



REGION 4

ATLANTA, GA 30303

March 4, 2024

VIA ELECTRONIC MAIL

Mr. Roger B. Petrie
Federal Facility Agreement Manager
Oak Ridge Office for Environmental Management
Department of Energy
Post Office Box 2001
Oak Ridge, Tennessee 37831

Dear Mr. Petrie:

The U.S. Environmental Protection Agency has completed review of the ***Explanation of Significant Differences (ESD) for the Record of Decision for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act of 1980 Waste, Oak Ridge, Tennessee: Haul Road Reroute (DOE/OR/1-2973&D1)*** received by EPA on January 23, 2024.

The above referenced document is intended to modify the approved *Record of Decision for Comprehensive Environmental Response, Compensation, and Liability Act Oak Ridge Reservation Waste Disposal at the Environmental Management Disposal Facility, Oak Ridge, Tennessee (DOE/OR/01-2794&D2/R2)* for rerouting the existing Haul Road route due to the location of Environmental Management Disposal Facility site footprint.

EPA Offers the following comments:

1. While Figure 3 in the ESD indicates that the haul road will cross multiple blue line streams, it does not identify the location of wetlands as depicted in other maps. For instance, Figure 4 from the D0 RDWP (below) for EMDF indicates that there are wetlands in the areas of the haul road. Please address the presence and proximity of wetlands to the haul road project (including more than just the final haul road footprint, since the project activities may impact areas beyond the final footprint and will need to take into account the wetlands ARARs) in the text of the ESD; EPA has identified wetlands-related ARARs since the proximity to wetlands appears to be indicated by the figure from the RDWP.

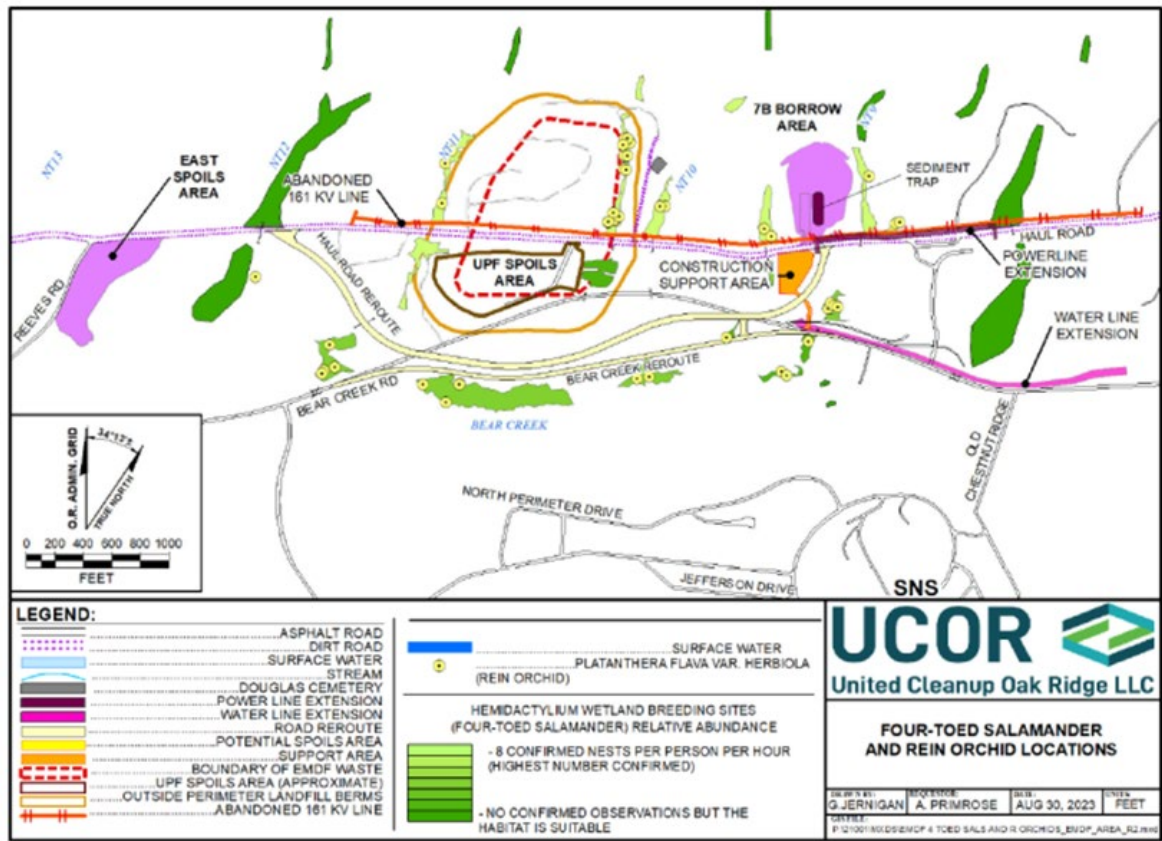


Fig. 4. Wetlands and streams locations—EMDF area.

