

**DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING AND COMPLIANCE DIVISION**

**PROGRAMMATIC ANALYSIS OF THE LICENSING OF
ONE-TIME LANDFARMS
FOR THE JUSTIFICATION OF A CATEGORICAL EXCLUSION
PURSUANT TO ARM 17.4.607**

WASTE AND UNDERGROUND TANK MANAGEMENT BUREAU – SOLID WASTE PROGRAM

JUSTIFICATION FOR A CATEGORICAL EXCLUSION

The preparation of an Environmental Assessment (EA) or an Environmental Impact Statement (EIS), pursuant to the Montana Environmental Policy Act (MEPA), is not required for the actions that qualify for a “categorical exclusion”. The phrase “categorical exclusion” refers to a type of action which does not individually, collectively, or cumulatively require an EA or an EIS, as justified by a programmatic review.

The following programmatic review describes an action that seldom, if ever, causes significant impact. The programmatic review also provides the procedures whereby circumstances that could cause an otherwise excluded action to potentially have significant environmental impacts are appropriately analyzed.

Since one-time landfarms are limited to the remediation of 1,600 cubic yards (or less) of non-hazardous, hydrocarbon-contaminated soils generated from a single spill event, such operations have less potential for adverse environmental impacts. The Department believes a categorical exclusion from preparation of an EA or EIS for the licensure of One-Time Landfarms for the treatment of hydrocarbon-contaminated soils is justified by the following programmatic review.

DESCRIPTION OF PROJECT – SUMMARY OF PROGRAMMATIC ANALYSIS

Section 75-10-221 Montana Code Annotated (MCA) requires that all solid waste management systems operating in the State of Montana obtain a license from the Department of Environmental Quality (Department). Generators of less than 1,600-cubic yards (yds³) of non-hazardous, hydrocarbon-contaminated soil resulting from a single spill event may remediate the contaminated soils by landfarming. The Department requires the licensure of one-time landfarms. The one-time landfarm license application form is included in Appendix A. The application form requires the submittal of specific site information including the plan of operation, the characteristics of the material being landfarmed, and information pertaining to the applicant. If the Department concludes the completed application meets the criteria set out in this programmatic analysis, no further analysis under the MEPA is required.

BENEFITS AND PURPOSE OF PROJECT: The benefits and purpose of the project are to provide for clear and consistent regulation of one-time landfarms while maintaining protection of human health and the environment. The Department has a standardized application form for the submittal of information to facilitate the review and licensing of one-time landfarms that maximizes the efficiency of the decision-making and licensing process for the applicant. This programmatic analysis supports a categorical exclusion from the more detailed application process and environmental analysis required for full-time landfarms. The process described herein allows for a

more efficient allocation of Department solid waste staff and resources towards licensing and compliance activities associated with larger, more complex solid waste management facilities.

BACKGROUND INFORMATION:

The Administrative Rules of Montana (ARM) Section 17.50.403(32) define a one-time landfarm as:

“...a landfarm facility for remediation of less than 1,600 cubic yards of non-hazardous contaminated soil generated from a single event, regardless of the source.”

While the Department is in the process of adopting rules specific to the operation of one-time landfarms, the requirements for licensure is outlined in Section 17, Chapter 50, Subchapter 4 of the Administrative Rules. Because one-time landfarms are limited to the remediation of a maximum of 1,600 cubic yards of non-hazardous, hydrocarbon-contaminated soils generated from a single spill event, and do not accept contaminated soil from multiple sources, such operations have less potential for adverse environmental impacts.

AGENCY ROLES AND RESPONSIBILITIES: The Department is responsible for ensuring activities proposed under the Solid Waste Management Act are in compliance with the Act and with other State and Federal regulations. Licenses issued pursuant to these regulations do not confer any property rights to a licensee. Each licensee is responsible for obtaining any special use permits and complying with other applicable agency, county, and local/city restrictions and requirements.

