

Completion of Decommissioning End Points for Building 480-3D, Maintenance Field Office and Shop



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Savannah River Site
Aiken, South Carolina 29808



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History of Revisions

Revision	Date	Revised Section	Change
0	07/05/21	Not Applicable	Initial Issue

1.0 Introduction

The purpose of this report is to document the completion of the decommissioning activities and end points for Building 480-3D, Maintenance Field Office and Shop.

The decommissioning scope (i.e., before and after condition of the facility along with the boundaries) is further defined by the Facility Decommissioning Evaluation (FDE), Reference 4.01, and a Decommissioning End Points Document, Reference 4.02, for Building 480-3D. Per the FDE, the selected decommissioning model was the Simple Model and the building's end state was demolition to the building slab.

This document has been developed in accordance with the requirements found in the Facility Disposition Manual 1C, Procedure 506, "Preparing a Decommissioning Project Final report."

2.0 Discussion

Environmental Compliance & Area Completion Projects (EC&ACP), supported by demolition subcontractor CTI and Associates, Inc. (CTI) decommissioned Building 480-3D using the Simple Model, as determined by Reference 4.01, and the activities/end points of Reference 4.02. The following sections summarize completed activities and end points and provide additional completion details for specific activities.

2.01 Summary of Completed Activities

EC&ACP, supported by CTI, completed the following decommissioning activities:

1. Complete Preparatory Operations
2. Eliminate or Reduce Hazards
3. Perform Dismantlement and Removal Activities
4. Perform Demolition Activities
5. Complete Project Closure Activities

Appendix A provides a detailed listing of end points for each of the above activities along with visual observation or referenced documentation that closes (i.e. demonstrates completion of) the end point.

For Building 480-3D, the end points document (Reference 4.02) defined field activities (e.g. Perform Demolition Activities) in a generic fashion. Because the level of detail was not suitable for field implementation, those generic activities were further defined in internal “work packages” by EC&ACP and subcontractor (CTI) Engineers and Planners. Each work package provided scope and safety considerations for the activity, and clearly outlined the tasks/steps needed to reach the applicable end point. Each work package included, or consisted of, an Assisted Hazards Analysis (AHA). The AHAs addressed the hazards and safety requirements, including the Personal Protective Equipment (PPE) requirements.

When required, each work package included South Carolina Department of Health and Environmental Controls (SCDHEC) license for demolition. Work packages were generated through the Asset Suite[©] work planning system and they are retrievable records.

The following table provides the applicable work order, AHA or subcontract number referenced for the decommissioned building.

Table 1 – Listing of Work Packages and AHAs

Building/Ancillary Structure	Description	Work Order/AHA Number
480-3D	Cold & Dark	FDD-12662
480-3D	Deactivation & Decommissioning	1832555

All decommissioning activities are complete and Building 480-3D is now in its decommissioned end state. Specifically, the remaining slab and surroundings were verified to be free of equipment, structure, rubble, waste, and debris.

With the exception of normal surface disruption caused by construction equipment, the surrounding areas remain undisturbed.

Reference 4.06 documents completion of the Final Acceptance Inspection (FAI-51) for Building 480-3D.

2.02 Licenses/Permits/Regulatory Status

2.02.01 Resource Conservation and Recovery Act (RCRA)/Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

No RCRA or CERCLA regulations applied to the decommissioning of Building 480-3D.

2.02.02 Clean Air Act (CAA)

All decommissioning demolition activities were properly permitted and monitored to ensure regulatory compliance.

2.02.03 Clean Water Act (CWA)/Safe Drinking Water Act (SDWA)

There were no permitted outfalls associated with the 480-3D decommissioning activities.

2.02.04 Safety Basis

Building 480-3D has no hazard categorization. As such, it had no Documented Safety Analysis.

2.03 Property Management

EC&ACP Property Management has confirmed property records have been updated. The 480-3D Facility was previously declared excess on 11/10/2015 as documented in the DOE-HQ Facility Information Management System (FIMS) database. A review of facility records revealed no further action was needed. All records tied to the facility were previously retired as “not meeting accountability.”

Site Clearance Permit, SC-7897 was approved to demolish and remove 480-3D.

