DISCLAIMER

This 5-part webinar series provides an overview of the federal polychlorinated biphenyl (PCB) regulations administered by the United States Environmental Protection Agency (EPA) pursuant to the Toxic Substances Control Act (TSCA), as well as corresponding EPA policy and guidance. Each webinar addresses regulations, policy and guidance current as of the date the webinar is first presented; please note that EPA’s PCB regulations, policy and guidance are subject to change. This webinar series, including the recorded presentations and the prepared slides, are intended to serve as a resource to facilitate members’ understanding of the federal PCB regulatory requirements and do not represent legal advice or legal counsel. Individuals with specific compliance and/or enforcement questions are encouraged to consult appropriate legal counsel.

This webinar is intended only for members of APPA, NRECA and USWAG and should not be shared outside of those organizations or their members.
PCB Compliance Training Webinar Series

Webinar #2:
PCB Cleanup and Disposal, Part 1
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The Anti-Dilution Rule
Overview of PCB Spill Cleanup Options
  - PCB Spill Cleanup Policy
  - 40 C.F.R. 761.61(a)-(c)
USWAG/NRECA/APPA PCB Remediation Waste Disposal Approvals
40 C.F.R. 761.30(p)
No person may avoid any provision specifying a PCB concentration by diluting the PCBs, unless otherwise specifically provided.
The “Anti-Dilution” Rule
40 C.F.R. 761.1(b)(5)

* Certain limited exceptions:
  o Pre-April 18, 1979 spills
  o PCB-containing liquids from natural gas pipeline system
  o Lab wastes
  o Decontamination wastes
  o Separation of multi-phasic mixtures
  o PCB bulk remediation wastes generated under 761.61(a)
  o USWAG, NRECA Risk-Based Approvals
Overview of PCB Spill Cleanup Options
Spill Cleanup – General Background

- **Disposal**: Includes spills, other uncontrolled discharges of PCBs
- **PCB remediation wastes**
  - Wastes resulting from a spill from ≥ 50 ppm source, or any unauthorized source
  - Soil, gravel, industrial sludge, buildings, and other man-made structures contaminated by spill of PCBs at ≥ 50 ppm
  - Regulatory status based on concentration of source, not actual concentration
Spill Cleanup – General Background

* Pre-April 18, 1978 spills – not required to be cleaned up unless EPA orders cleanup
* PCB Spill Cleanup Policy – April 1987
* PCB “Mega Rule” – June 29, 1998
* EPA Site Revitalization Guidance – April 2006
  ➔ Note: PCB-Contaminated property can be sold/transfered to third parties
* EPA Reinterpretation of “Bulk Product Waste” – October 2012
Spill Cleanup – Overview of Options

* PCB Spill Cleanup Policy
  - 40 C.F.R. §§ 761.120 – 135
* “Self-Implementing” Cleanup
  - 40 C.F.R. § 761.61(a)
* “Performance-Based” Cleanup
  - 40 C.F.R. § 761.61(b)
* Risk-Based Disposal Approval
  - 40 C.F.R. § 761.61(c)
Applicability: Spills resulting from the release of materials containing PCBs at ≥ 50 ppm PCB on or after May 4, 1987

More or less stringent requirements may be imposed if EPA RA first consults with ORCR

Compliance with the Spill Cleanup Policy creates a presumption against enforcement action for penalties / further cleanup

Note: EPA may require additional cleanup (w/o penalties) if the requirements of Policy have been implemented in good faith but spot sampling shows PCBs > applicable cleanup level
EPA Policy re Applicability – first articulated in 2001:

- EPA: PCB Spill Policy available only for spills less than 72 hours old
- Set forth in EPA PCB Q&A Manual
- This limitation not included in regulatory text
Excluded spills:

- Spills directly into surface water, sewers, drinking water supplies, vegetable gardens, animal grazing land

- Remain subject to requirements re immediate notification (within 24 hours after discovery) and minimization of further contamination
General Reporting Requirements

* These reporting requirements in addition to applicable reporting requirements under CWA / CERCLA

  o Excluded spill must be reported to EPA regional office within 24 hours of discovery

  o For spills exceeding 10 lbs of PCBs not included in the requirement above must notify EPA regional office and decontaminate spill area within 24 hours of discovery

* Spills < 10 lbs of PCBs by weight (not included above) must be cleaned up in accordance with applicable requirements

→ Notification to EPA not required (except 1 lb reporting release under CERCLA/EPCRA)
PCB Spill Cleanup Policy – Cleanup Levels