Upon receipt of a new application for the licensure of a one-time landfarm, the Department will review the application for completeness to ensure all required elements of the application are provided. Department staff will then review the site characteristics to ensure the natural site geologic and hydrologic attributes will support the proposed activity. The State Historic Preservation Office (SHPO) will be contacted for information on the cultural resources of the proposed project area. The Natural Heritage Program (NHP) will be contacted for an inventory of terrestrial and/or aquatic species in the area that may be impacted by the proposed activity. The results of the SHPO and NHP reviews will determine whether or not a more in-depth analysis, via an EA or EIS, is required.

IMPACTS AND AFFECTED ENVIRONMENTS

The impacts to the physical, biological, social, and economic environments resulting from the licensure and regulation of one-time landfarms have been reviewed and are presented in Tables 1 and 2. The current requirements limit operations to levels that are protective of human health and the environment. One-time landfarms are limited in size and must sample treatment zone soils three times per year. In addition, submit an annual report of their operations that includes all monitoring results to the Department for review. One-time landfarms will operate in accordance with their approved plan of operations and any specific conditions imposed by the Department. Department staff will also periodically inspect these facilities.

TABLE 1 - POTENTIAL IMPACTS ON THE PHYSICAL ENVIRONMENT

<u>PHYSICAL ENVIRONMENT</u>	Major	Moderate	Minor	No	Unknown	Attached
1. SITE GEOLOGY & SOIL QUALITY - STABILITY & MOISTURE: Are there unusual geologic features?				X		X
Will the surface features be changed?			X			
Are fragile, compactible or unstable soils present?				X		
Are there special reclamation considerations?				X		
2. WATER QUALITY, QUANTITY & DISTRIBUTION: Are important surface or ground water resources present?				X		X
Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?				X		
3. AIR QUALITY: Will pollutants or particulate be produced?			X			X
Is the project influenced by air quality regulations or zones (Class I air-shed)?				X		
4. DEMANDS ON ENVIRONMENTAL RESOURCES OR LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area?				X		
Are there other activities nearby that will affect the project?				X		
5. TERRESTRIAL, AVIAN, AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?				X		X
6. VEGETATION COVER, QUANTITY & QUALITY: Will vegetative communities be permanently altered?				X		X
Are any rare plants or cover types present?				X		
7. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present?				X		X
Any wetlands?				X		
Any species of special concern?				X		
8. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?				X		X
9. AESTHETICS: Is the project on a prominent topographical feature?				X		
Will it be visible from populated or scenic areas?				X		
Will there be excessive noise, light or odors?				X		

CUMULATIVE AND SECONDARY IMPACTS — Direct and indirect impacts are those effects that occur in or near the proposed project area and might extend over time. Often, the distinction between direct and indirect effects is difficult to define, thus impact or effect means both types of effects. Cumulative impacts are restricted to the net effects of the proposed project. Secondary impacts are induced by a direct impact and occur at a later time or distance from the triggering action. The Department limits the type and amount of contaminated soils that are landfarmed. One-time landfarm licenses will be issued after the submittal of a complete application and the Department’s review and approval of the application.

TABLE 2 - POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

<u>HUMAN ENVIRONMENT</u>	Major	Moderate	Minor	No	Unknown	Attached
1. SOCIAL STRUCTURES & MORES: Is some disruption of native or traditional lifestyles or communities possible?				X		
2. CULTURAL UNIQUENESS & DIVERSITY: Will the action cause a shift in some unique quality of the area?				X		X
3. DENSITY & DISTRIBUTION OR POPULATION & HOUSING: Will the project add to the population and require additional housing?				X		
4. HUMAN HEALTH & SAFETY: Will this project add to health and safety risks in the area?				X		X
5. COMMUNITY & PERSONAL INCOME: Will the facility generate or degrade income?				X		
6. QUANTITY & DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs?				X		
If so, estimate number.						
7. LOCAL & STATE TAX BASE REVENUES: Will the project create or eliminate tax revenue?				X		
8. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads?				X		
Will other services (fire protection, police, schools, etc.) be needed?				X		
9. INDUSTRIAL, COMMERCIAL & AGRICULTURAL ACTIVITIES & PRODUCTION: Will the project add to or alter these activities?			X			X
10. ACCESS TO & QUALITY OF RECREATIONAL & WILDERNESS ACTIVITIES: Are wilderness or recreational areas located nearby or accessed through this tract?				X		
Is there recreational potential within the tract?				X		
11. LOCALLY ADOPTED ENVIRONMENTAL PLANS & GOALS: Are there state, county, city, USFS, BLM, tribal, etc., zoning or management plans in effect?				X		
12. TRANSPORTATION: Will the project affect local transportation networks and traffic flows?				X		