2.04 Configuration Management

Building 480-3D was confirmed isolated and disconnected from any associated utilities in accordance with References 4.03 and 4.04. Site Services maintains drawing configuration control in accordance with an approved Configuration Management Plan. Any configuration-controlled site drawings will be updated as part of the Site Clearance Permit closure process upon completion of decommissioning.

Decommissioning documentation was forwarded to the Site Records Management Program in accordance with SRS M&O Manual 1B, Procedure MRP 3.31. All records generated as a result of decommissioning were assigned the Retention Schedule Matrix tracking number 10755, Decontamination and Decommissioning Cleanup and Transitioning Case Files. In addition, non-configuration-controlled records currently managed in the site Records Management Program were identified by EC&ACP to the SRS Document Control Center (DCC) for disposition (i.e., voiding). Configuration controlled records, required to remain in the system, were not voided.

The 480-3D concrete slab remains in D-Area. Accordingly, DCC will maintain the drawings of the concrete slabs. Like the decommissioning records, the slab drawings are also assigned the Retention Schedule Matrix tracking number 10755, Decontamination and Decommissioning Cleanup and Transitioning Case Files.

3.0 Conclusion

EC&ACP, supported by their subcontractor (CTI) decommissioned (e.g., demolished) Building 480-3D using the previously defined activities and end points. During the decommissioning, they completed the following decommissioning activities: completed preparatory operations, eliminated or reduced hazards, performed dismantlement and removal activities, performed demolition activities, and completed decommissioning project closure activities.

With the completion of all decommissioning activities, they have achieved all Building 480-3D decommissioning end points, and thus have taken the building to its decommissioned end state. With the exception of normal surface disruption caused by construction equipment, the surrounding area remains undisturbed. All contractual decommissioning milestones for Building 480-3D have been completed.

4.0 References

- 4.01 M. A. Petrella, "Facility Decommissioning Evaluation, Buildings 480-3D, Maintenance Field Office and Shop", G-FDE-D-00044, Rev. 0, dated April 28, 2020.
- 4.02 J. K. Blankenship, "Decommissioning End Points Document, Building 480-3D, Maintenance Field Office and Shop", V-PMP-D-00016, Rev. 1, November 2, 2020.
- 4.03 B. M. Montgomery, "Verification of Hazardous Energy Isolations for Building 484-D Powerhouse and Ancillary Buildings", E-SDD-D-00001, Rev. 1, dated August 19, 2020.
- 4.04 B. M. Montgomery, "Closeout of Verification Document for Building 484-D Powerhouse and Ancillary Buildings", E-SDD-D-00002, Rev. 1, dated March 31, 2021.
- 4.05 B. Zawacki, "Procurement Specification/Statement of Work, Decommissioning of Buildings 480-3D, 482-2D, 704-7D, 710-16D & 717-3D", G-SOW-D-00012, Rev. 0, dated November 18, 2020.
- 4.06 G-SDD-D-00004, dated 4/29/2021, "FAI-51, "Final Acceptance Inspection of Building 480-3D"

LISTING OF APPENDICES

- A- Before and After Photographs of the Facility/Structure
- B- Listing of End Points and/or End Point Activities Along with Completion Verification

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



Figure A-1. Building 480-3D (Looking South) Before Asbestos Abatement

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



Figure A-2. Building 480-3D (Looking South) After Asbestos Abatement

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



Figure A-3. Building 480-3D (Looking South) After Decommissioning

Appendix B – Listing of End Points and/or End Point Activities Along with Completion Verification

