UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

JUN 29 2012

Michael Thomas
Chief of Operations
The City of Brockton Public Schools
43 Crescent Street
Brockton, Massachusetts 02301

Re: PCB Cleanup and Disposal Approval under 40 CFR §§ 761.61(a) and (c) and § 761.79(h)
Brockton High School and Downey Elementary School
Brockton, Massachusetts

Dear Mr. Thomas:

This is in response to the City of Brockton Public Schools (CBPS) Notification[1] for approval of a proposed plan to address PCB contamination at the buildings known as Brockton High School located at 470 Forest Avenue and Downey Elementary School located at 55 Electric Avenue in Brockton, Massachusetts (together, "the Sites"). The Sites contain PCB-contaminated materials that exceed the allowable PCB levels under 40 CFR § 761.20(a), § 761.61, and § 761.62. Specifically, PCBs have been found in caulk and glazing and in the adjacent building substrates (i.e., brick and mortar, and concrete).

In its Notification, CBPS has proposed the following PCB cleanup and disposal plan:

[1] The Notification was prepared by ATC Associates, Inc. on behalf of the CBPS to satisfy the requirements under 40 CFR §§ 761.61(a) and (c), and § 761.79(h). Information was submitted dated April 13, 2012 (Notification of TSCA Self-Implementing Clean-up of PCBs (SIDP)-Brockton High School and Notification of TSCA Self-Implementing Clean-up of PCBs (SIDP)-Downey Elementary School); June 13, 2012 (Response to EPA Comments); June 14, 2012 (Response to EPA regarding Downey Elementary School PCB contingency plan); June 28, 2012 (Response to EPA regarding encapsulated surfaces-Brockton High School). These submittals together shall be referred to as the "Notification".

- Brockton High School
    - Remove greater than or equal to (≥) 50 part per million (ppm) PCB caulk and glazing and associated *non-porous surfaces* (i.e., metal window/door assemblies in their entirety) and dispose at a TSCA-approved disposal facility or at a RCRA hazardous waste landfill
    - Encapsulate the entire exposed surface of *porous surfaces* (i.e., textured concrete columns, exterior bases, and exterior sills) with greater than (>) 1 ppm PCB concentration
    - Verification sampling of encapsulated *porous surfaces* to confirm that the surface standard of less than or equal to (≤) 1 $\mu g/100\ cm^2$ has been met
- Downey Elementary School
    - Remove ≥ 50 ppm PCB caulk and *non-porous surfaces* (i.e., metal window/door assemblies in their entirety) and dispose at a TSCA-approved disposal facility or at a RCRA hazardous waste landfill
    - *Porous surfaces* (e.g., brick and concrete) with > 1 ppm PCB concentration, in contact with PCB caulk will be decontaminated to ≤ 1 ppm
    - Encapsulate *porous surfaces* (i.e., concrete, brick and mortar) if the PCB cleanup standard of ≤ 1 ppm cannot be achieved.

For the Brockton High School, CBPS has determined that caulk and glazing found in the connecting corridors of the High School, which have PCB concentrations of < 50 ppm (highest concentration 12 ppm), meet the criteria for an *Excluded PCB Product* as defined under § 761.3. Under the PCB regulations, *Excluded PCB Products* are authorized for use and thus there is no requirement to remove the caulk or to decontaminate surfaces that are in contact with the < 50 ppm caulk. The corridors are not being renovated during this project and, therefore, the caulk will remain in place.

Based on the EPA's review, the information provided in the Notification meets the requirements under § 761.62(a) and § 761.79(h) for abatement and disposal of PCB caulk and glazing and §§ 761.61(a) and (c) for decontamination and/or encapsulation of the *porous surfaces*. EPA finds that the proposed encapsulation of PCB-contaminated *porous surfaces* should effectively prevent direct exposure of these PCB-contaminated *porous surfaces* to building users provided the encapsulated surfaces are maintained. As such, EPA may approve the encapsulation under § 761.61(c).

This Approval covers the window/door removal, decontamination and/or the encapsulation of the surrounds and disposal of the PCB contaminated building products associated with the window/door removal project only. Limited sampling of the concrete foundation at Downey Elementary School was conducted and PCB concentrations > 1 ppm were found. As samples continue to be collected during the course of the project, if the PCB concentration in any of the foundation samples is found to be ≥ 10 ppm, CBPS will contact the EPA to determine courses of action. Given that the concrete foundation is not readily accessible to the school users, EPA judges that this will not pose an unreasonable risk to human health or the environment, until a remedial plan can be implemented.

