EP-5 Landfarming & Landtreating Technical Permitting Application Sheet

SUBCHAPTER A
DIVISION 7. ADDITIONAL REQUIREMENTS FOR LANDFARMING AND LANDTREATING

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§4.110. Definitions.

(50) Landfarming--An authorized or permitted waste management practice in which low chloride, water-based drilling fluids, or oil and gas wastes are mixed with, or tilled into, the native soils in such a manner that the waste will not migrate from the authorized or permitted landfarming cell.

(52) Landtreating--An authorized or permitted waste management practice in which oil-based drilling fluids, oil impacted soils, and oil and gas wastes are mixed with or tilled into the native soil to degrade oil, grease, or other organic wastes through biological processes and in such a manner that the waste will not migrate from the authorized or permitted landtreatment cell.

APPLICATION REQUIREMENTS

§4.160. Additional Requirements for Landfarming and Landtreating Permits.
The permit application for either landfarming and/or landtreating comply with Chapter 4, Subdivision A, Division 4 requirements for submitted information, in addition to additional information required for Division 7 landfarming and/or landtreatment permits.
☐ Yes ☐ No

§4.161 Design and Construction Requirements for Landfarming and Landtreating Permits.

§4.161(a)(1)(A)
The permit application includes a facility diagram showing two perpendicular, sectional views of all landfarming cells that will to be constructed, showing the bottom, sides, and dikes or berms of the cell with dimensions identified.
☐ Yes ☐ No

§4.161(a)(1)(B)
The permit application facility diagram accounts for all locations and dimensions of all areas where landfarming and landtreating will occur, including dikes, well locations, fences, and access roads, taking into consideration the restrictions found in **§4.161(a)(1)(B)(i & ii).**
☐ Yes ☐ No

§4.161(a)(1)(B)(i)
The permit application facility diagram shows a minimum 50-foot buffer zone maintained between the boundaries of the property and the treatment cells, measured from the toe of the constructed berm to the property boundary.
☐ Yes ☐ No

§4.161(a)(1)(B)(ii)
The permit application facility diagram shows a minimum 300-foot buffer zone maintained between the toe of the constructed berms and any drainage features or surface waters.
☐ Yes ☐ No

§4.161(a)(2)
The permit application information submitted demonstrates that the area has at least 20 inches of tillable soil that is suitable for the application, treatment, containment, and disposal of oil and gas waste.
☐ Yes ☐ No

§4.161(a)(3)(A-D)
The permit application includes all of the information requested by §4.161(a)(3)(A-D).
☐ Yes ☐ No

(A). The volume and characteristics of the oil and gas waste to be managed.
(B). Depth to and quality of the shallowest groundwater.
(C). Distance to the nearest property line or public road.
(D). Proximity to coastal natural resources, sensitive areas, water supplies, and/or public domestic, or irrigation water wells.
(E). Any other factors reasonably necessary to determine whether issuance of the permit will pose a threat of pollution or a threat to public health or safety.

§4.161(c)
Denial of the permit application will occur if any of the following 8 conditions are found to occur:

(1) The facility is within a 100-year flood plain;
(2) The facility is within 300 feet of surface water bodies;
(3) The facility is within 300 feet of domestic or irrigation water wells;
(4) The facility is within 500 feet of public water system wells or intakes;
(5) The facility is on unsuitable soils for depth or treatment of oil and gas waste;
(6) The facility is within any other sensitive area as defined by §4.110 of this title;
(7) The facility is within 500 feet of a public area; or
(8) The facility is non-compliance with the current permit.

Are any of the §4.161(c)(1-8) conditions believed to occur?
☐ Yes ☐ No

§4.162 Operational Requirements for Landfarming and Landtreating Permits

§4.162(a) Application
The permit application contains all 10 items of information for the operating information
☐ Yes ☐ No

(1) the estimated chloride concentration of the waste to be accepted at the facility;
(2) the procedure by which waste will be mixed into the soil;
(3) waste to soil application rates;
(4) the frequency of soil tilling;
(5) the maximum depth to which waste will be tilled;
(6) documentation on any soil amendments or microbes to be used;
(7) plans for monitoring and testing the landfarming area, and other appropriate procedures to ensure the treatment of organic constituents and prevention of pollution;
(8) the estimated duration of landfarming activities;
(9) the total cumulative volume of waste, in barrels, to be landfarmed over the active life of the operation or active cells; and
(10) the total cumulative height of waste, in inches, to be landfarmed over the active life of the operation or active cells.

Additional Information That May Be Requested by the Director and Allowed by Rule

§4.161(a)(3)
The applicant shall submit information sufficient for the Director to determine whether the proposed facility will pose a threat of pollution or a threat to public health or safety. The Director will consider the following factors found in §4.161(a)(3)(A-E) when determining

whether the proposed facility presents a threat of pollution or a threat to public health or safety.

§4.161(a)(3)(E). Any other factors reasonably necessary to determine whether issuance of the permit will pose a threat of pollution or a threat to public health or safety (It may be helpful to the applicant and future facility operations if the permit application includes baseline soil sampling following §4.163(a-c) and reporting the analytical soil results following §4.163(e)(1-5) before any waste application is applied, showing at a minimum, analytes and measurements found in §4.163. Monitoring, (d)(4)).

