RESPONSE TO COMMENTS
TRIPLE M LANDFARM
SIMPSON COUNTY, KENTUCKY
PERMIT RENEWAL
AGENCY INTEREST 3981 APE20230003
March 13, 2024

Background: The Kentucky Energy and Environment Cabinet (Cabinet) received an application for the renewal of a Solid Waste Landfarm Class II permit for Triple M Land Farms, Inc. on May 11, 2023 (APE20230003). This renewal proposed to extend the expiration date of the permit to December 4, 2028. The Cabinet published a Notice in the Franklin Favorite on May 16, 2023 and again on October 26, 2023 requesting public comments.

The following are the comments received during the comment period. The response follows the comments.

Comment 1: A commentor stated that, according to the permit, the facility is approved to accept petroleum-contaminated waste streams that are not hazardous wastes. The land application of petroleum-contaminated soils and petroleum-contaminated wastewaters does not fall within the scope of those activities for which a Class II "landfarming permit" can be issued under 401 KAR Chapter 47 and 48, and issuance of the Class II SW Landfarming permit would be contrary to law.

401 KAR 47:080 Section 2 divides solid waste permits into classes, and provides in pertinent part as follows:

> "(4) Landfarming permit. Landfarming is a category of solid waste site or facility where solid waste is applied to the soil surface or injected into the upper layer of the soil to improve soil quality or provide plant nutrients. Solid wastes suitable for this purpose include, but are not limited to, food processing waste, municipal sewage treatment plant sludge, and municipal water treatment plant sludge. The technical requirements for landfarming facilities are found in 401 KAR 48:200."

Absent a demonstration supported by sound scientific information, that soils and wastewaters contaminated by benzene, toluene, xylene, ethylbenzene, MTBE and other compounds typically found in gasoline, and UST corrective action soils and wastewaters, "improve soil quality or provide plant nutrients,"… the facility cannot be classified as a "landfarming" facility and be issued a landfarming permit to land apply such wastes.

Comment 2: A commentor remarked that materials allowed to be accepted by the facility include "Soil," which is defined in the permit to include: "silt, sand, clay, gravel, concrete and asphalt; fiber,

clay or polymeric absorbent media; bulking agents including clean, preservative and paint-free mulch, wood chips, sawdust or approved coal-combustion byproducts; and incidental contaminants including plastic, piping and other extraneous materials commonly encountered in leaking underground storage tank remediation or spill response wastes."

In parallel to the first comment, the comment continued that absent a demonstration that each of the extraneous materials misclassified as "soil" by the Cabinet, (including but not limited to concrete, asphalt, and plastic piping) improve soil quality and provide plant nutrients, the facility cannot be classified as a "landfarming" facility and be issued a landfarming permit to land apply such wastes.

Comment 3: A commentor stated that "the definition of "soil" in the last permit included numerous materials that are in fact and under any fair legal or scientific definition not soil, such as concrete and asphalt, should be revised to exclude materials and wastes that are not, in fact, soil in any geologic sense."

Comment 4: A commentor said that the land application of petroleum contaminated soils for the purpose of "treatment" of the contaminant levels, constitutes a "petroleum-contaminated soil facility" subject to regulation under 401 KAR 48:205, and the Cabinet is obligated to require strict compliance with those provisions of that regulation that are applicable to all such facilities, including this facility.

Comment 5: A commentor stated a "petroleum-contaminated soil treatment facility," is defined to be a "solid waste site or facility where petroleum-contaminated soil is treated to reduce contaminant concentrations to or below the levels established" by that regulation. Since the contaminated soils at the Triple M facility are being "treated" and then excavated for disposal elsewhere, the facility is not "landfarming" the wastes, which is defined as landspreading of wastes for disposal, but is instead engaging in "treatment" of the petroleum-contaminated soils followed by excavation and shipment off-site. As such, the facility is required by law to comply with the technical standards of 401 KAR 48:205, which applies, according to Section 2 of that regulation, to "any person conducting treatment of excavated petroleum- contaminated soils".

Comment 6: A commentor said the technical standards of 401 KAR 48:205 apply according to Section 2 of that regulation, to "any person conducting treatment of excavated petroleum-contaminated soils" and therefore does not allow the Cabinet to grandfather or exempt in whole or in part those facilities in existence when the regulation was adopted.

Comment 7: A commentor stated that the "operational, closure, post-closure, corrective action, and monitoring requirements of the facility must be upgraded to reflect the requirements of 401

KAR 48:205, and any additional land application of petroleum-contaminated soils permitted in the absence of excavation of existing cells containing such soils and proper installation of a composite liner, is contrary to the Cabinet's regulations. Full compliance with 401 KAR 48:205 is mandated by the plain language of the "applicability" section of that regulation, and reissuance of the permit in the absence of conditions requiring strict compliance would be contrary to law."

Comment 8: A commenter said that there can be no legal question as to whether this facility is obligated to comply with the technical standards and all other obligations of 401 KAR 48:205 and related regulations at 401 KAR 48:206, 207, and 208. For 401 KAR 47:205, which regulation defines the contents of the application for permits for petroleum-contaminated soil treatment facilities, defines the applicability **and limits the exceptions** of the regulation, providing plainly that:

> (1) Except as provided in subsection (2) of this section, this administrative regulation shall apply to all applicants for a petroleum-contaminated soil treatment facility.
>
> (2) Owners or operators of petroleum-contaminated soil treatment facilities operating under a Class III landfarming permit, in effect prior to October 6, 2011, shall be exempt from the requirements of 401 KAR 48:205 and this administrative regulation unless:
> (a) The facility is required to perform groundwater corrective action in accordance with 401 KAR 48:300, Section 8;
> (b) A major modification application is filed with the cabinet to expand the waste boundary, in which case the new area shall meet the requirements of 401 KAR 48:205 and this administrative regulation; or
> (c) A renewal application is not approved pursuant to 401 KAR 47:130, Sections 5 through 7 and 47:160, Section 5.

