

**HTRW Center of Expertise
Environmental Regulatory
Fact Sheet 00-02**

Mixture and Derived-from Proposed Rule

On 19 November 1999, EPA proposed the Hazardous Waste Identification Rule (HWIR): Identification and Listing of Hazardous Waste, 64 Federal Register 63382. The EPA is, in essence, making two proposals with two separate suspenses for comments in this announcement. The first portion (Section I to IV) of this rule proposes to retain and amend the mixture and derived-from rules for hazardous waste. EPA is accepting formal comments on the proposal through 17 February 2000. The second portion (Sections V to XX) seeks comments on the contingent management (HWIR) options for managing hazardous waste. The EPA is accepting comments on this portion until 17 May 2000.

This paper is intended to provide a summary of the first portion, i.e., the mixture and derived-from proposal, to help Army and DoD reviewers develop comments. A second summary will be provided for the remainder of the HWIR proposal.

APPLICABILITY

This proposal would make the mixture and derived-from rules permanent and thus for most installations will not involve any changes. The proposal may provide some regulatory relief for installations that generate the 29 wastes listed in the matrix below. These are wastes listed solely because they exhibit a hazardous characteristic. This rule proposes to modify the “derived-from” rule to exclude treatment residues of these wastes when the residues no longer exhibit any hazardous characteristic.

WHO SHOULD READ AND COMMENT ON THIS RULE?

- Generators of the 29 listed wastes in the matrix below should read Sections I through V and the proposed text change for 40 CFR 261.3 at page 63461. This pertains to the mixture and derived-from rules with respect to waste listed solely because it exhibits a hazardous characteristic.
- Generators of low-level mixed waste should read Section IV, paragraph B, and the proposed text change for 40 CFR 261.3 on page 63461. This section addresses how EPA proposes to revise the mixture and derived-from rules for mixed waste.
- All generators of hazardous waste should read the discussion at Section II, paragraph E, on modifications to the mixture and derived-from rules requested by the Chemical Manufacturers Association (CMA). This section raises issues such as whether to exclude residues from the combustion of listed hazardous waste; leachate managed in Clean Water Act systems; and sludges from the biological treatment of listed hazardous wastewaters. It also addresses expansion of the “headworks” and “deminimis” loss exemptions.

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BACKGROUND

EPA identifies hazardous waste as either listed wastes or characteristic wastes. Characteristic wastes are wastes that are ignitable (I), corrosive (C), reactive (R), or leach toxics above threshold regulatory levels, also known as toxicity characteristic leaching procedure (TCLP) levels. Listed wastes are wastes that have been predetermined by EPA as hazardous based on their source of generation. They are described on the F, K, P, and U lists in 40 CFR 261.

Realizing that many hazardous wastes continue to be toxic after being mixed with other wastes or after treatment, EPA continues to regulate certain mixtures and treatment residues via the “mixture” and “derived-from” rules respectively. Without these rules, generators could alter their wastes such that the wastes no longer meet the listing description and thereby escape regulation, while nevertheless still posing risks to human health and the environment.

EPA is proposing to retain and modify the current regulatory language of the mixture and derived-from rules in 40 CFR 261.3.

The Mixture Rule Under the current regulation, a solid waste mixed with a listed waste is a hazardous waste. However, there is an exemption for waste listed solely because it exhibits a characteristic, if the mixture no longer exhibits a hazardous characteristic, the waste is no longer regulated as hazardous waste.

Derived-from Rule Under the current derived-from rule, any solid waste generated from the treatment, storage, or disposal of a listed hazardous waste is regulated as the listed hazardous waste. There is no exemption within the current derived-from rule for wastes listed solely because of a characteristic.

Thus, under the existing regulation, a mixture containing listed waste, listed solely because of a hazardous characteristic, may be exempt from regulation whereas a similar treatment residue may continue to be regulated. For example, when hazardous waste listed solely for ignitability is combusted, ash is generated. The ash derived from the treatment is no longer ignitable, yet under the current derived-from rule the ash would continue to be regulated as listed hazardous waste. However, if the same listed waste was mixed with a solid waste, if the resultant mixture is no longer ignitable, it would be exempt under the current mixture rule. EPA recognizes this inconsistency and proposes to modify the rule accordingly in this proposal.