Low Concentration Spills (50 – 499 ppm & < 1 lb PCBs)

- Notify EPA regional office if necessary
- Visible trace/double wash standard applies
- Cleanup must be completed w/in **48 hours** after responsible party notified/became aware of spill (some exceptions)
- If insufficient visible traces to determine boundary, use statistically-based sampling scheme
- If spill reaches indoor, residential surface: clean to 10 µg/100cm²
- All soil w/in spill area plus 1 foot buffer excavated and ground restored to original configuration by back-filling with clean soil
- Document cleanup with records and certification of decon; retain for 5 years
High Concentration Spills ($\geq 500$ ppm PCB or $\geq 1$ lb PCBs)

- **Immediate** response requirements:
  - Notify EPA regional office if necessary
  - Cordon off/delineate and restrict access to visible trace area + 3-foot buffer; place signs advising persons to avoid area
  - Record and document area of visible contamination
  - If delayed/can’t locate visible traces: estimate area of spill using a statistically-based sampling scheme to identify boundaries, ASAP
  - Initiate cleanup of all visible traces on hard surfaces, initiate removal of all visible traces on soil and other media

- Must initiate cleanup within 24 hours of becoming aware of spill (or 48 hours for PCB Transformers)
  - No deadline for completion
PCB Spill Cleanup Policy – Cleanup Levels

High Concentration Spills, cont’d

- Decontamination requirements – depend on location of spill:
  - Outdoor electrical substations
  - Other restricted-access areas
  - All other areas
Wastes generated from spill cleanup activities must be disposed of pursuant to applicable disposal requirements for PCB Remediation Wastes, based on concentration of spill (see § 761.61)

Responsible party must **document cleanup** with records of decontamination; maintain for **5 years**

Post-cleanup sampling required for **high-concentration** spills to verify that the appropriate level of cleanup has been achieved
Self-Implementing Cleanup
40 C.F.R. § 761.61(a)

* Promulgated as part of 1998 Mega Rule
* Can be used to respond to almost any spill
  → Only exclusion: Spills into surface or ground water, sediments, sewer or sewage treatment systems, drinking water sources or distribution systems, grazing lands, and vegetable gardens
* Other options exist, but this option allows you to dispose of bulk PCB remediation waste based on as-found concentration
Self-Implementing Cleanup – General Notification Requirements

* At least **30 days** prior to cleanup, notify Regional Administrator, State or tribal environmental agency, and county or local environmental agency. Include in notice:
  - Nature of contamination
  - Details on sampling, characterization of site
  - Cleanup plan
  - Certification by property owner and party responsible for cleanup

* RA to respond within 30 days of receiving notice
  - Can request more information, deny, or approve
Self-Implementing Cleanup (Cont’d)

* Cleanup levels are based on type of material and location.

* Four categories of materials:
  - Bulk PCB remediation waste
  - Porous surfaces
  - Non-porous surfaces
  - Liquids
Location

- High Occupancy
  - Non-protected individual spends, for non-porous surfaces, ≥ 840 hours exposed per calendar year (average of 16.8 hours/week); for bulk PCB remediation waste, ≥335 hours a year (average of 6.7 hours/week)

- Low Occupancy
  - Exposure to all non-protected individuals is below high occupancy thresholds
* Bulk PCB Remediation Waste (Non-Liquid PCB Remediation Waste):
  o In high occupancy area (average ≥ 6.7 hours/week):
    • ≤ 1 ppm (no further conditions), or
    • >1 and ≤ 10 ppm (requires 6” concrete/asphalt cap or 10” soil cap)
  o In low occupancy area:
    • ≤ 25 ppm (no further conditions), or
    • > 25 ppm and ≤ 50 ppm (requires fence and M_L mark), or
    • > 25 ppm and ≤ 100 ppm (requires cap)
Self-Implementing Cleanup (Cont’d)

* Porous Surfaces
  o Clean up based on levels for Bulk PCB remediation waste
  o May be decontaminated per § 761.79; may use § 761.30(p)

* Non-Porous Surfaces
  o High occupancy area (avg ≥ 16.8 hrs/week): ≤ 10 ug/100 cm²
  o Low occupancy area: < 100 ug/100 cm²

* Liquids:
  o Clean to decontamination levels for liquids in 40 C.F.R. § 761.79(b)(1)-(2)
Self-Implementing Cleanup – Other Requirements

