



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
Division of Remediation, Oak Ridge Office  
761 Emory Valley Road  
Oak Ridge, Tennessee 37830

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COUNTY MAYOR'S OFFICE

February 5, 2026

Mr. Roger Petrie  
Federal Facility Agreement Manager  
U.S. Department of Energy  
Oak Ridge Office of Environmental Management  
Post Office Box 4067  
Oak Ridge, Tennessee 37831

Dear Mr. Petrie

**TDEC Comments: Explanation of Significant Differences 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: Clean Water Act (DOE/OR/01-2972&D2)**

The Tennessee Department of Environment & Conservation (TDEC), Division of Remediation – Oak Ridge Office, received the referenced document on December 8, 2025. TDEC provides the enclosed comments, including feedback on responses to TDEC’s May 17, 2024, comments on the draft (D1) document. These comments are intended to support finalization of this Explanation of Significant Differences (ESD) for the Environmental Management Waste Management Facility (EMWMF) Record of Decision (ROD) with the understanding that the U.S. Department of Energy (DOE) will submit an additional ESD in the next few months.

This ESD adds the Clean Water Act (CWA) and associated regulations to the EMWMF ROD as *relevant and appropriate* requirements to manage radiological landfill wastewater in accordance with the U.S. Environmental Protection Agency (EPA) Administrator’s Dispute Resolution Decision. TDEC, DOE, and EPA continue to work towards agreement on non-radiological pollutant effluent discharge limits. As part of these discussions, DOE has acknowledged that Tennessee’s Antidegradation requirements ([TDEC 0400-40-03-.06](#)) are considered an Applicable or Relevant and Appropriate Requirement (ARAR) for the EMWMF non-radiological discharges of CWA pollutants. The State understands DOE will submit a follow-on ESD which will add *applicable* requirements and effluent discharge limits for managing non-radiological pollutants like mercury and polychlorinated biphenyls (PCBs). Therefore, TDEC limited comments to the management of radiological wastewater.

The DOE letter, dated December 8, 2025, states that this ESD “resolves the dispute associated with establishing radiological discharge limits for the Environmental Management Waste Management Facility landfill wastewater discharges.” TDEC clarifies that neither submittal nor approval of this ESD resolves the longstanding need for the EMWMF ROD to include *applicable* requirements and effluent discharge limits for managing the non-radiological chemicals.

During a September 25, 2024, project team meeting, DOE, EPA, and TDEC agreed the disputed Remedial Action Work Plan (RAWP) "will continue to be in informal dispute until concerns are resolved." As stated in TDEC's letter dated January 23, 2025, key issues will remain unresolved until TDEC and EPA approve 1) an ESD that adds all legal requirements, known as ARARs, for landfill wastewater management to the EMWMF ROD and 2) a revised RAWP that implements protective wastewater discharge limits that comply with those ARARs.

A TDEC email dated May 29, 2025, clarified that TDEC expects the establishment of discharge limits for *all* pollutants, including non-radionuclide chemicals, before agreeing the dispute has been resolved. In an email dated May 6, 2025, TDEC requested that DOE commit to a schedule for submitting a separate ESD that adds CWA ARARs and effluent discharge limits to the ROD for managing non-radiological pollutants in landfill wastewater. Resolution of the enclosed comments and revision of the subject ESD to include the requested schedule commitment will facilitate TDEC approval.

Questions or comments concerning the contents of this letter should be directed to Brad Stephenson at the above address, by phone at 865-352-1235, or by email at [brad.stephenson@tn.gov](mailto:brad.stephenson@tn.gov).

Sincerely

**Eileen Marcillo**

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Eileen Marcillo  
FFA Project Manager  
Division of Remediation – Oak Ridge Office

Enclosure

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## ENCLOSURE

### General Comments

- 1) During the project team meeting on January 28, 2026, the U.S. Department of Energy (DOE) presented materials expressing an intent to issue an additional Explanation of Significant Differences (ESD) that adds applicable Clean Water Act (CWA) Applicable or Relevant and Appropriate Requirement (ARARs) and effluent discharge limits to the Environmental Management Waste Management Facility (EMWMF) Record of Decision (ROD) for managing non-radiological pollutants in landfill wastewater.

- a) Revise this ESD to include language committing to the submittal of the follow-on document.

