

**INDOOR AIR QUALITY COMPLIANCE PROGRAM**

**In Compliance with the New Jersey Public Employees Occupational  
Safety and Health (PEOSH) Program, Indoor Air Quality (IAQ) Standard  
(N.J.A.C. 12:100-13)(2007),**

**Prepared For**

Hopatcong Borough School District  
2 Windsor Avenue  
Hopatcong, NJ 07843

**Prepared By**

Garden State Environmental, Inc.  
555 South Broad Street, Suite K  
Glen Rock, New Jersey 07452

**Updated On:**

May 23, 2023

## Written Indoor Air Quality Plan

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## **I. Policy and Administration**

This written Indoor Air Quality Program is to inform employees that the Hopatcong Borough School District (the District) complies with the New Jersey Public Employees Occupational Safety and Health (NJ-PEOSH) Program, Indoor Air Quality (IAQ) Standard (N.J.A.C. 12:100-13)(2007), (hereinafter “Standard”) which was proposed on December 18, 2006 and adopted on May 21, 2007.

We recognize that good indoor air quality is essential to building occupants’ comfort, health and productivity. We have established the following policies to promote good indoor air quality for employees and other occupants in our buildings. These policies follow the requirements established by the NJ-PEOSH IAQ Standard as it applies to our workplace.

This Written Indoor Air Quality Program applies to the following District buildings:

1. Administrative Building – 2 Windsor Avenue, Hopatcong, NJ 07843
2. Hopatcong High School – 2A Windsor Avenue, Hopatcong, NJ 07843
3. Durban Avenue Elementary School – 616 Durban Avenue, Hopatcong, NJ 07843
4. Hopatcong Middle School – 1 David Road, Stanhope, NJ 07874
5. Tulsa Trail Elementary School – 2 Tulsa Trail, Hopatcong, NJ 07843

See **Appendix I** for detailed building-specific information.

## **II. Designated Person**

As required by the Standard, a District representative has been designated as the person responsible for compliance with the IAQ standard for Hopatcong Public Schools. This Designated Person (DP) is:

**Name:** Gregory Smyth, Supervisor of Buildings & Grounds

**Address:** Hopatcong Borough School District  
2 Windsor Avenue  
Hopatcong, NJ 07843

**Phone:** Office: (973) 770-8840

**Email:** [gsmyth@hopatcongschools.org](mailto:gsmyth@hopatcongschools.org)

The Designated Person has been trained and assigned the responsibility by the District to make routine visual inspections (see **Appendix II** criteria for Building System Evaluations), oversee preventive maintenance programs and maintain required records for compliance with the IAQ Standard. The DP or his/her designee is also assigned to receive employee or building occupant concerns/complaints about indoor air quality, conduct investigations, facilitate repairs as necessary, maintain required records, and update the written program annually.

At this time, the DP, Matt Geary is fully responsible for receipt of all IAQ related information, complaints, and work orders and related documents. However, in the case of the DP's absence, the backup contact for reporting emergent IAQ concerns is:

Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Email: \_\_\_\_\_

### **III. Preventive Maintenance Schedule**

Preventive maintenance schedules that follow manufacturers' specifications are in place for heating, ventilation, and air conditioning systems (HVAC) systems in this workplace. A copy of the Preventive Maintenance Schedule is attached (**Appendix III**). All HVAC systems are inspected on a quarterly basis and cleaned as needed. Damaged and inoperable components will be repaired or replaced as required; a work order to show actions taken will be completed and attached to the Indoor Air Quality Issue Resolution & Deferred Maintenance Tables (**Appendix IV**) or entered into the "Front Desk" program for electronic access. NOTE: All maintenance documentation for the District is compiled and managed electronically via the "Front Desk" program. All work orders and maintenance records can be accessed directly by the Buildings & Grounds Department.

### **IV. Recordkeeping**

*NOTE: N.J.A.C. 12:100-13.6 requires that maintenance logs be maintained on site by the employer's designated person for 3 years and must be made available to NJ-PEOSH, employees, and employee representatives upon request.*

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

- Date that the 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

In addition to the preventative maintenance records, documentation of work orders and repairs by outside contractors shall be maintained by the DP or his/her designee via the Front Desk program and manual files as needed.

