PRINCIPAL LEADERSHIP
ACADEMY

Indian Affairs
Indoor Air Quality Fact Sheet and Response Process Guide

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BACKGROUND

Indoor Air Quality (IAQ) refers to the air quality within buildings as it relates to the health and comfort of building occupants. IAQ is a common occupational health concern among employees, ranging from poor ventilation and stagnant air to mold and allergens. It is important to assess these issues and determine if action is needed to prevent negative health impacts, discomfort, and effects to productivity. This guide aims to summarize common sources and health effects of indoor air quality issues, and to standardize procedures to help managers respond when issues arise.

POTENTIAL SOURCES

Indoor air contaminants may come from within the building or be drawn in from outdoors. Common examples of outdoor sources include vehicle exhaust, pollen, dust, naturally occurring radon from underground, and odors from trash or debris. Common examples of indoor sources include stagnant air from poor ventilation, carbon monoxide, moisture intrusion, mold growth on drywall or porous materials, off- gassing from new furnishings, and chemicals like paints and pesticides. Beyond contaminants, conditions such as temperature and relative humidity can affect IAQ and occupant comfort. Sometimes sources can be easily identified, like a pool of standing water or a broken exhaust vent. Often, further investigation is needed.

HEALTH EFFECTS

The health effects of poor indoor air quality depend on the contaminant(s) present. Some contaminants, like radon and certain classes of chemicals, can have long-term health effects such as respiratory diseases or suppressed immune systems. Certain contaminants, such as mold spores, pollen, and pet dander, can cause allergic reactions and irritation, which vary depending on a person's susceptibility. Poor ventilation and stagnant air can also lead to short-term effects like fatigue, headaches, sinus congestion and general discomfort for occupants. In

the immediate sense, certain chemicals can create safety hazards in elevated concentrations, like carbon monoxide and gasoline vapors. In addition to investigating IAQ issues, employees expressing medical concerns should be referred to their healthcare provider for evaluation.

BEYOND THE AIR

Not all health effects from the indoor work environment are attributable to the air. Conditions like elevated noise levels, lighting (too much or too little), and improper ergonomic work positions can be harmful to health or productivity. It is important to think holistically when responding to occupant concerns.

MANAGING IAQ CONCERNS

Figure 1 on the next page provides a flow chart to help managers respond to an IAQ concern, including links to checklists and assessment guides. Even if the investigation shows the IAQ meets appropriate standards, it is critical to communicate results with employees and hear their concerns. If issues or areas for improvement are identified, pursue the following control methods in order of priority:

1. *Source Management*: removing or substituting the source. For example, moving a trash can or switching to a different chemical cleaner.
2. *Engineering Controls*: using equipment to reduce contaminants or change conditions. For example, increasing airflow through ventilation or providing shades to reduce harsh lighting.
3. *Administrative Controls*: implementing procedure changes or education. For example, posting “no smoking” signs near HVAC intake or training employees on positive IAQ management.

ADDITIONAL RESOURCES

Visit the Environmental Protection Agency (EPA) IAQ Tribal Partners Program page for tools, videos

