

TITLE 12. DEPARTMENT OF LABOR  
CHAPTER 100. SAFETY AND HEALTH STANDARDS FOR PUBLIC EMPLOYEES  
SUBCHAPTER 13. INDOOR AIR QUALITY STANDARD

*N.J.A.C. 12:100-13.1 (2007)*

§ 12:100-13.1 Scope

This subchapter shall apply to matters relating to indoor air quality in buildings occupied by public employees during regular work hours.

§ 12:100-13.2 Definitions

The following words and terms, when used in this subchapter, have the following meaning unless the context clearly indicates otherwise.

"Air contaminants" refers to substances contained in the vapors from paint, cleaning chemicals, pesticides, solvents, particulates, outdoor air pollutants and other airborne substances which together may cause material impairment to employees working within the enclosed workplace.

"Building-related illness" describes specific medical conditions of known etiology which can be documented by physical signs and laboratory findings. Such illnesses include sensory irritation 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.

"Building systems" includes the heating, ventilation and air-conditioning (HVAC) system, the energy management system and all other systems in a facility which may impact indoor air quality.

"Department" means the Department of Health and Senior Services.

"Designated person" means a person who has been given the responsibility by the employer to take necessary measures to assure compliance with this subchapter.

"Employee" means the term as defined at *N.J.A.C. 12:100-2.1*.

"Employer" means the term as defined at *N.J.A.C. 12:100-2.1*.

"HVAC system" means the collective components of the heating, ventilation and air-conditioning system 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.

"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.

"Office building" means a building in which administrative, clerical or educational activities are conducted. Examples of facilities and/or operations, which are not office buildings, include repair shops, garages, print shops and warehouses.

"Renovation 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; painting; decorating; demolition; surface refinishing; and removal or cleaning of ventilation ducts.

"Sick Building Syndrome" describes a situation in which a workplace is characterized by a substantial number of building occupants experiencing health and comfort problems that can be related to working indoors. Additionally the reported symptoms do not fit the pattern of any particular illness, are difficult to trace to any specific source and relief from these symptoms occurs upon leaving the building. It is important to distinguish Sick Building Syndrome from

problems of building-related illness. The latter term is reserved for situations in which signs and symptoms of diagnosable illness are identified and can be attributed directly to specific airborne contaminants.

#### § 12:100-13.3 Compliance program

(a) The employer shall identify a designated person who is given the responsibility to assure compliance with this section. The employer shall assure that the designated person is familiar with the requirements of this subchapter. The designated person shall assure that at least the following actions are implemented and documented:

1. Establishing and following a preventive maintenance schedule in accordance with the manufacturer's recommendations or with accepted practice for the HVAC system. Scheduled maintenance of the HVAC system shall include checking and/or changing air filters, checking and/or changing belts, lubrication of equipment parts, checking the functioning of motors and confirming that all equipment is in operating order. Damaged or inoperable components shall be replaced or repaired as appropriate. Additionally, any parts of this system with standing water shall be checked visually for microbial growth;

2. Implementing the use of general or local exhaust ventilation where housekeeping and maintenance activities involve use of equipment or products that could reasonably be expected to result in hazardous chemical or particulate exposures, above the applicable Permissible Exposure Limit (PEL), as adopted by reference under *N.J.A.C. 12:100-4.2*, to employees working in other areas of the building or facility;

3. When the carbon dioxide level exceeds 1,000 parts per million (ppm), the employer shall check to make sure the HVAC system is operating as it should. If it is not, the employer shall take necessary steps as outlined in (a)1 above;

4. When temperatures in office buildings are outside of the range of 68 to 79 degrees Fahrenheit, the employer shall check to make sure the HVAC system is in proper operating order. If it is not, the employer shall take necessary steps as outlined in (a)1 above;

5. If contamination of the make-up air supply is identified and documented, then the make-up inlets and/or exhaust air outlets shall be relocated or the source of the contamination eliminated. Sources of make-up air contamination may include contaminants from sources such as, but not limited to, cooling towers, vents, and vehicle exhaust;

6. Assuring that building without mechanical ventilation are maintained so that windows, doors, vents, stacks and other portals designed or used for natural ventilation are in operable condition;

7. Promptly investigating all employee complaints of signs or symptoms that may be associated with building-related illness or sick building syndrome;

8. The employer shall have a written plan describing how it will achieve compliance with this subchapter, which plan shall list the identity and responsibilities of the designated person referred to in (a) above and which shall include procedures which, at a minimum, address the following issues:

