

## **Indoor air quality**

### **Applicable regulations**

[29 CFR 1910.1000 Subpart Z, Toxic and Hazardous Substances EPA Building Air Quality Manual, 1991 PDF](#)  
[American Society of Heating, Refrigeration, and Air Conditioning Engineering or ASHRAE 62-2016](#)

### **Indoor air quality management**

As Facilities Manager your job requires the undertaking of construction and remodeling activities. Below you will find the ASU Indoor Air Quality Management Program requirements.

### **Initial planning**

- Design specific control measures into the project to keep dusts, odors and hazardous volatile substances out of occupied areas consult SMACNA guidelines for details.
- Identify available control options, such as containing the work area with sheets of polyethylene plastic, modifying HVAC operation, reducing emissions, intensifying housekeeping, rescheduling work hours, moving occupants, defining re-occupancy criteria.
- Identify how building occupants may be affected by the spread of contaminants.
- Identify how contaminants may spread through the building. Contaminants move from high-pressure areas to low pressure areas via conduits, such as HVAC returns, HVAC system intakes, open doors, utility chases, wall penetrations, elevator shafts, etc.

### **Isolate major construction areas**

- Construction areas in occupied buildings must be isolated from adjacent non-construction areas using temporary walls, plastic sheeting, or other vapor retarding barriers.
- Construction areas must be maintained at a negative air pressure to surrounding non-construction areas.
- Re-circulating air ducts must be temporarily capped and sealed –appropriate filters may be used if nuisance particulates are the only contaminant of concern.

### **Notify occupants**

Prior to the commencement of work, notify potentially affected building occupants –through the construction project manager and building monitor– with a brief description of the planned work, expected dates and times, and precautions taken to protect air quality. Advanced notice of construction or renovation should be given so employees may take necessary actions in anticipation of the work.

### **Ongoing management**

- After work has begun, monitor and enforce plan specifications for keeping dusts, odors, and hazardous volatile substances out of occupied areas.
- Provide periodic progressive updates to building occupants through the construction project manager and building monitor.

### **Protect the ventilation system from dust and moisture**

- Building materials subject to degradation from ambient environmental exposure must be protected or replaced if damaged.
- Do not operate supply air systems without filters in place –minimum 60% efficiency for a 3Fm particle.
- Duct-work and air handling equipment must be stored in a clean, dry location prior to installation and openings must be securely covered to prevent entry of dust, moisture, general construction debris/dirt and vermin.



- Utilize the air handling units or AHUs to "flush" the building to reduce off-gassing of interior furnishings and finishes at least 48 hours prior to occupancy. Fully open outside air intakes and fit AHUs with temporary filters during this period. Replace filters after system flushing.

**Additional information**

Contact ASU EHS Office: [asuehs@asu.edu](mailto:asuehs@asu.edu)