



Environmental Fact Sheet

EPA PROMULGATES LISTING DETERMINATION FOR 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 promulgating listing determinations for these wastes in accordance with the consent decree.

Action

The Agency is listing as hazardous two of six wastes generated by the chlorinated aliphatics industry. These two wastes are K174 – Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer (EDC/VCM); and K175 – Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process. The effect of listing these two wastes is to subject them to stringent management and treatment standards under RCRA and to subject them to emergency notification requirement for releases of hazardous substances to the environment. EPA is finalizing a contingent-management listing approach for one of these wastes. Under the

contingent management listing determination, the waste will not be listed as a hazardous waste; if it is sent to a specific type of management facility. EPA is also finalizing determinations not to list as hazardous four waste generated by the chlorinated aliphatics industry. These wastes are listed below:

- C process wastewaters from the production of chlorinated aliphatics (other than wastewaters from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process);
- C process wastewaters from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process;
- C wastewater treatment sludges from the production of methyl chloride; and
- C wastewater treatment sludges from the production of allyl chloride.

EPA considers the listing criteria set out in 40 CFR 261.11, in light of information relevant to the criteria, in making listing determinations. The criteria provided in 40 CFR 261.11 include eleven factors for determining whether a waste is capable of posing a “substantial present or potential hazard to human health and the environment.” Nine of these factors, as described generally below, are directly incorporated into EPA’s completion of a risk assessment for the wastestreams of concern:

- C *Toxicity* (261.11(a)(3)(i)) is considered in developing the health benchmarks used in the risk assessment modeling.
- C *Constituent concentrations and waste quantities* (261.11(a)(3)(ii) and 261.11(a)(3)(viii)) are used to define the initial conditions for the risk evaluation.
- C *Potential to migrate, persistence, degradation, and bioaccumulation* of the hazardous constituents and any degradation products (261.11(a)(3)(iii), 261.11(a)(3)(iv), 261.11(a)(3)(v), and 261.11(a)(3)(vi)) are all considered in the design of the fate and transport models used to determine the concentrations of the contaminants to which individuals are exposed.

We consider two of the remaining factors, *plausible mismanagement* and *other regulatory actions* (261.11(a)(3)(vii) and 261.11(a)(3)(x)) in establishing the waste management scenario(s) modeled in the risk assessment.

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, Ariel Rios Building, 1200 Pennsylvania Avenue, NW, Washington, DC 20460. E-mail the RCRA Information Center at <rcra-docket@epa.gov>.