TDEC has identified additional ARARs that need to be included in the forthcoming ESD. The State will not consider this effort complete until TDEC and the U.S. Environmental Protection Agency (EPA) approve both ESDs and any other documents needed to establish and implement effluent discharge limits for radiological and non-radiological chemicals.

- b) Rename this ESD "...Clean Water Act, Part 1" or similar.
- c) Revise Appendix E of the Federal Facility Agreement (FFA) for the Oak Ridge Reservation (ORR) to include a schedule milestone for submitting the follow-on ESD. The schedule shared during the January 28, 2026, project team meeting projects a tentative date of July 2026.

### Specific Comments

- 1) Page 1, 4<sup>th</sup> paragraph, 2<sup>nd</sup> sentence and Page 5, Radiological Discharge Limits, 1<sup>st</sup> paragraph, 2<sup>nd</sup> sentence: Change "may" to "will" and delete all language after "...future document."
- 2) Page 4, last paragraph: The EPA Administrator's Dispute Resolution Decision ([Wheeler, 2020](#))<sup>1</sup> and the *Focused Feasibility Study for Water Management for the Disposal of CERCLA Waste on the Oak Ridge Reservation, Oak Ridge, Tennessee* ([DOE/OR/01-2664&D4/R1](#)) also address non-radiological pollutants in landfill effluent.

No document revision is necessary to resolve this informational comment if the document is revised in a manner that resolves General Comment 1 and Specific Comment 1.

- 3) Page 5, Radiological Discharge Limits, 1<sup>st</sup> paragraph: Add "Resolution" between "Dispute" and "Decision."

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<sup>1</sup> Wheeler, A.R., 2020, EPA Administrator's Dispute Resolution Decision: U.S. Environmental Protection Agency, Washington, D.C., letter to John A. Mullis II, Oak Ridge Office of Environmental Management, Oak Ridge Reservation, U.S. Department of Energy, Oak Ridge, TN and David W. Salyers, Commissioner, Tennessee Department of Environment and Conservation, Nashville, TN, December 31.

## ENCLOSURE

- 2) Page 7, Leachate Management, 2<sup>nd</sup> paragraph: Use more descriptive terms or numerical findings that support the following.
  - a) “[G]enerally” in the first sentence to describe the leachate meeting the WAC [Waste Acceptance Criteria].
  - b) “[N]ot likely” in the second sentence to describe the potential for exceedances.
- 4) Page 8, 1<sup>st</sup> paragraph, 2<sup>nd</sup> sentence: Explain how secondary waste, including steel wool used to remove hexavalent chromium and mercury from landfill wastewater, is tested or characterized before disposal.
- 5) Page 8, 2<sup>nd</sup> paragraph: TDEC notes that the *Sampling and Analysis Plan/Quality Assurance Project Plan [SAP/QAPP] for the Environmental Monitoring at the Environmental Management Waste Management Facility, Oak Ridge, Tennessee* (DOE/OR/01-2734; UCOR-4156 – latest revision approved by the FFA parties) will also need revision to incorporate and implement effluent discharge limits for non-radiological pollutants in landfill effluent that the DOE has not yet agreed to include.
- 6) Page 8, 3<sup>rd</sup> paragraph: The remedy modification in this ESD satisfies ARARs with respect to radiological contaminants, but it does not fully satisfy CERCLA § 121 or “provide adequate protection of human health and the environment” because it omits (and does not waive) ARARs that govern management of known contaminants, including mercury and PCBs. Omission of ARARs is not an acceptable strategy for declaring that the remedy complies with ARARs or provides “adequate protection” under CERCLA.

Also, the protectiveness determination for the EMWMF is “Will be protective” (underlining added for emphasis), as documented in the *2025 CERCLA Five-Year Review for the Bear Creek Valley Administrative Watershed on the U.S. Department of Energy Oak Ridge National Priorities List Site, Oak Ridge, Tennessee* (DOE/OR/01-2990&D1).

No document revision is necessary to resolve this informational comment if the document is revised in a manner that resolves General Comment 1 and Specific Comment 1.

