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JUN 30 2005

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DOE-0273-05

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Dear Mr. Saric and Mr. Schneider:

**SILO 3 RADIOLOGICAL CHARACTERIZATION INFORMATION AND PAGE
 CHANGE NOTICE 2 FOR THE OU4 COMPLEX SILO 3 ABOVE-GRADE
 DECONTAMINATION AND DISMANTLEMENT IMPLEMENTATION PLAN**

Reference: Letter, T. A. Schneider to W. J. Taylor, " Re: Comments: Operable Unit 4
 (OU4) Complex Silo 3 Implementation Plan For Above-Grade Decontamination
 and Dismantlement", dated September 14, 2004

This letter transmits the Silo 3 and associated structures radiological characterization information (Enclosure 1) in response to comment 2 of the referenced letter. Additionally, the Silo 3 Continuous Emissions Monitoring (CEM) Building is incorrectly identified as Building 94J in the Silo 3 Above-Grade Decontamination and Dismantlement Implementation Plan. Therefore, Page Change Notice 2 is provided (Enclosure 2) to correctly identify the Silo 3 CEM Building as Building 94X. Please remove the existing implementation plan pages affected by this change and replace them with Enclosure 2.

If you have any questions or require additional information, please contact Johnny Reising at (513) 648-3139.

Sincerely,

Johnny Reising
 for William J. Taylor
 Director

FCP:Reising

Mr. James A. Saric
Mr. Tom Schneider

-2-

DOE-0273-05

Enclosures: As Stated

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6004

Enclosure 1: Characterization of the Silo 3 Complex

Recent radiological surveys were compiled during the Silo 3 operations phase and are summarized in the following table:

Silo 3 Complex Radiological Contamination Survey Summary

Component Number	Alpha Removable (dpm/100 cm ²)		
	Avg Value	Max Value	Sample Points
Building 94H – Silo 3 Process Building (Interior)	<50	630	70
Building 94X – Silo 3 CEM Building	<20	<20	20
Building 94M – Silo 3 Enclosure Building including Component 35B, Metal Oxide Storage Tank (Silo 3)	<50	1070	70
Building 94N – Silo 3 Excavator Building	<20	<20	25
Building 94P – Silo 3 Cargo Container Building	<20	<20	25
Building 94Q – Silo 3 Electrical Equipment Building	<20	<20	20

**OPERABLE UNIT FOUR COMPLEX SILO 3
IMPLEMENTATION PLAN**

6004

DOCUMENT NUMBER 40900-PL-0001 (REV. 0) PCN2

PAGE CHANGES

INCLUDES:

COVER PAGE/RECORD OF REVISION

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BUILDING 94X BUILDING ISOMETRIC VIEW "A"

BUILDING 94X FOUNDATION PREPARATION PLAN VIEW

OPERABLE UNIT 3

OPERABLE UNIT 4 (OU4) COMPLEX SILO 3 IMPLEMENTATION PLAN FOR ABOVE-GRADE SILO 3 DECONTAMINATION AND DISMANTLEMENT



JULY 2005

FERNALD CLOSURE PROJECT
FERNALD, OHIO

U. S. DEPARTMENT OF ENERGY
FERNALD AREA OFFICE

FINAL

DOCUMENT CONTROL NO. 40900-PL-0001 (REV. 0) PCN2

RECORD OF ISSUE/REVISION

<u>DATE</u>	<u>REVISION NO.</u>	<u>DESCRIPTION AND AUTHORITY</u>
7/8/04	Rev. 0	Issued Final Implementation Plan
10/14/04	Rev. 0, PCN1	<p>Section 2.2, Paragraph 1 – The last sentence has been changed to read: “Upon availability, the radiological characterization information for Silo 3 and associated structures will be issued with a submittal letter to the regulatory agencies.”</p> <p>The following text has been added as the last paragraph to Section 2.3.4: “If debris cannot be dispositioned in the OSDF, either because the OSDF is not open or the debris does not meet the OSDF WAC, the preferred disposition is Envirocare via the WPRAP rail system. If this option is not available, another offsite disposal facility (TBD) will be used.”</p> <p>Section 2.3.4, Paragraph 3 – The following two sentences have been added to the end of this paragraph: “At this time, there are no plans to stockpile Silo 3 debris. In the event stockpiling becomes necessary, all site requirements will be met.”</p> <p>Section 2.4, Subtitle “Radiological Air Monitoring”, Page 11 – The last paragraph has been changed to read: “Supplemental radiological air monitoring will be performed during the Silo 3 and associated structures D&D activities.” Note: As a result of this change, reference to several documents has been removed from Page 29.</p> <p>The following text has been added as the last sentence to Section 2.6: “Information relating to any new or innovative technologies incorporated during the decontamination and demolition activities will be issued with a submittal letter to the regulatory agencies.”</p> <p>Section 3.2, Subtitle “Surface Decontamination”, Page 22 – The following text has been added as the last two sentences: “At the completion of the operations phase, the project will retrieve surrogate material such as flyash or sand to flush out the system. This waste stream will be packaged for disposal.</p> <p>The last sentence of the first paragraph in Appendix B has been changed to identify “three” leading alternatives to onsite disposal.</p>
7/1/05	Rev. 0, PCN2	Changed “Building 94J” notation to “Building 94X”.

