



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT

FORM FC-1

NOTIFICATION OF INTENT TO DISPOSE OF SOIL CONTAMINATED BY VIRGIN PETROLEUM FUEL

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided herein.

This form shall be utilized for disposal at facilities permitted to accept this waste stream under the facility's Waste Analysis and Classification Plan or as part of a permit modification.

SECTIONS A and B. Self Explanatory

SECTION C. WASTE DESCRIPTION (Must be completed by waste generator)

B. Chemical Analysis

Attach report sheets from the laboratory that include: date of sampling, date of analysis, analytical results, reference to analytical methods used, name and address of laboratory performing analysis, laboratory accreditation number, contact person and telephone number, and signature of laboratory representative certifying that the information reported is correct.

1. Volatile Organic Field Screening - At least one grab sample must be taken at random for each 25 cubic yards of soil up to 1000 cubic yards. For soil greater than 1000 cubic yards, at least 40 grab samples plus one grab for each 100 cubic yards or fraction thereof in excess of 1000 cubic yards shall be taken such that each one represents approximately equal portions of soil. Each sample must be analyzed immediately upon sampling or must be placed, immediately upon sampling, into a jar or impermeable bag in a manner to exclude headspace, sealed, and analyzed within three hours of sampling. Screening may be done using EPA Method 4030, or by headspace volatiles determination (using photoionization or flame ionization detection), or another appropriate screening method if pre-approved by the Department.

For soil contaminated with oil containing insignificant amounts of volatile organics, such as bunker oils, visual screening may be used, if pre-approved by the Department.

2. Sampling - Attach a detailed description of the sampling method, including the field screening

and results as required by B1 above in 1, a map of the spill or cleanup site, and a diagram of the sample collection area. Sampling must be done following EPA SW-846 protocol. The top 12 inches of soil should be removed prior to sampling.

- a. For parameters in 1a, 1b, 1c, 3, 4, 5, and 6, each grab sample must be placed, immediately upon sampling, into a jar in a manner to exclude headspace, sealed, and stored at <math><4^{\circ}\text{C}</math> for a maximum of 7 days prior to extraction.

At least two grab samples or one grab sample for every 250 cubic yards of soil or fraction thereof, whichever is greater, shall be taken from the most highly contaminated areas identified by the field screening results in B1. (For example, 600 cubic yards of soil would require a total of three samples, one from each of the three most contaminated areas as identified by screening. If five samples were taken instead, they must be taken from the five most contaminated areas.)

In lieu of field screening, for up to 100 cubic yards, a minimum of one grab sample for each 50 cubic yards of soil or fraction thereof must be taken. For quantities exceeding 100 cubic yards, one grab sample for each additional 100 cubic yards of soil must also be taken. At least one additional grab sample must be taken from an area representing the most highly contaminated soil (based upon visual observation).

- b. For the parameters in 1d and 2 only, grab samples may be composited up to one composite for every 250 cubic yards. At least four grab samples must be taken for each composite sample.
3. Chemical Analysis - Samples should be run as received for determinations in a, b, and c. Report all results on a dry weight basis.

- a. For gasoline-contaminated soil, use modification of EPA Method 418.1 in API Publication No. 4449, Appendix B-3 (centrifuge freon if emulsions form), API's "Method for Determination of Gasoline Range Organics" or API's "Method for Characterization of Petroleum Hydrocarbons in Soil."

For soil contaminated with diesel fuel, use API's "Method for the Determination of Diesel Range Organics," or API's "Method for Characterization of Petroleum Hydrocarbons in Soil" or the method for soil contaminated with other types of petroleum fuels given below.

For soil contaminated with other types of petroleum fuels, use EPA Methods 3560 and 8440, or Method 9071B (Do not distill off solvent) with infrared detection from **Standard Methods for the Examination of Water and Wastewater**, 20th Ed., Methods 5520C and 5520F.

- b. Aromatic Volatile Organics - EPA Methods 5035B and 8021B, including, but not limited to, the following parameters:

benzene, toluene, xylenes, ethylbenzene and BTXE (total).

- c. Total Organic Halogen (TOX)

EPA Methods 3540C (hexane exchange solvent) and 9020B or a modified EPA Method 9077 (provided the procedure to be used is approved in advance by the Department).

- d. Total Lead - For gasoline-contaminated soil only (unless instructed otherwise by the Department), EPA Methods 3050B and 7420 or 7421.

4. If the total concentration of lead exceeds 50 mg/kg for soil to be disposed at a single-lined landfill or 100 mg/kg for soil to be disposed at a double-lined landfill or twenty times the landfill's maximum allowable level, a toxicity characteristic determination by TCLP for lead is required (EPA Methods 1311 and 7420 or 7421).
5. If the total analytical concentration of benzene exceeds 5 mg/kg for soil to be disposed at a single-lined landfill or twenty times the landfill's maximum allowable level, a toxicity characteristic determination by TCLP for benzenes is required (EPA Methods 1311 and 8021B). If the total analytical concentration of

benzene exceeds 10 mg/kg for soil to be disposed at a double-lined landfill, a toxicity characteristic determination by TCLP for benzene is required, unless exempt under 40CFR 261.4(b)(10) as incorporated by reference at 25 Pa. Code 261a.1.

SECTION D. CERTIFICATION OF WASTE GENERATOR

An application must be certified in the following manner.

1. Corporations – A corporate officer must sign the document and the corporate seal must be affixed.
2. Limited partnerships – A general partner must sign the document.
3. All other partnerships – A partner must sign the document.
4. Sole proprietorships – The proprietor must sign the document.
5. Municipal, state, or federal authority or agency – An executive officer or ranking elected official responsible for compliance of the authority's or agency's waste activities and facilities with all applicable regulations must sign the document.

SECTION E. CERTIFICATION OF OWNER/ OPERATOR OF DISPOSAL FACILITY

An application must be certified in the following manner.

1. Corporations – A corporate officer must sign the document and the corporate seal must be affixed.
2. Limited partnerships – A general partner must sign the document.
3. All other partnerships – A partner must sign the document.
4. Sole proprietorships – The proprietor must sign the document.
5. Municipal, state, or federal authority or agency – An executive officer or ranking elected official responsible for compliance of the authority's or agency's waste activities and facilities with all applicable regulations must sign the document.