*Note: A sample HVAC inspection checklist is included in **Appendix V**. This represents the minimum requirements for routine HVAC inspections by in-house staff.*

### **Indoor Air Quality Compliance Documents**

The District will make reasonable efforts to obtain and maintain copies of IAQ compliance documents. Available IAQ compliance documents will be maintained by the DP and will be available to NJ-PEOSH during an inspection. These documents and their locations are listed in the table below:

As-built construction documents	District Buildings & Grounds
HVAC system commissioning reports	District Buildings & Grounds
HVAC systems testing, adjusting, and balancing reports	District Buildings & Grounds / Front Desk program
Operations and maintenance manual	District Buildings & Grounds / Per Building / Front Desk program
Operator training materials	District Buildings & Grounds

### **V. Investigating IAQ Complaints**

If employees begin to experience health symptoms that they believe are related to poor indoor air quality, they should notify Matt Geary (DP) to obtain an IAQ Complaint Form (**Appendix VI**) or Indoor Air Quality Questionnaire (**Appendix VII**). The IAQ Complaint Form is to be completed if the concern relates to temperature and the Indoor Air Questionnaire is to be completed for all other IAQ concerns. The questionnaire should be completed as soon as possible and forwarded to the DP or his designee for review and investigation.

The DP has been trained and authorized to conduct basic indoor air quality complaint investigations. In many cases IAQ complaints can be resolved internally. If necessary, the DP may contact an Industrial Hygienist, Environmental Consultant, health and safety specialist or HVAC contractor to help identify and correct the IAQ issue. Based upon the nature of the issues, one or more of the following forms may be utilized: **Appendix VI** Indoor Air Quality Complaint Form, **Appendix VII** Indoor Air Quality Questionnaire, and **Appendix IV** Indoor Air Quality Issue Resolution and Deferred Maintenance Tables.

The District's current Indoor Air Quality Consultant is:

Garden State Environmental, Inc.  
555 S. Broad Street  
Glen Rock, New Jersey  
201-652-1119  
[info@gseconsultants.com](mailto:info@gseconsultants.com)

***Responding to Signed Employee Complaints to NJ-PEOSH***

If the District receives a written notification from NJ-PEOSH that a signed employee complaint has been filed with NJ-PEOSH, the District 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. Documentation of all complaints and responses will be maintained by the DP.

## **VI. Notification of Employees**

The DP will notify employees at least 24 hours in advance or promptly in emergency situations, of work to be performed in a building that may introduce air contaminants into their work area using the Employee Notification Form found in **Appendix X**. This notification will identify the planned project as well as the start and expected end dates. Copies of the IAQ Notice and Safety Data Sheets will be accessible to building occupants at least 24 hours in advance or immediately in emergency situations. The IAQ Notice will also include information on how to access Safety Data Sheets (SDS) or other hazard information from the DP. The DP will maintain records of this notification for compliance recordkeeping purposes.

## **VII. Controlling Microbial Contamination**

Uncontrolled water intrusion into buildings (roof leaks, flooding, pipe condensation, plumbing leaks, or sewer backups) has the potential to support microbial growth. All employees should routinely observe their workplace for evidence of water intrusion (i.e. roof leaks, pipe leaks, water stained interior building materials). Employees should notify the DP/Buildings and Grounds Department immediately if they observe possible evidence of water intrusion so that corrective action can be taken.

Porous materials and any other material highly susceptible to microbial growth such as ceiling tiles, carpet, and gypsum wall boards that were wet but not fully dried within 48 hours may be removed at the discretion of, and as directed by the DP, using appropriate environmental controls to prevent possible cross contamination to non-impacted areas.

Should visual evidence of suspected microbial growth be observed on interior building materials, the area is to be left undisturbed pending investigation by the DP or if deemed necessary, the District's Indoor Air Quality Consultant.

## **VIII. Controlling Air Contaminants**

### Outside Air

The DP will identify the location of outside air intakes and identify potential contamination sources nearby, such as; loading docks, other areas where vehicles idle, nearby exhaust stacks, vegetation, smoking areas, waste storage, and high traffic areas. Periodic inspections will be conducted to ensure that the intakes remain clear of potential contaminants. If contamination occurs, the DP will eliminate the contaminant source or make arrangements to relocate the intake.

### Point Source Contaminants

The DP will identify point sources of contaminants and arrange to capture and exhaust these sources from the building using local exhaust ventilation. Exhaust fans will be periodically inspected to ensure that they are functioning properly and exhausting to areas located away from outside air intakes.

