Department of Energy
Ohio Field Office
Fernald Environmental Management Project
P. O. Box 538705
Cincinnati, Ohio 45253-8705
(513) 648-3155

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MAR 0 5 2003

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

DOE-0244-03

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

Dear Mr. Jablonowski and Mr. Schneider:

COMMINGLING OF CATEGORY I WITH CATEGORY A, B, D, AND INCIDENTALLY GENERATED E FOR THE LABORATORY COMPLEX DECONTAMINATION AND DISMANTLEMENT PROJECT

Reference: "OU3 Laboratory Complex Implementation Plan for Above-Grade Decontamination and Dismantlement," Final dated March 2002

The purpose of this letter is to transmit to the United States Environmental Protection Agency (USEPA) and Ohio Environmental Protection Agency (OEPA) the enclosed changes Of the Operable Unit 3 (OU3) Laboratory Complex Implementation Plan for your review and approval.

Section 2.3.4 of the referenced document and the Demolition Closure Contract Specifications (01789-TS-0001, Revision 7, Section 01120 3.3.A.4) require that Debris Category I, except for the Administration Complex, shall be segregated and containerized separately from Debris Categories A, B, D, and incidentally generated E. This requirement is based on radiological requirements relating to the stockpiling of Category A, B, D, and E debris prior to placement into the On-Site Disposal Facility (OSDF). On the contrary, Category I debris of the same radiological nature must remain in roll-off boxes (prior to OSDF placement) to prevent insulation and drywall degradation due to wind and weather.

As described in the referenced document, the Laboratory Complex Decontamination and Dismantlement (D&D) project does not have significant radiological drivers generally associated with other site D&D projects. As such, we respectfully request approval to commingle Category I debris with the Category A, B, D, and E debris for the Laboratory Complex D&D project. The Laboratory Complex D&D commingled debris will be staged at the footprint of the laboratory and loaded out in roll-off boxes or dump trucks for direct placement into the OSDF based on the availability of the OSDF to accept it. Whenever capacity for placement of non-Thorium above grade debris becomes available, priority will be given to staged laboratory-commingled debris over debris located at the On-Site Material Transfer Area (OMTA) for OSDF placement.

Section 2.3.4 and Appendix C (Section 01120 3.3.A.4) of the referenced document have been updated to incorporate this requested change. A copy of the document pages affected by this requested change is enclosed for insertion to the Laboratory Complex Implementation Plan, final document. If approved, please remove the existing pages affected by this change and replace them with the enclosure.

If you have any questions relating to this matter, please contact Anand C. Shah at (513) 648-3146.

Sincerely,

Johnny Reising

FCP:Shah

Johnny W. Reising
Fernald Remedial Action
Project Manager

Enclosure: As Stated

cc w/enclosure:
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M. Stevens, Fluor Fernald, Inc./MS87
ECDC, Fluor Fernald, Inc./MS52-7

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LABORATORY COMPLEX IMPLEMENTATION PLAN

DOCUMENT NUMBER 1789-PL-0002 (REV. 0) PCN1

PAGE CHANGES

INCLUDES:

COVER PAGE/RECORD OF REVISION

PAGE 11/12

PAGE 13/14

APPENDIX C, REV. 8, COVER PAGES 1 THRU 3

APPENDIX C, SECTION 01120, REV. 3, PAGES 1 THRU 10

OPERABLE UNIT 3

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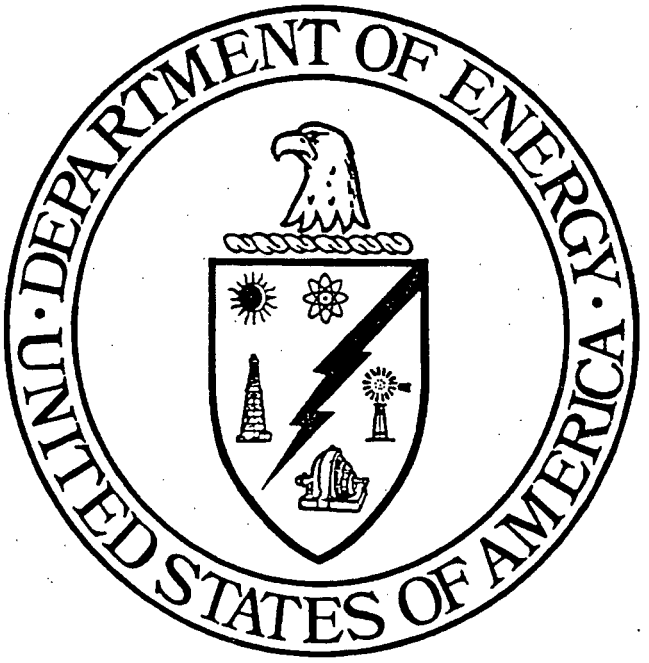
LABORATORY COMPLEX IMPLEMENTATION PLAN FOR ABOVE-GRADE DECONTAMINATION AND DISMANTLEMENT



