

Cos. Should Engage With EPA On PVC Hazard Designation

By **Susan Richardson, Jeffrey Davidson and Alexander Bullock** (August 1, 2022)

Walk around your basement — see those pipes? Would you consider those pipes to be hazardous waste? What about rain boots? A garden hose? A shower curtain? Traffic cones?

All of these items and more have the potential to be designated and handled as hazardous waste, in light of a current petition to the U.S. Environmental Protection Agency under the Resource Conservation and Recovery Act, or RCRA. The petition seeks an EPA designation of discarded products containing polyvinyl chloride, or PVC, as hazardous waste.

Per a proposed consent decree, the EPA will make a decision by January 2023. This is definitely an issue to watch.

The RCRA provides cradle-to-grave management of hazardous wastes, imposing requirements for the generation, transportation, treatment, storage and disposal of hazardous waste. RCRA regulations define solid waste and hazardous waste, and include a complex process that identifies specific substances known to be hazardous and provides criteria for including other materials in the regulated hazardous waste universe.[1]

In the past year, much attention has been paid to the regulation of per- and polyfluoroalkyl substances, including the EPA's acceptance of the governor of New Mexico's formal petition to designate PFAS as hazardous waste under the RCRA.

Less attention has been paid to a petition to designate discarded PVC products as RCRA hazardous waste. Such a designation could have wide-ranging and unanticipated affects, due to the ubiquity of PVC and PVC products as one of the most commonly used — and disposed of — plastics in world.[2]

The effort to designate discarded PVC and PVC products as an RCRA hazardous waste started eight years ago when the Center for Biological Diversity filed a petition with the EPA. The petition requested that the EPA consider designating discarded PVC and PVC products as an RCRA hazardous waste, and that the agency revise the related solid waste management guidelines.[3]

Among other claims, the petition alleged that discarded PVC products leach vinyl chloride and other chemical components into the environment as the products deteriorate with age in municipal solid waste landfills.[4] Importantly, The petition not only requests the hazardous waste designation for PVC that may be generated at the manufacturing stage, but also requests designating finished materials and products that contain PVC as hazardous waste when discarded.

This would potentially implicate a wide range of entities that may not otherwise come under the RCRA umbrella. These entities include retail establishments, the construction industry, aquaculture operations, sewage utilities and households that may dispose of PVC products



Susan Richardson



Jeffrey Davidson



Alexander Bullock

in the general household trash.

The EPA did not respond to the Center for Biological Diversity's 2014 formal petition.[5] As a result, the group filed an action on Aug. 19, 2021, alleging that the agency had failed to fulfill a nondiscretionary duty to respond to its petition.[6]

On May 4 of this year, the EPA announced that it had entered into a proposed consent decree with the group to address its petition. The proposed consent decree requires the EPA make a tentative decision on listing by Jan. 20, 2023, and a final determination on listing by April 12, 2024.[7]

At this point, it is unclear whether the EPA will grant the petition and proceed with rulemaking to designate discarded PVC products as RCRA hazardous waste. However, given the current regulatory climate, in which the EPA and other agencies often err on the side of more regulation, regardless of potentially serious economic and practical considerations, interested parties should take this risk seriously.

In addition, the proposed designation should be viewed in light of the federal government's goal to reduce the volume of plastic waste. RCRA regulation of discarded PVC and PVC products creates a different pathway of cracking a regulation nut for these plastic materials.[8]

As a result, it is important to consider the potential impacts of RCRA regulation of PVC and PVC products as hazardous waste.

PVC Disposal

As stated above, PVC is used in hundreds of commercial products, ranging from school supplies to garden hoses to food packaging and more. These items are often discarded, by both households and commercial entities, as general trash that is disposed in a municipal solid waste landfill.[9]

Regulation of discarded PVC products as an RCRA hazardous waste may require entirely new waste handling and product stewardship protocols — including maintaining proper state and federal paperwork for manifesting discarded PVC products, installation of proper equipment for waste storage, and disposal or recycling at the proper facilities.

PVC and the Retail Industry

Beyond typical household or commercial waste disposal, the retail industry may be affected when PVC products are returned by customers, or there is a need to dispose of unused PVC products.

Currently, returned or excess inventory may be disposed of in the general trash or sold in bulk to third parties. However, a change in status may put discarded PVC products on the ever-growing list of items that require special management under the RCRA, including aerosol cans, cosmetics, nail polish, household cleaners, hand sanitizer, pesticides, pharmaceuticals and pool supplies.