- 7) Page A-3, 5<sup>th</sup> paragraph: Delete “to complete that set of ARARs,” and rephrase to acknowledge the scope of this ESD is limited to radiological discharges only.
- 8) Page A-4, 1<sup>st</sup> full sentence: Add language at the end of the sentence to limit the scope of the ARARs to radiological discharges only.
- 9) Page A-4, Section A.4, 2<sup>nd</sup> paragraph, 2<sup>nd</sup> sentence: Delete “All” at the beginning of the sentence and add language limiting the scope of the ARARs to radiological discharges only.
- 10) Appendix A: Revise the text to explain that some ARARs described in Table A.1 as “relevant and appropriate” for radiological discharges will be included in a follow-on ESD as applicable for non-radiological pollutant discharges.

<b>Document Number:</b> DOE/OR/01-2972&D1	<b>Document Title:</b> Explanation of Significant Differences 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: Clean Water Act	
<b>Name of Reviewer:</b> Randy Young	<b>Organization:</b> TDEC	<b>Date Comments Transmitted:</b> 5/17/2024

Comment No.	Sect/ Page	Comment	Response	TDEC Feedback
<b>GENERAL COMMENTS</b>				
1		Revise the document to provide a roadmap of future documents needed to establish Environmental Management Waste Management Facility (EMWMF) wastewater discharge limits for chemicals and radionuclides.	<p>Clarification provided. Resolved by the FFA Project Team working group. By agreement, this ESD addresses radiological discharge limits.</p> <p>The introduction has been revised to clarify that radiological discharge limits are provided in this document and chemical discharges may be addressed in follow-on document, pending ongoing discussion among the FFA parties.</p>	<p>Change <i>may to will</i> in the response and revise this ESD to include language committing to the submittal of a follow-on ESD that adds applicable Clean Water Act (CWA) Applicable or Relevant and Appropriate Requirement (ARARs) and effluent discharge limits to the EMWMF ROD for managing non-radiological pollutants in landfill wastewater.</p> <p>Revise Appendix F of the Federal Facility Agreement (FFA) for the Oak Ridge Reservation (ORR) to include a milestone for submittal of a follow-on ESD.</p> <p>Rename the ESD under review "... Clean Water Act, Part 1" or similar.</p> <p>TDEC requested that DOE include such language in this document in an email dated May 6, 2025.</p> <p>The project team agreed the first ESD would address radiological discharge limits. The project team did <u>not</u> agree that establishing and implementing chemical discharge limits is optional.</p>
2		Revise the document to clarify the schedule for applying wastewater discharge limits to EMWMF operations.	<p>Clarification provided. Resolved by the FFA Project Team working group. By agreement, this ESD addresses radiological discharge limits.</p> <p>Text in "EPA and TDEC Comments" has been revised to clarify that this ESD will be implemented upon approval of both the ESD and a subsequent revision to the SAP/QAPP that incorporates the approved radiological discharge limits.</p>	See TDEC feedback for General Response 1.