401 KAR 47:205 Section 3.

The Triple M Landfarming facility is a **Class II** landfarm, according to the draft permit, and is thus ineligible for the exception created in 401 KAR 47:205 Section 3(2). As such, it must comply with the full permitting requirements of 401 KAR 47:205 and all technical and other standards of 401 KAR 48:205 through 208.

Comment 9: A commentor stated that because the TMLF facility is a Class II landfarm, the permit renewal can occur **only** if the authorization for operation in Numerical Paragraph 22, and any other language in the draft permit renewal allowing the receipt and treatment of any soils falling within the definitions of 401 KAR 47:205 Section 1(3), is removed so that the facility is no longer authorized to accept for treatment soils that are contaminated with petroleum.

Comment 10: A commentor said "Additionally, the allowance of land treatment of petroleum-contaminated soils by the Cabinet in cells that have nothing more than a compacted soil or clay

liner, create a distinct probability that petroleum constituents will migrate into the ground and groundwater beneath the facility, in potential violation of Cabinet regulations. The Cabinet is or should be well- aware that clay liners do not attenuate the movement of benzene into the subsurface and potentially into groundwater systems. Richard L. Johnson, John A. Cherry and James F. Pankanow published a paper titled *Diffusive Contaminant Transport in Natural Clay: A Field Example and Implications for Clay-Lined Waste Disposal Sites*, in **Environmental Science and Technology Vol. 23** (March 1989) pps. 340-349. In the article, the authors reflected on studies conducted on a five-year old landfill in southwestern Ontario by a Canadian-American team of scientists, to analyze the transport of organic chemicals in the subsurface. What the researchers found was that advective flow (which is the flow of fluids through the pore spaces in soil and which is the theory upon which the tight permeability clay liners are based and our landfills are designed) is not the dominant mode of migration of organic chemicals through clay liners. Rather, Fickean diffusion was found to be an important mechanism by which substantial quantities of organic chemicals move through clay landfill liners. Among the findings of the team was that diffusion will transport chemicals through a double clay liner even if the leachate collection system between the clay layers is working properly."

Comment 11: A commentor said "The Cabinet is prohibited by regulation from permitting "the land application of a solid waste that may present a threat to human health and the environment" and is to base the decision on the suitability of a particular waste for land application based, among other things, on "the likelihood that waste constituents shall contaminate surface water or groundwater, the potential for nuisances from odors or unsightly conditions, and the potential for the waste to harm human health or the environment." - 401 KAR 48:200. Absent an adequate liner system, and absent sufficient characterization of the complex hydrologic regime in which the Triple M facility is located, and installation of piezometers at locations where subsurface migration of contaminants would be detected if it occurred, it is quite possible that waste contaminant constituents such as benzene may contaminate surface and groundwater and may be undetected.

Comment 12: A commentor said that "In order to assure full compliance with environmental performance standards and to assure prevention of any nuisance conditions, the Cabinet should also require the applicant to demonstrate that the release of airborne constituents from the volatilization of constituents contained in petroleum-contaminated soils and wastewaters would not constitute a violation of 401 KAR 63:020."

Comment 13: A commentor requested "that the Cabinet respond to these above-stated concerns by requiring that the facility attain full compliance with all applicable regulations in 401 KAR Chapters 47 and 48. The facility is not eligible for classification as a "landfarming" facility, since the Cabinet acknowledges that the accepted wastes are not "applied to the soil surface or injected into the upper layer of the soil to improve soil quality or provide plant nutrients" as is required for a facility to be issued a "landfarming permit."

Comment 14: A commentor said that "The treatment of petroleum-contaminated soils and wastewaters that are then hauled off to other solid waste facilities for "reuse" (i.e. daily cover at a landfill) should be regulated under 401 KAR 47:205 rather than as a landfarming facility which is a facility for on-site disposal of waste. The Cabinet is requested to correct the past mischaracterization of the facility and to bring the facility into full compliance with siting, design, construction, operation, monitoring, and closure obligations appropriate for a petroleum contaminated soil treatment facility."

Comment 15: A commentor requested that the Cabinet deny the permit renewal and direct the facility to apply for a permit pursuant to 401 KAR 47:205 as well as bring the facility into full compliance with 401 KAR 48:205 through 208. Otherwise, the commentor requested the Cabinet adjust the draft permit to remove all authorization to accept petroleum contaminated soils.

Response: The Cabinet observes that the comments made by the Kentucky Resources Council (KRC) are substantially the same as, or identical to, public comments made by KRC during the original 2014 issuance of this permit and/or the 2019 reissuance of the permit. As the permit is proposed to be reissued without significant changes, the Cabinet hereby adopts and incorporates its previous responses to KRC's comments. The Cabinet further notes that there is pending litigation in the Cabinet's Office of Administrative Hearings, in which KRC, representing several neighbors of the Triple M facility, has challenged the 2014 and 2019 permit issuances. In that litigation, KRC has raised issues and arguments contained in its present comments, and the Cabinet expects that these issues and questions of law will be resolved in that litigation.

The permit was not changed in response to these comments.

Kentucky Energy and Environment Cabinet
Department for Environmental Protection
Division of Waste Management

PERMIT

Facility: **Triple M Land Farm Inc.**
665 Schweizer Rd
Franklin, KY 42134

Permittee: **Triple M Land Farm Inc**
665 Schweizer Rd
Franklin, KY 42134

Agency Interest: **Triple M Land Farm Inc**
665 Schweizer Rd
Franklin, KY 42134

The Division has issued the permit under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. This permitted activity or activities are subject to all conditions and operating limitations contained herein. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses or approvals required by this Division or other state and local agencies.

No deviation from the plans and specifications submitted with your application or any condition specified herein is allowed, unless authorized in writing from the Division. Violation of the terms and conditions specified herein may render this permit null and void. All rights of inspection by representatives of the Division are reserved. Conformance with all applicable Waste Management Regulations is the responsibility of the permittee.

