United States Environmental Protection Agency
Solid Waste and Emergency Response (5305W)
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EPA

Environmental Fact Sheet

EPA PROPOSES LISTING CERTAIN WASTES FROM THE PRODUCTION OF CHLORINATED ALIPHATICS

Background

Chlorinated aliphatic hydrocarbon chemicals (CAHCs) entered into commerce in the US in the early 1920s, and as of 1994, approximately 32 billion pounds of CAHCs were manufactured by 26 chemical plants (facilities) in the United States.

CAHCs are a group of organic chemicals -- most of which are colorless liquids at room temperature -- primarily used as intermediate feedstocks for the production of polyvinyl chloride (PVC) plastics; CAHCs are also used directly in liquid form as various types of solvents, as intermediates for the production of other types of chemicals, and in assorted other commercial use categories.

In 1989, the Environmental Defense Fund (EDF) sued the Environmental Protection Agency (EPA), which resulted in a consent decree setting out deadlines for promulgating certain RCRA rules and for completing certain studies and reports. Part of this consent decree obliges EPA to propose a hazardous waste listing determination for wastewaters and wastewater treatment sludges generated from the production of specified chlorinated aliphatic chemicals. With this notice, EPA is proposing listing determinations for these wastes in accordance with the consent decree.

Action

The Agency identified four waste groupings for wastewater treatment sludges and one category of wastewater generated by the chlorinated aliphatics industry. These waste groupings were based primarily upon the particular production processes that generate these wastes, and the type of chlorinated aliphatic product being produced . These waste groups include sludges generated from the treatment of wastewaters from the production of:

- ethylene dichloride and/or vinyl chloride monomer (EDC/VCM);

- vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process (VCM-A);

- methyl chloride; and

- allyl chloride.

The wastewater grouping includes all chlorinated aliphatics wastewaters except wastewater from VCM production using an acetylene-based process.

The scope of the notice does not include any other process residuals generated by the chlorinated aliphatics industry. In particular, EPA is not re-evaluating previously listing determinations concerning wastes generated by chlorinated aliphatics production processes.

In today's notice, EPA is proposing to add three wastes generated by the chlorinated aliphatics industry to the list of hazardous wastes in 40 CFR 261.32. Below are the wastestreams EPA is proposing to list as hazardous with their corresponding proposed EPA Hazardous Waste Numbers:

- **K173** Wastewaters from the production of chlorinated aliphatic hydrocarbons, except for wastewaters generated from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process. This listing includes wastewaters from the production of chlorinated aliphatic hydrocarbons that have carbon chain lengths ranging from one to, and including five, with varying amounts and positions of chlorine substitution.

- **K174** Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer (EDC/VCM).

- **K175** Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process.

EPA is proposing to list these wastes because these residuals meet the criteria for listing a waste as hazardous. EPA assessed and considered these criteria for all six wastestreams through the use of risk assessments and risk modeling, as well as a consideration of other pertinent factors. This proposed listing determination follows the elements of the Agency's listing decision policy that was presented in the proposed listing for wastes generated by the dye and pigment industries (59 FR 66073, December 22, 1994). This policy uses a "weight-of-evidence" approach in which calculated risk information is a key factor considered in making a listing determination.

The EPA also is proposing an alternative approach to listing two of the wastes from chlorinated aliphatics processes as hazardous, rather than proposing to list these wastes in accordance with the Agency's traditional listing approach. The Agency is proposing a conditional-listing approach for one waste, and as one of two options for a second waste, because the Agency has evaluated the ways in which the waste is likely to be managed and has determined that certain waste management activities would present significant risks but that others would be protective of human health and the environment. Under this approach, EPA is proposing to list particular wastes as hazardous only if the wastes are managed in a way other than the manner in which the Agency has determined is protective of human health and the environment. In implementing a conditional-listing approach, the Agency is proposing that wastes that fall outside the scope of the listing description

(*e.g.,* are destined for the appropriate type of disposal) are non-hazardous when generated. EPA is also proposing technical requirements for tanks managing certain chlorinated aliphatic wastewaters, to minimize air releases of dioxin from these wastewaters. Today's action also proposes not to list as hazardous the following three wastes:

- process wastewaters from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process,
- wastewater treatment sludges from the production of methyl chloride, and
- wastewater treatment sludges from the production of allyl chloride

For More Information

The Federal Register Notice and this fact sheet are available in electronic format on the Internet. The notice is available at <http://epa.gov/fedgstr>. This fact sheet and other documents related to this proposed rule are available at <http://www.epa.gov/epaoswer/hazwaste/id/chlorali/index.htm>. For additional information, or to order paper copies of any documents, call the RCRA Hotline. Callers within the Washington D.C. Metropolitan area must dial 703-412-9810, or TDD 703-412-3323 (hearing impaired). Long distance callers may call 1-800-424-9346 or TDD 1-800-553-7672. The RCRA Hotline operates weekdays, 9:00 a.m. to 6:00 p.m. Write the RCRA Information Center (5305W) USEPA, 401 M Street, SW, Washington, DC 20460. E-mail the RCRA Information Center at <RCRA-Docket@epa.gov>.