2. This ESD does not provide the kind of site or activity description that was contained in the original (2005) ESD for the haul road (DOE/OR/01-2194&D2, January 2005) and that is important for understanding the nature of the action being taken. EPA recommends that the ESD be modified to contain the kind of information contained in that ESD, updated to reflect the site conditions at the current location of the relocated haul road.
3. Applicable or Relevant and Appropriate Requirements, page 7. This section states, “No additional ARARs are required for this ESD.” While it generally accurate that where no new ARARs are needed in an ESD where the earlier ROD (or in this case, ESD) had provided citations to those ARARs, there are circumstances in which ARARs should be developed. For example, where a citation has been updated since it was last cited or incorrectly cited in the original document, it is prudent to cite the

ARAR so that those implementing the action can locate (and, therefore, comply with) the ARAR. This is the case with several state and federal ARARs and TBCs pertinent to this ESD. EPA has provided a partial list of ARARs so that those implementing this ESD will not be forced to refer to older and likely outdated documents or to “choose” among ARARs listed in the original haul road ESD, EMWFM ROD, and this ESD (See attached ARARs table). In addition, certain RCRA regulations have been updated since the 2005 ESD; those ARARs are also attached to these comments. Please note that the RCRA regulations at 40 CFR 262.34 have been repealed and are noted in the published rules as “(Reserved)” and have, therefore, been deleted from the ARARs provided to DOE. To ensure that the ESD contains a complete and accurate list of ARARs, DOE should include the ARARs provided by EPA, not include the requirements at 40 CFR 262.34, **and should also include ARARs cited in the original haul road ESD (DOE/OR/01-2194&D2, January 2005), to the degree that the requirements are not addressed by this comment.**

4. The original haul road ESD cited two NRC regulations as ARARs and related DOE Orders as TBCs (10 CFR 20.1301 (a)(1); DOE Order 5400.5 (TBC) and 10 CFR 20.1101(b); DOE Order 5400.5 (TBC)). These should not be considered ARARs or TBCs because they are based on a dose (100 mrem/yr) that EPA does not consider to be protective. Consistent with EPA policy statements, requirements “that are greater than 12 mrem/yr effective dose equivalent (EDE) are generally not considered sufficiently protective for developing cleanup levels under CERCLA at remedial sites” and should not be cited as an ARAR. *Radiation Risk Assessment At CERCLA Sites: Q & A*, EPA Directive 9200.4-40, May 2014. Accordingly, these have been removed from the ARARs table.

If you have any questions or comments, please contact me at (943) 212-7256, or electronically at sayer.john@epa.gov.

Sincerely,

John W. W. Sayer
Remedial Project Manager
Superfund and Emergency Management Division

Enclosure: ARARs Table

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Applicable or Relevant and Appropriate Requirements (ARARs)

EMWMF ESD for Haul Road (2024)

Media/Location/Action	Requirement	Prerequisite	Citation
	Location-specific		
	<i>Floodplains, streams, and wetlands</i>		
Presence of floodplain and/or wetlands, as defined in 10 CFR 1022.4	<p>Incorporate floodplain and wetland management goals into planning, regulatory, and decision-making processes, and, to the extent practicable:</p> <ul style="list-style-type: none"> • Reduce the risk of flood loss; • Minimize the impact of floods on human safety, health, and welfare; • Restore and preserve natural and beneficial values served by floodplains; • Require the construction of DOE structures and facilities to be, at a minimum, in accordance with Federal Emergency Management Agency National Flood Insurance Program building standards; • Promote public awareness of flood hazards by providing conspicuous delineations of past and probable flood heights on DOE property that is in an identified floodplain; • Minimize the destruction, loss, or degradation of wetlands; and • Preserve and enhance the natural and beneficial values of wetlands 	DOE actions that involve potential impacts to, or take place within, floodplains— applicable	10 CFR 1022.3(a)(1) through (5) and (7)-(8)
Presence of streams	All new or relocated streams must include a vegetated riparian zone, demonstrate lateral and vertical channel stability, and have a natural channel bottom. All mitigation watercourses must maintain or improve flow and classified uses after mitigation is complete.	Activity in a stream that would result in an appreciable permanent loss of resource values - applicable	TDEC 0400-40-07-.04(7)(b)
Presence of wetlands	Mitigation must be provided where any activity would result in an appreciable permanent loss of resource value wetlands. Compensatory mitigation for loss of wetlands shall be provided for wetlands. The ratio of acres required for wetland mitigation should not be less than 2:1 for wetland restoration; 4:1 for wetland creation and enhancement; and 10:1 for wetland preservation.	Activity in a wetland that would result in an appreciable permanent loss of resource values - applicable	TDEC 0400-40-07-.04(7)(c)(2)

