

Facility Decommissioning Evaluation Building 484-13D, D-Area Storage Building

This is a Simple Model Decommissioning per Facility Disposition Manual 1C

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Printed in the United States of America

Prepared for
U.S. Department of Energy
and
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Aiken, South Carolina

Introduction

This document contains an evaluation of available existing information about a facility that is slated for decommissioning. This evaluation screens the project to determine whether it is appropriate to conduct the decommissioning under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or to use a simpler graded approach.

This Facility Decommissioning Evaluation (FDE) consists of three sections. Part 1 contains a description of the project scope, including a brief summary of the purpose and history of the facility and photographs of the structures that are part of the project. Part 2 encompasses a series of questions, the answers to which determine the decommissioning model (CERCLA Model, Integrated Sampling Model, or Simple Model) that will be used. The three graded approach models are described in Facility Disposition Manual 1C, Procedure 501. Part 2 also includes a justification for the answers to each question. Part 3 is a list of references that were used for the evaluation.

Conclusion

A review of the existing characterization data, process/building history, sample data and walk downs of the facility, supports the determination that this building and its ancillary structures meet the criteria of a Clean Building, Simple Model as described in Facility Disposition Manual 1C, Procedure 501. This decision is supported by the documentation found throughout the body of this document. No chemical or hazardous radioactive contaminants are associated with this structure.

Part 1. Project Scope

Scope

This Evaluation has been prepared in accordance with requirements found in Facility Disposition Manual 1C; Procedure 502, "Preparing Decommissioning Decision Documents". The scope of this evaluation includes 484-13D, D-Area Storage Building, and the following ancillary structure:

- Building 80-22D, D-Area Bone Yard

All pertinent structures are further described in the next section.

The proposed decommissioning end-state for this facility is demolition to the building slab or to grade as applicable.

The described decommissioning activities are not the final area closure actions. The decommissioning of a building is intended to reduce landlord costs, increase safety by removing excess facilities and reduce the potential for releases of hazardous substance to the environment.

Facility Description

Building 484-13D (see Figures 1, 2 and 3 for photographs and Figures 4 and 5 for layout) is a steel frame structure with a metal skin and roof. The structure is attached to a concrete slab. The structure itself is approximately 96 feet (ft) by 42 ft, with a small partitioned interior space. The interior is partitioned into a large storage area and a smaller partitioned area. The structure does not appear to have any asbestos or lead in the materials. Construction of the structure was completed post-1987.

The Bone Yard Storage, 80-22D (Figures 1, 4, and 5), is enclosed by a fence that surrounds the area. The approximate dimensions of the laydown area are 68 ft by 430 ft. The Bone Yard was used for miscellaneous storage. The Bone Yard appears to have been placed into service after 1973. Buried within the Bone Yard are process lines for domestic water and service raw water.



Figure 1. Building 484-13D, D-Area Storage Building and 80-22D, Bone Yard Storage