Agency Interest ID #: **3981**

Solid Waste Permit #: **SW10700009**

County: **Simpson**

Permitted Activities:

Subject Item	Activity	Type	Status
ACTV001	Composting/10700009	Construction/Operation	Terminated
ACTV002	Research/Development/Demonstration Unit/10700009	Construction/Operation	Terminated
ACTV005	Landfarm Class II-SW/10700009	Construction/Operation	Active
ACTV006	Landfarm Type B-SpW/10700003	Construction/Operation	Terminated

PERMIT

Acreage Summary:

Waste Disposal Area (in Acres):

Activity	Disposal Area
Landfarm Class II-SW	41.20
Total Disposal Area	41.20
Total Permitted Area	77.30

Cost Estimate Summary:

Coverage Type	Cost Estimate	Effective	Comments
Closure	$846,963.00	03/13/2024	Approved under APE20230003

Financial Assurance Summary:

The owner or operator shall maintain the following financial assurance approved by the Division in compliance with KRS Chapter 224.40-650, KRS Chapter 224.50-862, 401 KAR 45:080, and 401 KAR 48:310:

Instrument Type	Instrument Number	Amount	Date Received	Comments
Letter of Credit	667161-77820	$846,963.00	10/02/2023	

First Operational Permit Effective Date: 06/19/1991 -- Research Development Demonstration Unit

Permit Effective Date: 12/05/2023

Permit Expiration Date: 12/04/2028

Permit issued: 03/13/2024

Sincerely,

Danny Anderson, P.E.
Manager, Solid Waste Branch

Permit Conditions:

Facility Information and/or Conditions
1. Cell 1 - 5.4 acres
2. Cell 2 - 5.6 acres
3. Cell 3 - 4.6 acres
4. Cell 4 - 4.6 acres
5. Cell 5 - 4.6 acres
6. Cell 6 - 5.1 acres
7. Cell 7 - 5.1 acres
8. Cell 8 - 5.0 acres
9. Storage area - 1.2 acres

Subject Items

ACTV0001 - Composting

Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:

1. 09-16-1997 - Composting SpW B Minor Modification (new activity at existing facility) APE19970002 - Approval Issued
2. 12-20-2004 - Composting SpW B Minor Modification - APE19970004 - Application Withdrawn
3. 12-20-2004 - Composting SpW B Minor Modification - APE19970005 - Application Withdrawn
4. 12-20-2004 - Composting Special Waste Type B permit terminated

ACTV0002 - Research/Development/Demonstration Unit

Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:

1. 06-19-1991 - New Activity, APE19900001 - Approval issued
2. 12-04-1991 - Modification, APE19910001 - Approval issued
3. 05-20-1993 - Renewal, APE19920003 - Approval issued
4. 05-20-1993 - Modification, APE19930002 - Approval issued
5. 02-25-1994 - Renewal, APE19930001 - Continuation Letter Issued
6. 08-26-1994 - Modifications APE19920002 and APE19930003 and Renewal APE19930001 - Withdrawn - Converted to Landfarm

ACTV0005 - Landfarm Class II-SW

Standard Requirements:

1. General: The owner or operator of a solid waste site or facility shall comply with KRS Chapter 224 and 401 KAR Chapters 30, 40, 47 and 48 for the construction and operation of solid waste facilities. [KRS 224.40-305]

2. Permit Renewal: The owner or operator of a solid waste facility shall submit a permit application for renewal at least 180 days prior to permit expiration unless permission for a later date has been granted in writing by the cabinet. [401 KAR 47:160 Section 5(2)]

Variances, Alternate Specifications and Special Conditions:

PERMIT

1. General: For the purposes of this permit, the term "soil", as allowed to be accepted by the facility, shall include silt, sand, clay, gravel, concrete and asphalt; fiber, clay or polymeric absorbent media; bulking agents including clean, preservative and paint-free mulch, wood chips, sawdust or approved coal-combustion by-products; and incidental contaminants including plastic, piping and other extraneous materials commonly encountered in leaking underground storage tank remediation or spill response wastes. [401 KAR 48:200 Section 8]

2. General: For the purposes of this permit, the term "food industry wastes" shall include biodegradable solid and special wastes from facilities that produce products for human or animal consumption, enzyme and nutritional supplement production, and animal rendering. [401 KAR 48:200 Section 8]

3. Compliance: The owner or operator shall submit the annual permit renewal fee of $1,000 for a Class II Solid Waste Landfarming Facility on or before December 31 each year, until facility closure is granted in writing by the cabinet. [401 KAR 47:090 Section 5]

4. Operation: The owner or operator shall properly control dust on haul roads and other areas to prevent a nuisance to surrounding areas. [401 KAR 48:090 Section 5(2)]

5. Operation: The owner or operator is approved to accept water treatment residuals from publicly-owned water treatment or industrial water treatment plants that have been characterized in accordance with 401 KAR 45:100 Section 6(20)(b) and do not exceed the Type B heavy metals concentrations; and grease trap and food industry wastes that are not hazardous wastes. Other industrial or commercial wastes shall be subject to approval on an individual basis in writing by the cabinet, based on ability of the waste to biodegrade and provide beneficial characteristics as a soil amendment or to enhance soil microbiological activity. The owner or operator shall, prior to or at the time the waste is accepted, obtain and have in possession laboratory analysis reports for Toxicity Characteristic Leaching Procedure (TCLP) results for all wastes that are not petroleum contaminated, or a certified statement from the generator declaring the waste to be non-hazardous. [401 KAR 47:120 Section 2]

6. Operation: The owner or operator shall not accept soil or water containing unknown contaminants. Identification of contaminants shall be by generator's knowledge, certified in writing, or by laboratory analysis. A copy of the signed certification or laboratory analysis report shall be obtained by the owner or operator on or before receipt of the waste at the facility. [401 KAR 48:200 Section 8]

7. Operation: The owner or operator shall maintain a vegetative cover over Treatment Cells 1, 2, 6, 7 and 8, when wastewater is being applied. The owner or operator shall also maintain soil fertility and soil pH in Treatment Cells 1, 2, 6, 7 and 8, in a manner consistent with good turf management practices. The owner or operator shall follow the recommendations of a qualified agronomic or horticultural professional or recommendations of the University of Kentucky Cooperative Extension Service Bulletins including AGR-1, Lime and Fertilizer Recommendations, and AGR-53, Lawn Fertilization in Kentucky. [401 KAR 47:120 Section 2]