§4.161(b) Berm Construction

All berms shall be constructed and maintained:

(1) to fully enclose each landfarming cell area;
(2) to a height of at least 36 inches above land surface with a slope no steeper than a one to three (vertical to horizontal) ratio on each side;
(3) so that at least two feet of freeboard plus capacity to contain the volume of precipitation from a 25-year, 24-hour rainfall event is available; and
(4) as otherwise required by the permit.

General Permit Provisions by Rule

§4.162 (b) Operating requirements. A landfarming or landtreating permittee shall comply with the following requirements.

(1) Prior to waste application, the permittee shall thoroughly disk the entire landfarming or landtreating area and shall otherwise prepare the area by adding fertilizer, lime, and/or other agricultural chemicals, if needed.

(2) A landfarming or landtreating permittee shall comply with the following waste application requirements.

(A) The permittee shall apply the waste to each landfarming cell to prevent the pooling or migration of the waste outside of the approved landfarming cell and to prevent the waste from entering any watercourses or drainageways, including any drainage ditch, dry creek, flowing creek, river, or any other surface water.

(B) The total cumulative volume of waste applied to any landfarming cell over its lifetime shall not exceed the permitted volume.

(C) The permittee shall maintain freeboard of at least two feet plus capacity to contain the volume of precipitation from a 25-year, 24-hour rainfall event.

(D) The permittee shall ensure that the waste is uniformly dispersed across the landfarming or landtreating area and the waste is fully and evenly incorporated into the top six inches of soil. The waste shall be mixed with the soil within 24 hours of waste application. Any active cell shall be disked once a month thereafter until the cell is closed in accordance with the permit.

(E) The permittee is prohibited from applying waste to the cells during periods of rainfall.

(3) Any standing or pooled rainwater or other liquid in a landfarming cell or within the perimeter berm shall be removed within 72 hours and disposed of in an authorized manner. Contact stormwater may be disked into a landfarming cell with prior written approval from the Director.

(4) Land application of contact stormwater outside of a permitted landfarming cell is prohibited.

(5) Any spills of waste or any other materials shall be promptly containerized and disposed of in an authorized manner.

(6) Vehicle access into each cell shall be at a location where the stormwater surface flow cannot enter the treatment cells.

§4.163. Monitoring.

(a) The operator shall monitor three soil zones in each landfarming cell at the following frequency:

(1) the surface treatment zone from the ground surface to a depth of 12 inches below land surface shall be sampled and analyzed quarterly;

(2) the waste treatment zone from 12 to 24 inches below land surface shall be sampled and analyzed quarterly; and

(3) the compliance monitoring zone from 24 to 36 inches below land surface shall be sampled and analyzed annually.

(b) The operator shall collect samples from each active cell as follows:

(1) The District Office shall be notified by phone or email at least 48 hours prior to any sampling event.

(2) Each active cell shall be divided into four-acre plots or other plot size as defined in the permit.

(3) The applicant shall take at least one composite sample for each treatment zone in each plot by subdividing each plot into four equal-sized quadrants.

(A) One composite sample of the surface treatment zone in each plot shall be made from four individual grab samples collected from the surface treatment zone of each quadrant.

(B) One composite sample of the waste treatment zone in each plot shall be made from four individual grab samples collected from the waste treatment zone of each quadrant. (C) One composite sample of the compliance monitoring zone in each plot shall be made from four individual grab samples collected from the compliance monitoring zone of each quadrant.

(c) The operator shall analyze samples from each active cell according to the analysis requirements specified in the permit.

(d) If any composite sample exceeds any limitations specified by the permit or in the figure in this subsection, the operator shall remediate the parcel where the sample was collected as follows.

(1) The plot shall be tilled.

(2) The operator shall collect a composite sample from the four quadrants of the plot and re-analyze the sample for the parameter for which the limitations were exceeded.

(3) The operator shall re-till and resample the plot no less than once per month until the sample analyses indicate that the parameter limitations are not exceeded.

(4) If the parcel exceeds the limitation after six months of sampling, that plot is not authorized to accept additional

waste until a sample analysis does not exceed the particular limitation.

(e) Documentation of the sampling and analysis shall be filed with the Technical Permitting Section and the District Office as part of the quarterly report required by the permit. A summary of the soil sampling required by the permit shall include:

(1) a map drawn to scale with coordinates of the sampling locations;

(2) a table indicating the results of the parameters sampled;

(3) the date of sampling;

(4) the approximate depth of the sample below land surface and corresponding zone; and

(5) copies of the laboratory analytical reports and the corresponding chain of custody.

§4.164. Closure.

(a) The permittee shall notify the Technical Permitting Section and the District Office in writing at least 45 days prior to commencing closure of any landfarming cell.

(b) The permittee shall submit a detailed closure plan to the Technical Permitting Section. The Technical Permitting Section must approve the closure plan before the permittee may commence closure of any cell. The composite samples required by §4.163 of this title (relating to Monitoring) shall not exceed the limitations specified by permit before the Technical Permitting Section will approve closure of the cell.

(c) Once the Technical Permitting Section approves closure of a cell, the permittee shall level any berms and grade the area in accordance with the following requirements.

(1) All landfarming cells shall be graded and contoured to prevent rain from collecting or pooling at the former cell locations after closure; and

(2) To the extent practicable, all landfarming cells shall be contoured to original grade and reseeded and/or revegetated with ground cover appropriate for the geographic region.