



Department of Energy

Ohio Field Office
Fernald Area Office

P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155



3990

21 NOV 2001

Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V, SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0148-02

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

REQUEST FOR CONCURRENCE TO INITIATE SOIL STOCKPILES

As an addendum to the Area 3A/4A Integrated Remedial Design Package (IRDP), this letter is seeking your approval for the Department of Energy's (DOE) plan to initiate two temporary stockpiles for staging organically contaminated soil generated during the remediation of Area 3A for later treatment and final disposal. The two piles will be constructed within the Corrective Action Management Unit (CAMU) established in the Operable Unit 5 (OU5) Record of Decision (ROD) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). These staging piles are anticipated to be needed for approximately eighteen months awaiting acceptable treatment methods to be employed. The standards established in 40 CFR 264.554, OAC 3745-56-51, and OAC 3745-56-54 were considered as applicable or relevant and appropriate requirements to be considered (ARARs/TBC) for the design and operation of these piles. A crosswalk matrix summarizing the proposed action and relevant design and operating criteria in these ARARs/TBC is enclosed (see Enclosure 1) for your reference. This crosswalk also provides information as to how the requirements of the CAMU rule (OAC 3745-57-72) will be met.

One of the stockpiles will be situated in the northeastern section of the Stock Pile 7 (SP-7) footprint located north of the former production area and will be given a new designation of Stock Pile AR6-003 (see Enclosures 2 and 3). The existing SP-7 material will be consolidated in the southwestern portion of the current footprint or removed altogether and sent to the waste pits. To construct the stockpile, the northeastern portion of SP-7 footprint will be excavated to a depth of 18 inches and a 3-foot berm will be created utilizing the excavated soil. This new surface, including the berm, will be lined with a geotextile cushioned layer and an 80mil High-Density Polyethylene (HDPE) liner, which will be anchored into the wall of the berm. About 1,700 cubic yards (yd³) of contaminated soil that is above the On-Site Disposal Facility (OSDF) Waste Acceptance Criteria (WAC) for tetrachloroethylene (PCE) and dichloroethylene (DCE) originating from Area 3A (incinerator pad) will be excavated and staged in this new area. Enclosure 4 is a table that describes the chemical characteristics of the material that will comprise the stockpile. The pile will be covered with a 60-mil or greater thickness HDPE and as well, will be anchored into the berm, but at a point lower than that of the liner as shown in Enclosures 2 and 3. By using a cover system in this manner, no precipitation is anticipated to come in contact with the waste and therefore, no noticeable leachate is expected to be generated. Correspondingly, a leachate collection and removal system is deemed to be unnecessary. All runoff above the HDPE cover from this area will be directed to the storm sewer inlet already in place. The construction period for this stockpile is anticipated to begin in November 2001 with liner construction, in December 2001 with waste placement, and the cover will be completed before the 2002 construction season, i.e. April 1, 2002.

For the second stockpile, about 600 yd³ of soil that has failed the Resource Conservation Recovery Act (RCRA) toxicity characteristic leaching procedure (TCLP) for trichloroethylene (TCE) originating from north of the maintenance building (Bldg. 12) will be excavated and staged inside the eastern most Quonset Hut (Bldg. 60). The Quonset Hut will provide the structural integrity for run-on and run-off controls. Enclosure 5 is a table of data that describe the failed TCLP results of the soil that will comprise the pile. This soil represents one of the six potentially characteristic areas that were identified in the OU5 ROD and in the Site-wide Excavation Plan (SEP). Staging the RCRA material inside of the Quonset Hut (Building 60) provides protection from the elements and therefore, eliminates the need for a leachate collection and removal system. The construction period for this stockpile is anticipated to begin in November or December 2001 and will be completed in early 2002.

The planned staging and treatment actions for organically contaminated soil are consistent with the anticipated needs during soil remediation as described in the OU5 ROD and the SEP. A separate treatment plan (also as an addendum to the Area 3A/4A IRDP) will be issued for your review and approval prior to the start of any treatment operations for these soils. Since remediation wastes managed in a CAMU are not subject to Land Disposal Restrictions (LDR), these soils will not be included in the Fernald Environmental Management Project's Federal Facility Compliance Act Site Treatment Plan.