8. Operation: The owner or operator shall limit the total non-petroleum fats, oils and grease placed in a treatment cell such that at no time does the total weight of fats, oil and grease exceed one (1) percent of the total weight of soil in the treatment cell. Wastes that exceed ten (10) percent fats by weight that are viscous semi-solids shall be uniformly spread to a depth no greater than one-half inch within 24 hours of placement in the cell. The owner or operator may employ shallow trenches in the soil being treated to aide in the distribution of viscous semi-solids. [401 KAR 48:200 Section 1(2)]

9. Operation: The owner or operator shall place or manage petroleum contaminated soil and water, water treatment residuals, and food industry wastes or other approved wastes greater than 0.5% (5,000 ppm) total solids in the Waste Storage Cell tanks and settling pond; and Treatment Cells 3, 4, and 5. The owner or operator may spray irrigate wastewater of up to 0.5% (5,000 ppm) total solids on Treatment Cells 1, 2, 6, 7, and 8. The owner or operator may treat incoming wastewater that exceeds 5,000 ppm total solids by settling or filtration prior to application to Cells 1, 2, 6, 7, and 8 when total solids no longer exceed 5,000 ppm. [401 KAR 47:120 Section 2]

10. Operation: The owner or operator shall apply wastewater on Treatment Cells 1, 2, 6, 7 and 8 at a rate not to exceed the rate of infiltration (no ponding or runoff) and shall apply no more than 5,000 gallons per acre per day when the soil temperature is fifty (50) degrees Fahrenheit or above and no more than 2,500 gallons per acre per day when the soil temperature is below fifty (50) degrees. Wastewater shall be applied for not more than two consecutive days with at least one day of rest before another application occurs. No applications shall occur during precipitation events, or when soils are frozen or saturated, or when one-half inch or more of precipitation is forecast within the next twenty-four hours. A daily log of spray irrigation operations shall be maintained at the facility and made available to the cabinet for inspection upon request. [401 KAR 47:120 Section 2]

11. Operation: The owner or operator shall not apply hydrocarbon contaminated water on Treatment Cells 1, 2, 6, 7 and 8 if the concentrations of hydrocarbon contaminants exceed the Groundwater Table 3 criteria of the Classification Outline for underground storage tank investigations, pursuant to 401 KAR 42:080. [401 KAR 47:120 Section 2]

12. Operation: The owner or operator shall apply wastes to Treatment Cells 3, 4, and 5 in a manner appropriate to the physical characteristics of the waste being placed. Such methods shall include spray irrigation or direct placement, provided the waste is spread uniformly over the cell. [401 KAR 47:120 Section 2]

13. Operation: The owner or operator shall not apply food processing wastewater on Treatment Cells 1, 2, 6, 7 and 8 that contains sugars or starches, or fats, oils or grease of animal or vegetable origin, at a rate that would exceed five-hundred (500) pounds per acre per day of biochemical oxygen demand (BOD). [401 KAR 47:120 Section 2]

14. Operation: The owner or operator shall monitor soil in Treatment Cells 1, 2, 6, 7 and 8 annually for total phosphorus, total potassium, pH, and total petroleum hydrocarbons (TPH). Only cells receiving waste in the previous 12 months are required to be tested. The owner or operator shall include analytical results in annual reports submitted to the cabinet. [401 KAR 47:120 Section 2]

15. Operation: The owner or operator shall maintain a minimum soil pH (water or paste) of 6.2 SU, and a maximum of 7.5 SU in Treatment Cells 1, 2, 6, 7 and 8. The owner or operator shall cease applying water containing phosphorus if the concentration of phosphorus in the soil in Treatment Cells 1, 2, 6, 7 and 8 is equal to or greater than 400 pounds per acre. [401 KAR 47:120 Section 2]

16. Monitoring: The owner or operator shall monitor treated soil for the following, prior to removal from treatment cells: (1) BTEX and PAH in accordance with the Soil Table C limits in the Classification Outline incorporated by reference in 401 KAR 42:080. (2) Fats, oils and grease, EPA method 9071B. (3) Total lead. (4) Contaminants of concern identified in wastes which have been placed in the treatment cell. Soil will be considered suitable for removal from treatment when concentrations of petroleum constituents are at or below the Soil Table C limits; fats, oils and grease are at or below one-hundred (100) mg/kg, Total Lead concentration is at or below two-hundred and fifty (250) mg/kg and other contaminants are at or below the US EPA Region 3 Regional Screening Levels for residential soil. [401 KAR 48:200 Section 8, 401 KAR 47:120 Section 2]

17. Operation: The owner or operator shall not accept hazardous or toxic wastes, discarded fuels, solvents, coatings, or lubricants, improperly labeled wastes, waste containing creosotes or other wood preservatives, pesticides, herbicides, or chlorinated hydrocarbons. No wastewaters may be accepted that contain more than fifty (50) mg/L of surfactants as determined by EPA Method 425.1, or that have a Sodium Adsorption Ratio (SAR) above 10.0, or a chloride concentration greater than 1200 mg/L. [401 KAR 48:200 Section 8]

18. Operation: Upon placement of petroleum contaminated soil in a treatment cell, the owner or operator shall provide optimal conditions for enhancement of microbial growth, including total nitrogen above fifty (50) mg/kg, orthophosphate above five (5) mg/kg, soil pH between 6.0 and 8.0 SU, and soil moisture between 40 and 85 percent of field capacity (12 to 30 percent by weight). The owner or operator shall maintain a minimum of forty (40) percent moisture for a minimum of thirty (30) days when the temperature of the soil in treatment is at or above fifty (50) degrees Fahrenheit, and a minimum of sixty (60) days when the soil temperature is below fifty (50) degrees F. The owner or operator shall till soil in treatment no less than once every thirty (30) days to provide adequate aeration. [401 KAR 48:200 Section 1(2)]

19. Operation: The owner or operator shall not apply water on Treatment Cells 1, 2, 6, 7 and 8 unless the water meets the following criteria:

pH: The pH shall be greater than 6.0 SU but less than 9.0 SU.

