IN THE MATTER OF:

Perma-Fix Environmental Services, Inc.  
Oak Ridge Environmental Waste Operations Center (OREWOC) Facility  
Kasey Properties, LLC  
EPA ID # TNR000047308

Approval for the Risk-Based Storage of Polychlorinated Biphenyl (PCB) Bulk Product Waste 40 CFR § 761.62(c)

AUTHORITY

This Risk-Based Approval for the commercial storage of Polychlorinated Biphenyl (PCB) bulk product waste is issued to Perma-Fix Environmental Services, Inc. for its operations of the Oak Ridge Environmental Waste Operations Center (OREWOC) Facility located at 930 Perimeter Road, Oak Ridge, TN 37830. This Approval is issued pursuant to Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e), and 40 Code of Federal Regulations (CFR) Part 761, “Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions”. The current rules for Risk-Based disposal approval of PCB bulk product waste are codified at 40 CFR § 761.62(c).

BACKGROUND

Perma-Fix Environmental Services, Inc. (Perma-Fix) operates the OREWOC Facility under the EPA ID # TNR000047308. The Facility is located on privately owned property adjoining the United States Department of Energy’s (DOE) former K-25 uranium site that is now known as the Eastern Tennessee Technology Park (ETTP). The property is owned by Kasey Properties, LLC located at 1415 Los Arboles Avenue NW, Albuquerque, NM 87107. Perma-Fix intends to purchase this property in the future from Kasey Properties, LLC.

The OREWOC Facility will be used to temporarily store PCB bulk product waste generated from the DOE’s deactivation and decommissioning activities at the K-25 Oak Ridge site and regional legacy nuclear installations. The OREWOC Facility will also receive low level radioactive waste (LLW) and non-radioactive waste generated from legacy facilities demolition. The PCB bulk product waste will be inspected, re-packaged when necessary, and stored at the OREWOC Facility prior to being shipped to DOE-owned and operated sites for disposal, including the Environmental Management Waste Management Facility in Oak Ridge and the Nevada National Security Site in Mercury, Nevada. Perma-Fix may decide to utilize commercial disposal options such as the Waste Control Specialists facility in Andrews, Texas and the Energy Solutions site in Clive, Utah. Each of these facilities is authorized to handle such PCB waste under a site-specific TSCA Approval to dispose of PCB bulk product waste.
PCB bulk product waste will be transported by truck from the K-25 Oak Ridge site to the OREWOC Facility in specially engineered flexible packaging that has integral straps designed for vertical lifting. Perma-Fix will utilize the LP855-IP1 Engineered Waste Package developed by PacTec, Inc. PCB bulk product waste will be shipped off-site primarily using rail transportation by loading the packages into gondola railcars.

All PCB bulk product waste management activities at the OREWOC Facility shall be conducted as described in Perma-Fix’s PCB Bulk Product Waste Risk-Based Storage Application submitted to the Environmental Protection Agency (EPA) on January 16, 2020 (Application) and the Conditions in this Approval. The Application does not include a request for storage of PCB remediation waste. Perma-Fix requests that the maximum storage duration from the date of PCB bulk product waste package receipt to the date of waste shipment be 90 calendar days. Perma-Fix also requests a maximum storage limit of 48,600 cubic feet (1,800 cubic yards) of PCB bulk product waste for its Northside Storage Pad, Southside Covered Storage Pad, and the Process Building Waste Storage Area. Perma-Fix is requesting a 40 CFR § 761.62 (c) Risk-Based Storage Approval because the Facility’s storage areas do not meet all the requirements for containment to be considered pursuant to 40 CFR § 761.65. More specifically, the storage areas at the OREWOC Facility lack any form of curbing that could contain spills, thereby preventing the possibility of receiving approval for the storage of PCB bulk product waste under 40 CFR § 761.65.

**FINDINGS**

Based upon the review of Perma-Fix’s January 2020 Application and other information, including emails between Perma-Fix and the EPA, the EPA has determined pursuant to 40 CFR § 761.62(c) that the proposed operation of the OREWOC Facility for PCB bulk product waste storage will not pose unreasonable risk of injury to health or the environment as long as these Conditions below are followed.

