Philadelphia Federation of Teachers (PFT) Health & Welfare Fund	**Inspection Date: 12.13.2016** **IEQ Related Investigation By:** Jerry Roseman, PFT Brian Joseph, SDP-OEMS **Others Present During the Inspection:** Building Engineer – Kenneth Mack	**Relevant Building Details:** • Year Built - 1933 • School Size [ft^2] – 54,994 • Current [as of 2012] FCI – 33% [reported by SDP] 46% [***calculated value***] • Approximately 70 students • 15-20 staff • 100% Economically Disadvantaged • 95% African American student pop.
Beeber 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**: 12.19.2016	**Photos Attached: Yes**

Building Address: 5925 Malvern Avenue

Inspection Overview

In response to a PFT union/staff request for an evaluation related to persistent heating system/steam leak problems at Beeber MS, located at 5925 Malvern Avenue, an inspection was scheduled to be conducted on Tuesday, 12.13.2016. After receiving the assessment request, I notified SDP-OEMS to schedule a jointly conducted evaluation the school, which they agreed to do.

On arrival at Beeber, Brian Joseph, environmental consultant from SDP-OEMS, and I we met with the Building Engineer [B.E.]; the B.E. accompanied us during 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 potentially exist at Beeber.

The findings and recommendations provided below reflect inspection observations [and measurements] and information provided by school staff from our 12.13.2016 site visit, and a review of outstanding inspection reports, evaluations and recommendations.

It should be highlighted that the ongoing and documented steam leaks, Automatic Control System [ATC] deficiencies and problems with steam traps, and other heating system components at Beeber, result in consequential damage and costs associated with:

1) Energy inefficiency & waste resulting in unnecessarily elevated energy costs;

2) Significant damage to interior building components and finishes [floors, walls, ceilings, educational materials, etc.] – impacting the use of educational spaces/materials and requiring additional FM&O dollars and resources related to surface and educational material remediation and replacement

3) Hazard remediation costs associated with the need to repair/address dangerous materials [e.g. asbestos, lead paint, mold, other] that were damaged by heating system problems; and

4) Impacts on building occupant health, safety & well-being

Room Specific & Building Wide Issues & Concerns

Issue	Relevant Observations, Findings & Measurements	Comments-Recommendations-Informational Request
Main Entrance	• Ongoing and currently active steam leak under the main stairwell in the building entrance • Leak has been previously reported to SDP FM&O representatives and evaluated.	1) Assess and repair the steam leak. 2) FM&O should coordinate with and notify B.E., Principal and PFT building and PFTH&WF/U-H&S representatives about repair schedule details in order to facilitate communication and remediation verification.
Room 101	• Ongoing and currently active steam leak behind teacher's desk – from crawl space below • Damage to hardware flooring observed with about 60 sq ft. of floor surface damaged, and wet [moisture meter readings indicated levels of up to about 70% moisture]; • A heating pipe [riser] with asbestos insulation is in the immediate vicinity of the leak and will need to be addressed	1) Assess and repair the steam leak. 2) Remove/replace damaged floor materials after ensuring steam leak has been repaired 3) Asbestos removal should be conducted to include notification to the PFTH&WF/U-H&S and joint inspection & testing conducted 4) FM&O should coordinate with and notify B.E., Principal and PFT and PFTH&WF/U-H&S representatives about heating system, flooring & asbestos related repair schedule details in order to facilitate communication and remediation verification. 5) OEMS should coordinate with, and notify PFTH&WF/U-H&S to arrange and conduct side-by-side asbestos evaluation and sampling
Room 103	• Ongoing and currently active steam leak documented at radiator located between 103 A & 103 B • Damage to hardware flooring observed with about 6 sq. ft. – 10 sq. ft. impacted	1) Assess and repair the steam leak. 2) Remove/replace damaged floor materials after ensuring steam leak has been repaired 3) FM&O should coordinate with and notify B.E., Principal and PFT building and PFTH&WF/U-H&S representatives about repair schedule details in order to facilitate communication and remediation verification.
Room 108	• Ongoing and currently active steam leak documented at radiator – leak originating below floor level • Damage to wooden baseboard documented – possible mold growth observed	1) Assess and repair the steam leak. 2) Remove/replace damaged baseboard after ensuring steam leak has been repaired 3) FM&O should coordinate with and notify B.E., Principal and PFT representative about repair schedule details in order to facilitate communication and remediation verification.
Hallway – 1st Floor	• Newly installed [about 3 weeks ago] Hydration Station not functioning properly – Problem was reportedly with the new compressor [one of the power cords for the hydration station was unplugged • Lack of available information related to filter storage [on site] and availability, and/or filter handling/replacement and change	1) Assess and repair compressor/hydration station. 2) Ensure B.E. is provided with necessary information and support to facilitate routine preventive and reactive maintenance work and filter changes for the hydration station.
Building Wide Issues	• Steam leak & related heating system have been documented as occurring for an extended period of time • Problems with the Automatic Temperature Control [ATC] system, steam traps and other heating system components have been documented and reported during previous inspections	1) Immediately conduct a comprehensive evaluation of the heating & ATC systems and all components and review all outstanding work orders and make repairs as necessary to ensure occupant areas are properly heated. 2) FM&O should coordinate with and notify B.E., Principal and PFT and PFTH&WF/U-H&S representative about repair schedule details in order to facilitate communication and remediation verification.

Site Visit Photographs

Photo 1 - Beeber MS - 12.13.2016 – Room 101 – Steam Leak at Radiator – Floor Damage

Photo 2 - Beeber MS - 12.13.2016 – Room 103 – Steam Leak at Radiator – Floor Damage

Photo 3 - Beeber MS - 12.13.2016 – Room 108 – Steam leak at radiator underneath floor – baseboard impacted

Photo 4 - Beeber MS - 12.13.2016 – 1st Floor Hallway – Hydration Station – Bad Compressor & Unplugged