* Maintain records in accordance with § 761.125(c)
* Post-cleanup sampling verification
  o Bulk PCB remediation waste and porous surfaces: In accordance with Subpart O protocol
  o Non-porous surfaces: Subpart P protocol
* Specific performance standards for caps
* Deed restrictions when cap/fence used
  o Deed noted within 60 days of cleanup
  o Submit certification to Regional Administrator
  o Notation can be removed if/when more stringent level achieved without fence/cap
Self-Implementing Cleanup
Disposal Options – Bulk Remediation Waste

- Dispose of based on as-found concentrations;
- Decontaminate ( § 761.79), or
- Off-site disposal: dewater on-site, or transport off-site in DOT container
  - Bulk remediation waste **is assumed to contain ≥50 ppm** PCB, unless characterized using Subpart O sampling protocol
  - Bulk remediation waste **<50 ppm**: MSWLF, RCRA Subtitle C landfill, any approved PCB facility, or non-municipal, non-hazardous waste landfill
  - Bulk remediation waste **≥50 ppm**: RCRA Subtitle C landfill or approved PCB facility
- Minimum **15 days advance notice** to disposal facility that is not subject to TSCA PCB Disposal Approval (i.e., MSWLF)
Self-Implementing Cleanup
Other Materials

* Porous surfaces – Options:
  o Decontaminate for use (§ 761.79(b)(4))
  o Dispose of as Bulk Remediation Waste based on actual or assumed PCB concentration

* Liquid PCB remediation wastes – Options:
  o Liquid disposal options (§ 761.60)
  o Decontaminate (§ 761.79)
  o Risk-based disposal approval
## Self-Implementing Cleanup – Other Materials

<table>
<thead>
<tr>
<th>Material</th>
<th>PCB Concentration</th>
<th>Disposal options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-porous surfaces</td>
<td>&lt; 100 ug/100 cm²</td>
<td>MSWLF; Non-mun, non-haz landfill; RCRA Subtitle C landfill; Approved PCB facility; Thermal decon (metals)</td>
</tr>
<tr>
<td>Non-porous surfaces</td>
<td>≥ 100 ug/100 cm²</td>
<td>RCRA Subtitle C landfill; Approved PCB facility; Thermal decon (metals)</td>
</tr>
<tr>
<td>Non-liquid cleaning materials (rags, gloves, bottles, disposable PPE)</td>
<td>Any</td>
<td>MSWLF; Non-mun, non-haz landfill; RCRA Subtitle C landfill; Approved PCB facility</td>
</tr>
</tbody>
</table>
Performance-Based Cleanup
40 C.F.R. § 761.61(b)

Applicability:

* May be used for any spill event, but generally intended for:
  o Spills not addressed under PCB Spill Cleanup Policy (e.g., pre-May 4, 1987)
  o Owner chooses not to use “self-implementing” cleanup option (§ 761.61(a)) or seek a risk-based approval under § 761.61(c)

* Only addresses disposal of PCB remediation waste per traditional PCB disposal methods (based on PCB concentration of spill)
No cleanup standards established

- EPA’s expectation: < 1 ppm
- Dilution prohibition applies
- Dispose of PCB remediation wastes per traditional PCB disposal methods (based on PCB concentration of spill)

No notification requirement
Risk-Based Disposal Approval
40 C.F.R. § 761.61(c)

* Applicability
  - Any person wishing to sample, clean up, or dispose of PCB remediation waste in a manner other than the PCB Spill Cleanup Policy, self-implementing option (§ 761.61(a)), or performance-based cleanup option (§ 761.61(b))
  - **Standard:** No unreasonable risk of injury to health or the environment

→ May also be used to seek variance for storage of PCB remediation waste
USWAG / NRECA / APPA
PCB Remediation Waste Disposal Approvals
PCB Remediation Waste Disposal Approvals

* Issued pursuant to 40 C.F.R. 761.61(c)
  o Based on finding that disposal poses “no unreasonable risk” provided conditions met

* USWAG Approval issued June 30, 2014
  • Issued to “USWAG Members” (Appendix II)

* NRECA – Corresponding approval issued to “NRECA Members” Feb. 9, 2016

* APPA pursuing approval for APPA members
PCB Disposal Approvals – Advantages

- Allows for disposal of certain PCB remediation waste based on as-found concentration
- Significant cost savings (MSWLF disposal vs. TSCA disposal facility)
- Standing approval; ready for use, no additional authorization or approval required
- Avoid delay and EPA involvement associated with other PCB disposal options
- Waste disposed of per Approvals not subject to Subparts J and K (recordkeeping and reporting)
Disposal Approvals – Applicability, Scope

