

## Decommissioning Project Final Report Building 484-13D, D-Area Storage Building

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**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

| <b>Revision</b> | <b>Date</b> | <b>Revised Section</b> | <b>Change</b> |
|-----------------|-------------|------------------------|---------------|
| 0               | 8/11/2022   | N/A                    | Initial Issue |
|                 |             |                        |               |
|                 |             |                        |               |

## LIST OF ABBREVIATIONS AND ACRONYMS

|                 |   |
|-----------------|---|
| ~               | approximately   |
| ACM             | Asbestos Containing Material                                  |
| COVID           | Coronavirus Disease   |
| CRO             | Community Reuse Organization                                  |
| DOE-SR          | Department of Energy Savannah River Site Operations           |
| EPA             | (U.S.) Environmental Protection Agency                        |
| EC&ACP          | Environmental Compliance & Area Completion Projects           |
| FAI             | Final Acceptance Inspection                                   |
| FDE             | Facility Decommissioning Evaluation                           |
| ft              | foot, feet  |
| S&M             | Surveillance and Maintenance                                  |
| SCDHEC          | South Carolina Department of Health and Environmental Control |
| SRNS            | Savannah River Nuclear Solutions, LLC                         |
| SRS             | Savannah River Site   |
| yd <sup>3</sup> | cubic yard(s)   |

## TABLE OF CONTENTS

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

## 1.0 SUMMARY

484-13D, D-Area Storage Building, was a 96-foot (ft) by 42 ft steel-frame structure with a metal skin and roof and a small, partitioned, interior space. The structure was attached to a concrete slab and located at the southwest corner of 400-D Area of Savannah River Site (SRS) in South Carolina. Construction of the structure was completed post-1987 and it was primarily used for equipment storage. Ancillary to 484-13D was the 80-22D D-Area Bone Yard. The Bone Yard was an approximately 68 ft x 430 ft laydown area enclosed by a fence that was used for miscellaneous storage of equipment for the 484-D Powerhouse including, but not limited to piping, pumps, flanges, valves, structural materials, and hoisting/rigging equipment. The Bone Yard was placed into service circa 1973. The end-state condition after decommissioning of 484-13D was demolition/removal of the above grade structure down to the building slab or to grade as applicable. The above grade 484-13D structure was removed by the Community Reuse Organization (CRO) to be sold as a recycled building. The remaining decommissioning activities were completed by CTI and Associates, Inc (Savannah River Nuclear, Solutions, LLC's [SRNS] mentor protégé subcontractor). All appurtenances and the perimeter fencing were removed to grade or concrete slab, as applicable. Electrical power was the only utility supplied to the structure and it was disconnected during deactivation (Reference 8.07). There were no sumps or drains associated with 484-13D or 80-22D. Buried within the Bone Yard were process lines for domestic water and process raw water. The portion of the process raw water system buried directly under the Bone Yard is no longer in use and is disconnected from any pressure source. The domestic water piping buried directly under the Bone Yard is abandoned. Any surrounding soil that was disturbed during decommissioning was raked and cleared of debris.

A review of the existing characterization data, process/building history, and sample data, along with walk downs of the facility conducted prior to decommissioning supported the determination that 484-13D and 80-22D 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 information reported in the Facility Decommissioning Evaluation (FDE) (Reference 8.01). No chemical, hazardous, or radioactive materials were associated with this structure. CRO was responsible for the removal of the above grade 484-13D structure. CTI and Associates, Inc was responsible for the demolition and removal of remaining appurtenances and perimeter fencing. There was evidence of a small, likely oil, spill that was contained within the facility on the concrete slab reported in the FDE. The spill was cleaned with a surfactant during decommissioning. No final verification survey was required. Final Acceptance Inspection (FAI)-51 (Reference 8.05) was performed on 06/15/2022 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". Interactions

with regulatory agencies, South Carolina Department of Health and Environmental Control (SCDHEC) 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 8.06).

## **2.01 Facility Description**

484-13D, D-Area Storage Building, was a 96 ft by 42 ft steel-frame structure with a metal skin and roof and a small, partitioned, interior space. The interior was partitioned into a large storage area and a smaller partitioned area. The structure was attached to a concrete slab and located at the southwest corner of 400-D Area of SRS in South Carolina. The structure did not have any asbestos, polychlorinated biphenyls, or lead in the materials. Construction of the structure was completed post-1987.

