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# EM CX Center of Expertise Environmental Regulatory Fact Sheet 99-06

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## PCB Remediation Wastes

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### *Purpose*

PCB regulatory amendments were published in the Federal Register on 29 June 1998. The rule contains multiple new requirements for managing PCBs. The purpose of this fact sheet is to discuss new requirements established in 40 CFR 761.61 that specifically address cleanup and disposal options for remediation waste.

### *Summary of Requirements*

PCB remediation waste is defined as waste containing PCBs as a result of a spill, release, or other unauthorized disposal at the following concentrations:

Materials disposed of prior to April 18, 1978, that are currently at concentrations  $\geq$  50 ppm PCB, regardless of the concentrations of the original spill;

Materials which are currently at any volume or concentration where the original source was  $\geq$  500 ppm PCB beginning on April 18, 1978, or  $\geq$  50 ppm PCB beginning on July 2, 1979; and

Materials, which are currently at any concentration if the PCBs are from a source not authorized for, use.

Examples are: soil, gravel, dredged materials, sewage sludge, and buildings contaminated by leaking PCBs. These PCB remediation wastes are managed based on the concentrations at which the PCBs are found, as opposed to at their original concentration. /P

There are three mechanisms for remediation wastes established by this rule:

(1) Self-implementing on-site cleanup and disposal. This requires application and approval by EPA and then follows guidelines established in regulation for cleanup and disposal.

(2) Performance-based disposal. When using this option, remediation wastes are managed under existing disposal regulations established for other types of PCB wastes.

(3) Risk-based disposal approval. This requires application and approval by EPA to utilize disposal standards other than the self-implementing standards or the performance based standards.

### *Self-Implementing On-Site Cleanup and Disposal*

Self-implementing cleanup standards are intended for moderately sized sites, which do not involve surface or ground waters; sediments in marine and freshwater ecosystems; sewers or sewage treatment systems; private or public drinking water sources or distributions systems; grazing lands; or vegetable gardens. However, EPA may authorize self-implementing procedures for larger sites when sufficiently stringent sampling is conducted.

Steps for utilizing self-implementing procedures are summarized as follows:

Provide written notification to the Regional EPA administrator in writing at least 30 days prior to initiation of the cleanup.

EPA has 30 days from receipt of the notice to respond by approving, disapproving, or requesting additional information. If EPA does not respond within 30 days, cleanup can proceed.

Remediate to pre-established cleanup levels specified in regulation based on whether it is a high or low occupancy area. These are summarized in a table below.

If waste is to be shipped offsite to a facility that does not possess a TSCA approval (such as a municipal solid waste landfill), provide written notice to the facility 15 days prior to first shipment indicating highest concentration of PCB detected in the remediation waste.

Conduct verification of cleanup.

For sites utilizing deed restrictions, record a notation on the deed within 60 days of completing cleanup that indicates the property restrictions.

### *Notification to EPA to Obtain Approval for Self-Implementing Cleanup*

Contents of the notification to EPA must include:

The nature of the contamination.

A summary of sampling procedures, analytical results, dates of sample collection and analysis.

The location and extent of contamination along with topographic maps cross referencing analytical data.

A cleanup plan, including schedule, disposal technology and approach, and contingencies in the event unanticipated higher concentrations or wider distributions of PCB remediation wastes are found.

Written certification stating that all sampling plans, sample collection procedures, sample preparation, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the contamination are on file at the location.

However, persons using soil washing to clean up bulk PCB remediation waste may do so without EPA approval provided:

Non-chlorinated solvent is used;

The process occurs at ambient temperature, is not exothermic, and does not use external heat;

The process has secondary containment; and

Solvent is disposed of/recovered or reused in accordance with regulations.

#### *Cleanup Standards for Self-Implementing Actions*

Cleanup requirements are based on whether the area is classified as high occupancy or low occupancy and are summarized in the table below.

**"High Occupancy Area"** is defined as any area where PCB remediation waste has been disposed of on-site and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: 840 hours or more (an average of 16.8 hours or more per week) for non-porous surfaces and 335 hours or more (an average of 6.7 hours or more per week) for bulk PCB remediation wastes. Examples could include a residence, school, day care center, sleeping quarters, a single or multiple occupancy 40 hours per week work station, a control room, and a work station at an assembly line.

**"Low Occupancy Area"** is defined as any area where PCB remediation waste has been disposed of on-site and where occupancy for any individual not wearing dermal and respiratory protection for a calendar year is: less than 840 hours (an average of 16.8 hours per week) for non-porous surfaces and less than 335 hours (an average of 6.7 hours per week) for bulk PCB remediation waste. Examples could include an electrical substation or a location in an industrial facility where a worker spends small amounts of time per week

(such as an unoccupied area outside a building, an electrical equipment vault, or in the non-office space in a warehouse where occupancy is transitory).