3990

21 NOV 2001

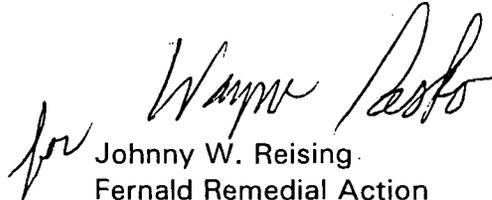
Mr. James A. Saric
Mr. Tom Schneider

-3-

DOE-0148-02

If you have any questions or need further information, please contact Robert Janke at (513) 648-3124.

Sincerely,



Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:Jalovec

Enclosures: As Stated

cc w/enclosures:

R. Greenberg, EM-31/CLOV
N. Hallein, EM-31/CLOV
R. J. Janke, OH/FEMP
J. Sattler, OH/FEMP
E. Skintik, OH/FEMP
G. Jablonowski, USEPA-V, SRF-5J
T. Schneider, OEPA-Dayton (three copies of enclosures)
P. Harris, OEPA/SWDO/DHWM
P. Pardi, OEPA/SWDO/DHWM
F. Bell, ATSDR
F. Hodge, Tetra Tech
M. Schupe, HSI GeoTrans
R. Vandegrift, ODH
AR Coordinator, Fluor Fernald, Inc./MS78

cc w/o enclosures:

R. J. Bell, OH/FEMP
J. Reising, OH/FEMP
A. Tanner, OH/FEMP
D. Carr, Fluor Fernald, Inc./MS2
J. D. Chiou, Fluor Fernald, Inc./MS64
T. Hagen, Fluor Fernald, Inc./MS65-2
S. Lorenz, Fluor Fernald, Inc./MS52-5
A. Madani, Fluor Fernald, Inc./MS64
F. Miller, Fluor Fernald, Inc./MS64
M. Miller, Fluor Fernald, Inc./MS65-2
W. Zebick, Fluor Fernald, Inc./MS64
ECDC, Fluor Fernald, Inc./MS52-7

000003

Relevant Technical Criteria From ARARs / TBC For Stockpiling Of
Organic Contaminated Soils

3990

Design & Operation		
Citation	Relevant Protective Requirement	Proposed Design / Implementation
OAC3745-57-72	<p>(E) The Director shall specify, in the permit or order, requirements for CAMUs to include the following:</p> <p>(2) Requirements for remediation waste management to include the specification of applicable design, operation, and closure requirements</p>	<p>Relevant design, operating, and closure requirements/specifications were incorporated from: OAC3745-57-72, OAC3745-56-51, OAC3745-56-54, and 40CFR264.554(d)(1).</p>
40CFR264.554(d)(1)	<p>(ii) The staging pile must be designed so as to prevent or minimize releases of hazardous wastes and hazardous constituents into the environment, and minimize or adequately control cross-media transfer, as necessary to protect human health and the environment (for example, through the use of liners, covers, run-off/run-on controls, as appropriate)</p>	<p>An outdoor pile will be constructed utilizing a cushioned geo-textile layer, an 80-mil HDPE liner, and a 60-mil (or greater) HDPE cover. (see attached design drawings) The liner will be placed over an excavated depression having a 3-foot perimeter berm.</p> <p>A separate indoor pile will be created in Building 60 (easternmost Quonset Hut). The shell of the building is semi-circular and surrounds the floor, which is a concrete slab. There will be Jersey Barriers placed along the inside perimeter of the building. This building provides protection from precipitation to the extent that run-off and leachate are not generated.</p>
OAC3745-56-51	<p>(A) A waste pile (except for an existing portion of a waste pile) must have:</p> <p>(1) A liner that is designed, constructed, and installed to prevent any migration of wastes out of the pile into the adjacent subsurface soil or ground water or surface water at any time during the active life (including the closure period) of the waste pile. The liner may be constructed of materials that may allow waste to migrate into the liner itself (but not into the adjacent subsurface soil or ground water or surface water) during the active life of the facility. The liner must be:</p>	<p>(see above)</p>

Relevant Technical Criteria From ARARs / TBC For Stockpiling Of Organic Contaminated Soils

