

Indoor Air Quality Plan

Flemington-Raritan Regional School District



Barley Sheaf Elementary School
Copper Hill Elementary School
Francis A. Desmares Elementary School
J.P. Case Middle School
Reading-Fleming Intermediate School
Robert Hunter Elementary School

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Policy & Administration

This notice is to inform employees that our agency complies with the Public Employees Occupational Safety & Health (PEOSH) Program, Indoor Air Quality (IAQ) Standard (N.J.A.C. 12:100-13) (2007), which was proposed on December 18, 2006 and adopted on May 21, 2007.

We recognize that good indoor air quality is essential to employee's health and productivity. We have established the following policies to promote good indoor air quality for employees in our buildings. These policies follow the requirements established by the PEOSH IAQ Standard as it applies to our workplace. This Written Indoor Air Quality Program applies to the following buildings/locations:

Barley Sheaf Elementary School, Copper Hill Elementary School, Francis A. Desmares Elementary School, J.P. Case Middle School, Reading-Fleming Intermediate School, Robert Hunter Elementary School

Designated Person

As required by the New Jersey PEOSH Indoor Air Quality Standard, a person has been designated as the person responsible for Flemington-Raritan Regional School District compliance with the standard. This person is:

Name Title: Ryan Mooney – Director of Educational Facilities, Operations, and Security

Address: 50 Court Street
Flemington, NJ 08822

Phone: Office: (908) 284-7593

Email: ryan.mooney@frsd.us

The designated person has been trained and given the responsibility by Flemington-Raritan Regional School District to make routine visual inspections, oversee preventive maintenance programs and maintain required records in order to ensure compliance with the IAQ Standard. The designated person is also assigned to receive employee concerns/complaints about indoor air quality, conduct investigations, facilitate repairs or further investigation as necessary, maintain required records, and update the written program annually.

Overview

Concern about indoor exposure to mold has been increasing as the public becomes aware that exposure to mold can cause a variety of health effects and symptoms, including allergic reactions. This document presents guidelines for the prevention and remediation/cleanup of mold and moisture problems in our facilities including measures designed to protect the health of students, staff, visitors, and remediation personnel. Mold spores are ubiquitous and will grow on virtually any organic substance as long as moisture, oxygen, and certain relative humidity, and temperature ranges are present. When excessive moisture accumulates in buildings or on building materials, mold growth will often develop, particularly if the moisture problem remains undiscovered or unaddressed.

It is impossible to eliminate all molds and mold spores from the indoor environment. However, mold growth can be controlled indoors by controlling moisture. Since mold requires water to grow, it is important to prevent/correct moisture problems in buildings. This Plan only addresses preventing and remediating mold issues. The *Designated* Person can assist in investigating and identifying building deficiencies, specific health complaints, and hidden sources of contamination.

Prevention

Preventive maintenance schedules that follow manufacturers' specifications are in place for heating, ventilation and, air conditioning (HVAC) systems throughout the District. Damaged and inoperable components will be repaired or replaced as appropriate.

Water leaks or other moisture issues in our facilities should immediately be reported to your Principal and the Designated Person.

The following are some guidelines the District will follow to keep moisture levels at a minimum:

1. Fix leaky plumbing and leaks in the building envelope/roof as soon as possible.
2. Watch for condensation and wet spots. Fix source(s) of moisture problem(s) as soon as possible.
3. Prevent moisture due to condensation by increasing surface temperature or reducing the moisture level in air using dehumidifiers. To increase surface temperature, insulate or increase air circulation.
4. Increase ventilation if outside air is cold and dry, or dehumidify if outdoor air is warm and humid.
5. Keep HVAC drip pans clean, flowing properly, and unobstructed.
6. Vent moisture-generating appliances, such as dryers, to the outside where possible.
7. Maintain indoor humidity below 60% relative humidity (RH), ideally 30-60%, if possible. If relative humidity is projected to go above 65%, deploy dehumidifiers on a schedule amenable to school operations but definitely after school finishes for the day until the next morning.
8. Clean wet or damp spots immediately. If floors are slippery, contact the Principal immediately.
9. Keep bathrooms dry and well ventilated. Remove mold growth using detergent or soap from nonporous items (such as plastic, metals, and tiles). Moldy porous items are generally impossible to clean and should be discarded in sealed plastic bags.
10. Minimize the amount of plants within any space. Plants require frequent watering, which leads to spillage. Furthermore, potting soil provides an excellent source for mold growth.
11. Ensure that exhaust fans are adequate for the room size. Exhaust fans indicate air exchange capacity in cubic feet per minute (CFM).
12. Minimize the storage of large amounts of unused materials to maximize airflow in these areas.
13. Keep heating systems clean. Empty humidifier water trays and change/cleanse filters on a maintenance schedule or according to manufacturer's recommendations.
14. The use of cooling or humidifying systems that are owned and/or maintained by occupants is