### Response to Temperature and Carbon Dioxide

#### Temperature

Where a mechanical ventilation system capable of regulating temperature is present, facilities personnel will strive to maintain administrative area temperatures within the range of 68 to 79 degrees Fahrenheit. If outside this range, the DP should be contacted. The DP will ascertain whether the HVAC system is operating properly. If not, the system must be repaired or adjusted. The IAQ Standard does not require the installation of new HVAC equipment to achieve this temperature range, windows that operate and fans may be utilized as indicated.

#### Carbon Dioxide

If the room is equipped with non-mechanical ventilation systems such as operable windows, stacks, louvers, etc. the DP must ensure that these areas are clear and operable to allow the flow of air. If carbon dioxide (CO<sub>2</sub>) concentrations exceed 1,000 parts per million (ppm), and the room is not equipped with operable windows, the DP will conduct an inspection and take all necessary steps to ensure that the mechanical HVAC system is operating properly including the introduction of sufficient outside air to help control carbon dioxide levels.

## **IX. Maintaining Indoor Air Quality During Renovation and Construction Projects**

Renovation work and/or new construction projects including painting that have the potential to result in the diffusion of dust or other small particles, toxic gases, volatile organic compounds, noxious odors, and/or other potentially harmful substances into occupied areas, in quantities potentially hazardous to health, will be controlled in order to minimize employee exposure. The DP will utilize the following protocol to assure that employees' exposure to potentially harmful substances is minimized:

- Obtain Safety Data Sheets (SDSs) for all products to be utilized on the project and maintain on-site throughout the duration of the project.
- Choose the least hazardous product that is technically and economically feasible.
- Consider performing the renovation/construction project when the building is the least or not occupied.
- Consider temporarily relocating employees to an alternate worksite.
- Notify potentially affected employees, in writing, a minimum of 24 hours prior to commencement of chemical use or dust generation.
- Isolate the work area from occupied areas utilizing separation and critical barriers.

- Use temporary mechanical ventilation to maintain a negative pressure gradient between the work area and occupied areas if possible. If local ventilation must be used, the system should be cleaned before the area is re-occupied.

### **Planning for Air Quality During Renovation and Construction Projects**

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 DP 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 DP will maintain records of this evaluation for compliance recordkeeping purposes.

The DP will consider the feasibility of conducting renovation/construction work using appropriate isolation barriers, during periods when the building is unoccupied, or temporarily relocating potentially affected employees to areas of the building that will 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) should 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 DP or his/her designee must maintain communication with contractor personnel to ensure they comply with the requirements of the PEOSH IAQ standard, the District's IAQ Plan and all applicable OSHA standards.

Employees who have special concerns about potential exposures during or after renovation/construction/repair work should consult with the DP.

### **Maintaining Natural Ventilation in Buildings without Mechanical Ventilation**

In portions of buildings not equipped with mechanical ventilation, the DP will identify the location of non-mechanical ventilation systems, such as stacks, vents and operable windows. Periodic inspections will be conducted to ensure that these systems are operable and the surrounding areas remain clear of obstructions and potential contaminants.



## **X. 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. excessive personal fragrances, air fresheners, cleaning or other solvents, ozone generating air cleaners) into the workplace. In addition, if employees observe situations which may lead to poor indoor air quality (i.e. inoperable windows, malfunctioning HVAC units, water leaks, and visible mold), they should notify the DP so it may be addressed promptly.

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.

## **XI. Annual 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 prior to May 23, 2024.

**XII. CERTIFICATIONS AND ADOPTION:**

Reviewed and Approved:

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IAQ Designated Person  
Supervisor of Buildings & Grounds  
Hopatcong Borough School District

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Date



May 23, 2023

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Richard M. Lester, M.S.  
President  
Garden State Environmental, Inc.