Soils and *porous surfaces* (e.g., asphalt and concrete) surrounding the two schools were not sampled. Plans for this sampling and the remediation of the concrete foundation and the soils, if required, should be completed as soon as funds become available to do so.

CBPS may proceed with its project in accordance with 40 CFR §§ 761.61(a) and (c); § 761.62(a); § 761.79(h); its Notification; and, this Approval, subject to the conditions of Attachment 1. Under this Approval, EPA is reserving its right to require additional investigation or mitigation measures should the results of the long-term monitoring sampling indicate an unreasonable risk to the building users.

Please pay particular note to the following Attachment 1 conditions:

1. Condition 11. This condition requires CBPS to conduct outreach activities for both school communities concerning the PCB remediation work. Documentation of the outreach effort shall be submitted to EPA.

2. Condition 10b. This condition requires submittal of a revised contractor work plan to address work site air sampling, equipment decontamination, PCB waste container labeling and storage (including appropriate figures) since the information originally provided is not consistent with the requirements under 40 CFR Part 761.

3. Condition 17. This condition requires that CBPS record a notation on the deed for Brockton High School as required under § 761.61(a)(8) since PCBs at > 1 ppm will remain at the property.

In the event that encapsulation of porous surfaces is implemented at Downey Elementary School, Condition 17 shall also apply.

Questions and correspondence regarding this Approval should be directed to:

Kimberly N. Tisa, PCB Coordinator (OSRR07-2)
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Facsimile: (617) 918-0527

EPA shall not consider this project complete until it has received all submittals required under this Approval. Please be aware that upon EPA receipt and review of the submittals, EPA may request any additional information necessary to establish that the work has been completed in accordance with 40 CFR Part 761, the Notification, and this Approval.

Sincerely,

James T. Owens III, Director
Office of Site Remediation & Restoration

cc Jason Roback, ATC Associates, Inc
MassDEP, Southeast Region
Mary Brophy, Brockton Board of Health
File

Attachment 1 – PCB Approval Conditions

ATTACHMENT 1:

PCB CLEANUP AND DISPOSAL APPROVAL CONDITIONS
BROCKTON HIGH SCHOOL AND DOWNEY ELEMENTARY SCHOOL (the Sites)
BROCKTON, MASSACHUSETTS

GENERAL CONDITIONS

1. This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to the *PCB bulk product waste* and the *PCB remediation waste* located at the Sites and identified in the Notification.

2. The City of Brockton Public Schools (CBPS) shall conduct on-site activities in accordance with the conditions of this Approval and with the Notification.

3. In the event that the cleanup plan described in the Notification differs from the conditions specified in this Approval, the conditions of this Approval shall govern.

4. The terms and abbreviations used herein shall have the meanings as defined in 40 CFR § 761.3 unless otherwise defined within this Approval.

5. CBPS must comply with all applicable federal, state and local regulations in the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items and decontamination wastes generated under this Approval. In the event of a new spill during response actions, CBPS shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.

6. CBPS is responsible for the actions of all officers, employees, agents, contractors, subcontractors, and others who are involved in activities conducted under this Approval. If at any time CBPS has or receives information indicating that CBPS or any other person has failed, or may have failed, to comply with any provision of this Approval, it must report the information to EPA in writing within 24 hours of having or receiving the information.

7. This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by CBPS are authorized to conduct the activities set forth in the Notification. CBPS is responsible for ensuring that its selected transporters and disposal facilities are authorized to conduct these activities in accordance with all applicable federal, state and local statutes and regulations.

8. This Approval does not: 1) waive or compromise EPA's enforcement and regulatory authority; 2) release CBPS from compliance with any applicable requirements of federal, state or local law; or 3) release CBPS from liability for, or otherwise resolve, any violations of federal, state or local law.

NOTIFICATION AND CERTIFICATION CONDITIONS

9. This Approval may be revoked if the EPA does not receive written notification from CBPS of its acceptance of the conditions of this Approval within 10 business days of receipt.

