



Solving PCB Impediments to Decommissioning

Stephen Mitchell, PG
Senior Vice President
Weston Solutions, Inc.

J.D. Groesbeck, PG
Project Manager
Weston Solutions, Inc.

Solving PCB Impediments to Decommissioning

Plan Decommissioning Effectively

- Generation capacity studies
- Transmission & distribution studies
- Utility isolation and conversion
- Investment recovery interests
- Project permitting / notifications
- Environmental assessment
- Infrastructure abatement/remediation
- Structural demolition approach
- Salvage recovery options
- Transportation routing
- Redevelopment coordination
- Regulatory agency coordination



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Avoid Surprises That Derail Projects

Example: Contractor selected for demolition based on investment recovery, with payment based on demo cost vs. asset value recovery

- **Issue:** Localized PCB spills later found to be widespread. Assessment had identified PCBs but bid specs vague on how to handle.
- **Result:** Contractor assumed painted steel unregulated for salvage but later realized it was, stopped for EPA guidance, resulting in schedule/cost impact and salvage value loss.
- **Remedy:** Contract dispute / litigation, with consultant then pulled in to help sort it out.



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Structure Project Risks For Success

- **Accept Risk** – Owner takes responsibility for gaps and change orders.
- **Assign Risk** – Owner gives contractor responsibility for gaps and up/downsides.
- **Allocate Risk** – Owner and contractor agree to risk/reward sharing approach.



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PCB in Oil-Filled Equipment

- **Scenario:** Plant oil-filled transformers, capacitors, regulators, and breakers had to be managed during demolition.
- **Options:** Continued use per 761.30 authorizations or disposal per 761.60.
- **Solution:** Included equipment inventory and handling instructions in bid specs.
- **Result:** Contractor drained free flowing oil and decontaminated equipment for recycling/disposal without incident.



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PCB On Oily Equipment

- **Scenario:** PCB > 50 (not from paint) on 87 tons of pumps, coolers, etc. from oiling, impeding equipment reuse/salvage.
- **Options:** Disposal/smelting per 761.60 or decon for unrestricted use per 761.79.
- **Solution:** Identified TSCA risk from pre-demo assessment. Structured risk/reward bid specs to allow decon alternatives.
- **Result:** Contractor grit blasted equipment to NACE Standard 2 allowing 78 of 87 tons to be recycled instead of TSCA landfilled.



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PCB in Valve Grease

- **Scenario:** PCB > 50 ppm in valve grease on a few valves, 800+ more not sampled, impeding equipment salvage/recycling.
- **Options:** Disposal/smelting per 761.60, decon per 761.79, or something else...
- **Solution:** Identified the unquantified risk in specs, assigned contractor to figure it out.
- **Result:** Contractor sampled more to build statistical case for non-TSCA classification of valves, enabling salvage vs landfilling.



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Concrete Affected by PCB Spills

- **Scenario:** PCB > 1 ppm in plant concrete floors impeding concrete recycling/reuse.
- **Options:** Removal as porous remediation waste under 761.61(a), 61(b), or 61(c)
- **Solution:** Structured bid specs to lead contractor to select most effective method to achieve remediation goal.
- **Result:** Scabbled /shotblasted 3K SF floor to 1 ppm, enabling unrestricted reuse and disposal during building adaptive reuse.



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Concrete Affected by PCB Spills (Cont.)

- **Scenario:** PCB > 1 ppm in plant concrete floors impeded continued use of floor.
- **Options:** 761.30(p) continued use and 761.61(c) risk-based remediation option for floors that had to remain in service.
- **Solution:** Double/wash rinse with epoxy; scabbling with reinforcing mat & concrete
- **Result:** PCB in 3K SF floor managed safely in place, remains for eventual disposal.



