Facility Decommissioning Evaluation (FDE)
Plant 607-14D, Chemical Feed Facility

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 a facility that is 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 facility 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 facility, supports the determination that this building and its ancillary structures 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 hazardous chemical or radioactive contaminants are associated with this structure.

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 following buildings and ancillary structures, which are further described in the next section:

Building 607-14D, Chemical Feed Facility

Building 607-14D has the following ancillary structures:

- Remnants of Building 607-15D, 20,000 GPD Sanitary Wastewater Treatment Plant
- Remnants of Building 607-12D, Sanitary Wastewater Pumping Station
- Remnants of Building 607-7D, Sewage Treatment Plant Blower Cabinets
- Remnants of Building 607-2D, Sewage Lift Station #2
- Remnants of the Disinfection Pit

- Remnants of the 483-6D Surge Basin
- Light Poles and Lights

The 607-14D Chemical Feed Facility was one part of the overall D-Area Sanitary Waste Treatment System. All facilities listed were permitted under Industrial Wastewater Treatment (IWT) Permits. The 607-15D Sanitary Wastewater Treatment Plant was permitted under South Carolina Department of Health and Environment Control (SCDHEC) Permit No. 14,407, Expansion of Sanitary Wastewater Treatment Plant, to replace a grandfathered 10,000 GPD packaged system. 607-15D was subsequently expanded under SCDHEC Permit No. 17,715-IW to include an ultraviolet (UV) disinfection structure located directly south of the main structure. The 607-14D Chemical Feed Facility (607-14D) was permitted under SCDHEC Permit No. 10,526. Subsequently, an automatic sodium hypochlorite feed system was added under SCDHEC Permit No. 14,318 to disinfect the effluent from the 607-15D Sanitary Wastewater Treatment Plant. The 483-6D Surge Basin was permitted under SCDHEC Permit No. 18078-IW. All facilities other than the 607-14D and its ancillary remnants have been previously decommissioned under the SRS D-Area Sanitary Waste Treatment Plant (607-14D, 607-15D) Closure Plan, Rev. 2, and the Savannah River Site (SRS) D-Area Surge Basin (483-6D), Replace Surge Basin Liner Closure Plan, Rev. 2. The 607-14D Chemical Feed Facility was deactivated under the same Closure plan, but not decommissioned. 607-14D and the remnant ancillary structures make up what remains of the overall system still to be decommissioned within the scope of this FDE. Decommissioning activities described in this FDE will serve as the final closure plan for the wastewater facilities and associated permits listed above.

The proposed decommissioning end-state for the above grade structures of this facility is demolition to the structure's slabs, or to grade, as appropriate. The 607-14D sump will be filled with grout.

The proposed decommissioning end-state for the below grade structures of this facility is In-Situ Decommissioning. The below grade structures are essentially concrete and/or steel. Demolition is therefore impractical, and consequently a portion of the facility will remain intact after decommissioning, though not readily visible. Below grade equipment has/will be removed during the decommissioning process. Below-grade spaces of the 607-15D Sanitary Waste Treatment Plant and the Disinfection Pit/UV Disinfection Chamber have been filled to grade with rock, gravel, and/or cementitious material and will be capped with concrete.

The described decommissioning activities are not the final area closure actions. The decommissioning of a building is intended to reduce landlord costs, increase safety by removing excess facilities and reduce the potential for releases of hazardous substances to the environment.

Facility Description/Discussion

Building 607-14D and its remnant ancillary structures comprise what remains of the D-Area Sanitary Waste Treatment System. The facility is located on the Savannah River Site (SRS) in South Carolina, at the southwest corner of 400-D Area (Figure 1). The facility received effluent sanitary waste from D-Area facilities for process and discharge. Different portions of the facility were constructed at different times over the life of D-Area in response to necessary upgrades. Prior to installation of the 607-15D Sanitary Waste Treatment Plant, 607-7D was the operational

sewage treatment plant. 607-7D was removed from service and decommissioned in 1993. Refer to Figure 2 and Figure 3 for layout of the structures of the facility.