**OU4 COMPLEX SILO 3
IMPLEMENTATION PLAN FOR ABOVE-GRADE
DECONTAMINATION AND DISMANTLEMENT**

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1.0 INTRODUCTION

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1.1 Project Statement

This implementation plan represents the sole remedial design deliverable developed for the Operable Unit 4 (OU4) Complex Silo 3 decontamination and dismantlement (D&D) project, which has been prepared for regulatory agency approval pursuant to the Operable Unit 3 (OU3) Integrated Remedial Design/Remedial Action (RD/RA) Work Plan (DOE 1997a). This document presents a summary of the remedial design documentation prepared for the D&D of Silo 3 and associated structures from the OU4 Complex. This D&D project is being implemented pursuant to the authority stipulated in the OU3 Record of Decision for Final Remedial Action (OU3 Final ROD) (DOE 1996a), which covers D&D, waste treatment, and disposition.

The purpose of this document is to summarize the OU4 Complex Silo 3 D&D design in the format and content stipulated by the OU3 Integrated RD/RA Work Plan and established by previously approved D&D implementation plans. This document elaborates, as applicable, on programmatic strategies developed for the Fluor Fernald self-perform D&D scope of work and project specifications (contained in Appendix C of this document).

1.2 Scope of Work

The OU4 Complex Silo 3 D&D project includes the following major activities:

- preparatory action/facility shutdown
- surface decontamination;
- above-grade building/component dismantlement;
- environmental monitoring; and
- material management.

Preparatory action: Inventory Removal and Safe Shutdown are not in the scope of this D&D project; however, Facility Shutdown shall be performed and pertinent information has been summarized in Sections 2 and 3. The following components are included in the OU4 Complex Silo 3 D&D project:

- Component 35B – Metal Oxide Storage Tank (Silo 3)
- Building 94H – Silo 3 Process Building
- Building 94X – Silo 3 CEM Building
- Building 94M – Silo 3 Enclosure Building
- Building 94N – Silo 3 Excavator Building
- Building 94P – Silo 3 Cargo Container Building
- Building 94Q – Silo 3 Electrical Equipment Building

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Requirements for above-grade D&D of Silo 3 were developed using the performance specifications that were originally included in Appendix B of the OU3 Integrated RD/RA Work Plan. Appendix C of this Implementation Plan contains project-specific applications of these

performance specifications that incorporate process improvements and lessons-learned from previous D&D projects at the Fernald Closure Project (FCP).

Department of Energy (DOE) will provide notification to the regulatory agencies of any significant changes to the design prior to implementation. Should the regulatory agencies have any concerns regarding any significant design change, DOE will properly address those concerns as soon as practicable and, if necessary, perform one or more of the following: amend the implementation plan, amend the OU3 Integrated RD/RA Work Plan, present an explanation of significant difference to the OU3 ROD, and/or amend the RODs. Significant changes to the design are those that require formal design modification that would impact the implementation strategies presented in this document. If necessary, affected activities may be suspended until the revision has been completed and approved. This course of action adheres to the commitments made in Section 4.2.2 of the OU3 Integrated RD/RA Work Plan for design changes.