Figure 2. Building 484-13D, D-Area Storage Building



Figure 3. Building 484-13D Interior

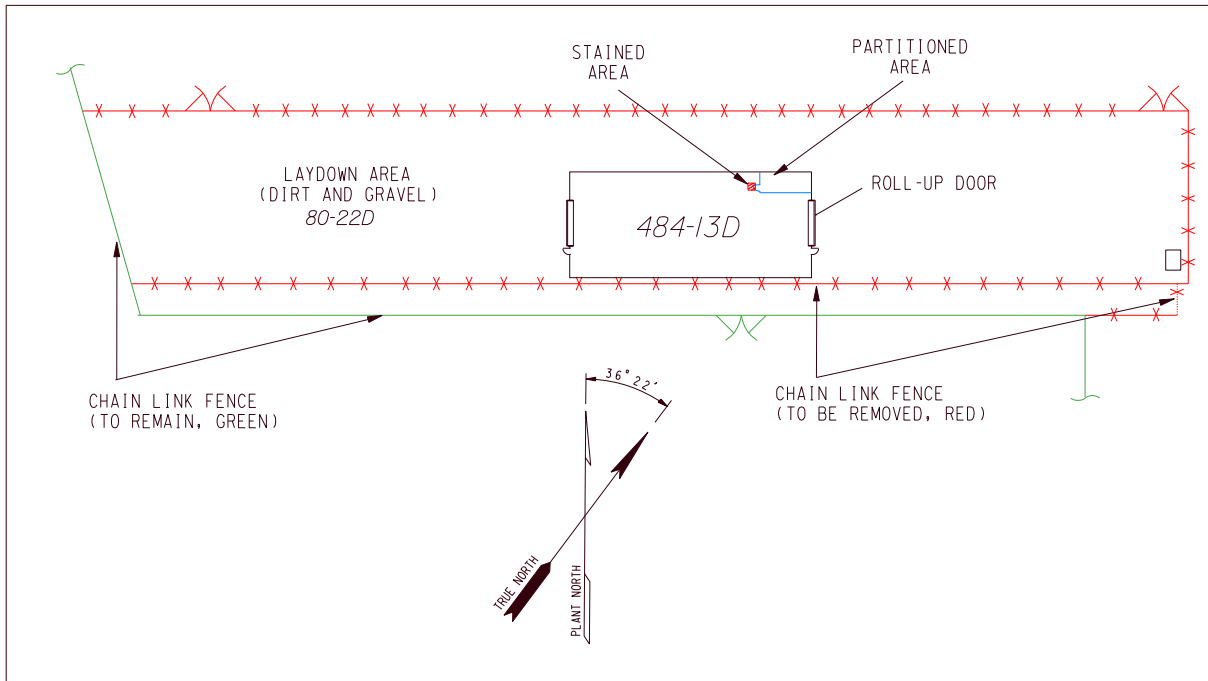


Figure 4. Building 484-13D, D-Area Storage Building and 80-22D, D-Area Bone Yard Storage Layout