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Date

## **APPENDIX I**

### **Facility Specific Information**

<b>Hopatcong Borough School District Facility Specific Information</b>				
<b>FACILITY NAME</b>	<b>FACILITY CONSTRUCTION</b>	<b>AS BUILT/ RENOVATION or ADDITION DATES</b>	<b>HVAC TYPE/OPERATION</b>	<b>MAINTENANCE SCHEDULE</b>
<b>Administrative Building</b>	Flat roof, masonry construction, slab on grade	New Luxair HVAC unit installed in April 2022 to replace original unit from 1969	Cooling includes multiple ductless mini-split AC units as well as 3 additional rooftop AHUs & compressors through ducted supply vents	Performed quarterly: <ul style="list-style-type: none"> <li>• Check Units for Operation</li> <li>• Change or Clean Filters</li> <li>• Change Belts</li> <li>• Oil or Grease Motors and Bearings</li> <li>• Clean off all grates / vent covers</li> </ul>
			Heating includes multiple forced hot air Univents utilizing gas fired hot water radiators and electric blowers with multiple roof mounted exhaust fans throughout the building	
<b>Hopatcong High School</b>	Flat roof, masonry with brick façade, steel framing, slab on grade	As-Built 1964; Auditorium 1969; Gym 1995; Tech Center 1998; Total Area 135,730sf	Cooling includes multiple ductless mini-split AC units with 5 internal AHUs & rooftop compressors through ducted supply vents	Performed quarterly: <ul style="list-style-type: none"> <li>• Check Units for Operation</li> <li>• Change or Clean Filters</li> <li>• Change Belts</li> <li>• Oil or Grease Motors and Bearings</li> <li>• Clean off all grates / vent covers</li> </ul>
			Heating includes multiple forced hot air Univents utilizing gas fired hot water radiators and electric blowers with multiple roof mounted exhaust fans throughout the building	
<b>Durban Avenue Elementary School</b>	Flat roof, masonry with brick exterior façade, slab on grade	As Built 1971; Total Area 55,065sf	Cooling includes multiple ductless mini-split AC units	Performed quarterly: <ul style="list-style-type: none"> <li>• Check Units for Operation</li> <li>• Change or Clean Filters</li> <li>• Change Belts</li> <li>• Oil or Grease Motors and Bearings</li> <li>• Clean off all grates / vent covers</li> </ul>
			Heating includes multiple forced hot air Univents utilizing gas fired hot water radiators and electric blowers with multiple roof mounted exhaust fans throughout the building	
<b>Hopatcong Middle School</b>	Flat roof, masonry with brick exterior façade, slab on grade	As-Built 1980; CR Addition 1996; Total Area 85,000sf	Cooling includes multiple rooftop compressors & 1 internal AHU through ducted supply vents	Performed quarterly: <ul style="list-style-type: none"> <li>• Check Units for Operation</li> <li>• Change or Clean Filters</li> <li>• Change Belts</li> <li>• Oil or Grease Motors and Bearings</li> <li>• Clean off all grates / vent covers</li> </ul>
			Heating includes multiple forced hot air Univents utilizing gas fired hot water radiators and electric blowers with multiple roof mounted exhaust fans throughout the building	
<b>Tulsa Trail Elementary School</b>	Flat roof, masonry construction, slab on grade	As Built 1969; MC Addition 1996; Total Area 32,185sf	Cooling includes multiple rooftop compressors & 2 rooftop AC units through ducted supply vents	Performed quarterly: <ul style="list-style-type: none"> <li>• Check Units for Operation</li> <li>• Change or Clean Filters</li> <li>• Change Belts</li> <li>• Oil or Grease Motors and Bearings</li> <li>• Clean off all grates / vent covers</li> </ul>
			Heating includes multiple forced hot air Univents utilizing gas fired hot water radiators and electric blowers supplemented with electric cabinet heaters with multiple roof mounted exhaust fans throughout the building	

## **APPENDIX II**

### **Criteria for Building Systems Evaluation**

## **Criteria for Building Systems Evaluation**

**In order to efficiently evaluate all aspects of the building's systems, to identify possible causes for complaints or malfunctions, the following is used to aid in a complete understanding of the conditions at any point in time.**

The building systems evaluation includes checking the heating, ventilation, and air conditioning system for:

- obstructions at air intake;
- pollutant sources by air intake;
- fresh air intakes work properly;
- air filters inspected for proper installation and cleanliness;
- condensate drain pans empty and clean;
- heating and cooling coils clean;
- air handling and duct work clean;
- mechanical rooms free of trash, debris, and stored chemicals;
- control systems operating properly;
- proper direction of air flow;
- air distribution;
- all exhaust fans operating and effectively removing pollutants; and
- outdoor air volume meets design specification.

The building systems evaluation includes checking rooms for:

- overall cleanliness of rooms and occupied spaces;
- inspect plumbing for dry drain traps and possible leaks;
- condensation;
- functional local exhaust;
- proper air flow into room; and
- proper use and storage of chemical supplies.