Bicarbonates and carbonates: Bicarbonates not to exceed 120 mg/L, carbonates not to exceed 15 mg/L.

Total Dissolved Solids (TDS): TDS not to exceed 2,500 mg/L using the following method to estimate concentration: Electrical conductivity shall be determined and the measured EC converted to TDS using the equation TDS (mg/L) = EC (mmhos/cm or dS/m) x 640.

Sodium: Sodium concentrations shall not exceed 70 mg/L, unless a Sodium Adsorption Ratio (SAR), or relative concentration of sodium, calcium and magnesium, calculation demonstrates the SAR does not exceed 8.0. [401 KAR 47:120 Section 2]

20. General: Within six (6) months of issuance of this permit, the owner or operator shall provide to the cabinet an estimate of the amount of treated soil stockpiled at the facility that will be needed for facility closure, and the amount of soil currently stockpiled. The volume of soil determined to be in excess of the volume needed at closure shall be reduced by seventy-five (75) percent within a year of being placed in storage. For monitoring purposes, the owner or operator shall record the volume of excess soil on January 1 of each year and include that volume in annual reports to the cabinet. [401 KAR 47:120 Section 2]

21. Compliance: The owner or operator may continue operating under this permit so long as renewals are timely submitted and the facility remains in substantial compliance with all applicable environmental regulations. If groundwater contaminant limits are exceeded in two or more consecutive scheduled sampling events, or sooner if the cabinet determines the exceedence is an eminent threat to human health or the environment, the owner or operator shall immediately cease accepting wastes containing the contaminant of concern. If the contaminant of concern is a petroleum constituent, in addition to ceasing accepting the contaminant source waste as described above, the owner or operator shall, within 180 days, submit an application for a Petroleum Contaminated Soil Treatment Facility permit pursuant to 401 KAR Chapters 47 and 48, or cease accepting petroleum contaminated soil and water. Failure to comply with the conditions set forth in this permit may result in a cabinet action to revoke the permit in accordance with 401 KAR 47:130. [401 KAR 47:130 Section 4, KRS 224.40-100]

22. Operation: The owner or operator is approved to accept the following waste streams: Petroleum contaminated soil and petroleum contaminated water from Underground Storage Tank (UST) corrective action; petroleum contaminated soil and petroleum contaminated water from spills that are not hazardous wastes; petroleum

contaminated solids and water from oil/water separators that are not hazardous wastes. The owner or operator shall, prior to or at the time the waste is accepted, obtain and have in possession laboratory analysis reports for Toxicity Characteristic Leaching Procedure (TCLP) results for all petroleum contaminated liquids or semi-solids from UST corrective action that are not exempt from characterization under 401 KAR Chapter 42, and all solids, liquids or semi-solids from spill responses, oil/water separators or other non-UST sources of petroleum contaminated wastes. [401 KAR 47:120 Section 2]

23. Operation: The owner or operator shall maintain a treated soil storage area within the facility boundaries. Soil removed from treatment cells shall be placed in the treated soil storage area, all debris removed from the soil and the soil shall be prepared for distribution. Soil in the storage area shall be substantially free of piping, plastic or other incidental wastes which detract from the soil's suitability for use as fill material. No other waste or debris shall be placed directly on the stockpile. The owner or operator shall remove at least 75% of soil placed in the storage area within a year of being placed. [401 KAR 47:120 Section 2]

24. General: For construction and operation of the landfarm facility, the owner or operator shall comply with KRS Chapter 224.40-305 and the approved permit application(s). [401 KAR 48:200]

25. Monitoring: Soil and groundwater shall be sampled in accordance with the soil and groundwater monitoring plans in the approved permit application and the conditions of this permit. [401 KAR 48:200 Section 8(20)(a)]

26. Recordkeeping: The owner or operator shall submit the annual report to the cabinet before February 19 of each year. The annual report shall separately summarize volumes of wastes received, by type; volume of treated soil removed from the treatment cells, with copies of laboratory analysis reports; and volume of treated soil distributed. [401 KAR 48:200 Section 8(19)]

27. Closure: An owner or operator shall submit to the cabinet a closure report to include the results of final groundwater samples in accordance with the operational permit taken between twelve (12) and thirteen (13) months following the last application of solid waste. [401 KAR 48:200 Section 10(5)]

County Sources - The owner or operator may accept waste as authorized by the cabinet pursuant to KRS 224 and/or 401 KAR Chapter 47 from the following counties:

All counties in all states in the contiguous United States

Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:

1. 09-19-1994 - Landfarm SW Class II Major Mod, APE19930004 - Approved (transferred from RDD to Landfarm)
2. 07-25-1995 - Landfarm SW Class II Minor Modification, APE19950001 - Application withdrawn
3. 12-19-1995 - Landfarm SW Class II Minor Modification, APE19950002 - Approved
4. 06-18-1997 - Landfarm SW Class II Minor Modification, APE19970003 - Approved
5. 05-22-1998 - Landfarm SW Class II Minor Modification, APE19970001 - Application withdrawn
6. 12-20-2004 - Landfarm SW Class II Minor Modification, APE19980002 - Approved
7. 12-20-2004 - Groundwater Monitoring Plan Modification, APE20000001 - Approved
8. 12-20-2004 - Groundwater Assessment Plan, AIN19990001 - Approved
9. 12-20-2004 - Landfarm SW Class II Renewal, APE19980001 - Approval (effective 12-05-1998 to 12-04-2003)
10. 12-20-2004 - Landfarm SW Class II Renewal, APE20040003 - Approval (effective 12-05-2003 to 12-04-