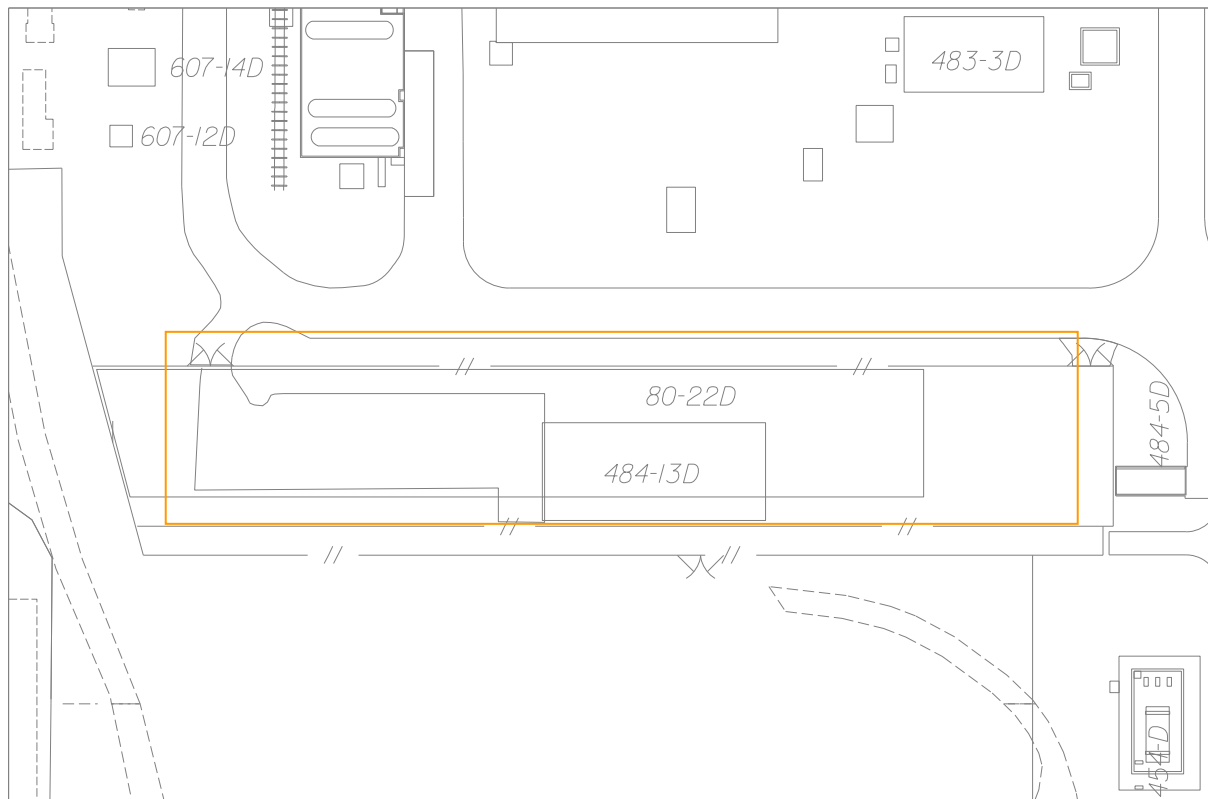


Figure 5. Area Layout, Building 484-13D, D-Area Storage Building and 80-22D, D-Area Bone Yard Storage

Process History

Review of records, walk downs and interviews indicate that no chemical or radioactive processes were performed in this building (i.e., no chemical, mechanical, or electrical energy or interaction was performed to change the state of an input material or to produce a new output product).

Historically, storage building 484-13D and its lay-down yard were used for storage of equipment for the 484-D Powerhouse. Items previously stored in the structure include, but were not limited to:

- Piping
- Pumps
- Flanges
- Valves
- Structural materials
- Hoisting and rigging equipment

There are no sumps or drains associated with Building 484-13D. The concrete slab of Building 484-13D is in good condition and appears to have good integrity. There is no concern regarding leaks migrating through the concrete to the soils below.

Located in and proceeding through 80-22D are buried domestic water and process raw water piping. The process raw water piping in the Bone Yard Pit can be identified on sheet 1 of drawing M-MA-D-0071. This portion of the process raw water system is no longer in use and is disconnected from any pressure source as verified by field walk-downs. The underground domestic water piping going through 80-22D is abandoned.

There is evidence of what appears to have been a small oil spill within 484-13D. Figure 6 shows a stain in the concrete. It does not appear to have been significant. Further, the integrity of the concrete around the area is intact. Stained concrete will be cleaned with BioSolve[®] or equivalent surfactant during decommissioning.

Electrical service to Building 484-13D was disconnected during deactivation, along with the removal of all exit signs, fluorescent tubes, ballasts, combustibles or flammable materials, etc. (refer to “Deactivation Project Final Report Building 484-D Powerhouse and Ancillary Buildings”, V-PCOR-D-00042, Reference 7).

Chemical Process

Chemical Name	Process Location	Evidence of Spills?
N/A	N/A	N/A

N/A – not applicable

Radioactive Process

Isotope	Contaminated Areas/Others
N/A	N/A

N/A – not applicable

Summary of Existing Characterization

Characterization has been accomplished using a combination of process knowledge/historical release information, verification walk downs and a review of S-EHA-D-00001, “Hazards Survey for D-Area” (Reference 5).

An important part of the characterization portion of this evaluation is a historical review of spills/releases to the environment. This review includes a review of the Savannah River Site (SRS) Occurrence Reporting and Processing System/Site Item Reportability and Issue Management (ORPS/SIRIM) database conducted from the effective date of the Federal Facility Agreement (FFA), August 16, 1993, to present and a review of the FFA. The FFA serves as a review of releases/spills to the environment prior to August 16, 1993.

Review of the FFA, the SRS ORPS/SIRIM database and SRS spill files reveal no records of spills having occurred at the 484-13D structure.

An asbestos survey of the building was conducted on November 5, 2019 and no areas tested positive for asbestos containing materials (ACM). The results of that survey are included in Q-APG-D-00013, “Baseline Asbestos Inspection Report of Building 484-13D”, Reference 8. In accordance with 40 CFR part 61.145, a ten-day notification of demolition will be filed with SCDHEC prior to demolition, even though no asbestos is present

Wastes generated during decommissioning will be characterized and managed in accordance with SRS procedures and State and Federal regulations.

Historical Significance

A review has been conducted in accordance with a Programmatic Agreement. This review resulted in the publication of the SRS’s Cold War Built Environment Cultural Resources Management Plan (Reference 4), in which the facilities with historical significance are listed. This facility is not listed in that reference and therefore is not historically significant.

