APPANRECAUSWAG
PCBComplianceTrainingWebinarSeries

Webinar #5:
NaturalGas Pipelines Use and Abandonment/Disposal Overview
Webinar Series
Purpose & Limitations

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 Webinar #5: Agenda

* Regulatory Background
* Use Authorization & Conditions for PCBs in Natural Gas Pipelines and Appurtenances
* Disposal and Abandonment
  o Options for Small Diameter Pipe ≤ 4”
  o Options for Large Diameter Pipe > 4”
Regulatory Background
Prior to 1998 PCB Disposal Amendments, PCBs $\geq 50$ ppm in authorized through a compliance monitoring program ("CMP") for transmission companies.

- Nothing in pre-1998 rules authorized $\geq 50$ ppm PCBs in distribution pipelines
1998 PCB Mega Rule established use authorization for PCBs ≥ 50 ppm in natural gas pipelines for sellers and distributors provided certain conditions are met.

Authorized with no conditions in systems not owned/operated by sellers/distributors –

→ For example, customer-owned and operated systems.
Use Authorization & Conditions
Use Authorization
40 CFR § 761.30(i)

Authorized for use by seller/distributor if:

1. Provide written description upon request by EPA of general nature and location of ≥ 50 ppm PCBs in system
2. Within 120 days of discovery ≥ 50 ppm PCBs in system characterize extent of contamination
3. Within 120 days of characterizing extent of contamination, sample and analyze all “potential sources” of ≥ 50 ppm PCBs in system
Use Authorization
40 CFR § 761.30(i)

- Concept of “source” is key to use authorizations
- Potential sources include natural gas compressors, scrubbers, filters and interconnects where natural gas is received upstream from the most downstream sampling point where PCBs ≥ 50 ppm were detected. Potential sources exclude valves, drips, or other small liquid condensate collection points.

- Bottom Line: A source is one of the above items that introduces ≥ 50 ppm PCBs into the pipeline system
4. Within one year of characterizing system, remove all demonstrated sources of $\geq 50$ ppm PCBs to $< 50$ ppm PCBs or take other measures to reduce PCBs to $< 50$ ppm and prevent further introduction of $\geq 50$ ppm into system; a demonstrated source “contributes” PCBs to the pipeline.

5. Conduct sampling at least annually until results indicate contaminated component of system is $< 50$ ppm PCBs in two successive sampling events (with minimum of 180 days between sampling).

6. Mark aboveground sources of PCB liquids with PCB mark if contain $\geq 50$ ppm if historical data or recent sampling demonstrate such sources contain PCBs $\geq 50$ ppm.
Use Authorization
40 CFR § 761.30(i)

* If no “potential sources,” need only comply with conditions 1 and 5 above – i.e., general description of ≥ 50 ppm PCB contamination and annual sampling, respectively) as a condition of continued use

* May use “historical data” to meet conditions 1-3 (characterizing extent of PCB contamination and identifying potential sources) and documented historical actions taken to reduce PCBs in known sources (condition 4)
Use Authorization
40 CFR § 761.30(i)

* Testing/characterization – analyze organic liquids collected at “existing condensate collection points.” Wipe sample (per subpart M) if no liquids present.

* Level of PCBs found at a collection point assumed to extend to next downstream collection point
Use Authorization
40 CFR § 761.30(i)

- Must keep records of all data collected and actions taken, or not taken, pursuant to use authorization; must maintain for 3 years after PCB concentration in system is reduced to < 50 ppm and provide to EPA upon request
- EPA may, based on finding of no unreasonable risk, modify elements of the use authorization
Use Authorization
40 CFR § 761.30(i)

* Liquids containing \( \geq 50 \text{ ppm PCBs} \) from pipelines may be disposed of based on the PCB concentration at the time of removal from the system.

* Liquids from pipelines containing \(<50 \text{ ppm PCBs}\) may be marketed or burned for energy recovery in accordance with 40 C.F.R. § 761.20(e) *(i.e., the provisions for burning used containing 2-49 ppm PCBs for energy recovery)*

→ No other use is allowed for liquids from pipelines containing PCBs at concentrations above the quantifiable level of detection.
Disposal and Abandonment
Disposal and Abandonment

40 CFR § 761.60(b)(5)

* Two options for “disposing” of PCBs containing ≥ 50 ppm in natural gas pipelines (i.e., when the pipeline is no longer in use):
  - Abandonment in Place
  - Removal with Subsequent Action
Abandonment in Place

1. Pipe with a nominal inside diameter of ≤ 4 inches and any concentration of PCBs but no free flowing liquids: each end sealed closed and included in a public service notification program (e.g., “one call” system) or filled to 50% or more of the volume of pipe with grout or high density polyurethane foam.

