

Decommissioning Project Final Report Building 484-15D, D-Area Storage Building

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0	4/26/2021	N/A	Initial Issue

LIST OF ABBREVIATIONS AND ACRONYMS

ACM	Asbestos Containing Material
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRO	Community Reuse Organization
D&D	Deactivation and Decommissioning
D&R	Dismantlement and Removal
DOE-SR	Department of Energy Savannah River Operations Office
DPMR	Decommissioning Project Final Report
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
SRNS	Savannah River Nuclear Solutions
SRS	Savannah River Site

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1.0 SUMMARY

Building 484-15D was an approximately (~) 34-year old 2,000 square foot metal frame structure with metal skin that was used primarily for storage of grounds maintenance equipment and other items listed below for the 484-D Powerhouse and Operations. In addition to the building, there was an approximately (~) 50 ft x 70 ft laydown yard exterior to the structure. The following list is a non-inclusive representation of items previously stored within the structure and in the laydown yard.

- Scaffolding
 - Anion Resin
 - Amberlite Resin
 - Spare Electrical Equipment
 - Large Electric Winch
 - Spare Powerhouse Mechanical Equipment
 - Sheet Metal
 - Lubricating Oil
 - Grass Seed
 - Mortar Mix
 - Pulverized Limestone
 - Containerized Petroleum Fuel Products, <5 gallons (Flammable Storage Locker)
-
- Building 484-15D was a steel frame structure with metal roof and skin, sitting on a concrete slab. The ceiling and walls in the interior of the structure were insulated with white plastic-backed, fiberglass insulation.
 - The building's electrical service was deactivated (disconnected and air gapped), rendering the building cold & dark during deactivation circa 2013, refer to "Deactivation Project Final Report Building 484-D Powerhouse and Ancillary Buildings", V-PCOR-D-00042 (Reference 8.06). No other utilities were provided to the structure.
 - There are no sumps and/or drains associated with the facility.
 - The concrete slab is in good condition and maintained its integrity.
 - A review of the existing characterization data, process/building history, sample data and walk downs of the facility, supported the determination that this building met the criteria of a Clean Building, Simple Model as described in Facility Disposition Manual 1C, Procedure 501.
 - The proposed decommissioning end-state for this facility was demolition/removal of the entire building structure to the building slab.
 - The above ground portion of the structure was removed by the Community Reuse Organization (CRO) to be sold as a recycled building. There were no interfacing utilities in the building or holes to be plugged in the floor. Non-recyclable material such as insulation, wall panels and miscellaneous non-structural metals were removed during decommissioning and sent to the Three Rivers Landfill.

- Any surrounding soil that was disturbed during decommissioning was raked and cleared of debris.

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 484-15D 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-00043, Rev. 0, dated 11/18/2019, Reference 8.01. No chemical, hazardous or radioactive materials were associated with this structure. Minimal wastes limited to insulation and non-structural scrap metal were associated with this building. CRO was responsible for the dismantlement and removal (D&R) of the building, and also completely removed all construction materials and any other components associated with the building and removed them from the site to be disposed of at the Three Rivers Landfill, or to be reused and/or sold for use by others. 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 8.05) was performed on 8/18/2020 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 484-15D was an approximately (~) 34-year old 2,000 square foot metal frame structure with metal skin. The building was used primarily for receiving D-Area Materials. The interior was non-partitioned and had aluminum walls. There were no sumps or drains associated with the structure. To the east of the building was a lay-down yard without a concrete slab. An asbestos inspection survey of the building (Q-APG-D-00011) was conducted on November 6, 2019 10, 2019) with the results being there was no Asbestos Containing Material ((ACM) or Presumed Asbestos Containing Material (PACM) found in the building or its components. See Appendix A, Figure 1 for a photo of the building prior to D&R and Figure 2 for a photo of the area after D&R.

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). The regulator walkdown of the facility occurred on February 27, 2020, and the FDE received South Carolina Department of Health and Environmental Control (SCDHEC) concurrence on January 9, 2020, and U.S. Environmental Protection Agency (EPA) concurrence on March 1, 2020 (References 8.02 and 8.03 respectively).

4.0 DECOMMISSIONING ACTIVITIES COMPLETED

Building 484-15D was decommissioned by CRO in accordance with their agreement with the Department of Energy Savannah River Site Operations (DOE-SR) and was confirmed complete in the FAI-51 walkdown on 8/18/2020 (Reference 8.05).

5.0 WASTE MANAGEMENT

5.01 Salvage and Reuse

Building 484-15D and all its components with the exception of the insulation on the walls and ceiling and miscellaneous metal scrap were removed intact by CRO for reuse or resale

5.02 Waste Disposal

Wastes generated with this building demolition were almost exclusively limited to insulation and associated hardware from the walls and ceiling– all other materials/components were recycled. Any hazardous or universal waste associated with the building was removed and disposed of prior to building decommissioning during deactivation in 2013. (Reference 8.06, Deactivation Project Final Report, V-PCOR-D-00042).

Table 1: Waste Generation

Waste Classification	Waste Source	Disposed to	Total Volume
LLW	N/A	N/A	N/A
ACM	N/A	N/A	N/A
PCB	N/A	N/A	N/A
CSR	Structural steel, aluminum siding, etc.	Recycled by CRO	Approx. 7,800 cu ft
Insulation, wall panels, non-struct metals	Insulation, wall panels and non- structural metal scrap	Three Rivers Landfill	3.28 tons

LLW – Low level radioactive waste
ACM – Asbestos-containing material
PCB – Polychlorinated biphenyl
CSR – Clean Structural Rubble

6.0 FINAL FACILITY CONDITION

6.01 Final Facility Condition and Remaining Hazards

484-15D was dismantled and removed down to the concrete slab. No ancillary structures were associated with this facility and there were no projections or resulting holes left in the slab or surrounding area. The slab was completely cleaned, including a suspect oil stain that had been identified in the FDE which was cleaned with BioSolve®.

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 484-15D 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 because it poses no threat to human health or the environment while awaiting area completion.

7.0 CONCLUSIONS/RECOMMENDATIONS

Building 484-15D was dismantled and removed and the concrete slab has been left in place. All decommissioning activities have been completed in accordance with Federal and State regulations, and CRO's agreement with DOE. The remaining structure is free

of physical, chemical, and radiological hazards; therefore, it needs no further decommissioning action. No 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.

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 area completion process, Building 484-15D will be added to Appendix K.2 of the Federal Facility Agreement for the SRS.

8.0 REFERENCES

- 8.01** G-FDE-D-00043, Revision 0, dated 11/18/2019, “Facility Decommissioning Evaluation Building 484-15D, D-Area Storage Building”
- 8.02** SRNS-OS-2020-00053, dated January 9, 2020, SCDHEC approval of the FDE use of the Simple Model for 484-15D
- 8.03** SRNS-OS-2020-00120, dated March 1, 2020, USEPA approval of the FDE use of the Simple Model for 484-15D
- 8.04** Q-APG-D-00011, Revision 0, dated November 11, 2019, “Baseline Asbestos Inspection Report of Building 484-15D”
- 8.05** D-SRSCRO/BMG-1, dated 8/18/2020, “FAI-51, “Final Acceptance Inspection of Building 484-15D”
- 8.06** V-PCOR-D-00042, Revision 0, dated 7/1/2014, “Deactivation Project Final Report 484-D Powerhouse and Ancillary Buildings”

9.0 APPENDICES

Appendix A - Photographs

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Figure 1: Building 484-15D (Looking East) Before

Appendix A - Photographs



Figure 2: 484-15D (Looking East) After