

Comprehensive Legacy Management and Institutional Control Plan (S03496-13.0)
Revision 13, January 2023
Variances for Calendar Year 2024

Variance Number	Variance Title	Significant? ^a (Y/N)	Affected Volume, Attachment and Section	Variance Date	Regulatory Approval Date	
					EPA	Ohio EPA
Calendar Year 2024						
2024-01	On-Site Disposal Facility (OSDF) Vegetation Reporting	Y	Volume II, Section 3.5.1, <i>OSDF Inspection and Maintenance</i>	9/19/2023	2/21/2024	1/23/2024
2024-02R1	Performance Testing	Y	Volume II, Attachment A, OMMP, Section 6.2.3, <i>Maintenance and Operational Monitoring.</i>	1/3/2024		
2024-03	SWD-09 Surface Water Frequency Change	Y	Volume II, Attachment D, Integrated Environmental Monitoring Plan, Table 12, Summary of Surface Water and Treated Effluent Sampling Requirements by Location	1/4/2024		
2024-04	Contact List	N	Volume II, Attachment E, Community Involvement Plan, Appendix A, <i>Contact List</i>	1/4/2024		

^a Per the *Fernald Preserve Quality Assurance Project Plan* (DOE 2014): A **significant variance** is required when activities change the scope of the project and that change must be reviewed by the regulatory agencies. An **informational variance** is used for changes such as providing clarification, incorporating additional information, correcting errors or documenting resampling efforts.

Variance

Variance number: <u>2024-01</u>	Significant: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																																																								
Document number: <u>LMS/FER/S04396-13.0</u>	Page: <u>1</u> of <u>1</u>																																																								
<small>Fernald Preserve Comprehensive Legacy Management and Institutional</small>																																																									
Document title: <u>Controls Plan, Volume II, Institutional Control Plan</u>	Date: <u>9/22/2023</u>																																																								
Variance (Include Justification)																																																									
Requirement: The third paragraph of Section 3.5.1 is revised as indicated below in redline/strikeout:																																																									
<p>“The monitoring and management of the OSDF vegetative cover will be carried out to optimize the establishment and continued growth of the native grass mix specified and seeded on the OSDF cap. Monitoring will consist of the collection of data to determine the percentage of native cover on the OSDF cap. Vegetation monitoring is conducted on a 3-year rotation. No changes to this approach were identified during the 2021 CERCLA five-year review (DOE 2021). Sample collection consists of establishing a grid on each cell cap and collecting data from random 1-meter quadrat locations within the grid. Data are collected once during each sampling event in late summer. Prior to 2023, results were presented to regulators as part of the fall quarterly inspection report, no later than October 15 of the collection year. In the 2022 Site Environmental Report, DOE proposed including the OSDF ecological monitoring results in the annual Site Environmental Report rather than the OSDF quarterly inspection report. This change was implemented in fall 2023.”</p>																																																									
Justification: The change provides for more streamlined reporting.																																																									
Requested By: <u>Lisa McHenry</u> <small>LISA MCHENRY (Affiliate)</small>	<small>Digitally signed by LISA MCHENRY (Affiliate) Date: 2023.09.25 08:26:23 -04'00'</small> Date: _____																																																								
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Variance

Variance number:	<u>2024-03R1</u>	Significant:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Document number:	<u>LMS/FER/S04396-13.0</u>	Page:	<u>1</u> of <u>1</u>
Document title:	<u>Fernald Preserve Comprehensive Legacy Management and Institutional Controls Plan, Volume II, Institutional Control Plan, Attachment A, Operations and Maintenance Master Plan for Aquifer Restoration and Wastewater Treatment</u>		Date: <u>1/3/2024</u>

Variance (Include Justification)

Requirement: Section 6.2.3, Maintenance and Operational Monitoring requires quarterly performance testing and amperage measurements during the testing. The following revisions to the requirements are indicated below using redline/strikeout.

Table 1. Planned Outages

Item	Description	Frequency	Duration per Event
1	Performance Testing	Quarterly Twice per Year	4 hours per well
2	Pressure Transmitter Operational Check	Annually	2 hours per well
3	Magnetic Flow Meter Operational Check ^a	Semiannually	2 hours per well
4	Check Valve Inspect/Clean	Semiannually	4 hours per well
5	Rehabilitation	Variable	3 weeks
6	Well/Pump Cleaning	Variable	1–2 days

^a Flow meter operational check may occur as a post-maintenance test using a portable flow meter.