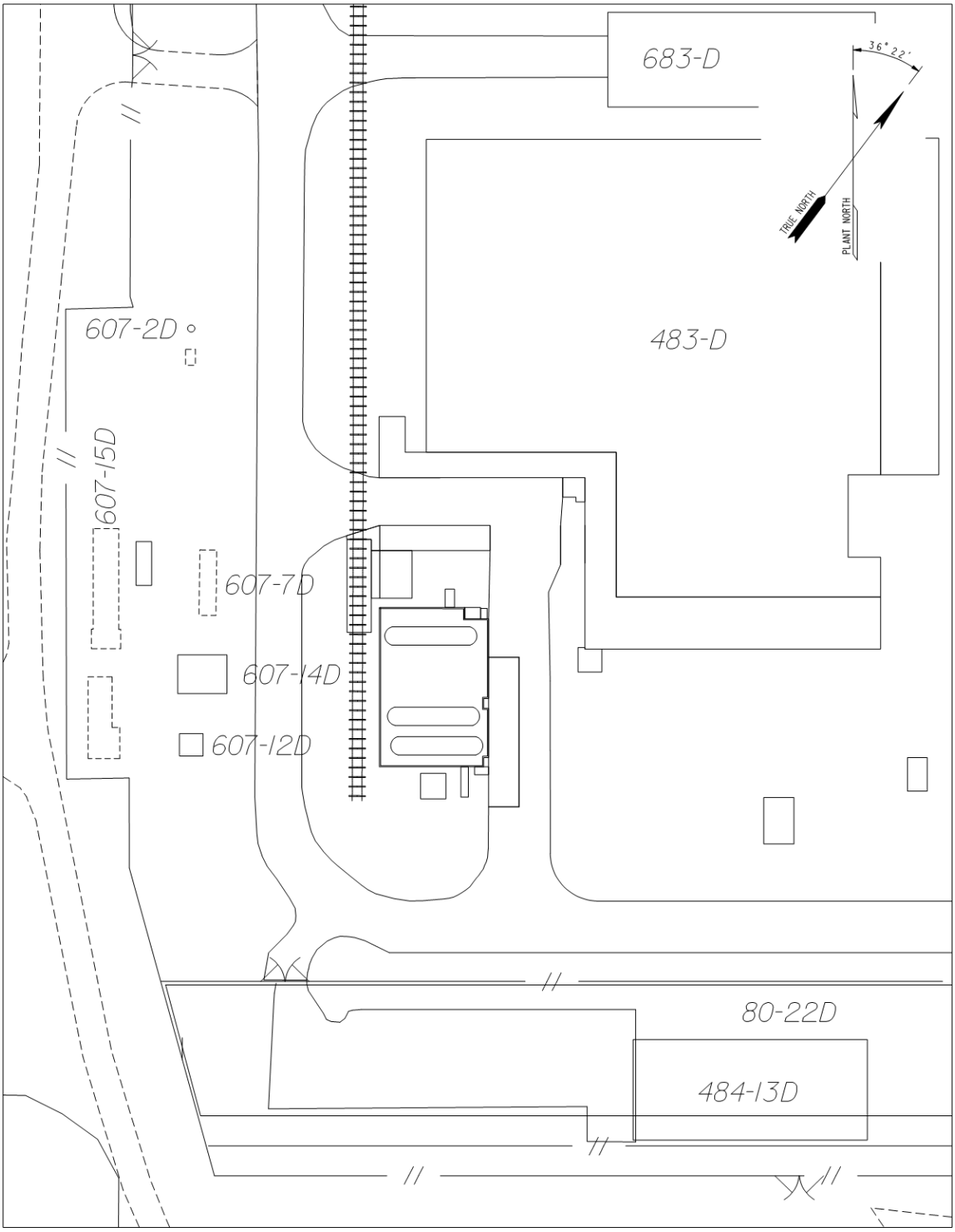

Figure 1. D-Area Wastewater Treatment Facilities Area

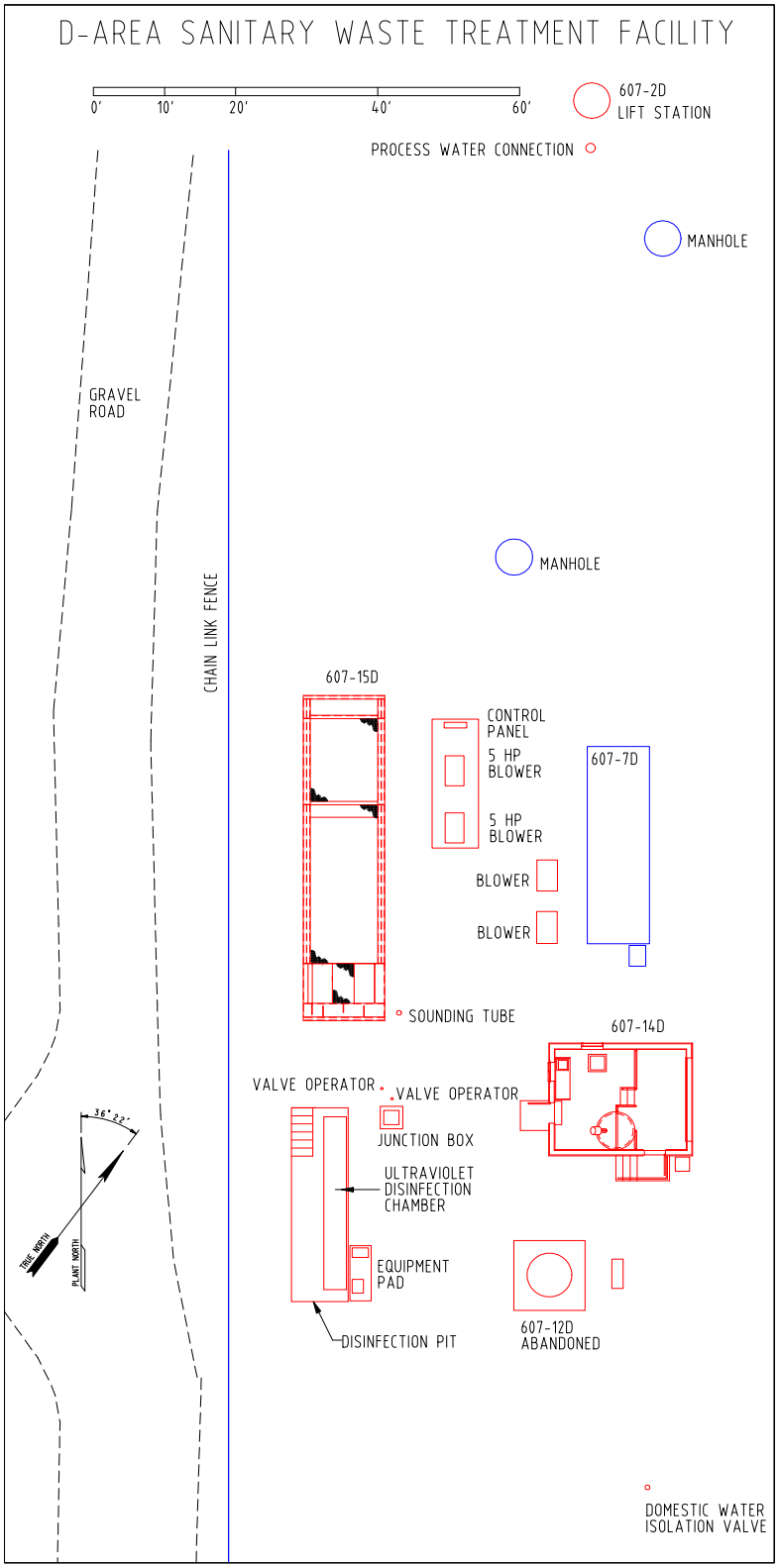

Figure 2. D-Area Wastewater Treatment Facilities Area

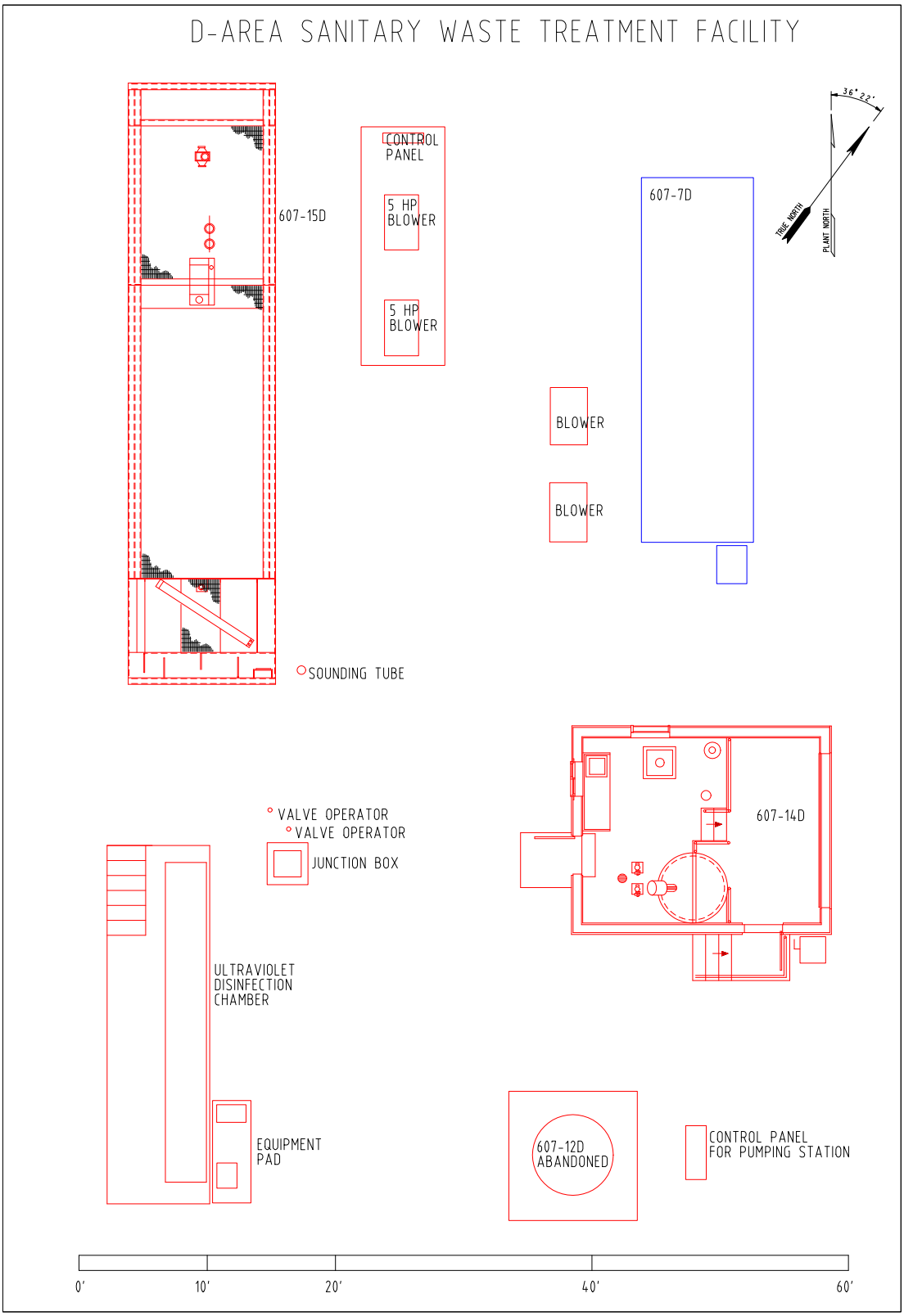

Figure 3. D-Area Wastewater Treatment Facilities Area

Building 607-14D, Chemical Feed Building (Figure 4 and Figure 5), is built on a concrete slab. The lower portions of the walls (up to about 18" above the slab) are masonry block. The remainder of the structure is constructed of metal and composite materials. The structure is approximately 16' by 20' and approximately 13' high. There is a 10' roll-up door on the east side of the structure. Outside the roll-up door, on either side, are two bollards, 4" diameter and 30" above grade. There are concrete steps with a handrail to the south door of the building. The structure was formerly provided with electrical supply at 480V (3-phase) and domestic water. There is a domestic water isolation valve and an electrical disconnect on the southeast corner of the structure. There was also a domestic water isolation valve approximately 25' to the south of the structure that is associated with the structure. The building contains a soda ash mixing tank, two soda ash transfer pumps, a lab bench and sink, one floor drain, one collection sump, and a chemical storage area. Lighting inside the structure was from fluorescent lamps, while lighting on the outside of the building (east, south and west) is high pressure sodium lamps mounted on the structure.

The soda ash mixing tank (Figure 6) is a fiberglass resin tank that is approximately 5.5' in diameter and approximately 5' tall, with a capacity of approximately 500 gallons. The mixing tank has a 120 volt (V), top-mounted, angled-entry agitator. The two soda ash transfer pumps (Figure 7) are small, 120V pumps (with oil removed). The lab bench and sink are standard lab equipment. The sink is stainless steel. The eyewash station is also standard. The sump (Figure 8) is approximately 2' by 2' and 3' deep. It had a 120V sump pump (w/oil removed) that discharged to the sanitary waste treatment plant, 607-15D. The chemical storage area was located on the east side of the building and is elevated to about 24" above grade. The chemical storage area used to contain soda ash in 55-pound paper bags, Klaraid™ in 45-pound plastic jugs and chlorine pellets in 5-pound plastic containers. The brominator, for bromine compound (bromicide) addition to the treatment plant, was removed in 1993.

