

INDOOR AIR QUALITY PROGRAM UPDATE

ESSEX COUNTY SCHOOLS OF TECHNOLOGY

Revised: September 2018

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1.0 POLICY AND ADMINISTRATION

- 1.1 This notice is to inform employees that the Essex County Schools of Technology complies 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 proposed on December 18, 2006 and adopted on May 21, 2007. A copy of the IAQ Standard is included in Appendix A.
- 1.2 The Essex County Schools of Technology recognizes that good indoor air quality is essential to an employee's health and productivity. We have established the following policies to promote good indoor air quality for employees in our School District facilities. These policies follow the requirements established by the PEOSH IAQ Standard as it applies to all of our school district facilities.
- 1.3 The Department of Buildings and Grounds under the direction of the Facilities Director is responsible for matters pertaining to Environmental Health and Safety in general and Indoor Air Quality in particular. In addition, the School Principals act as IAQ Building Coordinators and play an important role, facilitating the exchange of information between Facilities Director and the building occupants. A list of current Building Coordinators is included in Section 2.3.

2.0 PROGRAM IMPLEMENTATION BY THE ESSEX COUNTY SCHOOLS OF TECHNOLOGY

- 2.1 This Written Indoor Air Quality Program applies to all school district facilities within the Essex County Schools of Technology.
- 2.2 IAQ Program Designated Person: As required by the New Jersey PEOSH Indoor Air Quality Standard (N.J.A.C. 12:100-13), a person has been designed as the person responsible by the Essex County Schools of Technology' compliance with the standard. This person is:

NAME	TITLE	CONTACT INFORMATION
Bruce Scrivo	Director of Facilities & Operations	Essex County Schools of Technology 60 Nelson Place, 1 North Newark, NJ 07102 973-412-2258 bscrivo@essextech.org

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2.3 Building Coordinators: This table lists the person designated by the IAQ Program Designated Person to act as Building Coordinators in the management and reporting of Indoor Air Quality in each school district facility and to also assist in compliance with the New Jersey PEOSH Indoor Air Quality Standard (N.J.A.C. 12:100-13):

SCHOOL DISTRICT FACILITY	ADDRESS	PRINCIPAL/BUILDING COORDINATOR
Donald M. Payne, Sr. School of Technology	498-544 West Market Newark, NJ 07107	Eric Love
Newark Tech Campus	91 West Market Street Newark, NJ 07103	Oge Denis Jr.
West Caldwell Tech Campus	620 Passaic Avenue West Caldwell, NJ 07006	Ayisha Ingram-Robinson
Bloomfield Tech Campus	209 Franklin Street Bloomfield, NJ 07003	Eric Love

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2.4 The IAQ Program Designated Person is the Essex County Schools of Technology's employee who has been trained and given the responsibility by the Essex County Schools of Technology to make routine visual inspections, oversee preventive maintenance programs, and maintain required visual inspections, oversee preventive maintenance programs, and maintain required records in order to ensure compliance with the IAQ Standard. The IAQ Program 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 updates the written program annually.

3.0 PREVENTIVE MAINTENANCE SCHEDULE

3.1 Preventive maintenance schedules that follow manufacturers' specifications or industry accepted practices are in place for heating, ventilation and air conditioning (HVAC) systems in this workplace. Scheduled maintenance of the HVAC systems includes: 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 working order. Damaged and inoperable components will be repaired or replaced as appropriate, and a work order to show actions taken will be completed. In addition, any parts of this system with standing water will be checked visually for microbial growth.

4.0 RECORDKEEPING

4.1 Documentation of preventive maintenance and repairs to HVAC systems are retained for at least 3 years and include the following information:

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

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- D. Documentation of preventive maintenance and work orders for repairs are maintained by the IAQ Program Designated Person.
- E. Documentation for repairs performed by outside contractors will be maintained by the IAQ Program Designated Person.
- F. Documentation for construction and renovation work will be maintained by the IAQ Program Designated Person.

5.0 INDOOR AIR QUALITY COMPLIANCE DOCUMENTS

- 5.1 The Essex County Schools of Technology will make reasonable efforts to obtain and maintain copies of IAQ compliance documents. Available IAQ compliance documents will be maintained by the IAQ Program Designated Person and will be available to PEOSH during an inspection. These documents include:
 - A. As-built construction documents. IF APPLICABLE
 - B. HVAC system commissioning reports, IF APPLICABLE
 - C. HVAC systems testing, adjusting, and balancing reports, IF APPLICABLE
 - D. Operations and maintenance manuals, IF APPLICABLE
 - E. Water treatment logs, IF APPLICABLE
 - F. Operator training materials, IF APPLICABLE

6.0 INVESTIGATING COMPLAINTS

- 6.1 If employees, students, or visitors to the Essex County Schools of Technology begin to experience health symptoms that they believe are related to poor indoor air quality, they should notify the IAQ Program Designated Person or his designee so that their concerns can be documented and investigated.
- 6.2 In addition, individuals should report to the Nurses Office in each school district facility (for students) or the Principal's Office (for employees).

