

## Facility Decommissioning Evaluation Building 233-23H, RTF Warehouse, and Building 233-24H, Maintenance Shop

This is a Simple Model Decommissioning per Facility Disposition Manual 1C

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## Introduction

This document contains an evaluation of available existing information about two facilities that are slated for decommissioning. This evaluation screens the project to determine whether it is appropriate to conduct the decommissioning under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or to use a simpler graded approach.

This Facility Decommissioning Evaluation (FDE) consists of three sections. Part 1 contains a description of the project scope, including a brief summary of the purpose and history of the facilities and photographs of the structures that are part of the project. Part 2 encompasses a series of questions, the answers to which determine the decommissioning model (CERCLA Model, Integrated Sampling Model, or Simple Model) that will be used. The three graded approach models are described in Facility Disposition Manual 1C, Procedure 501. Part 2 also includes a justification for the answers to each question. Part 3 is a list of references that were used for the evaluation.

## Conclusion

A review of the existing characterization data, process/building history, sample data and walk downs of the facilities, supports the determination that these buildings and their ancillary structures, if any, meet the criteria of a Clean Building, Simple Model as described in Facility Disposition Manual 1C, Procedure 501. This decision is supported by the documentation found throughout the body of this document. No chemical or hazardous radioactive contaminants are associated with these structures.

## Part 1. Project Scope

### Scope

This Evaluation has been prepared in accordance with requirements found in Facility Disposition Manual 1C, Procedure 502, "Preparing Decommissioning Decision Documents". The scope of this evaluation includes the 233-23H Replacement Tritium Facility (RTF) Warehouse and the 233-24H Maintenance Shop, which are further described in the next section. There are no ancillary structures associated with 233-23H and 233-24H.

The proposed decommissioning end-state for these facilities is demolition to the building slabs. The existing 233-23H and 233-24H buildings are to later be replaced by new facilities in the same approximate location in support of the Tritium Finishing Facility (TFF) project. In order to facilitate erosion control in the interim, removal of the existing slabs is outside the scope of this demolition project and will be included in the scope of the TFF construction project.

The described decommissioning activities are not the final area closure actions. The decommissioning of Buildings 233-23H and 233-24H is intended to reduce landlord costs and increase safety by removing excess facilities.

## Facility Description

### Building 233-23H

Building 233-23H is located near the northeast corner of Savannah River Tritium Enterprise (SRTE) area of the Savannah River Site's H-Area, 20'-0" north of and parallel to Building 233-24H (See Figure 1). The 233-23H RTF Warehouse was erected in 2000. The building has a footprint of 3,800 ft<sup>2</sup> (95'-0" long x 40'-0" wide x 18'-6" eave height) with concrete foundation/floor slab, pre-engineered structural steel frame, and painted corrugated metal panel exterior walls and roof (see Figures 2, 3, and 4). The building was constructed for and since has been used for clean warehouse storage of consumables, spare parts, and repairables (such as pressure relief valves). The interior is a large, single rectangular room with no interior partitions. The floor is bare concrete throughout the facility. The building has two 3'-0" x 7'-0" hollow metal steel doors in the south wall and one 10'-0" x 14'-0" electrically operated aluminum rollup door in the north wall. The building's exterior 18'-6" walls are insulated with vinyl faced fiberglass insulation. There are no HVAC unit(s), but there are two 7.5 KW electric unit heaters located diagonally across from each other in the northwest and southeast corners of the building suspended from the roof purlins. A small 1000 CFM electric exhaust fan is mounted in the east wall. A wet sprinkler system riser enters the building from beneath the floor slab in the southeast corner of the building. The sprinkler system contains 44 sprinkler heads suspended 4" below the roof purlins. Building 233-23H also contains a fire alarm system, Public Address system, electrical service, and telecommunications service. The building contains no sumps, pits, or drains.

The 233-23 RTF Warehouse will remain in use until a new, larger warehouse is constructed, at which point the contents of 233-23H will be relocated to the new warehouse, and 233-23H decommissioned.

Building services (i.e., Public Address, telecommunications, electrical, Fire Water, and Fire Alarm) have not yet been air-gapped to isolate the facility. Building 233-23H will, however, be isolated from its services prior to facility decommissioning.

