

Decommissioning Project Final Report 607-3F, Sanitary Lift Station.

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HISTORY OF REVISIONS

Revision	Date	Revised Section	Change
0	07/30/2025	N/A	Initial Issue

LIST OF ABBREVIATIONS AND ACRONYMS

ACM	Asbestos Containing Material
C&D	Cold & Dark
CSR	Clean Structural Rubble
CTI	CTI and Associates
D&R	Dismantlement and Removal
DOE-SROO	U.S. Department of Energy - Savannah River Operations Office
EC&ACP	Environmental Compliance & Area Completion Projects
EPA	U.S. Environmental Protection Agency
FDE	Facility Decommissioning Evaluation
FAI	Final Acceptance Inspection
ft.	foot, feet
in.	inch, inches
GCO	Generator Certification Official
ISD	In Situ Disposal
LLW	Low Level Radioactive Waste
N/A	Not Applicable (or) Not Available
PACM	Potentially Asbestos Containing Material
PCB	Polychlorinated Biphenyl
SCDES ¹	South Carolina Department of Environmental Services
SRS	Savannah River Site
SRNS	Savannah River Nuclear Solutions, LLC
yd ³	Cubic Yard, Cubic Yards

¹ South Carolina Department of Environmental Services (SCDES) was known as South Carolina Department of Health and Environmental Control (SCDHEC) prior to July 1, 2024, during the demolition of 607-3F.

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1.0 SUMMARY

Building 607-3F, Sewage Lift Station, was built in 1952. The exterior structure was replaced in the 1980s, but the interior equipment (collection tanks, ejectors, air tank, and sump pump) is assumed to be original to the facility. The facility is located on the Savannah River Site (SRS) in South Carolina, in F-Area, at the southwest corner of Building 235-F (Figures in Appendix A).

Buildings 607-3F was determined to be a Clean Building, Simple Model per Manual 1C, Procedure 501. This determination was supported by the Facility Decommissioning Evaluation (FDE) for 607-3F approved on October 26, 2023 (Reference 8.1). Since there was no evidence of contamination on the slab either before or after structure demolition, no final verification survey was required. Final Acceptance Inspection (FAI) was performed on November 18, 2024 and approved (Reference 8.2). No additional work or cleanup was required.

The proposed decommissioning end-state for this building was demolition to, but not including the building slab formed from in situ disposal of the sub level. This Demolition and Removal (D&R) and In Situ Disposal (ISD) was completed by CTI and Associates (CTI). The above-ground portion of the prefab metal structure was demolished to the top of the floor slab elevation and removed. All interfacing utilities were, and remain, isolated, disconnected, and plugged. The below grade tanks were removed, and the subarea was filled up to grade forming the slab to be left in place. All coarse debris was removed from the remaining slab. All concrete slab penetrations greater than 2 inches (in.) in diameter were cut off flush with the slab and plugged and grouted/filled over in accordance with “Site D&D Policy on Decommissioning End Points for Slabs, Pits, Basements, and Basins” (Reference 8.3). Slab protrusions were cut off flush with the slab/grade.

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”. Interactions with regulatory agencies, South Carolina Department of Environmental Services (SCDES), and U.S. Environmental Protection Agency (EPA), for concurrence on this report are governed by “Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports” (Reference 8.4).

2.1 Facility Description

The 607-3F Sewage Lift Station is a facility located in the southwest corner of the 235-F Metallurgical Building fenced area within SRS F-Area. Building 607-3F, Sewage Lift Station, was built in 1952. The exterior structure was replaced in the 1980s, but the

interior equipment (collection tanks, ejectors, air tank and sump pump) is assumed to be original to the facility. The three exterior bollards will be removed during (Dismantlement and Removal) D&R activities.

Building 607-3F, Sewage Lift Station is a prefabricated metal building structure. The building is constructed of galvanized steel with a minimum thickness of 24 gage for the walls, 24 gage for roof metal, and is approximately 256 square feet (ft.) on a concrete base 9 inches (in.) in thickness. There is a set of doors on the east side, and louvered window openings on the north and south sides.

On the main floor, the lift station sump pump motor starter, fusible disconnect control panel and main disconnect for sewage lift station feed are in the southwest corner. The instrument air piping is located on the main floor and in the basement.