FEBRUARY 2003

FERNALD ENVIRONMENTAL MANAGEMENT PROJECT
FERNALD, OHIO

U. S. DEPARTMENT OF ENERGY
FERNALD AREA OFFICE

Final

DOCUMENT CONTROL NO. 1789-PL-0003 (REV. 0) PCN1

RECORD OF ISSUE/REVISION

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DATE	REVISION NO.	DESCRIPTION AND AUTHORITY
4/18/02	Rev. 0	Issued approved Implementation Plan
2/18/03	Rev. 0, PCN1	On Pages 12 and 14 along with Appendix C Specification Section 01120 Paragraph 3.3.A.4, allow for Debris Category I material to be commingled with Debris Categories A, B, D and incidental E.

accordance with the strategies laid out in the OU3 Integrated RD/RA Work Plan. The wastewater collection system will include polyethylene-lined containment structure(s) over which equipment is washed, and filters (20-micron prefilter and 5-micron filter) to remove entrained particulate during transfer into a holding tank. Wastewater handling includes sampling and analysis of water and sludges for constituents of concern (see Section 2.4 for wastewater monitoring), discharge of approved effluent into the FEMP wastewater treatment system (Advanced Wastewater Treatment Facility), and sludge removal and containerization in 55-gallon drums. The need for wash water sampling is determined by the Wastewater Treatment System (WWTS) Manager if significant levels of constituents of concern are present, based on an assessment of relevant OU3 RI/FS analytical data and process history. Section 2.4 further discusses wastewater-monitoring strategies. The ultimate disposition of wastewater into the WWTS is managed in accordance with existing site procedure EP-0005 "Controlling Aqueous Wastewater Discharges into the FEMP Wastewater Treatment System".

2.3.3 Estimates of Material Volumes

Materials to be generated during this project have been categorized using the same classification system that was developed for and described in the OU3 Remedial Investigation and Feasibility Study (RI/FS) Report (1996a), and OU3 Integrated RD/RA Work Plan, and are estimated in Tables 2-3, 2-4, and 2-5.

2.3.4 Material Handling, Storage, Treatment, and Disposition

Materials generated from the Laboratory Complex D&D project will be reduced in size, segregated, and containerized in accordance with the requirements identified in the MSCC form supplied to the Contractor. Quantities and disposition of specific material categories were documented in the PWID form for internal use. Tables 2-3, 2-4, and 2-5 summarize the MSCC and PWID by identifying quantities, containerization, staging/interim storage, and disposal requirements for each category of material. Debris size requirements are described in Sections 3.3.2.1 and 3.3.6.2 of the OU3 Integrated RD/RA Work Plan.

As stated in Section 3.3.2.2 of the OU3 Integrated RD/RA Work Plan, materials will be identified according to the OU3 debris categories identified in the MSCC. The MSCC for the Laboratory Complex D&D project allows for commingling of OU3 debris categories A, B, D, I and incidental E into the same Roll-Off Boxes (ROBs) since each of these material types conform to OSDF Impacted Material Category 2. The majority of Debris Category E (concrete), however, will be placed in separate ROBs. Commingling of OU3 debris categories A, B, D, I and incidental E is being done to conform to the OSDF impacted material categories in order to facilitate placement. By allowing the commingling of these types of debris into the same ROB, there will be more efficient use of a limited number of ROBs at the FEMP. Materials will be containerized inside the project boundaries adjacent to structures being dismantled. It is currently planned that filled containers will be covered/sealed, screened for exterior radiological contamination, inspected, tagged, and transported directly to the OSDF Transfer Area. Should any materials be encountered that do not meet the OSDF waste acceptance criteria (e.g., materials with "visible process residues" such as yellow cake, black oxide, green salt, etc.) as defined in Specification Section 01120, they will be segregated from OSDF-bound materials. This debris that exceeds the OSDF Waste Acceptance Criteria will be evaluated for the appropriate offsite disposal destination.

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TABLE 2-3 Laboratory Complex Bulked Material Volume Estimates (yd^3)

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Component Number	OU3 Debris Categories										
	Cat. A	Cat. B	Cat. C	Cat. D	Cat. E	Cat. F	Cat. G	Cat. H	Cat. I	Cat. J	Totals
15A	940	2745	39	0	4000	5	10	0	76	3	7818
15B	15	40	.6	0	42	0	10	1	.2	1	109.8
15C	0	4	0	0	34	0	0	0	0	1	39
68	180	96	2.7	17.8	23	0	76	0	10.8	3	409.3
G-008	6.25	8.45	0	0	0	0	0	50.3	0	0	65
Complex Total	1141	2894	42.3	17.8	4099	5	96	51.3	87	8	8441
Container/ Quantity	ROB 39	ROB 97	WMB 15	ROB 1	ROB 137	ROB 1	Pallets 48	ISO 2	ROB 3	WMB 0 DM 25	
Interim Storage	OSDF Transfer	OSDF Transfer	TL/Plt. 1 Pad	OSDF Transfer	OSDF Transfer	WPRAP	OSDF Transfer	ISO Plt. 1	OSDF Transfer	OSDF Transfer	
Disposition	OSDF	OSDF	OFFSI	OSDF	OSDF	OFFSITE	OSDF	OSDF	OSDF	OSDF	

General Notes:

OU3 Debris Categories: Cat. A – Accessible Metals; Cat. B – Inaccessible Metals; Cat. C – Process-Related Metals; Cat. D – Painted Light Gauge Metals; Cat. E – Concrete; Cat. F – Brick; Cat. G – Non-Regulated ACM; Cat. H – Regulated ACM; Cat. I – Miscellaneous Materials.

