O'Reilly, Talbot & Okun
ENGINEERING ASSOCIATES

June 1, 2020
File No. 5174-01-06

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

Attn.: Mr. James Bedard,
Director of Environmental Management and Capital Projects

RE: May 2020 - PCB BMP Quarterly Status Report
Burncoat High School

Dear Jim,

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). The objective of the BMP program is to reduce potential exposures to polychlorinated biphenyls (PCBs).

Certain materials used in the construction and renovation of buildings between 1950 and 1980 may contain PCBs. 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. Burncoat High School was constructed during this period.

WPS and its staff are responsible for implementing the BMPs, and OTO conducts quarterly independent evaluations to provide WPS management with an assessment of the effectiveness of their implementation. Please note that the evaluation typically conducted during the first quarter of the calendar year 2020 did not occur due to the Covid-19 Pandemic.

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 Spring 2020 BMP assessment at Burncoat on May 6, 2020 accompanied by representatives from the School facilities department. We reviewed the operation of the HVAC/air handling equipment with school facilities staff. The system underwent a significant overhaul approximately 3 years ago and 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, window sills and window frames as well as the univent systems that provide heating and ventilation to the classrooms. As noted in Table 1, some windowsills were obstructed by book storage, art displays or other materials.

The school spaces we observed included:

- Library/Media Center,
- Administration and Guidance offices, and
- Selected classrooms.

Our general observations are summarized on Table 1 (attached). During the assessment we observed small amounts of missing caulk that we identified at the time to school facilities representatives. We understand that they were to be promptly repaired. At the time we also observed six areas within separate classrooms with moderate dust accumulation on caulking and other surfaces. We discussed cleaning procedures with facilities personnel emphasizing the importance of consistency with the BMPs. We were assured that these six areas would be promptly addressed and that the BMP recommendations were routinely followed in the school.

Based on our discussions and observations, it is our conclusion that the implementation of the BMPs at Burncoat is effective. The univents were free of significant dust and visible oil leakage. Except as noted above, most rooms exhibited only slight accumulation of dust.

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 all of 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. It is estimated that the current building will be replaced in approximately seven years. 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 an effective manner at Burncoat High School. We recommend that the next quarterly on-site visit be conducted in August 2020.

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

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

Christine Arruda, CIEC
Project Manager

James D. Okun, LSP
Principal

Attachments
Table 1 – Summary of Observations for Burncoat High School

Table 1 - Summary of BMP Observations
Burncoat High School
299 Highland Street
Worcester, MA 01602
May 6, 2020

Room	Condition of Caulk	Condition of Univents	Dust Accumulation	Comments
A1	VG	VG	VG	---
A-8	VG	VG	VG	General Note: Wood covering 3rd window from left, bottom pane, observation blocked in this area
A-18	VG	VG	VG	2nd window from left, middle pane, left seam, 8" caulk missing. 3rd window from left, bottom sill, 6" caulk missing
A Wing Hallway	VG	VG	VG	---
B-6	VG	VG	M	---
B-11	VG	VG	VG	---
B-2	VG	VG	M	4th window from right, bottom sill, 6" caulk missing. 5th window from right, bottom sill, 3" damaged caulk
B-5	VG	VG	VG	---
B-5A	VG	VG	VG	---
C-1A	VG	VG	M	1st window from left, bottom sill, 1.5" caulk missing
C-3	VG	VG	VG	---
C-5	VG	VG	VG	General Notes: 6th window from left, wood blocking bottom pane. 8th window from left, wood blocking middle pane, observations blocked in these areas
C-15 (Library/Media Center)	VG	VG	VG	10th window from right, bottom pane, right seam, 14" caulk missing
E-1	VG	VG	VG	---
E-4	VG	VG	VG	---
E-5	VG	VG	M	1st window from right, bottom pane, right seam, 14" no caulk
D-8	VG	VG	VG	1st and 2nd window from right, blocked by boards. 4th window from left, top of bottom pane and window sill, 1' caulk missing. 1st window from left, bottom pane, bottom sill, 3" caulk missing. 2nd window from left, middle pane, bottom seam, 1.5' caulk missing
D-5	VG	VG	VG	---
D-14	VG	VG	M	3rd window from left, bottom pane, top seam (left & right corner) 6" total caulk missing
D-24	VG	VG	M	Pictures covering far left two windows
F-2	VG	VG	VG	---
F4	VG	VG	VG	Paper covering first two windows from left

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