Section 1	COMPLETE PREPARATORY OPERATIONS		
End Point #	Activity	Endpoint	Verification Method
MA – 1.1	Submit Environmental Evaluation Checklist for a approval to document a NEPA (National Environmental Policy Act) review and identify any environmental permits needed.	Notice of NEPA Approval (NONA) is issued.	Document Review: NONA letter SRNS-2600-2020-00249 issued 8/20/2020.
MA – 1.2	Submit Site Clearance Permit for a approval.	Site Clearance Permit approved.	Document Review: SC-7897 dated 8/10/2020.
MA – 1.3	Prepare and submit request for screening of real property for disposition.	Building and equipment, as applicable, have been declared excess.	Approved 11/10/2015 by Monja Vadnais – DOE HQ.
MA – 1.4	Update all property systems, Master Building List (MBL) and the Financial Information System (FIS).	Systems have been updated.	All records closed based on receipt of Request for Site Clearance Permit closure.
MA – 1.5	As needed, sample and analyze materials (e.g., paints, insulation, etc.) for PCBs and other hazardous constituents. Define segregation practices and waste management for identified components. This can be done in parallel with demolition activities.	Waste Identification Form (WIF) with segregation practices is approved and issued.	Document Review: Waste Identification Form (WIF) SRNS-TR-2020-00141 dated 6/8/2020.
MA – 1.6	Perform a building inspection for a sbestos containing materials and issue the required report.	Building Inspection Report is issued.	Document Review: Q-APG-D-00010 Rev 1.
MA – 1.7	Perform an Engineering Survey and Interference Report.	Engineering Survey is issued.	Document Review: Q-SDD-D-00004 Rev 0.
MA – 1.8	Conduct Readiness Review.	Readiness Review is complete.	Document Review: Q-SDD-D-00019 Rev 0.
Section 2	ELIMINATE OR REDUCE HAZARDS		
MA – 2.1	Isolate hazardous energy per Manual C2, Procedure FDP 2.04	Verification Report is approved and issued.	Document Review: E-SDD-D-00001 Rev 1 dated 8/19/2020 and E-SDD-D-00002 Rev 1 dated 3/31/2021.
MA – 2.2	Remove and dispose of hazardous materials, as applicable.	Hazardous materials are dispositioned.	Verified by STR and GCO.
MA – 2.3	Prepare and submit notice of asbestos disturbance.	Asbestos abatement project license is received.	Asbestos license and demolition license issued based on asbestos surveys.

MA – 2.4	Complete asbestos abatement actions.	Asbestos abatement is complete.	Verified by SRNS Asbestos Designer.
MA – 2.5	Complete any remaining deactivation activities.	All deactivation activities are completed.	Visual Verification by STR and EC&ACP Engineering.
Section 3	PERFORM DISMANTLEMENT AND REMOVAL ACTIVITIES		
End Point #	Activity	Endpoint	Verification Method
MA – 3.1	Remove any remaining loose miscellaneous materials and equipment.	Building is free of loose miscellaneous materials and equipment.	Visual Verification by GCO, STR, and EC&ACP Engineering.
Section 4	PERFORM DEMOLITION ACTIVITIES		
End Point #	Activity	Endpoint	Verification Method
MA – 4.1	Obtain demolition permit as required by South Carolina Codes and Regulations, SC Reg. R61-86.1 Section XIII.	Demolition license is received.	Demolition License ASD-001347 issued for 480-3D 3/29/21. Asbestos License ASR-001479 issued 8/10/20.
MA – 4.2	Take precautions to minimize interference with roads and other facilities.	Traffic plan is issued.	CTI (subcontractor) managed plan.
MA – 4.3	Take precautions to preserve any stakes, monuments or benchmarks.	If applicable, stakes, monuments or benchmarks are protected.	Managed per CTI's TSP and Verified by EC&ACP.
MA – 4.4	Employ and implement measures for controlling suspended solids in storm water run-off as a result of demolition activities.	Storm water pollution prevention plan is issued.	CTI Managed per TSPs and verified by EC&ACP and STR.
MA – 4.5	Demolish and remove the Building 480-3D, Maintenance Field Office and Shop, structure (including all appurtenances) down to, but not including, its concrete floor slab.	Building concrete slab is free of specified elements.	Verified by walkdowns by STR, EC&ACP And CTI (subcontractor).
MA – 4.6	Clean the concrete slab.	The concrete slab is free of all coarse debris and floor coverings (e.g., carpet, vinyl tile) readily removed by scraping. If other mechanical means (e.g., scabbling) or solvent application are necessary to remove the floor coverings, then the floor coverings and adhesives are abandoned in place, provided they are non-hazardous materials.	Visual Observation and verification by EC&ACP Engineering, STR, CAM and ops support.
MA – 4.7	Cut off all electrical conduit and piping penetrations flush with the top of the slab or ground level, as applicable. Plug and seal with	Slab penetrations greater than 2" diameter have been cut flush with top of concrete	Visual Observation and verification by EC&ACP

