

Decommissioning Project Final Report Building 704-7D, D-Area Maintenance Building

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History of Revisions

Revision	Date	Revised Section	Change
0	07/12/2021	N/A	Initial Issue

LIST OF ABBREVIATIONS AND ACRONYMS

ACM	Asbestos Containing Material
EPA	(U.S.) Environmental Protection Agency
FAI	Final Acceptance Inspection
FDE	Facility Decommissioning Evaluation
ft	feet
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
yd	yard(s)

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1.0 SUMMARY

Building 704-7D was a standard, single-story office structure located in the north end of the 400-D Area of the Savannah River Site (SRS). While it was called a maintenance building, it was an office structure for powerhouse operations and the different maintenance and construction trades since installation in 1991. Ancillary to 704-7D was a portable skid-mounted shed (PB00277), electrical feeder boxes, fencing and fence posts, and building related appurtenances such as electrical equipment racks, telephone pedestals, bollards, and concrete equipment pads.

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 704-7D 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-00045, Rev. 0, dated 4/27/2020, 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. The FAI-51 Final Acceptance Inspection (Reference 8.06) was performed on 5/20/2021 and no additional work or cleanup was required.

The proposed decommissioning end-state for Building 704-7D, along with any associated fencing and building related appurtenances, was demolition to, but not including, the building's foundations/grade. The proposed decommissioning end-state for the portable skid-mounted shed ancillary to 704-7D was to completely dismantle and remove from the site.

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

The D-Area Maintenance Building 704-7D was a standard, single story office structure. While it was called a maintenance building, it was an office structure for powerhouse operations and the different maintenance and construction trades since installation in 1991. The structure initially started as the 2,110 square foot main structure to the north. Shortly after its construction, offices and bathrooms were

added to the back of the structure for the maintenance and construction trades. The original building and addition were considered one structure.

The main building was a prefabricated unit that contained office space and office furniture, storage, computers, telecommunications equipment, restrooms, and a small kitchenette. The kitchenette contained a water heater, as well as typical kitchenette fixtures such as a sink and cabinet. The bathrooms and kitchenette contained sanitary sewer drains as appropriate for sinks, showers, and toilets. The building also contained a First Aid room. The building was a wood and steel, light-frame structure, with exterior dimensions of approximately 35 feet (ft) x 60 ft. Interior walls were paneled. Flooring was standard tile/linoleum. Exterior siding was vinyl. Roofing was asphalt shingle. The building sat on concrete footings.

The addition was a light construction unit with no interior doors. All doors opened to the exterior of the building to landings typically shared by two adjacent rooms in the addition. The addition's interior walls were paneled. The roof was asphalt shingle. The flooring was standard tile/linoleum. The siding was vinyl. The framing was all wood. Wooden timbers supported the structure from the ground underneath. The addition contained restroom facilities at the far end from the main building. The restroom facilities contained sinks, toilets, and showers with their related drains to the sanitary sewer system. The men's facility was more expansive than the women's facility. The remaining rooms within the addition were being used for offices. The structure had dimensions of approximately 25 ft x 65 ft. The area was partially fenced.

In addition to Building 704-7D, there was a portable, skid-mounted shed (PB00277) to the west of 704-7D that was included in the project boundaries for decommissioning. The structure was approximately 8-ft x 10-ft wood and steel construction.

Electrical service to both Building 704-7D and its ancillary shed, PB00277, had previously been disconnected during deactivation circa 2013/2014.

Within the boundary of the facility for decommissioning were electrical power feeder boxes, no longer in service, that were in place for additional small structures that were once within the boundaries of the project. The original roof valleys contained asbestos in the roofing sealant (as noted in Rev. 0 of Reference 8.02, dated 11/18/2019). The asbestos was removed by the asbestos abatement contractor prior to decommissioning per G-SOW-D-00009, the Statement of Work for the Abatement of Asbestos Containing Material in D-Area Buildings 480-3D, 482-2D, 484-4D, 485-D, and 704-7D (Reference 8.08). After the asbestos abatement (Per Rev. 0 of Reference 8.02) performed under G-SOW-D-00009 was completed, a follow-up asbestos survey of the building was conducted on October 29, 2020, with results verifying no Asbestos Containing Materials (ACM) or Presumed Asbestos Containing Materials (PACM) (Rev. 1 of Reference 8.02). An asbestos survey of

the portable, skid-mounted shed, PB00277 was conducted on January 27, 2021, with results verifying that ACM and PACM (Reference 8.07) was found in the building. The ACM and PACM were removed under Asbestos Abatement Project License number ASR-003633 (Reference 8.09). 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 June 28, 2020, and U.S. Environmental Protection Agency (USEPA) concurrence on December 5, 2020 (References 8.03 and 8.04, respectively).