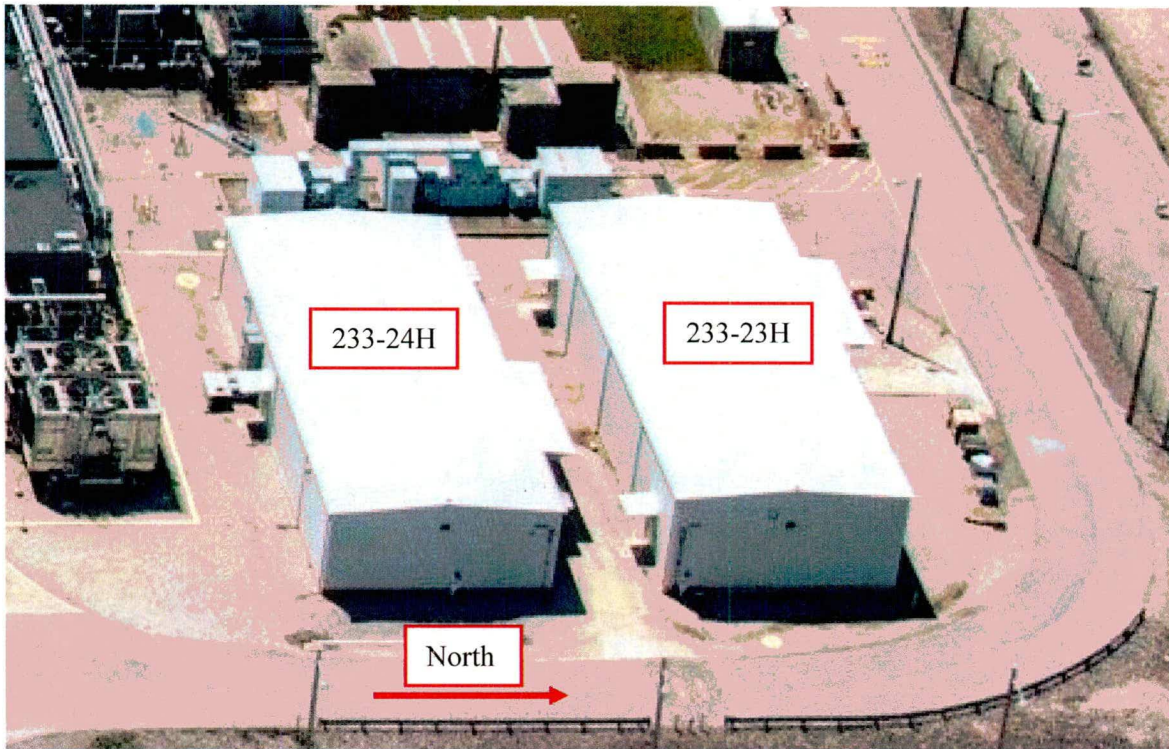


Figure 1. Aerial of Buildings 233-23H and 233-24H Looking West



Figure 2. Building 233-23H Looking Southeast



Figure 3: Building 233-23H Looking Northeast



Figure 4. Building 233-23H Looking Northwest

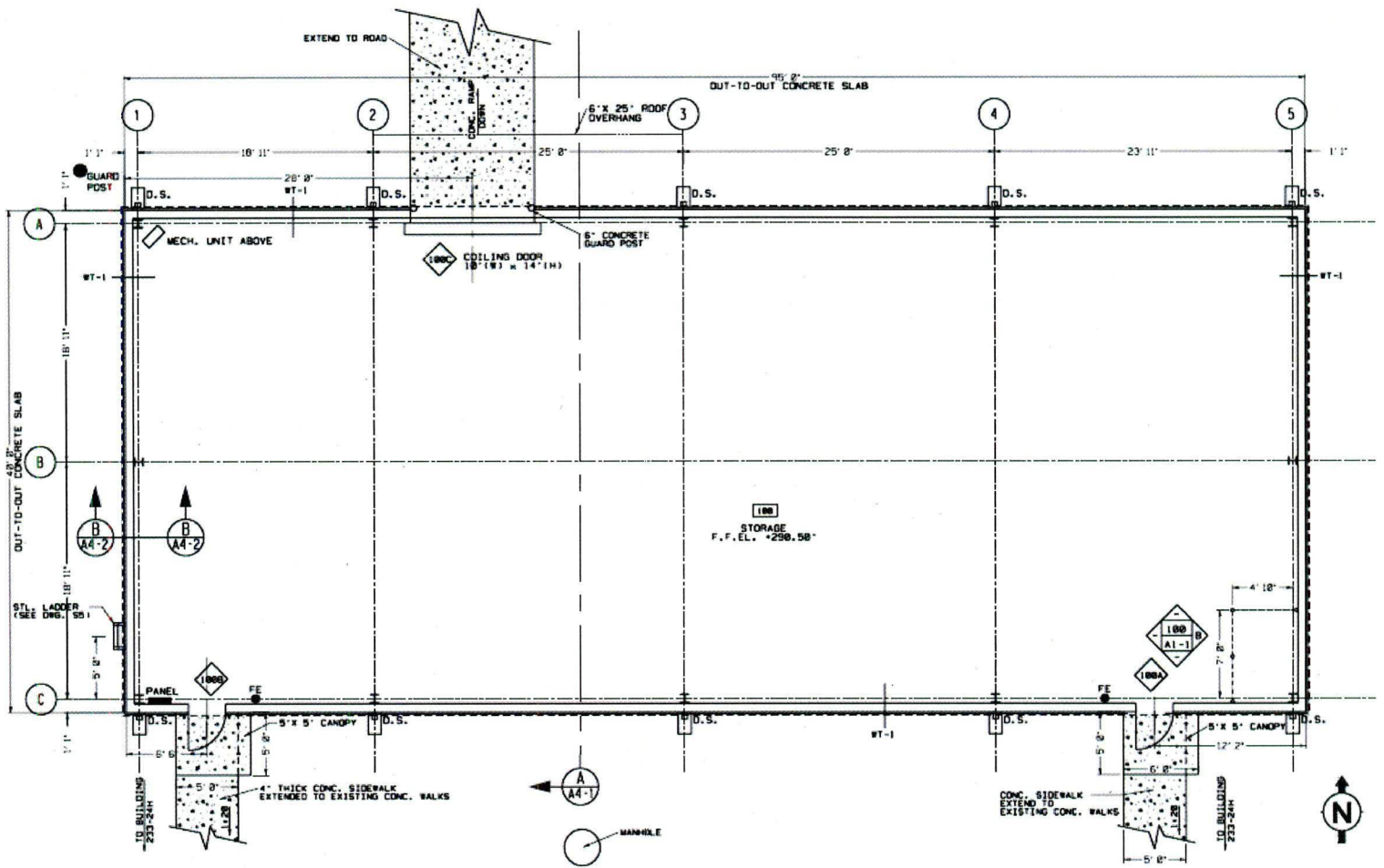


Figure 5. 233-23H Floor Plan Layout

### Building 233-24H

Building 233-24H is located near the northeast corner of Savannah River Tritium Enterprise (SRTE) area of the Savannah River Site's H-Area, 20'-0" south of and parallel to 233-23H (see Figure 1). The 233-24H Maintenance Shop was erected in 2000. The building has a footprint of 3,800 ft<sup>2</sup> (95'-0" long x 40'-0" wide x 16'-0" eave height) with concrete foundation/floor slab, pre-engineered structural steel frame, and painted corrugated metal panel exterior walls and roof (see Figures 6, 7, 8 and 9). Although called Maintenance Shop, the building was originally designed and constructed to be a maintenance training facility. Due to a need for additional warehouse storage, the building was re-purposed and has been used as a clean warehouse for sensitive spare parts storage. The interior is comprised of three spaces. A 17'-4" x 10'-0" conference room is located on the west end and contains Vidmar® cabinets for small parts storage. A 10'-0" x 10'-0" telecommunications room is located in the northeast corner and still serves its original design purpose. The third space is the remaining large open area at the building's center, originally designed for maintenance training, but has been used for sensitive spare parts storage. The floor is bare concrete throughout the facility. The building has five 3'-0" x 7'-0" hollow metal steel doors (two in the north exterior wall, one in the south exterior wall,

two interior), and one 12'-0" x 14'-0" electrically operated steel rollup door in the north wall. The building's exterior 16'-0" walls are insulated with vinyl faced fiberglass insulation. The interior walls are nail-able steel studs faced with gypsum board extending to the underside of the building's roof deck. There is one HVAC unit, a packaged 90,000 BTU heat pump, located outside the building's south wall on a concrete equipment pad. There is one electric exhaust fan located in the telecommunications room mounted in the east wall. A wet sprinkler system riser enters the building from beneath the floor slab on the east side of the building. The sprinkler system contains 33 sprinkler heads suspended 4" below the roof purlins. Building 233-24H also contains a fire alarm system, Public Address system, electrical service, and telecommunications service. The building contains no sumps, pits, or drains.

