



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

5 POST OFFICE SQUARE, SUITE 100
BOSTON, MASSACHUSETTS 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

JUN - 4 2019

Donald A. Robinson, Executive Director
Environmental Health and Safety
Draper Hall
University of Massachusetts
40 Campus Center Way
Amherst, Massachusetts 01003-9244

Re: PCB Decontamination and Disposal Approval under
40 CFR §§ 761.61(a) and (c) and § 761.79(h)
Sylvan Residential Complex (Brown, McNamara, and Cashin Residence Halls)

Dear Mr. Robinson:

This is in response to the University of Massachusetts (UMass) Notifications¹ for approval of the proposed plans to address PCB contamination within the building area known as the Sylvan Residential Complex located at 112 Eastman Lane on the UMass Campus, in Amherst, Massachusetts. PCB-contaminated materials that exceed the allowable PCB levels under 40 CFR § 761.20(a) and § 761.61 were found at the Brown, McNamara and Cashin Residence Halls (together "the Site" or "Sylvan Complex"). Specifically, PCBs were found in caulk and adjacent building substrates, and in ground surfaces at the Site.

In the Notifications, UMass proposed to remove PCB-containing caulk and certain building materials and to encapsulate PCB-contaminated *porous surfaces* (e.g., brick) that were to remain in place. Due to time constraints and the necessity to complete building repairs and upgrades, UMass implemented the following PCB risk-based decontamination and disposal plan under § 761.61(c) and § 761.79(h) and submitted a report to document completion of the following activities for the Site buildings:

¹ The notifications were prepared by Woodard & Curran on behalf of the University of Massachusetts to satisfy the requirements under 40 CFR § 761.61(c). Information was submitted dated April 2011 (PCB Remediation Plan-Brown Residence Hall); May 6, 2011 (PCB Remediation Plan for the ADA Bathroom Upgrade Project for the Brown House (prepared by ECS); March 2012 (PCB Remediation Plan-McNamara Residence Hall); March 15, 2013 (PCB Remediation Plan-Sylvan Residential Complex); June 19, 2013 (PCB Remediation Plan Addendum- Sylvan Residential Complex-Cashin and McNamara Interior Renovation); February 20, 2014 (PCB Remediation Completion Report-Sylvan Residential Complex), which shall together be referred to as "the Building Notifications". Information was submitted dated December 2018 (PCB Impacted Soil Remediation Plan); April 12, 2019 (Response to EPA comments); and May 8, 2019 (Additional data and figures from May 2019 sampling), which shall be referred to as "the Soil Notification". The Building Notification and Soil Notification shall together be referred to as the "Notifications".

➤ Brown Residence Hall

✓ Residence Envelope

- Removed and disposed of PCB caulk with greater than or equal to (\geq) 50 parts per million (ppm) in a TSCA approved or RCRA hazardous waste landfill in accordance with 40 CFR § 761.62(a)
 - Encapsulated PCB-contaminated *porous surfaces* (i.e., one full course (approximately 8 inches of brick on either side of the vertical joint and a minimum of 1 full course of brick above and 3 full courses of brick below the horizontal joint) with two coats of acrylic coating
- ✓ Bathroom renovations - Removed *PCB bulk product waste* (i.e., caulk, and all brick and mortar within the project area) and disposed of this waste in a TSCA approved or hazardous waste landfill in accordance with 40 CFR § 761.62(a)

➤ McNamara Residence Hall

✓ Residence Envelope

- Removed and disposed of the following as \geq 50 ppm PCB waste in a TSCA approved or hazardous waste landfill in accordance with 40 CFR § 761.62(a):
 - Parapet Wall – Aluminum cap, first course of brick below the caulk joint (i.e., vertically aligned soldier bricks), first course of horizontal bricks along two sections, and the first course (i.e., 3 inches) of brick above the horizontal control joints and a full course of brick (i.e., 8 inches) along each side of the vertical control joint
 - RTU Enclosure Wall – Wall cap materials (i.e., concrete cap, mortar, and backing materials)
 - Encapsulated PCB-contaminated *porous surfaces* (i.e., one full course (approximately 8 inches) of brick on either side of the vertical joint and a minimum of 1 full course of brick above and 3 full courses of brick below the horizontal joint) with two coats of acrylic coating
- ✓ Rest Room Upgrades
- Removed *porous surfaces* (i.e., one brick (4 inches) from the horizontal caulk joints and the first $\frac{1}{2}$ course (approximately 3 inches) of brick away from the vertical caulk joints) and disposed as \geq 50 ppm waste in a TSCA approved or RCRA hazardous waste landfill in accordance with 40 CFR § 761.62(a)

