Check one of the following: ☐ On-Site Storage of PCS ☐ Landfarming PCS ☐ Storage and Landfarming PCS

IOWA DEPARTMENT OF NATURAL RESOURCES

PETROLEUM CONTAMINATED SOIL LANDFARMING AND STORAGE NOTIFICATION FORM

Mulituse and single-use landfarming agencies shall submit the following notification form to the department and department field office with jurisdiction over the landfarm before land application; however, at least 30 days' notification is encouraged. Petroleum Contaminated Soil (PCS) from an emergency cleanup supervised by the department pursuant to subrule 120.6(1), however, shall be reported within 7 days of the emergency cleanup.

Send the completed application with attached information to:

Solid Waste Section
Land Quality Bureau
Iowa Department of Natural Resources
502 E 9th Street
Des Moines, IA 50319
Fax: (515) 725-8202

Visit http://www.iowadnr.gov/InsideDNR/DNRStaffOffices.aspx for a listing of field offices addresses and jurisdictions

Questions contact Amy Buckendahl at (515) 725-8350 or amy.buckendahl@dnr.iowa.gov

For information on Emergency Response Spills, call (515) 281-8694 or visit http://www.iowadnr.gov/InsideDNR/DNRStaffOffices/EnvironmentalFieldOffices/EmergencyResponseUnit.aspx

SECTION 1. CONTACT INFORMATION

Provide the name, address and telephone number for the following:

Landfarming Agency Owner(s)

Name: _____

Street Address: _____

City: _____ **State:** _____ **Zip Code:** _____

Phone Number: _____

IDNR Existing Permit Number for Agency: _____ **- SDP-** _____ **-PCS**

PCS Landfarming/Storage Location Owner

Name: _____

Street Address: _____

City: _____ **State:** _____ **Zip Code:** _____

Phone Number: _____

Legal Description of Property that will be Utilized for Landfarming/Storage:
(you may attach a legal description from your county assessor)

_____ ***¼ of*** _____ ***¼ of*** _____ ***¼*** _____ _____ **N** _____ ☐***E*** ☐***W*** _____
Section ***Township*** ***Range*** ***County***

SECTION 2: PCS LANDFARMING AND STORAGE INFORMATION

Petroleum product contaminating soil (check all that apply):

☐ Gasoline ☐ Diesel ☐ Waste Oil ☐ Kerosene ☐ Jet Fuel ☐ Other _____

* Note: Storage of non-standard PCS requires a permit amendment request

Predominant texture of the contaminated soil:

☐ Clay ☐ Sand ☐ Silt ☐ Gravel

☐ Other _____

Does PCS contain or have the potential to produce tar balls:

☐ Yes ☐ No

* PCS that has the potential to produce tar balls shall not be landfarmed

Estimated volume of PCS to be stored: _____ Cubic Yards

Date PCS is expected to be delivered for storage: _____

Date PCS is expected to be land applied: _____

Is this project part of a department-supervised emergency cleanup?: ☐ Yes ☐ No

If yes, provide the spill number _____

Petroleum Contaminated Site or Facility

Name: _____

Street Address: _____

City: _____ **State:** _____ **Zip Code:** _____

Phone Number: _____

Legal Description of Property that will be Utilized for Landfarming/Storage:
(you may attach a legal description from your county assessor)

_____ *¼ of* _____ *¼ of* _____ *¼* _____ *Section* _____ *Township* N _____ *Range* ☐*E* ☐*W* _____ *County*

Underground Storage Tank Owner, if applicable

Name: _____

Street Address: _____

City: _____ **State:** _____ **Zip Code:** _____

Phone Number: _____

UST Registration Number, if applicable: _____

LUST Registration Number, if applicable: _____

SECTION 3. NOTIFICATION FORM CHECKLIST

Checking the appropriate boxes below certifies that the attachments submitted in conjunction with this application form are complete and in compliance with the applicable chapters of the Iowa Administrative Code. While some of the attachments below may have been submitted previously, updated copies of each is required to be provided with each notification form.

Required Document	Attached
Section A. Topographical Map of Landfarm [IAC 567 Chapter 120.11(1) "b" (2)]	☐
Section B. Soil Map of Landfarm with Key [IAC 567 Chapter 120.11(1) "b" (2)]	☐
Section C. 100-Year Flood Plain Map [IAC 567 Chapter 120.11(1) "b" (2)]	☐
Section D. Map of Landfarm Plot to be Utilized [IAC 567 Chapter 120.11(1) "b" (2)]	☐
Section E. Application Rate Calculations Pursuant to 120.9(6) [IAC 567 Chapter 120.11(1) "b"(3)]	☐
Section F. Chemical Analysis of Petroleum Contaminated Soil [IAC 567 Chapter 120.11(1) "c"]	☐

SECTION 4. LANDFARMING AGENCY OWNER CERTIFICATION FOR LANDFARMING AND STORAGE OF PCS

I certify under penalty of law that I am the owner of the landfarming agency for which this Petroleum Contaminated Soil Landfarming and Storage Notification Form is submitted, and that I have examined and am familiar with the requirements of landfarming and storage of petroleum contaminated soil in accordance with Iowa Administrative Code 567-Chapter 120, and that the information I have provided is true, accurate and complete.

Signature: _____ **Date:** _____

Printed Name: _____

SECTION 5. LANDFARMING SITE OWNER CERTIFICATION FOR LANDFARMING AND STORAGE OF PCS

I certify I own the application or storage site for the petroleum contaminated soil referenced above and I understand the landfarming practices described in this notification must conform with the requirements contained in Iowa Administrative (IAC) Code 567-Chapter 120.

