O'Reilly, Talbot & Okun
ENGINEERING ASSOCIATES

August 16, 2022
J5174-04-03

Worcester Public Schools
20 Irving Street
Worcester, MA 01609, MA 02035

Attn.: Ms. Kristen Tran,
Environmental Health & Safety Coordinator

RE: PCB BMP Quarterly Status Report, 2021-2022 School Year
Fourth Quarter, June 2022
Burncoat High School

Dear Kristen,

In accordance with the Worcester Public School's (WPS) authorization, O'Reilly Talbot & Okun Associates, Inc. (OTO) is pleased to present this quarterly status report of the Best Management Practices (BMPs) implemented at the Burncoat High School (Burncoat). This status report represents the fourth quarter of the 2021-2022 school year. The objective of the BMP program is to reduce potential exposure to polychlorinated biphenyls (PCBs).

Certain materials used in the construction and renovation of buildings between 1950 and 1980 may contain PCBs. Burncoat High School was constructed during this period. The US Environmental Protection Agency (USEPA) has recommended that a BMP program be implemented in schools and other buildings either constructed or renovated during this period.

WPS and its staff are responsible for implementing the BMPs at Burncoat High School. OTO personnel are responsible for conducting quarterly independent evaluations to provide WPS management with an assessment of the effectiveness of the BMPs implementation.

Best Management Practices (BMPs)

In its July 28, 2015 guidance for school administrators and other building owners and managers titled "Practical Actions for Reducing Exposure to PCBs in Schools and Other Buildings" the USEPA described potentially useful BMPs, including:

1. Ensuring that ventilation systems are operating properly and are regularly inspected and maintained according to system manufacturer instructions and guidelines or ANSI/ASHRAE/ACCA Standard 180-2012—Standard Practice for Inspection and Maintenance of Commercial Building HVAC

Systems. If system cleaning is needed, follow ANSI/ACCA Standard 6– Restoring the Cleanliness of HVAC Systems (2007);

2. Cleaning inside schools and other buildings frequently to reduce dust and residue;
3. Using a wet or damp cloth or mop to clean surfaces;
4. Using vacuum cleaners with high efficiency particulate air (HEPA) filters;
5. Not sweeping with dry brooms or using dry cloth wipes for dusting;
6. Washing hands with soap and water, particularly before eating; and
7. Washing children's toys.

We understand that WPS has modeled its BMP program for Burncoat High School on EPA's guidelines. OTO's assessment of BMP effectiveness focuses on items 1 through 5 on this list. Regarding item 6, all school lavatories are equipped with soap and water, and it is the responsibility of students and staff to maintain personal cleanliness. Item 7 on the list is not relevant to high school environments.

Assessment of BMPs at Burncoat High School

We conducted the fourth quarter, 2021-2022 school year BMP assessment at Burncoat on June 23, 2022, accompanied by representatives from the District and School environmental and facilities department. The Heating, Ventilation, and Air-Conditioning (HVAC) system was operating properly at the time of the BMP assessment.

Because window and door caulking in the School may contain PCBs, WPS has previously applied a layer of non-PCB caulk over the previously existing caulking to reduce the potential for exposures. OTO observed twenty-two (22) classrooms or other representative spaces in the school selected at random during the assessment. Our observations focused on the presence of dust on windows, windowsills, and window frames as well as the univent systems that provide heating and ventilation to the classrooms.

The school spaces we observed included:

- Cafeteria,
- Music Room,
- Other Selected classrooms or learning areas

Our general observations are summarized on Table 1 (attached). Univents were generally free of significant dust and visible oil leakage. During the assessment the majority of rooms/areas observed were rated as "little" (minimal dust or debris) to "moderate" (visible accumulations of dust). Three rooms (E8, D18, and the Music Room) were rated as "significant", indicating that a thick layer of dust was observed on various caulked window

seams. We observed three rooms (B3, C5, and C19) with various amounts missing caulk (from one to seven inches). Rooms with deteriorating and missing caulk were identified at the time to District and School facilities representatives and are documented in the attached Table. Additionally, OTO personnel discussed with District and School facility representatives that cleaning of caulked seams is not limited to the lower most pane (most proximate to univents) but should include upper pane seams as well.