- Encapsulated PCB-contaminated *porous surfaces* (i.e., concrete ceiling a minimum 12 from the caulk joint and concrete columns to the first 90-degree angle) with two coats of epoxy or acrylic coating and a final coat of acrylic latex paint
- ✓ Interior Renovations - Encapsulated *porous surfaces* (structural concrete columns) with two coats of an epoxy/elastomeric coating
- Cashin Residence Hall
 - ✓ Residence Envelope
 - Removed and disposed of the following as ≥ 50 ppm PCB waste in a TSCA approved or hazardous waste landfill in accordance with 40 CFR § 761.62(a):
 - Parapet Wall – Aluminum cap, first course of brick below the caulk joint (i.e., vertically aligned soldier bricks), first row of horizontal bricks along two sections, and the first two courses (i.e., 6 inches) of brick above the horizontal control joints and a full row of brick (i.e., 8 inches) along the vertical control joints and 2 full courses of brick along portions of the south building elevation
 - RTU Enclosure Wall – Wall cap materials (i.e., concrete cap, mortar, and backing materials) and the first row of brick below the cap
 - Encapsulated PCB-contaminated *porous surfaces* (i.e., one full course (approximately 8 inches) of brick on either side of the vertical joints and a minimum of 1 full course of brick above and 3 full courses of brick below the horizontal joints) with two coats of acrylic coating

Based on its review of the information provided in the Building Notifications for the Site buildings, EPA has determined that the proposed risk-based decontamination and disposal plan is acceptable and that the PCBs remaining at the Site will not pose an unreasonable risk of injury to health or the environment provided the encapsulants are maintained. EPA applies this reasonable risk standard in accordance with the PCB regulations at 40 CFR § 761.61(c) and the Toxic Substances Control Act at 15 USC § 2605(e). EPA approves the decontamination and encapsulation of PCB-contaminated *porous surfaces* (i.e., brick and concrete) under the provisions of 40 CFR § 761.61(c) and § 761.79(h).

Ground surfaces with PCB concentrations greater than ($>$) 1 ppm remain at the Site. In the Soil Notification for these surfaces, UMass has proposed to clean up and dispose of the > 1 ppm PCB-contaminated ground surfaces as follows:

- Collect characterization samples from *PCB remediation waste* (i.e., sediments in eastern branch of the stormwater system and asphalt as shown on Attachment 2) to determine the extent of PCBs > 1 ppm

- Excavate *PCB remediation waste* (i.e., soil) with ≥ 50 ppm PCBs to a depth of 18 inches below ground surface (bgs) and dispose in accordance with § 761.61(a)(5)(i)(B)(2)(iii)
- Collect verification samples as shown on revised Figure 3-2 (Attachment 2) to confirm that the PCBs with ≥ 50 ppm have been removed
- Remove or excavate *PCB remediation waste* (i.e., soil to a depth of 12 inches bgs, brick at McNamara Hall, asphalt, catchment basin sediments) with > 1 and less than ($<$) 50 ppm PCBs and dispose in accordance with § 761.61(a)(5)(i)(B)(2)(ii)
- Collect verification samples as shown on revised Figure 3-2 (Attachment 2) to confirm that the less than or equal to (\leq) 1 ppm PCB standard for unrestricted use has been met

UMass has proposed a deviation from the 40 CFR § 761.61(a)(5)(i)(B)(2)(i) sampling requirements for segregation of ≥ 50 ppm PCB-contaminated soil from < 50 ppm PCB-contaminated soil for off-site disposal, and the verification sampling requirements specified at 40 CFR § 761.61(a)(6) for *PCB remediation waste* (i.e., soil). See Figure 3-2 (Attachment 2).

Based on the results of the characterization sampling, the additional samples to be collected during excavation, and the remediation approach, the proposed sampling frequency should be sufficient to confirm the PCB concentration for off-site disposal and to confirm that the PCB cleanup standard has or has not been achieved. EPA has determined that the proposed alternative sampling will not result in an unreasonable risk of injury to health or the environment. EPA may approve the alternative sampling under § 761.61(c).

