

Decommissioning End Points Document Coal Handling Houses and Associated Facilities

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History of Revisions

Revision	Date	Revised Section	Change
0	10/06/2021	N/A	Initial Issue

1.0 Purpose and Scope

This document identifies the end points (and activities to achieve those end points) necessary to meet the Savannah River Site Coal Handling Houses and Associated Facilities decommissioning objective and end-state vision. It is an upper tier planning document to be used by the Project Manager for the development of project schedules and by the planning organization for the development of work packages.

The end points were developed using the checklist methodology¹, which is a logical, top-down, seven-step process for identifying end points. The process takes into account the initial condition of the facilities, the decommissioning end-state vision and objective, facility boundaries, and types of work to be performed (or considered). This Simple Model decommissioning scope (i.e., the before and after condition of the facility along with boundaries) is further defined by the Facility Decommissioning Evaluation (FDE) (Reference 6.1).

This document has been developed in accordance with the requirements found in the Facility Disposition Manual 1C, Procedure 505, “Preparing a Project Decommissioning Plan.”

2.0 Facility Description

The Coal Handling Houses decommissioning project consists of the following buildings and ancillary structures:

Coal Handling Houses:

- 484-24D Coal Handling Shaker House
- 484-22D Coal Handling Crusher House
- 484-21D Coal Handling Transfer House

Portable Buildings:

- 484-23D Coal Handling Breakroom Building (also known as [aka] SRS-PB-EX0032)
- SRS-PB-EX0033 Coal Handling Breakroom Building for Crusher House
- SRS-PB-EX0035 Storage Shed for Portable Equipment, Lube and Spare Parts

Coal Conveyor Systems:

- Conveyor No. 1 from Shaker House (484-24D) to Crusher House (484-22D)
- Conveyor No. 2 from Crusher House (484-22D) to Transfer House (484-21D)
- Conveyor No. 3 from Transfer House (484-21D) to Powerhouse (484-D)
- Conveyor No. 4 from Reclaim Hopper to Crusher House (484-22D)
- Conveyor No. 5 from Transfer House (484-21D) to Coal Pile (in 484-17D)

¹ See Reference 6.2 for additional information regarding the checklist method.

The complete coal handling system is located south of the 484-D Powerhouse at the Savannah River Site (SRS). The coal handling facilities consisted of three major structures (Coal Handling Shaker House [484-24D], Coal Handling Crusher House [484-22D], and Coal Handling Transfer House [484-21D]), as well as Track Hoppers, coal feeders, conveyors, chutes, coal crusher, magnetic pulleys, tripper car, Reclaim Hopper, and equipment to move the coal within the coal yard (i.e., front end loaders and bulldozers) (See Appendix A, Figures 1, 2, and 3). The 484-D Powerhouse ceased operation on April 10, 2012 and the deactivation process for all associated Powerhouse facilities (including the coal handling facilities) commenced shortly after that date. D-Area deactivation was completed on March 31, 2014.

The D-Area coal handling system supplied coal to the 484-D Powerhouse. The primary function of the 484-D Powerhouse was to provide steam and electric power for the 400-D Area, power for the 681-5G Pump House, to supplement standby power for all other SRS areas and to provide start-up power requirements in the 100 Areas. Since coal was the fuel source used to generate the power, a system of coal handling facilities was necessary to deliver the coal to the 484-D Powerhouse. The following descriptions are specific to these coal handling facilities.

Coal Handling Shaker House (484-24D): The starting point for coal handling began with the Coal Handling Shaker House (484-24D) and Track Hoppers beneath the building (See Appendix A, Figures 4 and 5). Coal was initially delivered by rail to the Track Hoppers where an electrically operated car shaker located in the Coal Handling Shaker House (484-24D) assisted emptying coal over the reciprocating plate feeders in the Track Hoppers. The Track Hoppers on the north side of the building were abandoned in place circa 1988 when coal delivery by rail was stopped in favor of delivery by trucks directly to the coal yard or the south Track Hoppers. The Coal Handling Shaker House (484-24D) consists of a steel I-beam framework with raised seam metal siding and roof panels, supported by a concrete foundation. The lofted floor level is constructed of steel plate flooring which is accessed by a steel staircase. The building was deactivated in May 2013 along with removal of the shaker equipment (Reference 6.12). As part of this deactivation, oil was drained from all gearboxes and all shaker equipment was removed.

The below grade stairwell and Track Hoppers shown in Appendix A, Figure 5 were filled with dirt and capped with clay under a D-Area work order and in conjunction with a South Carolina Department of Health and Environmental Control (SCDHEC) structural fill permit (Reference 6.12).

Coal Handling Breakroom Building (Building 484-23D, aka SRS-PB-EX0032): Adjacent to the Coal Handling Shaker House is Building 484-23D, Coal Handling Breakroom Building (See Appendix A, Figure 6). This building is a 12-foot (ft) x 16-ft prefabricated wood framework with metal siding and a metal roof portable building supported by non-grouted masonry blocks and wood blocks on a concrete slab. The building was formerly electrically powered and was supplied with an air conditioning unit. During deactivation of D-Area, Freon was removed from the air conditioning unit and properly disposed of prior to removal of the air conditioning unit itself. Fluorescent

lamps were also removed and all electricity to the building disconnected (Reference 6.12).

Conveyor No. 1: Conveyor No. 1 (See Appendix A, Figures 7 and 8) consisted of an underground portion that started at the Track Hoppers (See Appendix A, Figure 5) below the Coal Handling Shaker House (484-24D) and proceeded west through the concrete bunker where Conveyor No. 1 transitioned from underground to above ground to the Coal Handling Crusher House (484-22D). Appendix A, Figure 8 shows a photo of the cut section of Conveyor No. 1 (that took place in 2013 during deactivation of the coal handling facilities) and the concrete structure leading to the underground portion of Conveyor No. 1. The tunnel associated with Conveyor No. 1 was deactivated circa 2013. Deactivation of the tunnel included electrical disconnects, removal of all light bulbs, draining oil from gearboxes, washdown of the tunnel floors, removal of the washdown water, conveyor belts safely cut and left in place and the west end of the tunnel closed with a steel plate to prevent water and animal intrusion.

Coal Handling Crusher House (484-22D): Building 484-22D, the Coal Handling Crusher House (See Appendix A, Figures 9 and 10) was constructed circa 1953 and consists of a steel I-beam framework supported by a concrete slab and foundation. The exterior is finished with raised-seam metal siding and roof panels. The multi-level interior is constructed with steel plate flooring that is interconnected and accessed by a steel staircase. After the coal was delivered to the Coal Handling Shaker House (484-23D), it was transferred to the Coal Handling Crusher House (484-22D) via Conveyor No. 1. The coal was crushed at 484-22D via heavy equipment in that facility and then sent to the Coal Handling Transfer House (484-21D) via Conveyor No. 2 (See Appendix A, Figure 7). Coal from the Transfer House was either sent to the 484-D Powerhouse via Conveyor No. 3 or to the stockpile south of the Transfer House via Conveyor No 5. Coal from the stockpile was moved by front-end loader to the Reclaim Hopper where it was returned/sent to the Crusher House (484-22D) via Conveyor No. 4 to repeat the cycle of either going to the 484-D Powerhouse or returning to the stockpile.

Conveyor No. 4: A section of the above ground portion of Conveyor No. 4 was removed, and the tunnel was closed with a steel plate to prevent water and animal intrusion after deactivation (See Appendix, A Figure 11). The tunnel along with the Reclaim Hopper were deactivated circa 2013. Deactivation of the tunnel and Reclaim Hopper included electrical disconnects, removal of all light bulbs, draining oil from gearboxes, washdown of the tunnel floor, removal of the washdown water, and conveyor belts safely cut and left in place.

