

PCB Use Authorizations Update Rule

E.O. 13175: Tribal Consultation
December 12, 2014



Purpose and Agenda

- Purpose:
 - To provide an overview of potential changes under consideration
 - Answer questions and get feedback
- Agenda:
 - Tribal Consultation Overview
 - Background on PCB Use Authorizations (40 CFR part 761)
 - Your Comments: Helpful Information
 - EPA Rule Options Under Consideration
 - Small Capacitors in Fluorescent Light Ballasts
 - Transformers and Other Electrical Equipment
 - Natural Gas Pipelines
 - Contaminated Porous Surfaces
 - Next Steps



Tribal Consultation Policy/ E.O. 13175

- EPA's policy is to consult on a government-to-government basis with federally recognized tribal governments when EPA actions and decisions may affect tribal interests
- E.O. 13175 requires meaningful and timely consultation when actions have substantial direct effects on tribes
- EPA recognizes and works directly with federally recognized tribes as sovereign entities with primary authority and responsibility for each tribe's land and membership, and not as political subdivisions of states or other governmental units
- EPA ensures the close involvement of tribal governments and gives special consideration to their interests whenever EPA's actions may affect Indian country or other tribal interests



Background on PCB Use Authorizations

- Section 6(e) of the Toxic Substances Control Act banned the manufacture, processing, distribution in commerce, and use of polychlorinated biphenyls (PCBs), except when uses would pose no unreasonable risk of injury to health or the environment
- On May 31, 1979, EPA promulgated regulations (at 40 CFR part 761) that established authorizations for certain ongoing uses of PCBs (44 FR 31514)
- EPA has initiated this rulemaking to revise or end some authorized uses of PCBs, in part because the conditions under which they were authorized more than 30 years have changed



Background on PCB Use Authorizations

- On April 7, 2010, EPA published an Advanced Notice of Proposed Rulemaking (ANPRM) entitled “Polychlorinated Biphenyls: Reassessment of Use Authorizations”
 - EPA requested comment on:
 - The cost of conversion to non-PCB-containing equipment
 - Disposal costs
 - Use of substitutes
 - The potential impact that a rulemaking might have on disparate communities and small business owners



Tribal Comments

Helpful Information:

- Consider how the options presented might create compliance costs for tribes
- Provide specific examples of impacts and suggestions on how to mitigate these impacts
- Provide cost data, if available
- Suggest other relevant options, provide data on their costs and information on how to ensure compliance



Potentially Impacted Sectors

- Utilities
- Natural gas transfer or distribution companies
- Schools
- Daycares
- Commercial building owners
- Governments or other entities with public buildings
- Other industries that have PCB electrical equipment



PCB Small Capacitors in Fluorescent Light Ballasts (FLBs)

- PCB-containing small capacitors are authorized for use indefinitely and are present in FLBs manufactured before 1979
- We have learned from incidents in schools (e.g., NYC schools) that many of these PCB FLBs are still in use and often leak
- A DOE energy efficiency rule is accelerating the removal of old FLBs nationwide



PCB Small Capacitors in Fluorescent Light Ballasts

The PCB FLB Universe Preliminary Estimates

Building Type	Number ¹ of Buildings that May Have PCB-containing FLBs in 2015 ²	Number of PCB-containing FLBs in 2015 ³	Number of Leaking PCB-containing FLBs in 2015 ⁴	Number of Leaks avoided through early removal (1/3/5 year compliance options)
Daycares	<10,000	500,000	300,000	<50,000/ <3,000/0
Hospitals	<1,000	800,000	500,000	<65,000/ <5,000/0
Primary and Secondary Schools	<25,000	2.6 million	1.8 million	200,000/ <15,000/0
Public Housing	100,000	1.3 million	900,000	100,000/ <10,000/0
Other Public and Commercial Buildings	500,000	37.7 million	27.2 million	3.1 million/200,000/0

¹ Pre-1980 buildings, fluorescent lighting, no major lighting retrofit based on 2003 Department of Energy survey data, Census data and NCES data

² Estimated date for final rule promulgation

³ Based on 17% of total FLBs (PCB and non-PCB)

⁴ Based on 38% of total PCB-containing FLBs



PCB Small Capacitors in Fluorescent Light Ballasts

Potential Regulated Universe Options:

1. Daycare centers and primary and secondary schools
2. Daycare centers, primary and secondary schools, hospitals and public housing
3. All public and commercial buildings (includes Options 1 and 2 above and other buildings)



PCB Small Capacitors in Fluorescent Light Ballasts

PCB FLB Option I: Revoke the use authorization for PCB small capacitors in FLBs*

- a) Phase-out the use of PCB FLBs in 1 year
 - 1. Require signed statement based either on records that building has no PCB FLBs for exemption or inspection of subset of FLBs to determine presence of PCBs for inclusion
 - Cost Range**: \$4.0 - \$62.7 million

- b) Phase-out the use of PCB FLBs in 3 or 5 years, and
 - 1. Require inspection of all FLBs in 1 year to find leaking FLBs and require publicly available PCB FLB management plan for replacement
 - Cost Range: \$8.6 - \$132.5 million

 - 2. Require inspection of all FLBs in 1 year to find leaking FLBs and periodic surveillance (e.g. every 6 months) and require publicly available PCB FLB management plan for replacement
 - Cost Range: \$10.0- \$158.1 million

 - 3. No specific inspection or periodic surveillance required and require publicly available PCB FLB management plan for replacement
 - Cost Range: \$ 0. 0 - \$41.1 million

NOTE: Cost ranges are dependent on the regulated universe chosen (e.g., schools, commercial bldgs., etc.)