3990

Design & Operation (cont'd)		
Citation	Relevant Protective Requirement	Proposed Design / Implementation
OAC3745-56-51 (cont'd)	<p>(a) Constructed of materials that have appropriate chemical properties and sufficient strength and thickness to prevent failure due to pressure gradients (including static head and external hydrogeologic forces), physical contact with the waste or leachate to which they are exposed, climate conditions, the stress of installation, and the stress of daily operation; and</p> <p>(b) Placed upon a foundation or base capable of providing support to the liner and resistance to pressure gradients above and below the liner to prevent failure of the liner due to settlement, compression, or uplift; and</p> <p>(c) Installed to cover all surrounding earth likely to be in contact with the waste or leachate</p>	<p>(see above)</p> <p>The proposed location of the outdoor pile is on the footprint of Stockpile 7 (SP-7). This foundation was subjected to the pressure gradients induced by the SP-7 material, which was larger in relationship to the proposed pile. The indoor pile will be placed upon a concrete slab.</p> <p>(see above 40CFR264.554(d)(1))</p>
OAC3745-56-50	<p>(C) The owner or operator of any waste pile that is inside or under a structure that provides protection from precipitation so that neither run-off nor leachate is generated is not subject to regulation under rule 3745-56-51 of the Administrative Code or rules 3745-54-90 to 3745-54-99 and 3745-55-01 to 3745-55-02 of the Administrative Code provided that:</p> <p>(D) Liquids or materials containing free liquids are not placed in the pile; and</p> <p>(E) The pile is protected from surface water run-on by the structure or in some other manner; and</p> <p>(F) The pile is designed and operated to control dispersal of the waste by wind, where necessary, by means other than wetting; and</p> <p>(G) The pile will not generate leachate through decomposition or other reactions</p>	<p>The indoor pile will be created in Building 60 (easternmost Quonset Hut). The shell of the building is semi-circular and surrounds the floor, which is a concrete slab. There will be Jersey Barriers placed along the inside perimeter of the building. This building provides protection from wind and precipitation to the extent that run-off and leachate are not generated.</p>

Relevant Technical Criteria From ARARs / TBC For Stockpiling Of Organic Contaminated Soils

