MODIFICATIONS TO OPERABLE UNIT (OU) 1 ADDITIONAL SAMPLING WORK PLAN

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Department of Energy
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Ms. Catherine A. McCord
Remedial Project Manager
U. S. Environmental Protection Agency
Region V - 5HR-12
230 South Dearborn Street
Chicago, IL 60604

Mr. Graham E. Mitchell, DOE Coordinator
Ohio Environmental Protection Agency
40 South Main Street
Dayton, OH 45402

Dear Ms. McCord and Mr. Mitchell:

MODIFICATIONS TO OPERABLE UNIT (OU) 1 ADDITIONAL SAMPLING WORK PLAN

On January 21, 1991, U. S. EPA provided approval on the work plan addendum for the OU 1 Remedial Investigation (RI) to allow additional samples to be collected from the waste pits. OEPA has also provided approval for this sampling, including collection of samples from Waste Pit 4.

Data requirements have been specified by the contractor conducting the RI/FS and necessitate the modification of the analysis portion of this plan. Enclosed with this transmittal are the analytical requirements of the work plan addendum. Table 4 shows the original requirements, Table 2 shows the revised requirements. The changes required/requested to the plan are summarized below:

1. The Uranium Differential Leaching procedure is not required to support the RI/FS and has been deleted.

2. The full HSL analyses have been expanded to include boron, cobalt and thallium.

3. Analyses for total phosphorous, ammonia, pH, Eh total Kjeldahl nitrogen, total organic nitrogen, oil and grease, bromide, chloride, nitrate, TOC, fluoride, alkalinity, and sulphate have been included.

4. Analyses for Dioxins and Furans have been expanded to include 2378-TCDD isomeric breakdown.

5. Appendix IX, 40 CFR, Part 261, pp 90-98, July 1, 1990, constituent analyses on a solid sample collected from each pit and for a liquid sample collected from each installed well. (Note: Analytical duplication will be minimized).

These changes were discussed with Jim Saric, U. S. EPA, and Tom Schneider, OEPA on July 18, 1991. The appendix IX constituent analyses were also discussed with David Payne, U. S. EPA, on July 29, 1991. These modifications should enhance the knowledge obtained from this sampling activity and will not delay the completion of the field work.

The actual sampling activity began with the collection of samples from Waste Pit 1 on June 25, 1991. It is anticipated that during the sampling activity buried materials may be encountered which will require relocation of specific borings. We will provide verbal notification if this problem occurs and the location of the new borehole. After all 13 wells are installed, a modified map of the waste pit area will be provided with the actual location of each well identified.

Your approval/concurrence with these work plan modifications is requested. If you have any questions, please contact Oba Vincent at (513) 738-6937 or FTS 774-6937.

Sincerely,

Jack R. Craig
Fernald Remedial Action
Project Manager

FSO:Vincent

Enclosure: As stated

cc w/encl.:

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TABLE 2

Location	Required Analyses	No. of Samples	Reference Section
Composite of Interval 3 in each boring	Full Radiological[2] Full HSL[3] less VOA General Chemistry[4] Dioxins and Furans[5]	13	2.3.4 Source Characteristics
Composite of Interval 2 in each boring	Parameters listed above plus Appendix IX less volatiles and semi-volatiles	13	
One sample from each boring[1]	Appendix IX volatiles/ semi-volatiles	13	
Discreet 6-inch samples from Intervals 1, 2 and 3 in each boring	HSL volatiles TCLP VOA on Interval 2	39 13	2.3.4 Source Characteristics
Composite of entire boring, less Shelby Tube interval, for each boring	TCLP Extraction: Full Radiological/BNA/ Pesticides/PCB/Metals Total Organic Carbon Grain Size Analysis	13	2.3.3 Geochemical
All monitor wells	Full Radiological[2] Appendix IX Full HSL[3] Dioxins and Furans[5] General Chemistry[6]	13	2.3.5 Leachate Characteristics

[1] Volatiles and semi-volatiles will be tested for in the interval displaying the highest HNu readings. If no preference is indicated, the second interval will be analyzed

[2] Parameters listed in RI/FS QAPP Table 4.3.

[3] Full HSL plus boron, cobalt, and thallium.

[4] Total phosphorous, tributyl phosphate, ammonia, pH, total Kjeidahl nitrogen, total organic nitrogen, oil and grease, bromide, chloride, nitrate, and sulphate.

[5] Total dioxin and furan and 2378-TCDD isomeric breakdown.

[6] Total phosphorous, tributyl phosphate, TOC, ammonia, pH, Eh, bromide, chloride, nitrate, sulphate, fluoride, and alkalinity.

TABLE 4

Location	Required Analyses	No. of Samples	Reference Section
All borings, composite of intervals 2 and 3, respectively	Full Radiological	26	2.3.4 Source Characteristics
	Full HSL, less VOA Dioxins Furans and Tributyl Phosphate	26	
All borings discreet six-inch samples from intervals 1, 2 and 3	HSL VOA	39	2.3.4 Source Characteristics
All borings, composite of entire borehole less Shelby tube intervals	TCLP Extraction: Full Radiological/ VOA/BNA/Pesticides/ PCB/Metals	13	2.3.3 Geochemical
	Uranium Differential Leaching	13	
	Total Organic Carbon	13	
	Grain Size Analysis	13	
All monitor wells	Full Radiological	13	2.3.5 Leachate Characteristics
	Full HSL, dioxins, furans, and TBP	13	

Deleted