Figure 4. Building 607-14D, Chemical Feed Building

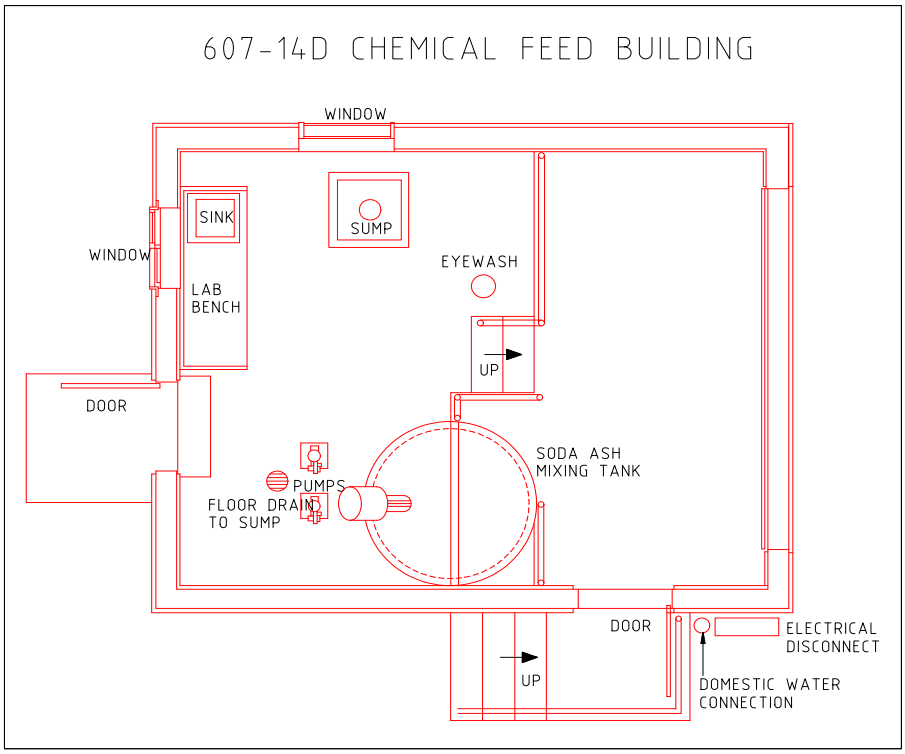

Figure 5. Building 607-14D, Chemical Feed Building Layout

Figure 6. Soda Ash Mixing Tank (607-14D)

Figure 7. Soda Ash Transfer Pumps/Pedestals (607-14D)

Figure 8. 607-14D Collection Sump

The 607-15D, Sanitary Waste Treatment Plant (Figures 1, 2, 3, 9, & 10) is a package treatment plant that was installed, placed into operation in 1993 and since decommissioned under an IWT Permit interim closure plan. The structure is approximately 50’ by 16’ and 12’ high, disregarding handrail and equipment height atop the structure. The majority of the 12’ high structure is below grade. The structure is primarily epoxy-coated carbon steel. The walkway gratings atop the structure are made of aluminum. The top of the structure is within 4” to 6” inches of being level with grade. The more visible portions of the structure are the handrails and above grade equipment.

The treatment plant has four (4) major sections: (1) the chlorine diffuser, (2) the clarifier, (3) the aeration tank and (4) the surge tank. The sewage inlet to the structure was via a 4” pipe at the north end of the structure. The treated effluent was discharged via a 6” pipe at the outlet of the weir on the south end of the structure. There was a 4” air inlet below grade on the east side of the surge tank from the surge tank blowers. There was another 4” air inlet below grade in the aeration tank from the aeration blowers.

When the 607-15D structure was decommissioned under the IWT Permit interim closure plan, the structure was operated until the liqueur had passed through the sanitary plant and soda ash solution was exhausted. The 607-15D cement basin was pumped and rinsed with a pump truck and sludge transported to the Savannah River Site (SRS) Central Sanitary Wastewater Treatment Facility. The in-ground basin was then filled to just above grade with a combination of gravel and rip rap. D-Area power has been globally disconnected from the electrical grid, thereby rendering the facility electrically "cold & dark". Fuses for equipment have also been removed. The facility has also been isolated mechanically. Remnants remaining following implementation of the IWT Permit interim closure plan (i.e., handrail, conduit, panels, racks, piping, lighting, equipment, etc.) will be removed down to top of concrete pad(s) or grade as applicable, openings greater than 2" plugged and grouted, and the basin capped with cementitious material, thereby completing "final" IWT Permit closure.