There are grated steel steps to the basement, with a handrail to the entrance doors of the building. The basement is constructed of reinforced concrete and measures approximately 13 ft. 6 in. length x 12 ft. 6 in. width x 12 ft. depth. The basement contains an air receiver tank, two sewage lift tanks with ejectors, and one sump pump (1/2 hp, 480V, 3-phase centrifugal), all located below grade. There are no floor drains present. In the northeast corner of the basement, there is a 2 ft. x 2 ft. x 3 ft. deep sump and pump.

All utilities have been disconnected from 235-F facility including: electricity, domestic water, sewer, instrument air and condensate during deactivation and earlier D&R activities; therefore, 607-3F has been rendered Cold & Dark. All work for this decommissioning is within the global C&D boundary for 235-F. No Asbestos Containing Materials (ACM) were discovered; however, non-sampled entities were treated as Potentially Asbestos Containing Materials (PACM). (References 8.5 and 8.6)

There are no ancillary structures. Before and after photos are located in Appendix A.

2.2 New Facility Information

SRS identified no new facility information during or resulting from 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 information reported in the FDE (Reference 8.1). Multiple walkdowns were performed by SRNS's F-Area and Environmental Compliance & Area Completion Projects (EC&ACP) groups (i.e., Engineering, Project Management, Safety, Industrial Hygiene, Environmental Compliance Authority, etc.). A facility walkdown, including an overview, was not pre-

scheduled with SCDES and EPA. The FDE submittal letter stated that SCDHEC² and EPA could contact U.S. Department of Energy Savannah River Site Operations (DOE-SR) if the regulatory agencies were interested in an overview and field visit.

The FDE received SCDES concurrence on December 21, 2023, and EPA concurrence on January 2, 2024 (References 8.7 and 8.8, respectively).

4.0 DECOMMISSIONING ACTIVITIES COMPLETED

607-3F, Sanitary Lift Station, was demolished to but not including the concrete slab. The above-ground portion of the structure was demolished to grade and removed, while the below grade was D&R of tanks and filled with cementitious material by ISD. The remaining slab was created during the ISD of the below grade structure. All decommissioning field work was performed by CTI. All interfacing utilities were isolated, disconnected, and plugged. All concrete slab penetrations were cut off flush with the slab, plugged, and grouted in accordance with “Environmental Compliance and Area Completion Projects (EC&ACP) Deactivation & Decommissioning (D&D) Policy on Decommissioning End Points for Slabs, Pits, Basements, and Basins” (Reference 8.3). All slab protrusions were cut off flush with the slab or filled over during ISD. The slab will pose no additional risk to Site workers. No additional barricades or sloping is required. The FAI was conducted and signed November 18, 2024 confirming the decommissioning of 607-3F was completed (Reference 8.2).

5.0 WASTE MANAGEMENT

5.1 Salvage and Reuse

None of the demolished material or equipment was salvaged or reused.

5.2 Waste Disposal

See Table 1 for a list of all wastes generated during decommissioning. The decommissioning of scope G-SOW-F-00380 (Reference 8.07) containing the 607-3F Sewage Lift Station, 235-1F & 235-2F Refrigeration Buildings, and equipment removal of 235-F Supply Fans (1S1/2S1) all being done together. The waste generated was combined into one list as the aforementioned facilities were decommissioned as one project. 607-3F did not contain ACM but did have identified PACM. The totality of this work scope is the waste volume identified by the GCO group at SRNS.

² South Carolina Department of Environmental Services (SCDES) was known as South Carolina Department of Health and Environmental Control (SCDHEC) prior to July 1, 2024, during the demolition of 607-3F.

Table 1: Waste Generation

Waste Classification	Waste Source	Disposed to	Total Volume
Non-Friable Asbestos (ACM/PACM)	For 607-3F, PACM was identified in entities unable to be sampled prior to demolition. No ACM or friable asbestos is associated with this structure.	3 Rivers Landfill	120 yd ³
CSR	Building's equipment and structure.	C&D Landfill Onsite	150 yd ³
PCB	N/A	N/A	N/A
LLW	N/A	N/A	N/A

LLW – Low-level radioactive waste
 N/A – Not applicable
 ACM – Asbestos Containing Material
 GCO – Generator Certification Official

PCB – Polychlorinated biphenyl
 CSR – Clean Structural Rubble
 PACM – Presumed Asbestos Containing Material

6.0 FINAL FACILITY CONDITION

6.1 Final Facility Condition and Remaining Hazards

Decommissioning activities were completed by CTI. The metal structure and sublevel equipment has been removed, and the resulting pit has been filled with cementitious material to form a slab to leave in place. All interfacing utilities were isolated, disconnected, and plugged prior to D&R. All coarse debris was removed from the remaining slab. All concrete slab penetrations greater than 2 in. in diameter were cut off flush with the slab, plugged, and grouted in accordance with Reference 8.3 and during grouting to grade. Slab protrusions were removed prior to grouting. Any stains identified on the concrete slab during decommissioning were pressure washed and/or cleaned as much as reasonably achievable with an effective surfactant. The slab does not pose a hazard to personnel.