CUMULATIVE AND SECONDARY IMPACTS — Direct and indirect impacts are those effects that occur in or near the proposed project area and might extend over time. Often, the distinction between direct and indirect effects is difficult to define, thus impact or effect means both types of effects. Cumulative impacts are restricted to the net effects of the proposed project. Secondary impacts are induced by a direct impact and occur at a later time or distance from the triggering action. The cumulative impacts recognized from the proposed licensure of one-time landfarms are minor. The net potential impact of the proposed facility on the human environment is probably very minor. The Department limits the type and amount of contaminated soils that are landfarmed. One-time landfarm licenses will be issued after the submittal of a complete application and the Department’s review and approval of the application and the site operation and maintenance plan. There are no recognized secondary impacts.

ANALYSIS OF TABLE 1: POTENTIAL IMPACTS TO THE PHYSICAL ENVIRONMENT

This section evaluates the potential environmental effects that may occur on the physical environment if the proposed one-time landfarm is approved. The number on each of the underlined resource headings corresponds to a resource listed in the tables. Generally, only those resources potentially affected by the proposal are discussed. Therefore, if there is no effect on a resource, it may not be discussed.

1. Site Geology and Soil Quality - Stability and Moisture

The Department will evaluate the site soils and geology at each proposed one-time landfarm location to ensure the natural site characteristics will support the proposed activity. If soil permeabilities greater than 1×10^{-5} cm/sec are identified in the upper 3-feet of soil, additional site preparation, including the use of composite or synthetic liners, may be required. At most one-time landfarm locations, the upper 6-inches of soil will be removed and stockpiled near the site prior to the beginning of landfarming activities. This topsoil will be placed back on the landfarm once all landfarming activities have been completed and the soils have been remediated. The topsoil will then be reseeded with native vegetation and the site will be returned to its pre-licensed land use. The site will be monitored for vegetative success and weed control for 2 years after reclamation work is complete.

2. Water Quality, Quantity and Distribution

The Department will evaluate the site surface water and groundwater features at each proposed one-time landfarm location to ensure the proposed activity will not impact water resources on or near the site. Berms will be constructed around the operation to prevent the flow of stormwater into and out of the treatment cell. Locations where the seasonal high groundwater is encountered at depths less than 25-feet below ground surface will not be approved. Groundwater monitoring may be required if groundwater is encountered within 50-feet of the surface, or the subsoils do not meet the permeability standard noted above.

3. Air Quality

Air quality concerns related to the operation of one-time landfarms are frequently associated with the potential for increased dust from tilling activities at the site. Dust may be generated during these events, however, dust may be minimized by the application of water before tilling and/or the cessation of tilling activities during high wind events. If dust becomes a problem at the site, dust control measures will be implemented, including the use of dust suppressants as necessary.

5. Terrestrial and Aquatic Life and Habitats

The Department will conduct a review of the terrestrial and aquatic life and habitats at and near each proposed one-time landfarm location. Because the one-time landfarms are limited to the receipt of no more than 1,600 cubic yards of contaminated soil from a single source, this volume of soils typically requires less than 2-acres of land for site activities. Therefore, the Department

anticipates a negligible impact to these resources. However, each site will be evaluated to ensure that site activities do not negatively alter such resources.