10. CBPS shall submit the following information for EPA review and/or approval:

    a. a certification signed by its selected abatement/demolition contractor, stating that the contractor(s) has read and understands the Notification, and agrees to abide by the conditions specified in this Approval;

    b. a revised contractor work plan, prepared and submitted by the selected demolition or abatement contractor(s) describing the job site air monitoring that will be employed during abatement activities. This work plan should also include additional information on how and where wastes will be stored, and on how field equipment will be decontaminated; and,

    c. a certification signed by the selected analytical laboratory, stating that the laboratory has read and understands the extraction and analytical method requirements and quality assurance requirements specified in the Notification and in this Approval.

DECONTAMINATION AND DISPOSAL CONDITIONS

11. CBPS shall conduct outreach activities for the Brockton High School and Downey Elementary School communities on the PCB remediation work. CBPS shall submit information on its outreach activities within 30 days of receipt of this Approval.

12. To the maximum extent practical, engineering controls, such as barriers, and removal techniques, such as the use of HEPA ventilated tools, shall be utilized during removal processes. In addition, to the maximum extent possible, disposable equipment and materials, including PPE, will be used to reduce the amount of decontamination necessary.

13. All visible residues of PCB-contaminated caulk and glazing (i.e., *PCB bulk product waste*) shall be removed as described in the Notification.

    a. The PCB decontamination standard for *porous surfaces* (i.e. concrete, and brick and mortar) shall be less than or equal to (≤) 1 part per million (ppm).

    b. All verification sampling for *porous surfaces* shall be performed on a bulk basis (i.e., mg/kg) and reported on a dry weight analysis. Verification sampling for *porous surfaces* shall be conducted in accordance with the EPA Region 1 *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs) Revision 4, May 5, 2011*, at a maximum depth interval of 0.5 inches, and with the frequency described in the Notification to confirm that all greater than (>) 1 ppm PCB-contaminated *porous surfaces* have been removed.

    c. Chemical extraction for PCBs shall be conducted using Method 3500B/3540C of SW-846 and chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another method(s) is validated according to Subpart Q.

14. Following encapsulation of PCB-contaminated *porous surfaces* surface wipe sampling shall be conducted to determine the effectiveness of the encapsulation.

    a. Wipe sampling of encapsulated *porous surfaces* shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e. $\mu g/100\ cm^2$). Chemical extraction for PCBs shall be conducted using Method 3500B/3540C of SW-846; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction or analytical method(s) is validated according to Subpart Q.

    b. In the event that the PCB concentration of any wipe sample is $> 1\ \mu g/100\ cm^2$, CBPS shall contact EPA for further discussion and direction on alternatives.

15. Within 30 days of receipt of this Approval, CBPS shall submit its proposed plan for post-caulk abatement indoor surface sampling and indoor air sampling for EPA review and approval. .

    a. Wipe sampling of indoor surfaces shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e. $\mu g/100\ cm^2$). Chemical extraction for PCBs shall be conducted using Method 3500B/3540C of SW-846 and chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another method(s) is validated according to Subpart Q. The laboratory reporting limit shall be $\leq 1\ \mu g/100\ cm^2$.

b. Indoor air sampling shall be conducted in accordance with EPA Method TO-10A or EPA Method TO-4A. Sufficient sample volumes shall be collected to provide a laboratory reporting limit of $\leq 0.050\ \mu g/m^3$. PCB analysis shall be conducted for PCB homologues and/or PCB congeners by EPA Method 680 or EPA Method 1668.

c. In the event that PCB concentrations in the wipe samples are $> 1\ \mu g/100\ cm^2$ or air sample results are $> 0.050\ \mu g/m^3$, CBPS shall contact EPA for further discussion and direction on alternatives.

16. PCB waste (at any concentration) generated as a result of the activities described in the Notification, excluding any decontaminated materials, shall be marked in accordance with CFR 40 CFR § 761.40; stored in a manner consistent with 40 CFR § 761.65; and, disposed of in accordance with 40 CFR § 761.61 or § 761.62, unless otherwise specified below.

a. Decontamination wastes and residues shall be disposed of in accordance with 40 CFR § 761.79(g)(6).

b. Moveable equipment, tools, and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

c. PCB-contaminated water generated during decontamination shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or disposed of under § 761.60.