2008)
11. 07-07-2006 - Landfarm SW Class II Minor Modification, APE20050001 - Approved
12. 07-07-2006 - Groundwater Assessment Report, AIN20050001 - Approved
13. 08-05-2010 - Combined Groundwater Assessment Plan and Groundwater Assessment Report, AIN20080001 and AIN20090001 - Approved
14. 03-31-2014 - Landfarm SW Class II Minor Modification for cells 1, 2, and 6 - APE20110001 - Approved
15. 03-31-2014 - Landfarm SW Class II Renewal, APE20090001 - Approved (effective 12-05-2008 to 12-04-2013)
16. 03-31-2014 - Landfarm SW Class II Renewal, APE20130003 - Approved (effective 12-05-2013 to 12-04-2018)
17. 04-25-2014 - Landfarm SW Class II - Permittee Mailing Address, Updated Conditions, APE20140001 - Revised Permit Issued
18. 11-29-2018 - Landfarm SW Class II Renewal - APE20170002 - Approved (effective 12-05-2018 to 12-04-2023)
19. 2-1-2019 - Landfarm SW Class II Minor Modification - APE20170004 - Approved
20. 11-27-2023 - Authorization to Continue Operations, APE20230003
21. 03-04-2024 - Authorization to Continue Operations, APE20230003
22. 03-13-2024 - Landfarm SW Class II Renewal, APE20230003 - Approved (effective 12-05-2023 to 12-04-2028)

ACTV0006 - Landfarm Type B-SpW

Approved Applications - The owner or operator shall comply with applicable statutes and regulations and the following approved applications:

1. 05-28-1992 - Landfarm SpW B Minor Modification, APE19920001 - Approval issued
2. 05-06-1994 - Landfarm SpW B Minor Modification, APE19940002 - Approval issued
3. 02-15-1996 - Landfarm SpW B Renewal, APE19900002 - Approval issued
4. 02-15-1996 - Landfarm SpW B Major Modification, APE19940001 - Approval issued
5. 12-04-1998 - Landfarm SpW B - Permit Expired

Financial Assurance

ACTV0003 - Financial Assurance

The following is a history of the financial assurance for this facility:

1. 12-04-1991 - LOC #89, 23, 91-11, 24, $275,500.00
2.12-05-1995 - LOC #667161-11220, $89, 223.50; LOC #667161-11230, $89, 223.50
3. 02-08-1996 - LOC #89, 23, 91-11, 24 released
4. 06-17-2004 - LOC #667161-53360, $35,685.40
5. 06-17-2006 - LOC #667161-53360 increased to $37,236.72
6. 07-27-2007 - LOC #667161-77820, $232,227.00
7. 08-18-2007 - LOC #667161-53320, LOC #667161-53330, LOC #667161-53360 released.
8. 08-25-2023 - LOC #667161-77820 increased to $429,474.00
9. 10-02-2023 - LOC #667161-77820 increased to $846,963.00

Monitoring Conditions

GSTR0001 - Groundwater Monitoring - SW: Groundwater Monitoring Group

Group Members: STRC0001 - Well 1A; STRC0002 - Well 1B; STRC0003 - Well 2A; STRC0004 - Well 2B; STRC0005 - Well 3A; STRC0006 - Well 3B; STRC0007 - Well 4A; STRC0008 - Well 4B; STRC0009 - Well 5A; STRC0010 - Well 5B; STRC0011 - Well 6A

Standard Requirements:

1. The owner or operator shall satisfy the requirements of 401 KAR 48:300 for all wastes (or constituents thereof) contained in waste management units at the facility regardless of the time waste was placed in such unit. [401 KAR 48:300 Section 1]

2. The owner or operator shall monitor groundwater on the approved schedule at each approved groundwater monitoring location in accordance with 401 KAR 48:300, the permit, and the approved plans. A table summarizing the parameters to be monitored, their respective limits and monitoring frequency is included herein. [401 KAR 48:300, 401 KAR 47:120 Section 1]

3. The owner or operator shall conduct statistical analysis of the groundwater data in accordance with 401 KAR 48:300 Section 9 and the approved applications. The statistical test chosen shall be conducted separately for each parameter in each well for each monitoring event. The results shall be maintained as part of the facility record throughout the operating and postclosure life of the facility. [401 KAR 48:300 Section 9, 401 KAR 47:120 Section 1]

4. The groundwater analytical data and statistical analysis report shall be submitted on forms provided by the cabinet, within sixty (60) days after sampling or 15 days of the completion of statistical analysis, whichever is sooner. [401 KAR 48:300 Section 7, 401 KAR 47:120 Section 1]

5. Metal criteria shall be total metals to be measured in an unfiltered sample. [401 KAR 47:030 Section 6(1)]

6. If the analysis of groundwater sample results indicates contamination (i.e., a statistical or MCL exceedence) as specified in 401 KAR 48:300 Section 8(1), the owner or operator shall notify the cabinet within (forty-eight) 48 hours of receiving the results and shall arrange to split samples no later than ten (10) days from the receipt of the results. [401 KAR 48:300 Section 7]

7. The owner or operator shall be required to prepare and submit a groundwater contamination assessment plan if laboratory analyses of one (1) or more monitoring wells at the site shows the presence of one (1) or more parameters above the maximum contaminant level (MCL) as specified in 401 KAR 47:030 or a statistically significant increase over background levels for parameters that have no MCL. [401 KAR 48:300 Section 8, 401 KAR 47:120 Section 1]

8. The owner or operator shall provide alternate water supplies to all affected parties within twenty-four (24) hours of notification of the cabinet that sample results indicate contamination of a drinking water supply if it has been determined that the site or facility is the probable source of the contamination. [401 KAR 48:300 Section 8]

9. If required by the cabinet, groundwater contamination assessment and corrective action shall be performed in full compliance with all provisions of 401 KAR 48:300 Section 8. [401 KAR 48:300 Section 8]

Variances, Alternate Specifications and Special Conditions:

1. If required to prepare a corrective action plan (CAP), the owner or operator shall submit an application for a petroleum contaminated soil treatment facility in accordance with 401 KAR 47:205 within sixty (60) days of initiation of the CAP. [401 KAR 47:120 Section 2]

2. If the facility is required to submit a groundwater assessment plan pursuant to 401 KAR 48:300 Section 8, the owner or operator shall initiate semiannual monitoring of springs 3, 4, 5 and 8. Due to their proximity to each other, springs 3, 4, and 5 may be sampled together as one monitoring location. This sampling location is along the tributary before the confluence with Neely Branch. The spring locations are included in the Revised Groundwater Monitoring Plan approved June 19, 1991. [401 KAR 47:120 Section 2]