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

Media/Location/Action	Requirement	Prerequisite	Citation	
Presence of floodplain and/or wetlands, as defined in 10 CFR 1022.4	Undertake careful evaluation of potential effects of any proposed floodplain or wetlands action	DOE actions that involve potential impacts to, or take place within, floodplains— applicable	10 CFR 1022.3(b), (c), and (d)	
	Avoid, to the extent possible, long- and short-term adverse impacts associated with the destruction of wetlands and the occupancy and modification of floodplains and wetlands			
	Avoid direct and indirect support of development in a floodplain or new constructions in a wetland wherever there is a practicable alternative			
	Identify, evaluate, and, as appropriate, implement alternative actions that may avoid or mitigate adverse floodplain or wetland impacts			
	Describe the proposed action and include a map showing its location with respect to the floodplain and/or wetland. For actions located in a floodplain, the nature and extent of the flood hazard shall be described, including the nature and extent of hazards associated with any high-hazard areas			10 CFR 1022.13(a)(1)
	Discuss positive and negative, direct, and indirect, and long- and short-term effects of the proposed action on the floodplain and/or wetland. Include impacts on the natural and beneficial floodplain and wetland values (Section 1022.4) appropriate to the location under evaluation. In addition, the effects of a proposed floodplain action on lives and property shall be evaluated. For an action proposed in a wetland, the effects on the survival, quality, and function of the wetland shall be evaluated.			10 CFR 1022.13(a)(2)
	Consider alternatives to the proposed action that avoid adverse impacts and incompatible development in the floodplain, including alternate sites, alternate actions, and no action. DOE shall evaluate measures that mitigate adverse effects of actions in a floodplain including, but not limited to, minimum grading requirements, runoff controls, design and construction constraints, and protection of ecologically sensitive areas			10 CFR 1022.13(a)(3)
If no practicable alternative to locating or conducting the action in the floodplain is available, then before taking action, design or modify the action to minimize potential harm to or within the floodplain, consistent with the policies set forth in Executive Order 11988	10 CFR 1022.14(a)			

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

Presence of minor isolated wetlands of < 0.25 acre

For isolated wetlands of less than 0.25-acre, compensatory mitigation is not required. Alteration of minor isolated wetlands of < 0.25 acre must meet certain requirements as follows:

- The alteration shall not adversely affect adjacent wetlands;
- Excavation and fill shall be kept to a minimum and all excess material shall be hauled upland;
- Clearing, grubbing or other disturbance of areas immediately adjacent to Waters of the State shall be limited to the minimum necessary to accomplish the proposed activity. Unnecessary vegetation removal is prohibited and disturbed areas shall be stabilized and re-vegetated as soon as practicable;
- any material discharged into wetlands shall be free of contaminants including toxic pollutants and hazardous substances;
- erosion and sedimentation control measures must be maintained throughout the construction period, and;
- upon achievement of final grade, all disturbed areas shall be stabilized and re-vegetated within 30 days.

Alteration of minor wetlands - **TBC**

TDEC General Permit for Minor Wetlands Alteration

Presence of jurisdictional wetlands as defined in 40 CFR 230.3; 33 CFR 328.3(a) and 33 CFR 328.4

No discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences.

No discharge shall be permitted that results in violation of State water quality standards, violates any toxic effluent standard or prohibition under section 307 of the Act, or jeopardizes the continued existence of an endangered species or its critical habitat or results in likelihood of the destruction or adverse modification of a habitat which is determined by the Secretary of Interior or Commerce, as appropriate, to be a critical habitat under the Endangered Species Act of 1973, as amended.

No discharge will be permitted that will cause significant degradation of Waters of the United States as described in subparagraphs (1)-(4) of this paragraph (c).

No discharge is permitted unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem in accordance with 40 CFR 230 Subpart H.