1.3 Plan Organization

This implementation plan is comprised of five sections and five appendices. Section 1 contains the remedial action project statement, scope of work, an overview of this implementation plan, and a brief description of Silo 3 and the associated structures. Section 2 describes the overall approach to implementing this above-grade D&D project, as applied from the OU3 Integrated RD/RA Work Plan. That approach includes the projected sequence for remediation of structures; a plan for materials management, environmental monitoring activities, and the project-specific applications of implementation strategies for above-grade remediation. Section 3 presents pertinent building/component history and applicable building/component-specific details of the applicable remedial tasks. Section 4 presents the schedule for remediation and project reporting. Section 5 describes the Fluor Fernald self-perform D&D strategy and FCP project management approach.

Appendix A contains a discussion of potential environmental and occupational sampling for this project, based on the assumptions in the Sampling and Analysis Plan (SAP) contained in Appendix D of the OU3 Integrated RD/RA Work Plan, and on the remediation requirements presented in this plan. Appendix B provides a summary of the evaluation of material disposition alternatives for accessible metals and a tabulation of the cost comparison between the disposition alternatives. Appendix C provides the project performance specifications. Appendix D provides copies of available drawings and sketches that show floor plans and elevations of buildings/components. Appendix E contains selected photographs of notable features of Silo 3 and the associated structures.

1.4 Location of Silo 3

The Silo 3 project area is located at the U.S. Department of Energy (DOE) Fernald Closure Project (FCP) in Fernald, Ohio. Project components include the structures located north of K-65 Access Road and west of the Bionitrification Surge Lagoon within the northwestern-most block of the former Production Area. The Silo 3 project area is illustrated in Figure 1-1.

