

BEFORE THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

*File: RCRA,
Land Disposal
BAN.
XF: VI*

Hazardous Waste Management
System; Proposed Land Disposal
Restrictions; 51 Fed. Reg. 44,714
(Dec. 11, 1986).

Docket No.
F-86-LDR4-FFFFF

COMMENTS OF THE
SOCIETY OF THE PLASTICS
INDUSTRY, INC.

I am W.C. Holbrook, Chairman of the Health, Safety and Environmental Committee of the Vinyl Institute. The Vinyl Institute is a division of The Society of the Plastics Industry, Inc. (SPI), a trade organization of more than 1,800 members representing all segments of the plastics industry in the United States. Specifically, the Vinyl Institute represents manufacturers producing 82% of the polyvinyl chloride (PVC) produced in the United States. Many of these same companies also manufacture PVC compounds.

Members of the Vinyl Institute include:

Air Products and Chemicals, Inc.
The BFGoodrich Company
Borden, Inc.
CertainTeed Corporation

Dow Chemical Company
European Vinyls Corporation
Georgia Gulf Corporation
Occidental Chemical Corporation
PPG Industries, Inc.
Vista Chemical Company
The Vinyl Council of Canada

Our comments today focus on halogenated organic compounds (HOCs) as that term might be applied to vinyl chloride polymers and PVC compounds. The following points summarize our position:

- EPA correctly analyzed Congressional intent not to include polymers such as PVC in the HOC land disposal ban.
- Clarifying language in the final promulgated rule is necessary to assure EPA's exclusion relating to polymers.

A. PVC Manufacture, Use and Waste Disposal

As background to our specific comments on the December 11 regulatory proposal, information about our industry would be helpful. In 1986, domestic production of PVC polymer totalled about 7.2 billion pounds. Modern Plastics, p. 60 (Jan. 1987).

PVC is used in diverse and important applications such as medical technology (blood transfusion bags, dialysis tubes, oxygen tents and medical devices), water and sewer pipes, food wrap and bottles, floor and wall coverings, automobile upholstery and trim, phonograph records, and many other items. Id.

PVC is prior sanctioned for all food contact applications under the Federal Food, Drug and Cosmetic Act. In 1986, the Food and Drug Administration (FDA) published proposed regulations aimed at reaffirming and codifying the safety for food contact applications of vinyl chloride polymers and copolymers. 51 Fed. Reg. 4,177 (Feb. 3, 1986). PVC's long history of use in food and drug packaging and for medical devices aptly demonstrates the safety of the polymer. Similarly, PVC is cleared by EPA for use in drinking water delivery systems under the Safe Drinking Water Act.

Solid waste is generated in the manufacture of PVC polymers and PVC compounds. Much of the 7.2 billion pounds per year of PVC polymer production is subsequently processed to make PVC compounds. The industry, over the last decade, has made great strides in reducing solid waste generation from PVC

polymer and PVC compound production. Solid waste generation by Vinyl Institute members has been reduced from approximately 3% of total production to a 1986 level of approximately 0.5%. Even so, approximately 40 million pounds per year of solid waste are generated from PVC polymer and PVC compound production.

B. HOC Provisions

1. Legislative Intent

Turning now to EPA's request for comments relative to HOCs (51 Fed. Reg. 44716, 44724, 44726 and 44728), the Vinyl Institute generally agrees with statements in the preamble (p. 44724) that the land ban does not apply to polymers, such as PVC. EPA correctly states that Congress did not mean to include in the prohibition every possible HOC, such as polymers, that comprise solid plastics. The legislative history plainly reflects that Congress was not concerned with the land disposal of halogenated polymers, but with the disposal of hazardous wastes that were inherently mobile, toxic, persistent or prone to bioaccumulate. See, e.g., H. Rep. 98-198, Part I, 98th Cong. 2d Sess., at 32-34 (1983) (accompanying H.R. 2867).

Early versions of S. 757 and H.R. 2867, which were the primary bills becoming the Hazardous and Solid Waste Amendments of 1984, would have prohibited the land disposal of any "waste" containing HOCs in excess of 1,000 mg/kg. In congressional testimony, SPI noted that this could be misinterpreted to ban the land disposal of halogenated polymers such as PVC. In response to SPI's comments, the language of the HOC provision was changed to ban only the land disposal of "hazardous waste" containing excessive, free HOCs. Indeed, this has been the intent and practice in California, where PVC polymers and PVC compounds are not banned from land disposal under California law.

2. Definition of HOC

The Agency is proposing to limit the definition of HOCs included under the section 3004(d)(2)(E) prohibition to those HOCs which are identified or listed as either a hazardous waste under 40 C.F.R. Part 261 or as hazardous constituents under Part 261, Appendix VIII.

While we concur with the approach of having a specific list of what constitutes an HOC, EPA's proposal is likely to

subject most PVC polymer waste and PVC compound waste to the land disposal ban if the proposed 50 ppb vinyl chloride monomer extract level is promulgated. 51 Fed Reg. 21,648 (June 13 1986). Our limited data suggests that most PVC polymer waste and PVC compound waste would exceed the 50 ppb VCM threshold limit and therefore would become a characteristic hazardous waste under 40 C.F.R. 261. As a result, PVC polymer waste and PVC compound waste would then be considered an HOC subject to the land ban under proposed section 268.32(d)(2). 51 Fed. Reg. 44,740. A land ban determination should not be based on whether a waste is hazardous but should be based, as Congress intended, upon its HOC impact on the environment.