6.2 Risk Assessment Summary

A review of the existing characterization data, process/building history, sample data and walkdowns of the facility prior to decommissioning supported the determination that this building 607-3F met the criteria of a Clean Building, Simple Model as described in Manual 1C, Procedure 501.

This decision was supported by the information reported in the FDE (Reference 8.1). No chemical or hazardous 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. The amounts of such materials were described in Section 5.2 of this report. Since there was no evidence of contamination on the slab before demolition or on the facility remnants after structure demolition, no final verification survey was required.

6.3 Post Decommissioning Requirements

The remaining concrete slab 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 slab as it poses no threat to human health or the environment while awaiting area completion.

7.0 CONCLUSIONS/RECOMMENDATIONS

607-3F was demolished and filled with cementitious material to grade, and the foundation has been left in place. 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. All decommissioning activities have been completed, including waste disposal in accordance with federal and state regulations.

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 F-Area Completion, Record of Decision. To ensure facility remnants are addressed during the completion process, Building 607-3F should be added to Federal Facility Agreement for the Savannah River Site Appendix K.2, D&D Facilities (or Remnants) that Require No Further Evaluation or No Response Action.

8.0 REFERENCES

- 8.1 G-FDE-F-00064, Rev. 0, dated October 25, 2023, “Facility Decommissioning Evaluation Building 607-3F, Sanitary Lift Station.”
- 8.2 G-SDD-F-00019, Rev. 0, dated November 18, 2024, “FAI-51, Final Acceptance Inspection of Buildings 235-1F, 235-2F, 607-3F, and S1 Fans (G-SOW-F-00380).”
- 8.3 SDD-2005-00170, Rev. 2, dated October 22, 2020, “Environmental Compliance and Area Completion Projects (EC&ACP) Deactivation & Decommissioning (D&D) Policy on Decommissioning End Points for Slabs, Pits, Basements, and Basins.”
- 8.4 SRNS-RP-2021-00120, Rev. 1, dated August 2022, “Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports.”
- 8.5 Q-APG-F-00308, Rev. 0, dated August 31, 2022, “Environmental Compliance & Area Completion Baseline Asbestos Inspection Report of Building 607-3F.”
- 8.6 Q-APG-F-00378, Rev. 0, dated June 15, 2023, “Environmental Compliance & Area Completion Asbestos Inspection Report of Building 607-3F Gaskets.”
- 8.7 SRNS-OS-2024-00005, Rev. 0, dated January 2, 2024, “EPA Approval of the Facility Decommissioning Evaluation [FDE] for Building 607-3F, Sewage Lift Station [G-FDE-F-00064], Simple Model, October 2023, Savannah River Site, Aiken, South Carolina.”
- 8.8 SRNS-OS-2024-00001, Rev. 0, dated December 21, 2023, “SCDHEC Approval of the Facility Decommissioning Evaluation (FDE): Building 607-3F, Sewage Lift Station (G-FDE-F-00064, Revision 0, October 25, 2023), Cover Letter dated November 13, 2023.”
- 8.9 G-SOW-F-00380, Rev. 0, dated April 1, 2024, “Decommissioning of 607-3F Sewage Lift Station, 235-1F & 235-2F Refrigeration Buildings, and Equipment Removal of 235-F Supply Fans (1S1/2S1).”

9.0 APPENDIX

Appendix A – Before and After Photos of the Facility/Structure

Appendix A - Before and After Photos of the Facility/Structure



Figure 1: 607-3F Metal Structure (Before)



Figure 2: 607-3F Grade Level Area (Before)

Appendix A - Before and After Photos of the Facility/Structure (Continued/End)



Figure 3: Interior Below Grade Tanks of 607-3F (Before)



Figure 4: 607-3F (After)