Reclaim Hopper: The Reclaim Hopper is located at the south end of the Conveyor No. 4 tunnel (See Appendix A, Figure 3). The gear box for the Reclaim Hopper was de-energized and drained of oil which was properly disposed of. Light bulbs were removed and properly disposed of. The below grade structure of the Reclaim Hopper was filled with dirt and capped with clay under a D-Area work order and in conjunction with a SCDHEC structural fill permit (Reference 6.12).

SRS-PB-EX0033 Coal Handling Breakroom Building for Crusher House: Adjacent to the 484-22D Crusher House are two smaller buildings identified as SRS-PB-EX0033 and SRS-PB-EX0035 (See Appendix A, Figures 12 and 13, respectively). SRS-PB-EX0033 is a 12-ft x 16-ft prefabricated wood framework with metal siding and a metal roof building supported by non-grouted masonry blocks and wood blocks on a concrete slab. The building was formerly electrically powered but had no air conditioning. During the deactivation of D-Area all electricity to the building was disconnected.

SRS-PB-EX0035 Storage Shed for Portable Equipment, Lube and Spare Parts: This storage shed (See Appendix A, Figure 13) is an approximately 10-ft x 5-ft open faced structure comprised of a metal framework, corrugated metal on three sides and the roof. The structure is mounted on an affixed metal pallet and has no electricity or plumbing.

Conveyer No. 2: Conveyer No. 2 carried coal from the Coal Handling Crusher House (484-22D) to the Coal Handling Transfer House (484-21D) (See Appendix A, Figures 3 and 7).

Conveyer No. 3: Conveyer No. 3 carried coal from the Coal Handling Transfer House (484-21D) to the Powerhouse (484-D) (See Appendix A, Figures 3, 16, and 17).

Coal Handling Transfer House (484-21D): Building 484-21D, the Coal Handling Transfer House (See Appendix A, Figures 14 and 15) was constructed circa 1953 and consists of a steel I-beam framework supported by a concrete slab and foundation. The exterior is finished with raised-seam metal siding and roof panels. The multi-level interior is constructed with steel plate flooring that is interconnected and accessed by a steel staircase. Coal was received via Conveyer No. 2 in the Transfer House from the Coal Handling Crusher House. In the Transfer House Conveyer No. 2 discharged coal to either Conveyer No. 3 or Conveyer No. 5. Conveyer No. 3 carried coal to the 484-D Powerhouse. Conveyer No. 5 sent coal back to the coal storage yard south of the Transfer House. Coal was reclaimed from the storage yard by bulldozer or front-end loader that dumped or pushed the coal into the Reclaim Hopper located south of the Crusher House. Coal emptied into the Reclaim Hopper was carried back to the Crusher House via Conveyer No. 4 to repeat the process of feeding the crusher and sending it on to the Transfer House.

Conveyer No. 5: Conveyer No. 5 carried coal from the Coal Handling Transfer House (484-21D) back to the stockpile in the 484-17D Coal Yard (See Appendix A, Figures 3 and 14).

D-Area power has been globally disconnected from the electrical grid, thereby rendering all subject facilities electrically “cold & dark”. All 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 and/or removed altogether.

3.0 End State Vision

The proposed decommissioning end state of the underground structures of these facilities, which have no defined or anticipated future mission, is demolition of the tops of the concrete structures/tunnels for Conveyor No. 1 and Conveyor No. 4, removal and appropriate disposition of the conveyors for Conveyor No. 1 and Conveyor No. 4, removal of the remnants of the Track Hoppers at the east end of Conveyor No. 1, and removal of the remnants of the Reclaim Hopper at the south end of Conveyor No. 4. The remaining concrete structure for Conveyor No. 1 tunnel and Conveyor No. 4 tunnel along with the Track Hoppers and Reclaim Hopper shall remain. The floors of the tunnels for Conveyor No. 1 and Conveyor No. 4 will be penetrated at their low points to allow water drainage, and then, along with the Track Hoppers and Reclaim Hopper, will be refilled with concrete debris, rip-rap, stone (minimum of 3 ft.), excavated dirt and augmented with additional fill as may be required to bring them to grade.

The proposed decommissioning end-state for the above grade structures of these facilities, including any additional above ground appurtenances (such as valve handles, hydrants, bollards, electrical junction boxes, etc.), which have no defined or anticipated future mission, is demolition to the structures' slabs, or to grade, as appropriate, with the exception of Conveyor No. 3 which will be decommissioned only up to the tower shown in Appendix A, Figures 16 and 17. The remainder of Conveyor No. 3 will be included with the 484-D Powerhouse at the time of D-Area Operable Unit final remediation or sooner. Electrical boxes encountered in the area shall be filled to the top with gravel/stone and the caps reinstalled. All coarse debris will be removed from the slabs. All concrete slab penetrations greater than 2" in diameter will be cut off level with the slab, plugged and grouted in accordance with Reference 6.3. Slab protrusions will be cut off flush with the slabs. Any stains identified on the concrete slabs during decommissioning will be pressure washed and/or cleaned with a strong surfactant, such as BioSolve™, as part of the decommissioning activities for these facilities.

The end state vision for the current Coal Handling Houses and ancillary remnants is further defined by the following statements:

- The end-state does not correspond to a "new waste unit."
- The end-state will have no remaining debris.
- The end-state will have no remaining physical hazards. The facility is not in a pedestrian heavily trafficked area, so the slightly elevated slabs will pose no additional risks to the Site workers. No additional barricades or sloping will be required.
- The end-state requires no long-term stewardship activities.

4.0 Objective and Major Activities

The overall objective of this decommissioning is to place the Coal Handling Houses and Associated Facilities and ancillary remnants, in a safe, stable, and low-cost end state that supports "area closure/completion." In other words, the decommissioning objective is threefold: (1) to reduce the risks to workers, the public and/or environment from residual

chemical, biological, or physical hazards, (2) to minimize future S&M costs for the facility, and (3) to facilitate future “area closures/completion” actions by Environmental Compliance & Area Completion Projects (EC&ACP) personnel.

To meet the overall objectives, the following major activities (MAs) are required:

1. Complete preparatory operations including completing the Engineering Survey (Reference 6.4).
2. Eliminate or reduce hazards
3. Perform dismantlement and removal activities.
4. Perform demolition activities.
5. Complete project closure activities.

Appendix B further defines the decommissioning activities and provides corresponding end points for each activity.

5.0 End Point Determination and Management

The decommissioning end points were derived based on a review of (1) existing facility documents, (2) subsequent walk downs of the facilities, and (3) the strategy to execute decommissioning by using Savannah River Nuclear Solutions (SRNS) site personnel, subcontractor personnel, or a combination thereof. (See Section 6.0 for reference documents used to develop the decommissioning end points for this project.)

Appendix A provides a layout of the structures to be decommissioned. Because they are relatively simple, the structures are handled as a single workspace (Zone A).

As required by SRS Manual 1C, Procedure 506, EC&ACP will verify the completion of each decommissioning end point. That verification will be documented in a final decommissioning report. Documentation will include the Appendix B end points along with objective evidence (e.g., reference documents, interviews, or visual inspection) that the end points are complete.

The project planner is expected to adapt the end points selectively to the structures within this scope.