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**PROPOSED RULE AND REQUEST FOR COMMENTS REGARDING THE
MIXTURE AND DERIVED-FROM RULES**

Exemption of Wastes Listed Solely For the Ignitability, Corrosivity, and/or Reactivity Characteristics

EPA proposes to exempt from the definition of hazardous waste, wastes derived-from treatment, storage, and/or disposal of listed wastes which were listed solely for the I, C, and/or R characteristics provided the waste no longer exhibits any hazardous characteristic. Prior to disposal, excluded wastes would still be required to meet appropriate land disposal restriction (LDR) treatment standards, including treatment for all underlying hazardous constituents. In discussing the proposed revision, EPA states, “We believe that wastes listed solely because they exhibit the ignitability, corrosivity, and/or reactivity characteristics should all be treated identically, whether they are mixtures, residuals, or wastes meeting the original listing description as generated.”

The Department of Defense (DOD) generates some of the wastes that will be affected by the exemption. Waste codes listed solely for ignitability, corrosivity, and/or reactivity are:

Waste Code	Description
F003	Spent xylene and other non-halogenated solvents
K044	Wastewater treatment sludges from the manufacturing an processing of explosives
K045	Spent carbon from the treatment of wastewaters containing explosives
K047	Pink/red water from TNT operations
P009	Ammonium Picrate
P081	Nitroglycerine
P112	Tetranitromethane
U001	Acetaldehyde
U002	Acetone
U008	Acrylic Acid
U031	n-Butyl alcohol
U020	Benzenesulfonyl chloride
U055	Cumene
U057	Cyclohexane
U092	Dimethylamine
U096	Cumene Hydroperoxide
U110	Di-n-propylamine
U112	Ethyl Acetate
U113	Ethyl Acrylate
U117	Ethyl Ether
U124	Furan
U125	Furfural

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U154	Methanol
U161	Methyl isobutyl ketone
U186	1,3 Pentadiene
U189	Sulfur phosphide
U213	Tetrahydrofuran
U239	Xylene

Note that although F003 is listed solely for ignitability, its listing description includes references to toxic solvents. Therefore, though EPA welcomes comments on all aspects of the proposal, they are specifically requesting comment on whether to allow F003 waste to be eligible for the proposed exemption.

Exemption of Mixed Wastes

EPA is also specifically requesting comments on whether to conditionally exempt low-level radioactive mixed waste from the mixture and derived-from rules when managed per 40 CFR 266, Subpart N, which is separately proposed at 64 FR 63464, 19 November 1999. The proposed exemptions would allow storage and treatment by generators of mixed waste under a Nuclear Regulatory Commission (NRC) or Agreement State license in lieu of requiring a RCRA permit. It also proposes to allow certain mixed wastes to be managed in NRC or Agreement State regulated low-level radioactive waste disposal facilities in lieu of facilities permitted under RCRA. Conditions of disposal include meeting LDR treatment standards and containerizing the waste prior to disposal. The exemptions are not foreseen to have significant effects on DOD storage or disposal activities.

The Chemical Manufacturers Association (CMA) Proposed Options

EPA is also requesting comments on CMA proposals with respect to the mixture and derived-from rules. The CMA requested revision of the regulations to:

- Exempt residues from combustion of listed hazardous waste;
- Exempt leachate from land disposal of listed hazardous waste that is subsequently managed in a Clean Water Act system;
- Exempt sludges from the biological treatment of listed hazardous wastewaters;
- Expand the “headworks” exemption in 40 CFR 261.3(a)(2)(iv)(A) and (B); and
- Expand the “deminimis” losses exemption for commercial chemical products in 40 CFR 261.3(a)(2)(iv)(d).

EPA has not proposed any regulatory changes as a result of the CMA request, but requests comments on the merits and drawbacks of these items. Full impact to DOD activities can not be determined at this time. However, activities such as remediation projects involving incineration of listed waste may eventually be affected by these options if they go forward.

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Finally, the reader is directed to section XXVI of the proposal for a comprehensive list of all the issues for which EPA is seeking comments. For the mixture and derived-from rule proposal, EPA is requesting comments on three specific issues:

- What are the merits and drawbacks of the five possible revisions to the mixture and derived-from rules submitted to EPA by CMA?
- Should EPA allow F003 to be eligible for the proposed exemption for waste listed solely because it exhibits a hazardous characteristic?
- Should EPA conditionally exempt low-level radioactive hazardous waste from the mixture and derived-from rules, provided the mixed waste is handled in accordance with the requirements of a new Part 266, Subpart N, which is being simultaneously proposed separately in the Federal Register?