

Variance Report

Variance No.: LMS-FER-S03496-8.0-02 **Significant:** Yes No
Document No.: S03496-8.0 **Page:** 1 of 1
Document Title: Comprehensive Legacy Management and Institutional Controls Plan (LMICP), Rev. 8.0 **Date:** 3/31/2015

Variance
(Include Justification)

Requirements: Section 4.3.2, Table 12, "Summary of Surface Water, Treated Effluent, and Sediment Sampling Requirements by Location" (Pages 73 and 74), of the Integrated Environmental Monitoring Plan, (IEMP) (LMICP, Attachment D) includes a column designed to delineate the monitoring required under the Fernald Preserve's National Pollutant Discharge Elimination System (NPDES) permit.

Variance: Monitoring will be performed in accordance with the updated Table 12 (see Attachment 1).

Justification: The Fernald Preserve's NPDES permit was issued on February 13, 2015, with an effective date of March 1, 2015, which included monitoring changes that are indicated in the updated Table 12.

Requested By: Chuck White **Date:** 3/31/2015

Variance Approvals				Variance Approvals			
Required				Required			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	M Hoge <u>Michael Blige</u> Quality Assurance	<u>4/8/15</u> Date	<input checked="" type="checkbox"/>	<input type="checkbox"/>	M. Sizemore <u>Mary Sizemore</u> Environmental Compliance	<u>4-13-15</u> Date
<input checked="" type="checkbox"/>	<input type="checkbox"/>	W Hertel <u>Walter Hertel</u> Project Manager	<u>4/8/2015</u> Date	<input checked="" type="checkbox"/>	<input type="checkbox"/>	D Foster <u>Don Foster</u> Environmental Monitoring	<u>4-8-15</u> Date
<input checked="" type="checkbox"/>	<input type="checkbox"/>	C White <u>Chuck White</u> Laboratory Technical Representative	<u>4/7/2015</u> Date	<input type="checkbox"/>	<input type="checkbox"/>		
<input checked="" type="checkbox"/>	<input type="checkbox"/>	K Voisard <u>K Voisard</u> Data Management and Reporting	<u>4/7/2015</u> Date	<input type="checkbox"/>	<input type="checkbox"/>		

Revision Required Yes No **Document No. and Title:** S03496/LMICP, Rev. 8.0

Distribution	<input checked="" type="checkbox"/> Records Management	<input checked="" type="checkbox"/> EPA
	<input checked="" type="checkbox"/> Post to Web Page	<input checked="" type="checkbox"/> OEPA

Table 142. Summary of Surface Water, Treated Effluent, and Sediment Sampling Requirements by Location

Location	Constituent ^a	IEMP Characterization Requirements (reason for selection) ^{b,c}	NPDES Requirements ^c
SWR-01 (SWR-4801 for NPDES only) (Great Miami River Background)	General Chemistry:		
	Total hardness	—	Quarterly
	Inorganics:		
	Manganese		Quarterly
	Mercury		Quarterly
SWP-01 (Paddys Run Background)	Radionuclides and Uranium:		
	Uranium, Total	Semiannually (PC)	—
SWP-02 (Paddys Run)	Radionuclides and Uranium:		
	Uranium, Total	Semiannually (PC)	—
SWP-03 (Paddys Run at Downstream Property Boundary)	Radionuclides and Uranium:		
	Radium-226	Annually (C)	—
	Radium-228	Annually (C)	—
	Thorium-228	Annually (C)	—
	Thorium-230	Annually (C)	—
	Thorium-232	Annually (C)	—
	Uranium, Total	Semiannually (PC)	—
SWD-02 (Storm Sewer Outfall Ditch)	Radionuclides and Uranium:		
	Uranium, Total	Semiannually (PC)	—
SWD-03 (Waste Storage Area)	Radionuclides and Uranium:		
	Uranium, Total	Semiannually (PC)	—
PF 4001 (Parshall Flume—Treated Effluent)	General Chemistry:		
	Carbonaceous biochemical oxygen demand	—	2/Week
	Fluoride	—	Monthly
	Nitrate/nitrite	—	Monthly
	Oil and grease	—	2/Week
	Total dissolved solids	—	Monthly
	Total phosphorus as P	—	Weekly
	Total suspended solids	—	Daily
	Inorganics:		
	Cyanide, free	—	Monthly
	Manganese	—	2/Week
	Mercury (low level)	—	Monthly/Quarterly
	Radionuclides and Uranium:		
	Radium-226	Semiannually (M)	—
	Radium-228	Semiannually	—
	Technetium-99	Semiannually (M)	—
	Uranium, Total	Semiannually (PC)	Daily ^d
Semivolatiles:			
Bis (2-ethylhexyl) phthalate	—	Quarterly	
Other:			
Flow rate	—	Daily	
STRM 4003 (Drainage to Paddys Run)	General Chemistry:		
	Total suspended solids	—	Semiannually
	Inorganics:		
	Mercury (low level)	—	Semiannually
	Radionuclides and Uranium:		
Uranium, Total	Semiannually (PC)	—	
Other:			
Flow rate	—	Semiannually	
STRM 4004A ^e (Drainage to Paddys Run)	Radionuclides and Uranium:		
	Uranium, Total	Semiannually (PC)	—

Table 12 (continued). Summary of Surface Water, Treated Effluent, and Sediment Sampling Requirements by Location

Location	Constituent ^a	IEMP Characterization Requirements (reason for selection) ^{b,c}	NPDES Requirements ^c
STRM 4005 (Drainage to Paddys Run)	Radionuclides and Uranium: Uranium, Total	Semiannually (PC)	—
STRM 4006 (Drainage to Paddys Run)	Radionuclides and Uranium: Uranium, Total	Semiannually (PC)	—
4007 (Biowetland Emergency Overflow to Paddys Run)	Flow rate	—	Daily during overflow
SWD-04 ^f	Radionuclides and Uranium: Radium-226 Uranium, Total	Annually (C) Semiannually (PC)	— —
SWD-05 ^f , SWD-08 ^f	Radionuclides and Uranium: Radium-226 Radium-228 Thorium-228 Thorium-230 Thorium-232 Uranium, Total	Annually (C) Annually (C) Annually (C) Annually (C) Annually (C) Semiannually (PC)	— — — — — —
SWD-06 ^f , SWD-07 ^f , SWD-09	Radionuclides and Uranium: Uranium, Total	Semiannually (PC)	—
SWD-10, SWD-11, SWD-12, SWD-13	Radionuclides and Uranium: Uranium, Total	Annually (PC)	—
SWR-4902 (Downstream of Fernald Preserve Effluent)	General Chemistry: Total Hardness Inorganics Manganese Mercury	— — —	Quarterly Quarterly Quarterly
G10 ^g (Great Miami River—downstream sediment)	Uranium, Total	Every 5 years	—
G2 ^g (Great Miami River—sediment background)	Uranium, Total	Every 5 years	—

^a Field parameter readings, taken at each location, include temperature, specific conductance, pH, and dissolved oxygen.

^bC = DOE response to Ohio EPA comment, 2008 LMICP, M = based on modeling; PC = primary COC;

^c“—” indicates the constituent is not included in the sample program.

^dThis constituent is sampled under the OU5 ROD.

^eNew location STRM 4004A has been identified as an alternative sample location for STRM 4004.

^fLocations are based on sampling from Residual Risk Assessment Analysis and lack of glacial overburden.

^gSampling will be conducted every 5 years per DOE/EH-0173T, *Environmental Regulatory Guide for Radiological Effluent Monitoring and Environmental Surveillance* (DOE 1991).