3990

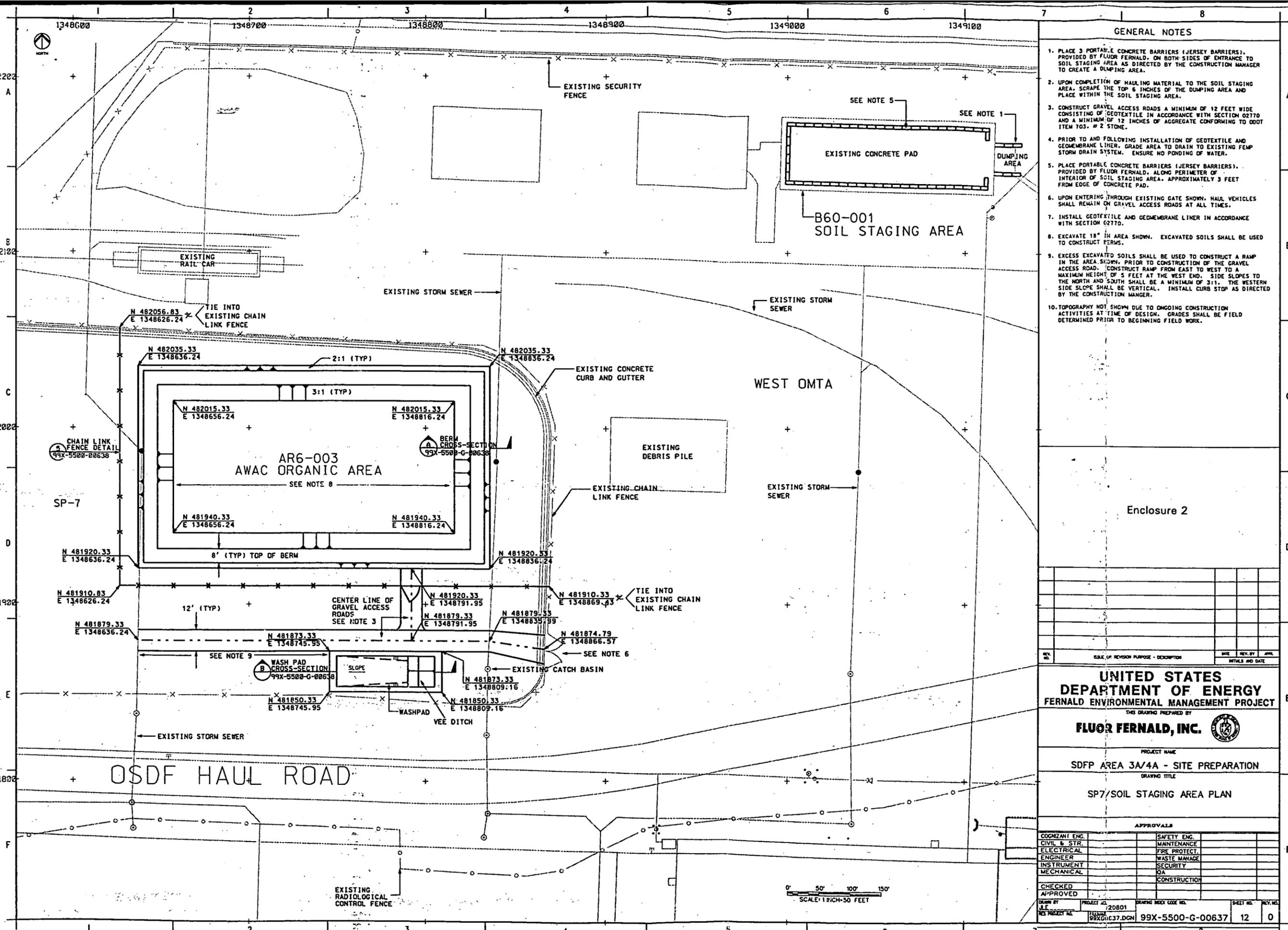
Operation & Closure

Citation	Relevant Protective Requirement	Proposed Design / Implementation
)AC3745-57-72(E)	<p>(3) Requirements for ground water monitoring that are sufficient to:</p> <p>(a) Continue to detect and to characterize the nature, extent, concentration, direction, and movement of existing releases of hazardous constituents in ground water from sources located within the CAMU</p> <p>(4) Closure and Post-Closure Requirements</p> <p>(b) Requirements for closure of CAMUs shall include the following, as appropriate and as deemed necessary by the director for a given CAMU:</p> <p>(i) Requirements for excavation, removal, treatment, or containment of wastes;</p> <p>(iii) Requirements for removal and decontamination of equipment, devices, and structures used in remediation waste management activities within the CAMU.</p>	<p>The FEMP property (bounded by its property boundaries) is designated as a CAMU. The site Integrated Environmental Monitoring Plan (IEMP) in support of the site CAMU covers the areas where the new stockpiles will be located.</p> <p>This area will be fully remediated to the requirements of the OU5 ROD consistent with the RCRA/CERCLA integration of the Directors Findings and Orders (DF&O) issued by OEPA.</p> <p>This area will be fully remediated to the requirements of the OU5 ROD consistent with the RCRA/CERCLA integration of the Directors Findings and Orders (DF&O) issued by OEPA.</p>

000007

GENERAL NOTES