Signature: _____ **Date:** _____

Printed Name: _____

DOCUMENTS TO BE ATTACHED

SECTION A. TOPOGRAPHICAL MAP OF LANDFARM (ONLY APPLICABLE FOR SINGLE USE LANDFARM)

- ✓ **Provide a topographical map that includes at least a ¼ mile radius around the landfarm site. Clearly mark the following on the map:**

  a. **Application site boundary**
  b. **Water wells and occupied structures within ¼ mile of the application site**
  c. **Streams, lakes, ponds, drainage ditches, sinkholes and tile line surface intakes that are located within a ¼ mile of the application site**

SECTION B. SOIL MAP OF LANDFARM (ONLY APPLICABLE FOR SINGLE USE LANDFARM)

- ✓ **Provide a soil map with key showing where the PCS will be applied and the landfarm site boundary. <u>If PCS is planned to be stored, mark the location on the soil map.</u> Soil maps can be obtained from the local Natural Resource Conservation Service (NRCS) office.**

  PCS shall not be applied on Loamy Sand, Sand, and Silt for single-use landfarms and Clay, Sandy Clay, Sandy Clay Loam, Sandy Loam, Loamy Sand, Sand, and Silt for multiuse landfarms as classified by the USDA Textural Classification Chart for Soils. Soils in the operating area shall have a pH greater than 6 and less than 9, free of debris larger than 4 inches in diameter, and have a minimum of 6 feet of soil over bedrock.

SECTION C. FLOOD PLAIN MAP (ONLY APPLICABLE FOR SINGLE-USE LANDFARM)

- ✓ **Provide a 100-year flood plain map showing where the PCS will be applied and the landfarm site boundary.**

SECTION D. MAP OF LANDFARM PLOT TO BE UTILIZED (ONLY APPLICABLE FOR MULTIUSE LANDFARM)

- ✓ **Provide a map illustrating the multiuse landfarm site and indicating the landfarm plot which the PCS is to be applied.**

SECTION E. APPLICATION RATE CALCULATIONS PURSUANT TO IAC 567-120.9(6) (APPLICABLE TO SINGLE-USE AND MULTIUSE LANDFARM)

- ✓ **PCS shall be land applied at a rate that is as uniform as practical over an area sufficient to satisfy the greater of the following area requirements. However, PCS from an emergency cleanup supervised by the department pursuant to subrule 120.6(1) may instead be land applied at a rate of 162 ft^2 of landfarm area per cubic yard (yd^3) of PCS, that is as uniform as practical, and in which no layer of unincorporated PCS is thicker than 2 inches.**

  a. **Petroleum constituents. PCS shall be land applied over the largest area required by the following:**

     (1) **Benzene. PCS contaminated with benzene shall be land applied in accordance with Table 1. The average concentration of benzene in the PCS shall be used to determine the landfarm area (ft^2) required per cubic yard (yd^3) of PCS to be land applied. The average concentration of benzene shall be calculated from all soil boring test results that are within the PCS excavation area. The application shall be as uniform as practical over the area required.**

Table 1			
Average concentration of benzene (mg/kg)	Ft^2 of landfarm area per yd^3 of PCS applied	Maximum thickness of unincorporated PCS	Yd^3 of PCS per acre of landfarm
0 < mg/kg ≤ 10	81 ft2	4 inches	537 yd^3
10 < mg/kg ≤ 20	162 ft2	2 inches	268 yd^3
20 < mg/kg	324 ft2	1 inch	134 yd^3

     (2) **Toluene, ethylbenzene, xylene, and TEH-diesel. PCS that is not contaminated with benzene or MTBE, but is contaminated with toluene, ethylbenzene, xylene, THE-diesel, or some combination thereof, shall be land applied at a rate of 81 ft^2 of landfarm area per cubic yard (yd3) of PCS. The application shall be as uniform as practical, and no layer of unincorporated PCS shall be thicker than 4 inches.**

b. **Total heavy metals. PCS that has been tested for heavy metals pursuant to subparagraph 120.6(2)"c"(4) shall be applied at a rate that is as uniform as practical, that results in no layer of PCS is thicker than 4 inches, and that upon incorporation produces a landfarm soil that satisfies the following requirements. This analysis requires prior testing of background levels of heavy metals at the proposed landfarm site.**

   (1) **Total heavy metals are less than 2,500 milligrams per kilogram (mg/kg).**
   (2) **Any particular concentration of a heavy metal is less than the appropriate statewide standard for soil developed pursuant to 567—Chapter 137.**

SECTION F. CHEMICAL ANALYSIS OF PETROLEUM CONTAMINATED SOIL (APPLICABLE TO SINGLE-USE AND MULTIUSE LANDFARM)

✓ **The following analyses shall be performed. Samples shall be acquired, stored, handled, tested and reported in accordance with the required methodology and accepted scientific procedures. A laboratory certified for UST petroleum analyses pursuant to IAC 567-Chapter 83 shall test samples. The analysis shall utilize the most recent version of Method OA-1 (GCMS), "Method for Determination of Volatile Petroleum Hydrocarbons (Gasoline)," University of Iowa Hygienic Laboratory.**

a. **BTEX testing. The PCS shall be tested for benzene, toluene, ethylbenzene and xylene.**
b. **TEH-diesel testing. The PCS shall be tested for total extractable hydrocarbons.**
c. **MTBE testing. The PCS shall be tested for methyl tertiary-butyl ether unless prior analysis at the site, pursuant to IAC 567-Chapter 135.15(455B), has shown that MTBE is not present in the soil or groundwater.**
d. **Total metals testing. If the history of the petroleum contaminated site is known to have included solvents, batteries, leaded fuel, waste oil or a gas station in operation prior to 1985, then the PCS shall be tested for total Resource Conservation and Recovery Act (RCRA) metals.**