

**Attachment E**

**TOXICITY CHARACTERISTIC  
RULE, SUBTITLE C, RCRA –  
MAXIMUM CONCENTRATION OF  
CONTAMINANTS FOR TOXICITY  
CHARARACTERISTIC AS  
DETERMINED USING TCLP**

**AND**

**DADE COUNTY DEPARTMENT OF  
ENVIRONMENTAL RESOURCES  
MANAGEMENT (DERM) SOIL  
DISPOSAL CRITERIA AND CLEAN  
SOIL CRITERIA/CLEAN  
BACKFILL CRITERIA**

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**DEPARTMENT OF ENVIRONMENTAL RESOURCES MANAGEMENT (DERM)**  
**INTERIM CLEAN SOIL CRITERIA**

**ORGANICS:**

VOH's <sup>a</sup>	<50	ug/kg
VOA's <sup>b</sup>	<100	ug/kg
PAH's <sup>c</sup>	<1	mg/kg
FL-PRO <sup>d</sup>	<50	mg/kg

**INORGANICS:**

SPLP/TCLP <sup>e</sup> As:	<0.01 mg/l	SPLP/TCLP <sup>e</sup> Pb:	<0.015 mg/l
SPLP/TCLP <sup>e</sup> Ba:	<2.00 mg/l	SPLP/TCLP <sup>e</sup> Hg:	<0.002 mg/l
SPLP/TCLP <sup>e</sup> Cr:	<0.100 mg/l	SPLP/TCLP <sup>e</sup> Se:	<0.050 mg/l
SPLP/TCLP <sup>e</sup> Cu:	<1.00 mg/l	SPLP/TCLP <sup>e</sup> Cd:	<0.005 mg/l
SPLP/TCLP <sup>e</sup> Ni:	<0.100 mg/l	SPLP/TCLP <sup>e</sup> Ag:	<0.100 mg/l

- a. Total Volatile Organic Halogens by EPA Method 8021B.
- b. Total Volatile Organic Aromatics by EPA Method 8021 B.
- c. Total Polynuclear Aromatic Hydrocarbons by EPA Method 8100.
- d. Petroleum Range Organics by FDEP Method FL-PRO.
- e. Synthetic Precipitation Leaching Procedure (SPLP) by EPA Method 1312/Toxic Characteristic Leachate Procedure (TCLP) by EPA Method 1311. SPLP/TCLP criteria are based on Miami-Dade County Chapter 24-11.1(2)(E), Environmental Protection Ordinance Cleanup Target Levels, and State of Florida groundwater standards. If the soil has originated from an area that has been impacted by oily waste, TCLP must be used; otherwise, either SPLP or TCLP may be utilized. If total metal concentrations are less than twenty (20) times the SPLP/TCLP criteria or the best achievable Method Detection Limit, as approved by DERM, the SPLP/TCLP requirement may be waived. SPLP/TCLP analytical reports shall include the final pH of the extract.

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**Clean Soil Application Limitations:**

1. Sample collection must be in accordance with the Standard Operating Procedure established by Chapter 62-713, F.A.C., or a DERM-approved sampling plan. Sufficient sample must be collected and retained under proper storage conditions such that selected samples may be analyzed for both total and SPLP/TCLP constituents, as appropriate.
2. For organic compounds, in addition to meeting the total VOH, VOA and PAH criteria provided above, individual constituents must also be equal to or below the lower of the Residential Direct Exposure Goals (DEGS) and applicable Leachability Goals (LGs) provided in the Soil Cleanup Target Levels (SCTLS) for Miami-Dade County Chapter 2411.1(2)(E), Environmental Protection Ordinance.

For inorganic compounds, in addition to meeting the TCLP/SPLP criteria, selected samples must be analyzed for total metals. Total metal concentrations must be equal to or below the DEGs provided in the SCTLs for Miami-Dade County Chapter 24-11.1(2)(E), Environmental Protection Ordinance.

**Clean Soil Application Limitations (continued):**

3. DERM has the option to split any samples deemed necessary with the consultant or laboratory at the subject site. The consultant collecting the samples must have a current Florida Department of Environmental Protection (FDEP) approved Comprehensive Quality Assurance Plan (CompQAP). The laboratory analyzing the samples must have a Florida HRS certification and a current FDEP approved CompQAP. If the data that are subsequently submitted exhibit a substantial variance from the DERM split sample analyses, a complete resampling using two independent certified laboratories will be required.
4. The above listed parameters constitute the normal sampling/analytical requirements for **soils** considered for Clean Soil designation. Certain constituents may be added to or deleted from the list depending on site-specific conditions. Therefore, please contact the appropriate DERM Project Manager at (305) 372-6804 prior to sample collection.
5. Soil sample results must be reported on dry weight basis.
6. The quantities of soil to be disposed may affect the possible disposal alternatives.
7. All hazardous wastes must be disposed at an EPA approved facility. All other contaminated soils will be evaluated by DERM for disposal at alternate facilities.
8. **These criteria are considered interim at this time.** New clean soil criteria will be provided in 2002, which will consider natural background soil concentrations in Miami-Dade County. Therefore, please consult DERM prior to sample collection or data transmittal in 2002.
9. Since groundwater is assumed not to have been adversely impacted by soils meeting these criteria, there are no specific groundwater monitoring requirements. However, since the potential for ecological impacts from soils meeting these criteria has not been evaluated, soils **cannot** be reused in wetlands or surface bodies of water.

REVISED July 2, 2001