ROB: Roll-Off Box holds 30 cubic yards (810 cubic feet) and/or 16.95 tons of material; **TL:** top-Loading (also referred to as a Large White Metal Box) holds 35.9 cubic yards (970 cubic feet) and or 18 tons of material; **ISO:** End-Loading Container/Sea Land boxes, holds up to 36 cubic yards (971 cubic feet) and/or 42,000 lbs. of material.

OSDF Transfer: On-site Disposal Facility Transfer area. Refers to direct disposal in the OSDF; however, the ability to deliver debris directly to the OSDF Transfer Area is dependent on whether the OSDF is accepting debris and/or availability of containers (ROBs) for transport. If necessary, Category A, B, D, and E debris may be temporarily stockpiled on the Pilot Plant Pad at project completion.

TABLE 2-4 Laboratory Complex Unbulked Material Volume Estimates (yd^3)

Component Number	OU3 Debris Categories										
	Cat. A	Cat. B	Cat. C	Cat. D	Cat. E	Cat. F	Cat. G	Cat. H	Cat. I	Cat. J	Totals
15A	340	915	13	0	1950	1.6	5	0	38	9	3272
15B	5.6	13.4	.2	0	14	0	5	.5	.1	3	41.8
15C	0	1.3	0	0	11.3	0	0	0	0	3	15.6
68	60	32	.9	5.8	23	0	38	0	5.4	9	174.1
G-008	.82	4.1	0	0	0	0	0	25.2	0	0	30.1
Complex Total	406.5	966	14	5.8	1998.3	1.6	48	25.7	43.5	24	3534

General Note:

Refer to Table 2-3 for OU3 Debris Category descriptions.

TABLE 2-5 Laboratory Complex Material Weight Estimates (Tons)

Component Number	OU3 Debris Categories										
	Cat. A	Cat. B	Cat. C	Cat. D	Cat. E	Cat. F	Cat. G	Cat. H	Cat. I	Cat. J	Totals
15A	272	201.3	2.4	0	1840	2.5	2.6	0	38	1.25	2360
15B	4.5	2.9	0	0	16.3	0	2.6	.2	.1	.4	27
15C	0	.2	0	0	13.1	0	0	0	0	.4	13.7
68	48	7	.3	2.1	19.5	0	19	0	5.4	1.25	102.5
G-008	.6	.9	0	0	0	0	0	8	0	0	9.5
Complex Total	325.1	212.3	2.7	2.1	1889	2.5	24.2	8.2	43.5	3.3	2512.7

General Note:

Refer to Table 2-3 for OU3 Debris Category descriptions.

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The current project strategy for managing debris is to deliver containerized debris directly to the OSDF Transfer Area; however, stockpiling of Category A, B, D, I and E debris for interim storage is a possibility due to the limited number of ROBs at the FEMP. Stockpiling of debris, if utilized, will follow the strategies provided under Section 3.3.2.3 of the OU3 Integrated RD/RA Work Plan, which requires best available storage configuration for OU3 Debris Categories A, B, D, I and E. The strategy for stockpiling also requires removing or encapsulation of contaminants. Specification Section 01517 debris release criteria requires that gross contamination be removed or encapsulated on debris surfaces prior to their removal from a building enclosure or local containment. To the maximum extent practicable, debris will be containerized following sizing when sufficient containers are available. Should the best available storage configuration (i.e., containers with lids or tarps) be temporarily unavailable, stockpiling of debris that meet the release criteria) on pads with run-off controls would be performed. Based on current estimates for OSDF debris transfers, the schedules for completion of the Laboratory Complex D&D project and start of Area 4B soil excavation, debris stockpiles may remain on the pads of the Laboratory Complex for up to six months. PCN1 PCN1