2. PCB-contaminated (≥ 50 ppm but < 500 ppm PCBs) natural gas pipe of any diameter: (e.g., large pipe): contains no free-flowing liquids and each end is sealed closed (but must follow specific procedures to confirm pipe is “PCB-contaminated”

Abandonment in Place
Abandonment in Place (cont’d)

3. Natural gas pipe of any diameter containing PCBs at any concentration (e.g., ≥ 500 ppm):
   - No free flowing liquids, and
   - Sealed closed and either
     - Decontaminated with one or more solvent rinses or filled with 50% of the volume of the pipe with grout or high density polyurethane foam (cement must be used as grout under rivers or streams).
Abandonment in Place (cont’d)

4. Natural gas pipe of any diameter containing any level of PCBs may be abandoned in place per self-implementing decontamination procedures in § 761.79 for non-porous surface or an EPA approved alternative disposal method or risk-based cleanup approval.
Abandonment in Place (cont’d)

* PCB concentration is determined by analyzing organic liquids collected at existing condensate collection point in system; concentration is assume to extend to the next downstream collection point.

* If no organic liquids, collect standard wipe samples per subpart M.

* Collect condensate within 72 hours of final transmission of natural gas; wipe samples after last transmission or during removal from the location used to transport natural gas.
Removal with Subsequent Action

1. Drained small pipe (diameter ≤ 4”) containing PCBs at any concentration, and drained PCB-contaminated pipe of any diameter, may be disposed of in a MSWLF, a non-MSWLF, a scrap metal recovery oven or smelter or an approved PCB disposal facility.

2. Any component of a natural gas pipeline system, drained of all free-flowing liquids PCBs, may be disposed of in a qualified PCB incinerator or a chemical waste landfill, decontaminated per § 761.79, or as PCB remediation waste under § 761.61.
Disposal of Pipeline Liquids/Materials

1. Liquids containing $\geq 50$ ppm PCBs must be disposed based on PCB concentration at the time of removal.

2. Materials contaminated by PCBs $\geq 50$ ppm from pipelines must be disposed of as PCB Remediation Waste.

3. Liquids containing PCBs $< 50$ ppm may be burned for energy recovery per used oil burning provisions at § 761.20(e). No other use of liquids from pipelines containing quantifiable levels of PCBs is authorized.
Options for Removal and Disposal of Small Diameter Pipe (≤4”)

- Drain of FFL*
  - Municipal/Industrial Landfill
  - Scrap Mental Recovery Oven Meeting EPA Performance Standards
  - Smelter Meeting EPA Performance Standards
  - Decontaminated to EPA Standards
  - Unregulated for Disposal
  - TSCA PCB Incinerator or Chemical Waste Landfill

*FFL – Free Flowing Liquid

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Options for Removal and Disposal of Large-Diameter Pipe (>4”)

**Characterize**

- **<50 ppm**
  - Unregulated for Disposal
  - Same 5 Options as for Small Diameter Pipe

- **>50 but < 500 ppm**
  - Drain of FFL*
  - TSCA PCB Incinerator

- **≥500 ppm**
  - Drain of FFL*
  - TSCA PCB Chemical Waste Landfill
  - Decon to EPA Standards
  - Unregulated for Disposal
  - PCB Remediation Waste

*FFL – Free Flowing Liquid
**Can “assume” >500 ppm and follow applicable procedures without characterization

Provided by John Woodyard
U.S. EPA Options for Abandonment In-Place Small-Diameter Pipe (≤4”)

- Drain of FFL*
  - Place in DOT “One Call” System
  - Fill with Grout/Foam at Least 50% of Volume
  - Follow Procedure for Large-Diameter Pipe – Including Characterization
- Seal at Both Ends

*FFL – Free Flowing Liquid

Provided by John Woodyard.
U.S. EPA Options for Abandonment in Place Large Diameter Pipe (>4”)

Characterize**

- <50 ppm
  - Unregulated for Disposal
  - Seal at Both Ends

- >50 but < 500 ppm
  - Drain of FFL*

- >500 ppm
  - Drain of FFL*
  - Fill With Grout/Foam to 50% of Volume and Seal at Both Ends
  - Decon Using EPA-Approved Technology or Procedures

*FFL – Free Flowing Liquid
**Can “assume” >500 ppm and follow applicable procedures without characterization

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