

Saxe Middle School Renovation

Management of PCB Containing Building Materials



Presented by:

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Background

■ Summary

- December 2014: Inspected Auditorium for Hazardous Building Materials Remediation Project
- March 20, 2015: Notified EPA and DEEP that there are PCBs in building materials, and the intent was to remove all PCB impacted materials
- May 2015: Received approval for bidding and funding through OSCG
- Summer 2015: Began abatement of Hazardous Building Materials for Auditorium. Also removed PCB containing paint from ceramics room and performed encapsulation of underlying concrete
- December 4, 2015: Submitted the plan for encapsulation of certain concrete walls and floors (where residual PCB impacts) exist to EPA and DEEP

PCB Containing Materials

■ PCB < 50 parts per million (ppm)

- Various paints on doors, walls, and ceiling in Auditorium,
- Caulking around doors in Auditorium and music rooms
- Fire stop caulk above ceiling in music practice room
- Tan paint on concrete wall in corridor behind stage
- Auditorium seat cushions

■ PCB > 50 ppm

- Black paint on concrete block wall along back of stage
- Gray paint on floors in Auditorium, mezzanine/stairwell, ceramics room, and boiler room
- Tan paint on a portion of metal duct (25 SF) in Auditorium mechanical room

Abatement 2015

■ Summary

Project Work Performed by:

Contractor: Standard Demolition Services

Project Monitor: Tighe & Bond

■ Scope of Work

- Removal of PCB containing materials from Auditorium, mezzanine/stairwell, and mechanical room.
- Removal of paint from ceramics room floor and encapsulation of remaining concrete.
- Confirmatory sampling (dust wipes, air samples, and bulk samples of remaining substrates)

Abatement 2015

■ Change Orders

Standard Demolition Services

- Change Order 1A: Removal of transite asbestos panels found above sheetrock ceiling in Auditorium. PCB dust found above Auditorium ceiling resulted in removal of HVAC duct work, wood framing, and cleaning of all remaining surfaces. The ceramics room floor also required crack filling and leveling prior to encapsulation.
- Change Order 2A: Removal of wood panels and wood framing from Auditorium walls.
- Change Order 2B: Disposal of materials from Change Orders 1A and 2A as PCB waste.

Tighe & Bond

- Additional monitoring, contractor administration, sampling

PCB impacts to Substrates

- PCBs have leached from source paint materials into underlying concrete floors and walls.
- Removal of concrete substrate materials was conducted via scarification to depths feasible without damaging integrity of walls and floors (1/8" to 1/2"). However, the cleanup standard of < 1 ppm PCBs could not be achieved. Concentrations of PCBs remaining are as follows:
 - » Auditorium floor = 1.0 to 15 ppm with one sample at 59 ppm
 - » Ceramics room floor = 1.3 to 8.7 ppm with one sample at 20 ppm
 - » Stage wall = 2.4 to 6.9 ppm
 - » Auditorium mechanical room wall = 1.9 to 4.5 ppm with one sample at 17 ppm
 - » Mezzanine/stairwell = 4.5 to 280 ppm * (this area requires additional substrate removal)

Encapsulation Plan

■ EPA and DEEP Approval for Encapsulation Plan

- On March 29, 2016 EPA approved encapsulation plan for residual impacts with Sikaguard 62 epoxy sealant
- The following conditions were included in the approval:
 - » Additional removal of concrete from mezzanine/stairwell floor (1/8"-1/4")
 - » Removal of tan paint in corridor behind stage and mezzanine/stairwell walls with encapsulation of substrates (if necessary)
 - » Removal of gray paint from boiler room floor and walls with encapsulation of substrates (if necessary). Also sampling of boiler room sump and cleaning, if PCBs detected
 - » Removal of fire stop caulk and door caulk in music rooms
 - » Continued Public Outreach
 - » Deed Notice and Annual O&M for encapsulated areas

2016 Abatement Plan

■ Auditorium Project

- Complete removal of PCB containing paints and caulks as described in the plan
- Encapsulate substrates where necessary
 - » Floors: Auditorium, boiler room, mezzanine/stairwell
 - » Walls: Stage and Auditorium mechanical room
 - » Potential encapsulation of walls in boiler room, mezzanine/stairwell, and corridor behind stage (to be determined based on confirmatory sampling results following paint removal)
- Evaluation of sump and cleaning if necessary
- Confirmatory wipe sampling for effectiveness of encapsulant and air sampling for re-occupancy

2016 Abatement Plan

■ **New Addition/Renovation Project**

- Management of all painted surfaces and caulking compounds to be impacted by the project as PCB containing materials > 50 ppm, including baseline air and wipe samples
- Conduct removal of these materials under full containment
- Conduct confirmatory dust wipe samples and air samples for re-occupancy

PCB Information Sources

- **CTDEEP – PCB Program**

- <http://www.ct.gov/dph>

- **EPA – PCB Information**

- <http://www2.epa.gov/pcbsincaulk>

On-line articles for Connecticut Schools dealing with PCB issues

[www.ctpost.com/local/article/Fairfield-schools-consider-PCB remedies](http://www.ctpost.com/local/article/Fairfield-schools-consider-PCB-remedies)

www.ctpost.com/schools/article/PCBs-found-in-window-caulking-Columbus-School-Brideport

www.nbcconnecticut.com/news/local/PCBs-found-at-Southington-Middle-Schools

[http://www.guilford.k12.ct.us/GHSBC/PCB%20Flyer\[1\].pdf](http://www.guilford.k12.ct.us/GHSBC/PCB%20Flyer[1].pdf) (Guilford High School)