UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC 28 2011

REPLY TO THE ATTENTION OF:

L-8J

Mr. Jan Utrecht, M.S.
Director, Environmental Health and Safety
University of Cincinnati
P.O. Box 210218
Cincinnati, Ohio 45221-0218

Re: Risk-Based PCB Cleanup and Disposal Approval – 40 CFR § 761.61(c) Morgens Hall University of Cincinnati

Dear Mr. Utrecht:

This is in response to the University of Cincinnati Notification for approval of a proposed Polychlorinated Biphenyl (PCB) cleanup at the North Residential Area, Morgens Hall, on the University of Cincinnati campus in Cincinnati, Ohio dated August 10, 2011. The site contains PCB caulk that exceeds the allowable levels under the federal PCB regulations at 40 CFR § 761.20 and § 761.62. PCBs have also been identified in the adjacent building surface at levels exceeding the allowable PCB level for *unrestricted* use under 40 CFR § 761.61(a). The Notification describes the characterization data collected at the site and presents a proposed remedial plan for PCB Bulk Product Waste (original caulking) and PCB remediation waste (impacted building materials, and certain adjacent surfaces).

The University requested an approval to address PCB contamination at the site under 40 CFR § 761.61(c). The University is proposing the following activities under this project:

- Removal and off-site disposal of all exterior PCB caulk, including caulk with less than (<) 50 parts per million PCB in a TSCA Chemical Waste Landfill.
- Encapsulation of PCB-contaminated exterior concrete with 2 coats of an epoxy coating.
- Implementation of a long-term maintenance and monitoring program for the encapsulated areas.
- Recording of a deed notice to document the PCB concentrations at the site and the long-term maintenance and monitoring requirements.

Based on the EPA's review, the information provided in the Notification meets the requirements under 40 CFR §§ 761.61 and 761.62 for cleanup and disposal of PCB Remediation Waste and PCB Bulk Product Waste. EPA finds that the proposed encapsulation of PCB-contaminated concrete with an epoxy coating should effectively prevent direct exposure of these PCB surfaces to building users

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and thus should be protective of human health and the environment. This approval is granted in accordance with the federal PCB regulations codified at 40 CFR § 761.61(c), under which the Regional Administrator may approve a method to dispose of PCB Remediation Waste if it is found that the method will not pose an unreasonable risk of injury to human health or the environment.

The University may proceed with its project in accordance with 40 CFR §§ 761.61 and 761.62, the Notification, and this Approval, subject to the conditions of Attachment 1. Under this Approval, EPA reserves the right to require additional investigation or mitigation measures should the results of initial abatement work or ongoing monitoring results indicate that an unreasonable risk to building users remains following the abatement activities.

This Approval does not provide for cleanup and disposal of any PCB-contaminated soils. It is EPA's understanding that the University will investigate soils near Morgens Hall for PCB impacts and notify the Agency of the results.

EPA shall not consider this project complete until it has received all submittals required under this Approval. Upon EPA receipt and review of the submittals, we 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.

The University of Cincinnati is responsible for ensuring continued compliance with all applicable provisions of the Toxic Substances Control Act (TSCA), the federal PCB regulations, and the conditions of this Approval. Any departure from the conditions of this Approval or the Notification must receive prior written authorization from this office. Further, this Approval does not relieve the University of Cincinnati from compliance with any other federal, State, or local regulatory requirements. This Approval does not preclude EPA from initiating any enforcement action, including an action seeking civil penalties, suspension or termination of the Approval for any violation, or requiring additional cleanup should the University fail to abide by this Approval. All conditions of this Approval and other applicable requirements of TSCA and its implementing regulations will continue to apply to the Site after any transfer in ownership.

If you have any questions regarding this approval, please do not hesitate to call Peter Ramanauskas, of my staff, at (312) 886-7890.

Sincerely,

Michael D. Harris for M.G.

Margaret M. Guerriero
Director
Land and Chemicals Division

Enclosure

ATTACHMENT 1: PCB RISK-BASED APPROVAL CONDITIONS
UNIVERSITY OF CINCINNATI – MORGENS HALL

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 Federal PCB Regulations at 40 CFR Part 761, and applies solely to the PCB Bulk Product Waste and PCB Remediation Waste located at the site.

2) The University of Cincinnati (University) shall conduct on-site activities in accordance with the conditions of this Approval and 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 in this Approval.

5) All sampling and analysis conducted under this Approval will be performed in accordance with the EPA Region 5 RCRA Quality Assurance Project Plan Policy (April 1998) as appropriate for the site. EPA may audit laboratories selected by the University or require the University to purchase and have analyzed any Performance Evaluation ("PE") samples selected by EPA.

6) The University 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 implementation of these cleanup activities, the University shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.

7) The University 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 the University has or receives information indicating that the University 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.

8) This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by the University are authorized to conduct the activities set forth in the Notification. The University 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 statues and regulations.