6.0 References

- 6.1 W. B. Griffin, “Facility Decommissioning Evaluation, D-Area Coal Handling Houses and Associated Facilities”, G-FDE-D-00057, Rev. 0, dated August 24, 2021.
- 6.2 V. R. Fricke, “Choosing End-Points Using the Checklist Method”, FDD-ENG-2001-00041, dated April 16, 2001.
- 6.3 “Site D&D Policy on Decommissioning End Points for Slabs, Pits, Basements and Basins (U)”, SDD-2005-00170, Rev. 2, dated October 22, 2020.

- 6.4 W. B. Griffin, “Engineering Survey & Interference Report for Coal Handling Houses and Associated Facilities”, Q-SDD-D-00020, Rev. 0, dated September 15, 2021.
- 6.5 Heath McGregor, “Environmental Compliance & Area Completion Projects Baseline Asbestos Inspection Report of Building 484-21D”, also includes Conveyor No. 3 and Conveyor No. 5, Q-APG-D-00001 Revision 1, dated April 14, 2021.
- 6.6 Heath McGregor, “Environmental Compliance & Area Completion Projects Baseline Asbestos Inspection Report of Building 484-24D”, Q-APG-D-00002 Revision 2, dated April 14, 2021.
- 6.7 Heath McGregor, “Environmental Compliance & Area Completion Projects Baseline Asbestos Inspection Report of Building 484-23D (aka SRS-PB-EX0032)”, Q-APG-D-00042 Revision 1, dated April 14, 2021.
- 6.8 Heath McGregor, “Environmental Compliance & Area Completion Projects Baseline Asbestos Inspection Report of Building 484-22D” also includes Conveyor No. 1, Conveyor No. 2, and Conveyor No. 4, Q-APG-D-00003 Revision 1, dated April 14, 2021.
- 6.9 Heath McGregor, “Environmental Compliance & Area Completion Projects Baseline Asbestos Inspection Report of Building SRS-PB-EX0033”, Q-APG-D-00043 Revision 0, dated February 25, 2021.
- 6.10 Heath McGregor, “Environmental Compliance & Area Completion Projects Baseline Asbestos Inspection Report of Building SRS-PB-EX0035”, Q-APG-D-00045 Revision 0, dated March 9, 2021.
- 6.11 B. M. Montgomery, “Closeout of Verification Document For Building 484-D Powerhouse And Ancillary Buildings”, E-SDD-D-00002, Rev. 0, dated August 17, 2020.
- 6.12 J. Parker, “Deactivation Project Final Report Building 484-D Powerhouse and Auxiliary Buildings”, V-PCOR-D-00042 Revision 0, dated July 1, 2014.

LISTING OF APPENDICES

- A- General Layout and Interfacing Facilities
- B- Listing of End Points and/or End Point Activities Along with Completion Verification

Appendix A – General Layout and Interfacing Facilities

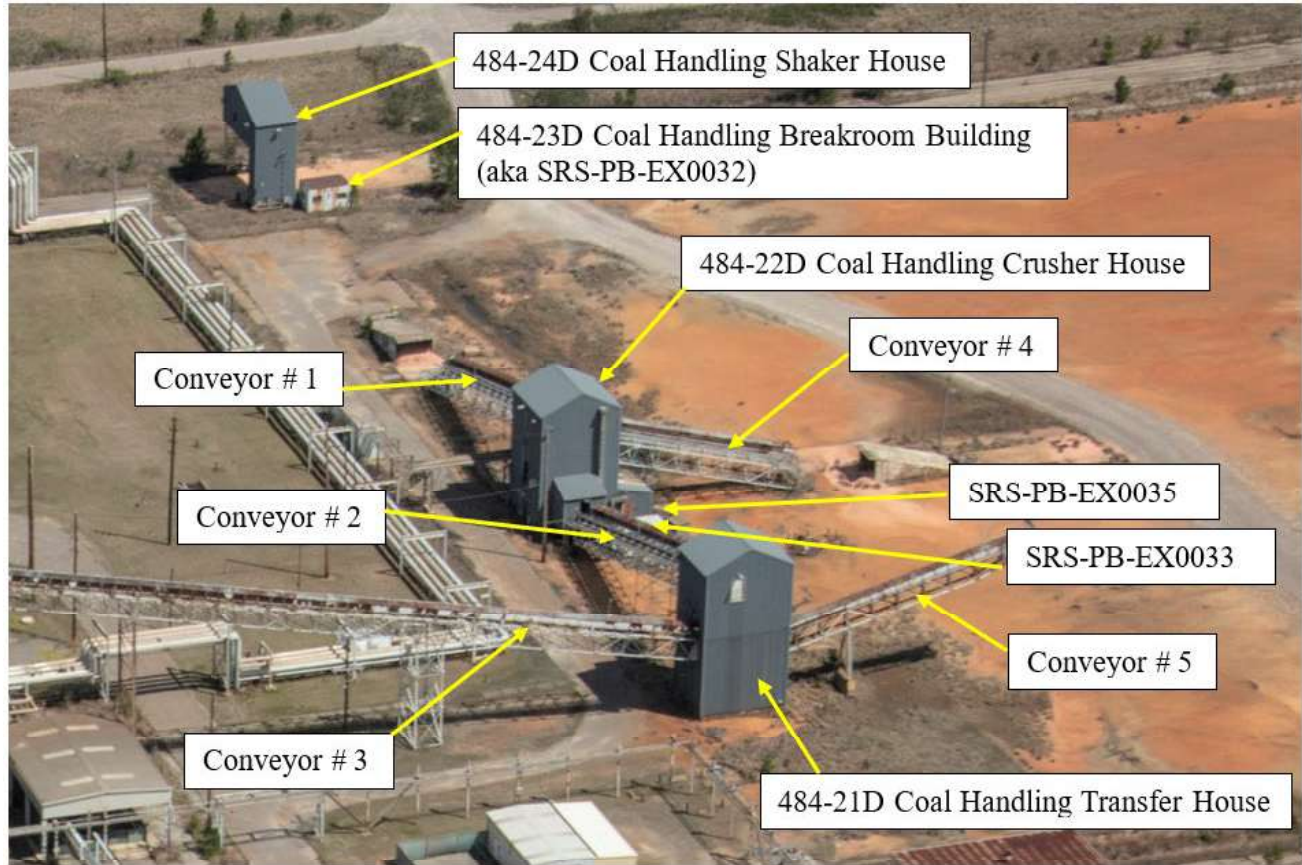


Figure 1. Aerial View of the Coal Handling Houses and Associated Facilities

Appendix A – General Layout and Interfacing Facilities (Continued)