Material tracking is performed using the Site-Wide Waste Information, Forecasting and Tracking System/Integrated Information Management System (SWIFTS/IIMS) through the FEMP waste management organization. Project-specific reporting on material disposition will be provided by a SWIFTS/IIMS summary in the Project Completion Report. Section 3.3.2.2 (Segregation, Containerization, Tracking) of the OU3 Integrated RD/RA Work Plan describes material tracking and reporting using SWIFTS. OU3 Debris Categories A, B, D, I and E debris are classified as OSDF Category 2 material. Therefore, commingled Debris Categories A, B, D, I and E quantities will be tracked in SWIFTS/IIMS under a discreet Material Evaluation Form that corresponds to Impacted OSDF Category 2 debris in interim storage. OU3 Debris Category I (Miscellaneous Materials) is also OSDF Category 2 but will not be commingled and therefore actual volumes will be easily obtained. Debris Category G (Transite) and Debris Category H (Regulated ACM) are regarded as OSDF Categories 3 and 5, respectively, and will also be handled separately. Since the volume of commingled debris will represent a combination of waste streams, proportions of OU3 debris categories within that total volume will be derived based on original estimates to identify and track waste volumes by OU3 debris category. These derived quantities will be documented in the Project Completion Report for the Laboratory Complex D&D project. Other than tracking debris specifically for the purpose PCN1 PCN1

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FLUOR DANIEL FERNALD

DEMOLITION CLOSURE PROJECT

SPECIFICATIONS

PROJECT: 01789
SPEC 01789-TS-0001
FLUOR FERNALD ENGINEERING SUPPORT
REVISION 8

PREPARED BY: _____ 2/19/03
Joseph S. Stoner Date

APPROVED BY: _____ 2/19/03
David G. Balzen Date

U. S. DEPARTMENT OF ENERGY
FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

Fluor Fernald, Inc.
P.O. Box 538704
Cincinnati, Ohio 45253-8704

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ISSUE AND REVISION SUMMARY

Revision	Date	Description of Issue or Revision
0	09/04/01	Issued CFC
1	12/10/01	Verbiage formats and conflicts with the IFB corrected. Initiated by Joyce Leslie. HEPA Vacuum and /Air Filtration Device specifications updated. Initiated by Joe Stoner. Implemented comment resolutions made on HEPA Vacuum/Air Filtration Device specifications. Initiated by Joe Stoner. Update of Technical References, codes and standards. Initiated by Joyce Leslie and Joe Stoner.
2	1/28/02	Added changes per DCN 1789-001. Initiated by Jerry Fry and Joe Stoner.
3	04/11/02	Added exception to Section 01120 per DCN 1789-002. Initiated by Jerry Fry and Joe Stoner
4	04/25/02	Added condition to 3.2.D.2 of Section 01515 per DCN 1789-003. Initiated by Jerry Fry and Joe Stoner.
5	6/27/02	Added condition to 3.1.B.3.c of Section 01517 per DCN 1789-005. Initiated by Jerry Fry and Joyce Leslie.
6	6/27/02	Added condition to 3.2.B.1. of Section 01515 per DCN 1789-007. Initiated by Jerry Fry and Joyce Leslie.
7	8/21/02	Revised words in 3.2.B.1. of Section 01515 per DCN 1789-008. Initiated by Jerry Fry and Joyce Leslie.
8	2/19/03	Changed "Note" to "Note 1" and added Note 2 to 3.3.A.4 of Section 01120 per DCN 1789-009. Initiated by Jerry Fry and Joe Stoner

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Table of Contents

Revision	Section	Description of Issue or Revision
1	01010	General Requirements
3	01120	Debris/Waste Handling Criteria
4	01515	Mobilization, Demobilization and General Site Requirements
1	01516	Asbestos Abatement
2	01517	Removing/Fixing Radiological Contamination
1	01519	Decontamination of Contractor Provided Tools, Equipment and Material
1	03315	Concrete/Masonry Removal
1	03920	Concrete Surface Removal
1	05125	New Structural Steel/Metals
2	05126	Structural Steel Dismantlement
2	07415	Transite Removal
0	11010	HEPA Vacuum Cleaner Requirements
1	15065	Equipment/System Dismantlement
1	15067	Ventilation and Containment
0	15860	HEPA Air Filtration Device Requirements

END OF SECTION

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Approved: Joseph S. Stoner 2/19/03 Date

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SECTION 01120

DEBRIS/WASTE HANDLING CRITERIA

PART I GENERAL

1.1 SUMMARY

This Section provides the requirements for handling, containerization and stockpiling of debris/waste generated during the dismantlement of FEMP processing and support facilities. Debris/waste shall be segregated into established categories and containerized as directed in this Section. This includes, but is not limited to, the following:

A. Classification of materials by segregation category,
B. Segregation of materials,
C. Containerization/loading,
D. Movement of containers within the construction zone,
E. Tagging containers,
F. Debris stockpiling, and
G. Collection and containerization of controlled area office trash from Contractor-owned office trailers.