For 1 and 3 year options, consider providing a one-time extension provision (requiring justification) for entities that are not able to meet the phase-out requirement



PCB Small Capacitors in Fluorescent Light Ballasts

PCB FLB Option II: Revise the use authorization for PCB small capacitors in FLBs to identify leaking PCB FLBs

a) Require inspection of all FLBs in 1 year to find leaking FLBs and require publically available data on the location of leaking PCB FLBs

Cost Range: \$9.8 - \$148 million

b) Require inspection of all FLBs for presence of PCBs and whether leaking in 1 year and require publically available data on all PCB FLB locations including whether they are leaking

Cost Range: \$9.8 - \$148 million

NOTE**: Cost ranges are dependent of regulated universe chosen (e.g., schools, commercial bldgs, etc.)



PCB Small Capacitors in Fluorescent Light Ballasts

Options	Schools & Daycares	Schools, Daycares, Hospitals, & Public Housing	All Public & Commercial Buildings
Revoke the Use Authorization for PCB Small Capacitors in FLBs within 1 Year	\$4.0 million	\$7.6 million	\$62.7 million
Revoke the Use Authorization for PCB Small Capacitors in FLBs in 3 Years and Require Inspection of all FLBs within 1 Year	\$8.6 million	\$20.6 million	\$132.5 million
Revoke the Use Authorization for PCB Small Capacitors in FLBs in 5 Years and Require Inspection of all FLBs within 1 Year	\$8.6 million	\$20.7 million	\$132.3 million
Revoke the Use Authorization for PCB Small Capacitors in FLBs in 3 Years with Inspection of all FLBs within 1 year and Periodic Surveillance Every 6 months	\$10.0 million	\$22.9 million	\$151.7 million
Revoke the Use Authorization for PCB Small Capacitors in FLBs in 5 Years with Inspection of all FLBs within 1 year and Periodic Surveillance Every 6 months	\$10.5 million	\$23.7 million	\$158.1 million
Revoke the Use Authorization for PCB Small Capacitors in FLBs in 3 Years with no Specific Inspection Required	\$2.7 million	\$6.4 million	\$41.1 million
Revoke the Use Authorization for PCB Small Capacitors in FLBs in 5 Years with no Specific Inspection Required	*\$0.0 million	*\$0.0 million	*\$0.0 million
Revise the Use Authorization for PCB Small Capacitors in FLBs to Require an Inspection of all FLBs to find leaking FLBs within 1 Year	\$9.8 million	\$22.5 million	\$148.0 million
Revise the Use Authorization for PCB Small Capacitors in FLBs to Require an Inspection of all FLBs to find leaking and/or non-leakers FLBs within 1 Year	\$9.8 million	\$22.5 million	\$148.0 million

***Note-** This option does not provide any additional environmental or health benefits since it would follow the natural attritional date (2020) based on T12 lamp shipment rate estimates from the National Electrical Manufacturers Association.



How This Could Affect a Hypothetical School

- Unit Costs
 - Inspection: \$5.19 / fixture (based on \$17.29 x 2 janitors x 9 minutes per fixture)
 - Disposal: \$8.36 / leaking ballast and \$3.23 / non-leaking ballast (including drums and shipping costs)
 - Replacement: \$168.23 / fixture with leaking ballast(s) and \$75.00 / fixture without leaking ballast(s) (with parts and labor included)
- Using these assumptions, up-front costs for a hypothetical school with 75,000 square feet would range from \$17,032 - \$77,114 (accounting for one year's worth of energy savings)



PCB Small Capacitors in Fluorescent Light Ballasts

- Questions

- Do you have information regarding the degree to which tribal school building(s) or public or commercial buildings (built before 1979) have FLBs that contain polychlorinated biphenyls PCBs?
- Do you have information regarding the degree to which tribal school building(s) or public or commercial buildings (built before 1979) have performed lighting efficiency upgrades?
- Do you have information pertaining to how tribes have funded lighting retrofits (especially where PCB-containing light ballasts were removed)?



PCB Small Capacitors in Fluorescent Light Ballasts

- Questions (continued)
 - Do you have information pertaining to either the process or the length of time it takes for local education agencies (e.g., school districts) or owners of public or commercial buildings to:
 - 1) inspect lighting systems for PCB-containing FLBs;
 - 2) request funding to perform lighting retrofits and remove PCB-containing FLBs;
 - 3) acquire funding to perform such retrofits;
 - 4) plan the specific retrofits; and
 - 5) complete the retrofits of lighting systems?