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Non-Liquid PCB in Paint

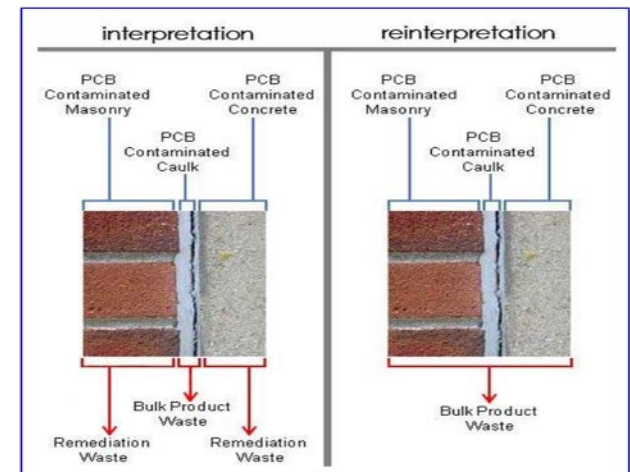
- **Scenario:** Electrostatic precipitator demolition halted when PCB found on painted steel with isolated spill concerns, impeding salvage.
- **Options:** Disposal/smelting per 761.60, NLPCB bulk product waste per 761.61, decon per 761.79, or something else...
- **Solution:** Assessed paint to help further define presence of PCB from spills vs manufacture.
- **Result:** EPA concurred PCB < 50 ppm likely from manufacture and “excluded PCB product” if not from spill. Demolition moved forward.



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Non-Liquid PCB in Caulk

- **Scenario:** PCB caulk in plant's foundation joints that contaminated adjacent structure impeded in place closure of concrete.
- **Options:** Disposal as PCB waste under 761.60, NLPCB under 761.62, or both.
- **Solution:** Removed caulk and PCB affected concrete as Bulk Product Waste.
- **Result:** PCB Bulk Product Waste removed so remaining concrete could be disposed of or remain in place without restrictions.



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Non-Liquid PCB in Galbestos

- **Scenario:** Plant bath with PCB thought to contaminate ventilation shafts difficult to clean. Galbestos (Aroclor 1268) panels discovered to be impeding the cleanup.
- **Options:** Dispose as PCB Waste per 761.60 or Bulk Product Waste per 761.62.
- **Solution:** Instructed contractor to dispose of NLPCB and managed impacted substrate (e.g., concrete) as remediation waste.
- **Result:** Galbestos removal enabled PCB cleanup and continued ventilation shaft use.



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PCB in Insulation/Adhesives/Mastics

- **Scenario:** Adhesive/mastic with PCB Aroclor 1262 > 50 ppm found during demolition of plant boiler foundation.
- **Options:** Disposal as 761.60 PCB Waste, or 761.62 NLPCB Bulk Product Waste along with affected concrete substrate.
- **Solution:** NLPCB product not authorized for use. Not identified in specs.
- **Result:** Appropriate PCB cleanup and waste disposal requiring change order.



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PCB in Drainage Systems

- **Scenario:** PCB in plant drainage system impairing for storm water management.
- **Options:** Removal 761.60 PCB waste or remediation waste 61a, b, c options.
- **Solution:** Bid specs isolated system for contractor use during plant demolition. System removed as later demo phase.
- **Result:** Contractor had to construct their own stormwater controls / treatment system for a multi-year project.



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Consider Potential PCB Impediments

- Worker safety requirements
- Distribution in commerce limitations
- Property reuse / transfer concerns
- Regulatory agency interaction
- Salvage value impact
- Decontamination needs
- Disposal cost increases
- Prolonged demolition schedule
- Surprise change orders
- Contract disputes / legal issues



PCB's

Oily liquid, white crystalline solid, or hard resin. Severely irritating. Suspect cancer hazard. Chronic: chloracne, GI disturbances, neurological symptoms, liver enlargement, menstrual changes, bronchitis. Possible reproductive and teratogenic effects.

CAS No. 1336-36-3



Presenter Information

Stephen Mitchell, PG
Senior Vice President
Weston Solutions, Inc.
s.mitchell@westonsolutions.com
(505) 837-6521

J.D. Groesbeck, PG
Project Manager
Weston Solutions, Inc.
james.groesbeck@westonsolutions.com
(512) 651-7155