Actions that involve the discharge of dredged or fill material into Waters of the United States including jurisdictional (adjacent) wetlands - **applicable**

10 CFR 230.10(a), (b), (c) and (d)
40 CFR 230 Subpart H

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

<i>Aquatic Resources</i>			
<p>Within an area potentially impacting "waters of the State," as defined in TCA 69-3-103(45)</p>	<p>Must comply with the substantive requirements of the ARAP for erosion and sediment control to prevent pollution</p>	<p>Action potentially altering the properties of any "waters of the State" — applicable</p>	<p>TCA 69-3-108(l)</p>
	<p>Erosion and sediment control requirements include, but are not limited to:</p> <ul style="list-style-type: none"> • Limit clearing, grubbing, and other disturbances in areas in or immediately adjacent to waters of the State to the minimum necessary to accomplish the proposed activity. • Unnecessary vegetation removal is prohibited, and all disturbed areas must be properly stabilized and revegetated as soon as practicable. • Limit excavation, dredging, bank reshaping, or grading to the minimum necessary to install authorized structures, accommodate stabilization, or prepare banks for revegetation. • Maintain the erosion and sedimentation control measures throughout the construction period. • Upon achievement of final grade, stabilize and revegetate within 30 days all disturbed areas by sodding, seeding, or mulching, or using appropriate native riparian species. 	<p>Action potentially altering the properties of any "waters of the State" — TBC</p>	<p>TDEC Aquatic Resource Alteration General Permit Program Requirements</p>
	<p>Must also comply with the specific requirements delineated in each general permit that applies to this activity (i.e., bank stabilization; surveying and geotechnical exploration; minor wetlands alterations; road crossings; alteration of wet weather conveyances; minor dredging; stream restoration and habitat enhancement; wetlands restoration and enhancement).</p>		<p>TDEC Aquatic Resource Alteration Permit Program Specific Requirements</p>
<p>Within area impacting stream or any other body of water and presence of wildlife resources (e.g., fish)</p>	<p>The effects of water-related projects on fish and wildlife resources and their habitat should be considered with a view to the conservation of fish and wildlife resources by preventing loss of and damage to such resources.</p>	<p>Action that impounds, modifies, diverts, or controls waters, including navigation and drainage activities — relevant and appropriate</p>	<p>Fish and Wildlife Coordination Act (16 USC 661 et seq.)</p>
<p>Location encompassing aquatic ecosystem as defined in 40 CFR 230.3(c)</p>	<p>Except as provided under Section 404(b)2 of the CWA, no discharge of dredged or fill material into an aquatic ecosystem is permitted if there is a practicable alternative that would have less adverse impact.</p>	<p>Action that involves the discharge of dredged or fill material into "waters of the U.S.," including jurisdictional wetlands —</p>	<p>40 CFR 230.10(a)</p>

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

applicable

No discharge of dredged or fill material shall be permitted unless appropriate and practicable steps per 40 CFR 230.70 et seq. have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem.

40 CFR 230.10(d)

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

Action-Specific			
<i>General construction standards-site preparation, excavation, trenching, etc. activities</i>			
Media/Location/Action	Requirement	Prerequisite	Citation
Activities causing fugitive dust emissions	<p>Shall take reasonable precautions to prevent particulate matter from becoming airborne; reasonable precautions shall include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • use, where possible, water or chemicals for control of dust, and • apply asphalt, water, or suitable chemicals on dirt roads, materials stock piles, and other surfaces, which can create airborne dust <p>Shall not cause or allow fugitive dust to be emitted in such a manner as to exceed 5 min/hr or 20 min/day as to produce a visible emission beyond the property line of the property on which the emission originates.</p>	Use, construction, alteration, repair, or demolition of a building, or appurtenances or a road or the handling, transport, or storage of material - applicable	<p>TDEC 1200-3-8-.01(1)</p> <p>TDEC 1200-3-8-.01(1)(a) TDEC 1200-3-8-.01(1)(b)</p> <p>TDEC 1200-3-8-.01(2)</p>
Airborne radionuclide emissions	Emissions of radionuclides to ambient air from DOE facilities shall not exceed those amounts that would cause any member of the public to receive an effective dose equivalent of 10 mrem per year	Radionuclide air emissions from point sources, as well as diffuse or fugitive emissions, at DOE facilities — applicable	40 CFR 61.92 and TDEC 0400-30-38-.01(2)(b)(8)
Land disturbing activities that may impact stormwater	<p>Implement good construction management techniques (including sediment and erosion controls, vegetative controls, and structural controls) in accordance with the substantive requirements of General Permit No. TNR10-0000, to ensure storm water discharge:</p> <ul style="list-style-type: none"> • does not violate water quality criteria as stated in TDEC 0400-40-03-.03, including but not limited to prevention of discharges that cause a condition in which visible solids, bottom deposits, or turbidity impairs the usefulness of waters of the state for any of the uses designated for that water body by TDEC 0400-40-04; 	<p>Storm water discharges from land disturbed by construction activity - disturbance of 1 acre or more total — applicable</p> <p>Storm water discharges from construction activities — TBC</p>	<p>TCA 69-3-108(l) TDEC 0400-40-10-.03(2)(a)</p> <p>General Permit No. TNR10-0000 Section 6.3.2.a</p>

