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

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

JUL 03 2012

Mr. Steven C. Nasan
Director, Residential Real Estate
Harvard Real Estate Services
Holyoke Center
1350 Massachusetts Avenue
Cambridge, Massachusetts 02138

Re: Peabody Terrace Housing Complex, Cambridge, Massachusetts
MassDEP RTN: 3-28873

Dear Mr. Nason:

This is in response to the February 2012 President and Fellows of Harvard College (Harvard) request to modify its PCB remediation plan to include the Peabody Terrace Housing Complex Buildings D and Z located at 900 Memorial Drive, Cambridge, Massachusetts (the Site). These buildings contain caulk that exceeds the allowable PCB levels under the federal PCB regulations at 40 CFR § 761.20 and § 761.62. PCBs concentrations have also been identified in building substrates which exceed the allowable PCB levels for unrestricted use under 40 CFR § 761.61(a). Also included in the February 2012 request was a proposed modification to the encapsulation procedures for interior *porous surfaces* based on the results of pilot tests which were conducted in Building A.

On April 10, 2012 Harvard submitted a proposed Modification Request No. 9 to address PCB caulk and adjacent concrete surfaces and asphalt identified in the exterior pedestrian underpass tunnels present between Buildings B and C; Buildings E and F; and, Building D.

Harvard submitted the modification requests (Modifications 8 and 9) in accordance with Condition 17 of the April 15, 2010 Risk-Based PCB Cleanup and Disposal Approval under 40 CFR § 761.61(c) and § 761.79(h) (Approval) and Condition 2 of the May 3, 2011 Modification to Risk-Based PCB Cleanup and Disposal Approval under 40 CFR § 761.61(c) and § 761.79(h).

As required under Condition 21 of the Approval, Harvard submitted a *February 2012 Peabody Terrace Housing Complex PCB Status Report Buildings A, B, C, X, E, F, and Y* (Remediation Status Report) detailing the PCB remedial activities that have been conducted on these buildings to support the Building D and Z modification request. Harvard provided additional information on the proposed modifications via e-mails dated April 2, 2012; April 3, 2012; April 5, 2012; May 2, 2012; and June 26, 2012.

In Appendix D of the February 2012 Building D and Z modification request, Harvard submitted its post-abatement interior monitoring plan which was required in accordance with Condition 13(c)(ii)(1) of the Approval. The objective of the post-abatement monitoring is to demonstrate that the implemented remedial measures are effective in eliminating and/or reducing potential PCB exposure within residential units.

In the modification requests, Harvard has proposed the following:

- For Buildings D and Z, Harvard will conduct PCB remediation work in accordance with the procedures that have been used on Buildings A, B, C, X, E, F, and Y and which were identified in the Notification and in subsequent modification requests 1 through 4, 7, and 8.

- For the encapsulation of interior *porous surfaces*, following removal of the caulk, a liquid epoxy coating will be applied to the joints followed by installation of new caulk. Should the post-encapsulation sampling indicate that this method is not effective, an additional barrier (i.e. liquid coating or architectural trim piece) will be installed.

- For the exterior pedestrian underpass tunnels, Harvard will:
    - Remove and dispose of PCB caulk;
    - Encapsulate inner caulk joint returns with epoxy and apply new caulk;
    - Encapsulate building walls with a white paint/coating; and,
    - Encapsulate ground surfaces (i.e., asphalt) with a liquid elastomeric urethane coating.

Based on the EPA's review of the Remediation Status Report and the information provided in the modification requests, it appears that the removal/encapsulation procedure is effective in mitigating the caulk and exposure to PCB-contaminated *porous surfaces*. Thus, EPA is approving your modification requests with the following conditions:

1. Unless otherwise modified by this letter or previous modification, Harvard must comply with all terms and conditions specified in its Approval;

2. Harvard must obtain all necessary State and local permits or approvals required for these modifications; and,

3. The modifications approved by this letter shall be included in the final completion report and the notation on the deed as required under Condition 21 of the Approval.

For the post-abatement interior monitoring plan, Harvard has proposed to begin collection of interior surface wipe samples and indoor air samples upon completion of exterior façade work and interior caulk remediation work, including decontamination and barrier installation. During the interim period, Harvard is proposing to collect at least one indoor air sample per building each year (annual monitoring) until the post-abatement indoor air sampling is commenced at the respective building. Based on its review of the plan and the proposed annual monitoring, EPA is approving the plan as proposed, with the following conditions:

1. Harvard shall submit the results of the annual monitoring to EPA within 14 days of its receipt of the analytical results;

2. In the event that the PCB results of the annual monitoring exceed the established "interim" risk-based indoor air concentration of 140 ng/m^3, Harvard shall notify EPA for further discussion and direction on alternatives, which may include mitigation or additional sampling;

3. Upon implementation of the post-abatement interior monitoring plan, the PCB action levels of 1 $\mu g/100\ cm^2$ for surface area (i.e., wipe) samples and 50 ng/m^3 for indoor air samples shall apply (see Approval Condition 13(c)(ii));

4. In the event that Harvard obtains additional information that would justify a modification to the proposed sampling plan, Harvard may submit a request to modify the sampling plan to EPA; and,

5. Harvard shall incorporate the results of the annual monitoring and the post-abatement interior monitoring into its development of the long-term monitoring and maintenance implementation plan (MMIP) required under Condition 15 of the Approval.

Under the Approval and this Modification Approval, EPA is reserving its rights to require additional sampling, investigation or mitigation measures should the results of the abatement work that has been conducted or that will be conducted or the sampling results, indicate that an unreasonable risk to building occupants and/or building users is or may be present at the Site.

Should you have any questions regarding this matter, please contact Kimberly Tisa at (617) 918-1527.

Sincerely,

Mary Sanderson, Chief
Remediation & Restoration II Branch

cc: J. Hamel, Woodard & Curran
MassDEP RTN: 3-28873
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