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RCRA/Superfund/OUST Hotline Monthly Report Question

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2. Definition of Spent Solvent

The owner of a metal working facility uses a cutting oil to cool and lubricate metals during a drilling process.

The cutting oil is purchased as a product and consists of 80% 1,1,1-trichloroethane and 20% lubricating oil. When spent, the fluid is sent for disposal. Would this material meet the F002 listing found in 40 CFR Section 261.31?

This question was addressed originally in the RCRA/Superfund Industrial Assistance Hotline Monthly Report for April, 1988. At that time, the Agency viewed the material in question as an F002 hazardous waste in accordance with 40 CFR Section 261.31. Since that time, the Agency has amended the answer previously given to read as follows: The December 31, 1985, Federal Register (53 FR 53316) specifies which materials are covered by the spent solvent listings in 40 CFR Section 261.31. One of the key factors in meeting the F001-F005 hazardous waste listing is determining how or for what the material was used. In order to meet listings, the material must be used for its solvent properties. More specifically, the December 31, 1985, Federal Register specifies that "the 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 areas are covered under the listings (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 (50 FR 53316)." However, the December 31, 1985, Federal Register also specifies that "process wastes where solvents were used as reactants or ingredients in the formulation of commercial chemical products are not covered by the listing. The products themselves are also not covered (50 FR 53316)." The 1,1,1-trichloroethane, in this circumstance is being used as a cooling ingredient in the formulation of product cutting oil. The metal working facility is

using the cutting oil to coat and lubricate metals during their drilling operation. When the cutting oil can no longer be used, it meets the definition of a spent material in 40 CFR 261.1(c)(1). However, even though the cutting oil meets the definition of a spent material, it does not meet the spent solvent listing because the cutting oil formulation was not used as a solvent as described by the December 31, 1985 Federal Register. Likewise, the 1,1,1-trichloroethane is an ingredient in the cutting oil and this is not a use covered by the F001-F005 spent solvent listings found in 40 CFR Section 261.31. Therefore, the spent cutting oil in this circumstance does not meet the spent solvent hazardous waste listings found in 40 CFR Section 261.31.