UMass may proceed with cleanup and disposal of the ground surfaces in accordance with 40 CFR §§ 761.61(a) and (c); the Notification; and, this Approval, subject to the conditions of Attachment 1. For the encapsulated ≥ 1 ppm PCB contaminated buildings' surfaces, the conditions of Attachment 1 shall also apply, including the long-term monitoring and maintenance and deed notice requirements. See Attachment 1, Condition 15.

Questions and correspondence regarding this Approval should be directed to:

Kimberly N. Tisa, PCB Coordinator (LCRD07-2)
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Tisa.kimberly@epa.gov

EPA encourages the compliance with greener cleanup practices for all cleanup projects and recommends adherence to the ASTM Standard Guide to Greener Cleanups E2893-16 (Guide) for work conducted under this Approval and the Notification. Greener Cleanups is the practice of integrating options that minimize the environmental impacts of cleanup actions in order to incorporate practices that maximize environmental and human benefit. Please see Section 6 of the Guide for the Best Management Practices (BMP) Process dated May 2016 (See www.astm.org/Standards/E2893.htm for additional information). EPA encourages you to review the Guide and implement any practices that are feasible. If implemented, the PCB completion report (see Attachment 1, Condition 24) should include a section on BMP Documentation, as described in Section 6.6.5 of the Guide.

EPA shall not consider this project complete until it has received all submittals required under this Approval, including documentation that the deed notice has been recorded. 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 Notifications, and this Approval.

Sincerely,

A handwritten signature in black ink, appearing to read "Nancy Barmakian", followed by a horizontal line.

Nancy Barmakian, Acting Division Director
Land, Chemicals and Redevelopment Division

cc Jeffrey Hamel, Woodard & Curran
MassDEP – Western Region (RTN: 1-0019533)
File

Attachment 1: PCB Approval Conditions
Attachment 2: Revised Figure 3-2

ATTACHMENT 1

PCB DECONTAMINATION AND DISPOSAL APPROVAL CONDITIONS
SYLVAN RESIDENTIAL COMPLEX (the Site)
BROWN, MCNAMARA, AND CASHIN RESIDENCE HALLS
UNIVERSITY OF MASSACHUSETTS
AMHERST, 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 remediation waste* located at the Site and identified in the Notifications.
 - a. In the event that the University of Massachusetts, Amherst (UMass) identifies PCB-contaminated materials not described in the Notifications, which are subject to cleanup and disposal under the PCB regulations, UMass will be required to notify EPA and to clean up such PCB-contaminated materials in accordance with 40 CFR Part 761.
 - b. UMass may submit a separate plan to address such PCB contamination not identified in the Notifications or may modify the Notifications to incorporate cleanup of such PCBs under this Approval in accordance with Condition 18.
2. UMass shall conduct on-site activities in accordance with the conditions of this Approval and with the Notifications.
3. In the event that the cleanup plan described in the Notifications 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. UMass 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, UMass shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.
6. UMass 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 UMass has or receives information indicating that UMass 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 UMass are authorized to conduct the activities set forth in the Notifications. UMass 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 UMass from compliance with any applicable requirements of TSCA or of other federal, state or local law; or 3) release UMass from liability for, or otherwise resolve any violations of TSCA or of other federal, state or local law.
9. Failure to comply with the Approval conditions specified herein shall constitute a violation of the requirement in § 761.50(a) to store or dispose of PCB waste in accordance with 40 CFR Part 761 Subpart D.

NOTIFICATION AND CERTIFICATION CONDITIONS

10. This Approval may be revoked if the EPA does not receive written notification from UMass of its acceptance of the conditions of this Approval within 10 business days of receipt.
11. UMass shall submit the following information for EPA review:
 - a. a certification signed by its selected contractor, stating that the contractor(s) has read and understands the Soil Notification, and agrees to abide by the conditions specified in this Approval; and,
 - b. 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 Soil Notification and in this Approval.

CLEANUP AND DISPOSAL CONDITIONS

12. To the maximum extent practical, engineering controls, such as barriers, and soil wetting shall be utilized during soil excavation and handling activities. In addition, to the maximum extent possible, disposable equipment and materials, including PPE, will be used to reduce the amount of decontamination necessary.
13. The PCB cleanup standard for *ground surfaces* (i.e., *PCB remediation waste* that includes catch basin sediments, soil, asphalt, concrete and brick) shall be less than or equal to (\leq) 1 part per million (ppm).