**Comment Resolution Form**

Comment No.	Section/ Page	Comment	Response	TDEC Feedback
3		For clarity, consistency with the EPA Administrator's Dispute Resolution Decision (DRD), <sup>1</sup> and consistency within the document, change <i>water management to wastewater management</i> where appropriate.  <sup>1</sup> EPA Administrator's Dispute Resolution Decision: Wheeler, A.R., December 31, 2020; U.S. Environmental Protection Agency, Washington, D.C., letter (and January 19, 2021 follow-up letter) to John A. Mallis II, Oak Ridge Office of Environmental Management, Oak Ridge Reservation, U.S. Department of Energy, Oak Ridge, TN and David W. Salyers, Commissioner, Tennessee Department of Environment and Conservation, Nashville, TN.	Agree. Change made as requested.	Resolved.
<b>SPECIFIC COMMENTS</b>				
1	Page 1, 2 <sup>nd</sup> paragraph, last sentence	The ESD should use the exact language from the DRD. <sup>1</sup> Delete language after "this applies solely to" and replace it with "the discharge of effluent that includes radionuclides from landfills constructed as CERCLA response actions at ORR."  <sup>1</sup> EPA Administrator's Dispute Resolution Decision: Wheeler, A.R., December 31, 2020; U.S. Environmental Protection Agency, Washington, D.C., letter (and January 19, 2021 follow-up letter) to John A. Mallis II, Oak Ridge Office of Environmental Management, Oak Ridge Reservation, U.S. Department of Energy, Oak Ridge, TN and David W. Salyers, Commissioner, Tennessee Department of Environment and Conservation, Nashville, TN.	Agree. The text was changed to "... as a factual matter this decision is necessarily limited to ORR."	The response does not resolve the comment, and it generates additional questions and concerns.  The revision proposed in the response is based on wording in the Administrator's Dispute Resolution Decision. However, including it without the context of the subsequent sentence would suggest the Decision applies to the ORR. The next sentence in the Decision clearly states, "If [the Decision] only addresses the establishment of protective PRGs to be used in the NCP's remedy selection process that will lead to setting final effluent limits in the ROD for the discharge of effluent that includes radionuclides <i>from landfills constructed as CERCLA response actions at ORR</i> , a site on the NPL" (italics added for emphasis).
2	Page 1, 3 <sup>rd</sup> & 4 <sup>th</sup> paragraphs	The third paragraph discusses <i>requirements</i> for managing the discharge of chemicals. The fourth paragraph addresses <i>development</i> of discharge limits for radionuclides, stating they will be developed in a follow-on primary document.	Clarification provided. Resolved by the FFA Project Team working group. By agreement, radiological discharge limits are provided in this document.  Chemical discharges may be addressed in a subsequent document, pending ongoing discussion among the FFA parties.	See TDEC feedback for General Response 1 and change <i>may to will</i> in the response.
3	Page 1, 6 <sup>th</sup> paragraph Page 6, 1 <sup>st</sup> full paragraph	Revise the link or add an additional link so the public can access the fact sheet directly.	Clarification provided. The link remains valid for the information center. A link for the fact sheet will be provided with the notice of the ESD being available in the DOE Information Center.	Resolved.
4	Page 3, 3 <sup>rd</sup> paragraph, 1 <sup>st</sup> sentence	For clarity, change "the ROD was signed" to "the EMWME ROD was signed." After making this change, consider removing "EMWME" from the following sentence and changing the second use of "ROD" to "CERCLA remedy".	Agree. Change made as requested.	Resolved.

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Comment No.	Sect/ Page	Comment	Response	TDEC Feedback
5	Page 4, Basis for the Document, 1 <sup>st</sup> sentence	For clarity, change "to add the CWA as an ARAR" to "to add the CWA and associated regulations as ARARs."	Agree. Change made as requested.	Resolved.
6	Page 4, Description of Significant Differences	<p>a. Delete the first sentence, as it does not describe significant differences from the remedy selected in the EMWRF Record of Decision (ROD).<sup>3</sup></p> <p><sup>3</sup> DOE, 1999, <i>Record of Decision for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act of 1980 Waste</i>, U.S. Department of Energy, Office of Environmental Management, Oak Ridge, TN, DOE/OR 01-1791&amp;D3.</p>	Disagree. This is a clarifying sentence placing the ESD in perspective.	Resolved.
		b. Clarify how the fourth sentence is consistent with the DRD.	Clarification provided. Sentence deleted. Resolved by the FFA Project Team working group.	Resolved.
		c. Clarify how wastewater management will continue as described in a primary FFA document that has not been approved by EPA or TDEC and awaits dispute resolution in accordance with the FFA. <sup>4</sup>	Clarification provided. Sentence deleted. Resolved by the FFA Project Team working group.	Resolved.
		<sup>4</sup> DOE, 2014, <i>Remedial Action Work Plan for the Disposal of Oak Ridge Reservation Comprehensive Environmental Response, Compensation, and Liability Act of 1980 Waste</i> , Oak Ridge, Tennessee, U.S. Department of Energy, Office of Environmental Management, Oak Ridge, TN, (DOE/OR 01-1874&D4).		
7	Page 5, Discharge Limits, 3 <sup>rd</sup> paragraph	a. Delete this paragraph or at least the first sentence. The purpose of this ESD is to add ARARs that authorize landfill wastewater discharges from EMWRF. Discussions about compliance with TDEC 1200-2-11-16(2) should be deferred to a future document.	Clarification provided. Resolved by the FFA Project Team working group. Section rewritten to describe approach for radiological discharge limits. Chemical discharges may be addressed in a subsequent document, pending ongoing discussion among the FFA parties.	Change <i>may</i> to <i>will</i> in the response.
		b. If portions of the paragraph are retained, combine with the previous paragraph to clarify the paragraph applies to radionuclides only and replace references to DOE Orders with references to TDEC 1200-2-11-16(2).		
		c. If portions of the paragraph are retained, cite Section K.1.4.1 of the FFS to support selection of BCK 4.5 as the point of exposure. <sup>5</sup>		
		<sup>5</sup> DOE, 2022, <i>Focused Feasibility Study for Water Management for the Disposal of CERCLA Waste on the Oak Ridge Reservation</i> , Oak Ridge, Tennessee, U.S. Department of Energy, Office of Environmental Management, Oak Ridge, TN, (DOE/OR 01-2664&D4R1).		