strictly prohibited.

15. Air-conditioning systems shall be set no lower than 75 deg. F. during occupied times of our school to limit any fungal growth and reduce the potential for condensation during the cooling season.
16. In schools with air-conditioning, the nighttime temperatures should be “set forward” to 79 deg. F
17. Perform regular building inspections and maintenance as scheduled. Inspections should include, when applicable, site drainage, roof gutters and downspouts, building drains, plenums, musty odors, and indications of leaks. Inspect building penetrations monthly as a proactive measure.
18. Don't let foundations stay wet or water plants near the foundation. Provide adequate drainage and slope the ground away from the foundation. If water tends to pond against the building or on rooftops, take measures to prevent ponding.
19. Open all closet doors over the summer break to prevent build-up of moist air in unventilated spaces.
20. Avoid negative building pressurization during the entire cooling season.
21. Floors, desks, and hard surfaces are cleaned with a germicidal cleaner.
22. HVAC units are checked yearly for proper operation and air changes.
23. Asbestos – any school with asbestos containing materials is inspected every 6 months by a qualified inspector to ensure its integrity.
24. The district has an Integrated Pest Management program in effect to use alternate methods of pest control instead of chemicals.
25. All chemicals should be stored in properly vented cabinets.
26. Kilns are vented.
27. District carpets are cleaned on a regular basis.
28. Stained ceiling tiles will be scheduled for replacement by the Custodial or Maintenance Department as soon as they are reported.

Carbon Dioxide

If a particular room is equipped with non-mechanical ventilation systems such as operable windows, stacks, louvers, etc. the Designated Person must ensure that these areas are clear and operable to allow the flow of air. If carbon dioxide (CO₂) concentrations exceed 1,000 parts per million (ppm), measured using a hygrometer, and the room is not equipped with operable windows, the Designated Person will conduct an inspection and take all necessary steps to ensure that the mechanical HVAC system is operating properly.

Hidden Mold

In some cases, indoor mold growth may not be obvious. It is possible that mold may be growing on hidden surfaces, such as the backside of drywall, wallpaper, or paneling, the top of ceiling tiles, the underside of carpets and pads, etc. Possible locations of hidden mold can also include pipe chases and utility tunnels (with leaking or condensing pipes), walls behind furniture (where condensation forms), condensate drain pans inside air handling units, porous thermal or acoustic liners inside ductwork, or roof materials above ceiling tiles due to roof leaks or insufficient insulation. Hidden mold may be suspected if a building smells moldy and the source is not visible, or if there has been water damage and building occupants are reporting health problems.

Recordkeeping

Documentation of preventive maintenance and repairs to the ventilations system are retained for at least 3 years and include the following information:

- Date that preventive maintenance or repair was performed
- Person or company performing the work
- Documentation of:
 - Checking and/or changing air filters
 - Checking and/or changing belts
 - Lubrication of equipment parts
 - Checking the functioning of motors
 - Confirming that equipment is in operating order
 - Checking for microbial growth in condensate pans or standing water

Documentation of preventive maintenance and work orders for repairs are maintained by the Designated Person.

Indoor Air Quality Compliance Documents

Our school district will make reasonable efforts to obtain and maintain copies of IAQ compliance documents. Available IAQ compliance documents will be maintained by the Designated Person and will be available to PEOSH during an inspection.

