

**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<sup>2</sup>] – 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
<b>Main Entrance</b>	<ul style="list-style-type: none"> <li>• Ongoing and currently active steam leak under the main stairwell in the building entrance</li> <li>• Leak has been previously reported to SDP FM&amp;O representatives and evaluated.</li> </ul>	<ol style="list-style-type: none"> <li>1) Assess and repair the steam leak.</li> <li>2) FM&amp;O should coordinate with and notify B.E., Principal and PFT building and PFTH&amp;WF/U-H&amp;S representatives about repair schedule details in order to facilitate communication and remediation verification.</li> </ol>
<b>Room 101</b>	<ul style="list-style-type: none"> <li>• Ongoing and currently active steam leak behind teacher's desk – from crawl space below</li> <li>• 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];</li> <li>• A heating pipe [riser] with asbestos insulation is in the immediate vicinity of the leak and will need to be addressed</li> </ul>	<ol style="list-style-type: none"> <li>1) Assess and repair the steam leak.</li> <li>2) Remove/replace damaged floor materials after ensuring steam leak has been repaired</li> <li>3) Asbestos removal should be conducted to include notification to the PFTH&amp;WF/U-H&amp;S and joint inspection &amp; testing conducted</li> <li>4) FM&amp;O should coordinate with and notify B.E., Principal and PFT and PFTH&amp;WF/U-H&amp;S representatives about heating system, flooring &amp; asbestos related repair schedule details in order to facilitate communication and remediation verification.</li> <li>5) OEMS should coordinate with, and notify PFTH&amp;WF/U-H&amp;S to arrange and conduct side-by-side asbestos evaluation and sampling</li> </ol>
<b>Room 103</b>	<ul style="list-style-type: none"> <li>• Ongoing and currently active steam leak documented at radiator located between 103 A &amp; 103 B</li> <li>• Damage to hardware flooring observed with about 6 sq. ft. – 10 sq. ft. impacted</li> </ul>	<ol style="list-style-type: none"> <li>1) Assess and repair the steam leak.</li> <li>2) Remove/replace damaged floor materials after ensuring steam leak has been repaired</li> <li>3) FM&amp;O should coordinate with and notify B.E., Principal and PFT building and PFTH&amp;WF/U-H&amp;S representatives about repair schedule details in order to facilitate communication and remediation verification.</li> </ol>
<b>Room 108</b>	<ul style="list-style-type: none"> <li>• Ongoing and currently active steam leak documented at radiator – leak originating below floor level</li> <li>• Damage to wooden baseboard documented – possible mold growth observed</li> </ul>	<ol style="list-style-type: none"> <li>1) Assess and repair the steam leak.</li> <li>2) Remove/replace damaged baseboard after ensuring steam leak has been repaired</li> <li>3) FM&amp;O should coordinate with and notify B.E., Principal and PFT representative about repair schedule details in order to facilitate communication and remediation verification.</li> </ol>
<b>Hallway – 1<sup>st</sup> Floor</b>	<ul style="list-style-type: none"> <li>• 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]</li> <li>• Lack of available information related to filter storage [on site] and availability, and/or filter handling/replacement and change</li> </ul>	<ol style="list-style-type: none"> <li>1) Assess and repair compressor/hydration station.</li> <li>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.</li> </ol>
<b>Building Wide Issues</b>	<ul style="list-style-type: none"> <li>• Steam leak &amp; related heating system have been documented as occurring for an extended period of time</li> <li>• Problems with the Automatic Temperature Control [ATC] system, steam traps and other heating system components have been documented and reported during previous inspections</li> </ul>	<ol style="list-style-type: none"> <li>1) Immediately conduct a comprehensive evaluation of the heating &amp; ATC systems and all components and review all outstanding work orders and make repairs as necessary to ensure occupant areas are properly heated.</li> <li>2) FM&amp;O should coordinate with and notify B.E., Principal and PFT and PFTH&amp;WF/U-H&amp;S representative about repair schedule details in order to facilitate communication and remediation verification.</li> </ol>

## 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 – 1<sup>st</sup> Floor Hallway – Hydration Station – Bad Compressor & Unplugged