Figure 9. Building 607-15D, Sanitary Waste Treatment Plant

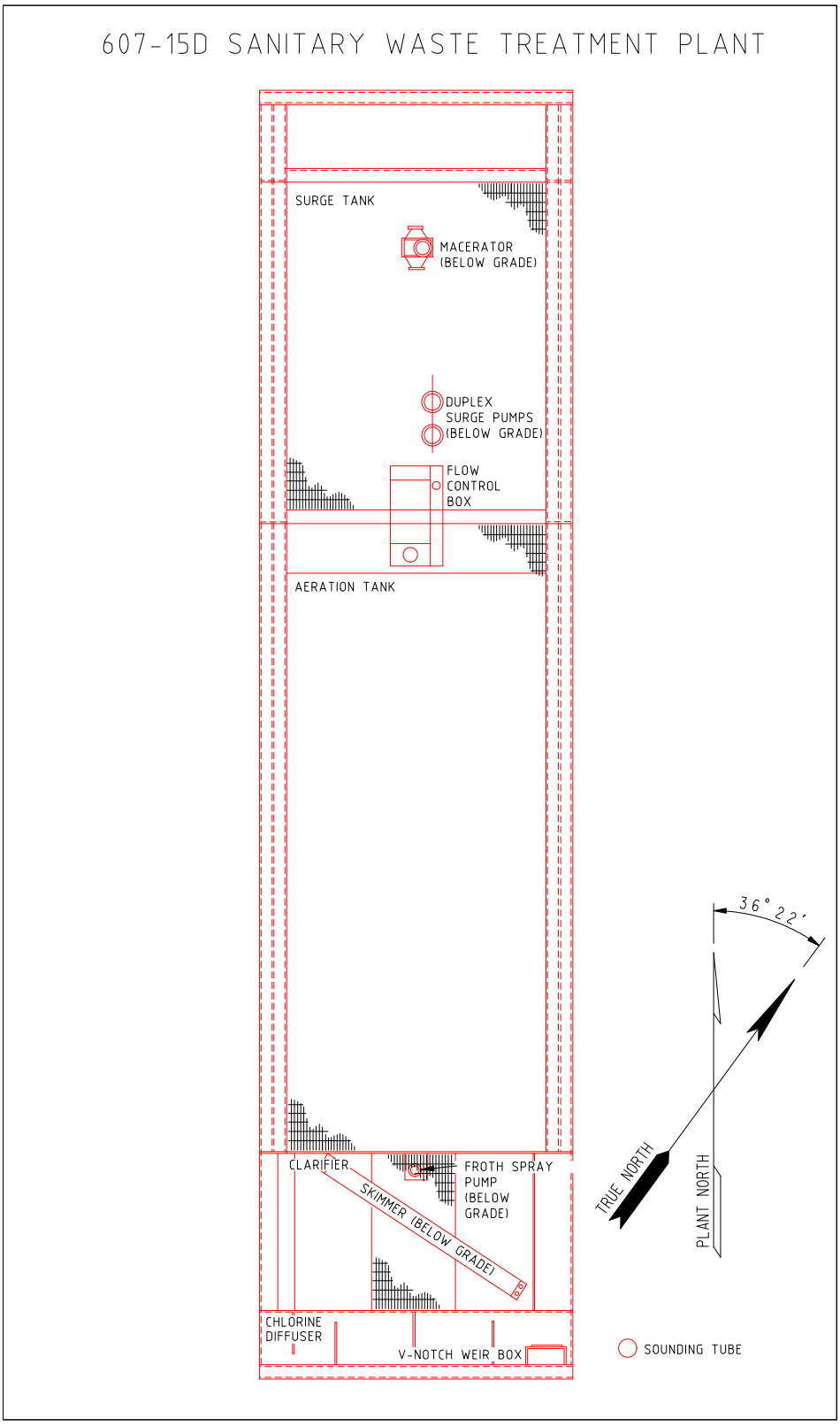

Figure 10. Building 607-15D, Sanitary Waste Treatment Plant

On the east side of 607-15D are the blowers for the aeration and surge tanks (Figure 11). There are two blowers for each. The two easternmost blowers (frontmost in Figure 11), the surge tank blowers, are remnants of the 607-7D (See Figures 2 and 3) sanitary waste treatment plant. The aeration blowers are closer to 607-15D (See Figures 2 and 3). Each of the blowers is a 5 horsepower (hp), 480 volt, 3-phase blower. The electrical control panel for the blowers is located to the north end of the aeration blower equipment pad. The only remnants of 607-7D of concern for this decommissioning evaluation are the blowers associated with 607-7D (Figure 11). Nothing else remains of 607-7D.

D-Area power has been globally disconnected from the electrical grid, thereby rendering the facility electrically "cold & dark". Fuses for equipment have also been removed. The facility has also been isolated mechanically. Remnants remaining following implementation of the IWT Permit interim closure plan (i.e., blowers, conduit, panels, racks, piping, lighting, etc.) will be removed down to top of concrete pad(s) or grade as applicable and opening greater than 2" plugged and grouted, thereby completing "final" IWT Permit closure.

Figure 11. Building 607-15D Blowers

To the south of Building 607-15D was the disinfection pit (Figures 2, 3, 12). The disinfection pit was an open, concrete, below-grade structure. It has now been filled in with gravel under the IWT Permit interim closure plan. The pit used to go to approximately 6 feet below grade and was approximately 8' by 28'. Along the east side of the pit was the ultraviolet (UV) disinfection chamber. Effluent sewage passed through the chamber while being exposed to ultraviolet light for disinfection and was discharged to outfall D-01. There were metal steps leading down into the pit. There was a sump in the bottom of the pit that was covered with a galvanized metal grate. The sump was equipped with a 120V sump pump that discharged to the treatment plant, 607-15D. Handrails surround the entirety of the pit, with an opening at the steps.

D-Area power has been globally disconnected from the electrical grid, thereby rendering the facility electrically "cold & dark". Fuses for equipment have also been removed. The facility has also been isolated mechanically. Remnants remaining following implementation of the IWT Permit interim closure plan (i.e., handrail, conduit, panels, racks, piping, lighting, etc.) will be removed down to top of concrete pad(s) or grade as applicable and opening greater than 2" plugged and grouted, thereby completing "final" IWT Permit closure.

Figure 12. Disinfection Pit

Station 607-12D is an abandoned-in-place sanitary sewage lift station located to the south side of Building 607-14D (See Figures 1, 2, 3, & 13). The station was in use until 1993, when 607-2D was brought online to replace it. Station 607-12D was then abandoned. The concrete pad for the station is 10' by 10'. The interior pit is 6' in diameter and 6'6" deep. The shell of the pit is 6" thick reinforced concrete. Located above grade at Station 607-12D are 2-motors and pumps (w/oil removed), a hose rack, pipes and conduit. The lift station pumps were 480V, 3-phase pumps. On the electrical panel are two combination starters for the pumps, two junction boxes, and a receptacle.

D-Area power has been globally disconnected from the electrical grid, thereby rendering the facility electrically "cold & dark". Fuses for equipment have also been removed. The facility has also been isolated mechanically. Remnants remaining following implementation of the IWT Permit interim closure plan (i.e., pumps, motors, conduit, panels, racks, piping, etc.) will be removed down to top of concrete pad/steel plate cover, the lift station filled with gravel to top of lift station pit, and openings greater than 2" plugged and grouted, thereby completing "final" IWT Permit closure.