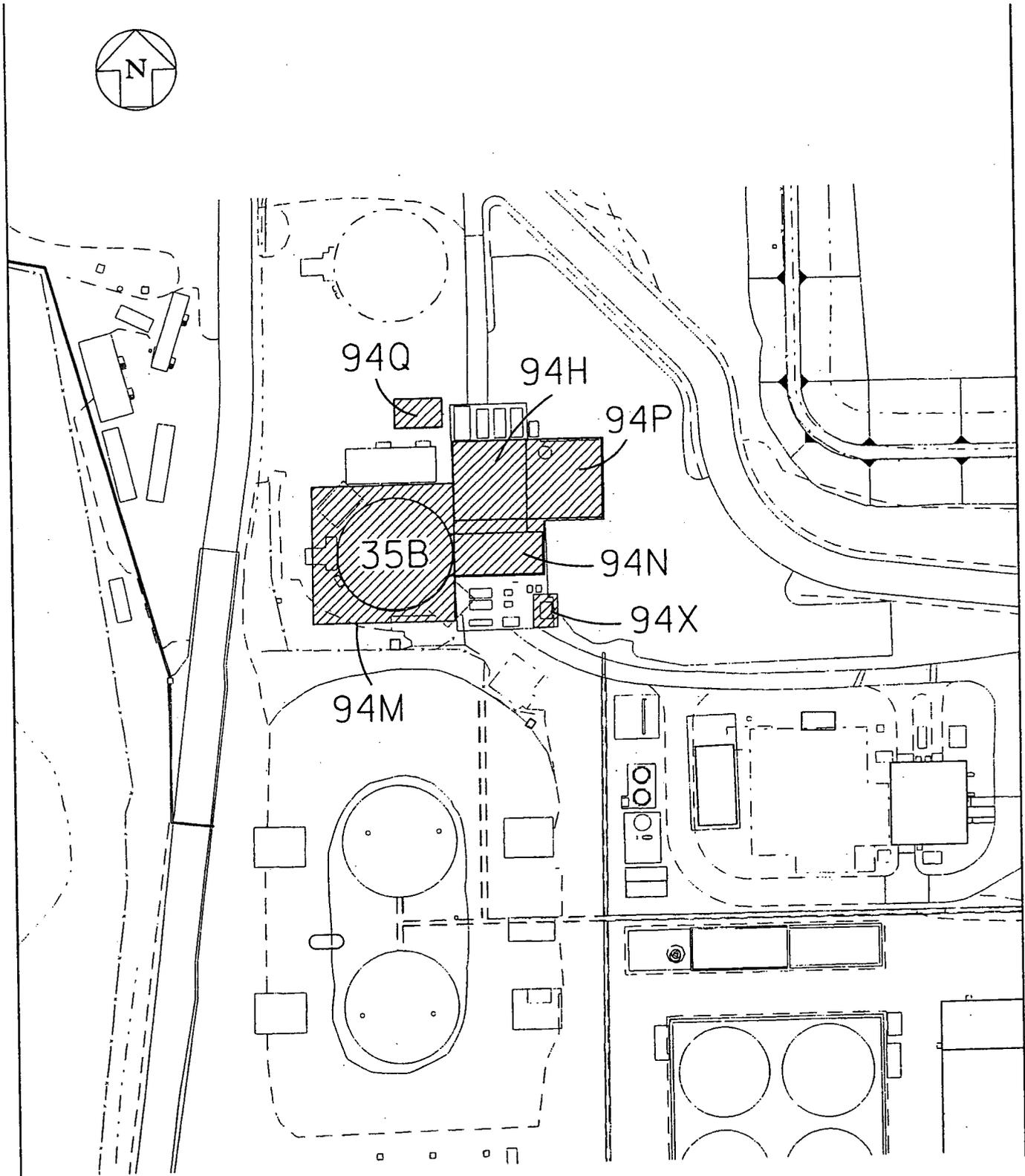


FIGURE 1-1 Silo 3 and Associated Structures

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2.0 GENERAL PROJECT REMEDIATION APPROACH

The overall approach to the above-grade D&D of Silo 3 and associated structures is based on the project-specific applications of the programmatic elements and tasks that were described in Section 3 of the OU3 Integrated RD/RA Work Plan. Section 2 of the implementation plan summarizes the project-specific applications of those elements.

2.1 Sequencing of Remediation

The remediation sequence for components in the OU4 Complex Silo 3 D&D project covers the period of: 1) premobilization, which includes the preparation, review and approval of the Fluor Fernald self-perform work control documents, health and safety documents, etc; 2) mobilization, which includes establishing project support facilities and controls; 3) actual D&D field activities for each building/component; and 4) demobilization, which includes securing the area and decontaminating/removing Fluor Fernald self-perform equipment. The actual sequence of building/component D&D will be determined by the Fluor Fernald self-perform project schedule. It is anticipated that the sequence for dismantlement may be the following:

1. Component 35B – Metal Oxide Storage Tank (Silo 3)
2. Building 94M – Silo 3 Enclosure Building
3. Building 94H – Silo 3 Process Building
4. Building 94P – Silo 3 Cargo Container Building
5. Building 94N – Silo 3 Excavator Building
6. Building 94Q – Silo 3 Electrical Equipment Building
7. Building 94X – Silo 3 CEM Building

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2.2 Characterization of Silo 3 and Associated Structures

Aside from Silo 3, the buildings are new structures. Just prior to D&D, Silo 3 and associated structures will be surveyed so that debris disposition can be established based on the survey results. Upon availability, the radiological characterization information for Silo 3 and associated structures will be issued with a submittal letter to the regulatory agencies.

D&D debris that has come in direct contact with the Silo 3 material will be evaluated for disposition in accordance with the criteria outlined in Section 3.3.1 of the OU3 Integrated RD/RA Work Plan.

D&D debris that has not come in direct contact with Silo 3 material (ex: structural steel, non-process pipe & equipment and structural concrete) will be evaluated for disposition in accordance with the criteria outlined in Section 3.3.1 of the OU3 Integrated RD/RA Work Plan. It is anticipated that this material will be released for off-site disposal. Changing radiological conditions could alter the waste disposition of this D&D debris.

The most significant radiological concerns are the health and safety of the workers during dismantlement of Silo 3 (Component 35B). The presence of contamination will use standard

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 FCP wastewater treatment system (Advanced Wastewater Treatment Facility) and sludge removal. The need for washwater 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 Remedial Investigation and Feasibility Study (RI/FS) (DOE 1993) 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-005 "Controlling Aqueous Wastewater Discharges into Wastewater Treatment Systems".

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 RI/FS and OU3 Integrated RD/RA Work Plan, and are estimated in Tables 2-1, 2-2, and 2-3.

2.3.4 Material Handling, Storage, Treatment, and Disposition

Materials generated from the D&D of Silo 3 and associated structures will be reduced in size, segregated, and containerized in accordance with the requirements identified in the MSCC form. Quantities and disposition of specific material categories were documented in the PWID form for internal use. Tables 2-1, 2-2, and 2-3 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 Silo 3 and associated structures allows for commingling of OU3 debris categories A, B, D 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 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 available ROBs at the FCP. 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.