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

Land disturbing activities that may impact stormwater (cont.)	<ul style="list-style-type: none"> shall cause no distinctly visible solids, scum, foam, oily slick, or the formation of slimes, bottom deposits, or sludge banks of such size or character as may be detrimental to fish and aquatic life.; 		General Permit No. TNR10-0000 Section 6.3.2.b
	<ul style="list-style-type: none"> shall not contain total suspended solids, turbidity, or color in such amounts or character that will result in any objectionable appearance compared to the turbidity or color of the receiving water, considering the nature and location of the water; 		General Permit No. TNR10-0000 Section 6.3.2.c
	<ul style="list-style-type: none"> shall not contain pollutants in quantities that will be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream 		General Permit No. TNR10-0000 Section 6.3.2.d
	<ul style="list-style-type: none"> Solids or other materials removed by any sediment control treatment devices must be disposed of in a manner that prevents its entrance into or pollution of any surface or subsurface waters 		General Permit No. TNR10-0000 Section 6.3.2.e
	The permittee shall take all necessary actions to ensure future discharges do not cause or contribute to the violation of a water quality standard and shall document these actions in the SWPPP		General Permit No. TNR10-0000 Section 6.3.1
	The following conditions apply to all land disturbance work: <ul style="list-style-type: none"> If sediment escapes the permitted area, off-site accumulations that have not reached a stream must be removed at a frequency sufficient to minimize off-site impacts 		General Permit No. TNR10-0000 Section 5.5.3.1.c
	<ul style="list-style-type: none"> Sediment must be removed from sediment traps, silt fences, sediment basins and other sediment controls when design capacity has been reduced by 50%. 		General Permit No. TNR10-0000 Section 5.5.3.1.d
	<ul style="list-style-type: none"> Pre-construction vegetative ground cover shall not be destroyed, removed, or disturbed more than 14 days prior to commencement of grading or earth moving activities unless the area is subsequently temporarily or permanently stabilized. 		General Permit No. TNR10-0000 Section 5.5.3.1.f
	<ul style="list-style-type: none"> Clearing and grubbing must be held to the minimum necessary for grading and equipment operation. Existing vegetation at the site shall be preserved to the maximum extent practicable. 		General Permit No. TNR10-0000 Section 5.5.3.1.g

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

Land disturbing activities that may impact stormwater (cont.)	<ul style="list-style-type: none"> • Construction must be sequenced to minimize the exposure time of graded or denuded areas.; 		General Permit No. TNR10-0000 Section 5.5.3.1.h
	<ul style="list-style-type: none"> • measures must be in place and functional before earth moving operations begin and must be constructed and maintained throughout the construction period stages as appropriate. Temporary measures may be removed at the beginning of the workday but must be replaced at the end of the workday. 		General Permit No. TNR10-0000 Section 5.5.3.1.i
	<ul style="list-style-type: none"> • Areas where construction is completed must be stabilized within 14 days (Subsection 5.5.3.4). 		General Permit No. TNR10-0000 Section 5.5.3.2
	<ul style="list-style-type: none"> • Stabilization measures shall be initiated as soon as possible in portions of the site where construction activities have temporarily or permanently ceased. Temporary or permanent soil stabilization at the construction site must be completed within 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. • Steep slopes shall be stabilized within one week after construction activity on the slope has temporarily or permanently ceased. • Permanent stabilization with perennial vegetation (using native herbaceous and woody plants where practicable) or other permanently stable, non-eroding surface shall replace any temporary measures as soon as practicable 		General Permit No. TNR10-0000 Section 5.5.3.4
Land disturbing activities that may impact stormwater (cont.)	<ul style="list-style-type: none"> • shall be designed to minimize erosion and maximize sediment removal resulting from a 2-year, 24-hour storm (the design storm). • Chemical treatment of the stormwater runoff may be necessary to minimize the amount of sediment being discharged when clay and other fine particle soils or highly erodible soils are present at the construction site. However, the use of cationic polymers for treatment is prohibited. 		General Permit No. TNR10-0000 Section 5.5.3.5