Based on our discussions and observations, it is our conclusion that the implementation of the BMPs at Burncoat is generally effective. We recommend that areas observed with missing caulk receive an application of non-PCB caulk sealant, and that areas noted to have moderate to significant dust accumulation be cleaned in accordance with “Practical Actions for Reducing Exposure to PCBs in Schools and Other Buildings” guidance.

Note that WPS has also authorized OTO to conduct annual indoor air monitoring for PCBs at Burncoat. The full air testing reports are provided separately from the BMP reports, although we note that the air monitoring results have been well below USEPA guidelines for PCB concentrations in school air for each of the sampling rounds completed to date.

Other USEPA Recommendations for Suspected PCBs in Schools

Although not technically BMPs, USEPA made three other recommendations in its July 28, 2015 guidance for PCBs in schools:

- Remove all PCB containing fluorescent light ballasts (FLBs);
- Give consideration to encapsulating suspected PCB containing materials (such as caulk) to further reduce the potential for PCB exposure; and
- Removing suspect PCB containing building materials during planned renovations and repairs.

WPS removed all suspect PCB containing FLBs in 2012. There are no suspected PCB FLBs remaining in the Worcester school system.

In 2012 WPS also encapsulated the suspect PCB containing caulk around the windows and doors at Burncoat with an additional thick layer of non-PCB caulk. Exterior suspect caulking was likewise covered with new caulk to a height of eight feet above grade. WPS subsequently over-caulked the remainder of the building’s exterior door, window, and expansion joints in September and October 2018. This over-caulking is repaired as needed to maintain its condition.

Finally, it is noted that WPS has applied to the state sponsored school building financing program for help with the replacement of the Burncoat High School building. When Burncoat is replaced, the suspect PCB containing materials will be removed and disposed of in accordance with applicable regulatory requirements.

Conclusions and Recommendations

In conclusion, it is our opinion that the BMPs are being implemented in a generally effective manner at Burncoat High School. We recommend that Facilities personnel visit the areas where sections of and/or entire seams of caulk appeared missing, or where dust accumulation was identified as “moderate” to “significant” to install caulking and perform cleaning as needed in those areas, respectively. We also recommend that the next quarterly (first quarter of the 2022-2023 School year) on-site visit be conducted August or September of 2022.

Should you have questions or require additional information, please contact the undersigned.

Sincerely,
O’Reilly, Talbot & Okun Associates, Inc.

Christine Arruda, CIEC
Associate

Robert Kirchherr, CSP
Principal

Attachments Table 1 – Summary of Observations for Burncoat High School

cc Mr. James Bedard, Facilities Director

Table 1 - Summary of BMP Observations
Burncoat High School
179 Burncoat Street
Worcester, MA 01602
June 23, 2022

Room	Condition of Caulk	Condition of Univents	Dust Accumulation	Comments
A8	VG	VG	M	---
A14	VG	VG	L to M	---
B4	VG	VG	L to M	---
B9	VG	VG	L to M	---
B3	VG	VG	L to M	Far left window unit, bottom pane, bottom seam, approximately 7 inches of missing caulk
B10	VG	VG	L	---
B21	VG	VG	L	---
B16/1, Cafeteria	VG	VG	M	---
C1A	VG	VG	M	---
C5	VG	VG	L to M	3rd window unit from right, bottom pane, bottom seam, approximately 2 1/2 inches of missing caulk
C4	VG	VG	M	---
C19	VG	VG	M	2nd window unit from right, bottom pane, bottom seam, approximately 2 inches missing caulk, 5th window unit from right, bottom pane, bottom seam, approx. 6 inches of missing caulk, 2nd window unit from left, bottom pane, bottom seam, approx. 1 inch of missing caulk
E2	VG	VG	L	---
E3	VG	VG	L	---
E8	VG	VG	M to S	---
D3	VG	VG	L	---
D1	VG	VG	L	---
D14	VG	VG	M	---
D18	VG	VG	S	---
D24	VG	VG	M	---
F4	VG	VG	M	---
Music Room	VG	VG	M to S	---

CATEGORIZATION
Very good = minimal dust or debris
Little = enough dust to leave a residue on a gloved finger
Moderate = visible accumulations of dust
Significant = thick layer of dust