

R 7421 INDOOR AIR QUALITY STANDARDS

A. Definitions

1. “Air contaminants” - refers to substances contained in vapors from paint, cleaning chemicals, pesticides, solvents, particles, outdoor air pollutants and other airborne substances which together may cause material impairment to employees working within the enclosed workplace.
2. “Building related illnesses” - describes specific medical conditions of known etiology which can be documented by physical signs and laboratory findings. Such illnesses include sensory irritations when caused by known agents, respiratory allergies, asthma, nosocomial infections, humidifier fever, Legionnaires’ Disease, and the signs and symptoms characteristic of exposure to chemical or biologic substances such as carbon monoxide, formaldehyde, pesticides, endotoxins, or mycotoxins.
3. “Building systems” - include the heating, ventilating and air-conditioning (HVAC) system, the energy management system and all other systems in a facility which may impact indoor air quality.
4. “Department” – New Jersey Department of Health and Senior Services
5. “Designated person” - a person who is designated by the administration to take necessary measures to assure compliance with indoor air quality standards.
6. “HVAC system” - means the collective components of the heating, ventilation and air conditioning systems including, but not limited to, filters and frames, cooling coil condensate drip pans and drainage piping, outside air dampers and actuators, humidifiers, air distribution ductwork, automatic temperature controls, and cooling towers.
7. “HVAC System Commissioning Report” - means a document normally prepared by an architect or engineer that provides verification that the HVAC system is operating in conformity with the design intent.
8. “Office Building” - means a building in which administrative and/or clerical activities are conducted. Examples of facilities and/or operations which are not office buildings include schools, repair shops, garages and print shops.

9. “Renovations and remodeling” - means building modification involving activities that include, but are not limited to; removal or replacement of walls, roofing, ceilings, floors, carpet and components such as moldings cabinets, doors, and windows; paintings; decorating; demolition; surface refinishing; and removal or cleaning of ventilating ducts.

B. Compliance Program

The Superintendent will designate the Director of Facilities who is given the responsibility to assure compliance with indoor air quality standards. The designated person will assure that at least the following actions are taken and documented:

1. Establishing and following a preventative maintenance schedule for heating, ventilating and air conditioning (HVAC) systems that are in accordance with manufacturer’s recommendations or with accepted practice for the HVAC system.
2. Implementing the use of general and local exhaust ventilation where housekeeping and maintenance activities involve the use of equipment or products that could reasonably be expected to result in hazardous chemicals or particulate exposure above the Permissible Exposure Limit (PEL).
3. When the carbon dioxide level exceeds 1,000 parts per million (ppm), the designated person will check to make sure the HVAC system is operating properly. If it is not, the designated person will take necessary steps as outlined in 1. above.
4. Check to make sure HVAC systems are working properly when the building temperatures are outside of the range of 68 to 79 degrees Fahrenheit. If it is not, the designated person will take necessary steps as outlined in 1. above.
5. If contamination of the make-up air supply is identified and documented, then the make-up inlets and/or exhaust outlets shall be re-located or the source of the contamination eliminated. Sources of make-up air contamination may include contaminants from sources such as cooling towers, sanitary vents, vehicular exhausts from parking garages, loading docks and street traffic.
6. Assure that buildings without mechanical ventilation have operable windows, doors, vents, stacks and other portals designated or used for natural ventilation are operational.

7. Promptly investigate all employee complaints of signs or symptoms that may be associated with building-related illnesses.
- C. Air Quality During Renovation and Remodeling
1. Renovation work and/or new construction that results in the diffusion of dust, stone and other small particles, toxic gases or other harmful substances in quantities hazardous to health will be safeguarded by means of local ventilation or other protective devices to ensure the safety of employees. Renovation areas in occupied buildings shall be isolated and dust and debris shall be confined to the renovation or construction area.
 2. Before use of paints, adhesives, sealants, solvents, or installation of insulation, particle board, plywood, floor coverings, carpet backing, textiles, or other materials in the course of renovation or construction, the designated person will check product labels or seek and obtain information from the manufacturers of those products on whether or not they contain volatile organic compounds such as solvents, formaldehyde or isocyanates that could be emitted during regular use. This information shall be used to select products and to determine necessary measures to be taken to comply with indoor air quality standards.
 3. The designated person will notify employees at least twenty-four hours in advance, or promptly in emergency situations of work to be performed on the building that may induce air contaminants into their work area.
- D. Recordkeeping
1. The maintenance schedule shall be updated by the designated person to show all maintenance performed on the building systems. The schedule shall include the date such maintenance was performed and the name of the person or company performing the work.
 2. The records required to be maintained by this section shall be retained for at least three years and be available on request to employees and employee representatives and Department representatives for examination and copying.
- E. Response To A Signed Complaint From The Department
1. Within ten working days of receipt of the complaint notification from the Department, the designated person will respond in writing to the Department. The response may include any combination of the following:

- a. A statement that the complaint is unfounded;
 - b. A description of any remedial action already taken;
 - c. An outline of any remedial measures planned but not yet taken, with a timeline for completion; and/or
 - d. A statement that a study of the problem, with a timetable for completion of the study, has been initiated.
2. Where remedial measures are planned or a study initiated, they shall be completed as soon as feasible. The designated person will submit, to the Department, a written report describing the remedial measures implemented and/or a copy of the study's report within fifteen working days of completion.
 3. Permits for remedial work shall be obtained as required by N.J.A.C. 5:23 (the New Jersey Uniform Construction Code). All work requiring a permit shall be performed in compliance with N.J.A.C. 5:23.
- F. In response to an employee complaint to the Department, the designated person will provide any of the following documents, if available, and requested by the Department:
1. As-built construction documents;
 2. HVAC system commissioning reports;
 3. HVAC systems testing, adjusting and balancing reports;
 4. Operations and maintenance manuals;
 5. Water treatment logs; and
 6. Operator training materials.