1.2 RELATED SECTIONS

A. Section 01515 - Mobilization, Demobilization, and General Site Requirements
B. Section 01516 - Asbestos Abatement
C. Section 01517 - Removing/Fixing Radiological Contamination
D. Section 01519 - Decontamination of Contractor Provided Tools, Equipment, and Material
E. Section 03315 - Concrete/Masonry Removal
F. Section 05126 - Structural Steel Dismantlement
G. Section 07415 - Transite Removal
H. Section 15065 - Equipment/System Dismantlement
I. Section 15067 - Ventilation and Containment

1.3 REFERENCE MATERIALS

See Parts 6 and 7 for the following:

A. Index of Drawings,
B. Contractor Safe Work Plan Format Requirements, and
C. The Material Segregation and Containerization Criteria (MSCC) form identifies anticipated waste streams to be generated and their respective waste categories. In addition, the MSCC identifies containers (where applicable) for the waste streams, size criteria, and special waste handling criteria. Debris is defined as dismantled piping, equipment, systems, components, asbestos-containing materials (ACM), etc., which is contained within the project boundaries.

1.4 REFERENCES, CODES AND STANDARDS

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All work shall be accomplished in accordance with the following code and standards:

A. United States Department of Energy

1. DOE Order 460.1A Packaging and Transportation Safety

B. Code of Federal Regulations (CFR)

1. 10 CFR 835 Energy - Occupational Radiation Protection.

1.5 SUBMITTALS

The Contractor shall submit the following for approval by Fluor Fernald:

A. Debris/Waste Handling Safe Work Plan

Prior to mobilization, the Contractor shall submit a detailed debris/waste handling Safe Work Plan for approval by Fluor Fernald, in accordance with the Contractor Safe Work Plan Format Requirements contained in Part 7 - ACR-002. The Safe Work Plan shall include the Contractor's:

1. Method of cutting to meet debris size requirements (if different from methods used for dismantlement),
2. Proposed equipment for loading and handling containers,
3. Method to verify that the weight capacity of each container is not exceeded,
4. Method for loading containers,
5. Method for segregating waste categories,
6. Method for moving debris in and around project area (debris flow),
7. Proposed container staging areas, as required by this Section, and
8. Material inspection area.

B. Monthly Container Report

A report shall be submitted identifying the current waste container stock listing of drums and all metal boxes delivered to and staged at the project site. This report shall be by inventory number; shall be issued on a monthly basis; and shall describe the usage and/or contents of the waste containers under control by the Contractor.

1.6 PROJECT CONDITIONS

A. Generation of additional debris/waste shall be minimized. Waste minimization shall include, but not be limited to, unpacking equipment and material prior to entering the Controlled Area. The Contractor shall not bring any hazardous material to the construction zone unless prior approval is received from Fluor Fernald. Alternatives to hazardous materials shall be used whenever possible.

B. The Contractor shall notify Fluor Fernald immediately when hazardous or mixed wastes are found or, whenever possible, before they are generated. Further management of these wastes shall be coordinated with Fluor Fernald.

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C. All waste and debris designated for placement in the OSDF from thorium-contaminated areas shall be free of visible material. The Contractor shall high-pressure rinse and lock down these items. The *exterior* surfaces of roll-off boxes used to transport these items to the OSDF shall be decontaminated as necessary and released from thorium controls prior to their pick-up for movement to the OSDF.

D. Requests for containers shall be made to Fluor Fernald in writing at least 4 calendar days in advance of need.

PART II PRODUCTS

2.1 EQUIPMENT

A. The Contractor shall supply all equipment required for:

1. Sizing debris and moving containers within the construction zones [except End Loading Container Sea Land Boxes International Standards Organization (ISO) containers], and

2. Loading containers.

B. Fluor Fernald will move Roll-off Boxes (ROBs) and ISO containers.

2.2 MATERIALS - FURNISHED BY OWNER (FLUOR FERNALD)

A. Fluor Fernald will provide appropriate containers for debris/waste categories as identified on the MSCC* (except liquid storage tanks, as noted in Section 01517) and as otherwise specified. These containers include, but are not limited to, the following:

Container Designation	Nominal Exterior Dimensions (H x W x L)	Maximum Gross Weight (lbs.)
Large metal boxes (LMB) (top load)	8' x 8' x 20'	42,000
ISO containers (top load)	8' x 8' x 20'	42,000
ISO containers (end load)	8' x 8' x 20'	42,000
Small metal boxes	Various	8,000
55-gallon drums with lid	---	882
Roll-off boxes (ROB)	6' x 8' x 22'	42,000

B. Fluor Fernald will deliver empty ("prepped", if required) containers, pallets (possibly radiologically contaminated), dunnage, and miscellaneous materials, as required, to the container staging (also referred to as "queuing") area.

* NOTE: The MSCC can be found in Part 6, Exhibit E

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2.3 MATERIALS - FURNISHED BY CONTRACTOR

A. The Contractor shall supply fiber-reinforced polyethylene or polyester sheeting approved for outdoor storage: color, yellow; minimum thickness of 6-mils; ultraviolet resistant; as manufactured by Griffolyn, Herculite or equal.

B. The Contractor shall furnish 8" x 11" weatherproof removable tags.

C. The Contractor shall furnish 3.5'- 4' high woven metal fencing consisting of 14 gauge 2 inch x 4 inch galvanized welded mesh with 7 foot painted steel "T" posts embedded to a depth of 2 feet and placed at 10 foot intervals.