6. Vegetation Cover, Quantity and Quality

Because the one-time landfarms are limited to the receipt of no more than 1,600 cubic yards of contaminated soil from a single source, this volume of soils typically requires less than 2-acres of land for site activities. The topsoil that is removed for site activities will be stockpiled and placed back on the landfarm once remediation activities have been completed. The topsoil will then be reseeded with native vegetation and the site will be returned to its pre-licensed land use. The site will be monitored for vegetative success and weed control for 2 years after reclamation work is complete. Therefore, the Department anticipates a negligible impact to these resources. However, each site will be evaluated to ensure that site activities do not negatively alter such resources.

7. Unique, Endangered, Fragile or Limited Environmental Resources

The Department will conduct a review of the unique, endangered, fragile, or limited environmental resources at and near each proposed one-time landfarm location. Because the one-time landfarms are limited to the receipt of no more than 1,600 cubic yards of contaminated soil from a single source, this volume of soils typically requires less than 2-acres of land for site activities. Therefore, the Department anticipates a negligible impact to these resources. However, each site will be evaluated to ensure that site activities do not negatively alter such resources.

8. Historical and Archaeological Sites

The State Historic Preservation Office (SHPO) will be informed of the proposed one-time landfarm activity. The SHPO will search their records to determine the existence of documented historical or archaeological sites in and around the proposed area for the one-time landfarm. SHPO recommendations will be considered during the license review process to ensure that impacts from the proposed landfarming activities do not negatively impact historical or archaeological features in the area.

ANALYSIS OF TABLE 2: POTENTIAL IMPACTS TO THE HUMAN ENVIRONMENT

This section evaluates the potential environmental effects that may occur on the human environment if the proposed facility expansion is approved. The number on each of the underlined resource headings corresponds to a resource listed in the tables. Generally, only those resources potentially affected by the proposal are discussed. Therefore, if there is no effect on a resource, it may not be discussed.

2. Cultural Uniqueness and Diversity

The SHPO will be informed of the proposed one-time landfarm activity. The SHPO will search their records to determine the existence of documented historical or archaeological sites in and around the proposed area for the one-time landfarm. SHPO recommendations will be considered during the license review process to ensure that impacts from the proposed landfarming activities do not negatively impact historical or archaeological features in the area.

4. Human Health and Safety

The most common potential for impacts to human health from the proposed one-time landfarm activity may arise from the potential release of contaminants to surface or groundwater resources and air pollution from tilling activities. The criteria established for the approval of the site operations will protect these resources. If dust becomes a problem at the site, dust control measures will be implemented. Therefore, there are no anticipated long-term impacts to these resources from such proposed activities.

9. Industrial, Commercial, and Agricultural Activities and Production

Construction of a proposed one-time landfarm facility will cause a minor increase in the industrial activity of the area during construction due to the need for contractors and associated machinery. Because one-time landfarms operations are limited in the volume of soil accepted, such activities typically require less than 2-acres of land. If this acreage is currently in use for agricultural, industrial, or commercial activity, it will be taken out of use or production for only a short period of time. Depending upon the extent of hydrocarbon-contamination in the soil, typical landfarming activities can be completed in 3-years or less. Once all landfarming activities are complete, the site will be returned to the pre-licensed land use. Therefore, there are no anticipated long-term impacts to this aspect of the human environment.

PREFERRED ALTERNATIVE

The Department’s preferred alternative is to adopt the general application requirements and procedures described in this programmatic analysis.

RECOMMENDATIONS FOR FURTHER ENVIRONMENTAL ANALYSIS

EIS More Detailed EA No Further Action

Rationale for recommendation: This licensing process provided herein for One-Time Landfarms is a more efficient way for an applicant to apply for a license and for the Department to review the application. Because the Department restricts the type and volume of contaminated soils landfarmed, there would be only a minor impact to the existing environment from the one-time landfarm operations. A One-Time Landfarm license will be issued after the complete application, including the operation and maintenance plan, has been reviewed and approved by the Department.