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Comment No.	Sect/ Page	Comment	Response	TDEC Feedback
8	Page 5, Discharge Limits, last paragraph	Explain why a compliance period is necessary and when the follow-on document will be developed. In addition, explain how a compliance period aligns with the statement in the following section that the "ESD will be implemented upon approval of both the ESD and the [SAP/QAPP]..."	Clarification provided. Resolved by the FFA Project Team working group. By agreement, radiological discharge limits are provided in this document.  Chemical discharges may be addressed in a subsequent document, pending ongoing discussion among the FFA parties.	Radiological: Resolved  Chemicals: See TDEC feedback for General Response 1 and change <i>may</i> to <i>will</i> in the response.
9	Page 5, Secondary Waste from Landfill Wastewater Management	Specify what secondary waste will be generated and/or provide examples to clarify this does not include liquid waste.	Agree. Text was added "Secondary waste includes miscellaneous waste from wastewater management and waste operations. Secondary waste does not include liquid waste."	The response does not fully resolve the comment. Clarification that secondary waste does not include liquid waste is good, but adding the word <i>miscellaneous</i> does not provide the specificity or examples requested by the comment.
10	Page 5, EPA and TDEC Comments, last sentence	Should this sentence refer to the forthcoming D5 SAP/QAPP instead of the 2734&D1/R1 (UCOR-4156/R4) version, which DOE issued in 2017, or is this citation intended to refer to a subsequent future SAP/QAPP that establishes discharge limits? Where does the RAWP revision fit in?  TDEC approved the 2016 DOE/OR/01-2734&D1 (UCOR-4156/R3) version of the SAP/QAPP for <i>interim</i> use. As stated in DOE's March 29, 2018, letter, "In the interim, the existing D1 version (UCOR-4156/R3) ... has been approved by all parties and is being followed." Therefore, it appears the D1 ESD incorrectly cites the  DOE/OR/01-2734&D1/R1 (UCOR-4156/R4) version, which differs in content and lacks approval by TDEC or the U.S. Environmental Protection Agency (EPA). TDEC requests that the U.S. Department of Energy (DOE) amend the ESD to cite the correct reference.  The roadmap requested in General Comment 1 may help clarify some of these questions. The April 2023 project team meeting minutes state the plan for the forthcoming SAP/QAPP revision "is to address resolved issues (not discharge limits); once discharge limits are finalized, SAP/QAPP will be revised again. (Note that EMDF ROD will have an ESD to incorporate the discharge limits.)"	Clarification provided. Text revised to "This ESD will be implemented upon approval of both the ESD and a subsequent revision of the <i>Sampling and Analysis Plan/Quality Assurance Project Plan for the Environmental Monitoring at the Environmental Management Waste Management Facility, Oak Ridge, Tennessee</i> (DOE/OR/01-2734; UCOR-4156 – latest revision approved by the FFA parties) that incorporates the approved radiological discharge limits."  The revised SAP/QAPP will either be issued as a standalone document with the radiological discharge limits incorporated or as an appendix to the RAWP, depending on whether or not there are separate SAP/QAPP revisions for radiological and chemical discharge limits. Regardless, inclusion of the RAWP revision is not needed for this text.  Clarification provided. Resolved by the FFA Project Team working group. No roadmap is necessary. By agreement, radiological discharge limits are provided in this document. Chemical discharges may be addressed in a subsequent document, pending ongoing discussion among the FFA parties.	Radiological: Resolved  Chemicals: See TDEC feedback for General Response 1 and change <i>may</i> to <i>will</i> in the response.
11	Page 6, Public Participation Compliance	The second bullet is unclear. Revise it to be a complete sentence.	Agree. The two bullets were combined into one sentence.	Resolved.