The 233-24H Maintenance Shop will remain in use until a new, larger warehouse is constructed, at which point the contents of 233-24H will be relocated to the new warehouse, and 233-24H decommissioned.

Building services (i.e., Public Address, telecommunications, electrical, Fire Water, and Fire Alarm) have not yet been air-gapped to isolate the facility. Building 233-24H will, however, be isolated from its services prior to facility decommissioning.



Figure 6: 233-24 H Looking Southeast



Figure 7: 233-24 H Looking Northeast



Figure 8: 233-24 H Looking Southwest

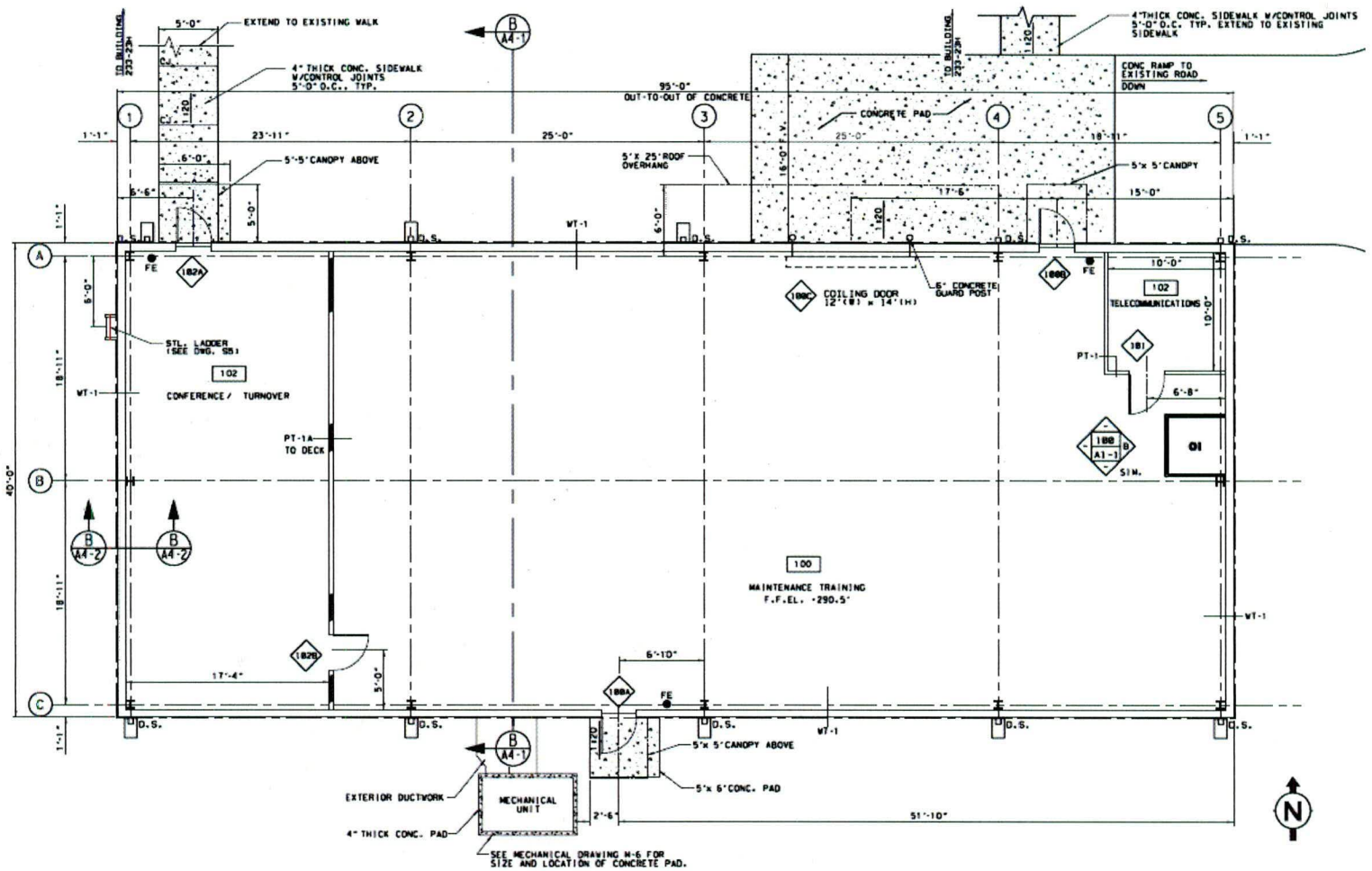


Figure 9: 233-24 H Floor Plan Layout

**Process History**

A records review, walk downs and interviews indicate that no chemical or radioactive processes were performed in either Building 233-23H or Building 233-24H (i.e., no chemical, mechanical, or electrical energy or interaction was performed to change the state of an input material or to produce a new output product).

Historically, the 233-23H RTF Warehouse has been used as a clean warehouse facility for the storage of consumable, spare parts, and repairables. Since it was constructed in 2000 the 233-24H Maintenance Shop has been used as a clean warehouse for sensitive spare parts storage. These buildings will remain in use until a new, larger warehouse is constructed, at which point the contents of these facilities will be relocated to the new warehouse, allowing 233-23H and 233-24H to be decommissioned. Based on interviews of facility personnel, the buildings have never been the site of radiological or chemical processes.

### Chemical Process

Chemical Name	Process location	Evidence of spills?
N/A	N/A	N/A

### Radioactive Process

Isotope	Contaminated areas/others
N/A	N/A

The 233-23H RTF Warehouse and 233-24H Maintenance Shop contain no sumps, floor drains, secondary containments, process areas, chemical and/or waste storage areas, or rad contaminated areas. They are clean, warehouse facilities. No staining of the concrete (evidence of spills) is readily evident in either facility. Any stains identified on the concrete slabs during decommissioning will be cleaned with a strong surfactant (i.e., Biosolve™) as part of the decommissioning activities for the buildings. The building slabs show no visible cracks or degradation.