The proposed regulatory language in section 268.32 is ambiguous because HOC is not defined in the proposed regulations and the preamble discussion does not resolve this question. An alternative reading of the proposed rule is that halogenated polymers are not "HOCs" as defined by EPA. Under this reading, halogenated polymers would be subject to the proposal only if they contain some HOC which exceeds the 1,000 mg/kg limitation. If PVC polymer per se is not an HOC, it would not be subject to the proposal. However, if PVC polymer waste or PVC compound waste contained some constituent causing

it to be a hazardous waste by definition and if it also contained an HOC in excess of 1,000 mg/kg, the waste would then be subject to the land ban.

To correct any confusion that might exist, EPA should clearly state in the preamble to the final rule that: (1) halogenated polymers themselves are not HOCs; and (2) waste halogenated polymers, like any waste, would be subject to the land ban only if it is hazardous waste and the TCLP extract contains HOC in excess of the 1,000 mg/kg limitation. In addition, a definition of HOC should be added to 40 C.F.R. section 268.2.

3. Mandatory Incineration Not Justified

EPA has technical as well as legislative justification for not including PVC polymer waste and PVC compound waste in the land disposal ban. If these wastes are subject to the proposed rule, industry would be required to apply the best demonstrated available treatment (BDAT) technology, which would be incineration. Land disposal of PVC polymer waste and PVC compound waste is a preferred environmental management practice vis a vis incineration because the chlorine remains chemically

bound in the molecule rather than becoming disassociated through incineration. Incineration can certainly be conducted in an environmentally sound manner; however, it does allow chlorine transfer in a mobile form to other environmental media.

Banning land disposal of PVC waste would place an additional demand (40 million pounds per year) on the already limited and insufficient incinerator capacity in this country. EPA has recognized the inadequate incineration capacity in its recent land ban promulgation concerning solvents and dioxins. The December 11 proposal, along with future land ban rules, will result in increased demand for incineration and will continue to outpace incinerator capacity. Incinerator capacity is better utilized for truly toxic and environmentally troublesome wastes. PVC polymer waste and PVC compound waste do not fall in that category and should not be banned from landfill disposal.

Our comments regarding incineration apply only to PVC polymer waste and PVC compound waste from manufacturing operations. They do not apply to municipal solid waste (MSW) containing PVC products. Incineration or burning for energy recovery of MSW containing PVC products is done in an

environmentally sound manner. Our objection is not to incineration per se, but to the mandatory incineration of PVC polymer waste or PVC compound waste under RCRA.

While the focus of these comments is not on the issue of incineration costs and waste transportation costs to incinerator sites, they are significant and should be considered in this rulemaking.

4. Equitable Treatment of Solid
Waste Containing HOCs

It is not rational to regulate solid HOC waste more restrictively than liquid HOC waste. HOCs in solid form are generally less mobile in the environment than HOCs in liquid form. Rather than directly measuring the HOCs in a solid hazardous waste, we agree with the Agency's intent to use the TCLP to generate the analyte for both liquid and non-liquid hazardous wastes. 51 Fed. Reg. 44,724. However, EPA fails to translate this intent into regulatory language in section 268.32.^{*/} Section 268.32(d)(2) should be revised to read:

^{*/} We also note that the Agency has apparently reversed sections 268.32(a)(4) and 268.32(d)(3).

"Non-liquid hazardous waste whose TCLP extract contains halogenated organic compounds in total concentration greater than or equal to 1,000 mg/kg."

EPA apparently believes that the language in the preamble to the proposed rule discussing HOCs will exempt PVC polymer waste and PVC compound waste from the land disposal ban. We are specifically concerned that if PVC waste becomes hazardous because of future rule changes (i.e., TCLP organics list), such waste will unintentionally become subject to the land disposal ban. It is obvious that this is not EPA's intent. To rectify this problem, we suggest the following:

- (1) Specifically exempt PVC polymer waste and PVC compound waste in proposed section 268.32;
- (2) Add the following definition of HOC to 40 C.F.R. section 268.2:

"Halogenated Organic Compound" means only those halogenated organic compounds listed in Appendix VIII or proposed

Appendix IX to 40 C.F.R. Part 261. 51
Fed. Reg. 26,632 (July 24, 1986)

- (3) Revise section 268.32(d)(2) to require use of the TCLP to generate the analyte for non-liquid wastes consistent with the Agency's discussion on preamble page 44,724.

C. TCLP

The EPA land disposal ban proposal for the California list materials involves the toxicity characteristic leaching procedure (TCLP). SPI has commented previously on the TCLP itself and related proposals that would change the toxicity criteria for identifying wastes as hazardous under RCRA. SPI comments dated August 29, September 26, and October 10, 1986. To the extent that EPA fails to resolve the deficiencies in the TCLP itself and the pending toxicity characteristic proposal, equitable implementation of the land ban proposal will be hindered.

D. Conclusion

In summary, EPA needs to define HOCs and rewrite the rule to clearly indicate that polymers are not subject to the land disposal ban. We appreciate the opportunity to provide these comments and are willing to discuss our proposals in more detail at the Agency's convenience.

Respectfully submitted,

W. C. Holbrook

January 14, 1987

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