PART III EXECUTION

3.1 PREPARATION

A. Roll-Off Box Staging Area:

The Contractor shall establish and maintain a ROB staging area(s), as needed, which shall be proposed by the Contractor unless otherwise specified by Fluor Fernald on reference site drawings. To define and control access to this area, woven metal fencing will be erected around the perimeter of the staging area. One section of the fence will be open for access and egress. The fencing must be maintained in good condition. This area shall be used for temporary staging of empty and full ROB containers. If the staging area is a non-concrete surface, the Contractor shall be responsible for stabilizing and maintaining the areas and routes of access to accommodate container handling requirements.

B. Other Container Staging Areas:

The Contractor shall prepare other container staging areas as needed. Areas will either be used to store empty drums and metal boxes (includes ISO Containers), or will be used for full drums and metal boxes which shall be proposed by the Contractor (unless otherwise specified by Fluor Fernald on reference site drawings). Woven metal fencing will be erected around the perimeter of each staging area. One section of the fence for each area will be open for access and egress. The fencing must be maintained in good condition.

C. Material Inspection Area:

The Contractor shall establish a material inspection area for each contamination area, for access of Fluor Fernald personnel to inspect debris and/or perform radiological surveying. Each material inspection area shall be proposed by the Contractor and approved by Fluor Fernald. The inspection area shall be arranged such that routine access will be prevented by means of fencing and/or barrier tape, with appropriate posting to identify that the items contained are being held for visual inspection or radiological survey. The inspection area will be off -limits to individuals other than Fluor Fernald/Contractor waste technicians and radiological survey personnel.

3.2 APPLICATION

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A. Debris handling requirements are defined by the following Fluor Fernald classifications: 1) non-process debris and 2) process debris. All debris shall be sized, segregated, rinsed with high-pressure water, and containerized in accordance with the MSCC.

1. Non-Process Debris:

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Non-process debris will be exempt from the inspection requirement for *visible process residues* as described in Article 3.2.A.3 of this Section. Non-process debris would include, but are not limited to, piping for utility systems (i.e., steam, condensate, drinking water, air, and others), electrical systems (i.e., conduit, motors, electrical panels, and others), and obvious non-process items such as structural steel (Debris Category A), concrete (Debris Category E), transite (Debris Category G), and most miscellaneous materials categorized as Debris Category I.

2. Process Debris:

Process debris is defined as debris that fails the inspection for *visible process residues* per Article 3.2.A.3, and debris listed in the MSCC as Debris Category C.

3. Visible Process Residue Inspection Requirements:

The definition of *visible process residues,* (green salt, yellow cake, black oxide, etc.) including films and precipitates, is "hold-up/materials on the interior or exterior surfaces of debris that is obvious". Dirt, oil, grease, stains, rust, corrosion, and flaking do NOT qualify as visible process residues; however, dirt, oil, grease, stains, rust, corrosion, and flaking require decontamination for radiological control purposes prior to removing the debris from the enclosure or prior to opening a building to the environment, per Technical Specification Section 01517. Regardless of whether or not visible process residues are present, all debris are still considered to be radiologically contaminated unless otherwise specifically identified.

Fluor Fernald visual inspection will take place following dismantlement, sizing, and surface decontamination in accordance with Section 01517 Article 3.1, and relocation to the Fluor Fernald-approved Material Inspection Area referenced in Article 3.1.C of this Section.

a. Debris That Fails Inspection for Visible Process Residues:

Debris that fails the inspection criteria for visible process residues will be identified with yellow paint by Fluor Fernald, and the Contractor shall attempt to remove the visible process residues at least one time in accordance with Section 01517 prior to Fluor Fernald re-inspection. If the debris fails the second inspection for visible process residues, it shall be deemed as "Process Debris" (Debris Category C) and will be identified with red paint by Fluor Fernald.

b. Debris That Passes Inspection for Visible Process Residues:

Debris that passes the Fluor Fernald inspection for visible process residues shall be rinsed with high-pressure water, and containerized or staged according to Article 3.3

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of this Section.

B. The Contractor shall be responsible for retrieving empty containers from the container staging areas (except for ISO containers), segregating debris/waste, loading, securing containers, tagging for on-site movement, and scheduling the movement of containers back to the designated container staging area. The Contractor shall use the MSCC as the basis of all containerizing activities, and shall be responsible for minimizing debris/waste generation by limiting the amount of material brought on site.

C. Equipment, material or debris requiring movement outside the enclosed building to be sized, containerized or palletized, must meet the requirements for removal/fixing of radiological contamination per Section 01517. If the removal/fixing requirements cannot be met, the material may be encapsulated or wrapped in fiber-reinforced sheeting and sealed prior to movement to prevent the migration of radioactive contamination as follows:

1. Place fiber-reinforced sheeting over pallet, position material on pallet, and wrap the sheeting over material,
2. Secure fiber-reinforced sheeting over material to prevent migration of contamination, and
3. Secure material to pallet with vinyl or metal banding material as needed.

