

RCRA, SUPERFUND & EPCRA HOTLINE MONTHLY REPORT
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2. Identification of Underlying Hazardous Constituents

The land disposal restrictions found in 40 CFR Section 268.40(e) require characteristic wastes to meet the universal treatment standards (UTS) in Section 268.48 for all underlying hazardous constituents (UHCs) before the waste is land disposed. The definition of UHC includes all constituents listed in Section 268.48, except fluoride, selenium, sulfides, vanadium, and zinc, which are reasonably expected to be present at the point of waste generation (Section 268.2(i)). Why are fluoride, vanadium, and zinc specifically excluded from this definition?

Fluoride, vanadium, and zinc are excluded from the definition of UHC because these constituents are not found in Part 261, Appendix VIII. Hazardous constituents are specifically defined as those listed in Appendix VIII of Part 261 (Section 268.2(b)). Appendix VIII lists "chemical constituents which have been shown in scientific studies to have toxic, carcinogenic, mutagenic, or teratogenic effects on humans or other life forms" and is used by EPA to determine if a waste contains hazardous constituents and should be listed in Sections 261.31, 261.32 and 261.33 (45 FR 74889; November 12, 1980 and 52 FR 25942; July 9, 1987).

Section 3004(m) of RCRA gives EPA the authority to develop treatment standards to diminish the toxicity of the waste or reduce the likelihood of migration of hazardous constituents. Therefore, EPA is not limited to regulating only those hazardous constituents for which a waste is listed and may develop treatment standards for additional constituents to protect human health and the environment (54 FR 26603; June 23, 1989 and 61 FR 15585; April 8, 1996). Because of this, zinc, vanadium, and fluoride appear in the UTS table in Section 268.48. However, since they do not appear in Appendix VIII, these constituents are not included in the definition of UHC.