- i. Following of a preventive maintenance schedule;
- ii. Keeping of required records;
- iii. Locating of Indoor Air Quality compliance documents;
- iv. Investigating of employee complaints;
- v. Responding to signed employee complaints that have been submitted to the State alleging violation of the Public Employees' Occupational Safety and Health Act, *N.J.S.A. 34:6A-25* et seq.;
- vi. Notifying employees of work that may introduce air contaminants;
- vii. Controlling microbial contamination;
- viii. Controlling air contaminants;
- ix. Responding to temperature and/or carbon dioxide exceedences;
- x. Maintaining air quality during renovations and remodeling;

xi. Obtaining permits and performing work as required by the New Jersey Uniform Construction Code, *N.J.A.C. 5:23*; and

xii. Maintaining natural ventilation in buildings without mechanical ventilation; and

9. The employer shall review and update the written compliance plan referred to in (a)8 above at least annually, and whenever necessary to reflect new or modified tasks and procedures and to reflect new or revised employee positions.

#### § 12:100-13.4 Controls of specific contaminant sources

(a) Regarding other indoor air contaminants, when general ventilation is inadequate to control air contaminants emitted from point sources within work spaces to below the applicable PEL, as adopted by reference under *N.J.A.C. 12:100-4.2*, the employer shall implement other control measures such as local source capture exhaust ventilation or substitution.

(b) The employer shall control microbial contamination in the building by promptly repairing water intrusion that can promote growth of biologic agents.

(c) The employer shall remediate damp or wet materials by drying, replacing, removing or cleaning same within 48 hours of discovery and shall continue such remediation until the water intrusion is eliminated.

(d) The employer shall take measures to remove visible microbial contamination in areas such as ductwork, humidifiers, dehumidifiers, condensate drip pans, heat exchange components, other HVAC and building system components, or on building surfaces, such as carpeting and ceiling tiles, when found during regular or emergency maintenance activities or during visual inspection.

#### § 12:100-13.5 Air quality during renovation and remodeling

(a) 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 shall be safeguarded by means of local ventilation or other protective devices to ensure the safety of employees. Renovation and/or new construction work in occupied buildings shall be isolated and air contaminants, dust and debris shall be confined to the renovation or construction area by use of measures such as, but not limited to, physical barriers, pressure differentials, and/or performing the work during periods of minimal occupancy.

1. Before re-occupancy, work areas shall be cleaned and aired out as necessary.

2. Hazard information shall be used to select products and to determine necessary measures to be taken to comply with (a) above.

(b) Before selection and use of paints, adhesives, sealants, solvents, or installation of insulation, particle board, plywood, floor coverings, carpet, textiles, or other materials in the course of renovation or construction, the employer shall check product labels and Material Safety Data Sheets 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.

(c) The employer shall notify employees at least 24 hours in advance, or promptly in emergency situations, of work to be performed on the building that may introduce air contaminants into their work area.

#### § 12:100-13.6 Recordkeeping

a) The maintenance schedule shall be updated to show all maintenance performed on the building systems. The schedule shall include the date that such maintenance was performed and the name of the person or company performing the work.

(b) The records required to be maintained by this section shall be retained for at least three years.

(c) The records required to be maintained by this section shall be available on request to Department representatives for examination and copying.

(d) The records required to be maintained by this section shall be made available to employees and employee representatives for examination and copying upon written request as soon as possible after receipt by the employer of the written request, but no later than 10 working days from the date upon which the employer has received the request.

#### § 12:100-13.7 Employer's response to a signed PEOSH complaint

(a) Within 15 working days of receipt by the employer of notification from the Department that a complaint has been filed against the employer under the Public Employees' Occupational Safety and Health Act, *N.J.S.A. 34:6A-25* et seq., the employer shall respond in writing to the Department. The response may include any combination of the following:

1. A statement that the complaint is unfounded;
2. A description of any remedial action already taken;
3. An outline of any remedial measures planned but not yet taken with a timetable for completion; and/or
4. A statement that a study of the problem, with a timetable for completion of the study, has been initiated.

(b) Where remedial measures are planned or a study initiated, they shall be completed as soon as feasible. The employer shall submit, to the Department, a written report describing the remedial measures implemented and/or a copy of a study's report within 15 working days of completion.

(c) 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*.

#### § 12:100-13.8 Indoor air quality (IAQ) compliance documents

(a) In response to an employee complaint to the Department, the employer shall 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.