**Comment Resolution Form**

Comment No.	Sect/ Page	Comment	Response	TDEC Feedback
12	Page A-3, Footnote 3	a. This footnote appears to limit compliance to <i>instream water quality criteria</i> . Rephrase to ... <i>compliance with applicable standards for relevant parameter for release</i> ....	Agree. Footnote revised as follows: "As used in this ESD, wastewater management means, the handling of wastewater to ensure compliance with radiological discharge limits either (1) by treatment prior to discharge (if needed), or (2) discharge without treatment (if discharge limits are already met) to Bear Creek or its tributaries. Discharges will be in compliance with ARARs and achieve discharge limits based on confirmation by sampling data.	Resolved.
		b. Consider separating the footnote text into more than one sentence for clarity.	See response to Comment 12 a.	Resolved.
13	Page A-4, Section A.2, 2nd paragraph	Delete <i>criteria that are applied and enforced as final limits for these COCs</i> from the penultimate sentence. As noted in the third paragraph on Page 1 and the last paragraph in Section A.4, discharge requirements and effluent limits consider other factors in addition to the AWQC.	Clarification provided. Resolved by the FFA Project Team working group, paragraph revised based on these agreements.	Resolved.
14	Page A-4, Section A.2, last paragraph	List the parameters covered by TDEC 0400-40-03-.06 for this discharge.	Clarification provided. Resolved by the FFA Project Team working group, paragraph deleted based on these agreements.	Radiological: Resolved.  Chemicals: See TDEC feedback for General Response 1.
15	Pages A-7 through A-19, Table A.1	Revise the table to include the ARARs and footnotes listed in the attachment.	40 CFR 122.47; TDEC 0400-40-05-08(h) - Disagree.  Compliance schedules would be relevant to chemical discharges. Chemical discharges may be addressed in a subsequent document.	Change <i>may</i> to <i>will</i> in the response.  40 CFR 122.47: It is understood that there is no need for a compliance schedule to address noncompliance for the discharges of radionuclides. However, if a batch of "contact water" is unable to meet the discharge limits, then the only alternative is to transport the wastewater to a treatment facility. Therefore, TDEC recommends adding TDEC 0400-40-05-08(h) to the EMWME ROD through the D2 ESD under review as a relevant and appropriate requirement to support the use of a compliance schedule as a contingency for managing radiological constituents.
			40 CFR 122.44(d)(1)(i) - Agree with clarification. TDEC suggests a re-wording on the prerequisite different from the DRA ARARs Table by incorporating text referring to the CWA AEA exemption. Such text was added to the ARAR text and maintain the prerequisite to remain consistent with the DRA Table and EMDF ROD	40 CFR 122.44(d)(1)(i): Resolved.

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Comment No.	Sect/ Page	Comment	Response	TDEC Feedback
			TDEC 0400-04-05-08(1)(q); 40 CFR122.45(h)(1) Disagree. This requirement would not be relevant and appropriate to radiological discharges since requirement only applies in exceptional circumstances such as the discharge point is under water, wastewater is so diluted or interferences exist at the discharge point to make monitoring impracticable, none of which apply to EMWMF where monitoring has been agreed to at the v weir.	TDEC 0400-04-05-08(1)(q); 40 CFR122.45(h)(1) Resolved.
			40 CFR 122.44(x)(1) - Agree with clarification. The current ARARs for the radiological discharge ESD already includes this citation. TDEC suggests a re-wording on the prerequisite different from the DRA ARARs Table by incorporating text referring to the CWA AEA exemption. Such text was added to the ARAR text and maintain the prerequisite to remain consistent with the DRA Table and EMDF ROD.	40 CFR 122.44(x)(1) - The comment is resolved, but TDEC requests that DOE revise the response to cite the EPA Administrator's Dispute Resolution <i>Decision</i> , which is different under the FFA than a Dispute Resolution <i>Agreement</i> (italics added for clarity).
			40 CFR 122.44(d)(1)(iv); TDEC 0400-40-03-03(4)(j); TDEC 0400-04-05-08(1)(d) - Agree with clarification. The current ARARs for the radiological discharge ESD already includes citation to TDEC 0400-40-03-03(4)(j) and TDEC 0400-04-05-08(1)(d). Agree to add 40 CFR 122.44(d)(1)(iv) with clarification. TDEC suggests a re-wording on the prerequisite different from the DRA ARARs Table by incorporating text referring to the CWA AEA exemption. Such text was added to the ARAR text and maintain the prerequisite to remain consistent with the DRA Table and EMDF ROD.	40 CFR 122.44(d)(1)(iv); TDEC 0400-40-03-03(4)(j); Resolved.
16	Page A-8, Table A.1, Requirements, 2nd paragraph	a. As a precursor to the following comment, add ROD Table 2.9 as Table A.3, just as the ESD includes ROD Table 2.8 as Table A.2. The missing table provides instream concentrations for water and fish tissue based on $1 \times 10^{-3}$ Excess Lifetime Cancer Risk (ELCR).	Agree. The table has been added as Appendix B in the radiological discharge ESD.	Resolved.
		b. Revise the entry under <i>Requirements</i> as indicated in red below to recognize the narrative criterion for toxicity in TDEC 0400-40-03-.03(4)(j) is "applicable" for conventional CWA pollutants and "relevant and appropriate" for radionuclides in accordance with the DRD, which directs the establishment of discharge limits for radionuclides in the same manner as other carcinogens.	Agree. Text revised as requested but modified to reflect that this ESD is for radiological discharges.	Resolved.