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

NOTIFICATION AND CERTIFICATION CONDITIONS

10) Prior to initiating on-site work under this Approval, the University shall submit the following information to EPA for review and/or approval:

a) A certification signed by its selected abatement 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 certification signed by the selected analytical laboratory, stating the laboratory has read and understands the sample extraction and analysis requirements, the quality assurance requirements specified in the Notification, this Approval, and the EPA Region 5 RCRA Quality Assurance Project Plan Policy (April 1998) and;.

c) A contractor work plan, prepared and submitted by the selected contractor(s), detailing the procedures that will be employed for removal of PCB contaminated materials and for containment, post-containment wipe sampling locations, and air monitoring during and after removal activities. This work plan should also include information on waste storage, handling, and disposal for each waste stream type and for equipment decontamination.

CLEANUP AND DISPOSAL CONDITIONS

11) To the maximum extent practical, engineering controls, such as barriers, and removal techniques, such as the use of HEPA ventilated tools, shall be used 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.

12) PCB contaminated materials shall be removed and/or decontaminated, and verification sampling and analysis conducted as described below:

a) All visible caulk and caulk residue shall be removed and PCB contaminated porous surfaces (i.e. concrete) shall be encapsulated with two layers of epoxy coating.

b) Following encapsulation of PCB contaminated porous surfaces, post-encapsulation sampling shall be conducted to determine the effectiveness of the encapsulation.

i) Wipe sampling of encapsulated surfaces shall be performed on a surface area basis by the standard wipe test as specified in 40 CFR § 761.123 (i.e. $\mu g/100\ cm^2$). Samples shall be collected at the frequency detailed in the University email transmittal dated August 30, 2011 (i.e. representing approximately 20% of the units).

ii) 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 is validated according to 40 CFR Part 761 Subpart Q. The minimum laboratory reporting limit shall be 1 $\mu g/100\ cm^2$.

iii) Analytical results of surface sampling shall be submitted to EPA within 5 business days of the University's receipt of results and prior to the start of building occupancy.

c) Following completion of abatement, encapsulation, and enclosure of unit balconies, indoor air sampling and surface sampling shall be conducted to verify the effectiveness of the containment methods that were used.

i) The University shall submit an indoor air, surface sampling plan, and indoor air risk assessment work plan for EPA review and approval within 60 days of receipt of this Approval. At a minimum, the plan shall include locations of air and wipe sample collection points, analytical methods and detection limits and QA/QC criteria.

ii) Indoor air sampling shall be conducted in accordance with EPA Method TO-4A or TO-10A. Sufficient sample volumes shall be collected to provide a minimum laboratory reporting limit of $< 0.05\ \mu g/m^3$.

iii) Wipe sampling of enclosed balcony 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 Methods 3500B/3540C of SW-846 and chemical analysis of PCBs shall be conducted using Method 8082 of SW-846 unless another method is validated according to 40 CFR Part 761 Subpart Q. The minimum laboratory reporting limit shall be $1\ \mu g/100\ cm^2$.

iv) Analytical results of post-abatement and enclosure air and surface sampling shall be submitted to EPA within 5 business days of the University's receipt of results and prior to the start of building occupancy.

d) Removed materials which are in contact with caulk shall be disposed of off-site as PCB Remediation Waste.

e) PCB waste at any concentration generated as a result of the activities described in the Notification shall be marked in accordance with 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.

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

ii) Movable 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).

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

INSPECTION, MONITORING, MODIFICATION AND REVOCATION CONDITIONS

13) Within 90 days of completion of the work authorized under this Approval, the University shall submit for EPA's review and approval, a detailed monitoring and maintenance implementation plan (MMIP) for the epoxy encapsulated areas to monitor the long-term effectiveness of the encapsulants in reducing exposure to building users. The University 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, reporting requirements, and a schedule for submittal of results of long term monitoring and maintenance results to the EPA.

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

c) The MMIP shall include a worker training component for maintenance workers or for any person that will be conducting work that could impact the building coatings.

d) Based on its review of the monitoring and maintenance results, EPA may determine that modification to the MMIP is necessary in order to monitor and/or evaluate the long term effectiveness of the coatings.

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

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

15) Any proposed modification in the plan, specifications, or information in the Notification must be submitted to EPA for review and approval. Any proposed modification in the plan or specifications contained in the Notification or any departure from the conditions of this Approval without prior, written authorization from the EPA may result in revocation, suspension, and/or modification of the Approval, in addition to any other legal or equitable relief or remedy EPA may chose to pursue.

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

RECORDKEEPING AND REPORTING CONDITIONS

17) The University 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 decontamination and the analytical sampling shall be established and maintained by the University in one centralized location. All records shall be made available for inspection to authorized representatives of EPA.

18) The University shall submit a Final Completion Report (Report) to EPA within 120 days of the completion of the activities described under the Notification and this Approval. At a minimum, this Report shall include: a discussion of project activities, including any

modifications that were made to the cleanup plan; characterization and post-abatement 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 PCBs removed and disposed of off-site; copies of manifests and/or bills of lading; and copies of certificates of disposal or similar certifications issued by the disposer, if applicable. The report shall also include a copy of the recorded deed restriction and a certification signed by a University official verifying that the authorized activities have been implemented in accordance with this Approval and the Notification.

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.