3. Groundwater Monitoring: Designs, reports, and plans constituting the public practice of geology as defined in KRS 322A.010 shall be developed by a person registered pursuant to KRS Chapter 322A, except as provided for by KRS 322A.080. This requirement applies to groundwater monitoring, assessment, and corrective action plans and reports prepared pursuant to 401 KAR 48:300. [401 KAR 48:300 Section 1]

4. Groundwater monitoring wells shall be constructed and maintained in accordance with 401 KAR 48:300 Section 6, 401 KAR 6:350, the permit, and the approved plans. [401 KAR 47:120 Section 1, 401 KAR 48:300 Section 6, 401 KAR 6:350]

5. No monitoring well construction, maintenance, or abandonment may be conducted without prior approval by the Division of Waste Management. [401 KAR 47:120 Section 1, 401 KAR 47:120 Section 2, 401 KAR 6:350 Section 12]

6. Only a Kentucky Certified Monitoring Well Driller may construct or abandon monitoring wells. [401 KAR 6:350]

7. The owner or operator shall provide the division a minimum of ten (10) working days advance notice for all groundwater monitoring well construction and abandonment activities. [401 KAR 6:350 Section 12(2)]

GSTR0003 - Groundwater Monitoring - SW: Sump Monitoring Point Group

Group Members: MNPT0003 - Sump Monitoring Pt.
Standard Requirements:

1. Metal criteria shall be total metals to be measured in an unfiltered sample. [401 KAR 47:030 Section 6(1)]

Variances, Alternate Specifications and Special Conditions:

1. The owner or operator shall submit analytical results on semi-annual Compliance Monitoring Report (CMR): Due semi-annually, within sixty (60) days of sampling. [401 KAR 47:120 Section 2]

2. The owner or operator shall monitor the drainage sump semiannually. Samples are to be taken when sump contains runoff from the treatment cells. A table summarizing the parameters to be monitored is included herein.

[401 KAR 47:120 Section 2]

GMNP0004 - Surface Water Monitoring - SW: Surface Water Pond Monitoring

Group Members: MNPT0004 - Pond Monitoring Pt
Standard Requirements:

1. Metal criteria shall be total metals to be measured in an unfiltered sample. [401 KAR 47:030 Section 6(1)]

Variances, Alternate Specifications and Special Conditions:

1. The owner or operator shall submit analytical results on semi-annual Compliance Monitoring Report (CMR): Due semi-annually, within sixty (60) days of sampling. [401 KAR 47:120 Section 2]

2. The owner or operator shall contact the Bowling Green Regional Office and Division of Water and sample the lowermost treatment pond at least twenty four (24) hours prior to any planned discharge through the overflow outlet of the lowermost pond, and provide the Bowling Green Regional Office and Division of Water a copy of the analytical results as soon as the results are received from the testing facility. [401 KAR 47:120 Section 2]

3. The owner or operator shall monitor the lowermost pond semiannually. A table summarizing the parameters to be monitored is included herein. [401 KAR 47:120 Section 2]

Groundwater Monitoring Limits:

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GSTR0001	83-32-9	Acenaphthene	once every six months			mg/L	Yes	
GSTR0001	208-96-8	Acenaphthylene	once every six months			mg/L	Yes	
GSTR0001	120-12-7	Anthracene	once every six months			mg/L	Yes	
GSTR0001	71-43-2	Benzene	once every six months		0.0050	mg/L		
GSTR0001	56-55-3	Benzo[A]Anthracene	once every six months			mg/L	Yes	
GSTR0001	50-32-8	Benzo[A]Pyrene	once every six months			mg/L	Yes	
GSTR0001	205-99-2	Benzo[B]Fluoranthene	once every six months			mg/L	Yes	
GSTR0001	191-24-2	Benzo[G,H,I]Perylene	once every six months			mg/L	Yes	
GSTR0001	207-08-9	Benzo[K]Fluoranthene	once every six months			mg/L	Yes	
GSTR0001	117-81-7	Bis(2-Ethylhexyl) Phthalate	once every six months			mg/L	Yes	
GSTR0001	7440-43-9	Cadmium, Total (as Cd)	once every six months		0.005	mg/L		
GSTR0001		Carbon, Total Organic	once every six months			mg/L	Yes	
GSTR0001		Chemical Oxygen Demand (COD)	once every six months			mg/L	Yes	
GSTR0001	7440-47-3	Chromium	once every six months		0.1	mg/L		
GSTR0001	218-01-9	Chrysene	once every six months			mg/L	Yes	
GSTR0001	53-70-3	Dibenzo(a,h)anthracene	once every six months			mg/L	Yes	
GSTR0001	100-41-4	Ethylbenzene	once every six months			mg/L	Yes	
GSTR0001	206-44-0	Fluoranthene	once every six months			mg/L	Yes	
GSTR0001	86-73-7	Fluorene	once every			mg/L	Yes	

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
			six months					
GSTR0001	193-39-5	Indeno(1,2,3-cd)pyrene	once every six months			mg/L	Yes	
GSTR0001	7439-92-1	Lead, Total (as Pb)	once every six months		0.05	mg/L		
GSTR0001	1634-04-4	Methyl Tert-Butyl Ether	once every six months			mg/L	Yes	
GSTR0001	91-20-3	Naphthalene	once every six months			mg/L	Yes	
GSTR0001	85-01-8	Phenanthrene	once every six months			mg/L	Yes	
GSTR0001	129-00-0	Pyrene	once every six months			mg/L	Yes	
GSTR0001		Solids, Total Dissolved	once every six months			mg/L	Yes	
GSTR0001		Specific Conductance	once every six months			umhos/cm	Yes	
GSTR0001		Temperature, Water Deg. Fahrenheit	once every six months			degrees Fahrenheit		Yes
GSTR0001	108-88-3	Toluene	once every six months			mg/L	Yes	
GSTR0001	1330-20-7	Xylenes (Total)	once every six months			mg/L	Yes	
GSTR0001		pH	once every six months			S.U.	Yes	
GSTR0003	83-32-9	Acenaphthene	once every six months			mg/L		Yes
GSTR0003	208-96-8	Acenaphthylene	once every six months			mg/L		Yes
GSTR0003	120-12-7	Anthracene	once every six months			mg/L		Yes
GSTR0003	71-43-2	Benzene	once every six months			mg/L		Yes
GSTR0003	56-55-3	Benzo[A]Anthracene	once every			mg/L		Yes