- Authorizes disposal of non-liquid PCB remediation waste found at <50 ppm PCB in non-TSCA disposal facilities (e.g., MSWLF)
  - Waste must be generated at secure utility asset / secure electric cooperative asset owned or operated by USWAG Member / NRECA Member
  - ... What is a “secure utility asset” / “secure electric cooperative asset”?
“… a facility that is fenced, locked, guarded/monitored, or otherwise not accessible to the general public where PCB response actions are conducted and performed by, or under the supervision of, [utility/electric cooperative] professionals and/or consultants with experience in responding to and remediating PCB releases.”
“Secure Utility/Electric Cooperative Asset”

* Includes, for example:
  - Service centers
  - Substations
  - Switch yards
  - Power generating stations
  - Network vaults

* Generally would NOT include, for example:
  - Pole-top equipment on public road/right of way
  - Transformer in building owned/operated by a third party, unless access to affected location is restricted
Three distinct notification requirements:

- One-time, initial posting on utility/cooperative website
  - Post at least 2 working days prior to first use of Approval
  - Maintain until expiration/termination of Approval

- Disposal-specific notification to regulators
  - Required each time Approval used
  - At least 2 working days before waste shipped off-site
  - EPA posts these notifications to its PCB website

- Disposal-specific notification to disposal facilities
Disposal Approvals – Additional Considerations

* Approval does **not** change any state/local requirements
* Approval does **not** alter conditions of landfill’s permit
  o Landfill may be prohibited from receiving the waste
  o Landfill may refuse to accept the waste
* MSWLF facilities may be unfamiliar with permit

→ **Note:** USWAG/NRECA developed white paper to explain Approvals to MSWLF, state/local regulators
Disposal Approvals – Waste Characterization & Analysis

* Waste Characterization
  - Characterize at time of discovery, per:
    - 40 C.F.R. 761.265
    - Standard wipe test per 761.123, 761.267 (Non-porous surfaces)

* Waste Analysis
  - Extraction Method 3500C/3540C
  - Analysis Method 8082
  - … Unless another extraction/analytical method validated under Subpart Q
May dispose of waste in:

- MSWLF (40 CFR Part 258)
- Facilities permitted/licensed to manage non-municipal, non-hazardous waste (40 CFR 257.5 – 257.30)
  - *Except units that manage liquid wastes*
- RCRA-permitted hazardous waste landfills
- TSCA disposal facilities remain an option.

Waste sampling and handling equipment:

- Approval applies to PPE and other waste sampling/handling equipment (e.g., brushes, rags, gloves)
Disposal Approvals – Recordkeeping Requirements

* Maintain for 5 years:
  - Copy of approval;
  - Notification to EPA and landfill;
  - Description of sampling and analytical methods used and analytical results;
  - Source, date, time, and concentration of spill, if known;
  - Brief description of spill location/nature of contaminated materials;
  - Amount of PCB remediation waste disposed of.

→ Remember, Subparts J and K don’t apply.
Disposal Approvals – Implementation Considerations

* Within your utility/cooperative:
  - Verify utility/cooperative’s listing in Appendix II
  - Start internal coordination early
  - May require education and involvement of IT department (web posting), legal, other departments
  - Arrange for web posting ASAP

* Outreach considerations:
  - EPA HQ providing list of approvals to EPA Regional Coordinators
  - Proactive outreach to state/local agencies recommended
  - Educate landfills
Continued Use of PCB-Contaminated Porous Surfaces
40 C.F.R. 761.30(p)
Continued Use of PCB-Contaminated Porous Surfaces

* 761.30(p) requires the following steps:
  o Remove the source of the spill;
  o If the surface is accessible, **double wash** and dry for **24 hours**;
  o Cover surfaces (those cleaned and those not accessible to cleaning) with two solvent-resistant and water-repellent coatings of **contrasting colors**, or fasten **solid barrier** to the surface; **mark** in easily visible location;
  o Remove only for purposes of **disposal** or **decontamination**.
Currently, can utilize 761.30(p) anywhere and for any duration provided conditions are met.

EPA has considered restricting availability

- 2010 Advanced Notice of Proposed Rulemaking
- Development of PCB Equipment/Pipelines Rulemaking Framework – Options suggested:
  - Require EPA notification for new and/or existing spills;
  - Require deed restriction for new and/or existing spills; and/or
  - Restrict to “low occupancy” areas.
  - (Or, make no changes.)