Transformers and Other Electrical Equipment

- PCB transformers (≥ 500 ppm) are the largest remaining reservoir of liquid PCBs in use
 - Approximately 80,000 remain in use
- Approximately 800,000 PCB-contaminated transformers (50 to < 500 ppm) remain in use
- Industry commenters asserted that all PCB transformers and PCB-contaminated transformers will be disposed of by 2030 through attrition and voluntary replacement efforts
- PCB are also authorized for use in other electrical equipment (e.g., switches, voltage regulators, circuit breakers, large capacitors, electromagnets, rectifiers, reclosers, cable and railroad transformers)
 - Little if any of this equipment still exists or currently contains PCBs



Transformers and Other Electrical Equipment

Options: PCB transformers (≥ 500 ppm)

1. Revoke use authorization for known and will-be-known PCB transformers in 5, 10, or 15 years
 - Costs: 5 yrs - \$500K, 10 yrs – \$20K, 15 yrs - \$0.0
2. Disallow storage for reuse of PCB transformers 1 year from effective date
 - Costs: 1 yr -\$900K, 2 yrs - \$600K, 5 yrs - \$200K, 10 yrs - \$20K
3. Require transformer owners who dispose of or reclassify to < 50 ppm to deregister them from our database via e-reporting
 - Cost: (same as registering: 15 mins/\$12 per report): \$1.4K



Transformers and Other Electrical Equipment

Options: PCB-contaminated (≥ 50 -499 ppm) transformers

1. Revoke use authorization or require reclassification within 5, 10, or 15 years
 - Costs: 5 yrs - \$900K, 10 yrs - \$40 K, 15 yrs - \$0.0
2. Disallow servicing except to reclassify (< 50 ppm) effective immediately or within 5 or 10 years after effective date
 - Costs: effect. Immed. - \$8M, 5 yrs - \$900K, 10 yrs - \$40K
3. Revoke storage for reuse allowance in 1, 2, 5, or 10 years after effective date
 - Costs: 1 yr - \$114.7M, 5 yrs - \$76.6M, 10 yrs - \$900K
4. Amend 761.180(b) to require annual reporting of the number disposed
 - Cost: (15 mins/\$12 per transformer): \$600K



Transformers and Other Electrical Equipment

- Questions:

- To your knowledge, do tribes own any PCB electrical equipment? If so, how prevalent is this equipment?
- To what extent is this equipment being taken out of service (disposed of, reclassified, sold)? Is this being done by attrition, or as part of a removal (phase-out) program?
- Do you store any of this equipment for reuse?
- If you retain inventories of PCB electrical equipment, why (given that new equipment is more energy efficient, can better handle the current electrical loads, and that PCB spills can be costly to cleanup)?
- What effect would a 2015, 2020, 2025, or 2030 phase out date have on tribes that own PCB electrical equipment? How much lead time is required?



Natural Gas Pipelines

- Subject to certain requirements, EPA has authorized:
 - The use and reuse of PCBs in natural gas pipeline systems
 - The use and reuse of PCB-contaminated natural gas pipe and appurtenances
- PCBs still contaminate many systems and the original 1998 regulations have deficiencies
- EPA is aware of several instances of PCBs being discovered in customers meters and beyond



Natural Gas Pipelines

Options: Release Reporting and Response Options:

1. Require e-reporting to EPA regions and/or the affected/ potentially affected customer(s) of releases of PCBs ≥ 50 ppm to customer meters and appurtenances
2. Upon request develop and submit to EPA regions remediation plans for such releases

General Reporting Option:

- Require e-reporting to EPA regions of all discoveries of PCBs ≥ 50 ppm



Natural Gas Pipelines

Options:

General System-Wide Reduction Measures Option:

- Require one time sampling of all pre-1978 compressors within 1 year of rule, unless owners can provide historical data from prior sampling

Use Authorization Changes for Sampling Option:

- Modify 761,30(i)(1)(iii)(B) to explicitly require individual as opposed to batch sampling of organic liquids removed from natural gas systems for \geq 50 ppm PCBs



Natural Gas Pipelines

- Questions

- Would tribes anticipate any direct compliance costs associated with the options EPA is considering?
- If so, what would those compliance costs be? Are there ways to mitigate them?



Contaminated Porous Surfaces

- Current regulation (§761.30(p)) allows the ongoing use of concrete and other porous surfaces contaminated by spills of liquid PCBs regulated for disposal
 - Spilled PCBs may be left in place if surface is covered and labeled
- Questions
 - To your knowledge, do tribes utilize this use authorization?



Next Steps

- Do you have any additional information that EPA should be aware of?
 - If so, please provide.
- Do you have any other approaches that you would like EPA to consider?
- Comments will be due to EPA in approximately 8 weeks, on February 12, 2014
- Please send written comments to: Simons.Tom@epa.gov and copy Kemme.Sara@epa.gov



Thank you!

- Project Contacts:

Tom Simons

(202) 566-0517

Simons.Tom@epa.gov

Sara Kemme

(202) 566-0511

Kemme.Sara@epa.gov