TABLE 2-1 Silo 3 and Associated Structures Bulked Material Volume Estimates (yd³)

Component Number	OU3 Debris Categories								Totals
	Cat. A	Cat. B	Cat. C	Cat. D	Cat. E	Cat. F/G/H	Cat. I	Cat. J	
35B	30	60	N/A	0	610	N/A	60	.5	760.5
94H	15	200	N/A	30	0	N/A	30	.5	275.5
94X	0	150	N/A	30	0	N/A	30	0	210
94M	0	60	N/A	0	0	N/A	240	0	300
94N	0	150	N/A	0	450	N/A	30	.5	630.5
94P	30	150	N/A	0	0	N/A	30	0	210
94Q	0	30	N/A	175	0	N/A	30	0	235
Complex Total	75	800	N/A	235	1060	N/A	450	1.5	2621.5
Container/Quantity	ROB	ROB	N/A	ROB	ROB	N/A	WMB	WMB DM	
Interim Storage	OSDF Transfer	OSDF	N/A	OSDF Transfer	OSDF	N/A	OSDF Transfer	OSDF Transfer	
Disposition	OSDF	OSDF	N/A	OSDF	OSDF	N/A	OFFSITE	OSDF	

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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; Cat. J – Special Handling.

ROB: Roll-Off Box holds 30 cubic yards (810 cubic feet) and/or 16.95 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. WMB: White Metal Box holds 80 cubic feet with a weight restriction of 8000 pounds. DM: 55 Gallon Drum

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 2-2 Silo 3 and Associated Structures Unbulked Material Volume Estimates (yd³)

Component Number	OU3 Debris Categories							Cat. J	Totals
	Cat. A	Cat. B	Cat. C	Cat. D	Cat. E	Cat. F, G & H	Cat. I		
35B	10	20	N/A	0	406	N/A	20	.5	456.5
94H	5	66	N/A	10	0	N/A	10	.5	91.5
94X	0	50	N/A	10	0	N/A	10	0	70
94M	0	20	N/A	0	0	N/A	80	0	100
94N	0	50	N/A	0	346	N/A	10	.5	406.5
94P	10	50	N/A	0	0	N/A	10	0	70
94Q	0	10	N/A	58	0	N/A	10	0	78
Complex Total	25	266	N/A	78	752	N/A	150	1.5	1272.5

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General Note

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

TABLE 2-3 Silo 3 and Associated Structures Material Weight Estimates (Tons)

Component Number	OU3 Debris Categories							Cat. J	Totals
	Cat. A	Cat. B	Cat. C	Cat. D	Cat. E	Cat. F, G & H	Cat. I		
35B	13.3	4	N/A	0	184.5	N/A	16	.25	218.05
94H	6.7	13.2	N/A	1.8	0	N/A	8	.25	29.95
94X	0	10	N/A	1.8	0	N/A	8	0	19.8
94M	0	4	N/A	0	0	N/A	64	0	68
94N	0	10	N/A	0	157.2	N/A	8	.25	175.45
94P	13.3	10	N/A	0	0	N/A	8	0	31.3
94Q	0	2	N/A	10.9	0	N/A	8	0	20.9
Complex Total	33.3	53.2	N/A	14.5	341.7	N/A	120	.75	563.45

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General Note:

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

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 and E debris for interim

The Pneumatic Retrieval System (PRS) consists of a Supply HEPA filter, Pneumatic Retrieval Collector Baghouse Filter, Cartridge Filter, Pneumatic Retrieval Collector Discharge Screw, Rotary Airlocks, HEPA/ULPA filter, PRS Blower and vacuum pickup wands. All the equipment in this system will have Silo 3 material in the internals either due to direct transfer of material or particulates in the exhaust air stream. The HEPA/ULPA filter and PRS Blower are located outside either on the south pad or excavator roof.

The Mechanical Retrieval System (MRS) consists of excavator, Retrieval Bin, Double Discharge Screw Feeder, Inclined Conveyor, Transfer Screw Conveyor and Feed Conveyor. Only the upper section of the Inclined Conveyor, Transfer Screw Conveyor and Feed Conveyor are located in the Process Building. All the equipment in his system will have Silo 3 material in the internals due to direct transfer of material.

The Packaging and Container Management System consists of two packaging lines. Each line has: loading frame with load cells, densification table, worker platform & fill chute; package staging conveyor and platform with RF sealer. Only the fill chute will have Silo 3 material in the internals due to transfer of the material. The other equipment is expected to have only surface contamination. Inside the fill chute is a bullet camera and spray nozzle assembly. Another section of conveyor is located inside the airlock.

