazard also does not include the presence of occasional odors.
- 2.2 **Indoor Air Quality (IAQ) Response Event** - An event that can result in the development of an IAQ hazard and require the coordination of prompt correction by facilities management and notification of EHRS. IAQ response events include large (~15 gallons) water releases from any source (potable, sewage, roof leak, equipment release); water retention outside the drain pan in air handlers; retention of water, leaves or other debris at outside air intakes; the use of volatile or hazardous materials without appropriate controls or in the renovation or maintenance of a building.

3.0 ROLES AND RESPONSIBILITIES:

- 3.1 ***Environmental Health and Radiation Safety (EHRS)*** shall be responsible for:
- 3.1.1 Maintaining the Indoor Air Quality Program.
- 3.1.2 Responding to IAQ Response Events.
- 3.1.3 Evaluating IAQ concerns and completing investigations. Provide written findings and recommendations as required.

3.2 ***School and Center Building Administrators*** shall be responsible for:

3.2.1 Notifying EHRS of an *IAQ Response Event* or if building occupants express concerns regarding suspected IAQ hazards.

3.3 ***Facilities & Real Estate Services (FRES) Operations & Maintenance*** shall be responsible for:

3.3.1 Ensuring that routine maintenance is performed on building systems so that the decreased performance of building systems or lack of repairs do not adversely impact IAQ.

3.3.2 Notifying EHRS of *IAQ Response Events* and respond appropriately to correct them.

3.3.3 Coordination with on-call Disaster Restoration Contractor to promptly mitigate IAQ Hazards resulting from IAQ Response Events.

3.3.4 Notifying EHRS if building occupants express concerns regarding suspected IAQ hazards.

3.3.5 Convey to construction, renovation, or other contractors of need to avoid creating IAQ hazards.

3.4 ***Director of Facilities for New Bolton Center and the Morris Arboretum*** shall be responsible for:

3.4.1 Ensuring that routine maintenance is performed on building systems so that the decreased performance of building systems or lack of repairs do not adversely impact IAQ.

3.4.2 Notifying EHRS of *IAQ Response Events* and respond appropriately to correct them.

3.4.3 Notifying EHRS if building occupants express concerns regarding suspected IAQ hazards.

3.4.4 Convey to construction, renovation, or other contractors of need to avoid creating IAQ hazards.

3.5 ***FRES Design & Construction Project Management*** shall be responsible for:

3.5.1 Ensuring that new construction and renovations are designed and completed such that building mechanical systems are adequate to provide acceptable IAQ.

3.5.2 Ensuring that renovations in occupied buildings are performed in a manner that does not adversely impact IAQ.

3.5.3 Notifying EHRS of *IAQ Response Events* that occur during construction.

3.6 ***Lease Managers*** shall be responsible for:

3.6.1 Ensuring that lease contracts explicitly require the lessee to provide leased space that is free of recognized IAQ hazards.

3.6.2 Ensuring that lease contracts include a release clause allowing the University to break leases where recognized IAQ hazards are documented and not corrected within 60 days.

3.6.3 Notifying EHRS of *IAQ Response Events*.

3.7 ***Penn Occupational Medicine & Health Services*** shall be responsible for:

3.7.1 Evaluating employees who believe that their illness is related to an IAQ issue.

3.7.2 Contacting EHRS to investigate facilities where it is plausible that an IAQ issue may be contributing to illness of the patient.

3.8 ***Penn Student Health Services*** shall be responsible for:

3.8.1 Evaluating students who believe that their illness is related to an IAQ issue.

3.8.2 Contacting EHRS to investigate facilities where it is plausible that an IAQ issue may be contributing to illness of the patient.

4.0 PROCEDURES

4.1 IAQ Hazards, Response Events or other concerns should be reported to EHRS at 215-898-4453 or emailed to ehrs@ehrs.upenn.edu

4.2 EHRS Environmental Health staff will investigate, provide recommendations for corrective action, and keep concerned building occupants informed regarding findings.

5.0 KEY REFERENCES

- [American National Standards Institute \(ANSI\)/Society of Heating, Refrigeration and Air Conditioning Engineers \(SHRAE\)](#) Standard 62.1, Ventilation for Acceptable Air Quality.
- [Institute of Inspection Cleaning and Restoration Certification \(IICRC\)](#) Standard **S500 - Standard and Reference Guide for Professional Water damage Restoration.**

- American Conference of Governmental Industrial Hygienists (ACGIH) [Bioaerosols: Assessment and Control](#)
- United States Environmental Protection Agency (USEPA) **Indoor Air Quality.** <https://www.epa.gov/indoor-air-quality-iaq>