

RCRA/SUPERFUND HOTLINE MONTHLY REPORT
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2. Land Disposal Restrictions (LDR) Treatment Standards and Disposal Options for Contaminated Soil

The alternative land disposal restrictions (LDR) soil treatment standards in 40 CFR §268.49 require that all constituents subject to treatment (i.e., §248.48 underlying hazardous constituents (UHCs), except fluoride, selenium, sulfides, vanadium, and zinc, that are reasonably expected to be present in any given volume of contaminated soil at concentrations greater than 10 times the universal treatment standard (UTS)) be treated to a 90 percent reduction capped at 10 times the UTS level. Soils that exhibit a toxicity characteristic may be treated to meet this alternative standard, yet still exhibit a characteristic of hazardous waste (i.e., a hazardous constituent is above the toxicity characteristic level). Can a facility land dispose this soil, without further treatment, in a Subtitle C or D facility?

If a hazardous contaminated soil exhibits a toxicity characteristic when it is generated, then once this soil:

- meets LDR treatment requirements, AND
- is decharacterized,

the soil may be disposed in a Subtitle D landfill or placed back on the land. If, however, a hazardous contaminated soil exhibits a toxicity characteristic when it is generated and this soil:

- meets LDR treatment requirements, BUT
- is not decharacterized (i.e., key constituents are still above TC level),

then the soil must be disposed in a Subtitle C landfill.

Consider the following scenario: A soil exhibits the toxicity characteristic for lead when generated. The initial concentration of lead in the soil is 40 mg/L TCLP, and there are no UHCs present at the point of generation. When the owners and operators of the facility apply the Phase IV alternative soil treatment standards, they have two options:

- OPTION 1: 90 percent reduction ($40 \text{ mg/L TCLP} * 0.10 = 4 \text{ mg/L TCLP}$)
- OPTION 2: $10 * \text{UTS}$ ($10 * 0.75 \text{ mg/L TCLP} = 7.5 \text{ mg/L TCLP}$)

If facility chooses OPTION 2 (7.5 mg/L TCLP), then while the soil meets LDR treatment requirements (10 * UTS), it is still characteristic for lead, as 7.5 mg/L TCLP is greater than 5.0 mg/L TCLP. In this situation, the owners and operators must dispose the soil in a Subtitle C facility. If the owners and operators want to dispose the soil in a Subtitle D facility (or place it back on the land), then they must treat the lead to 5.0 mg/L TCLP or less.

In addition, the soil treatment standards mandate that all ignitable, reactive, and corrosive soils must be treated to remove the characteristic, and for all hazardous constituents before land disposal (§268.49(c)(2)). For example, a facility generating an ignitable soil that is also characteristic for lead (i.e., D001 and D008) must deactivate the soil so it is no longer ignitable, and treat the lead and any other constituents subject to treatment to 90 percent reduction capped at 10 times the UTS level before the soil can be disposed in either a Subtitle C or a Subtitle D facility. To be eligible for disposal in a Subtitle D facility, the soil must no longer exhibit any characteristic of hazardous waste.

Finally, the alternative soil treatment standards are not automatically effective in all states since these treatment options are less stringent than the waste-specific treatment standards (63 FR 28635; May 26, 1998).