

OPERABLE UNIT 3

MISCELLANEOUS SMALL STRUCTURES
DECONTAMINATION AND DISMANTLEMENT PROJECT

TASK ORDER #049 COMPLETION REPORT



JUNE 2002

FERNALD ENVIRONMENTAL MANAGEMENT
PROJECT
FERNALD, OHIO

U. S. DEPARTMENT OF ENERGY
FERNALD AREA OFFICE

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TABLE OF CONTENTS

1.0 INTRODUCTION..... 1

2.0 COMPONENT-SPECIFIC REMEDIATION SUMMARY..... 1

 2.1 Building34C – RTS Building..... 1

3.0 MATERIAL MANAGEMENT..... 3

4.0 LESSONS LEARNED..... 3

5.0 REFERENCES..... 4

TABLES

2-1 Task Order #049 D&D Chronology..... 1

3-1 Summary of Debris/Waste Generated..... 3

3089

4305

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1.0 INTRODUCTION

Task Order #049 was implemented under the authority of the Miscellaneous Small Structures (MSS) Implementation Plan for Above-Grade Decontamination and Dismantlement (D&D) (DOE 1998) and the Task Order implementation amended schedule provided to the regulatory agencies on November 6, 2001. Task Order #049 included D&D of the following component:

- Building 34C - RTS Building

Remediation of Building 34C was performed successfully and in accordance with approved project planning and design requirements. This Task Order Completion Report summarizes remediation activities for Building 34C performed during the winter of 2001-02 and spring of 2002. A final Project Completion Report for the MSS Project will include summaries of this Task Order and other Task Orders implemented under the MSS Project following completion of the overall MSS Project.

2.0 COMPONENT-SPECIFIC REMEDIATION SUMMARY

Preparatory actions for Building 34C included utility disconnections and removal of berm piping.

A chronology of the D&D field activities under Task Order #049 is provided in Table 2-1.

TABLE 2-1 Task Order #049 D&D Chronology

Component	Field Initiation	Field Completion
RTS Building (34C)	10/30/01	5/8/02
Other Activities	Start	Finish
Debris Size Reduction and Containerization	--	5/8/02

2.1 Building 34C - RTS Building

Building 34C was a single story building measuring approximately 24 feet x 22 feet x 12 feet high. The building consisted of a wood frame construction with metal siding on a poured concrete floor and a metal siding, joist roof. The building was surrounded by 32-inch thick radiation shielding walls of stacked, interlaced, solid, unmortared concrete stretcher blocks. The shielding walls were approximately eight feet high and the building roof was unshielded. Building 34C was located in the radiologically controlled area just north of the K-65 Silos.

Surface decontamination was not required since no surface contamination was detected on the exterior of the system.

There was no asbestos containing material in Building 34C.

The interior and exterior PVC airflow piping was glove-bagged and manually cut using electric chain saws. Use of sawzalls to cut the piping was unsuccessful because of their

4305

ineffective ability to penetrate the plastic. The 10-foot or smaller sections of glove-bagged PVC piping were manually loaded into roll-off boxes for disposition in the OSDF.

The concrete blocks that surrounded the entire building perimeter were manually unstacked and placed in a backhoe bucket. Once the backhoe bucket was full, its contents were emptied into roll-off boxes for disposition in the OSDF.

The north side of the RTS building was dismantled by hand to order not to disturb the calcium sulfate beds^(a) and activated-carbon beds. Sheet metal siding and wood framing studs were manually removed, segregated and placed in separate roll-off boxes for disposition in the OSDF.

Miscellaneous equipment associated with the beds (vacuum pumps, filters, dryers and sampling tubing) was unbolted, removed from the building and placed in roll-off boxes for disposition in the OSDF. The inlet and outlet piping was capped for each bed, leaving the bed filter media in place. Using an extended boom truck, the beds were removed from the remaining structure, palletized, surveyed and placed on a flatbed truck. The beds were taken to the Plant 1 Pad area to be overpacked in sealand containers and prepared for offsite shipment.

The remaining building structure was dismantled using an excavator. Sheet metal siding and wood framing studs were segregated and size reduced. The metal was placed in roll-off boxes for disposition in the OSDF. The wood was placed in a separate roll-off box and relocated to the High Nitrate Storage Tank (Component 18M) area. Wood debris from the Component 18M D&D activity will be placed in this roll-off box prior to disposition in the OSDF.

Footnote:

(a) Within FEMP site documentation relating to the Building 34C D&D project the beds are also referred to as canisters.

4305

3.0 MATERIAL MANAGEMENT

A summary of debris/waste generation from Building 34C remediated under Task Order #049 is summarized in Table 3-1.

TABLE 3-1 Summary of Debris/Waste Generated

Debris Category & Description	Profile/ Inventory Nos.	Volume (yd ³)	Container/ Quantity	Current Storage Location	Final Disposition
Cat. I-2 (PVC piping)	92023	53	ROB ^(a) (2)	OSDF Transfer Area for Future OSDF Placement	OSDF
Cat. I-4 (Wood)	94005	10	ROB (1)	Component 18M High Nitrate Storage Tank for Future OSDF Placement	OSDF
Cat. E Concrete	922007	110	ROB (8)	North Bulk Debris Staging Area for Future OSDF Placement	OSDF
Cat. B Metal	922844	45	ROB (2)	On-site Material Transfer Area for Future OSDF Placement	OSDF
Calcium sulfate filter beds (canisters) including filter bed media	MEF 3806	8.8 ^(b)	Sealand ^(c) (1)	Building 71	Nevada Test Site
Activated-Carbon filter beds (canisters) including filter bed media	MEF 3806	35.2 ^(d)	Sealand (2)	Shipped to Nevada Test Site	

Footnote:

(a) ROB: Roll-off Box.

(b) 4.8 cubic yards of metal from the two calcium filter beds (also known as canisters) and 4 cubic yards of calcium sulfate filter media.

(c) Sealand is a 7A Type A Container.

(d) 19.2 cubic yards of metal from the eight activated-carbon filter beds (also known as canisters) and 16 cubic yards of carbon filter media.

4.0 LESSONS LEARNED

Implementation of Task Order #049 revealed four lessons-learned for D&D Project Management. The following list identifies items that will be considered prior to implementing the next Task Order under the MSS Project, while also providing potential process improvements for larger scale D&D projects at the FEMP:

- The required planning steps to ship waste are the same for projects regardless of the waste stream quantity being large or small. Ensure projects allow sufficient lead-time for characterization of new or unique waste streams.
- Make sure shipping containers are delivered to the correct location to prevent double handling.

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- Do a complete walk down of the area to verify all waste materials have been identified.
 - Make sure appropriate team members' input is considered.

4305

5.0 REFERENCES

U.S. Department of Energy, 1998, *Operable Unit 3 Integrated Remedial Action Miscellaneous Small Structures Implementation Plan for Above-Grade Decontamination and Dismantlement*, Final, prepared by Fluor Daniel Fernald, Cincinnati, Ohio.