Procedures for Investigating Complaints

The following procedures are to provide general guidance for actions to be taken for various scenarios relating to Indoor Air Quality.

1. In the event of flooding or large water leaks, immediately inform the Designated Person. Locate and secure the source of water. An effort will be made to dry wet porous materials (installed carpeting, upholstered furnishings, drywall, etc.) Effectively within 24 to 48 hours by vacuum extraction and dehumidification to prevent mold growth.

2. If any staff member suspects any air quality issue/odor, they should contact their building Principal. The Principal will then direct staff to the school nurse to complete an Indoor Air Quality Questionnaire. The Director of Educational Facilities & Operations (Designated Person) will conduct a thorough visual inspection and conduct an assessment of indoor air quality including all sampling deemed necessary. If the issue continues the Director of Educational Facilities & Operations will contact the district environmentalists. A written report will outline findings and recommendations. Corrective actions will be coordinated. A written response to the complaint will be made within 10 days.

3. If any staff members sees visible mold they must immediately contact their building Principal. The Principal

will contact the Director of Educational Facilities & Operations (Designated Person) immediately. Action will be undertaken to remove existing mold growth and identify and fix the source(s) of uncontrolled moisture responsible for the mold growth. Porous materials from which mold cannot be cleaned must be removed from buildings. Non-porous building materials may be cleaned using detergent, or cleaners specifically formulated for mold.

4. The Designated Person has been trained and given the authority to conduct basic indoor air quality complaint investigations. In many cases IAQ complaints can be resolved by the Designated Person.

Responding to Signed Employee Complaints to PEOSH

If we receive a written notification from PEOSH that a signed employee complaint has been filed with PEOSH, we will conduct an inquiry into the allegations. The findings of the initial inquiry and any planned actions will be provided in a written response to PEOSH within fifteen (15) working days of receipt. Copies of all responses to PEOSH will be maintained by the Designated Person.

Notification of Employees

The Designated Person will notify employees at least 24 hours in advance, or promptly in emergency situations, of work to be performed on a building that may introduce air contaminants into their work area. This notification will be in writing and will identify the planned project and the start date. The notification will also include information on how to access Material Safety Data Sheets (MSDS) or other hazard information. The Designated Person will maintain records of this notification for compliance recordkeeping purposes.

Remediation

1. The goal of remediation is to restore satisfactory building conditions including the repair of water damage; and the elimination of existing mold and odors; etc. In all situations, the underlying cause of water accumulation must be rectified or mold will recur. Remediation should be conducted in a manner that will remove or clean contaminated materials while preventing the spread of fungi and dust from the work area to adjacent clean areas. The removal of mold from contaminated surfaces will vary depending on the material and the location, and the extent of mold growth. Our Environmental Consultant will assist in making this determination.

2. Most complaints are resolved by cleaning the room, changing filters in the HVAC system, removing plants, furniture or carpet. If this does not solve the problem, we will bring in an environmental consulting firm to do further testing.

Classrooms are made up of a very diverse group of individuals. Some problems are caused by what is brought into the classroom environment by individuals. Some examples are pet hair, dander, perfumes, food products, plants, and pollen and mold spores. Any of these things can be tracked into the room. All of these things can have an effect on the classroom environment due to people's allergies and sensitivity to different products.

There are no federal or state regulatory limits concerning safe or unsafe levels of measurable airborne mold in air. There is however, sufficient information to justify remediating visible mold contamination to ensure the risk to occupant health is minimized.

Maintaining Indoor Air Quality during Renovation and Construction Projects

Renovation work and/or new construction projects that have the potential to result in the diffusion of dust, stone and other small particles, toxic gases or other potentially harmful substances into occupied areas in quantities hazardous to health will be controlled in order to minimize employee exposure. The Designated

Person will utilize the following protocol to assure that employees' exposure to potentially harmful substances is minimized:

- Obtain MSDS for all products to be utilized on the project and maintain on-site throughout the duration of the project.
- Choose the least toxic product that is technically and economically feasible.
- Consider performing the renovation/construction project when the building is least occupied.
- Consider temporarily relocating employees to an alternate worksite.
- Notify potentially affected employees, in writing, at least 24 hours prior to commencement of chemical use or dust generation.
- Isolate the work area from occupied areas.
- Use mechanical ventilation and local exhaust ventilation to maintain a negative pressure gradient between the work area and occupied areas.