Figure 13. Sanitary Sewage Lift Station 607-12D (currently abandoned)

Station 607-2D was the operational lift station for the sanitary sewage waste treatment plant (Figures 1 & 14). The lift station contained two lifting pumps (with oil removed) for transfer of the sanitary wastewater to the 607-15D treatment plant. The basin of the lift station was constructed of reinforced concrete and located mostly below grade. The upper rim of the lift station extends to about 9" above ground level (already decommissioned under the IWT Permit interim closure plan). The lift station pumps were located below grade inside the lift station. The pumps were 3 hp, 480V, 3-phase centrifugal pumps. The lift station control panel is located adjacent to the lift station on the northeast and is above grade. Approximately 8' to the south of the lift station is a process water connection and a hose rack (Figure 14).

D-Area power has been globally disconnected from the electrical grid, thereby rendering the facility electrically "cold & dark". Fuses for equipment have also been removed. The facility has also been isolated mechanically. The lift station was filled with gravel under the IWT Permit interim closure plan. Remnants remaining following implementation of the IWT Permit interim closure plan (i.e., control panel, conduits, hose rack, and process water piping) will be removed down to grade and holes greater than 2" plugged and filled with grout, thereby completing "final" IWT Permit closure.

Figure 14. Building 607-2D, Sewage Lift Station #2 and Process Water Hose Connection

Additional sanitary sewage treatment system related items included in the scope of this evaluation include the following:

- The diverter valve operators located on the east side of the area between the disinfection pit and Building 607-15D (Figures 2 & 3). There were two (2) valve operators. The operators are in a round housing and extend to about 30" above grade (See Figure 9). (Operators to be removed and housings to be removed or cut off to grade and grouted.)
- The junction box located on the east side of the area between the disinfection pit and Building 607-15D. The junction box is a below grade structure that is covered by a painted, carbon steel plate. The curb of the structure above grade is approximately 2' by 2' square (See Figure 12). (Junction Box to have cover removed and box grouted to top of curb.)
- The sounding tube at the southeast corner of Building 607-15D (See Figure 9). The sounding tube is approximately 4" diameter and extends to about 30" above grade. (Sounding tube to be removed or cut off to grade and grouted.)
- All pole-mounted light fixtures. (Lighting fixtures to be removed as Universal Waste; poles to be removed or cut off to grade and grouted (if hollow).)

The 483-6D Surge Basin was permitted under SCDHEC IWT Permit No. 18078-IW. The Surge Basin was a 400,000-gallon capacity water plant surge basin located on the west side of the Savannah River Site's D-Area. The 483-6D Surge Basin was placed into service in 1976 with a projected service life of 50 years. The basin provided a buffer from the large flow rates required to backwash the filtration systems from the 483-D Surface Water Treatment and the 483-7D Domestic Water Treatment Plants. It also provided short-term storage of the wastewaters and residual sludge generated as by-products of the filtration processes. The Surge Basin's original Hypalon liner was later replaced when it deteriorated. The new liner consisted of a bentonite mat and a 60 mil High Density Polyethylene Liner (HDPE), placed atop the original bentonite liner. The liner replacement was permitted under SCDHEC Construction Permit #18078-IW for discharge to the 488-1D and 2D Ash Basins (Construction Permit # 7295), which discharged into Outfall D-01 (NPDES Permit #SC0047431). An Interim Closure Plan, SRS D-Area Surge Basin (483-6D), Replace Surge Basin Liner Closure Plan, Rev. 2, was submitted to SCDHEC on December 20, 2012. Subsequently, the Surge Basin was closed in accordance with the IWT Permit interim closure plan. D-Area power has been globally disconnected from the electrical grid, thereby rendering the facility electrically "cold & dark". Fuses for equipment have been removed. The facility has also been isolated mechanically. Remnants remaining following implementation of the IWT Permit interim closure plan (i.e., conduit, panels, racks, piping, lighting, etc.) will be removed down to top of platform concrete structure or grade as applicable and openings greater than 2" plugged and grouted, thereby completing "final" IWT Permit closure. For safety reasons, platform handrails must remain in place following decommissioning of the Surge Basin remnants due to the height of the platform above the surrounding grade.

Figure 15. 483-6D Surge Basin Remnants

Process History

Review of records, walkdowns and interviews indicate that no chemical or radioactive processes were performed in this facility (i.e., no chemical, mechanical or electrical energy or interaction was performed to change the state of the input material or to produce a new output product).

Treatment chemicals used in the treatment were Klaraid™, chlorine and soda ash. Klaraid™ is an amber-colored liquid that acts as a coagulant in the treatment. Klaraid™ contains adipic acid, diethylenetriamine, and epichlorohydrin polymer. Klaraid™ was provided in 45-pound plastic jugs and is non-hazardous per 40CFR302.4. The chlorine used in the conversion was provided in solid pellet form supplied in 5-pound containers. Chlorine was provided in the form of a granular, pelletized compound of calcium hypochlorite, calcium chlorate, sodium chloride, and calcium chloride. The chlorine was stored in 607-14D and was added directly to the chlorine diffuser in 607-15D as required. Chlorine is hazardous per 40CFR302.4 with a reportable quantity of 10 pounds. The soda ash was mixed in Building 607-14D and transferred into the

conversion of Building 607-15D as required for treatment. Soda ash is not hazardous per 40CFR302.4. In the old water treatment plant (607-7D), prior to installation of the new water treatment plant (607-15D), the conversion used bromine (in the form of bromocide - bromochlorodimethylhydantoin) for treatment. Upon installation of the new treatment plant, bromine use was discontinued. The bromine was added to the 607-7D treatment plant from the brominator inside 607-14D. Bromochlorodimethylhydantoin was not hazardous per 40CFR302.4. Sodium hypochlorite was used starting in 1993, but its use has been discontinued at the Sanitary Waste Treatment Facility for approximately 25 years. Further, sodium hypochlorite is hazardous due to its nature as a chlorinator and is thus bounded by chlorine as a hazardous chemical. The form of chlorine used was a solid, granular form, in which the chlorine is bound to calcium or sodium. The form of this substance does not lend to being easily released or dispersed. Further, when the chemical is used, it is dissolved into water and becomes diluted to concentrations that present little hazard to the worker. The dissolved chlorine is soon dissipated to render it innocuous to health and the environment once it serves its intended purpose. Treated waste waters are discharged to the environment via a National Pollutant Discharge Elimination System Outfall.