	grout if greater than 2" diameter.	slab or ground level, as applicable, and plugged/grouted.	Engineering, STR, CAM and ops support.
MA – 4.8	Plug other resultant holes, if present, and fill with cementitious material (e.g., grout, controlled low strength material, concrete, etc.).	Other resultant holes have been plugged and filled.	Visual Observation and verification by EC&ACP Engineering, STR, CAM and ops support.
MA – 4.9	Cleave or breach any remaining curbing on the slab, as necessary, to ensure drainage of rainwater.	Curbing remaining, if any, has been cleaved or breached.	Visual Observation and verification by EC&ACP Engineering & STR.
MA – 4.10	Inspect the 480-3D concrete slab for oil staining and remove stains, if found, using a strong surfactant, "Biosolve".	Concrete slab is free of oil stains.	Visual Observation and verification by EC&ACP Engineering & STR.
Section 4 (cont'd)	PERFORM DEMOLITION ACTIVITIES		
<u>End Point #</u>	<u>Activity</u>	<u>Endpoint</u>	<u>Verification Method</u>
MA – 4.11	Cut all above ground and concrete surface protrusions (e.g., bolts, rebar, etc.) level with the concrete slab, pads or grade, whichever applies.	All above ground and concrete surface protrusions have been cut level with the concrete slab, pads, or grade, whichever applies.	Visual Observation and verification by EC&ACP Engineering & STR.
MA – 4.12	Perform a Final Acceptance Inspection (8Q-51) of the completed work.	Final Acceptance Inspection completed and recorded (8Q-51).	Final Acceptance Inspection (FAI-51) for 480-3D was held 4/28/21 and verified on G-SDD-D-00004 on 4/29/21.
MA – 4.13	Complete any incomplete or new work items identified during the Final Acceptance Inspection.	Remaining work items identified during final inspection completed.	Conduit on south side of 480-3D was removed to grade and grouted.
MA – 4.14	Remove from jobsite and dispose of all equipment, rubble, sanitary waste, scrap metal, and trash as the work progresses.	Jobsite equipment and waste dispositioned.	30 yd ³ scrap metal (recycled) (741-IN Salvage Yard)
Section 5	COMPLETE PROJECT CLOSURE ACTIVITIES		
<u>End Point #</u>	<u>Activity</u>	<u>Endpoint</u>	<u>Verification Method</u>
MA – 5.1	Ensure all Work Packages have been completed.	Work Packages are complete.	Work Order # 1832555, Task 01 and AHA-FDD-12662 verified complete by STR.
MA – 5.2	Prepare as-built information and a request for Site Clearance Permit Closure, OSR 3-120, and submit as required by Manual 1D	Request for Site Clearance Permit Closure is issued.	Request for Site Clearance Permit 7897 closure has

	Procedure 3.02.		been issued.
MA – 5.3	Issue correspondence for retirement of assets.	Property Record Closeout letter is issued and recorded in the project file.	All records closed based on receipt of Request for Site Clearance Permit closure.
MA – 5.4	Issue correspondence for deletion (voiding) of engineering documents.	Records Disposition letter for Building 480-3D is issued and recorded in the project file.	Document Control (DCR) has been notified that 480-3D has been demolished and that documents identified in SRNS-J2000-2021-00540 can be voided.
MA – 5.5	Revise (by Site Infrastructure Engineering) technical baseline documents, as appropriate, which cannot be voided.	Appropriate technical baseline documents have been revised.	Per email discussions and concurrence with Site Infrastructure.
MA – 5.6	Prepare and issue Completion of Decommissioning End Points (CDEP) document.	CDEP document has been issued.	Document Review: V-PCOR-D-00053.
MA – 5.7	Prepare and issue Decommissioning Project Final Report (DPFR).	DPFR is issued.	Document Review: V-PCOR-D-00062.

Temporary Delegation of Authority

In accordance with SRS 1B Management Requirements and Procedures Manual, Procedure 3.10 Limits of Authority Procedure, temporary delegation of authority is hereby granted as indicated.

Delegating Manager: **SHIRLEY, ROBERT S.**

Department: **J2000 - ENV COMP & AREA COMPLET PROJ**

I hereby grant my authority to **CONNER, STEVEN P.** for the period of **Jul 19, 2021** to **Jul 26, 2021**. For signature authority, a copy of this delegation will be attached to all documents signed on my behalf.