DEED RESTRICTION AND USE CONDITIONS

17. Within thirty (45) days of completing the activities described in the Notification and in the Approval, CBPS shall submit for EPA review and approval, a draft deed notice for each Site where PCBs greater than (>) 1 ppm remain. The deed notice shall include: a description of the extent and levels of contamination at the Site following abatement; a description of the actions taken at the Site; a description of the use restrictions for the Site; and the long-term monitoring and maintenance requirements on the Site. Within seven (7) days of receipt of EPA's approval of the draft deed restriction, CBPS shall record the deed restriction. A copy of this Approval shall be attached to the deed restriction.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

18. Within 60 days of completion of the work authorized under this Approval, CBPS shall submit for EPA's review and approval, a detailed monitoring and maintenance implementation plan (MMIP) for the surface barriers. CBPS shall incorporate any changes to the MMIP required by EPA.

    a. The MMIP shall include: a description of the activities that will be conducted, including inspection criteria, frequency, and routine maintenance activities; sampling protocols, sampling frequency, and analytical criteria; and, reporting requirements, as applicable

    b. The MMIP shall include a communications component which details how the maintenance and monitoring results will be communicated to the Site users, including teachers, parents, student, other on-site workers, and interested stakeholders.

    c. The MMIP also shall include a worker training component for maintenance workers or for any person that will be conducting work that could impact the barriers encapsulating the PCB-contaminated surfaces.

    d. CBPS shall submit the results of these long-term monitoring and maintenance activities to EPA. Based on its review of the results, EPA may determine that modification to the MMIP is necessary in order to monitor and/or evaluate the long-term effectiveness of the barriers.

    e. Activities required under the MMIP shall be conducted until such time that EPA determines, in writing, that such activities are no longer necessary.

19. CBPS shall allow any authorized representative of the Administrator of the EPA to inspect the Sites and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by CBPS to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.

20. Any modification(s) in the plan, specifications, or information submitted by CBPS, contained in the Notification, and forming the basis upon which this Approval has been issued, must receive prior written approval from the EPA. CBPS shall inform the EPA of any modification, in writing, at least ten (10) days prior to such change. No action may be taken to implement any such modification unless the EPA has approved of the modification, in writing. The EPA may request additional information in order to determine whether to approve the modification.

21. If such modification involves a change in the use of the Sites which results in exposures not considered in the Application, the EPA may revoke, suspend, and/or modify this Approval upon finding that this risk-based cleanup and disposal action may pose an unreasonable risk of injury to health or the environment due to the change in use. EPA may take similar action if the EPA does not receive requested information needed from CBPS to make a determination regarding potential risk.

22. Any misrepresentation or omission of any material fact in the Notification or in any records or reports may result in the EPA's revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

RECORDKEEPING AND REPORTING CONDITIONS

23. CBPS shall prepare and maintain all records and documents required by 40 CFR Part 761, including but not limited to the records required under Subparts J and K. A written record of the cleanup and disposal and the analytical sampling shall be established and maintained by CBPS in one centralized location, until such time as EPA approves in writing a request for an alternative disposition of such records. All records shall be made available for inspection to authorized representatives of EPA.

24. As required under Condition 18 of this Approval, CBPS shall submit the results of the long-term monitoring and maintenance activities to EPA as specified in the final MMIP to be approved by EPA

25. CBPS shall submit a final report to the EPA within 90 days of completion of the activities authorized under this Approval. At a minimum, this final report shall include: a short narrative of the project activities; characterization and confirmation sampling analytical results; copies of the accompanying analytical chains of custody; field and laboratory quality control/quality assurance checks; an estimate of the quantity of PCB waste disposed of and the size of the PCB cleanup area(s); copies of manifests and bills of lading; and copies of certificates of disposal or similar certifications issued by the disposer. The Report shall also include a copy of the recorded deed restriction and a certification signed by a CBPS official verifying that the authorized activities have been implemented in accordance with this Approval and the Notification.

26. Required submittals shall be mailed to:

    Kimberly N. Tisa, PCB Coordinator
    United States Environmental Protection Agency
    5 Post Office Square, Suite 100 – (OSRR07-2)
    Boston, Massachusetts 02109-3912
    Telephone: (617) 918-1527
    Facsimile: (617) 918-0527

27. No record, report or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under EPA audit, self-disclosure or penalty policies.

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END OF ATTACHMENT 1