APPENDIX A



Montana Department of Environmental Quality
 Permitting and Compliance Division
 Waste and Underground Tank Management Section
 Solid Waste Program
 PO Box 200901
 Helena, MT 59602

ONE-TIME LANDFARM LICENSE APPLICATION

INSTRUCTIONS: 1. Fill out the form in its entirety – Incomplete applications will be returned. 2. Sign the completed application. 3. Enclose a check or money order for the application review fee based on the following: ≥ 800 yds ³ fee = \$500.00 < 800 yds ³ fee = \$200.00 4. Return the completed form, with all attachments to: DEQ Fiscal Services Division, PO Box 200901, Helena, MT 59620-0901 Once approved, the one-time landfarm license will be issued and mailed directly to the applicant.				
Section 1 APPLICANT INFORMATION (Please Print)				
Applicant Full Name:			Applicant Mailing Address:	
Property Owner Name:			Property Owner Mailing Address:	
Section 2 LANDFARM SITE INFORMATION				
Site Location/Physical Address:		City:	State:	Zip:
Legal Description of Site: <i>(to nearest 1/4, 1/4 Section)</i> _____ 1/4 _____ 1/4	Section:	Township:	Range:	County:
Dimensions of Landfarm Site: _____ feet by _____ feet		Total Acreage Proposed for One-Time Landfarm Site:		
Estimated Depth to Ground Water:	Copies of Well Logs Attached: () Yes () No If no, why not?		Are any municipal water supplies located within 5-miles of the proposed landfarm? () Yes <i>If yes, attach location and description information</i> () No	
Source of Ground Water Information:				
Have background Samples been taken at the Landfarm site? () Yes [Attach copies of background sample results] () No If no, why not?				
Has Site Been Previously Used as a Landfarm Site? Yes () No () (If yes, attach details on a separate page)				

Section 2 - continued

Soil is Contaminated With: (<i>check all that apply</i>) Gasoline: _____ Diesel: _____ Waste oil: _____ Heating fuel oil: _____ Other (describe) _____ (attach copies of contaminated soil sample results)	Estimated Volume of Soils to be Landfarmed: _____ yds ³
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Cause of Soil Contamination:

Date of Spill/Contamination:	Date Soil will be spread at the Landfarm Site:
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Will Soil be Stockpiled at Landfarm Site Before Being Tilled? Yes () No () If yes, for how long?	Will stockpiled soils be covered and/or bermed? (describe)
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What is the Current Use of the Landfarm Site?	What is the Proposed Use of the Site after Soil Treatment is Completed?
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Provide a summary of the proposed Operation and Maintenance activities of the landfarm that include:

- Soil tilling schedule
- Number and frequency of soil sampling activities
- Proposed fertilizer, moisture, or other remediation-enhancing product additions
- Proposed site reclamation and closure activities

Section 3 ATTACHMENTS

- Site map on a topographic map locating and labeling all geographic and cultural features found within 2 2-mile of the landfarm site (buildings, wells, drainages, and roads). Show scale or distance from features to the landfarm area.
- Background Sample Results
- Contaminated Soil Sample Results
- Information on Municipal Water Supply locations
- Copies of Ground Water Well Logs
- Site Operation and Maintenance Summary

Section 4
SITE CERTIFICATION/APPROVAL

LANDFARM OPERATOR CERTIFICATION

I, _____, certify that the information contained on this form is accurate to the best of my knowledge. I acknowledge the impacts to public health and the environment resulting from the landfarming of contaminated soils at this site are the responsibility of the landfarm operator, and potentially the owner of the landfarm site property.

Signature _____ Date _____

Title _____

PROPERTY OWNER SIGNATURE

I, _____, hereby certify that I am the Property Owner or Designated Representative of the Property Owner (*circle one*) of the proposed landfarm site and that the applicant has my permission to use the site for the purpose of the one-time landfarm. I acknowledge the impacts to public health and the environment resulting from the landfarming of contaminated soils at this site are the responsibility of the landfarm operator, and potentially the owner of the landfarm site property.

Signature _____ Date _____

Title _____

HEALTH OFFICER CERTIFICATION

I, _____, am the Health Officer or Designated Representative of the County. I certify that this one-time landfarm location is suitable for this purpose.

Signature _____ Date _____

Title _____