

Decommissioning Project Final Report

Building 484-5D, D-Area Powerhouse Storage Building

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History of Revisions

Revision	Date	Revised Section	Change
0	11/11/2021	N/A	Initial Issue

LIST OF ABBREVIATIONS AND ACRONYMS

ACM	Asbestos Containing Material
EPA	(U.S.) Environmental Protection Agency
EC&ACP	Environmental Compliance & Area Completion Projects
FAI	Final Acceptance Inspection
FDE	Facility Decommissioning Evaluation
PACM	Presumed Asbestos Containing Material
S&M	Surveillance and Maintenance
SCDHEC	South Carolina Department of Health and Environmental Control
SOW	Statement of Work
SRNS	Savannah River Nuclear Solutions
SRS	Savannah River Site
yd	yards

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1.0 SUMMARY

Building 484-5D was a single-story, 12' by 30' aluminum tube-frame structure located in the southeast section of 400-D Area of the Savannah River Site (SRS). It was built circa 1980 and was used primarily for storage of miscellaneous construction equipment/materials for the 484-D Powerhouse. The ultimate end-state condition after decommissioning of 484-5D was demolition and removal of the above grade structure down to, but not including, the building's concrete slab.

A review of the existing characterization data, process/building history, sample data and walk downs of the facility prior to decommissioning supported the determination that Building 484-5D met the criteria of a Clean Building, Simple Model as described in the Facility Disposition Manual 1C, Procedure 501. This decision was supported by the documentation found in the Facility Decommissioning Evaluation (FDE), G-FDE-D-00047, Rev. 1, dated 9/29/2020, Reference 8.01. No chemical, hazardous or radioactive materials were associated with this structure other than commonly used materials of construction, which were managed as waste during demolition in accordance with established SRS practices. Since there was no evidence of contamination on the slab before structure demolition, no final verification survey was required. FAI-51 Final Acceptance Inspection (Reference 8.06) was performed on 10/18/2021 and no additional work or cleanup was required.

2.0 PURPOSE AND SCOPE

The purpose of this report is to document what was done to the facility as a part of the decommissioning project, and the condition the facility was left in at the completion of the project. The requirement for this report is found in the Facility Disposition Manual 1C, Procedure 506, "Preparing a Decommissioning Project Final Report".

2.01 Facility Description

Building 484-5D was erected on site circa 1980. The structure was an aluminum tube-frame structure with a corrugated aluminum skin. The structure was attached to a concrete slab. The structure itself was approximately 12' x 30', with a non-partitioned interior. The structure had double, swinging doors at its front for access. The structure had no utilities serving it. There were no sumps or drains in the structure. An asbestos survey of the building was conducted on November 4, 2019, with the following results (Reference 8.02):

- Approximately 84 LF of non-friable Asbestos Containing Material (ACM) from a grey sealant at the perimeter of windows, doors louvers, and corners.
- Approximately 24 LF of non-friable ACM from a grey caulking at the roof eaves.

See Appendix A, Figure 1 for a photo of the building prior to decommissioning and Figure 2 for a photo of the area after decommissioning.

2.02 New Facility Information

SRS identified no new facility information during or as a result of the facility decommissioning.

3.0 DECOMMISSIONING MODEL APPROVAL

The facility was decommissioned using the Simple Model as described in Facility Disposition Manual 1C. The selection of the model was based on an FDE (Reference 8.01). No regulator walkdown of the facility occurred due to COVID-19 travel restrictions. The FDE received South Carolina Department of Health and Environmental Control (SCDHEC) concurrence on February 18, 2021, and U.S. Environmental Protection Agency (EPA) concurrence on February 26, 2021 (References 8.03 and 8.04 respectively).

4.0 DECOMMISSIONING ACTIVITIES COMPLETED

Execution of the Building 484-5D decommissioning was planned and described in the FDE (Reference 8.01) and the Decommissioning End Points Document (Reference 8.05). Building 484-5D was decommissioned by CTI and Associates, Inc (SRNS's mentor protégé subcontractor). The 484-5D structure was demolished to its concrete slab. All coarse debris were removed from the slab. It was confirmed complete in the FAI-51 Final Acceptance Inspection walkdown performed on 10/18/2021 (Reference 8.06).