3.3 PERFORMANCE

A. For containerization, the Contractor shall:

1. Ensure that Fluor Fernald personnel are present during the loading and securing of containers identified in the MSCC, and provide notice to Fluor Fernald within 24 hours prior to containerization.

2. Provide a debris/waste-handling supervisor to supervise operations.

3. Segregate and containerize all debris/waste according to the categories defined in the MSCC. Should a debris/waste stream be discovered that is not on the MSCC, work on the handling of this debris/waste shall stop, and Fluor Fernald shall be contacted for further direction.

4. Commingle Debris Categories A, B, D (except for lead), and incidentally generated E in the designated container or stockpile, as directed by the MSCC. Debris Category I shall be segregated and containerized according to two subcategories: I2 - Non-compressible and/or Non-organic Misc. Debris, and I4 - Compressible and/or Organic Misc. Debris.

   NOTE 1: An exception shall be taken for the Administration Complex D&D activity that allows commingling Debris Categories A, B, D (except for lead), E and I (during the OSDF's seasonal operating period) in the designated container and disposed of as directed by the MSCC.

   NOTE 2: An exception shall be taken for the Lab Complex D&D activity that allows for commingling Debris Categories A, B, D (except for lead), E and I. Lab Complex D&D commingled debris will be staged at the Lab footprint and loaded out in roll-off boxes or dump trucks for direct placement into the OSDF based on availability of the OSDF to accept it. Whenever capacity for placement of non-Thorium above grade debris becomes

available, priority will be given to the staged Lab commingled debris over any other debris located at the OMTA for OSDF placement.

5. Upon receipt of containers, the Contractor shall perform a visual inspection to ensure that the containers do not contain any of the prohibited items identified in Section 01120.3.3.A.8 Fluor Fernald will remove any free liquids upon removal from the work zone, as necessary.

6. Fill containers, boxes, and drums such that the interior volume is as efficiently and compactly loaded as practical up to the maximum gross weight limit of the container. Fill void space in large piping, equipment, containers, etc., with smaller debris. Any container exceeding maximum allowable gross weight shall have contents removed, as required, to lower the weight to an acceptable range. Contents shall be prepared for containerization in order to minimize load shifting or damage to container during movement.

7. Ensure that empty metal boxes and drums must remain in the established empty container staging area, except during loading activities.

8. Ensure that the following "Prohibited Materials List" is displayed in the containerization area or on each container. Notify Fluor Fernald if any of the prohibited materials are identified for specific material handling directions.

PROHIBITED MATERIALS LIST

a. Gas cylinders that are able to be pressurized
b. Explosives
c. Materials containing free liquids. The intent of the exclusion of free liquids is to prevent contaminated liquid waste (e.g., a drum of solvent) from being directly disposed of in the On-Site Disposal Facility (OSDF). Materials that contain rainwater or that have inherent moisture content (e.g., sludge) are not excluded.
d. Fine particulates (respirable fines)
e. Hazardous waste (Characteristic or Listed)
f. Corrosive materials
g. Etiologic agents
h. Flammable liquids or combustible solids
i. Whole or shredded scrap tires
j. Material from any off -site source, including any other DOE site
k. Product, residues, and other special materials (Category J materials)
l. Process-related metals (Category C)
m. Intact containers (i.e., containers must be empty and crushed)
n. Acid brick (Category F material)
o. Transformers, which have not either been crushed or had their void spaces filled with grout
p. HEPA filters
q. Used oils
r. Materials not accompanied by a manifest
s. Solvent saturated soils
t. Material not meeting physical WAC

9. Install weatherproof removable tags on each debris/waste container prior to loading. Tags shall identify container contents, using indelible ink, by debris/waste category specified in the MSCC and the debris/waste's building of origin. For Category J Debris, an exact description of the contents is required.

10. Containerize Thorium contaminated debris/waste separately from non-Thorium contaminated debris/waste.

B. Security and Movement of Containers:

To ensure security and movement of containers, the Contractor shall:

1. Schedule the movement of containers to the specific task location from the container staging area.

2. Ensure that the lid, doors, or tarps on debris/waste containers are secured when no containerization is in progress to prevent unauthorized containerization of materials or release of container contents. Containers must be weather protected when lid is not secured, to prevent entry of snow and rain or release of container contents.

3. Inspect all containers, double bagged materials, drums, boxes, or double wrapped components for exterior contamination and damage before removing them from the work area. Damaged containers shall be reported to Fluor Fernald. Any container damage beyond normal wear and tear that is Contractor-caused shall be the Contractor's responsibility to repair or to provide compensation for such repairs.

