

included a request for comment on these and other ACC-suggested exemptions to the mixture and derived-from rules in the November 19, 1999 proposed Hazardous Waste Identification Rule (HWIR) (64 FR 63382). Many of today's proposed changes are an outgrowth of ACC's suggested revisions and the public comments that EPA received in response to the discussion of these suggested revisions in the 1999 HWIR proposal.

#### *B. History of Solvent Listings*

On May 19, 1980, the Agency listed 23 chemicals or classes of chemicals as hazardous wastes when used as solvents and subsequently spent. The listings can be found at 40 CFR 261.31, EPA Hazardous Waste Numbers F001–F005. As previously stated, in 1981 the Agency determined that small volumes of these spent solvents could be lost to wastewater treatment systems with negligible risk and therefore these spent solvents were exempted under the headworks rule (46 FR 56582–56589, November 17, 1981).

The Agency's spent solvent listings cover only those solvents that are used for their "solvent" properties—that is, to solubilize (dissolve) or mobilize other constituents. For example, solvents used in degreasing, cleaning, fabric scouring, as diluents, extractants, reaction and synthesis media, and similar uses are covered under the listing (when spent). A solvent is considered "spent" when it has been used and is no longer fit for use without being regenerated, reclaimed, or otherwise reprocessed.

On the other hand, process wastes in which solvents were used as reactants or ingredients in the formulation of commercial chemical products are not covered by the listing. The products themselves also are not covered. (See 50 FR 53316, December 31, 1985.)

On February 25, 1986 (51 FR 6537–6542), the Agency listed four other solvents in the F002 and F005 categories. These solvents are 1,1,2-trichloroethane, benzene, 2-nitropropane, and 2-ethoxyethanol (or ethylene glycol monoethyl ether). These listings were in response to a Congressional mandate in the Hazardous and Solid Waste Amendments of 1984 (HSWA). At the time, the Agency did not determine whether or not to add these solvents to the headworks rule exemptions.

The Agency followed up the 1986 solvent listings with another listing determination concerning solvents as part of a court-ordered mandate. On November 19, 1998 (63 FR 64372–64402), the Agency finalized a decision

not to list any of 14 selected chemicals as spent solvents under the current listings. The Agency concluded that many of these chemicals had little to no solvent use or very specialized solvent uses, and those that were used as solvents were managed in such a way that additional regulation was not warranted. As a part of the same court-ordered mandate, the Agency also published a "Solvents Study" (August 22, 1996) on seven additional chemicals. Most of these chemicals were found to have no solvent use at all.

#### **II. Potential Changes to the Headworks Rule**

The Agency intends to make a technical correction to § 261.3(a)(2)(iv)(A). The term "spent" was inadvertently omitted from this paragraph when promulgated. The term "spent" should have appeared immediately before the word "solvent" in the first clause of the sub-paragraph as it does in sub-paragraph (B) of § 261.3(a)(2)(iv). The Agency proposes to correct this inadvertent oversight by inserting the word "spent" in the appropriate place in sub-paragraph (A).

##### *A. Adding Solvents to the Headworks Exemption*

The American Chemistry Council requested that the Agency consider adding the four solvents listed in 1986 to the headworks exemption under 40 CFR 261.3(a)(2)(iv)(A) and (B). After evaluating these chemicals, the Agency is proposing to add two of the solvents (benzene and 2-ethoxyethanol) to the exemption. That is, the Agency is proposing to add benzene to the solvents with a total 1 ppm headworks limit under § 261.3(a)(2)(iv)(A) and is proposing to add 2-ethoxyethanol (2-EE) to the 25 ppm total limit under § 261.3(a)(2)(iv)(B). The exemption for benzene is conditioned on the use of aerated biological treatment units and the requirement that any surface impoundments used prior to secondary clarification be lined. The Agency is not proposing any action regarding 1,1,2-trichloroethane (1,1,2-TCA) and 2-nitropropane (2-NP) at this time. The Agency considered each solvent's risks individually and solicits comments on the appropriateness of the exemptions and the levels set.

Under today's proposed changes, if the total headworks concentration of methylene chloride, 1,1,1-trichloroethane, chlorobenzene, o-dichlorobenzene, cresols, cresylic acid, nitrobenzene, toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, spent chlorofluorocarbon solvents, and 2-ethoxyethanol (added by

today's proposal) do not exceed 25 parts per million (ppm), and the other conditions are met relating to Clean Water Act discharge and monitoring or measurement of constituents in the headworks of the wastewater treatment system (see below), the wastewater mixtures would no longer be considered hazardous waste. For mixtures of carbon tetrachloride, tetrachloroethylene, trichloroethylene, and benzene (added by today's proposal under certain conditions), the total headworks concentration cannot exceed 1 ppm, and also must meet the other conditions for it to no longer be considered a hazardous waste; in addition, mixtures containing benzene must be managed in an aerated biological wastewater treatment system without the use of unlined surface impoundments prior to secondary clarification.

The Agency is taking comment only on the evaluation and decisions made concerning benzene, 2-ethoxyethanol, 1,1,2-trichloroethane, or 2-nitropropane to the mixture rule exemption at 40 CFR 261.3(a)(2)(iv)(A) and (B). The Agency is not soliciting comments on solvents currently exempted. The Agency also is not taking comment on any spent solvent listing or any other hazardous waste listing. Nor will the Agency respond to any comments submitted addressing any currently exempted solvent, any spent solvent listing or any other hazardous waste listing.

##### **1. General Approach to Risk Analysis**

The Agency took a phased approach to the risk analysis for the four solvents under consideration. In the first phase, EPA conducted a protective screening analysis by comparing the regulatory levels in the current solvents headworks exemption (*i.e.*, 1 ppm and 25 ppm) with protective waste concentration limits (based on ingestion of ground water contaminated by surface impoundment leachate and inhalation of chemicals volatilized from an aerated tank) that EPA already had generated under previous efforts. These efforts calculated protective levels based on a more stringent  $10^{-6}$  risk threshold. In addition, EPA evaluated data from EPA's National Risk Management Research Laboratory (NRMRL, part of the Agency's Office of Research and Development) treatability database to determine the probable effect of treatment in reducing chemical concentrations using existing treatment technologies. In the second phase, EPA performed a more detailed analysis for the chemicals (where possible). This more detailed human health risk assessment evaluated both the direct groundwater pathway and indirect