**Comment Resolution Form**

Comment No.	Sect/ Page	Comment	Response	TDEC Feedback
		<p>Water shall not contain toxic substances that will render the water unsafe or unsuitable for water contact activities including the capture and subsequent consumption of fish and shellfish, or will propose toxic conditions that will adversely affect man, animal, aquatic life, or wildlife. See Tables A.2 and A.3 for lists of criteria for key contaminants of concern, including radionuclides, in landfill wastewater, leachate, and contaminated stormwater.*</p> <p><i>*In accordance with the EPA Administrator’s Dispute Resolution Decision, this rule is a “relevant and appropriate” requirement for radionuclides under the AEA categories excluded from the CWA definition of pollutant at 40 CFR 122.2 as carcinogens not otherwise provided with numeric standards in the water quality standards rule table for a steam designated for recreational use.</i></p> <p>The paragraph revised above is a narrative ambient water quality standard (AWQS), but a narrative standard needs to be translated into numeric limits (water-quality based effluent limits, or WQBELs). The generic carcinogenic discharge level at <math>1 \times 10^{-3}</math> ELCR relates back to this narrative standard for toxicity. Therefore, it applies to radionuclides as it would any chemical that would have adverse effects related to fish consumption.</p>	<p>Water shall not contain toxic substances that will render the water unsafe or unsuitable for water contact activities including the capture and subsequent consumption of fish and shellfish, or will propose toxic conditions that will adversely affect man, animal, aquatic life, or wildlife. See Table B.1 for list of criteria for key radionuclide contaminants of concern in landfill wastewater, leachate, and contaminated stormwater.*</p> <p><i>*In accordance with the EPA Administrator’s Dispute Resolution Decision, this rule is a “relevant and appropriate” requirement for radionuclides under the AEA categories excluded from the CWA definition of pollutant at 40 CFR 122.2 as carcinogens not otherwise provided with numeric standards in the water quality standards rule table for a steam designated for recreational use.</i></p>	<p>Resolved.</p>
17	Page A-12, Table A.1	<p>Revise the entry under <i>Prerequisite</i> as indicated below to show</p> <p>40 CFR 122.44(d)(1)(vi)(A) as “applicable” for conventional CWA pollutants and “relevant and appropriate” for radionuclides to translate narrative criteria into numeric limits.</p> <p>Determination of effluent limits to translate from narrative criteria where a State has not established a water quality criterion for a specific pollutant*—applicable</p> <p>For radionuclides regulated as source, by product and special nuclear material and excluded from the regulatory definition of pollutant under the CWA regulations, in accordance with the EPA Administrator’s Dispute Resolution Decision dated December 31, 2020 – <b>relevant and appropriate</b></p> <p><i>*While the definition of pollutant under 40 CFR 122.2 excludes radionuclides subject to Atomic Energy Act (AEA) regulations, the discharge criteria are “relevant and appropriate” in accordance with the EPA Administrator’s Dispute Resolution Decision.</i></p>	<p>Disagree. The provided text is a re-wording of the prerequisite that is different from the DRA ARARs Table by incorporating text referring to the CWA AEA exemption. Such text was added to the ARAR text and maintain the prerequisite to remain consistent with the DRA Table and EMDF ROD</p>	<p>Resolved.</p>