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- 6.3 The IAQ Program 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 IAQ Program Designated Person.
- 6.4 The Essex County Schools of Technology has contracted with Rullo & Juillet Associates, Inc. to investigate occupant complaints on an as-needed basis.

7.0 RESPONDING TO SIGNED EMPLOYEE COMPLAINTS TO PEOSH

- 7.1 If the Essex County Schools of Technology receives a written notification from PEOSH that a signed employee complaint has been filed with PEOSH, the IAQ Program Designated Person 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 Program Designated Person.

8.0 NOTIFICATION OF EMPLOYEES

- 8.1 Employees and other building occupants (e.g. students, visitors) will be notified using a variety of means when work is to be performed on the building or other activities that may introduce air contaminants into the building. Notification will occur at least three working days in advance, or as soon as practicable in emergency situations.
- 8.2 This notification will be in writing (either hardcopy or via broadcast email announcements) 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), Safety Data Sheets (SDS) or other hazard information, as well as who to contact if problems arise from the project.
- 8.3 For construction and renovation projects, maintenance and repair work conducted by the Buildings and Grounds Department, the notification will come from the IAQ Program Designated Person.
- 8.4 The IAQ Program Designated Person will maintain records of this notification for compliance recordkeeping purposes.

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9.0 CONTROLLING MICROBIAL CONTAMINATION

9.1 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 (e.g. roof leaks, pipe leaks). Employees should notify their Building coordinator (Principal) immediately if they observe evidence of water intrusion. The Building Coordinator will then contact the IAQ Program Designated Person so that appropriate corrective action can be taken. Ceiling tiles, carpet, and wall boards not dried within 48 hours may be removed as directed by the IAQ Program Designated Person.

10.0 CONTROLLING AIR CONTAMINANTS

10.1 Outside Air- The IAQ Program Designated Person will identify the location of outside air intakes and identify potential contamination sources nearby, such as loading docks or other areas where vehicles idle, near exhaust stacks, or vegetation. Periodic inspections will be conducted to ensure that the intakes remain clear of potential contaminants. If contamination occurs, the IAQ Program Designated Person will eliminate the contaminant source and/or relocate the intake.

10.2 Point Source Contaminants- The IAQ Program Designated Person will identify point sources of contamination and arrange to capture and exhaust these sources from the building using local exhaust ventilation. Exhaust fans will be periodically inspected from outside air intakes.

11.0 TEMPERATURE AND ENVIRONMENTAL CONDITIONS

11.1 Normal Operations

- A. Climate Control: Except in research areas or other locations that require special climate controls, all centrally controlled facilities (classrooms, offices, etc.) that have a mechanical ventilation system capable of regulating temperature are operated within the range of 68 degrees-79 degrees F. The seasonal set points are: heating to a range of 68 degrees - 72 degrees F in winter and cooling to a range of 74 degrees- 78 degrees F

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in summer when occupied. For energy conservation, unoccupied spaces may be set back to 55 degrees in winter and 90 degrees F in summer, unless there are special requirements for research or other special needs.

- B. Environmental Conditions: Every reasonable effort will be made to ensure indoor air quality is maintained at suitable levels (carbon dioxide level, free of airborne irritants and mold), with the appropriate code-mandated mixture of fresh air from outside.

11.2 Problem Conditions

- A. Climate control: If a Essex County Schools of Technology employee believes that a classroom, office, or lab is extremely uncomfortable, they should notify the Building Coordinator and the IAQ Program Designated Person at all times who will investigate the complaint and make every reasonable effort to correct the problem as quickly as possible.
- B. If the problem can be corrected within a reasonable length of time, the Building Coordinator and/or building occupants will be notified directly. If the problem cannot be corrected within a reasonable length of time, and the IAQ Program Designated Person determines that the conditions present a potential hazard to student or employee health and safety, the following options may be executed at the discretion of the Principal and/or Superintendent:
 - i. Classes may be relocated to another more comfortable location, if one is available.
 - ii. In extreme conditions (i.e. where ambient room temperature rises above 85 degrees F or drops below 62 degrees F) the Building Coordinator in consultation with the Principal and/or Superintendent, may cancel classes or dismiss employees (other than essential employees) without penalty.

11.3 Environmental Conditions

- A. Personal health and safety: If a Essex County Schools of Technology employee believes that environmental conditions (other than building temperature) may pose an immediate hazard to health and safety, the IAQ Program Designated Person should be notified immediately.

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- B. After receiving notification, IAQ Program Designated Person will be dispatched to investigate the complaint and make a determination regarding necessary actions, including notifying Emergency Services and external environmental consultants, if required.
- C. If a problem can be corrected by Building Custodial staff within a reasonable length of time, the Building Coordinator and/or building occupants will be notified directly. If the problem requires further investigation (e.g. environmental testing for mold) or cannot be corrected within a reasonable length of time, the following options may be executed at the discretion of the IAQ Program Designated Person in consultation with the Principal and/or Superintendent:
 - i. Offices may be relocated to another more comfortable location, if one is available.
 - ii. In all cases, the IAQ Program Designed Person in consultation with the environmental consultant will make a recommendation regarding the suitability for use of the area.
- D. An individual believed to be experiencing illness caused by environmental conditions should see their respective physician for evaluation and treatment.