**Summary Table of the Cleanup Level and Disposal Options for  
Self-Implementing Cleanup of PCB Remediation Waste**

<b>Type of Waste</b>	<b>Cleanup Levels (a)(4) for Leaving Waste On-Site</b>	<b>Disposal Options  On-site</b>	<b>Disposal Options  Off-Site</b>
Bulk PCB remediation waste (soil, sediment, mud sewage sludge) and Porous Surfaces (such as corroded metal, paint, porous building stone, low-density plastic, wood, concrete or cement, plaster, rubber, etc.)	<p>High Occupancy Area (H.O.A.)</p> <p><math>\leq 1</math> ppm</p> <p><math>\leq 10</math> ppm with cap</p> <p>Low Occupancy Area (L.O.A.)</p> <p><math>\leq 25</math> ppm</p> <p><math>&lt; 50</math> ppm w/Mark and fence</p> <p><math>\leq 100</math> ppm w/cap</p>	<p>On-site land disposal</p> <p>Soil Washing</p> <p>TSCA Incineration</p> <p>§761.60(e) ADM*</p> <p>Risk-based approval</p> <p>Dewatering</p>	<p>TSCA Incineration</p> <p>TSCA/RCRA landfill</p> <p>§761.60(e) Alternate Destruction Method (ADM)</p> <p>Risk-based approval</p> <p>State approved landfill** (if <math>&lt; 50</math> ppm)</p>
Non-porous surfaces (Such as smooth uncorroded metal, glass, impermeable polished marble or high-density plastics that do not absorb organic solvents)	<p>H.O.A. <math>\leq 10</math> ug/100 cm<sup>2</sup></p> <p>L.O.A. <math>&lt; 100</math> ug/100 cm<sup>2</sup></p>	<p>On-site land disposal</p> <p>TSCA Incineration</p> <p>§761.60(e) ADM*</p> <p>Risk-based approval</p> <p>Decontamination</p> <p>(measurement-based or</p>	<p>TSCA Incineration</p> <p>TSCA/RCRA landfill</p> <p>§761.60(e) ADM*</p> <p>Risk-based approval</p> <p>State approved landfill** (if <math>&lt; 100</math> ug/100 cm<sup>2</sup>)</p>

		performance-based)	Scrap metal recovery oven (if <100 ug/100cm <sup>2</sup> )  Scrap metal recovery oven plus smelter  (if ≥ 100 ug/100cm <sup>2</sup> )
Liquids	Water  <0.5 ppb no restrictions  < 3 ppb or discharge limits for treatment works or navigable waters  §307(b) or §402 permit limit  < 200 ppb for totally enclosed recycled uses  Other < 2 ppm	TSCA Incineration  § 761.60(e) ADM*  Risk-based approval  Discharge to Treatment Works  Discharge to § 307(b) or §402 permits	TSCA Incineration  § 761.60(e) ADM*  Risk-based approval  Discharge to Treatment Works  Discharge to §307(b) or §402 permit  Decontaminate
Non-Liquid Cleanup Equipment	N/A	TSCA Incineration  §761.60(e) ADM*  Risk-based approval  Decontaminate	Same options as for off-site bulk remediation waste  Decontaminate

\*Alternate destruction method approved under §761.60(e)

\*\* A facility permitted, licensed, or registered by a State to manage municipal solid waste subject to 40 CFR 258 or non-municipal non-hazardous waste subject 40 CFR 257.5 through 257.30, as applicable

Note: EPA may impose more stringent standards when near hospitals, day care centers, playgrounds, parks, fisheries, etc.

### *Performance-Based Disposal*

When using the performance based disposal option for remediation waste:

Liquids - dispose of per standards in 40 CFR 761.60(a) or (e) or decontaminate. In other words, incinerate if  $\geq 500$  ppm PCB; burn in a high efficiency boiler if  $\geq 50 < 500$  ppm PCB; or other method approved by EPA.

Non-liquids - disposed of in a high temperature incinerator, chemical waste landfill, or facility with a coordinated approval or decontaminate.

Dredge material  $< 50$  ppm PCB - dispose of in accordance with permit issued by USACE under section 103 of the Marine Protection and Sanctuaries Act or equivalent permit under 33 CFR 320.

### *Risk-Based Disposal*

To use a risk-based method to address remediation waste, EPA must provide written approval of the method. An application must be submitted to the Regional EPA administrator. The administrator can approve the application if the method will not pose an unreasonable risk of injury to health or the environment.

### *Reference*

For additional details, see 63 Federal Register 35383, 29 June 1998, Disposal of Polychlorinated Biphenyls.

### *Point of Contact*

For technical assistance regarding this rule, contact Ms. Claudia Wiethop, Regulatory Specialist, Hazardous, Toxic, and Radioactive Center of Expertise at (402) 697-2561.

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