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
			six months					
GSTR0003	50-32-8	Benzo[A]Pyrene	once every six months			mg/L		Yes
GSTR0003	205-99-2	Benzo[B]Fluoranthene	once every six months			mg/L		Yes
GSTR0003	191-24-2	Benzo[G,H,I]Perylene	once every six months			mg/L		Yes
GSTR0003	207-08-9	Benzo[K]Fluoranthene	once every six months			mg/L		Yes
GSTR0003	117-81-7	Bis(2-Ethylhexyl) Phthalate	once every six months			mg/L		Yes
GSTR0003	7440-43-9	Cadmium, Total (as Cd)	once every six months			mg/L		Yes
GSTR0003		Carbon, Total Organic	once every six months			mg/L		Yes
GSTR0003		Chemical Oxygen Demand (COD)	once every six months			mg/L		Yes
GSTR0003	7440-47-3	Chromium	once every six months			mg/L		Yes
GSTR0003	218-01-9	Chrysene	once every six months			mg/L		Yes
GSTR0003	53-70-3	Dibenzo(a,h)anthracene	once every six months			mg/L		Yes
GSTR0003	100-41-4	Ethylbenzene	once every six months			mg/L		Yes
GSTR0003	206-44-0	Fluoranthene	once every six months			mg/L		Yes
GSTR0003	86-73-7	Fluorene	once every six months			mg/L		Yes
GSTR0003	193-39-5	Indeno(1,2,3-cd)pyrene	once every six months			mg/L		Yes
GSTR0003	7439-92-1	Lead, Total (as Pb)	once every six months			mg/L		Yes
GSTR0003	1634-04-4	Methyl Tert-Butyl Ether	once every			mg/L		Yes

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
			six months					
GSTR0003	91-20-3	Naphthalene	once every six months			mg/L		Yes
GSTR0003	84145-82-4	Nitrate	once every six months			mg/L		Yes
GSTR0003	85-01-8	Phenanthrene	once every six months			mg/L		Yes
GSTR0003	129-00-0	Pyrene	once every six months			mg/L		Yes
GSTR0003		Solids, Total Dissolved	once every six months			mg/L		Yes
GSTR0003		Specific Conductance	once every six months			umhos/cm		Yes
GSTR0003		Temperature, Water Deg. Fahrenheit	once every six months			degrees Fahrenheit		Yes
GSTR0003	108-88-3	Toluene	once every six months			mg/L		Yes
GSTR0003	1330-20-7	Xylenes (Total)	once every six months			mg/L		Yes
GSTR0003		pH	once every six months			S.U.		Yes

Surface Water Monitoring Limits:

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GMNP0004	83-32-9	Acenaphthene	once every six months			mg/L		Yes
GMNP0004	208-96-8	Acenaphthylene	once every six months			mg/L		Yes
GMNP0004	120-12-7	Anthracene	once every six months			mg/L		Yes
GMNP0004	71-43-2	Benzene	once every six months			mg/L		Yes

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GMNP0004	56-55-3	Benzo[A]Anthracene	once every six months			mg/L		Yes
GMNP0004	50-32-8	Benzo[A]Pyrene	once every six months			mg/L		Yes
GMNP0004	205-99-2	Benzo[B]Fluoranthene	once every six months			mg/L		Yes
GMNP0004	191-24-2	Benzo[G,H,I]Perylene	once every six months			mg/L		Yes
GMNP0004	207-08-9	Benzo[K]Fluoranthene	once every six months			mg/L		Yes
GMNP0004	117-81-7	Bis(2-Ethylhexyl) Phthalate	once every six months			mg/L		Yes
GMNP0004	7440-43-9	Cadmium, Total (as Cd)	once every six months			mg/L		Yes
GMNP0004		Carbon, Total Organic	once every six months			mg/L		Yes
GMNP0004		Chemical Oxygen Demand (COD)	once every six months			mg/L		Yes
GMNP0004	7440-47-3	Chromium	once every six months			mg/L		Yes
GMNP0004	218-01-9	Chrysene	once every six months			mg/L		Yes
GMNP0004	53-70-3	Dibenzo(a,h)anthracene	once every six months			mg/L		Yes
GMNP0004	100-41-4	Ethylbenzene	once every six months			mg/L		Yes
GMNP0004	206-44-0	Fluoranthene	once every six months			mg/L		Yes
GMNP0004	86-73-7	Fluorene	once every six months			mg/L		Yes
GMNP0004	193-39-5	Indeno(1,2,3-cd)pyrene	once every six months			mg/L		Yes
GMNP0004	7439-92-1	Lead, Total (as Pb)	once every six months			mg/L		Yes

Subject Item	CAS Number	Parameter	Frequency	Lower Limit	Upper Limit	Units	Statistical Limit	Report Only
GMNP0004	1634-04-4	Methyl Tert-Butyl Ether	once every six months			mg/L		Yes
GMNP0004	91-20-3	Naphthalene	once every six months			mg/L		Yes
GMNP0004	84145-82-4	Nitrate	once every six months			mg/L		Yes
GMNP0004	85-01-8	Phenanthrene	once every six months			mg/L		Yes
GMNP0004	129-00-0	Pyrene	once every six months			mg/L		Yes
GMNP0004		Solids, Total Dissolved	once every six months			mg/L		Yes
GMNP0004		Specific Conductance	once every six months			umhos/cm		Yes
GMNP0004		Temperature, Water Deg. Fahrenheit	once every six months			degrees Fahrenheit		Yes
GMNP0004	108-88-3	Toluene	once every six months			mg/L		Yes
GMNP0004	1330-20-7	Xylenes (Total)	once every six months			mg/L		Yes
GMNP0004		pH	once every six months			S.U.		Yes