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

<p>Land disturbing activities that may impact stormwater (cont.)</p>	<ul style="list-style-type: none"> • For an outfall that receives drainage from 10 or more acres, a minimum sediment basin volume that will provide treatment for a calculated volume of runoff from a 2-year, 24-hour storm and runoff from each acre drained, or equivalent control measures as specified in the Tennessee Erosion and Sediment Control Handbook, shall be provided until permanent stabilization of the site. • Runoff from any undisturbed acreage should be diverted around the disturbed area and the sediment basin. • The discharge structure from a sediment basin must be designed to retain sediment during the lower flows in accordance with the most current version of the Tennessee Erosion and Sediment Control Handbook. • Muddy water to be pumped from excavation and work areas must be held in settling basins, filtered or chemically treated prior to its discharge into surface waters. • Water must be discharged through a pipe, grassed or lined channel or other equivalent means so that the discharge does not cause erosion and sedimentation. • Discharged water must not cause an objectionable color contrast with the receiving stream. 		
<p>Land disturbing activities that may impact stormwater (cont.)</p>	<ul style="list-style-type: none"> • Stormwater controls must be designed to control stormwater volume, velocity, and peak flow rates to minimize discharges of pollutants in stormwater, as well as minimizing channel and streambank erosion at discharge points. <p>Any inadequate control measures or control measures in disrepair shall be replaced, modified, or repaired as necessary, before the next rain event; but in no case more than seven days after the need is identified.</p>		<p>General Permit No. TNR10-0000 Section 5.5.3.6</p> <p>General Permit No. TNR10-0000 Section 5.5.3.11.e</p>

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

Land disturbing activities that may impact stormwater (cont.)	Discharges that would cause measurable degradation of waters with unavailable parameters are not authorized by this permit (Subpart 1.3). To be eligible to obtain and maintain coverage under this permit, the operator must satisfy, at a minimum, the following additional requirements for discharges into waters with unavailable parameters for siltation:		General Permit No. TNR10-0000 Section 6.4.1.a
	<ul style="list-style-type: none"> • must certify that EPSC measures used at the site are designed to control stormwater runoff generated by a 5-year, 24-hour storm event (the design storm), at a minimum, either from total rainfall in the designated period or the equivalent intensity as specified on the following website https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html. 		General Permit No. TNR10-0000 Section 6.4.1.b
	<ul style="list-style-type: none"> • The project must be stabilized immediately and remain stable until the SWPPP is updated and the individual permit is issued. Only discharges from earth disturbing activities necessary for stabilization are authorized to continue until the individual permit is issued. 		General Permit No. TNR10-0000 Section 6.4.1.d
	<ul style="list-style-type: none"> • For an on-site outfall in a drainage area totaling five or more acres, a minimum sediment basin volume that will provide treatment for a calculated volume of runoff from a 5-year, 24-hour storm and runoff from each acre drained; or equivalent control measures as specified in the Tennessee Erosion and Sediment Control Handbook, shall be provided until permanent stabilization of the site. 		General Permit No. TNR10-0000 Section 6.4.1.e
	<p>Sites that contain, or are adjacent to, receiving waters with unavailable parameters for siltation shall preserve a 60-foot natural water quality riparian buffer zone adjacent to the receiving stream.</p> <p>The natural water quality riparian buffer zone shall be preserved between the top of stream bank and the disturbed construction area. The 60-foot criterion for the width of the buffer can be established on an average width basis at a project, as long as the minimum width of the buffer is more than 30 feet at any measured location. If the construction site encompasses both sides of a stream, buffer averaging can be applied to both sides, but each side must average the 60-foot criterion independently.</p>		General Permit No. TNR10-0000 Section 6.4.2

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

<p>Land disturbing activities that may impact stormwater (cont.)</p>	<p>Shall develop and implement storm water management controls to ensure compliance with the terms and conditions of General Permit No. TNR050000 or any applicable site-specific permit [ETTP NPDES Permit No. TN0002950] and with TDEC 0400-40-10-.03(2)(c).</p> <p><i>NOTE: EPA has included this in the table of ARARs because it was in the original haul road ESD. EPA has not verified with Permit No. TN0002950 is still in effect.</i></p>	<p>Storm water discharges associated with industrial activity — applicable</p>	<p>TCA 69-3-108(l) TDEC 0400-40-10-.03(2)(a)</p>
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Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