**Attachment**

Action	Requirements	Prerequisite	Citation
Inclusion of schedule for compliance <sup>1</sup> to meet AWQS			40 CFR 122.47 TDEC 0400-40-05-.08(h)
Discharges subject to water quality based effluent limits for protection of receiving stream <sup>2</sup>	(1) Achieve water quality standards established under section 303 of the CWA, including State narrative criteria for water quality.  (i) Limitations must control all pollutants or pollutant parameters (either conventional, nonconventional, or toxic pollutants) which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an	Discharge to stream classified for designated uses - <b>applicable</b> for pollutants as defined by 40 CFR 122.2  <b>relevant and appropriate</b> for source, byproduct and special nuclear material regulated under the Atomic Energy Act (AEA) excluded from definition of pollutant at 40 CFR 122.2	40 CFR 122.44(d)(1)(i)

<sup>1</sup> 0400-40-(77) "Schedule of compliance" means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, condition of a permit, other limitation, prohibition, standard, or regulation. This term includes, but is not limited to, schedules authorized by national effluent limitations guidelines or by Tennessee's water quality standards.

<sup>2</sup> Additional surface water and/or fish tissue monitoring will likely be necessary to enable calculation of discharge limits to ensure compliance with this ARAR and the EPA Administrator's Dispute Resolution Decision.

**Attachment**

	excursion above any State water quality standard, including State narrative criteria for water quality.		
Use of internal monitoring point	(q) When permit effluent limitations or standards imposed at the point of discharge are impractical or infeasible, effluent limitations or standards for discharges of pollutants may be imposed on internal waste streams before mixing with other waste streams or cooling water streams. In those instances, the monitoring required shall also be applied to the internal waste streams. Limits on internal waste streams will be imposed only when the rationale sets forth the exceptional circumstances which make such limitations necessary, such as when the final discharge point is	Compliance with technology-based standard applied to effluent prior to mixing - applicable	TDEC 0400-40-05-08(1)(q) 40 CFR 122.45(h)(1)-(2)

**Attachment**

	inaccessible (for example, under water), the wastes at the point of discharge are so diluted as to make monitoring impracticable, or the interferences among pollutants at the point of discharge would make detection or analysis impracticable.		
Monitoring for radionuclides to ensure discharge limits are met	To assure compliance with permit limitations, requirements to monitor: (i) The mass (or other measurement specified in the permit) for each pollutant limited in the permit; (ii) The volume of effluent discharged from each outfall; (iii) Other measurements as appropriate including pollutants in internal waste streams under §122.45(i); pollutants in intake water for net limitations under §122.45(f); frequency, rate of discharge, etc., for non-continuous discharges under §122.45(e);	<b>relevant and appropriate</b> for source, byproduct and special nuclear material regulated under the Atomic Energy Act (AEA) excluded from definition of pollutant at 40 CFR 122.2	40 CFR 122.44(j)(1)

**Attachment**

	<p>pollutants subject to notification requirements under § 122.42(a); and pollutants in sewage sludge or other monitoring as specified in 40 CFR 503; or as determined to be necessary on a case-by-case basis pursuant to Sect. 405(d)(4) of the CWA.</p>		
<p>Addressing toxicity of uranium</p>	<p>When the permitting authority determines, using the procedures in paragraph (d)(1)(ii) of this section, that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the numeric criterion for whole effluent toxicity, the permit must contain effluent limits for whole effluent toxicity.</p> <p>The waters shall not contain toxic substances, whether alone or in combination with other substances, that will render the waters unsafe</p>	<p><b>relevant and appropriate</b> for source, byproduct and special nuclear material regulated under the Atomic Energy Act (AEA) excluded from definition of pollutant at 40 CFR 122.2</p>	<p>40 CFR 122.44(d)(1)(iv)        TDEC 0400-40-03-.03        TDEC 0400-40-05-.08(1)(d)</p>

**Attachment**

	<p>or unsuitable for water contact activities including the capture and subsequent consumption of fish and shellfish, or may result in toxic conditions that will adversely affect man, animal, aquatic life, or wildlife.</p> <p>Toxic effluent limitations shall be based on consideration of the toxicity of the pollutant, its persistence, its degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms, and the nature and extent of the effect of the toxic pollutant on such organisms.</p>		
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