11.4 Property Protection:

- A. If an employee believes that the Essex County Schools of Technology property- including but not limited to building structure, technology, musical instruments, supplies, and other equipment- may be damaged by environmental conditions, the employee should notify the Building Coordinator promptly. After receiving notification, the Building Coordinator will determine the validity of the complaint and make a determination regarding necessary actions, including notifying the IAQ Program Designated Person.
- B. If a problem can be corrected by Building Custodian staff within a reasonable length of time, the Building Coordinator will be notified directly. If the Problem requires further investigation or cannot be corrected within a reasonable length of time, the property may be relocated to another location, if one is available.

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12.0 IAQ DURING CONSTRUCTION OR RENOVATION

- 12.1 Maintenance, renovation work and/or 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.
- 12.2 For construction and renovation projects managed by the Buildings and Grounds Department, notification will come from the IAQ Program Designated Person who will be responsible for maintaining appropriate indoor air quality throughout the project.
- 12.3 In either case, the appropriate personnel will utilize the following protocol to assure that employees' exposure to potentially harmful substances is minimized:
- A. Obtain MSDS/SDS's for all products to be utilized on the project and maintain on-site throughout the duration of the project.
 - B. Choose the least toxic product that is technically and economically feasible.
 - C. Consider performing the renovation/construction project when the building is least occupied.
 - D. Consider temporarily relocating employees to an alternate worksite.
 - E. Notify potentially affected employees, in writing, at least 3 business days prior to commencement of chemical use or dust generation.
 - F. Isolate the work area from occupied areas.
 - G. Use mechanical ventilation and local exhaust ventilation to maintain a negative pressure gradient between the work area and occupied areas.
- 12.4 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 maintenance, renovation or construction, the IAQ Program 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 IAQ Program Designated Person will maintain records of this evaluation for compliance recordkeeping purposes.

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- 12.5 The IAQ Program Designated Person will consider the feasibility of conducting maintenance, renovation, or 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.
- 12.6 Temporary barriers will be utilized to provide a physical isolation between the work area and occupied areas of the building.
- 12.7 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.
- 12.8 If work is being performed by an outside contractor, the IAQ Program Designated Person will maintain communication with contractor personnel to ensure they comply with the requirements of the PEOSH IAQ standard.
- 12.9 Employees who have special concerns about potential exposures during or after renovation, construction, or repair work should consult with their supervisor. If despite these preventive actions, employees are exposed to air contaminants resulting in health effects, they should report to their physician for consultation and referral. All exposures should also be reported to their supervisor and the IAQ Program Designated Person.

13.0 OBTAINING PERMITS AND PERFORMING WORK IN ACCORDANCE WITH THE NEW JERSEY UNIFORM CONSTRUCTION CODE (N.J.A.C. 5:23)

- 13.1 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, 609-984-760).

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14.0 MAINTAINING NATURAL VENTILATION IN BUILDINGS WITHOUT MECHANICAL VENTILATION

14.1 In buildings not equipped with mechanical ventilation, the IAQ Program Designated Person will 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.

15.0 EMPLOYEE RESPONSIBILITIES

15.1 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 IAQ Program Designated Person of the situation so that it can be addressed promptly.

15.2 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.

16.0 PERIODIC REVIEW AND UPDATE

16.1 This 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 September 1, 2018.

17.0 PROGRAM CERTIFICATION

All employees, or their designed representative, can obtain additional information on this written program, the PEOSH IAQ Program, which is located in the Central File at the

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Main Office and also at the Central File of each school district facility.

Reviewed and Approved:

Bruce Scrivo, Coordinator of Facilities and Operations

Date

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Appendix A

N.J.A.C. 12-100:13-1 - INDOOR AIR QUALITY STANDARD

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Appendix B

PEOSH INDOOR AIR QUALITY STANDARD INSPECTION CHECKLIST

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Appendix C

SAMPLE HVAC PREVENTIVE MAINTENANCE LOG

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Appendix D

MOLD IN THE WORKPLACE - PREVENTION AND CONTROL

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Appendix E

INDOOR BIOAEROSOLS

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Appendix F

RENOVATION & CONSTRUCTION - IAQ COMPLIANCE CHECKLIST

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Appendix G

**RENOVATION & CONSTRUCTION IN SCHOOLS - CONTROLLING HEALTH AND
SAFETY HAZARDS**

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Appendix H

PEOSH POLICY ON BUILDING RENOVATION

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Appendix I

EPA - MOLD REMEDIATION IN SCHOOLS & COMMERCIAL BUILDINGS

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Appendix J

EPA - INDOOR AIR QUALITY TOOLS FOR SCHOOLS REFERENCE GUIDE