**DEFINITIONS**

All the terms and abbreviations used in this Approval shall have the meanings as defined in 40 CFR § 761.3 unless the context clearly indicates otherwise or unless the term is defined below for the purposes of this Approval.

“Application” means the Perma-Fix’s PCB Bulk Product Waste Risk-Based Storage Application submitted to the Environmental Protection Agency on January 16, 2020 and all data and materials upon which the EPA based its decision to approve Perma Fix Environmental Services’ request for approval to store PCB bulk product waste at its OREWOC Facility.

“Approval” is defined as the content of this document, the Conditions within, and any subsequent EPA-approved written modifications thereto.


“Day” means a calendar day, unless otherwise specified.

“Delegate” means the EPA Region 4 Land, Chemicals and Redevelopment Division Director.

“DOE” means the United States Department of Energy.
"EPA" means the United States Environmental Protection Agency, Region 4.

“LRCR” means the Land, Chemicals and Redevelopment Division in EPA Region 4.

“LP855-IP1 Engineered Waste Package” defines the engineered waste package that Perma Fix Environmental Services will use to store PCB bulk product waste at the OREWOC facility. Photos and more information are available in Attachment 1.

“Major modification” means any change which will affect overall facility performance or environmental impact, including but not limited to changes to the storage areas, the maximum PCB storage inventory, the closure plan, closure cost estimates (except as required for inflation adjustment), and the financial assurance for closure.

“Minor modification” means any change which will not affect overall facility performance or environmental impact including but not limited to an administrative or informational change, and correction of typographical errors.

“Non-Liquid PCBs” is defined in 40 CFR § 761.3 as materials containing PCBs that by visual inspection do not flow at room temperature (25 °C or 77 °F) or from which no liquid passes when a 100 g or 100 ml representative sample is placed in a mesh number 60 ±5 percent paint filter and allowed to drain at room temperature for 5 minutes.

“OREWOC” is the Oak Ridge Environmental Waste Operations Center.

“ORR” is the Department of Energy Oak Ridge Reservation site.

“PCB(s)” means polychlorinated biphenyl(s).

“PCB bulk product waste” is defined in 40 CFR § 761.3 to include but not be limited to wastes or debris from the deactivation, demolition, maintenance, and/or renovation of buildings and other man-made structures containing ≥ 50ppm PCBs. Examples include but are not limited to electrical wiring containing PCB plastic components, insulation, sealants, caulking, fluorescent light ballasts, and applied dried paints.

“PCB Container” is defined in 40 CFR § 761.3 as any package, can, bottle, bag, barrel, drum, tank, or other device that contains PCBs or PCB Articles and whose surface(s) has been in direct contact with PCBs.

“PPM” or “ppm” is defined as parts per million.

“Radioactive PCB” waste means PCBs regulated for disposal under Subpart D of 40 CFR Part 761 that also contain source, special nuclear, or byproduct material subject to regulation under the Atomic Energy Act of 1954, as amended, or naturally occurring or accelerator produced radioactive material.

“Spill” is defined in the EPA's PCB Spill Cleanup Policy in 40 CFR Subpart G to mean both intentional and unintentional spills, leaks, and other uncontrolled discharges where the release results
in any quantity of PCBs running off or about to run off the external surface of the equipment or other PCB source, as well as the contamination resulting from those releases.

“Storage area” means any storage area listed in Condition 5.a.

**CONDITIONS OF APPROVAL**

1. Approval Compliance

   a) This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act, 15 U.S.C. §2605(e), and 40 CFR § 761.62(c), and applies to PCB wastes at the OREWOC Facility.

   b) Perma-Fix, as the site operator, shall store and process PCB bulk product waste in accordance with the Conditions set forth in this Approval and the activities described in the Application.

   c) This Approval may be revoked if the EPA does not receive written notification from Perma-Fix of their acceptance of the Conditions of this Approval within ten (10) business days of their receipt of this Approval.

   d) These Approval Conditions are based, in part, on the facts, representations, and certifications made by Perma-Fix in their Application. In the event that these Conditions are inconsistent with the Application, Perma-Fix must abide by the Conditions stated herein.

   e) Perma-Fix must comply with all applicable federal, state, and local regulations in the storage, handling, and disposal of all PCB wastes, including waste managed under this Approval.

   f) Perma-Fix 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 Perma-Fix has or receives information indicating Perma-Fix or any other person has failed, or may have failed, to comply with any provision of this Approval, it must report the information to the EPA in writing within 24-hours of having or receiving the information.

   g) This Approval does not waive or compromise the EPA’s enforcement and regulatory authority, nor does it release Perma-Fix from any other applicable requirements of federal, state, or local law, including those affecting any other contaminants.