1. PLACE 3 PORTABLE CONCRETE BARRIERS (JERSEY BARRIERS), PROVIDED BY FLUOR FERNALD, ON BOTH SIDES OF ENTRANCE TO SOIL STAGING AREA AS DIRECTED BY THE CONSTRUCTION MANAGER TO CREATE A DUMPING AREA.
2. UPON COMPLETION OF HAULING MATERIAL TO THE SOIL STAGING AREA, SCRAPE THE TOP 6 INCHES OF THE DUMPING AREA AND PLACE WITHIN THE SOIL STAGING AREA.
3. CONSTRUCT GRAVEL ACCESS ROADS A MINIMUM OF 12 FEET WIDE CONSISTING OF GEOTEXTILE 1M ACCORDANCE WITH SECTION 02770 AND A MINIMUM OF 12 INCHES OF AGGREGATE CONFORMING TO DOOT ITEM 703, # 2 STONE.
4. PRIOR TO AND FOLLOWING INSTALLATION OF GEOTEXTILE AND GEOMEMBRANE LINER, GRADE AREA TO DRAIN TO EXISTING FEMP STORM DRAIN SYSTEM. ENSURE NO PONDING OF WATER.
5. PLACE PORTABLE CONCRETE BARRIERS (JERSEY BARRIERS), PROVIDED BY FLUOR FERNALD, ALONG PERIMETER OF INTERIOR OF SOIL STAGING AREA, APPROXIMATELY 3 FEET FROM EDGE OF CONCRETE PAD.
6. UPON ENTERING THROUGH EXISTING GATE SHOWN, HAUL VEHICLES SHALL REMAIN ON GRAVEL ACCESS ROADS AT ALL TIMES.
7. INSTALL GEOTEXTILE AND GEOMEMBRANE LINER IN ACCORDANCE WITH SECTION 02770.
8. EXCAVATE 18" IN AREA SHOWN. EXCAVATED SOILS SHALL BE USED TO CONSTRUCT PERMS.
9. EXCESS EXCAVATED SOILS SHALL BE USED TO CONSTRUCT A RAMP IN THE AREA SHOWN. PRIOR TO CONSTRUCTION OF THE GRAVEL ACCESS ROAD, CONSTRUCT RAMP FROM EAST TO WEST TO A MAXIMUM HEIGHT OF 5 FEET AT THE WEST END. SIDE SLOPES TO THE NORTH AND SOUTH SHALL BE A MINIMUM OF 3:1. THE WESTERN SIDE SLOPE SHALL BE VERTICAL. INSTALL CURB STOP AS DIRECTED BY THE CONSTRUCTION MANAGER.
10. TOPOGRAPHY NOT SHOWN DUE TO ONGOING CONSTRUCTION ACTIVITIES AT TIME OF DESIGN. GRADES SHALL BE FIELD DETERMINED PRIOR TO BEGINNING FIELD WORK.



