

New Jersey Department of Health and Senior Services
Public Employees Occupational Safety and Health (PEOSH) Program

**PEOSH Indoor Air Quality (IAQ) Standard
Inspection Guidance Document**

1) PEOSH IAQ inspections:

Investigate employee complaints.

Document non-compliance with the IAQ Standard using the *IAQ Inspection Checklist*. Use the current IAQ Inspection Checklist found on the PEOSH website.

Handout the *IAQ Checklist* to all parties at the opening conference.

Issue and enforce citations (or potential hazards in the case of consultation) until compliance is achieved.

Educate the employer, employees, and representative of employees about the requirements of the IAQ Standard and basic IAQ issues.

2) Background information research:

Prior to the inspection, PEOSH inspectors will conduct a file review on the facility from the previous three years.

3) Inspection scope and walkthrough:

The complexity of IAQ investigations will vary case by case. A walk-through is needed to gain a first-hand, visual appreciation for the building's design, floor plan, and ventilation system. This walk-through should provide enough information to enable the investigator to form a hypothesis, perhaps recommend simple modifications, and formulate a plan for a return visit if necessary.

Occupants shall be interviewed, especially complainants. These interviews shall be documented in the case file. Information on symptoms, timing of onset and relief, and spatial patterns of complaints should be gathered in order to define the problem as completely as possible. Document any obvious sources of internal or external pollutants. Record temperature and carbon dioxide readings. Document visible mold. Verify the existence of a preventative maintenance program.

Based on the professional judgment of the Compliance Safety and Health Officer (CSHO), the following list can be used as guidance.

The walkthrough inspection will start with the complaint area(s). Be aware of other areas and activities that might impact the complaint area such as loading docks, parking garages, kitchens, print shops, roofs, basements, and exterior grounds. Expand your inspection to include those areas as deemed necessary. Also, at the request of employee/employer representatives or the complainant, expand the scope of the inspection to include other areas of concern.

A copy of the floor plans is helpful, as observations can be recorded on them directly. The investigator should also review any documents available on the history of the building, including modifications – particularly recent ones. A person familiar with the building's HVAC system should be available to assist the investigation, and any persons required for access should be identified.

Identify areas where remodeling, repair, or redecorating activities are in progress or have recently been completed. Check that proper control procedures are being used to isolate renovation work areas from occupied areas.

Check relative humidity to see that the complaint area is in the 30 to 60 % range.

Check for water intrusion due to condensation, elevated humidity levels or water leaks.

Check carbon dioxide as an indicator of ventilation adequacy in occupied areas. Measurements should be taken after at least 4 hours of occupancy. Collect an outside reading as well. Note: Late afternoon readings tend to be the highest.

Observe airflow patterns. Look for areas of poor mixing, short-circuiting (supplies and returns close together), and obstructions of supply and exhaust ducts.

At the conclusion of the initial assessment, it should be possible to identify the nature of the complaints, the number of occupants affected, building system parameters that can be related – by timing, location, etc. – to the complaints, possible HVAC deficiencies and general operating and maintenance conditions, signs of occupant interference with the ventilation system, obvious internal and external pollutant sources.

Ventilation system(s) serving the complaint area(s) should be evaluated.

Inspect outside air dampers, noting their position, the type of control mechanism, and its condition.

Note the distance and direction of combustion sources, building exhausts, cooling towers, and other potential sources of pollutants in relation to the outside air intake.

Examine the garage and loading dock for proper ventilation and pollution migration.

Check supply air fans for operational problems, including defective belts, missing blades, build-up of particulates, and microbial growth.

Check the interior of the mixing chambers for signs of failing insulation, debris, rust, or microbial growth.

Check that all combustion sources are being exhausted.

4) Use of IAQ inspection checklist:

Complete the entire *IAQ Inspection Checklist* on every inspection

Employee and employer representatives will be provided with an *IAQ Inspection Checklist* to complete during the inspection.

Additional documentation for each item can be made on the back of the checklist and shall reference the relevant item number.

If the answer to any part of a multi-part question is “no”, the overall answer shall be “no” and notes made about the details of the answer.

A copy of the completed checklist should be reviewed with employer and employee representatives at the conclusion of the inspection.

5) Inspection sampling activities:

Including carbon dioxide, carbon monoxide, temperature, humidity.

- a) Record all monitoring data on the appropriate sampling form (eg. OSHA 93).
- b) Discuss monitoring data at closing conference.

6) IAQ citation items:

Use the *IAQ Inspection Checklist* filled out onsite to select items for citations. Cite all items not in compliance.