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United States Nuclear Regulatory Commission

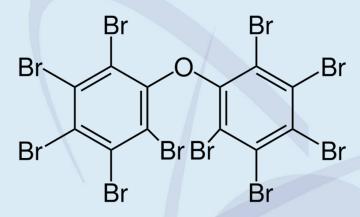
Protecting People and the Environment

Agenda

- DecaBDE & its uses, including by the Nuclear Industry
- Domestic Rulemaking & Impacts to the Nuclear Industry
- Environmental Protection Agency (EPA) Enforcement Statement
- Questions

DecaBDE

- Chemical Name: Decabromodiphenyl ether (DecaBDE)
- Belongs to a group of Polybrominated Diphenyl Ethers (PBDEs)
- Commercialized in 1970s.
- Present in Saytex102E
- Used in products for:
 - Fire Retardant Qualities
 - Chemical Stability
 - Low Cost and Availability
- Used In Foams, Plastics, Rubbers, & Resins; Textiles; Electronic Equipment; Building/Construction Materials; Aerospace and Motor Vehicle Parts; and Electrical Cabling.
- Presence of compound and formulation within products may be treated a proprietary by processors and manufacturers.



EPA Rulemaking & Impacts

EPA Rulemaking:

- Toxic Substance Control Act (TSCA) (15 USC 2601 & 40 CFR 751)
- Initiated rulemaking in 2020
- Manufacture was banned in January 2021
- Processing and distribution for wire and cable insulation in nuclear power generation facilities was banned in January 2023
- Additional Import and Export restrictions exist in 40 CFR 751.
- EPA released an enforcement statement on May 2, 2023.
- Proposed updated rule planned for November 2023, with a final rule planned for September 2024.

Many states have adopted their own legislation regarding DecaBDE (21 of 50). Predominately, these regulations focus on consumer and children's products.

EPA Rulemaking & Impacts

Impacts to Nuclear Industry:

- Unable to "manufacture" the chemical DecaBDE.
- Unable to "process" (build) items containing DecaBDE.
- Unable to "distribute" (repair/replace) items containing DecaBDE.
 - Example items include cabling and components containing cabling (i.e. Motor Operated Valve, Motor Control Center, sensors)
 - End User Exemption applicable to Licensees
- RSCC received specific relief through a Consent Agreement and Final Order (CAFO) on May 1, 2023.
- EPA's Enforcement Statement, release on May 2, 2023, give relief more broadly.

EPA Enforcement Statement

- Released on May 2, 2023
- "The discontinuation [of processing and distribution] led to multiple emails, calls, and letters of concern to EPA that decaBDE-containing wire and cable essential for operations in the nuclear power sector might no longer be available. Although an alternative wire and cable insulation technology, which does not contain decaBDE, has been developed and recently qualified in accordance with NRC regulations and guidance (including 10 C.F.R. § 50.49), it is EPA's understanding from industry and regulatory partners that each individual component that contains the alternative wire and cable insulation technology will also need to undergo its own subsequent qualification process."
- "EPA does not intend to pursue enforcement actions for certain violations of the decaBDE rule and TSCA, where such violations allow for use in nuclear power generation facilities, as long as the entities involved are diligently seeking to qualify their alternative products in accordance with Nuclear Regulatory Commission (NRC) regulations and guidance and meet other conditions of this enforcement statement."

EPA Enforcement Statement

- EPA does not intend to pursue enforcement for:
 - Processing and distributing of DecaBDE-containing wire and cable insulation
 - Recordkeeping for items containing DecaBDE
 - Any related for using for commercial purposes a chemical manufactured, processed, or distributed in violation of TSCA.
- "Enforcement discretion applies [only to the requirements stated above and] only to entities working diligently to qualify their alternative components under NRC regulations and guidance."
- Enforcement discretion is also conditioned on compliance with all other aspects of the final decaBDE Rule, as well as the following additional conditions:
 - Record Keeping
 - Export Notification (Additional restrictions apply to import and export)
- Effective until which ever is earlier September 30, 2024 or final rulemaking regarding the compliance date.

Documents Discussed

- RSCC Consent Agreement and Final Order:
- https://yosemite.epa.gov/oa/EAB Web Docket.nsf/Unpublished~Final~
 Orders/8A750189B8B8E14A852589A20072ACCC/\$File/RSCC%20CAFO%2
 Ofinal%20order%202023.05.01%201510.pdf
- Enforcement Statement:
- https://www.epa.gov/system/files/documents/2023 05/Enforcement%20Statement%20Regarding%20DecaBDE%205%202%20
 2023.pdf

Questions



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