80-22D, D-Area Bone Yard, was the ancillary structure for 484-13D and was enclosed by a fence that surrounds the area. The approximate dimensions of the laydown area were 68 ft by 430 ft. The Bone Yard was used for miscellaneous storage. The Bone Yard was placed into service circa 1973. Process lines for domestic water and process raw water were buried underground where the Bone Yard used to sit. The portion of the process raw water system buried directly under the Bone Yard is no longer in use and is disconnected from any pressure source. The domestic water piping buried directly under the Bone Yard is abandoned.

On November 5, 2019, an initial asbestos inspection was performed to determine the presence of any suspect Asbestos Containing Material (ACM) in Building 484-13D. A follow-up inspection was conducted on August 25, 2020, to evaluate electrical wiring insulation and other electrical components inaccessible during the November 2019 inspection. No ACM or Presumed Asbestos Containing Material was found in the building or its components during the inspections (Reference 8.02). See Appendix A, Figure A-1 for a photo of the building prior to demolition and removal and Figure A-2 for a photo of the area after final decommissioning.

## **2.02 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 8.01). Numerous walkdowns were performed by U.S. Department of Energy representatives and all involved SRNS Environmental Compliance & Area Completion Projects groups (i.e., Engineering, Project Management, Safety, Industrial Hygiene, Environmental Compliance Authority, etc.). A facility walkdown, including an overview, was not pre-scheduled with the SCDHEC and EPA. However, the FDE

submittal letter stated that SCDHEC and EPA could contact the U.S. Department of Energy if the regulatory agencies were interested in an overview and field visit. A walkdown of the facility with SCDHEC and EPA did not occur due to COVID-19 travel restrictions. The FDE received SCDHEC concurrence on 04/05/2020 and EPA concurrence on 05/18/2020 (References 8.03 and 8.04, respectively).

#### **4.0 DECOMMISSIONING ACTIVITIES COMPLETED**

Building 484-13D was partially decommissioned by CRO in accordance with their agreement with the Department of Energy Savannah River Site Operations (DOE-SR). The 484-13D structure was removed down to the concrete slab by CRO. The remaining decommissioning activities were completed by CTI and Associates, Inc. All appurtenances and the perimeter fencing were removed to grade or concrete slab, as applicable. The concrete slab was verified to be free of structure, rubble, waste, and debris. All interfacing utilities were isolated, disconnected, and plugged. Resulting holes were plugged and grouted. There were no sumps or drains associated the facility. The process lines for domestic water and process raw water buried within the Bone Yard were abandoned. Any surrounding soil that was disturbed during decommissioning was raked and cleared of debris. The decommissioning was confirmed complete in the FAI-51 walkdown performed on 6/15/2022 (Reference 8.05).

#### **5.0 WASTE MANAGEMENT**

##### **5.01 Salvage and Reuse**

Building 484-13D was removed intact by CRO for reuse or resale.

##### **5.02 Waste Disposal**

Sixty (60) cubic yards of clean structural rubble were transferred to the SRS C&D Landfill. Six hundred fifty (650) cubic yards of the building's structure materials/components were recycled by CRO. Ninety (90) cubic yards of clean structural rubble from the 483-13D decommissioning by CTI and Associates, Inc. were transferred to Three Rivers Landfill. See Table 1 for a list of all wastes generated during decommissioning.

**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                 |
| UW                   | N/A                                 | N/A                     | N/A                 |
| PCB                  | N/A                                 | N/A                     | N/A                 |
| CSR                  | Miscellaneous sanitary waste/debris | SRS C&D Landfill by CRO | 60 yd <sup>3</sup>  |
| CSR                  | Structural steel, siding            | Recycled by CRO         | 650 yd <sup>3</sup> |
| CSR                  | Miscellaneous sanitary waste/debris | Three Rivers Landfill   | 90 yd <sup>3</sup>  |
| Recycle Metals       | N/A                                 | N/A                     | 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

Building 484-13D was dismantled and removed down to the concrete slab by CRO. The remaining decommissioning activities were completed by CTI and Associates, Inc. All appurtenances and the perimeter fencing were removed to grade or concrete slab, as applicable. The concrete slab was verified to be free of equipment, structure, rubble, waste, and debris. All interfacing utilities were isolated, disconnected, and plugged. Resulting holes were plugged and grouted. Any surrounding soil that was disturbed during decommissioning was raked and cleared of debris. 484-13D and 80-22D were demolished and the 484-13D concrete slab has been left in place and remains left in place.