The Waste Conditioning Additive System is housed in the wastewater tank area. The equipment includes two 1,700-gallon tanks, one used as an additive mix tank. The area contains piping and pumps for filling of tanks with ferrous sulfate and sodium lignosulfonate used for treating the Silo 3 material. Two 120-gallon charge tanks used to supply solution to each of the two Discharge Chute Assemblies in the packaging line are also in this room. The additive tank can also be used as a wastewater holding tank during shut-down operations.

The wastewater tank also in the wastewater tank area will receive water from the floor drains and sumps in the process building and excavator room. Wastewater generated during operations will be sampled prior to transfer to the AWWT or recycled for use in the process. A collection pipe is located outside of the Cargo Bay north wall for transfer to the "supersucker".

The process vent system consists of two baghouses for dust collection and filtration for process vent streams from the material retrieval, transfer and packaging of material. Under each process dust collector is a fines retrieval bin that collects particulates from the bags. A connection to the PRS system allows material to be transferred for packaging. The exhaust air stream is filtered through HEPA/ULPA filters located outside of the process building. All equipment will have internal contamination. The exception will be if the one redundant dust collector remains locked out and not used during operations.

The process building will also contain ductwork for the HVAC supply and exhaust systems that remove airborne contamination. It's anticipated that the three package air conditioning units located on the north pad will not become contaminated during operations. The building

filtration exhaust fans and building HEPA/ULPA Exhaust Modules A&B are located outside on the excavator roof & south pad and will have internal contamination.

The facility also contains piping for plant and instrument air and breathing air stations, process water and domestic water supplied to safety shower/eyewash stations. The air system equipment is located outside north of the process building and is not expected to have internal contamination.

Remedial Tasks

Three remedial tasks are applicable to Building 94H.

Preparatory Action: Facility Shutdown

Facility shutdown activities for Building 94H will include removal of salvageable equipment, general clean-up and disconnection of all utilities.

Surface Decontamination

Surface decontamination will be performed to reduce potential airborne contamination resulting from the D&D activities. Surface decontamination of Building 94H does not include any particular strategies beyond those already presented in Section 2.5.2. At the completion of the operations phase, the project will retrieve surrogate material such as flyash or sand to flush out the system. This waste stream will be packaged for disposal.

PCN1

Above-Grade Dismantlement

Building 94H is a steel frame structure with factory insulated wall panels. The roof system is metal deck, insulation and EPDM roof membrane. The building is supported by a mat foundation. It has a two-level roof and several interior platforms for equipment support. The interior walls are metal stud with two layers of drywall on either one side of the stud walls or both sides of the wall. Exterior and interior personnel doors are insulated, 14-gauge and exterior coiling doors are insulated flat metal slats and high-speed doors in airlock are fabric. Building 94H will be dismantled using a track-hoe mounted, hydraulic shear and backhoe. Material take-off estimates identify that the majority of debris from structural dismantlement will consist of piping & conduit/wire, equipment & systems, doors and structural & miscellaneous steel.

3.3 Building 94X – Silo 3 CEM Building

PCN2

Background

Building 94X (Silo 3 CEM Building) is a 10' by 15' self-framing, insulated metal building.

PCN2

Process Area Description

Building 94X houses the controls emissions monitoring (CEM) equipment for stack monitoring. The stack is co-located by the CEM building.

PCN2

Remedial Tasks

Three remedial tasks are applicable to Building 94X.

PCN2

Preparatory Action: Facility Shutdown

No facility shutdown activities are required for Building 94X.

PCN2

Surface Decontamination

Surface decontamination will be performed to reduce potential airborne contamination resulting from the D&D activities. Surface decontamination of Building 94X does not include any particular strategies beyond those already presented in Section 2.5.2.

PCN2

Above-Grade Dismantlement

Building 94X is a self-framing, insulated metal building. The stack is co-located by the CEM building. Building 94X will be dismantled using a track-hoe mounted, hydraulic shear. Material take-off estimates identify that the majority of debris from structural dismantlement will consist of piping & conduit/wire, and structural & miscellaneous steel.