4. Secure full containers.

   a. End-loading ISO containers shall be secured by closing and latching doors, ensuring that all latching mechanisms are engaged.

   b. Drums shall be secured as follows:

      1. Place lid on drum, ensuring that gasket is seated to maintain a tight seal,
      2. Install bolt-type lock ring on lid and torque to 45 ± 5 foot-pounds, and
      3. Drums shall be securely strapped together on pallets, using at least one strap.

   c. Top-Loading Metal boxes (large and small) shall be secured as follows:

      1. Inspect gasket for damage and repair, if required, and
      2. Place gasket and lid on the box and secure with clamping device or pins.

   d. Roll-Off Boxes (ROBs) shall be secured as follows:

      1. Cover ROB with tarp or steel lid,
      2. Secure tarp (with straps) or steel lid (with clamping device or pins),
      3. Secure all gate chains, and
      4. Ensure that containers have not been damaged during loading.

   e. Prior to securing lid or doors on containers holding asbestos-containing materials

(ACM), fold fiber-reinforced sheeting over ACM and seal with tape.

f. Return full, secured containers to the staging area (except for ISOs, which will be removed by Fluor Fernald).

g. Filled ROBs must remain inside the established staging area until they can be removed by Fluor Fernald.

h. Filled drums and metal boxes must remain inside the established full container staging area until they can be removed by Fluor Fernald.

i. The Contractor shall decontaminate waste containers, equipment, tools, etc., prior to exiting the construction zone or staging area as necessary in accordance with Section 01519.

C. Stockpiling of Materials:

1. The Contractor shall establish/construct and manage debris stockpile area(s) on concrete or asphalt surfaces with run-off controls (as required by Section 01515), and fencing. The Contractor shall ensure that run-off controls are constructed and used in accordance with Section 01515. Stockpiled materials shall be sized and segregated in accordance with the MSCC. A five foot buffer area shall be maintained between the footprint of the stockpile(s) and the perimeter of the pad(s) and the stockpile area fencing. The Contractor shall inspect the stockpile area(s) and report any deficiencies to Fluor Fernald. Inspections shall be documented in the Contractor's Daily Work Activities Report and shall include at least the following:

   a. Daily and after storm events with heavy rains and/or strong winds to ensure that piles remain in a safe and controlled configuration,
   b. Covers of catch basins to ensure that they remain unclogged and free of obstructions,
   c. Diking to ensure that controls are in good condition, permitting easy flow of runoff, and
   d. Perimeter fencing, gates, and other materials required for maintaining project control of the stockpile area(s).

2. Fluor Fernald will perform routine radiological contamination surveys and airborne radioactivity monitoring, as deemed to be appropriate. If deemed necessary by Fluor Fernald, the Contractor shall take measures to mitigate the spread of contamination to areas outside of the staging area and to maintain airborne radiological levels within allowable limits. These measures may include area decontamination, application of fixatives, or other measures proposed by the Contractor and accepted by Fluor Fernald.

3. Floor Load Capacity:

   If the Contractor chooses to stage any debris on a floor other than a slab-on-grade, a structural engineering analysis shall be required. It shall be the Contractor's responsibility to perform the analysis to verify the loading capacity of said floor and submit the analysis to Fluor Fernald, signed and stamped by a Professional Engineer (PE) registered in the State of Ohio, to ensure that the load capacity is not exceeded.

D. Collection and Containerization of Controlled Area Office Trash from Contractor-Owned Office Trailers

Office trash from Contractor-owned office trailers shall be collected and managed in accordance with the following requirements:

1. Collect office trash from Contractor-owned office areas for participation in the controlled area Office Trash Program.

2. Prohibited items, items that are suspected to be contaminated, or items not normally discarded into office area trash containers shall be segregated from typical office trash. Prohibited items include, but are not limited to: tools, equipment, mop heads, hose clamps, floor sweepings, aerosol cans, high density material, protective clothing (Anti-C's, gloves, booties, coveralls), yellow maslin, yellow tape/RadCon tape, yellow herculite, yellow shoe covers, radiological smears, radiological safety signs, plastic sample bottles, and instrument survey cords.

3. If any prohibited or suspect materials are found (with the exception of tools and equipment), they shall be disposed of as contaminated material in accordance with the MSCC.

4. If tools or equipment are found in office area trash containers, contact the Fluor Fernald Construction Manager for radiological evaluation and the procedure for decontamination or disposition.

5. Package office trash in green tinted translucent plastic bags provided by Fluor Fernald. Green tinted translucent plastic bags are mutually exclusive to the Controlled Area Office Trash Disposal Program.

6. Seal each clear trash bag and green trash bag with tape (not yellow in color) and indicate the building or area where the trash was generated directly on each trash bag with a paint stick or permanent marker.

7. Place office trash in a designated area agreed upon by Fluor Fernald and the Contractor. Fluor Fernald will collect office trash daily, unless stated otherwise by the Demolition Closure Project Contract.

3.4 QUALITY ASSURANCE

The Contractor and Fluor Fernald shall inspect filled containers upon their return to the container staging area to verify that no damage has occurred during the filling of the container.

END OF SECTION

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