Part 2. Evaluation

Clean Facilities				
	Question	Yes	No	Justification
1.	Has the facility ever contained or processed radioactive or hazardous material other than stored packaged material or materials of construction? <i>If yes, go to question 4.</i>		X	Facility is a standard storage structure. There is no evidence of radioactive or hazardous material processing or processing equipment within the structure. None of the available information or personnel interviews indicate the structure has been used for anything except storage. The ancillary structure shows no evidence of having contained or processed radioactive or hazardous materials. None of the available information or personnel interviews indicate the structure was ever used for such purposes.
2.	If there was stored packaged material, has there ever been a spill? <i>If No or N/A, this is a Simple Model. Stop.</i>	X		Evidence of a spill exists in the facility. It is likely resultant of a leak in motored equipment.
3.	Was spill confined inside structure and cleaned to free release standard per Radiological Control Manual 5Q (for radiological) or continued occupancy per Industrial Hygiene Manual 4Q (for hazardous)? <i>If Yes, this is a Simple Model. Stop.</i>	X		There is evidence of a small spill having occurred in the facility. The spill appears to be an oil spill and was contained within the facility on the slab. Stained concrete will be cleaned with BioSolve® or equivalent surfactant during decommissioning. Decommissioning of Building 484-13D will be performed as a Simple Model decommissioning.
Contaminated Facilities				
	Question	Yes	No	Justification
4.	Is the facility listed as a RCRA/CERCLA Unit in Appendix C of the SRS FFA? <i>If Yes, this is a CERCLA Model. Stop.</i>			N/A
5.	Is the facility listed as a Site Evaluation Area in Appendix G of the SRS FFA? <i>If Yes, this is a CERCLA Model. Stop.</i>			N/A
6.	Is there evidence that there has been a release of hazardous or radioactive materials outside the structure? <i>If Yes, this is a CERCLA Model. Stop.</i>			N/A
7.	Is there a substantial threat of a release of hazardous or radioactive materials outside the structure? <i>If Yes, this is a CERCLA Model. Stop.</i>			N/A

Contaminated Facilities (cont'd)				
	Question	Yes	No	Justification
8.	Has the facility been assigned a hazard category as defined in Facility Safety Document Manual 11Q? <i>If No, stop and refer facility for evaluation to assign a hazard category, then proceed</i>			N/A
9.	Is the hazard category Nuclear (HC- 2 or 3), radiological, or high hazard chemical? <i>If Yes, this is a CERCLA Model. Stop</i>			N/A
10.	Has the Department of Energy-Savannah River directed that the decommissioning be performed using the CERCLA Model? <i>If yes, this is a CERCLA Model. Stop</i>			N/A
12.	Is the facility a formerly nuclear, radiological, or high-hazard chemical facility? <i>If Yes, this is an Integrated Sampling Model. Stop.</i>			N/A
13.	Has Environmental Compliance and Area Completion Project's Regulatory Support Group determined that a final survey is not required for this facility? <i>If Yes, this is a Simple Model. If No, this is an Integrated Sampling Model. Stop</i>			N/A

N/A – not applicable

Part 3. Review of Existing Records

The following facility records were reviewed as a part of this evaluation:

Ref #	Document No.	Revision/Date	Title
1	SRNS-RF-2008-00086-000-M&O	Revision 19-01-MO, Feb. 14, 2019	Standard Requirements Identification System FA00 Facility List.
2	WSRC-OS-94-42	Rev 0, Aug. 16, 1993 All updates through Sept. 21, 2018, including Rev. 0 Appendices C, G and K for Fiscal Year 2019	Federal Facility Agreement for the Savannah River Site, Administrative Document No. 89-05-FF
3	N/A	N/A / Since 1993	D-Area SIRIM and ORPS reports 08/1993 to 02/2009.
4	N/A	Final January 26, 2005	SRS's Cold War Built Environment Cultural Resources Management Plan
5	S-EHS-D-00001, Rev 0	April, 2006	D-Area Hazards Survey
6	M-MA-D-0071	Rev 1 / May 08, 1995	Operating Diagram Process Raw Water Buildings 483-D, 484-D, 484-13D and 901-D (D-WP-054) (U)
7	V-PCOR-D-00042	Rev. 0 / July 1, 2014	Deactivation Project Final Report Building 484-D Powerhouse and Ancillary Buildings
8	Q-APG-D-00013	Rev. 0, November 18, 2019	Baseline Asbestos Inspection Report of Building 484-13D