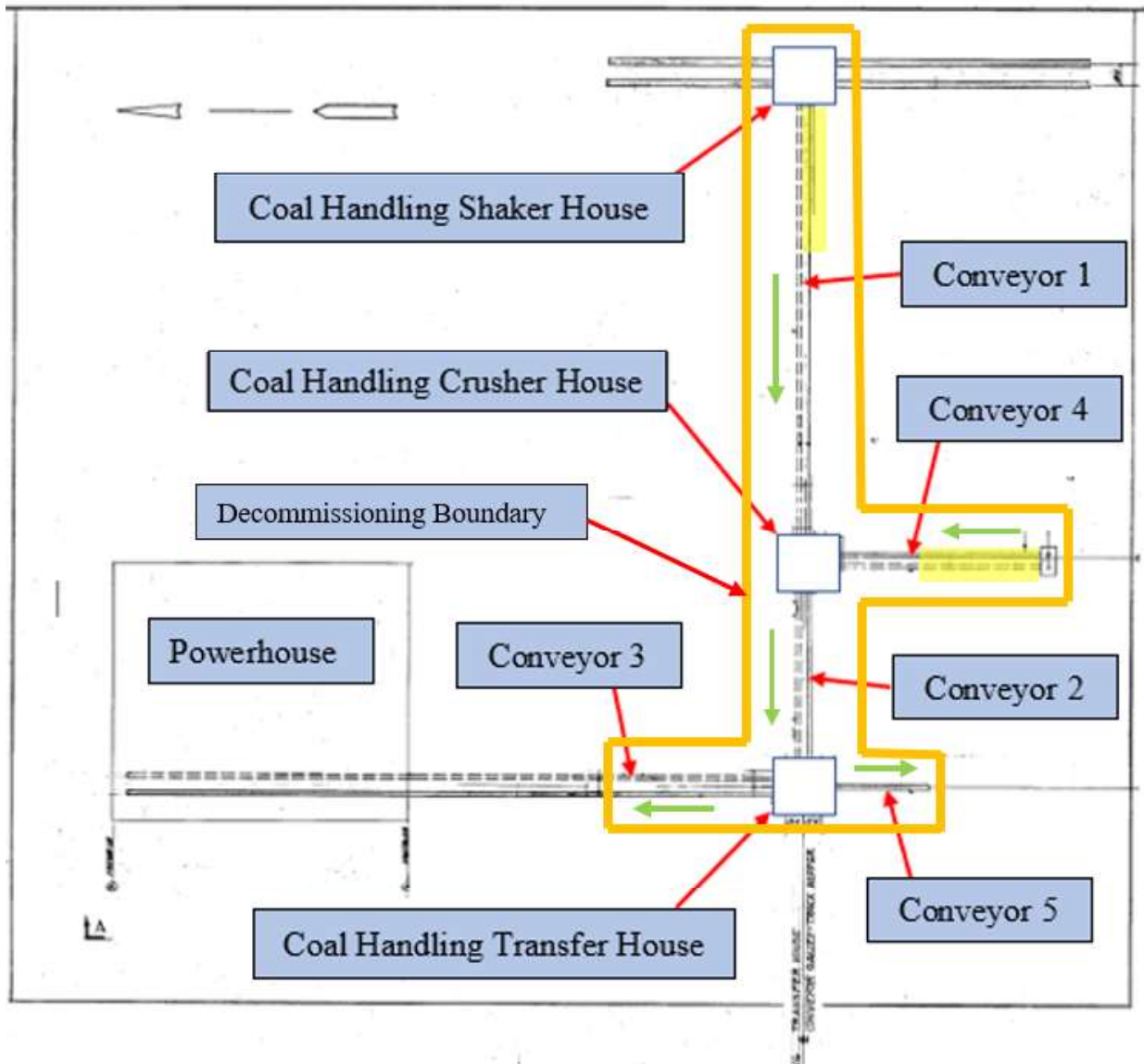
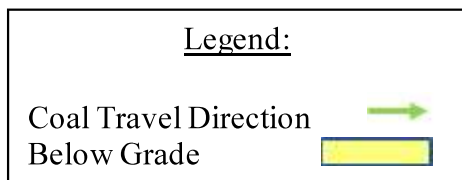


Figure 2. Coal Handling Facilities Plot Plan and Decommissioning Boundary



Appendix A – General Layout and Interfacing Facilities (Continued)

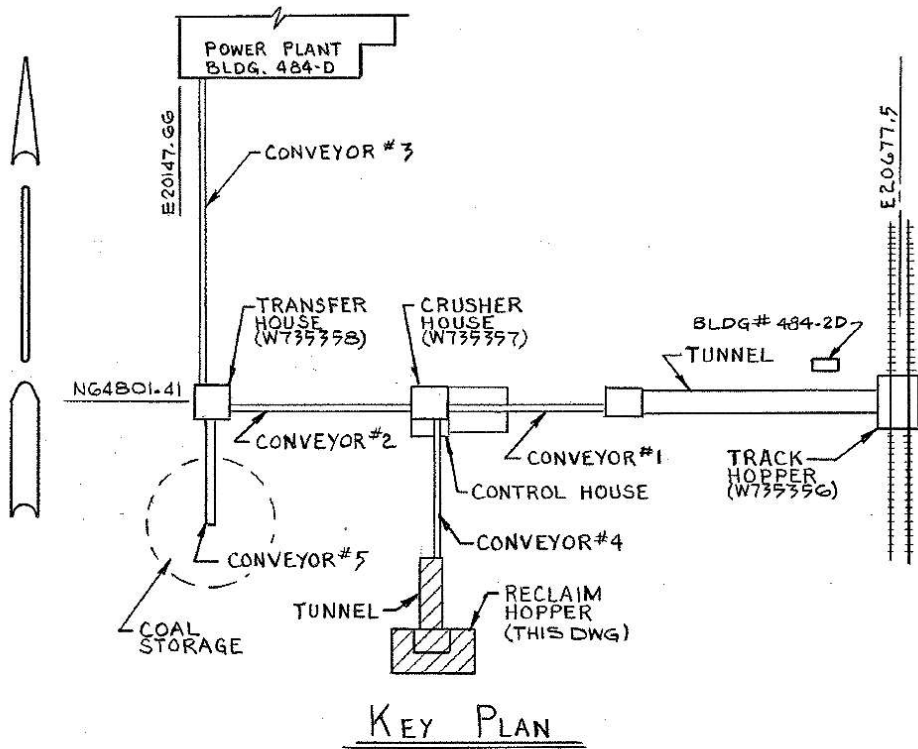


Figure 3. Overview of Facilities, Conveyors, Tunnels and Reclaim Hopper

Appendix A – General Layout and Interfacing Facilities (Continued)



Figure 4. 484-24D Coal Handling Shaker House

Appendix A – General Layout and Interfacing Facilities (Continued)



Figure 6. 484-23D Coal Handling Breakroom Building (aka SRS-PB-EX0032)

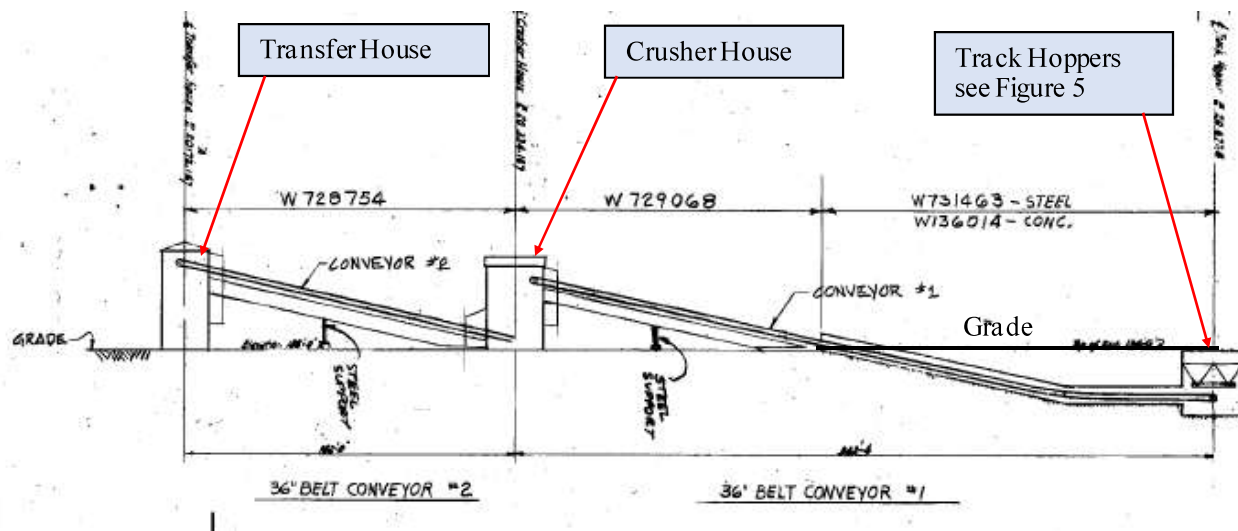


Figure 7. Conveyors No. 1 and No. 2

Appendix A – General Layout and Interfacing Facilities (Continued)