The building systems evaluation includes checking maintenance operations for:

- proper use of chemicals;
- the availability of the Safety Data Sheets (SDS);
- proper labeling of chemical containers, including cleaning supplies;
- presence and cleanliness of floor mats (may need mats for slip hazard);
- proper dusting;
- effective floor maintenance procedures;
- absence of carpeting near water sources;
- drain traps;
- water leaks;
- condensation;
- proximity of pollutant sources to the heating ventilation and air conditioning (HVAC) systems; and
- proper exhausting of combustion devices.

## **APPENDIX III**

### **Preventative Maintenance Schedule**

**Example of Preventive Maintenance Schedule**  
 (See Front Desk program for details)

	Every 3 Months	Every 6 Months	Annually	Every 2 Years	As Needed
<b>HVAC SYSTEM</b>					
Filters Replaced/Fitted Properly		xx/xx/xx			
Fan/Air Flow Direction	xx/xx/xx				
Belt Tension		xx/xx/xx			
Drain Pans Empty/Clean	xx/xx/xx				
Overall Cleanliness of Ducts and Unit			xx/xx/xx		
15-20 percent of Air Delivered is Fresh				xx/xx/xx	
Calibration of System				xx/xx/xx	
Thermostats Functional	xx/xx/xx				
<b>CLEANING SCHEDULE</b>					
Cleaning of Heating Coils		xx/xx/xx			
Cleaning of Cooling Coils		xx/xx/xx			
Cleaning of Drainage Areas		xx/xx/xx			
Cleaning of Ductwork					xx/xx/xx
<b>AIR INTAKE</b>					
No Obstruction	xx/xx/xx				
Air Flows into duct	xx/xx/xx				
No Pollutant Sources Nearby (garbage, idling vehicles, exhaust)	X				
Dampers Operational		xx/xx/xx			
Motors Operational		xx/xx/xx			
<b>LOCAL EXHAUST SYSTEMS</b>					
Proper Exhaust volume			xx/xx/xx		
Air Direction Correct			xx/xx/xx		
Fan Functional			xx/xx/xx		
Outdoor Vent Checked/Cleaned			xx/xx/xx		
<b>OTHER</b>					
Sewage Traps Filled with Water Weekly	xx/xx/xx				
Hazardous Chemicals Storage		xx/xx/xx			
Walk-off Mat Cleanliness	xx/xx/xx				
Carpet Cleanliness	xx/xx/xx				
Leaks, Stains, Moisture Inspection	xx/xx/xx				
Clean All Tables, Diffusers, Shelves	xx/xx/xx				xx/xx/xx
Deep Clean Carpets, Strip & Wax Floors		xx/xx/xx			xx/xx/xx
Clean Registers					



### Preventive Maintenance Schedule (See Front Desk program for details)

Building:	Every 3 Months	Every 6 Months	Annually	Every 2 Years	As Needed
<b>HVAC SYSTEM</b>					
Filters Replaced/Fitted Properly	X				
Fan/Air Flow Direction	X				
Belt Tension	X				
Drain Pans Empty/Clean	X				
Overall Cleanliness of Ducts and Unit	X				
15-20 percent of Air Delivered is Fresh					X
Calibration of System					X
Thermostats Functional					X
<b>CLEANING SCHEDULE</b>					
Cleaning of Heating Coils					X
Cleaning of Cooling Coils					X
Cleaning of Drainage Areas					X
Cleaning of Ductwork					X
<b>AIR INTAKE</b>					
No Obstruction		X			
Air Flows into duct		X			
No Pollutant Sources Nearby (garbage, idling vehicles, exhaust)		X			
Dampers Operational	X				
Motors Operational	X				
<b>LOCAL EXHAUST SYSTEMS</b>					
Proper Exhaust volume		X			
Air Direction Correct		X			
Fan Functional		X			
Outdoor Vent Checked/Cleaned		X			
<b>OTHER</b>					
Sewage Traps Filled with Water Weekly	X				
Hazardous Chemicals Storage			X		
Walk-off Mat Cleanliness					X
Carpet Cleanliness					X
Leaks, Stains, Moisture Inspection					X
Clean All Tables, Diffusers, Shelves					X
Deep Clean Carpets, Strip & Wax Floors			X		
Clean Registers					X