- a. Characterization samples shall be collected from sediments in the eastern branch of the stormwater system and from the asphalt to determine the extent of PCBs greater than ($>$) 1 ppm. (See Attachment 2).
 - (1) Sediment samples shall be collected on a bulk basis (i.e., mg/kg) and PCB results reported on a dry weight basis.
 - (2) For *porous surfaces* (i.e., asphalt) samples shall be collected on a bulk basis (i.e., mg/kg) and PCB results reported on a dry weight analysis. Samples shall be collected 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.
 - (3) The sampling results shall be submitted to EPA. In the event that PCBs $>$ 1 ppm are identified in the sediment, a plan for sampling the associated catchment basins shall be submitted. In the event that PCB concentrations \geq 50 ppm are identified in the sediment or asphalt, UMass shall be required to dispose of the \geq 50 ppm PCB waste in accordance with 40 CFR § 761.61(a)(5)(i)(B)(2)(iii).
 - (4) Any modifications to the plan resulting from the catchment or asphalt sampling shall be submitted to EPA for review and approval in accordance with Condition 18.
 - b. Verification soil samples shall be collected on a bulk basis (i.e., mg/kg) and PCB results reported on a dry weight basis. Samples shall be collected as shown in Attachment 2 from both excavation bottoms and sidewalls, as applicable, to confirm that all \geq 50 ppm and \geq 1 ppm *PCB remediation waste*, as applicable, has 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 extraction or analytical method(s) is validated according to Subpart Q.
14. PCB waste (at any concentration) generated as a result of the activities described in the Notifications, 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, 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 NOTICE AND USE CONDITIONS

15. Within thirty (30) days of completion of all the PCB remediation/abatement projects, UMass shall submit for EPA review and approval, a draft deed notice for the Site. The deed notice shall include: a description of the extent and levels of PCB contamination remaining at the Site; a description of the actions taken at the Site; a description of the use restrictions for the Site, if applicable; and the long-term monitoring and maintenance requirements for the Site, which may be addressed by the long-term monitoring and maintenance plan ("MMP") for encapsulated building surfaces dated February 20, 2014. Within seven (7) days of receipt of EPA's approval of the draft deed notice, UMass shall record the deed notice. A copy of this Approval shall be attached to the deed notice.
16. Within ten (10) business days of recording the deed notice, UMass shall submit to EPA a certification as required under 40 CFR § 761.61(a)(8)(i)(B), that it has recorded the notation on the deed with a copy of the executed deed notice.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

17. UMass shall allow any authorized representative of the Administrator of the EPA to inspect the Site and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by UMass to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.
18. Any proposed modification(s) in the plan, specifications, or information in the Notifications must be submitted to EPA no less than 14 calendar days prior to the proposed implementation of the change. Such proposed modifications will be subject to the procedures of 40 CFR § 761.61(a)(3)(ii).
19. Any departure from the conditions of this Approval without prior, written authorization from the EPA may result in the 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.
20. Any misrepresentation or omission of any material fact in the Notifications 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.

21. Approval for these activities may be revoked, modified or otherwise altered: if EPA finds a violation of the conditions of this Approval or of 40 CFR Part 761, including EPA's PCB Spill Cleanup Policy, or other applicable rules and regulations; if EPA finds that these activities and/or the PCBs remaining at the Site present an unreasonable risk of injury to health or the environment; if EPA finds that there is migration of PCBs from the Site; or if EPA finds that changes are necessary to comply with new rules, standards, or guidance for such approvals. UMass may apply for appropriate modifications in the event new rules, standards, or guidance comes into effect.

RECORDKEEPING AND REPORTING CONDITIONS

22. UMass 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 UMass 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.
23. UMass shall submit the results of the long-term monitoring and maintenance activities to EPA as specified in the MMP.
24. UMass shall submit a final completion report for the sediment, catchment, and ground surface remediation in both a hard copy and electronic version (e.g., CD-ROM), to the EPA within 60 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 with photographic documentation and Greener Cleanups BMP documentation, if implemented; 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; copies of manifests and bills of lading; copies of certificates of disposal or similar certifications issued by the disposer; and, the estimated cost of the overall remediation work, including both buildings and ground surface work.
25. Required submittals shall be mailed to:
- Kimberly N. Tisa, PCB Coordinator
United States Environmental Protection Agency
5 Post Office Square, Suite 100 – (LCRD07-2)
Boston, Massachusetts 02109-3912
26. 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.

END OF ATTACHMENT 1