Figure 8. Conveyor No. 1 (cut) and Bunker Entrance to Conveyor No. 1 Tunnel

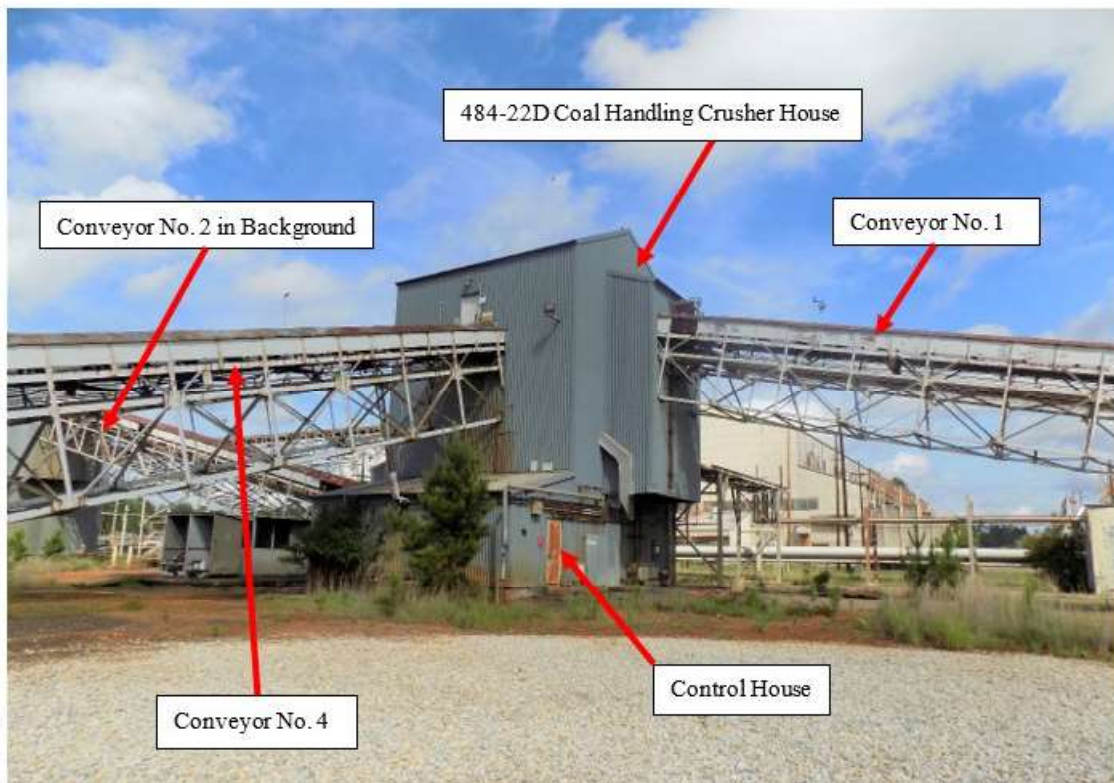


Figure 9. 484-22D Coal Handling Crusher House Looking North from 484-17D Coal Yard

Appendix A – General Layout and Interfacing Facilities (Continued)

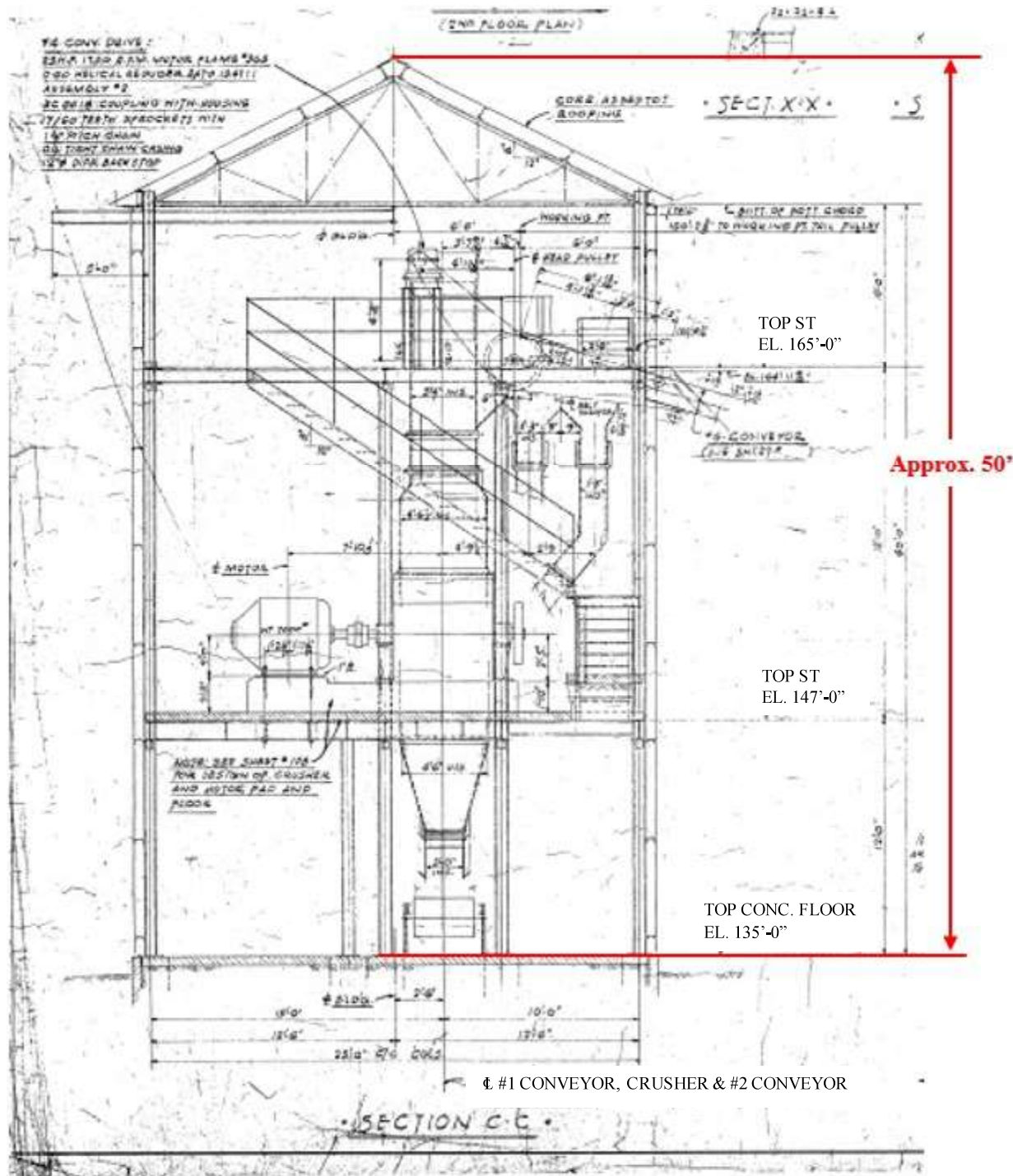


Figure 10. 484-22D Coal Handling Crusher House Interior Arrangement

Appendix A – General Layout and Interfacing Facilities (Continued)



Figure 11. Concrete Bunker Entrance to Conveyor No. 4 Tunnel



Figure 12. SRS-PB-EX0033 Coal Handling Breakroom Building for Crusher House

Appendix A – General Layout and Interfacing Facilities (Continued)