The sanitary waste treatment facility is a permitted wastewater treatment facility. The following permits are currently in interim closure for the facility:

10526	Chemical Feed Facility (607-14D) for D-Area Sanitary Wastewater Treatment.
14407	D-Area 20,000 GPD Sanitary Wastewater Treatment Plant Expansion, 607-15D
14318	Chemical Feed
17715-IW	UV Disinfection System for D-Area Sanitary Wastewater Treatment Plant
18078-IW	Surge Basin Liner Replacement

Decommissioning of the facilities will be in conjunction with close-out of the facilities and associated construction permits per South Carolina (SC) Code of Regulations R 61-82.

Review of the SRS Occurrence Reporting and Processing System/ Site Item Reportability and Issue Management (ORPS/SIRIM) database conducted from the effective date of the Federal Facility Agreement (FFA), August 16, 1993 to present and a review of the FFA reveal no outstanding issues with regard to the 607-14D Chemical Treatment Facility/607-15D Sanitary Waste Treatment Plant or ancillary structures. The FFA serves as a review of releases/spills to the environment prior to August 16, 1993. Building 607-14D is contained in Appendix G.2 of the FFA. Appendix G.2 is for site evaluation areas "…Determined to Require No Further Response Action." In 1987, there was a spill of bromicide (bromochlorodimethylhydantoin) inside the structure that overflowed to the exterior of the structure, releasing approximately 200 gallons of solution. Due to the insignificant quantity and nature of the solution, there was no impact to the structure or the environment. Some indication of Soda Ash spill points are evident in the interior of 607-14D.

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*

Within Building 607-14D are the only apparent sites of chemical contamination for the structures of this evaluation. The soda ash transfer pumps have leaked lubricating oil to the pedestals on which they are mounted (Figure 7). There are no apparent cracks in the concrete slab of the building for contaminants to migrate through. For the purposes of this evaluation, these sites will be cleaned with a strong surfactant (i.e. BioSolve™) during decommissioning.

607-15D, Building 607-14D and 607-2D are expected to contain minimal sludge and residuals from sanitary wastes. These components have been removed to the extent necessary. This has been performed prior to the decommissioning process under the IWT Permit interim closure plan. Mechanical removal and cleaning were performed in accordance with SC R 61-82.

Summary of Existing Characterization

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

Chlorine is the only chemical of a hazardous nature that has been used in the facility since 1993. The form of chlorine used is a solid, granular form, in which the chlorine is bound to calcium or sodium. The form of this substance does not lend to being easily released or dispersed. Further, when the chemical was used (1993- 2003), it was dissolved into water and became diluted to concentrations that presented little hazard to the worker. The dissolved chlorine was soon dissipated to render it innocuous to health and the environment once it served its intended purpose, as evidenced by the fact that it was discharged to the environment via a National Pollutant Discharge Elimination System Outfall. As such, Environmental Compliance and Area Completion Projects (EC&ACP) Environmental Safety and Health (ESH) has determined that a final survey is not required for the structures in the facilities per this decommissioning evaluation. An important part of the characterization portion of this evaluation is a historic review of spills/releases to the environment. This review includes a review of the ORPS/SIRIM database conducted from the effective date of the FFA, August 16, 1993 to present and a review of the FFA. The FFA serves as a review of releases/spills to the environment prior to August 16, 1993. As previously stated, there are no relevant issues with regard to the sanitary waste treatment facilities addressed in this document contained within the FFA or the ORPS/SIRIM database. Building 607-14D is listed in Appendix G.2 of the FFA, however, G.2 is for areas "…Determined to Require No Further Response Action." Section 2 of Appendix G is for facilities that have been

evaluated to the necessary extent to determine they present no risk to the environment or future resident due to the suspected presence of contaminants.

D-Area power has been globally disconnected from the electrical grid, thereby rendering the facilities electrically "cold & dark". Fuses for equipment have also been removed. The facilities have been isolated mechanically. Deenergized power, control wiring and instrumentation are currently abandoned in place. Mechanical equipment, structures and instrumentation are currently closed to a safe state and abandoned in place. All activities to date have been completed in accordance with the approved SCDHEC IWT Interim Closure Plan.