2. Authorized Storage

   a) In accordance with the Conditions of this Approval and the regulations set forth in 40 CFR Part 761, Subpart D, PCB bulk product waste may be stored for up to 90 days at the OREWOC facility with a limitation of 30 days for its outdoor storage areas as requested by Perma-Fix. The outdoor storage areas are the Northside Storage Pad and the Southside Covered Storage Pad. Perma-Fix shall not exceed its requested maximum storage volume of 48,600 cubic feet.
b) Perma-Fix may request an extension to store PCB bulk product waste beyond 90 days. Perma-Fix shall notify EPA Region 4 in writing, no later than 15 days before the 90-day period expires and provide the amount of additional time needed and the justification for the requested additional storage time. Only after receiving EPA approval can the storage be extended beyond 90 days.

c) Perma-Fix is authorized to store the following PCB waste:

i. PCB waste solely regulated for disposal under TSCA.
ii. Radioactive PCB waste regulated for disposal under both TSCA and the Atomic Energy Act (AEA).

3. Authorized PCB Storage Containers

a) PCB waste will be stored in the flexible packaging LP855-IP1 Engineered Waste Package developed by PacTec, Inc. and containers authorized under 40 CFR § 761.65.

b) The PCB waste storage containers shall be covered with a watertight lid/barrier or other similar type of cover that is installed to prevent contact by precipitation and secured so as not to be disabled/dislodged under normal weather conditions at the storage location. PCB waste storage containers shall be kept covered except when adding or removing waste.

4. PCB Spills

a) Any wastes generated as a result of cleanup of a PCB spill or release, or decontamination of any material contaminated by a PCB spill or release shall be disposed of in accordance with 40 CFR 761 Subpart G.

b) Perma-Fix must comply with applicable PCB spill reporting requirements under 40 CFR § 761.125

c) Notification to the EPA of any PCB spill or release as required under 40 CFR § 761.125 shall be made to the EPA PCB Coordinator. A report of the reportable spill incident under 40 CFR § 761.125 must be submitted to the EPA PCB Coordinator within five business days following the incident.

5. Authorized Storage Locations for PCB Waste Pending Disposal

a) The authorized storage identified in the January 2020 Application locations are depicted in Figure 1 and include:

i. Northside Storage Pad
ii. Southside Covered Storage Pad
iii. Process Building Waste Storage Area
6. **Marking Protocol**

   a) Containers holding PCB bulk product waste shall be labeled with the PCB Mark (M) on all four exterior sides, as safety and access conditions allow in accordance with 40 CFR § 761.40.

   b) Authorized PCB storage areas shall be marked in accordance with 40 CFR § 761.40.

7. **Inspection Requirements**

   a) PCB waste storage locations authorized under this approval and all PCB storage containers shall be inspected monthly for evidence of waste spillage, condition of containers, and cover integrity.

   b) Waste at risk of exposure to the elements and dispersal shall be repackaged or secured as necessary to prevent the release of PCBs.

   c) All inspections for the storage areas shall be tracked in a database and made available to the EPA upon request.

   d) The EPA reserves the right for its employees or agents to inspect Perma-Fix’s activities, procedures, and equipment related to the storage of PCB bulk product waste. The EPA may, at its discretion, terminate Perma-Fix’s PCB storage activities at any time based on such inspections.

8. **Recordkeeping and Reporting**

   a) All records and documents required by 40 CFR Part 761, including but not limited to, the records required by Part 761, Subparts J and K, shall be prepared and maintained. These records will be made available for inspection by authorized representatives of the EPA, until such time as the EPA approves in writing a request for alternative disposition of such records.

   b) Records of inspections shall be maintained in accordance with 40 CFR § 761.180.

   c) No record, report, or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under the EPA’s audit, self-disclosure, or penalty policies.

9. **Reuse of Containers and Related Items for PCB Tasks**

   a) The authorized storage containers, and any equipment that comes into contact with PCBs may be reused without decontamination provided that they are used solely for PCB-related work.