Performance testing

~~The main sSystem performance indicators for the South Plume and South Field extraction wells modules are gathered and summarized in performance tests conducted quarterly. These tests monitor the specific capacity of each recovery/extraction well and the pump/motor assembly performance. The test results are used to determine the need for well and pump cleaning, well redevelopment, or pump/motor rebuilding. The information helps minimize unscheduled, unplanned emergency maintenance and shortens the duration of well outages. Several of the parameters measured may be monitored more frequently to develop additional system data for trending purposes. DOE will conduct performance tests on all extraction wells a minimum of twice per year (before and after the wellfield shutdown) unless operational knowledge suggests that the test may damage the well. The data is used to determine which wells require rehabilitation as well as the effectiveness of rehabilitation effort. Any well that is no longer being performance tested will be discussed with the regulators. Additional testing may be performed if the extraction well fails to maintain its design pumping rate.~~

Amperage

~~As with flow and pressure, amperage is a good indicator of how the pump/motor assembly is performing. During performance testing, motor amperage draw is measured on each of the three phases of the electrical supply. Amperage draw is compared to the motor manufacturer's published specifications. Amperage is measured continuously via the variable frequency drive and should be below the manufacturer's full load amperage and should be approximately equal across the phases of the motor. An imbalance of greater than 20 percent across the phases indicates a motor or electrical supply situation that triggers more extensive diagnosis. Additional diagnostics and repairs are not within the scope of this plan.~~

Justification: Because the site has many years of operational data, quarterly performance testing is no longer required. Performance testing will be conducted twice per year to provide data to choose wells for rehabilitation and to determine the effectiveness of the rehabilitation. Amperage changes needed to more accurately reflect current wellfield conditions.

Requested By: Ken Broberg **Kenneth A. Broberg** Digitally signed by Kenneth A. Broberg Date: 2024.01.10 14:42:37 -05'00' Date: _____

Variance Approvals				Variance Approvals			
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Variance

Variance number: 2024-03 **Significant:** Yes No
Document number: LMS/FER/S04396-13.0 **Page:** 1 of 1
Document title: Fernald Preserve Comprehensive Legacy Management and Institutional Controls Plan, Volume II, Institutional Control Plan, Attachment D, Integrated Environmental Monitoring Plan **Date:** 1/4/2024

Variance
(Include Justification)

Requirement: Table 12, Summary of Surface Water and Treated Effluent Sampling Requirements by Location, requires SWD-09 to be sampled on a semi-annual basis. DOE has been sampling the locations more frequently, on a weekly basis when water is present. The sampling frequency for SWD-09 will be changed to quarterly as indicated in redline/strikeout below.

Location	Constituent ^a	IEMP Characterization Requirements (reason for selection) ^{b,c}	NPDES Requirements ^c
SWD-09	Radionuclides and Uranium: Uranium, Total	Quarterly Semiannually (PC)	-

Justification: DOE proposed to reduce the sampling at location SWD-09 in the 2022 Site Environmental Report. With approval from the stakeholders, this change will be implemented in calendar year 2024.

Requested By: Karen Voisard Karen S. Voisard Digitally signed by Karen S. Voisard
Date: 2024.01.11 11:37:32 -05'00' **Date:** 1/4/2024

Variance Approvals				Variance Approvals			
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<small>GREGORY LUPTON G. Lupton (Affiliate)</small>		<small>Digitally signed by GREGORY LUPTON (Affiliate) Date: 2024.01.11 08:09:43 -05'00'</small>		<u>Date</u>		<u>Date</u>	
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Variance

Variance number: <u>2024-04</u>		Significant: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Document number: <u>LMS/FER/S04396-13.0</u>		Page: <u>1</u> of <u>1</u>	
Fernald Preserve Comprehensive Legacy Management and Institutional Controls Plan, Volume II, Institutional Control Plan,			
Document title: <u>Attachment E, Community Involvement Plan</u>		Date: <u>1/4/2024</u>	
Variance (Include Justification)			
Requirement: Appendix A, Contact list provides elected officials. One update is required for a contact for Ross Township as listed below.			
Keith Ballauer Ross Township 3954 Silax Drive (513) 863-2337, Extension 114 No email address available			
Justification: Updates required based on results of the 2023 election.			
Requested By: <u>Karen Voisard</u>		Date: <u>1/4/2024</u>	
Variance Approvals		Variance Approvals	
Required		Required	
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