PCN2

3.4 Building 94M – Silo 3 Enclosure Building

Background

Building 94M (Silo 3 Enclosure Building) is a 100 ft. by 100 ft. frame supported structure. The eave height of the building is 34.75 ft. The fabric membrane is Polyvinyl Chloride (PVC) coated membrane which provides a continuous, uninterrupted weather tight shell over a metal framework. The membrane is self-extinguishing.

Process Area Description

Building 94M is constructed over Silo 3 as a weather enclosure around the silo. The retrieval method is locally contained so surface contamination due to thorium is not expected during normal operation. Contamination due to the radon is expected in the area.

Remedial Tasks

Three remedial tasks are applicable to Building 94M.

Preparatory Action: Facility Shutdown

Facility shutdown activities for Building 94M will include removal of salvageable equipment, general clean-up and disconnection of all utilities.

Surface Decontamination

Surface decontamination will be performed to reduce potential airborne contamination resulting from the D&D activities. Surface decontamination of Building 94M does not include any particular strategies beyond those already presented in Section 2.5.2.

Above-Grade Dismantlement

Building 94M (Silo 3 Enclosure Building) is a frame supported structure. The fabric membrane is a PVC coated membrane. Building 94M will be dismantled using a track-hoe mounted, hydraulic shear. Material take-off estimates identify that the majority of debris from structural dismantlement will consist of PVC, piping & conduit/wire, and structural & miscellaneous steel.

3.5 Building 94N – Silo 3 Excavator Building

Background

Building 94N (Silo 3 Excavator Building) is a cast in place concrete structure. Building 94N measures 61 ft. by 30.5 ft. by 24.25 ft. high. The roof is concrete with tapered insulation and EPDM roof membrane.

Process Area Description

Building 94N houses the mechanical retrieval system. The Mechanical Retrieval System consists of an excavator, retrieval bin, double discharge screw feeder, inclined conveyor, transfer screw conveyor and feed conveyor. Only the retrieval bin, double discharge screw feeder and lower section of the inclined conveyor are located in this area. All the equipment in this system will have Silo 3 material in the internals due to direct transfer of material.

Remedial Tasks

Three remedial tasks are applicable to Building 94N.

Preparatory Action: Facility Shutdown

Facility shutdown activities for Building 94N will include removal of salvageable equipment, general clean-up and disconnection of all utilities.

Surface Decontamination

Surface decontamination will be performed to reduce potential airborne contamination resulting from the D&D activities. Surface decontamination of Building 94N does not include any particular strategies beyond those already presented in Section 2.5.2.

Above-Grade Dismantlement

Building 94N is a cast in place concrete structure. Building 94N will be dismantled using a track-hoe mounted, hydraulic shear, backhoe and concrete processor. Material take-off estimates identify that the majority of debris from structural dismantlement will consist of concrete, piping & conduit/wire, and structural & miscellaneous steel.

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APPENDIX D

DESIGN DRAWINGS

Representative architectural and D&D design drawings were copied, compiled and are presented in this appendix. Table D-1 lists the drawings included in this appendix. Descriptions of the buildings, systems and process areas illustrated in these drawings may be found in Section 3.0.

TABLE D-1 OU4 Silo 3 Drawings

DRAWING NO.	REV.	DESCRIPTION
35X-1450-P-00018	2	Component 35B, Metals Oxide Storage Area
35X-1450-S-00019	1	Component 35B, Platforms, Railing & Ladders
94X-3900-S-01524	6	Building 94H, Foundation Plan and Sections
94X-3900-S-01539	1	Building 94H, Section
94X-3900-S-01679	1	Building 94H, Mezzanine @ El 608'-11" & El 614'-7"
94X-3900-S-01677	2	Building 94H, Mezzanine @ El 591'-3"
94X-3900-S-01678	2	Building 94H, Mezzanine @ El 600'-3"
None	None	Building 94X - Building Isometric
None	None	Building 94X - Foundation Preparation Plan View
94X-3900-A-01328	2	Buildings 94M, 94N & 94P Exterior Elevations
94X-3900-S-01522	3	Building 94M, Foundation Plan
94X-3900-A-01331	2	Buildings 94N & 94P Building Sections
94X-3900-S-01526	3	Buildings 94N, Foundation Plan, Sections and Details
94X-3900-S-01523	3	Building 94P, Foundation Plan and Sections
94X-3900-A-01886	1	Building 94Q, Floor Plan, Elevations and Door Schedule
94X-3900-S-01536	3	Building 94Q, Foundation Plan, Sections and Details

PCN2

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