

**Philadelphia Federation
of Teachers (PFT)
Health & Welfare Fund**



Inspection Date: 12.13.2016

IEQ-Related Investigation Conducted By:

Jerry Roseman, PFTH&WF/U-H&S
Brian Joseph, SDP-OEMS

Others Present During the Inspection:

Cary Middleton; Bldg. Eng.
Lorraine Valentine, PFT Building Representative

Some Relevant Building Details

- Year Built - 1970
- School Size [ft²] - 99,420;
- # of Floors: 3 [Ground, 1 & 2]
- Current FCI [as of 2005 – 2012 data from SDP] = **22%**
- ~ 720 students
- ~ 125 + staff
- “Economically Disadvantaged” [as per SDP] = **100%**
- High student asthma medication use [as per SDP]

**Bethune Elementary School
IEQ Site Visit**

Report Prepared by: Jerry Roseman, MSc.IH.
Director of Environmental Science & Occupational Safety
& Health -- PFTH&WF/U-H&S

Date Report Issued: 12.14.2016

Photos Attached: ✓

Building Address: 3301 Old York Road

Inspection Overview

In response to a PFT union/staff request for an evaluation related to significant heating system and pest-related problems at Bethune ES, located at 3301 Old York Road, an inspection was scheduled to be conducted on Tuesday, 12.13.2016. After receiving the assessment request, I notified SDP-OEMS to arrange a jointly conducted evaluation of the school. SDP-OEMS agreed to participate in a joint inspection.

On arrival at Bethune, I met Brian Joseph, environmental consultant for SDP-OEMS. Brian and I then met with school staff, including the Vice Principal, PFT Building Representative and other teachers, and the Building Engineer [B.E.]; the B.E. was present during most of the site inspection.

This inspection was a *limited scope evaluation* [LSE], and should therefore be considered as presenting only a “snap shot” of school conditions observed by us at the time of our inspection – it was **not** a comprehensive assessment of all potential IEQ and building condition related problems that may exist at Bethune ES.

The findings and recommendations provided below reflect inspection observations and information provided by school staff from our 12.13.2016 site visit, and our review of outstanding inspection reports, evaluations and recommendations. Findings and recommendations presented here should be combined with those being developed by SDP-OEMS in order to help ensure comprehensiveness and coordinated remediation recommendations.

Room Specific Issues & Concerns

Issue	Relevant Observations, Findings & Measurements	Comments-Recommendations-Informational Request
Lack of Heat – Room 102	<ul style="list-style-type: none"> • This room has reportedly been without heat for the entirety of the 2016-2017 school year. At the time of our visit the teacher and class had been displaced to room 215 because the room was too cold to occupy. • SDP Facilities Maintenance & Operations [FM&O] representatives have been notified about this issue and a work order is/has reportedly been filed • The problem in this room is likely related to problems with fan/blower motor. 	<p>1) Immediately determine/confirm the underlying cause of the heating system problem and effect repairs to ensure heat is provided to classroom so it can be re-occupied.</p> <p>2) FM&O should coordinate with and notify B.E., Principal and PFTH&WF/U-H&S and school representatives about the repair details and schedule to facilitate and ensure effective communication and remediation verification.</p>
1st Floor Hallway Outside Community Room	<ul style="list-style-type: none"> • Ceiling tiles were observed to be missing in this area and a leaking, exposed and corroded/rusted overhead pipe is present and visible. There is asbestos insulation on some sections of the piping. • This problem has been previously identified and it was reported that it is scheduled for repair, likely over the Christmas/winter break. 	<p>1) Evaluate the structural integrity of the deteriorated piping to determine if it is able to be repaired or must be replaced;</p> <p>2) FM&O should coordinate with and notify B.E., Principal and PFTH&WF/U-H&S and school representatives about the repair details and schedule to facilitate and ensure effective communication and remediation verification.</p> <p>3) Asbestos removal activities as necessary should be conducted to include notification to the PFTH&WF/U-H&S and asbestos remediation inspection & testing should be jointly scheduled and conducted.</p>
Heating Problems – room 110 & 113	Additional heating problems resulting in lack of heat in rooms 110 & 113 were reported – these reports were confirmed by the B.E. – FM&O Work Orders [W.O.] have reportedly been filed for this work.	1) Confirm the accuracy, and identify the causes, of heating problems in rooms 110 & 113 and immediately effect needed repairs to ensure heat is provided to these classrooms.

Building Wide Issues & Concerns

Room –Area Inspected	Relevant Observations, Findings & Measurements	Comments-Recommendations
Heating & Automatic Thermal Control [ATC] System Problems	<ul style="list-style-type: none"> • The heating and ATC systems at Bethune are acknowledged to be severely deficient/non-functional resulting in the system “running wild” [that is with little or no automatic control of temperatures]. Heating is either provided “wide open” [i.e. in the “on” position] or else is fully “off” with normally occupied spaces being either severely over or under heated. • The lack of thermal control results is an ongoing and persistent heating problem in multiple classrooms throughout the heating season. These conditions have significant negative impacts on energy efficiency/usage and sustainable operating and repair costs. • Also of importance, is that the type of heating and ATC deficiencies present at Bethune are typically and predictably related to consequential and sometimes catastrophic heating system failures resulting in major leaks associated with freezing pipes during the winter season and/or widespread loss of heat throughout the building. 	<ol style="list-style-type: none"> 1) Conduct a comprehensive, building-wide evaluation of heating system and ATC deficiencies and needs relying on existing FCA and W.O. system data, in addition to performing further on site assessment as needed, obtaining real-time information from building staff, and reviewing IEQ Dashboards and other SDP information sources. 2) Based on data collection and information gathering, develop a comprehensive “inventory-punch” list of all outstanding heating and ATC system work orders, issues and needs. 3) Share the problem/issue list with PFTH&WF/U-H&S representatives and school staff to facilitate and ensure communication about, and verification that all identified problems have been fully documented. 4) Schedule and conduct repairs to ensure sufficient and sustainable heating is provided to occupied areas. Work should be coordinated & scheduled in cooperation with B.E., Principal and PFT representatives to facilitate and ensure communication and verification of repair work
Pest-Rodent Issues	<ul style="list-style-type: none"> • Mouse droppings [major asthma triggers] were observed and documented in classrooms inspected and staff reported rodent/insect sightings and droppings. • Bethune was identified by the SDP-OEMS as a school with a “high-prevalence” of student asthma inhaler use and was inspected during the summer of 2016 specifically for the presence of “asthma triggers.” During the June, 2016 inspections mouse droppings were found in many normally occupied locations and recommendations were made at that time, for cleaning and disinfection of impacted surfaces. • Staff reported that “Universal Feeding” of all students began this year in classrooms - instead of in the cafeteria – this situation has resulted in an exacerbation of the pest problems observed. 	<ol style="list-style-type: none"> 1) Mouse droppings and other pest/rodent materials should be effectively cleaned on a daily basis to help eliminate asthma triggers and protect student and staff health. 2) An upgraded and more effective IPM program should be jointly [PFTH&WF/U-H&S & SDP-OEMS] developed and implemented to reflect recognized Best Practices approaches. 3) Post-remediation evaluations [PREs] should be conducted following cleaning, trapping and other IPM actions taken to help ensure effective outcomes. 4) Additional cleaning/custodial staff is required in order to effectively control and clean-up pest/rodent/insect droppings and other materials.

Site Visit Photographs



Bethune ES - 12.13.2016 – Room 200 – Computer Room – Cabinet and Floor with Mouse Droppings



Bethune ES - 12.13.2016 – 1st Floor Hallway – Outside Community Room