

US EPA ARCHIVE DOCUMENT



Environmental Fact Sheet

Final Standards Promulgated for Petroleum Refining Waste

The U.S. Environmental Protection Agency (EPA) is promulgating a final rule to add four new hazardous waste codes to its current lists of hazardous waste. This final rule satisfies the mandates under the Hazardous and Solid Waste Amendments of 1984 to make listing determinations for wastes generated from petroleum refining.

Background

The U.S. petroleum refining industry consists of approximately 180 facilities that manufacture a wide variety of fuel and lubrication products and petrochemical feedstocks. The fuel and lubrication products are used primarily for transportation and home heating fuels. Under Subtitle C of the Resource Conservation and Recovery Act (RCRA), Congress authorized EPA to regulate the treatment, storage, and disposal of hazardous waste, and, under RCRA section 3001(b) and section 3001(e)(2), Congress specifically directs EPA to determine if petroleum refining wastes should be listed as RCRA hazardous. Currently, RCRA regulations list as hazardous seven waste streams generated by petroleum refining operations.

In June of 1991, the Environmental Defense Fund (EDF) and EPA entered into a proposed consent decree (per *EDF v. Browner*, Civ. No. 89-0598 (D.D.C.)) in which the Agency agreed to publish a final listing determination for 14 petroleum refining process wastes. On November 20, 1995, EPA proposed (59 FR 57747) to list three of the 14 refining wastes as RCRA hazardous waste: clarified slurry oil (CSO) storage tank sediment (K170), spent hydrotreating catalyst (K171), and spent hydro refining catalyst (K172). The Agency also proposed not to list 11 other petroleum refining wastes and proposed options to allow CSO sediment disposal in nonhazardous landfills. In addition, the proposal contained several exclusions, which are explained in the FR notice.

On April 8, 1997, EPA issued a Notice of Data Availability (NODA - 62 FR 16747) in response to comments received on the proposed rule's risk assessment data. The NODA sought public comment on additional modeling analyses, waste characterizations, disposal practice analyses, and other evaluations that could impact risk assessment results.

Action

This final rule adds four RCRA hazardous waste codes to its current list:

- K169--Crude oil storage tank sediment from petroleum refining operations.
- K170--Clarified slurry oil storage tank sediment and/or in-line filter/separation solids from petroleum refining operations.

- K171--Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (excludes inert support media).
- K172--Spent hydro refining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (excludes inert support media).

EPA is also finalizing treatment standards under the land disposal restrictions for these four new hazardous wastes. This listing determination is based on risk assessment results that show that certain concentrations of chemicals (benzene, arsenic, and polycyclic aromatic hydrocarbons (PAHs)) contained in these wastes may pose potential hazards to human health and the environment when disposed of in landfills and land treatment units. EPA has made a final determination not to list the 10 remaining petroleum refining wastes evaluated.

The Agency is also promulgating the following exclusions related to the petroleum refining industry:

- 1) An exclusion for oil-bearing secondary materials that are generated at petroleum refineries and are inserted into petroleum refining processes to facilitate continued hydrocarbon recovery;
- 2) An exclusion for certain types of recovered oil from petrochemical facilities, when the oil is recycled by being returned to a co-located petroleum refinery for insertion along with normal refinery process streams; and
- 3) An exclusion for spent caustic generated by petroleum refineries when used as a feedstock in the manufacture of certain commercial chemical products.

Applicability

This rule applies to owners or operators of facilities that generate, transport, store, treat, or dispose of wastes listed as RCRA codes K169, K170, K171, and/or K172. Treatment, storage, and disposal operations involving these wastes are also subject to the permitting and land disposal restriction requirements of RCRA. In addition, these wastes are deemed hazardous substances under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Emergency Planning and Community Right to Know Act (EPCRA). Therefore, any parties participating in CERCLA or EPCRA activities involving the newly listed wastes must comply accordingly. For example, responsible parties must report releases of 10 pounds or greater for waste code K169 and 1 pound or greater for waste codes K170, K171, and K172.

For More Information

The *Federal Register* notice and this fact sheet are available in electronic format on the Internet through the EPA Public Access Server. For additional information or to order paper copies of the *Federal Register* notice, call the RCRA Hotline at (800) 424-9346 outside the Washington, DC, area and (703) 412-9810 within the Washington, DC, area. Copies of documents applicable to this rule may be obtained by writing: RCRA Information Center (RIC), U.S. Environmental Protection Agency, Office of Solid Waste (5305W), 401 M Street SW, Washington, DC 20460.