5.0 WASTE MANAGEMENT

5.01 Salvage and Reuse

No building materials were managed for salvage or reuse.

5.02 Waste Disposal

Table 1: Waste Generation

Waste Classification	Waste Source	Disposed to	Total Volume
LLW	N/A	N/A	N/A
ACM	Non-friable Asbestos	Three Rivers Landfill	<2 yd ³
PCB	Lamp/light ballasts	725-1N Solid Waste	N/A
CSR	Miscellaneous sanitary waste/debris	Three Rivers Landfill	30 yd ³
Recycle Metals	Siding, tube frame	741-1N Salvage Yard	N/A

LLW – Low level radioactive waste
 N/A – Not applicable
 ACM – Asbestos-containing material
 PCB – Polychlorinated biphenyl
 CSR – Clean Structural Rubble
 UW – Universal Waste

6.0 FINAL FACILITY CONDITION

6.01 Final Facility Condition and Remaining Hazards

484-5D was demolished down to the concrete slab. Above ground protrusions were cut level with the concrete slab. All coarse debris was removed from the slab.

6.02 Risk Assessment Summary

A review of the existing characterization data, process/building history, sample data and walk downs of the facility prior to decommissioning supported the determination that Building 484-5D met the criteria of a Clean Building, Simple Model as described in Manual 1C, Procedure 501.

This decision was supported by the documentation found in the FDE, Reference 8.01. No chemical, hazardous, or radioactive materials were associated with this structure other than commonly used materials of construction, which were managed as waste during deactivation in accordance with established SRS practices. Since there was no evidence of contamination on the slab either before or after structure demolition, no final verification survey was required.

6.03 Post Decommissioning Requirements

The remaining structure is free of physical, chemical, and radiological hazards; therefore, it needs no further decommissioning action. No surveillance and maintenance (S&M) activities were identified for the remaining structure (concrete slab) because it poses no threat to human health or the environment while awaiting area completion.

7.0 CONCLUSIONS/RECOMMENDATIONS

Building 484-5D was decommissioned and the concrete slab has been left in place. All decommissioning activities have been completed in accordance with federal and state regulations. The remaining structure is free of physical, chemical, and radiological hazards; therefore, it needs no further action or evaluation. No S&M activities were identified for the remaining structure because it poses no threat to human health or the environment while awaiting area completion.

In accordance with the “Memorandum of Agreement for Achieving an Accelerated Cleanup Vision at the Savannah River Site”, this report will be maintained as a record for reference and use in the D-Area Operable Unit Completion Record of Decision. To ensure facility remnants are addressed during the completion process, Building 484-5D will be added to Appendix K.2 of the Federal Facility Agreement for the SRS.

8.0 REFERENCES

- 8.01** G-FDE-D-00047, Revision 1, dated 9/29/2020, “Facility Decommissioning Evaluation Building 484-5D, D-Area Powerhouse Storage Building”

- 8.02** Q-APG-D-00007, Revision 0, dated November 4, 2019, “Baseline Asbestos Inspection Report of Building 484-5D”
- 8.03** SRNS-OS-2021-00035, dated February 18, 2021, SCDHEC Concurrence on the FDE for 484-5D
- 8.04** SRNS-OS-2021-00050, dated February 26, 2021, USEPA approval of the FDE use of the Simple Model for 484-5D
- 8.05** V-PMP-D-00019, Rev. 1, dated November 02, 2020, “Decommissioning End Points Document Building 484-5D, D-Area Powerhouse Storage Building”
- 8.06** G-SDD-D-00013, dated 10/26/2021, “FAI-51, Final Acceptance Inspection of Buildings 484-5D and 484-9D”
- 8.07** V-PCOR-D-00042, Revision 0, dated 7/1/2014, “Deactivation Project Final Report 484-D Powerhouse and Ancillary Buildings”
- 8.08** V-PCOR-D-00059, Revision 0, dated 11/11/2021, “Completion of Decommissioning End Points for Building 484-5D, D-Area Powerhouse Storage Building”

9.0 APPENDICES

Appendix A - Photographs

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Figure 1: Building 484-5D (Looking Southwest) Before Decommissioning

Appendix A - Photographs



Figure 2: Building 484-5D (Looking West) After Decommissioning