Figure 13. SRS-PB-EX0035 Storage Shed for Portable Equipment, Lube and Spare Parts

Appendix A – General Layout and Interfacing Facilities (Continued)

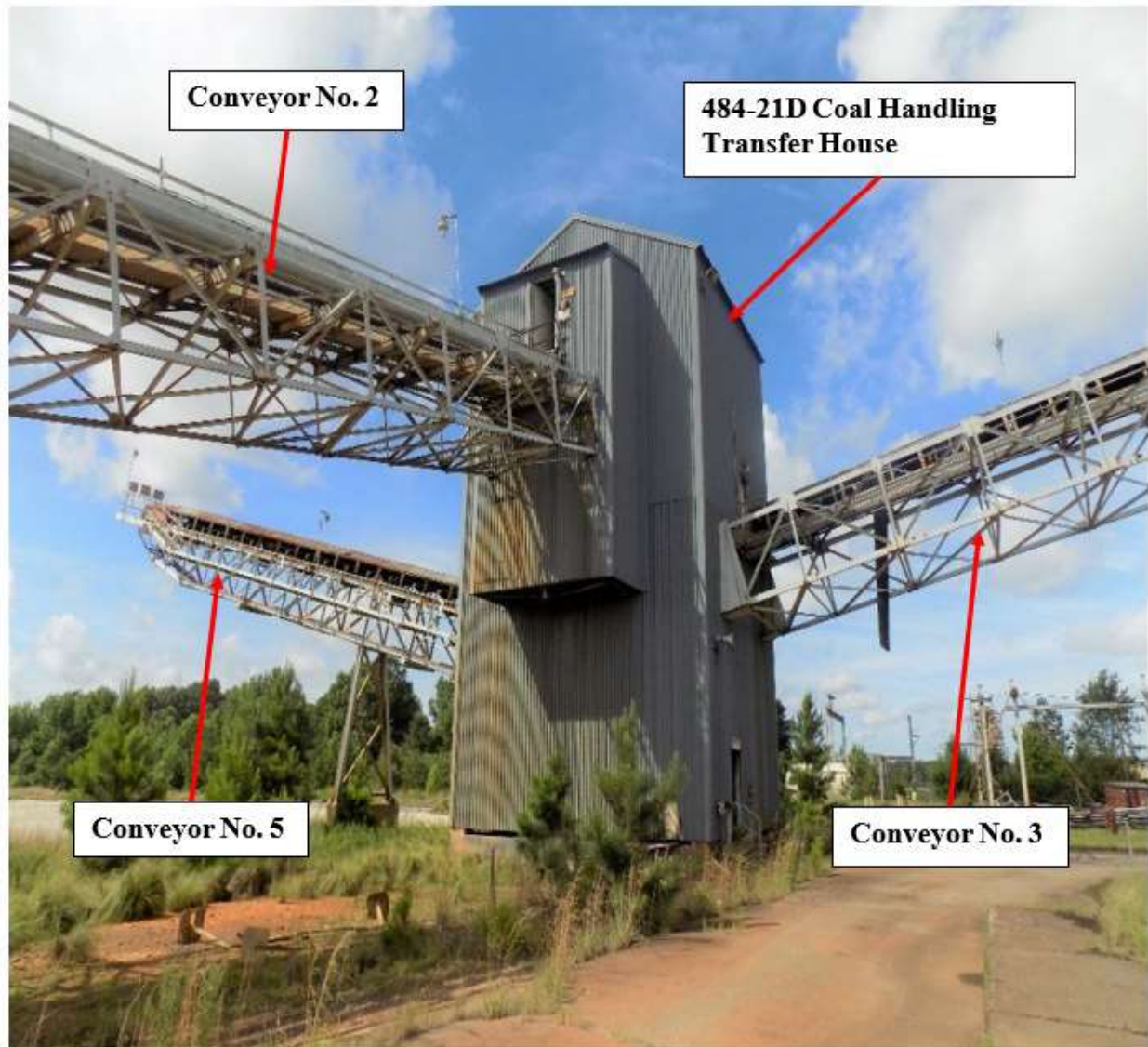


Figure 14. 484-21D Coal Handling Transfer House and Related Conveyors No. 2, 3, & 5

Appendix A – General Layout and Interfacing Facilities (Continued)

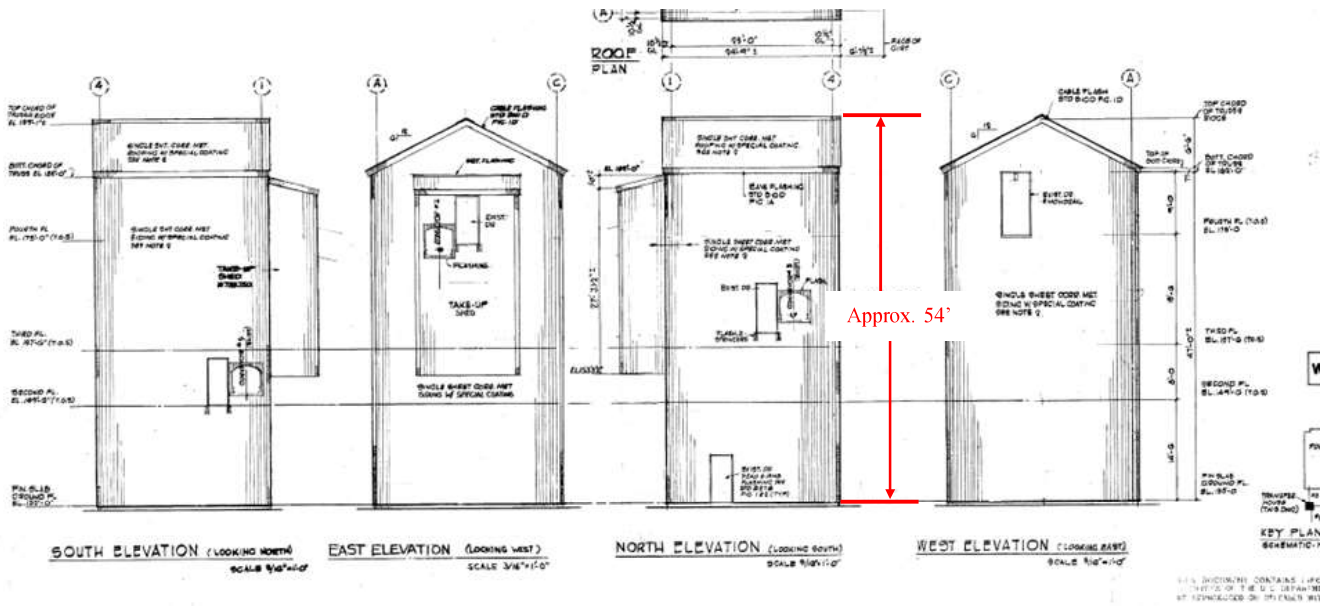
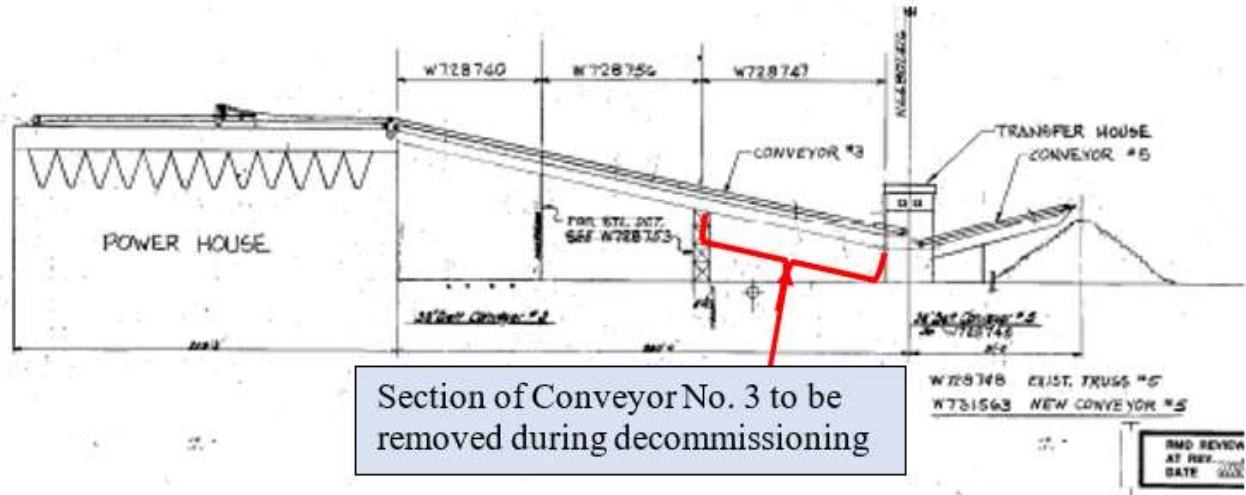