An asbestos survey of 607-15D was conducted on February 8, 2021. The results of that survey showing only the presence of Presumed Asbestos Containing Material (PACM) in pipe gaskets are included in Q-APG-D-00028, Baseline Asbestos Inspection Report of Building 607-15D, Reference 6. An asbestos survey of 607-14D was conducted on February 8, 2021. The results of that survey showing only the presence of PACM in pipe gaskets are included in Q-APG-D-00024, Baseline Asbestos Inspection Report of Building 607-14D, Reference 7. An asbestos survey of 607-12D was conducted on February 8, 2021. The results of that survey showing only the presence of PACM in pipe gaskets are included in Q-APG-D-00032, Baseline Asbestos Inspection Report of Building 607-12D, Reference 8. An asbestos survey of 607-7D was conducted on February 8, 2021. The results of that survey showing approximately 6 square feet of Asbestos Containing Material (ACM) in the form of a black sealant and PACM in pipe gaskets to be present are included in Q-APG-D-00034, Baseline Asbestos Inspection Report of Building 607-7D, Reference 9. An asbestos survey of 607-2D was conducted on February 8, 2021. The results of that survey showing only the presence of PACM in pipe gaskets are included in Q-APG-D-00035, Baseline Asbestos Inspection Report of Building 607-2D, Reference 10. An asbestos survey of the D-Area Disinfection Pit was conducted on February 8, 2021. The results of that survey showing only the presence of PACM in pipe gaskets are included in Q-APG-D-00041, Baseline Asbestos Inspection Report of D-Area Disinfection Pit, Reference 11. An asbestos survey of 483-6D was conducted on February 8, 2021. The results of that survey showing only the presence of PACM in pipe gaskets are included in Q-APG-D-00033, Baseline Asbestos Inspection Report of 483-6D, Reference 12. In accordance with 40 CFR part 61.145, a ten-day notification will be filed with SCDHEC prior to demolition and all ACM/PACM removal 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 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 4) in which the facilities with historical significance are listed. This facility is not listed in that reference and therefore is 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? *If yes, go to question 4.*		X	A review of records, walkdowns and interviews indicate that no chemical or radioactive processes were performed in these facilities (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). The facilities never contained radioactive material(s) (Reference 5). The facilities have contained and used chlorine and sodium hypochlorite in the wastewater treatment process. Chlorine is the only chemical of a hazardous nature that has been used in the facility since 1993. The form of chlorine used was a solid, granular form, in which the chlorine is bound to calcium or sodium. The form of this substance does not lend to being easily released or dispersed. Further, when the chemical was used (1993- 2003), it was dissolved into water and became diluted to concentrations that presented little hazard to the worker. When exposed to atmospheric conditions, chlorine rapidly decays (Reference 13). The dissolved chlorine was soon dissipated to render it innocuous to health and the environment once it served its intended purpose, as evidenced by the fact that it was discharged to the environment via a National Pollutant Discharge Elimination System Outfall. As such, Environmental Compliance and Area Completion Projects (EC&ACP) Environmental Safety and Health (ESH) has determined that a final survey is not required for the structures in the facilities per this decommissioning evaluation. Any stains identified in the concrete slab during decommissioning will be cleaned with a strong surfactant, such as BioSolve™ as part of the decommissioning activities for the building.
2.	If there was stored packaged material, has there ever been a spill? *If No or N/A, this is a Simple Model. Stop.*		X	There has been no spill of radioactive or hazardous chemical material within these facilities. The only spill associated with the facilities occurred in 1987, when there was a spill of bromicide (bromochlorodimethylhydantoin) inside the 607-14D structure that overflowed to the exterior of the structure, releasing approximately 200 gallons of solution. Bromochlorodimethylhydantoin was not hazardous per 40CFR302.4. Due to the insignificant quantity and nature of the solution, there was no impact to the structure or the environment. EC&ACP has determined that a final survey is not required. EC&ACP determined that the nature of the chemicals used, the history of the facility and current facility condition do not warrant a final survey. **Building 607-14D and ancillary structures/appurtenances will be a Simple Model decommissioning.**
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)? *If Yes, this is a Simple Model. Stop.*			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? *If Yes, this is a CERCLA Model. Stop.*			N/A
5.	Is the facility listed as a Site Evaluation Area in Appendix G of the SRS FFA? *If Yes, this is a CERCLA Model. Stop.*			N/A
6.	Is there evidence that there has been a release of hazardous or radioactive materials outside the structure? *If Yes, this is a CERCLA Model. Stop.*			N/A
7.	Is there a substantial threat of a release of hazardous or radioactive materials outside the structure? *If Yes, this is a CERCLA Model. Stop.*			N/A
8.	Has the facility been assigned a hazard category as defined in Facility Safety Document Manual 11Q? *If No, stop and refer facility for evaluation to assign a hazard category, then proceed.*			N/A
9.	Is the hazard category Nuclear (HC- 2 or 3), radiological, or high hazard chemical? *If Yes, this is a CERCLA Model. Stop.*			N/A
10.	Has DOE-SR directed that the decommissioning be performed using the CERCLA Model? *If yes, this is a CERCLA Model. Stop.*			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? *If Yes, this is a CERCLA Model. Stop.*			N/A
12.	Is the facility a formerly nuclear, radiological, or high-hazard chemical facility? *If Yes, this is an Integrated Sampling Model. Stop.*			N/A
13.	Has EC&ACP's Regulatory Support Group determined that a final survey is not required for this facilty? *If Yes, this is a Simple Model. If No, this is an Integrated Sampling Model. Stop*			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	SRNS-RF-2008-00086-000-M&O	Revision 19-01-MO /Feb.14, 2019	Standard Requirements Identification System FA00 Facility List.
2	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
3	N/A	N/A / Since 1993	D-Area SIRIM and ORPS reports 08/1993 to 05/2009.
4	N/A	Final January 26, 2005	Savannah River Site's Cold War Built Environment Cultural Resources Management Plan
5	S-EHS-D-00001	Rev 0/ April 2006	D-Area Hazards Survey
6	Q-APG-D-00028	Rev 1/February 16, 2021	Baseline Asbestos Inspection Report of Building 607-15D
7	Q-APG-D-00024	Rev 1/February 11, 2021	Baseline Asbestos Inspection Report of Building 607-14D
8	Q-APG-D-00032	Rev 1/February 16, 2021	Baseline Asbestos Inspection Report of Building 607-12D
9	Q-APG-D-00034	Rev 1/February 16, 2021	Baseline Asbestos Inspection Report of Building 607-7D
10	Q-APG-D-00035	Rev 1/February 17, 2021	Baseline Asbestos Inspection Report of Building 607-2D
11	Q-APG-D-00041	Rev 0/February 16, 2021	Baseline Asbestos Inspection Report of D-Area Disinfection Pit
12	Q-APG-D-00033	Rev 1/February 17, 2021	Baseline Asbestos Inspection Report of 483-6D
13	*Water Research* PII: S0043-1354(98)00519-3	Issue 12, Revision 0/ August 1999, Pages 2735-2746	Modelling of Chlorine Decay in Municipal Water Supplies