<i>Waste Characterization – Primary Waste (e.g., excavated waste and contaminated soil, purged ground water) and Secondary Wastes (e.g., contaminated equipment or treatment residuals)</i>			
<p>Characterization of solid waste (all primary and secondary wastes) and Listed hazardous waste determination</p>	<p>Must make an accurate determination as to whether that waste is a hazardous waste in order to ensure wastes are properly managed according to applicable RCRA regulations. A hazardous waste determination is made using the following steps:</p> <ul style="list-style-type: none"> (a) The hazardous waste determination for each solid waste must be made at the point of waste generation, before any dilution, mixing, or other alteration of the waste occurs, and at any time in the course of its management that it has, or may have, changed its properties as a result of exposure to the environment or other factors that may change the properties of the waste such that the RCRA classification of the waste may change. (b) Must determine whether the waste is excluded from regulation under 40 CFR 261.4; and (c) Must use the knowledge of the waste to determine whether waste meets any of the listing descriptions under subpart D of 40 CFR Part 261. Acceptable knowledge that may be used in making an accurate determination as to whether the waste is listed may include waste origin, composition, the process producing the waste, feedstock, and other reliable and relevant information. 	<p>Generation of solid waste as defined in 40 CFR 261.2 – Applicable</p>	<p>40 CFR 262.11(a),(b) and (c)</p>
<p>Determination of characteristic hazardous waste</p>	<p>The person then must also determine whether the waste exhibits one or more hazardous characteristics as identified in subpart C of 40 CFR part 261 by following the procedures in paragraph (d)(1) or (2) of this section, or a combination of both.</p>	<p>Generation of solid waste which is not excluded under 40 CFR 261.4(a) – Applicable</p>	<p>40 CFR 262.11(d)</p>

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

<p>Determination of characteristic hazardous waste through knowledge</p>	<p>The person must apply knowledge of the hazard characteristic of the waste in light of the materials or the processes used to generate the waste. Acceptable knowledge may include process knowledge (e.g., information about chemical feedstocks and other inputs to the production process); knowledge of products, by-products, and intermediates produced by the manufacturing process; chemical or physical characterization of wastes; information on the chemical and physical properties of the chemicals used or produced by the process or otherwise contained in the waste; testing that illustrates the properties of the waste; or other reliable and relevant information about the properties of the waste or its constituents.</p> <p>A test other than a test method set forth in subpart C of 40 CFR part 261, or an equivalent test method approved by the Administrator under 40 CFR 260.21, may be used as part of a person's knowledge to determine whether a solid waste exhibits a characteristic of hazardous waste. However, such tests do not, by themselves, provide definitive results. Persons testing their waste must obtain a representative sample of the waste for the testing, as defined at 40 CFR 260.10.</p>		<p>40 CFR 262.11(d)(1)</p>
<p>Determination of characteristic hazardous waste through testing</p>	<p>When available knowledge is inadequate to make an accurate determination, the person must test the waste according to the applicable methods set forth in subpart C of 40 CFR part 261 or according to an equivalent method approved by the Administrator under 40 CFR 260.21; or and in accordance with the following:</p> <p>(i) Persons testing their waste must obtain a representative sample of the waste for the testing, as defined at 40 CFR 260.10.</p> <p>(ii) Where a test method is specified in subpart C of 40 CFR part 261, the results of the regulatory test, when properly performed, are definitive for determining the regulatory status of the waste.</p>	<p>Generation of solid waste which is not excluded under 40 CFR 261.4(a) – Applicable</p>	<p>40 CFR 262.11(d)(2)</p>

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

	Must refer to Parts 261, 262, 264, 265, 266, 268, and 273 of Chapter 40 for possible exclusions or restrictions pertaining to management of the specific waste.	Generation of solid waste which is determined to be hazardous waste – Applicable	40 CFR 262.11(e)
Identifying hazardous waste numbers for small and large quantity generators	Must identify all applicable EPA hazardous waste numbers (EPA hazardous waste codes) in subparts C and D of part 261 of this chapter. Prior to shipping the waste off site, the generator also must mark its containers with all applicable EPA hazardous waste numbers (EPA hazardous waste codes) according to § 262.32.		40 CFR 262.11(g)
General Waste Analysis	Must obtain a detailed chemical and physical analysis on a representative sample of the waste(s), which at a minimum contains all the information that must be known to treat, store, or dispose of the waste in accordance with pertinent sections of 40 CFR 264 and 268.	Generation of RCRA hazardous waste or nonhazardous wastes if applicable under § 264.113(d) for storage, treatment or disposal – Applicable	40 CFR 264.13(a)(1)
Special rules for characteristic hazardous waste	Must determine each EPA Hazardous Waste Number (waste code) applicable to the waste in order to determine the applicable treatment standards under subpart D of this part . This determination may be made concurrently with the hazardous waste determination required in § 262.11 of this chapter . For purposes of part 268, the waste will carry the waste code for any applicable listed waste (40 CFR part 261, subpart D). In addition, where the waste exhibits a characteristic, the waste will carry one or more of the characteristic waste codes (40 CFR part 261, subpart C), except when the treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste, as specified in paragraph (b) of this section.	Generation of characteristic hazardous waste for storage, treatment or disposal – Applicable	40 CFR 268.9(a)