Figure 15. 484-21D Coal Handling Transfer House Exterior Architectural Views

Appendix A – General Layout and Interfacing Facilities (Continued)



Section of Conveyor No. 3 to be removed during decommissioning

Figure 16. Section of Conveyor No. 3 to be Decommissioned as Part of This Project



484-21D Coal Handling Transfer House

Section of Conveyor No. 3 to be removed during decommissioning

Figure 17. Section of Conveyor No. 3 to be Decommissioned as Part of This Project

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

<u>End Point#</u>	<u>Activity</u>	<u>Endpoint</u>	<u>Verification Method</u>
Section 1 COMPLETE PREPARATORY OPERATIONS			
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
MA – 1.2	Submit Site Clearance Permit for a approval.	Site Clearance Permit approved.	Document Review
MA – 1.3	Prepare and submit request for screening of real property for disposition.	Building and equipment, as applicable, have been declared excess.	Document Review
MA – 1.4	Update all property systems, Master Building List (MBL) and the Financial Information System (FIS).	Systems have been updated.	Interview EC&ACP & SI Property Managers, as applicable
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
MA – 1.6	Perform facility inspections for asbestos containing materials and issue the required reports.	Building Inspection Reports are issued.	Document Review
MA – 1.7	Perform an Engineering Survey and Interference Report.	Engineering Survey is issued.	Document Review
MA – 1.8	Conduct Readiness Review.	Readiness Review is complete.	Document Review
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
MA – 2.2	Remove and dispose of hazardous materials, as applicable.	Hazardous materials are dispositioned.	Document Review
MA – 2.3	Prepare and submit notice of asbestos disturbance if any asbestos is identified. Obtain Asbestos License(s) as required.	Asbestos abatement project license(s) is/are received, if any asbestos is identified.	Document Review
MA – 2.4	Complete asbestos abatement actions per the asbestos reports (References 6.5 - 6.10).	Asbestos abatement is complete if any asbestos is identified.	Document Review
MA – 2.5	Complete any remaining deactivation activities.	All deactivation activities are completed.	Visual Verification
Section 3 PERFORM DISMANTLEMENT AND REMOVAL ACTIVITIES			
MA – 3.1	Remove any remaining loose miscellaneous materials and equipment.	Buildings are free of loose miscellaneous materials and equipment.	Visual Verification

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

<u>End Point#</u>	<u>Activity</u>	<u>Endpoint</u>	<u>Verification Method</u>
Section 4 PERFORM DEMOLITION ACTIVITIES			
MA – 4.1	Obtain demolition permit(s) as required by South Carolina Codes and Regulations, SC Reg. R61-86.1 Section XIII, for demolition of 484-24D, 484-22D, 484-21D and remnants Conveyors No. 1-5, 484-23D (aka SRS-PB-EX0032), SRS-PB-EX0033, and SRS-PB-EX0035.	Demolition license(s) is/are received.	Document Review
MA – 4.2	Take precautions to minimize interference with roads and other facilities.	Traffic plan is issued, if required.	Document Review
MA – 4.3	Take precautions to preserve any stakes, monuments, or benchmarks.	If applicable, stakes, monuments or benchmarks are protected.	Document Review
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.	Document Review
MA – 4.5	Demolish and remove Building 484-23D (aka SRS-PB-EX0032) down to, but not including the concrete slab. The concrete slab shall be handled with the demolition and removal of the Building 484-24D Coal Handling Shaker House.	Concrete slab is free of specified elements.	Visual Observation
MA – 4.6	Demolish and remove Building 484-24D, Coal Handling Shaker House, structure (including all appurtenances) down to, but not including its concrete floor slab. Cut off and remove any above slab metal extrusions. Pressure wash and/or clean the concrete slab using a strong surfactant, such as “Biosolve™”, if required.	Building concrete slab is free of debris, stains, and above slab metal extrusions.	Visual Observation
MA - 4.7	Remove and properly dispose of the remnants of the north and south Track Hoppers located beneath the Coal Handling Shaker Building and east of the Conveyor No. 1 tunnel. Excavate and remove the dirt/soil in the Track Hoppers to facilitate removal of the Track Hopper remnants. The excavated soil may be placed in a location near the Track Hoppers to be placed back in the Track Hopper location once all remnants have been removed. Penetrate Track Hopper floor to ensure future water infiltration has an exit point. After verifying remnant removal, Track Hoppers shall be refilled with any removed concrete debris (minus rebar), rip-rap, stone (minimum of 3 ft.), previously excavated dirt and any dirt/common fill required to bring the area up to grade. Compact the fill as necessary to prevent future settling.	Track Hoppers are free of remnants, floor has been penetrated at its low point and the Hoppers have been filled and compacted to grade.	Visual Observation

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

End Point#	Activity	Endpoint	Verification Method
Section 4 PERFORM DEMOLITION ACTIVITIES (Continued)			
MA – 4.8	Excavate and remove the dirt cover over the underground portion of Conveyor No. 1. Demolish and remove the concrete cap, including the bunker entrance, over the underground portion of Conveyor No. 1 down to, but not including its concrete floor slab or underground concrete sides. Remove the conveyor and all its components from the tunnel and dispose of in accordance with SRNS guidelines. Penetrate the conveyor tunnel floor at its low point to ensure future water infiltration has an exit point.	Conveyor No. 1 tunnel is free of the conveyor belt and all its components. Tunnel floor has been penetrated to allow an exit location for any future water infiltration. Conveyor debris and components have been disposed of in accordance with SRNS guidelines.	Visual Observation
MA - 4.9	Segregate rebar to the extent practical from concrete cap debris and place concrete debris (minus rebar to the extent practical) back in the Conveyor No. 1 tunnel. Dispose of the rebar and any concrete containing rebar in accordance with SRNS guidelines. Continue filling the tunnel with rip-rap, stone (minimum of 3 ft.), previously excavated dirt and any additional dirt/common fill material as required to bring the area to grade. Compact the fill material as necessary to prevent future settling.	Conveyor No. 1 tunnel has been filled and compacted to grade. Ensure rebar and concrete containing debris have been removed and properly disposed of.	Visual Observation
MA - 4.10	Demolish and remove the above ground portion of Conveyor No. 1 to the Coal Handling Crusher House (484-22D), down to, but not including its concrete supports or slab as appropriate. Asbestos roof panels must be removed prior to conveyor system demolition.	Conveyor No. 1 concrete foundations/supports are free of debris and above slab metal extrusions.	Visual Observation
MA – 4.11	Demolish and remove Conveyor No. 2 from the Crusher House (484-22D) to the Transfer House (484-21D) but not including either of the subject Coal Handling Houses as applicable. Asbestos roof panels must be removed prior to conveyor system demolition.	Conveyor No. 2 has been removed between the Crusher House (484-22D) and the Transfer House (484-21D).	Visual Observation
MA – 4.12	Demolish and remove Buildings SRS-PB-EX0033, Coal Handling Breakroom for Crusher House and SRS-PB-EX0035, Storage Shed for Portable Equipment, Lube and Storage Equipment down to, but not including their concrete slabs. Cut off and remove any above slab metal extrusions. Pressure wash and/or clean slabs using a strong surfactant, such as “Biosolve™”, if required.	Concrete slabs are free of debris, stains, and above slab metal extrusions.	Visual Observation

