

## **I. INDOOR AIR QUALITY POLICY**

The Hawthorne Public School District (the "District") has established this written Indoor Air Quality Program to comply with the Public Employees Occupational Safety and Health (PEOSH) Program, Indoor Air Quality (IAQ) Standard (N.J.A.C. 12:100-13) (2007), which was adopted on May 21, 2007.

It shall be the policy of the District to establish a proactive role in the management of all issues affecting the quality of our indoor environment. A healthy, comfortable environment is essential to the well-being and productivity of all students and staff.

The District is committed to maintaining the highest level of comfort possible in all facilities that it owns, leases, or occupies, and occupants are encouraged to voice any complaints or concerns, so that they may be properly addressed. A list of buildings and the IAQ team covered by this Program is included as APPENDIX J.

The District has implemented protocols in schools and administration buildings to prevent the spread of the COVID-19 Virus. Guidance by the New Jersey Department of Education (NJDOE), Center of Disease Control (CDC) and The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) recommends increasing the amount of outside air into buildings by opening windows and maximizing the amount of outside air coming into HVAC. The guidelines also recommend regular maintenance on HVAC systems including filter changes and increasing the minimum efficiency reporting value (MERV) rating of filters used in HVAC systems wherever possible.

The district's HVAC systems are inspected monthly and during the summer recess more substantial preventive maintenance and repairs are performed on all systems. Wherever a system has malfunctioned, as part of the normal day to day operation, a work order is generated for the required repair.

The district will continue to maintain the required ventilation systems for all indoor facilities and increase fresh air circulation in every occupied space throughout buildings by opening windows and doors where it does not create an imminent health/safety hazard. Where appropriate, the opening of windows and increasing minimum efficiency reporting value (MERV) rating on filters will be a supplement to the recirculating air systems that provide ventilation in occupied spaces. Filter changes will be performed according to manufacturer recommendations or sooner, because of the increased use of systems.

As required by the IAQ Standard, the District has a program coordinator, designated person (administrator) and facility IAQ team responsible for compliance with the standard. This group shall be the Indoor Air Quality Team, referred to as the IAQT.

Finally, there is a strict NO SMOKING policy enforced on all property within the district pursuant to state law.

## **II. INTRODUCTION**

### **A. Background:**

Indoor air quality contaminants may be present at levels well below industrial or occupational exposure limits, yet they still may influence the comfort of building occupants. Therefore, occupational exposure limits may not be applicable to a school environment.

Sources of these contaminants may be furnishings, building materials, printing, and copying devices, food services, smoking (not allowed by law), molds, bacteria, allergens, as well as the building occupants themselves.

While these issues rarely rise to the point where they become a serious health threat, they may reduce the comfort and well-being of building occupants.

### **B. Regulatory History:**

The American Society of Heating, Refrigerating, and Air Conditioning Engineers (ASHRAE) has established guidelines for the design, construction, and operation of building heating, ventilation, and air conditioning systems. These recommendations specify conditions in which 80% of the occupants will find the overall environment thermally acceptable, and 90% of the occupants will be satisfied with each individual parameter. Relevant parameters include air temperature, humidity, air speed, and thermal radiation. Personal factors including level of activity and clothing also affect heat transfer. The standard acknowledges that because of occupants' individual differences, it is "impossible to specify a thermal environment that will satisfy everyone."

The United States Environmental Protection Agency publishes guidance documents that include recommendations for indoor air quality parameters. EPA's focus is on education and technical guidance. In August 2000, EPA published the "Indoor Air Quality Tools for Schools" Guide, which urged schools to institute their own IAQ management programs. The Hawthorne Public Schools has implemented this initiative and continues to monitor compliance.

annually. He/she will work to ensure all elements of the standard are followed. Appendix E will be used to inspect the HVAC units. Any designated team member may file a completed checklist with the administrator, chief custodian, or the program administrator designee.

### **B. 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. Damaged and inoperable components will be repaired or replaced as appropriate and a work order to show actions taken will be completed. The Designated person shall establish a program used for the preventative maintenance schedule. PM Appendix E shall be used to document HVAC problems and occupant concerns. Appendix E will be used to document a summary of the log for work orders preventative maintenance or repairs made to uninvent units. Logs will be filled out completely.

### **C. Recordkeeping:**

Documentation of preventive maintenance and repairs to the ventilation 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 visually for microbial growth in condensate pans or standing water

Documentation of preventive maintenance and work orders for repairs are maintained at each school/building and in the office of Facilities Management/Building and Grounds. These records are maintained electronically whenever feasible. Maintenance staff shall provide a completed Appendix E to the Chief Custodian upon service to the roof top units. Filter sizes will be maintained in Appendix E. MERV 8 filters or greater, or filters recommended by the manufacturer will be used and the Chief Custodian and/or HVAC Repair Personnel will provide the filters according to the preventative maintenance schedule program. These filters will be delivered to each facility one week prior to the PM change out schedule. The preventative maintenance program will be documented using Appendices C, D and E records.

#### **D. Indoor Air Quality Compliance Documents:**

Available IAQ compliance documents will be maintained by the IAQ Coordinator/Designated Person and will be available to PEOSH during an inspection. These documents may include:

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
6. Operator training materials

#### **E. Investigating Complaints:**

If employees begin to experience health symptoms that they believe are related to poor indoor air quality, they should notify their Principal and/or the Designated Person who in turn will notify the IAQ Team so that their concerns can be investigated.