Before selection and 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 manufacturer 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 should be used to select the least volatile/hazardous products and to determine if additional necessary measures need to be taken to comply with the objectives of this section. The Designated Person will maintain records of this evaluation for compliance recordkeeping purposes.

Management and the Designated Person will consider the feasibility of conducting renovation/construction work using appropriate barriers, during periods when the building is unoccupied, or temporarily relocating potentially affected employees to areas of the building that will not be impacted by the project. Temporary barriers will be utilized to provide a physical isolation between the construction area and occupied areas of the building.

Mechanical ventilation (i.e. fans, portable blowers, or existing HVAC equipment) will be used to maintain a negative pressure gradient between the work area and occupied areas to ensure the safety of employees. Renovation areas in occupied buildings will be isolated and dust and debris shall be confined to the renovation or construction area.

If work is being performed by an outside contractor, the Designated Person will maintain communication with contractor personnel to ensure they comply with the requirements of the PEOSH IAQ standard.

Employees who have special concerns about potential exposures during or after renovation/construction/repair work should consult with their supervisor. If despite these preventive actions, employees are exposed to air contaminants resulting in health effects, employees will be instructed to report any work-related health symptoms to one person (e.g., the nurse, human resources, designated person) so that they can be accurately assessed and investigated when indicated. All exposures should also be reported to their supervisor and the designated person.

Obtaining Permits and Performing Work in Accordance with the New Jersey Uniform Construction Code (N.J.A.C. 5:23)

Permits for renovation and construction-related work will be obtained as required by the New Jersey Uniform Construction Code (NJUCC), (N.J.A.C. 5:23). All work requiring a permit will be performed in compliance with N.J.A.C. 5:23. Additional information concerning the NJUCC can be obtained from the NJ Department of Community Affairs, Division of Codes and Standards (www.state.nj.us/dca/codes, 609-984-7609)

Employee Responsibilities

Employees have a role in maintaining good indoor air quality within their workplace. Employees should ensure that they do not introduce unauthorized chemicals (i.e. fragrances, air fresheners, cleaning solvents, ozone generators) into the workplace. In addition, if employees observe situations which may lead to poor indoor air quality (i.e. inoperable windows, water leaks and visible mold) they should notify the building Principal & Designated Person.

Employees are responsible for maintaining mechanical and passive ventilation systems by ensuring that louvers and diffusers remain clear to allow the free flow of air. Intentionally blocking, diverting, or otherwise manipulating components (i.e. thermostat), of the ventilation system may result in disruption of the ventilation system in the immediate area or other occupied areas of the building.

All work orders and maintenance repairs will be stored on a District-wide spreadsheet documenting the location of the repair and what it includes. For more information or to review this document, please contact the Designated Person.

Periodic Review and Update

The written Indoor Air Quality Program will be updated at least annually to reflect changes in policies, procedures, responsibilities and contact information. This plan will be reviewed every 3 months after the start of each new school year (July 1st).

Certifications:

Reviewed and Approved:

Principal

Date

Director of Educational Facilities & Operations

Date



Flemington-Raritan Regional School District



10. Health Problems or Symptoms:

Describe in three words or less each symptom or adverse health effect you experience more than two times per week (i.e., runny nose):

Symptom 1: _____

Symptom 2: _____

Symptom 3: _____

Symptom 4: _____

Do the above symptoms clear up within one hour after leaving work:

Yes: _____

No: _____

If no, which symptom or symptoms persist (noted at home or at work) throughout the week? Please circle the symptom below:

Symptom: 1 2 3 4

Do you have any health problems or allergies which might account for any of the above symptoms: Yes: _____ No: _____