### Summary of Existing Characterization

Characterization has been accomplished using a combination of process knowledge/historical release information, verification walk downs and sampling as appropriate.

An important part of the characterization portion of this evaluation is a historical review of spills/releases to the environment. This review includes a review of the Occurrence Reporting and Processing System/ Site Item Reportability and Issue Management (ORPS/SIRIM) database (Reference 2) conducted from the effective date of the Federal Facility Agreement (FFA), August 16, 1993 to present and a review of the FFA (Reference 1). The FFA serves as a review of releases/spills to the environment prior to August 16, 1993. Review of the ORPS/SIRIM Database and the FFA was negative regarding Buildings 233-23H and 233-24H. There is no indication of spills or releases related to Building 233-23H and 233-24H.

An asbestos survey of Building 233-23H was conducted and subsequently documented on November 12, 2020, which identified no Asbestos Containing Materials (ACM) to be present in the facility. The results of that survey are included in Q-APG-H-00015, Rev. 1, Environmental Compliance & Area Completion Projects Baseline Asbestos Inspection Report of Building 233-23H (Reference 4). An asbestos survey of Building 233-24H was conducted and subsequently documented on November 11, 2020, which identified no Asbestos Containing Materials (ACM) to be present in the facility. The results of that survey are included in Q-APG-H-00080, Rev. 0, Environmental Compliance & Area Completion Projects Revalidation Asbestos Inspection Report of Building 233-24H (Reference 5). In accordance with 40 CFR part 61.145, a ten-day notification will be filed with South Carolina Department of Health and Environmental Control (SCDHEC) prior to demolition and all ACM removal, if any is subsequently found, will be performed by asbestos trained personnel with proper permitting and waste disposal procedures.

Wastes generated during decommissioning will be characterized and managed in accordance with Savannah River Site (SRS) procedures and State and Federal regulations.

