

Decommissioning Project Final Report Building 717-3D, D-Area Welding Shop

Prepared by:	BRIANNA ZAWACKI (Affiliate) <small>Digitally signed by BRIANNA ZAWACKI (Affiliate) Date: 2021.07.14 15:13:43 -04'00'</small> Brianna Zawacki EC&ACP Engineering Environmental Compliance & Area Completion Projects	Date: <u>7/14/2021</u>
Reviewed by:	William B. Griffin <small>Digitally signed by William B. Griffin Date: 2021.07.15 12:09:38 -04'00'</small> William B. Griffin EC&ACP Engineering Environmental Compliance & Area Completion Projects	Date: <u>7/15/2021</u>
Reviewed by:	KELSEY HOLCOMB <small>Digitally signed by KELSEY HOLCOMB Date: 2021.07.15 12:31:01 -04'00'</small> Kelsey Holcomb Project Team Lead Environmental Compliance & Area Completion Projects	Date: <u>7/15/21</u>
Reviewed by:	R. Steven Shirley <small>Digitally signed by R. Steven Shirley Date: 2021.07.15 12:35:26 -04'00'</small> R. Steven Shirley Manager, Area Completion Projects Environmental Compliance & Area Completion Projects	Date: <u>7/15/2021</u>
Approved:	CLARENCE WARD (Affiliate) <small>Digitally signed by CLARENCE WARD (Affiliate) Date: 2021.07.15 13:57:08 -04'00'</small> C. J. Ward EC&ACP Environmental Compliance Authority Manager Environmental Compliance & Area Completion Projects	Date: <u>7/15/2021</u>
Approved:	THELESIA OLIVER (Affiliate) <small>Digitally signed by THELESIA OLIVER (Affiliate) Date: 2021.07.21 09:48:59 -04'00'</small> T. O. Oliver EC&ACP Chief Engineer Environmental Compliance & Area Completion Projects	Date: <u>7/21/2021</u>
Approved:	CHRISTOPHER BERGREN (Affiliate) <small>Digitally signed by CHRISTOPHER BERGREN (Affiliate) Date: 2021.07.21 10:48:42 -04'00'</small> C. L. Bergren Director, EC&ACP Environmental Compliance & Area Completion Projects	Date: <u>7/21/21</u>

DISCLAIMER

This document was prepared in conjunction with work accomplished under Contract No. DE-AC09-08SR22470 with the U.S. Department of Energy.

This work was prepared under an agreement with and funded by the U.S. Government. Neither the U.S. Government or its employees, nor any of its contractors, subcontractors or their employees, makes any express or implied: 1. warranty or assumes any legal liability for the accuracy, completeness, or for the use or results of such use of any information, product, or process disclosed; or 2. representation that such use or results or such use would not infringe privately owned rights; or 3. endorsement or recommendation of any specifically identified commercial product, process, or service. Any views and opinions of authors expressed in this work do not necessarily state or reflect those of the United States Government, or its contractors, or subcontractors.

Printed in the United States of America

Prepared for
U.S. Department of Energy
and
Savannah River Nuclear Solutions LLC
Aiken, South Carolina

History of Revisions

Revision	Date	Revised Section	Change
0	07/08/2021	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
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)

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
History of Revisions.....	3
LIST OF ABBREVIATIONS AND ACRONYMS.....	4
1.0 SUMMARY.....	6
2.0 PURPOSE AND SCOPE.....	6
2.01 Facility Description.....	6
2.02 New Facility Information.....	7
3.0 DECOMMISSIONING MODEL APPROVAL.....	7
4.0 DECOMMISSIONING ACTIVITIES COMPLETED.....	7
5.0 WASTE MANAGEMENT.....	7
5.01 Salvage and Reuse.....	7
5.02 Waste Disposal.....	8
6.0 FINAL FACILITY CONDITION.....	8
6.01 Final Facility Condition and Remaining Hazards.....	8
6.02 Risk Assessment Summary.....	8
6.03 Post Decommissioning Requirements.....	9
7.0 CONCLUSIONS/RECOMMENDATIONS.....	9
8.0 REFERENCES.....	9
9.0 APPENDICES.....	10
Appendix A — Photographs.....	11

1.0 SUMMARY

Building 717-3D was a single-story, 26.5-feet (ft) by 73.5-ft and 14-ft high structure (approximately 1,900 square feet) located in the north end of the 400-D Area of the Savannah River Site (SRS). It was built in 1991 to serve as a welding shop, but within a few years of construction it was converted to storage space. Ancillary to 717-3D were fencing and fence posts and building appurtenances such as translucent skylight disks, concrete equipment pads, and bollards.