**APPENDIX IV**

**IAQ Issue Resolution & Deferred Maintenance Tables**





**APPENDIX V**  
**HVAC Inspection Checklist**

## HVAC Inspection Checklist

Employer Name:  Hopatcong Borough School District

Facility Name: \_\_\_\_\_

Air Handling Unit: \_\_\_\_\_ Area(s) Served: \_\_\_\_\_

Item Inspected	OK	Needs Attn.	Comment
<b>Fresh Air Intake:</b>			
Area near intake free of contaminant sources (leaves, vehicle exhaust, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	
Bird screen in place and unobstructed	<input type="checkbox"/>	<input type="checkbox"/>	
Outside air damper setting appropriate	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Fans:</b>			
Motor operating	<input type="checkbox"/>	<input type="checkbox"/>	
Belts in good condition and adjusted	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Coils:</b>			
Coil free of significant corrosion or leaks	<input type="checkbox"/>	<input type="checkbox"/>	
Clean and free of accumulated dust or debris	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Filter:</b>			
Filter in place	<input type="checkbox"/>	<input type="checkbox"/>	
Free of accumulated contaminants	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Condensate Drain Pan:</b>			
Free of significant corrosion	<input type="checkbox"/>	<input type="checkbox"/>	
Draining properly	<input type="checkbox"/>	<input type="checkbox"/>	
Free of visible biofilm	<input type="checkbox"/>	<input type="checkbox"/>	
Biocide used (note requires MSDS sheet)	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Vents/Ducting:</b>			
Visually clean and free of accumulated dust	<input type="checkbox"/>	<input type="checkbox"/>	
Insulation/lining intact	<input type="checkbox"/>	<input type="checkbox"/>	
Free of obstruction	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Other:</b>			
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/>	<input type="checkbox"/>	
Inspection performed by:			
Name: _____ Date: _____			

**APPENDIX VI**

**Indoor Air Quality Complaint Form**

## INDOOR AIR QUALITY COMPLAINT FORM

This form may be used by any building occupant, teacher, or administrator to assist the Designated Person to more efficiently address indoor air quality related concerns.

Complainant Name: \_\_\_\_\_ Date: \_\_\_\_\_

Department/Location in Building: \_\_\_\_\_

Complainant Contact Info: \_\_\_\_\_

Indoor air quality problems may include concerns about temperature controls, ventilation, suspected air contaminants or unexplained odors. Please use the space below to describe the nature of the complaint, timing and frequency of observed conditions and any suspected causes:

We may need to contact you to discuss your complaint, what is the best time to reach you: \_\_\_\_\_

So that we can respond promptly, please return this form to: Gregory Smyth  
Supervisor of Buildings & Grounds  
[gsmyth@hopatcongschools.org](mailto:gsmyth@hopatcongschools.org)

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### OFFICIAL USE ONLY

Complaint #: \_\_\_\_\_ Received By: \_\_\_\_\_

Date: \_\_\_\_\_



**APPENDIX VII**

**Indoor Air Quality Questionnaire**

## Indoor Air Quality Questionnaire

### OFFICIAL USE ONLY

File Number: \_\_\_\_\_

Received By: \_\_\_\_\_

Date Received: \_\_\_\_\_

This form should be used if your indoor air quality concerns are related to ventilation and air pollutants, your observations can help to resolve the problem as quickly as possible. Please complete the questions below to assist in identifying the potential cause for your concern. *This form should be filled out by the building occupant:*

Anonymous filings will not be addressed as it complicates the investigation and its resolution. It will be necessary to interview the concerned party to assist in the IAQ investigation to resolve the concern as quickly as possible.

Occupant Name: \_\_\_\_\_ Date: \_\_\_\_\_

Building/Address: \_\_\_\_\_

Department: \_\_\_\_\_ Title: \_\_\_\_\_

Location in Building: \_\_\_\_\_ Phone: \_\_\_\_\_

1. Area or room where you spend the most time in the building:

\_\_\_\_\_

2. Do any of your work activities produce dust or odor? Yes  No

If yes, please describe: \_\_\_\_\_

3. Gender: Male  Female

Age: Under 25  25-34  35-44  45-54  55 and over

4. Do you:

Smoke? Yes  No

Have hay fever or pollen allergies? Yes  No

Have skin allergies or dermatitis? Yes  No

Have a cold or the flu? Yes  No

Have sinus problems? Yes  No

Have other allergies? Yes  No

Wear contact lenses? Yes  No

Operate video display terminals? Yes  No

Operate photocopiers 10% or more of the time? Yes  No

Use other special office machines? Yes  No

If yes, specify \_\_\_\_\_

Currently taking any medications? Yes  No

If yes, specify \_\_\_\_\_

5. Office characteristics:

\_\_\_\_\_ Number of persons sharing the same room/work area

\_\_\_\_\_ Number of windows in the room/work area



8. Have you seen a doctor for any of these symptoms? Yes  No

9. When do you experience relief from the symptoms:

\_\_\_\_\_

10. Indicate which parts of the day, which days of the week, and the month and season during which your reported symptom(s) occur:

<b>Time of Day</b>	Mornings				Afternoons				Evenings			
<b>Day of Week</b>	Sun	Mon		Tues		Wed		Thurs		Fri	Sat	
<b>Month</b>	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
<b>Season</b>	Spring			Summer			Fall			Winter		

11. Do symptoms disappear? Yes  No

12. In your opinion, what is the cause of the perceived problems?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

13. Comments: Please take this opportunity to comment on any factors you consider to be important concerning the quality of your work environment:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**WHEN COMPLETED PLEASE FORWARD TO:**

**Gregory Smyth  
 2 Windsor Avenue  
 Hopatcong, NJ 07843**

## **APPENDIX VIII**

### **Renovation/Construction IAQ Compliance Checklist**

## Renovation/Construction Project IAQ Compliance Checklist

Employer Name: Hopatcong Public School district

Facility Name: \_\_\_\_\_

Project Name: \_\_\_\_\_

Estimated Time Period: \_\_\_\_\_

Area(s) Affected \_\_\_\_\_

General Contractor Name/Phone #: \_\_\_\_\_

<b>Pre-Construction/Planning Phase:</b>	<b>Complete</b>	<b>N/A</b>
Notified the Designated Person of the project.	<input type="checkbox"/>	<input type="checkbox"/>
Considered performing work during periods of minimal or non-occupancy and included requirements in bid specification (if applicable).	<input type="checkbox"/>	<input type="checkbox"/>
Reviewed hazard information (labels, MSDS) with contractor(s) and approved selected products.*	<input type="checkbox"/>	<input type="checkbox"/>
In buildings constructed prior to 1981: Reviewed Asbestos Survey. Ensured that all Asbestos-containing materials (ACM)/and Presumed Asbestos-containing materials (PACM) are labeled, Employees and Contractors notified of presence of ACM/PACM.	<input type="checkbox"/>	<input type="checkbox"/>
Notified affected 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.*	<input type="checkbox"/>	<input type="checkbox"/>
Reviewed hazard information (labels, MSDS) to determine necessary measures to be taken.*	<input type="checkbox"/>	<input type="checkbox"/>
Reviewed product labels and MSDS sheets to determine whether the use of paints, adhesives, sealants, solvents or installation of insulation, particle board, plywood, floor coverings, carpet backing, textiles or other materials contain volatile organic compounds that could be emitted during regular use.*	<input type="checkbox"/>	<input type="checkbox"/>
<b>Construction Phase:</b>		
Local ventilation or other protective devices used to safeguard employees and students from dust, stone and other small particles, toxic gases or other harmful substances in quantities hazardous to health are in place.	<input type="checkbox"/>	<input type="checkbox"/>
Renovation/Construction areas in occupied buildings are isolated so that air contaminants, dust, and debris are confined to the renovation or construction area by use of measures such as physical barriers and pressure differentials.	<input type="checkbox"/>	<input type="checkbox"/>

<b>Re-occupancy Phase:</b>		
Inspected that the work areas are cleaned and aired out as necessary prior to re-occupancy.*	<input type="checkbox"/>	<input type="checkbox"/>
Re-occupancy authorized by: (Name/Title)  Name: _____ Title: _____  Signature: _____ Date: _____		

**APPENDIX IX**

**Sample Employee Notification Form**



# NOTICE

**Dear Employee:**

**In accordance with the requirement of the NJ Indoor Air Quality Standard (N.J.A.C. 12:100-13)(2007), you are hereby notified that a construction/renovation project will take place at \_\_\_\_\_**

**\_\_\_\_\_ from \_\_\_\_\_ through \_\_\_\_\_. Materials will be utilized which contain ingredients that may be potentially offensive or harmful. Efforts will be made to minimize employee exposure to these chemicals and other construction-related dusts and odors.**

**The Safety Data Sheets for these materials are available for review in the Buildings & Grounds Office. If you have any questions please contact Matt Geary (DP) at (973) 770-8840.**

**APPENDIX X**

**NJ PEOSH Indoor Air Quality Standard**

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 ware-houses.

"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.