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

<p>Special rules for characteristic hazardous waste (cont.)</p>	<p>Must determine the underlying hazardous constituents [as defined in 40 CFR 268.2(i)] in the characteristic waste.</p>	<p>Generation of RCRA characteristic hazardous waste (and is not D001 nonwastewaters treated by CMBST, RORGS, or POLYM of § 268.42 Table 1) for storage, treatment or disposal – Applicable</p>	<p>40 CFR 268.9(a)</p>
<p>Determinations for land disposal of hazardous waste</p>	<p>Must determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in §268.40, 268.45, or §268.49. This determination can be made concurrently with the hazardous waste determination required in §262.11 of this chapter, in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing would normally determine the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using test method 1311 in “Test Methods of Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW–846, (incorporated by reference, see §260.11 of this chapter), depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste’s extract. (Alternatively, the generator must send the waste to a RCRA-permitted hazardous waste treatment facility, where the waste treatment facility must comply with the requirements of §264.13 of this chapter and paragraph (b) of this section.)</p>	<p>Generation of hazardous waste for storage, treatment or disposal – Applicable</p>	<p>40 CFR 268.7(a)</p>
	<p>Must comply with the special requirements of 40 CFR 268.9 in addition to any applicable requirements in CFR 268.7.</p>	<p>Generation of waste or soil that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity for storage, treatment or disposal – Applicable</p>	<p>40 CFR 268.7(a)</p>

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

<i>Waste Storage – Primary Waste (e.g., excavated waste and contaminated soil) and Secondary Wastes (e.g., contaminated equipment, well purge water, treatment residuals)</i>			
Temporary on-site accumulation of hazardous waste in containers	A small quantity generator may accumulate hazardous waste on site without a permit or interim status, and without complying with the requirements of parts 124, 264 through 267 , and 270 of this chapter , or the notification requirements of section 3010 of RCRA, provided that all the substantive conditions for exemption listed in this section are met.	Accumulation of RCRA hazardous waste on site as defined in 40 CFR 260.10 – Applicable	40 CFR 262.16(a)
Condition of containers	If a container holding hazardous waste is not in good condition, or if it begins to leak, the small quantity generator must immediately transfer the hazardous waste from this container to a container that is in good condition, or immediately manage the waste in some other way that complies with the conditions for exemption of this section.		40 CFR 262.16(b)(2)(i)
Compatibility of waste with container	Must use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be accumulated, so that the ability of the container to contain the waste is not impaired.		40 CFR 262.16(b)(2)(ii)
Management of containers	(A) A container holding hazardous waste must always be closed during accumulation, except when it is necessary to add or remove waste. (B) A container holding hazardous waste must not be opened, handled, or accumulated in a manner that may rupture the container or cause it to leak.		40 CFR 262.16(b)(2)(iii)
Special conditions for accumulation of incompatible wastes	(A) Incompatible wastes, or incompatible wastes and materials, (see appendix V of part 265 for examples) must not be placed in the same container, unless § 265.17(b) of this chapter is complied with. (B) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or	Accumulation of incompatible wastes, or incompatible wastes and materials on site – Applicable	40 CFR 262.16(b)(2)(v)

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

	<p>material (see appendix V of part 265 for examples), unless § 265.17(b) of this chapter is complied with.</p> <p>(C) A container accumulating hazardous waste that is incompatible with any waste or other materials accumulated or stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.</p>		
Labeling and marking of containers	<p>A small quantity generator must mark or label its containers with the following:</p> <p>(A) The words “Hazardous Waste”;</p> <p>(B) An indication of the hazards of the contents (examples include, but are not limited to, the applicable hazardous waste characteristic(s) (<i>i.e.</i>, ignitable, corrosive, reactive, toxic); hazard communication consistent with the Department of Transportation requirements at 49 CFR part 172 subpart E (labeling) or subpart F (placarding); a hazard statement or pictogram consistent with the Occupational Safety and Health Administration Hazard Communication Standard at 29 CFR 1910.1200; or a chemical hazard label consistent with the National Fire Protection Association code 704); and</p> <p>(C) The date upon which each period of accumulation begins clearly visible for inspection on each container.</p>	Accumulation of RCRA hazardous waste on site as defined in 40 CFR 260.10 – Applicable	40 CFR 262.16(b)(6)(i)
Condition of container	<p>If a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition, or manage the waste in some other way that complies with the requirements of this part.</p>	Storage of RCRA hazardous waste in containers – Applicable	40 CFR 265.171
Compatibility of waste with container	<p>Must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.</p>		40 CFR 265.172

Applicable or Relevant and Appropriate Requirements (cont.)

EMWMF ESD for Haul Road (2024)

Management of containers	Containers must be closed during storage, except when necessary to add/remove waste. Container must not be opened, handled and stored in a manner that may rupture the container or cause it to leak.		40 CFR 265.173(a) and (b)
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