### 6.02 Risk Assessment Summary

A review of the existing characterization data, process/building history, and sample data, along with walk downs of the facility conducted prior to decommissioning supported the determination that 484-13D and 80-22D 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 information reported 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 demolition in accordance with established SRS practices. There was evidence of a small likely oil spill that was contained within the facility on the concrete slab reported in the FDE. The spill was cleaned with a surfactant during decommissioning. 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**

484-13D and 80-22D were demolished and the 484-13D concrete slab has been left in place and remains left in place. All decommissioning activities have been completed in accordance with federal and state regulations, and CRO's agreement with the DOE-SR. 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 484-13D and 80-22D will be added to Appendix K.2 of the Federal Facility Agreement for the SRS. However, no further evaluation during the Area Completion process will be necessary.

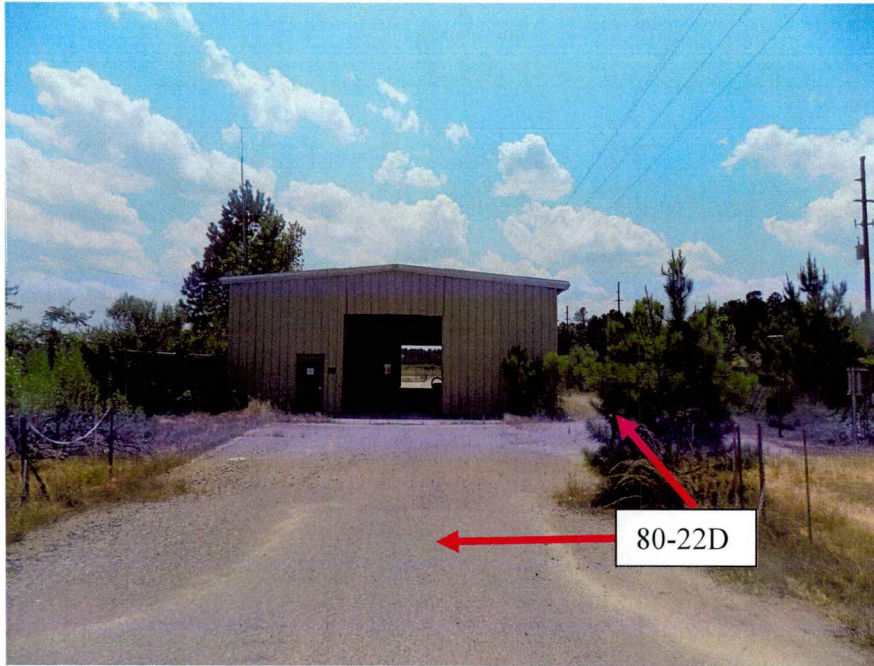
### **8.0 REFERENCES**

- 8.01** G-FDE-D-00042, Rev. 0, dated November 18, 2019, "Facility Decommissioning Evaluation Building 484-13D, D-Area Storage Building"
- 8.02** Q-APG-D-00013, Rev.1, dated August 25, 2020, "Baseline Asbestos Inspection Report of Building 484-13D"
- 8.03** SRNS-OS-2020-00160, Rev. 0, dated April 5, 2020, "SCDHEC Concurrence on the FDE for 484-13D"
- 8.04** SRNS-OS-2020-00216, Rev. 0, dated May 18, 2020, "USEPA Concurrence of the FDE for 484-13D"
- 8.05** G-SDD-D-00018, Rev. 0, dated June 15, 2022, "FAI-51, Final Acceptance Inspection of Buildings 683-D, 484-13D, 454-D, and 454-1D"
- 8.06** SRNS-RP-2021-00120, Rev. 0, dated February 2021, "Core Team Protocol for Review and Concurrence on Facility Decommissioning Evaluations and Decommissioning Project Final Reports"
- 8.07** V-PCOR-D-00042, Rev. 0, dated July 1, 2014, "Deactivation Project Final Report 484-D Powerhouse and Ancillary Buildings"

### **9.0 APPENDICES**

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

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



**Figure A-1. 484-13D and 80-22D, (Looking Southwest) Before Decommissioning**



**Figure A-2. 484-13D and 80-22D, (Looking Southwest) After Decommissioning**