4.0 DECOMMISSIONING ACTIVITIES COMPLETED

Execution of the Building 704-7D decommissioning was planned and described in the FDE (Reference 8.01) and the Decommissioning End Points Document (Reference 8.05). Building 704-7D was decommissioned by CTI and Associates Inc. (Savannah River Nuclear Solutions' mentor protégé subcontractor). The 704-7D structure was demolished to its foundations/grade. It was confirmed complete in the FAI-51 walkdown on 5/20/2021 (Reference 8.06).

5.0 WASTE MANAGEMENT

5.01 Salvage and Reuse

Thirty (30) cubic yards of scrap metal from the Building 704-7D decommissioning were transferred to 741-N, Salvage and Reclamation Building, for recycling.

5.02 Waste Disposal

Table 1a. 704-7D Waste Generation

Waste Classification	Waste Source	Disposed to	Total Volume
LLW	N/A	N/A	N/A
ACM	Non-friable Asbestos	Three Rivers Landfill	N/A
PCB	Lamp/Light Ballasts	Solid Waste	N/A
CSR	Construction Debris	Three Rivers Landfill	750 yd ³
Recycle Metals	Doors, Wall Studs, Beams	741-1N Salvage Yard	30 yd ³

Table 1b. PB00277 Waste Generation

Waste Classification	Waste Source	Disposed to	Total Volume
LLW	N/A	N/A	N/A
ACM	Non-friable Asbestos	Three Rivers Landfill	30 yd ³
PCB	Lamp/Light Ballasts	Solid Waste	N/A
CSR	Construction Debris	Three Rivers Landfill	30 yd ³
Recycle Metals	Doors, Wall Studs, Beams	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

6.0 FINAL FACILITY CONDITION

6.01 Final Facility Condition and Remaining Hazards

704-7D was demolished down to the foundation/grade. Ancillary structures and portable skid-mounted shed PB00277 were demolished and removed. Protrusions (i.e., anchor bolts, rebar, etc.) were cut off flush with the top of the foundation.

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 704-7D 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 704-7D was decommissioned to its foundation/grade. Ancillary structures and portable skid-mounted shed PB00277 were demolished and removed. 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 decommissioning action. 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 704-7D will be added to Appendix K.2 of the Federal Facility Agreement for the SRS.

8.0 REFERENCES

- 8.01** G-FDE-D-00045, Revision 0, dated 4/27/2020, “Facility Decommissioning Evaluation Buildings 704-7D, D-Area Maintenance Building”
- 8.02** Q-APG-D-00016, Revision 1, dated November 4, 2020, “Baseline Asbestos Inspection Report of Building 704-7D”
- 8.03** SRNS-OS-2020-00274, dated June 28, 2020, SCDHEC Concurrence on the FDE for 704-7D
- 8.04** SRNS-OS-2020-00459, dated December 5, 2020, USEPA approval of the FDE use of the Simple Model for 480-3D, 704-7D, 483-3D, 485-D, 482-2D, 710-16D, 484-5D, 484-9D, and 717-3D

- 8.05** V-PMP-D-00017, Rev. 1, dated November 02, 2020, “Decommissioning End Points Document Building 704-7D, D-Area Maintenance Building”
- 8.06** G-SDD-D-00006, dated 6/2/2021, “FAI-51, Final Acceptance Inspection of Building 704-7D”
- 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-00060, Revision 0, dated 7/12/2021, “Completion of Decommissioning End Points for Building 704-7D, D-Area Maintenance Building”
- 8.09** Q-APG-D-00040, Revision 0, dated February 9, 2021, “Baseline Asbestos Inspection Report of Building SRS-PB-00277”
- 8.10** G-SOW-D-00009, Revision 0, dated 4/6/2020, “Statement of Work for the Abatement of Asbestos Containing Material in D Area Buildings 480-3D, 482-2D, 484-4D, 485-D, and 704-7D”
- 8.11** ASR-003633, dated 4/12/2021, “Asbestos Abatement Project License, License Number: ASR-003633), for SRS-PB-00277”

9.0 APPENDICES

Appendix A - Photographs

Appendix A — Photographs



Figure 1. Building 704-7D (Looking Northwest) Before Decommissioning

Appendix A — Photograph



Figure 2. Building 704-7D (Looking Southwest) After Decommissioning