10. **Release of PCB Storage Containers for Non-PCB Tasks**

    a) Perma-Fix shall follow the decontamination process for any containers used for PCB bulk product waste and/or whose surfaces have been in direct contact with PCBs prior to using
them for non-PCB use utilizing one of the following methods in accordance with 40 CFR §§ 761.20(c), 761.30(u), and 761.79:

i. Remove and collect loose chips or residues in accordance with 40 CFR § 761.79(b) and by using a method that would prevent worker exposure to radiological material, loose asbestos fibers, or other contaminants. After cleaning is complete, visually inspect the container for paints or PCB residues. If PCB residues remain, the container shall be reused for PCB related activities, disposed of as PCB bulk product waste, or the container shall be further cleaned with the following methods in accordance with 40 CFR 761.79(b).

ii. Thoroughly vacuum the interior surfaces of the storage container. Then swab the container to remove residues with a solvent-soaked rag, mop, or other device. After cleaning, visually check the container for presence of paint chips, paint residue, or other non-liquid PCB residue. If residues remain, the container shall be further cleaned using the following methods:

   (a) Remove remaining non-liquid PCB residues by scraping, scarification, abrasive blasting, or other mechanical means that would minimize the creation of an inhalation hazard. Remove and collect all loose chips and residues. After cleaning, visually inspect the container for the presence of paint chips or residues. If non-liquid PCB residue remains, Perma-Fix shall contact the EPA Region 4 for guidance before releasing the container for non-PCB use.

   (b) If no non-liquid PCB residues remain at any stage of cleaning described in this Condition, in accordance with Visual Standard No.2 of the National Association of Corrosion Engineers described in 40 CFR § 761.79(b)(3)(i)(B) and the sampling and recordkeeping requirements of 40 CFR § 761.79(f) or in accordance with the self-implementing decontamination procedures of 40 CFR § 761.79(c), then the container may be released for non-PCB use. Confirmatory sampling requirements are described in 40 CFR 761 Subpart P.

b) Non-liquid decontamination waste and residues shall be disposed of in accordance with 40 CFR § 761.62.

11. Decontamination Records

   a) Visual inspections and/or testing to verify decontamination of storage containers for non-PCB use per Approval Condition 10 shall be documented and such records shall be maintained for a period of five years.

12. EPA Inspection, Modification, Suspension, and Revocation

   a) Perma-Fix shall allow any authorized representative of the EPA to inspect the OREWOC Facility, to inspect records, and to collect samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by Perma-Fix to allow such an inspection, as authorized by Section 11 of TSCA, shall be grounds for revocation of this Approval.
b) 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.

c) This Approval, issued pursuant to 40 CFR § 761.62(c), is conditioned on full and forthright disclosure of all material facts. Any misrepresentation or omission of any material fact in the Application or in any future 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 the EPA may choose to pursue.

d) This Approval may be modified for good cause or as necessary to address unforeseen circumstances related to the management of PCB waste. Requests for Approval modification must be made in writing and approved by the EPA prior to implementation.

e) Approval for these activities may be revoked, modified or otherwise altered: if the EPA finds a violation of the Conditions of this Approval or of the requirements of 40 CFR Part 761 that are applicable to these activities, or other applicable rules and regulations; if the EPA finds that these activities present an unreasonable risk to public health or the environment; if the EPA finds that there is migration of PCBs from the approved storage locations; or if the EPA finds that changes are necessary to comply with new rules, standards, or guidance for such approvals. Perma-Fix may apply for appropriate modifications in the event new rules, standards, or guidance becomes effective.

13. Expiration and Renewal

a) This Approval shall expire ten (10) years from the date of the EPA’s issuance of this Approval. Perma-Fix may request a renewal in writing at least sixty (60) days, but not more than ninety (90) days, prior to the expiration date of this Approval.

b) This Approval and its Conditions herein will remain in effect beyond the Approval expiration date if Perma-Fix has submitted a timely and complete notice of intent to continue the Approval and, through no fault of Perma-Fix, the EPA has not issued the Approval renewal.

c) The EPA may require Perma-Fix to submit additional information in connection with the renewal of this Approval.