Although penalties against retail establishments have somewhat moderated in the past five years, the EPA previously showed no hesitation in imposing stiff penalties — in the millions of dollars — for mismanagement of discarded retail products.[10]

PVC in Construction Materials

PVC is used in the construction industry for piping, wiring conduit and other applications.[11] PVC construction materials are typically disposed of in construction and demolition, or C&D, waste landfills.

Designation of discarded PVC materials as RCRA hazardous waste could have significant impacts on the construction industry — both demolition and new construction — potentially prohibiting materials from disposal in a C&D landfill, and increasing the costs of construction.[12]

PVC Recycling

Although most PVC products are disposed of in municipal and C&D landfills, PVC products are also recycled. Classification as an RCRA hazardous waste could complicate recycling and beneficial reuse efforts.

PVC Abandoned in Place

PVC piping and other PVC products are often left in place as the completion of the products' useful life. For example, PVC piping is used as casing for groundwater monitoring wells in contaminated site investigation and remediation, and is typically left in place at the completion of investigation or remediation activities.

Furthermore, PVC is often the piping of choice for wastewater utilities, and may be left in place when upgrading a line. These operational practices could be affected by the designation of PVC as a hazardous waste, as such activities could be considered disposal of a hazardous waste.

PVC Disposal Options

It is unclear from the Center for Biological Diversity's petition whether they are seeking to have discarded PVC products designated as a characteristic or a listed hazardous waste. If the latter, the options for disposing and recycling PVC discarded products may become narrow and complicated.

For example, a completely new hazardous waste stream could overtax current hazardous waste landfill capacity, if the EPA does not develop alternate disposal or recycling alternatives.[13]

Next Steps

If the EPA grants the petition, potentially regulated industries should be prepared to receive and respond to EPA information requests as the agency seeks to build its administrative record regarding the generation, handling and disposal of PVC and PVC products, as well as current waste generation and disposal practices.

Companies should be prepared to supplement the EPA's record with credible ecological and human health data on PVC exposure and degradation, to rebut the information provided by the Center for Biological Diversity and other interested organizations.

In addition, the EPA should be provided credible economic data to support the significant effects of classifying this ubiquitous product as an RCRA hazardous waste.

Susan H. Richardson, Jeffrey J. Davidson and Alexander M. Bullock are counsel at Kilpatrick Townsend & Stockton LLP.

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[1] RCRA hazardous wastes are defined as any "solid waste that, among other things, may pose a "potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed."

[2] PVC is produced in two general forms: a rigid or plasticized polymer, and a flexible plastic. Plumbing, sewage and agriculture industries utilize rigid PVC, while the more flexible PVC, which is softer and more amenable to bending due to the addition of plasticizers, is used in insulation on electrical wires and a variety of consumer products, ranging from raincoats to shoes to garden houses to PVC coated paperclips and more. Typically, anything labeled as "vinyl" contains PVCs.

[3] 42 U.S.C. § 6774(a) allows any person to petition the EPA for the "promulgation, amendment or repeal of any regulation," and requires the EPA to take action on a petition within a "reasonable time following receipt."

[4] The petition is replete with references to existing scientific literature, but contains no direct testing or analysis of the impacts of disposal of discarded PVC products on the environment, such as leachability tests.

[5] Interestingly, the petition also asked the EPA to regulate PVC under the Toxic Substances Control Act. The EPA denied this request on Oct. 24, 2014, but stated that it would continue to evaluate the RCRA request.

[6] This was preceded by a May 19, 2014, RCRA 60-day notice letter of intent to sue.

[7] The comment period closed on June 3. Only five sets of comments were received, with three filed on behalf of industry.

[8] At present, the EPA does not have sufficient statutory authority to adopt wide-ranging regulations to address the manufacture, disposal and recycling of plastics. In March 2021, Sen. Jeff Merkley, D-Ore., and Rep. Alan Lowenthal, D-Calif., introduced the Break Free From Plastic Pollution Act of 2021 (H.R.5845/S.3263), which would seek to impose extended producer responsibility requirements on manufacturers and retailers of a variety of plastics and other products.

[9] Beyond typical household or commercial waste disposal, the retail industry may be affected when PVC products are returned by customers, and would otherwise be discarded by retail stores.

[10] See Strategy for Addressing the Retail Sector under the Resource Conservation and Recovery Act's Regulatory Framework, EPA.

[11] PVC construction products include pipe and fittings, power and telecommunications

wiring and cables, roofing membranes, siding, flooring, and wallcovering.

[12] Comments submitted by Association of General Contractors of America (June 3, 2022).

[13] A 2019 capacity assessment report issued by the EPA found that, while there currently is adequate Subtitle C hazardous waste landfill capacity, such capacity could be affected by unforeseen circumstances, including a change in federal regulations.