NO.	DATE	ISSUE OR REVISION PURPOSE - DESCRIPTION	DATE	REV. BY	APPR.

UNITED STATES
DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

THIS DRAWING PREPARED BY
FLUOR FERNALD, INC.

PROJECT NAME
SDFP AREA 3A/4A - SITE PREPARATION

DRAWING TITLE
SP7/SOIL STAGING AREA PLAN

APPROVALS

COGNIZANT ENGR.	SAFETY ENGR.
CIVIL & STR.	MAINTENANCE
ELECTRICAL	FIRE PROTECT.
ENGINEER	WASTE MANAGE.
INSTRUMENT	SECURITY
MECHANICAL	QA
	CONSTRUCTION

CHECKED	APPROVED	PROJECT NO.	DRAWING BOOK CODE NO.	SHEET NO.	REV. NO.
		20801		12	0
DRAWN BY	FILE	PROJECT NO.	DRAWING BOOK CODE NO.	SHEET NO.	REV. NO.
	99X-5500-G-00637	20801		12	0

Enclosure 4
INCINERATOR PAD DATA FROM ABOVE WAC ORGANIC ZONE

DATA FROM APPENDIX C
 PREDESIGN CHARACTERIZATION DATA

Parameter	Parameter Average (Counting Non-Detects as Zero)	Minimum Hit	Maximum Hit	# of Borings w/ Hits	Total # of Borings
1,1,1-Trichloroethane	54,545.6 ug/kg	6.8 ug/kg	360,000.0 ug/kg	9	11
1,1,2,2-Tetrachloroethane	- ug/kg	- ug/kg	- ug/kg	0	11
1,1,2-Trichloroethane	2.7 ug/kg	0.8 ug/kg	29.2 ug/kg	2	11
1,1-Dichloroethane	739.8 ug/kg	20.5 ug/kg	5,088.5 ug/kg	7	11
1,1-Dichloroethene	455.7 ug/kg	1.0 ug/kg	4,298.7 ug/kg	16	27
1,2-Dichloroethane	0.9 ug/kg	1.3 ug/kg	9.0 ug/kg	2	11
1,2-Dichloroethene (Total)	89.6 ug/kg	46.7 ug/kg	132.5 ug/kg	2	2
1,2-Dichloroethene(Total)	3,209.2 ug/kg	0.8 ug/kg	39,300.0 ug/kg	11	15
1,2-Dichloropropane	0.3 ug/kg	3.6 ug/kg	3.6 ug/kg	1	11
2-Butanone	0.6 ug/kg	3.1 ug/kg	3.2 ug/kg	2	11
2-Hexanone	- ug/kg	- ug/kg	- ug/kg	0	11
4-Methyl-2-Pentanone	- ug/kg	- ug/kg	- ug/kg	0	11
Acetone	8.5 ug/kg	1.5 ug/kg	68.6 ug/kg	3	11
Aroclor 1254	8.1 ug/kg	23.3 ug/kg	41.5 ug/kg	2	8
Aroclor 1260	- ug/kg	- ug/kg	- ug/kg	0	8
Arsenic	Not Analyzed ug/g dry	- ug/g dry	- ug/g dry	0	0
Benzene	0.3 ug/kg	1.1 ug/kg	2.0 ug/kg	2	11
Beryllium	0.7 ug/g dry	0.5 ug/g dry	1.0 ug/g dry	18	18
BromodiChloromethane	- ug/kg	- ug/kg	- ug/kg	0	11
Bromoform	- ug/kg	- ug/kg	- ug/kg	0	11
Bromomethane	- ug/kg	- ug/kg	- ug/kg	0	11
Carbon Disulfide	0.2 ug/kg	1.7 ug/kg	1.7 ug/kg	1	11
Carbon Tetrachloride	- ug/kg	- ug/kg	- ug/kg	0	11
Chlorobenzene	- ug/kg	- ug/kg	- ug/kg	0	11
Chloroethane	0.1 ug/kg	1.1 ug/kg	1.1 ug/kg	1	11
Chloroform	0.6 ug/kg	6.6 ug/kg	6.6 ug/kg	1	11
Chloromethane	0.6 ug/kg	7.0 ug/kg	7.0 ug/kg	1	11
cis-1,2-Dichloroethene	538.2 ug/kg	81.2 ug/kg	3,657.7 ug/kg	7	10
cis-1,3-Dichloropropene	- ug/kg	- ug/kg	- ug/kg	0	11
Dibromochloromethane	- ug/kg	- ug/kg	- ug/kg	0	11
Ethylbenzene	10.1 ug/kg	1.4 ug/kg	70.0 ug/kg	3	11
Methylene Chloride	457.5 ug/kg	13.6 ug/kg	3,108.0 ug/kg	6	11
Styrene	- ug/kg	- ug/kg	- ug/kg	0	11
Technetium-99	8.6 pCi/g	1.8 pCi/g	22.0 pCi/g	3	3
Tetrachloroethene	68,622.8 ug/kg	3.1 ug/kg	1,100,000.0 ug/kg	22	27
Thorium	5.9 ug/g dry	4.2 ug/g dry	9.1 ug/g dry	22	22
Thorium, Total	4.8 ug/g dry	4.8 ug/g dry	4.9 ug/g dry	2	2
Toluene	88.9 ug/kg	68.8 ug/kg	670.0 ug/kg	3	11
trans-1,2-Dichloroethene	24.7 ug/kg	0.5 ug/kg	225.1 ug/kg	7	10
trans-1,3-Dichloropropene	- ug/kg	- ug/kg	- ug/kg	0	11
Trichloroethene	3,120.2 ug/kg	1.8 ug/kg	40,000.0 ug/kg	22	27
Uranium, Total	35.9 ug/g dry	1.2 ug/g dry	368.8 ug/g dry	24	24
Vinyl Chloride	- ug/kg	- ug/kg	- ug/kg	0	11
Xylenes (Total)	97.4 ug/kg	3.1 ug/kg	548.0 ug/kg	4	11

000010

Enclosure 5

**MAINTENANCE BUILDING CHARACTERISTIC AREA
DATA SUMMARY FOR TRICHLOROETHENE**

Boring	Depth (feet)	TCLP Result	TCLP Limit
A3-MB01	5-5.5	1.1 mg/L	0.5 mg/L
A3-MB01	6-6.5	1.6 mg/L	0.5 mg/L
A3-MB01	7-7.5	0.53 mg/L	0.5 mg/L
A3-MB02	6-6.5	1.6 mg/L	0.5 mg/L
A3-MB03	5-5.5	1.5 mg/L	0.5 mg/L
A3-MB03	6-6.5	1.8 mg/L	0.5 mg/L
A3-MB03	7-7.5	1.8 mg/L	0.5 mg/L
A3-MB05	2-2.5	1.1 mg/L	0.5 mg/L
A3-MB05	3-3.5	1.8 mg/L	0.5 mg/L
A3-MB05	5-5.5	0.86 mg/L	0.5 mg/L
A3-MB05	7-7.5	0.52 mg/L	0.5 mg/L
A3-MB11	8.5-9	0.65 mg/L	0.5 mg/L
A3-MB14	3.5-4	1.8 mg/L	0.5 mg/L
A3-MB14	4.5-5	3.5 mg/L	0.5 mg/L
A3-MB14	5.5-6	5.3 mg/L	0.5 mg/L
A3-MB16	3.5-4	0.65 mg/L	0.5 mg/L
A3-MB17	4.5-5	1.8 mg/L	0.5 mg/L
A3-MB17	5.5-6	3.5 mg/L	0.5 mg/L
A3-MB17	6.5-7	2.0 mg/L	0.5 mg/L
A3-MB17	7.5-8	1.3 mg/L	0.5 mg/L