14. Property Transfer

a) Perma-Fix shall notify the EPA Region 4 LCRD Director and the PCB project manager listed at https://www.epa.gov/pcbs/epa-region-4-polychlorinated-biphenyls-pcbs through a written request and via email at least 90 days before it intends to transfer ownership or control of the OREWOC Facility. This notification shall include the name, address and telephone number of the intended transferee. Along with such notification, Perma-Fix shall submit an application to modify the Approval providing the information required in all applicable provisions of 40 CFR § 761.75(c)(3), along with a notarized affidavit signed by the intended transferee stating that it will abide by all conditions of the Approval, including the proposed modifications submitted in connection with the intended transfer of ownership or control.
b) After receiving Perma-Fix’s notification and application to modify the Approval, the intended transferee’s affidavit, evidence that the intended transferee has established financial assurance pursuant to 40 CFR § 761.65(g) (if applicable), and other documents the EPA may require under 40 CFR § 761.65(j)(2), the EPA may either:

i. Modify the Approval to substitute the transferee’s name for Perma-Fix and make other conforming minor modifications; or

ii. require the intended transferee to submit a revised application and/or apply for a new approval.

c) The intended transferee shall not operate the OREWOC Facility until the EPA Region 4 LCRD Director issues a new Approval in the transferee’s name.

d) Perma-Fix must maintain its financial assurance for operation and closure until the intended transferee has established financial assurance pursuant to 40 CFR § 761.65(g) and the EPA issues an Approval in the transferee’s name.

e) The EPA may revoke, suspend, and/or modify this Approval or the transferee’s new Approval if, following a change in ownership or control, there is a change in the operation activities and the EPA finds that this Approval or the transferee’s new Approval will not prevent unreasonable risk of injury to health or the environment.

15. Records Submittal

a) Within 60 days of the date of execution of this Approval, the following records shall be submitted to the EPA:

i. Organizational Chart of Perma-Fix

ii. General Map of the OREWOC Facility

iii. Standard Operating Procedures in Determining PCB Waste

iv. Current Storage Areas of PCB Waste

v. Sample Database Tracking of Storage Locations

vi. Sample Inspection Sheets for the Storage Area

16. Closure and Financial Requirements

a) Perma-Fix must maintain a facility specific closure plan, a facility specific cost estimate, and corresponding financial assurance for closure, in accordance with 40 CFR §§ 761.65(d)-(g).

b) When the EPA approves a modification to the Facility’s closure plan and that modification increases the cost of closure, Perma-Fix shall revise the closure cost estimate and the financial assurance mechanism, if applicable, no later than thirty days after the modification is approved.

c) During the active life of the PCB storage operations, Perma-Fix must annually update the closure cost estimate for inflation and for changes beyond the control of Perma-Fix which may affect disposal costs.
d) Perma-Fix shall keep a copy of the current closure plan, closure cost estimate, and financial assurance documents at the facility and make such documents available to the EPA inspectors for review, upon request.

e) When an EPA-approved modification to the Perma-Fix OREWOC Facility increases the maximum storage capacity in Condition 2(a), Perma-Fix shall notify the PCB Program Coordinator via email no later than 30 days from the completion of the modification and either establish a new financial assurance or amend the existing financial assurance mechanism. The new or amended financial assurance mechanism must be established and activated no later than 30 days after notification of the completion of the modification but prior to the use of the modified portion of the OREWOC Facility.

**APPROVAL**

Pursuant to 40 CFR § 761.62(c), the EPA hereby issues this Approval to Perma-Fix to conduct temporary PCB bulk product waste storage activities at the OREWOC Facility at 930 Perimeter Road, Oak Ridge, Tennessee in accordance with the Approval Conditions stated herein, and Perma-Fix’s Application.

This Approval shall become effective on the date of the EPA Region 4 LCRD Director’s signature and shall expire ten years from the date of signature, unless revoked, suspended, or terminated in accordance with the approval Conditions stated herein.

This Approval does not relieve Perma-Fix from compliance with all applicable federal, state, and local regulatory requirements, including the federal PCB regulations at 40 CFR Part 761, and any amendments or revisions thereto.

________________________________________
Date  
Cesar Zapata  
Director  
Land, Chemicals, and Redevelopment Division
Figure 1: PCB Waste Storage Areas