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 717-3D 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-00056, 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 4/28/2021 and no additional work or cleanup was required.

The proposed decommissioning end-state for Building 717-3D, along with any associated fencing and building appurtenances, was demolition to, but not including, the concrete slabs/foundations.

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 717-3D was a single-story, 26.5-ft by 73.5-ft and 14-ft high structure (approximately 1,900 square feet) located in the north end of the 400-D Area of the SRS. It was built in 1991 to serve as a welding shop, but within a few years of construction it was converted to storage space. The building was light steel frame construction with insulated walls and ceiling. Vinyl siding, wood, and composite materials (non-asbestos) were also included in the construction. The roof of the structure was asphalt shingle. Most of the floor was tile on concrete, except for one office which was carpeted and the small electrical room which was bare concrete. The building had electricity supplied, which was cut off and isolated. There was no

domestic water or sewer supplied to the structure. The building was provided with a speaker from the area's public address system. The building had a small sump in the center of the largest room in the building (south end) for drainage. The sump was covered with a metal grate and went to the ground surface below the slab. An asbestos survey of the building was conducted on October 15, 2020, with the results indicating no Asbestos Containing Materials (ACM) or Presumed Asbestos Containing Materials (PACM) (References 8.02). 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 717-3D decommissioning was planned and described in the FDE (Reference 8.01) and the Decommissioning End Points Document (Reference 8.05). Building 717-3D was decommissioned by CTI and Associates, Inc. (SRNS's mentor protégé subcontractor). The 717-3D structure was demolished to its concrete slab. Floor openings were filled with grout to achieve a uniform surface. It was confirmed complete in the FAI-51 (Final Acceptance Inspection) walkdown on 4/28/2021 (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	N/A
PCB	Lamp/light ballasts	Solid Waste	N/A
CSR	Construction debris	Three Rivers Landfill	240 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

717-3D was demolished down to the concrete slab. Ancillary fencing and building appurtenances, such as translucent skylight disks, concrete equipment pads, and bollards, were demolished and/or removed. Protrusions (i.e., anchor bolts, rebar, etc.) were cut off flush with the top of the concrete slab. The sump grate was removed, and the sump was filled with cementitious material, grout. Piping penetrations were cut off flush to the slab and floor openings were filled with grout to achieve a uniform surface. Curbing on the remaining slab was breached to ensure drainage of rainwater.

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 717-3D 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 717-3D was decommissioned and the concrete slab has been left in place. Ancillary fencing and building appurtenances, such as translucent skylight disks, concrete equipment pads, and bollards, were demolished and/or 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 717-3D will be added to Appendix K.2 of the Federal Facility Agreement for the SRS.

8.0 REFERENCES

- 8.01** G-FDE-D-00056, Revision 0, dated 4/27/2020, “Facility Decommissioning Evaluation Buildings 717-3D, D-Area Welding Shop”
- 8.02** Q-APG-D-00008, Revision 1, dated October 21, 2020, “Baseline Asbestos Inspection Report of Building 717-3D”
- 8.03** SRNS-OS-2020-00280, dated June 28, 2020, SCDHEC Concurrence on the FDE for 717-3D
- 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-00030, Rev. 1, dated November 02, 2020, “Decommissioning End Points Document Building 717-3D, D-Area Welding Shop”

- 8.06** G-SDD-D-00007, dated 4/29/2021, “FAI-51, Final Acceptance Inspection of Building 717-3D”
- 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-00054, Revision 0, dated 7/8/2021, “Completion of Decommissioning End Points for Building 717-3D, D-Area Welding Shop”

9.0 APPENDICES

Appendix A – Photographs

Appendix A — Photographs



Figure 1. Building 717-3D (Looking South) Before Decommissioning

Appendix A — Photographs



Figure 2. Building 717-3D (Looking South) After Decommissioning