If Yes, please describe: _____

11. Do any of the following apply to you:

_____ Wear contact lenses

_____ Operate video display terminals at least 10% of the work day

_____ Operate photocopier machines at least 10% of the work day

_____ Use or operate other special office machines or equipment

Specify: _____

_____ Currently taking medication

Reason for taking medication (specify): _____

12. Do you smoke?: Yes: _____ No: _____

13. Do other in your immediate area smoke?: Yes: _____ No: _____

14. Can you offer any other comment or observations concerning your office environment:

(Optional) _____

Date: _____

Date Revised 5/30/2023



Walkthrough Inspection Checklist

Name: _____
 School: _____
 Room or Area: _____ Date Completed: _____
 Signature: _____

Instructions

1. Read the *IAQ Background* and the Background Information for this checklist.
2. Keep the Background Information and make a copy of the checklist for future reference.
3. Complete the Checklist.
 - Check the "yes," "no," or "not applicable" box beside each item. (A "no" response requires further attention.)
 - Make comments in the "Notes" section as necessary.
4. Return the checklist portion of this document to the IAQ Coordinator.

1. GROUND LEVEL

	Yes	No	N/A
1a. Ensured that ventilation units operate properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1b. Ensured there are no obstructions blocking air intakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1c. Checked for nests and droppings near outdoor air intakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1d. Determined that dumpsters are located away from doors, windows, and outdoor air intakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1e. Checked potential sources of air contaminants near the building (chimneys, stacks, industrial plants, exhaust from nearby buildings)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1f. Ensured that vehicles avoid idling near outdoor air intakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1g. Minimized pesticide application	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1h. Ensured that there is proper drainage away from the building (including roof downspouts)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1i. Ensured that sprinklers spray away from the building and outdoor air intakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1j. Ensured that walk-off mats are used at exterior entrances and that they are cleaned regularly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. ROOF

While on the roof, consider inspecting the HVAC units (use the Ventilation Checklist).

2a. Ensured that the roof is in good condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2b. Checked for evidence of water ponding	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2c. Checked that ventilation units operate properly (air flows in)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2d. Ensured that exhaust fans operate properly (air flows out)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2e. Ensured that air intakes remain open, even at minimum setting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2f. Checked for nests and droppings near outdoor air intakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2g. Ensured that air from plumbing stacks and exhaust outlets flows away from outdoor air intakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. ATTIC

3a. Checked for evidence of roof and plumbing leaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3b. Checked for birds and animal nests	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. GENERAL CONSIDERATIONS

4a. Ensured that temperature and humidity are maintained within acceptable ranges	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4b. Ensured that no obstructions exist in supply and exhaust vents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4c. Checked for odors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4d. Checked for signs of mold and mildew growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. GENERAL CONSIDERATIONS (continued)

- | | Yes | No | N/A |
|--|--------------------------|--------------------------|--------------------------|
| 4e. Checked for signs of water damage | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4f. Checked for evidence of pests and obvious food sources | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4g. Noted and reviewed all concerns from school occupants | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. BATHROOMS AND GENERAL PLUMBING

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| 5a. Ensured that bathrooms and restrooms have operating exhaust fans | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5b. Ensured proper drain trap maintenance: | | | |
| Water is poured down floor drains once per week (approx. 1 quart of water) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Water is poured into sinks at least once per week (about 2 cups of water) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Toilets are flushed at least once per week | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. MAINTENANCE SUPPLIES

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| 6a. Ensured that chemicals are used only with adequate ventilation and when building is unoccupied | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6b. Ensured that vents in chemical and trash storage areas are operating properly | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6c. Ensured that portable fuel containers are properly closed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6d. Ensured that power equipment, like snowblowers and lawn mowers, have been serviced and maintained according to manufacturers' guidelines | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. COMBUSTION APPLIANCES

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| 7a. Checked for combustion gas and fuel odors | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7b. Ensured that combustion appliances have flues or exhaust hoods | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7c. Checked for leaks, disconnections, and deterioration | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7d. Ensured there is no soot on inside or outside of flue components | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

8. OTHER

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| 8a. Checked for peeling and flaking paint (if the building was built before 1980, this could be a lead hazard) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8b. Determined date of last radon test | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



NOTES