The Administrator and IAQ Coordinator/Designated Person have been trained and given the authority to conduct basic indoor air quality complaint investigations. In many cases, IAQ complaints can be resolved by the Facility Maintenance Department. The Facility Maintenance Department must be contacted and given the opportunity to resolve any IAQ complaint prior to a formal complaint filed with PEOSH. It should be noted that employees still retain the right to file complaints with PEOSH.

#### **F. Responding to Signed Employee Complaints to PEOSH:**

If a written notification from PEOSH that a signed employee has been filed with PEOSH PEOSH 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 IAQ Coordinator.

## **G. Notification of Employees:**

The IAQ administrator or his/her designee 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 identify the planned project and the start date. The notification will also include information on how to access Safety Data Sheets (SDS) or other hazard information. The IAQ coordinator/Designated person will maintain records of this notification for compliance recordkeeping purpose in the office of Facilities Management/Building and Grounds.

## **H. 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). Employees should notify the Chief custodian or Designated Person immediately if they observe evidence of water intrusion so that corrective action can be taken. Ceiling tiles, carpet, and wall board not dried within 24-48 hours may be removed as directed by the Designated Person.

## **I. Controlling Air Contaminants:**

### 1. Outside air

The Building IAQ team will identify the location of outside air intakes and identify potential contamination sources nearby, such as loading docks or other areas where vehicles idle, nearby exhaust stacks, or vegetation. Periodic inspections will be conducted to ensure that the intakes remain clear of potential contaminants. If contamination occurs, the Chief Custodian will eliminate the contaminant source or decide to relocate the intake. The district has adopted a NO Idling Pledge, and has been filed with the New Jersey Department of Environmental Protection. NO IDLING signs are posted on the schoolgrounds.

### 2. Point Source Contaminants

The Designated Person 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 inspected during the roof inspection by the custodial staff to ensure that they are functioning properly and exhausting to areas located away from outside air intakes. If a unit needs repair, a work order will be issued. A summary log will be maintained to document the work orders, Appendix E.

## **J. Response to Temperature and Carbon Dioxide:**

### 1. Temperature

Where a mechanical ventilation system capable of regulating temperature is present, facilities personnel strive to maintain office building temperatures within the range of 68 to 79 degrees Fahrenheit. The Chief Custodian shall record temperature readings in Appendix N, Temperature Report. If outside this range, the Designated Person should be contacted. The Designated Person will ascertain whether the HVAC system is operating properly. The IAQ Standard does not require the installation of new HVAC equipment to achieve this temperature range.

### 2. Carbon Dioxide & Carbon Monoxide

If the room is equipped with non-mechanical ventilation systems such as operable windows, stacks, louvers, a member of the building IAQ team should ensure that these areas are clear and operable to allow the flow of fresh outside 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 Chief Custodian will conduct an inspection to ensure that the mechanical HVAC system is operating properly. Use of a velometer is recommended.

All buildings have NO IDLING signs installed.

## **K. 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 to minimize employee exposure. The Designated Person and Project Manager will utilize the following protocol to ensure that employees' exposure to potentially harmful substances are minimized:

- Obtain SDS for all products to be utilized on the project and maintain on-site throughout the duration of the project and incorporated in the Right-to-Know inventory.
- Choose the least toxic product that is technically and economically feasible.
- Consider performing the renovation/construction project when 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 during renovation or construction, the Designated Person will check product labels periodically to ensure Low VOC products are used whenever possible. The Designated Person may also seek and obtain information from the manufacturer of those products on whether 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 complete records of this evaluation and forward this information to the IAQ coordinator for compliance recordkeeping purposes.

The District 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. Air scrubbers will be utilized as needed.

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. The Designated Person or Facilities Project Manager will complete the renovation/construction project checklist, Appendix F. One week prior to renovation/construction, the Renovation/Construction Project Employee Notification, Appendix G or H, will be posted in the main office. Appendix G is used for the Hawthorne Public School maintenance department and Appendix H is used for private companies and vendors. Once the renovation/construction has been completed, the notice will be sent to the facilities office and kept on file for three years.

#### **L. 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](http://www.state.nj.us/dca/codes), 609-984-7609)

#### **M. Maintaining Natural Ventilation in Buildings without Mechanical Ventilation:**

In buildings not equipped with mechanical ventilation, the Chief Custodian, shall identify the location of non-mechanical ventilation systems, such as stacks 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. If necessary, work orders will be issued to resolve the problem.

#### **N. Employee Responsibilities**

Employees have a role in maintaining good indoor air quality within their workplace. Employees may not introduce unauthorized chemicals (i.e. fragrances, air fresheners, cleaning solvents, ozone generators) into the workplace as written in the Hazard Communication Program approved by the HPS BOE. 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 Chief Custodian and/or the Designated Person.

Employees/faculty 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. The Chief Custodian, Plumbers and HVAC team members have the sole authorization to manipulate.

**Unit ventilator switches and thermostats:** Faculty and other staff members are prohibited from tampering with the HVAC system. Classrooms and any other space occupied must be kept neat and clutter free. Plastic containers should be used for storage when possible. Faculty is required to periodically reassess the need for curriculum and/or personal materials no longer used. These items shall be removed or discarded according to all local state, federal regulations, if applicable. Appendix M shall be used as a guideline for all staff and visitors in maintaining the unit ventilators. Unit Ventilators will not be used as storage or shelving.



## **O. Periodic Review and Update**

This Indoor Air Quality Program will be updated at least annually to reflect changes in policies, procedures, responsibilities, and contact information. All changes shall be documented and annual review and revisions made to the document.

**Certification:** The Hawthorne Board of Education shall approve the Indoor Air Quality Program through a Hawthorne Public School Board action. A record of the approval shall be maintained in the Board of Education minutes and a copy shall be maintained in the Facilities Management office.