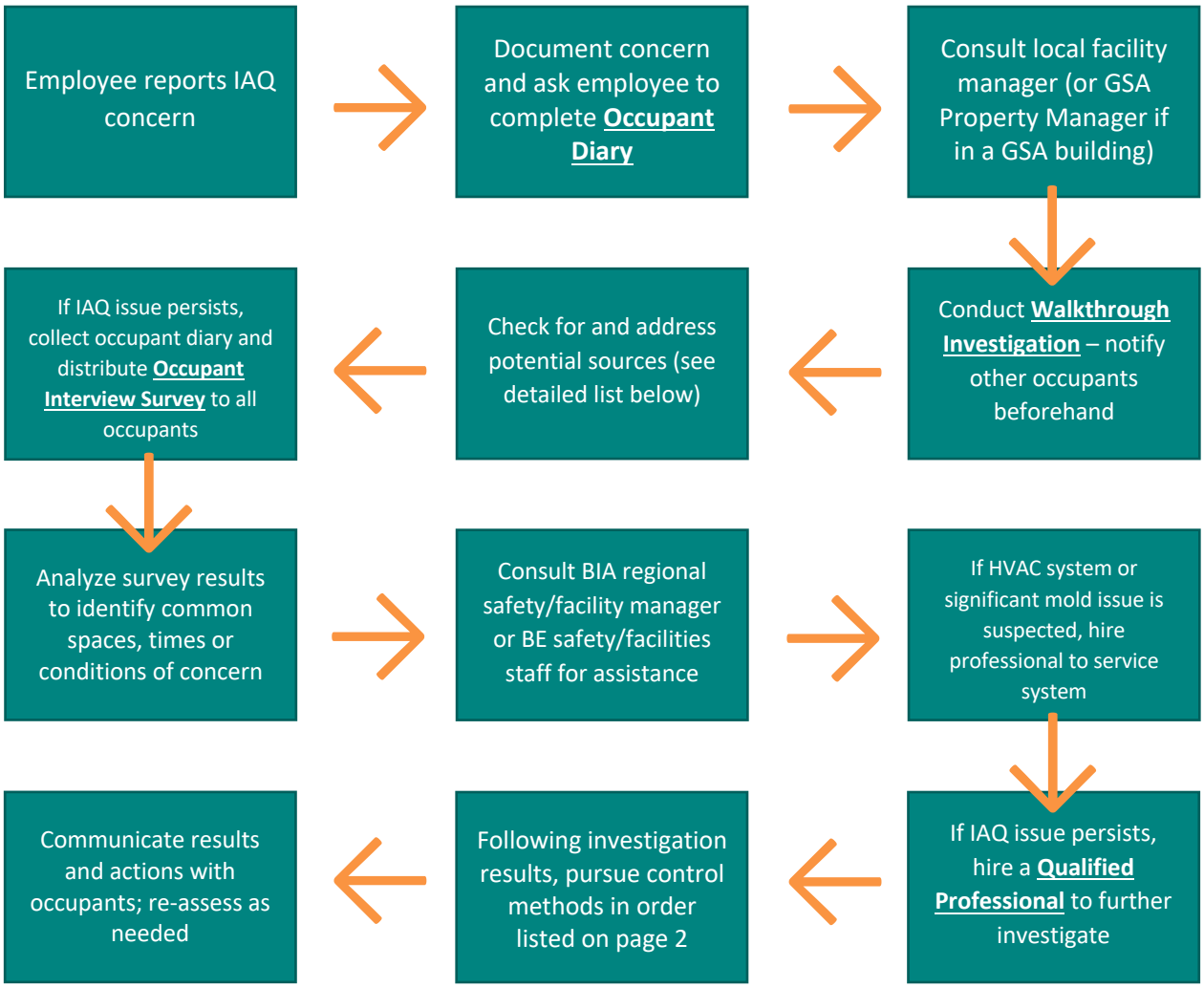
and tribal case studies. Contact a Tribal IAQ Champion near you to see what has worked for them.

Visit GSA P100 Facilities Standards for building design criteria (e.g., ventilation, lighting, noise, etc.).

Visit the Indian Affairs SafetyNet Air Contaminants and IAQ page for IAQ safety information.

For schools, see the EPA Tools for Schools Action Kit with assessment checklists, mobile app, and IAQ Coordinator Guide. There are also some helpful videos in the IAQ in Tribal Schools Series.

INDOOR AIR QUALITY CONCERN RESPONSE FLOW CHART



**ADDRESSING POTENTIAL SOURCES

- Check for pollutants inside the space, like cigarette smoke, paints or chemical storage.

- Check for pollutants outside near the ventilation supply intake, like vehicle exhaust or fuel storage.
- Eliminate any sources of water/moisture intrusion, including repairs for plumbing or roof leaks
- If there is visible mold, clean the surface or discard the material per EPA Mold Remediation Guidelines.
- If there is an HVAC system, ensure it is functioning and free of visible dust build-up.
- If you have equipment to do so, take temperature and relative humidity readings.
- Recommended comfort range: 68-78 degrees for temperature and 30-60% for humidity
- Eliminate standing water, debris piles, or other signs of pests or animals.
- Clean the space, including work surfaces, carpeting/flooring, and visible dust.
- Use this Inspection Checklist to verify all relevant sources/conditions have been assessed.