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

End Point#	Activity	Endpoint	Verification Method
Section 4 PERFORM DEMOLITION ACTIVITIES (Continued)			
MA – 4.13	Demolish and remove the Building 484-22D, Coal Handling Crusher House structure (including the Control House and all appurtenances) down to, but not including the concrete floor slab. Cut off and remove any above slab metal extrusions. Pressure wash and/or clean the concrete slab using a strong surfactant, such as “Biosolve™”, if required.	Building concrete slab is free of debris, stains, and above slab metal extrusions.	Visual Observation
MA – 4.14	Demolish and remove the concrete cap for the underground portion of Conveyor No. 4, including the bunker entrance, down to, but not including its concrete floor slab or underground concrete sides. Remove the conveyor and all its components from the tunnel and dispose of in accordance with SRNS guidelines. Penetrate the conveyor tunnel floor at its low point to ensure future water infiltration has an exit point.	Conveyor No. 4 tunnel is free of the conveyor belt and all its components. Tunnel floor has been penetrated to allow an exit location for any future water infiltration. Conveyor debris and components have been disposed of in accordance with SRNS guidelines.	Visual Observation
MA – 4.15	Remove and properly dispose of the remnants of the Reclaim Hopper located at the south end of the Conveyor No. 4 tunnel. Excavate and remove the dirt/soil in the Reclaim Hopper to facilitate removal of the Reclaim Hopper remnants. The excavated soil may be placed in a location near the Reclaim Hopper or in an area designated by SRNS to be placed back in the Reclaim Hopper location once all remnants have been removed. Penetrate the Reclaim Hopper floor to ensure future water infiltration has an exit point. The Reclaim Hopper shall be refilled with any removed concrete debris (minus rebar), rip-rap, stone (minimum of 3 ft.), previously excavated dirt and any dirt/common fill required to bring the area up to grade. Compact the fill as necessary to prevent future settling.	Reclaim Hopper is free of remnants, floor has been penetrated at its low point and the Reclaim Hopper has been filled and compacted to grade.	Visual Observation
MA – 4.16	Demolish and remove the above ground portion of Conveyor No. 4 to the Coal Handling Crusher House (484-22D), down to, but not including its concrete supports or slab as appropriate. Asbestos roof panels must be removed prior to conveyor system demolition.	Conveyor No. 4 concrete foundations/supports are free of debris and above slab metal extrusions.	Visual Observation

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

End Point#	Activity	Endpoint	Verification Method
Section 4 PERFORM DEMOLITION ACTIVITIES (Continued)			
MA – 4.17	Demolish and remove only the section of Conveyor No. 3 between the 484-21D, Coal Handling Transfer House and the first tower support shown in Appendix A, Figures 16 and 17 down to, but not including the tower or the Coal Handling Transfer House (484-21D), its concrete slab or to grade as applicable. Asbestos roof panels must be removed prior to Conveyor No. 3 section demolition and removal.	The specified section of Conveyor No. 3 has been removed and its support tower remains intact along with the section of the Conveyor No. 3 from the tower support to the 484-D Powerhouse.	Visual Observation
MA – 4.18	Demolish and remove Conveyor No. 5 from the Transfer House (484-21D) as applicable. Asbestos roof panels must be removed prior to Conveyor No. 5 demolition and removal.	Conveyor No. 5 has been removed from the Transfer House (484-21D).	Visual Observation
MA – 4.19	Demolish and remove the Building 484-21D, Coal Handling Transfer House, structure (including all appurtenances) down to, but not including its concrete floor slab. Cut off and remove any above slab metal extrusions. Pressure wash and/or clean the concrete slab using a strong surfactant, such as “Biosolve™”, if required.	Building concrete slab is free of debris, stains, and above slab metal extrusions.	Visual Observation
MA – 4.20	Fill electrical boxes located in the area to their tops with /stone and reinstall their caps.	Electrical boxes have been filled with their caps reinstalled.	Visual Observation
MA - 4.21	Cut off all electrical conduit and piping penetrations flush with the top of the slabs or ground level, as applicable, and seal with grout if greater than 2” diameter.	Slab penetrations have been cut flush with top of concrete slabs or ground level, as applicable, and grouted.	Visual Observation
MA - 4.22	Plug and seal any resulting holes with grout if greater than 2” diameter.	Resulting holes have been plugged/grouted, if greater than 2” diameter.	Visual Observation
MA - 4.23	Cut all above ground appurtenances such as valve handles, hydrants, bollards, etc., and any remaining concrete surface protrusions (e.g., bolts, rebar, etc.) level with the concrete slabs or to grade, whichever applies.	All above ground and concrete surface protrusions have been cut level with the concrete slabs or to grade, whichever applies.	Visual Observation
MA - 4.24	Perform a Final Acceptance Inspection (FAI-51) (8Q-51) of the completed work.	Final Acceptance Inspection (FAI-51) completed and recorded (8Q-51).	Visual Observation and Document Review
MA – 4.25	Remove from jobsite and dispose of all equipment, rubble, sanitary waste, scrap metal, and trash as the work progresses.	Jobsite equipment and waste dispositioned.	Document Review and Visual Observation

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

End Point#	Activity	Endpoint	Verification Method
Section 5 COMPLETE PROJECT CLOSURE ACTIVITIES			
MA – 5.1	Ensure all Work Packages have been completed.	Work Packages are complete.	Document Review
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 Procedure 3.02.	Request for Site Clearance Permit Closure is issued.	Document review.
MA – 5.3	Issue correspondence for retirement of assets.	Property Record Closeout letter is issued and recorded in the project file.	Document Review
MA – 5.4	Issue correspondence for deletion (voiding) of engineering documents.	Records Disposition letters for Buildings 484-24D, 484-22D, and 484-21D are issued and recorded in the project file.	Document Review
MA – 5.5	Revise (by Site Infrastructure Engineering) technical baseline documents, as appropriate, which cannot be voided.	Appropriate technical baseline documents have been revised.	Document Review
MA – 5.6	Prepare and issue Completion of Decommissioning End Points (CDEP) document.	CDEP document has been issued.	Document Review
MA – 5.7	Prepare and issue Decommissioning Project Final Report (DPFR)	DPFR is issued.	Document Review

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: **TERRONEZ, MANUEL I.**

Department: **E1500 - EC&ACP ENGINEERING**

I hereby grant my authority to **CROSBY, STUART A.** for the period of **Oct 13, 2021** to **Oct 19, 2021**. For signature authority, a copy of this delegation will be attached to all documents signed on my behalf.