### **Historical Significance**

A review has been conducted in accordance with a Programmatic Agreement. This review resulted in the publication of a Cultural Resources Management Plan (Reference 3) in which the facilities with historical significance are listed. These facilities are listed in that reference as NRHP "Not Eligible" and therefore are not historically significant.

## Part 2. Evaluation

Clean Facilities				
	Question	Yes	No	Justification
1.	Has the facility ever contained or processed radioactive or hazardous material other than stored packaged material or materials of construction? <i>If yes, go to question 4.</i>		X	Based on interviews of SRTE personnel, these facilities have never processed radioactive or hazardous material. The facilities have never contained radioactive or hazardous material other than stored packaged material or materials of construction.
2.	If there was stored packaged material, has there ever been a spill? <i>If No or N/A, this is a Simple Model. Stop.</i>		X	There is no documented evidence of spills in either of these facilities. There is no visual evidence/indication of spills in the facilities. Interviews of knowledgeable SRTE personnel revealed no historical spills in the facilities. <b>Decommissioning of Buildings 233-23H and 233-24H will be performed as Simple Model Decommissionings.</b>
3.	Was spill confined inside structure and cleaned to free release standard per Radiological Control Manual 5Q (for radiological) or continued occupancy per Industrial Hygiene Manual 4Q (for hazardous)? <i>If Yes, this is a Simple Model. Stop.</i>			N/A

Contaminated Facilities				
	Question	Yes	No	Justification
4.	Is the facility listed as a Resources Conservation and Recovery Act (RCRA)/CERCLA Unit in Appendix C of the SRS FFA? <i>If Yes, this is a CERCLA Model. Stop.</i>			N/A
5.	Is the facility listed as a Site Evaluation Area in Appendix G of the SRS FFA? <i>If Yes, this is a CERCLA Model. Stop.</i>			N/A
6.	Is there evidence that there has been a release of hazardous or radioactive materials outside the structure? <i>If Yes, this is a CERCLA Model. Stop.</i>			N/A
7.	Is there a substantial threat of a release of hazardous or radioactive materials outside the structure? <i>If Yes, this is a CERCLA Model. Stop.</i>			N/A
8.	Has the facility been assigned a hazard category as defined in Facility Safety Document Manual 11Q? <i>If No, stop and refer facility for evaluation to assign a hazard category, then proceed.</i>			N/A
9.	Is the hazard category Nuclear (HC- 2 or 3), radiological, or high hazard chemical? <i>If Yes, this is a CERCLA Model. Stop.</i>			N/A
10.	Has DOE-SR directed that the decommissioning be performed using the CERCLA Model? <i>If yes, this is a CERCLA Model. Stop.</i>			N/A
11.	Does the complexity of the facility or the nature and extent of contamination warrant a higher than normal level of rigor and detail for decommissioning planning and evaluation? <i>If Yes, this is a CERCLA Model. Stop.</i>			N/A

	<b>Question</b>	<b>Yes</b>	<b>No</b>	<b>Justification</b>
12.	Is the facility a formerly nuclear, radiological, or high-hazard chemical facility? <i>If Yes, this is an Integrated Sampling Model. Stop.</i>			N/A
13.	Has EC&ACP's Regulatory Support Group determined that a final survey is not required for this facility? <i>If Yes, this is a Simple Model. If No, this is an Integrated Sampling Model. Stop</i>			N/A

## Part 3. Review of Existing Records

The following facility records were reviewed as a part of this evaluation:

Ref #	Document No.	Revision/Date	Title
1	WSRC-OS-94-42	Rev 0/ Aug. 16, 1993 All updates through Sept. 21, 2018, including Rev. 0 Appendices C, G and K for Fiscal Year 2019	FFA for the SRS, Administrative Document No. 89-05-FF
2	N/A	N/A / Since 1993	ORPS/SIRIM Database 08/1993 to Present.
3	N/A	Final/ January 26, 2005	Savannah River Site's Cold War Built Environment Cultural Resources Management Plan
4	Q-APG-H-00015	Rev 1/ Nov. 12, 2020	Environmental Compliance & Area Completion Projects Baseline Asbestos Inspection Report Of 233-23H
5	Q-APG-H-00080	Rev 0/ Nov. 11, 2020	Environmental Compliance & Area Completion Projects Revalidation Asbestos Inspection Report Of 233-24H