SRNL-L7430-2021-00105

Minor
OPERATION AND MAINTENANCE
Activity Plan

– 503-2A Diesel Generator Replacement –
Site Indices - 131, 387, 449, 510 and 562

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1. INTRODUCTION

This Operations and Maintenance (O&M) Plan describes the work necessary to construct a new diesel generator platform to be installed per Hydro Redd Team approved fabrication drawings and redline RL-SRNL-Y791-2021-002. The platform is being installed to allow access to service the generator.

Installation of the new stair platform and supports will require excavation inside and within 200 feet of RCRA/CERCLA waste units.

This activity will occur in Site Index (SIs): 131 (SRNL 904-A Process Trench, 904-A and SRNL Mixed Waste Storage Tanks, 776-A) and 562 (A-Area process sewer lines as abandoned). SIs are also called RCRA/CERCLA Units. These SIs are in the Assessment Phase.

The excavation is also within 200 feet of SIs, 387 (Spill on 12/01/71 of 1000 Gal of Rad Water from SRNL) and 510 (Upper Three Runs integrator operable unit (including Tims branch)). These SIs are still in the Assessment Phase.

Work will occur within 200 feet of SI, 449 (Spill on 09/01/85 of <1 lb of mercury from 748-A, NBN). Remedial activities are complete for this SI and no contamination is expected to be present.

This plan is characterized as “minor intrusive activity” based on the soil excavation meeting the definition of both “minor” and “intrusive” as defined in Reference 2.

2. AREA DESCRIPTION AND CONDITIONS

The area in which the activity will be conducted is in the drainage basin of NPDES-Permitted Industrial Wastewater Outfall A-01 which discharges to Tims Branch Creek. The location of the excavations is shown as the blue area in the drawing in Attachment 1, which also shows the nearby SIs as red areas. A photo of the physical location is provided in Attachment 4. There are numerous large structures in the A-01 drainage basin, Attachment 3.

For a discussion of the SIs, see “Revision 0 for Appendix C for Fiscal Year 2021” of Reference 1. The location of the work is shown in the western portion of the A-01 Outfall Map provided in Attachment 2 and on the aerial image in Attachment 3. The SIs listed above are identified in the, “WSRC-OS-94-42, Federal Facility Agreement” (FFA), because of possible radiological or chemical contamination from past releases from A-Area operations.

To date, there has been no remediation of the following units and the current status of the units is inactive. Per Appendix E of Reference 1, “Remedial Actions” (RA) are scheduled to begin in January 2040 for SIs 131, 387 and 562. RA start date for SI 510 is December 2063.

Remedial activities are complete for SI 449.

3. O & M ACTIVITY

A. O&M Activity Description

Construction will hand-excavate soil to a depth of less than 8 inches to install concrete piers and an approximately 4'2" x 9'6"concrete pad for a stair platform to provide access to the new 503-2A diesel generator. Soil will be excavated on the East, North and South sides of the diesel generator. A radiological soil sampling plan is attached to the Work Order, 1788187-03, R1.

Construction will perform the work in accordance with the provisions of the Assisted Hazard Analysis (AHA), # SRT-32220, Rev. 1, (Reference 3), Asset Suite Work Order, 1788187-03, R1 (Reference 4) and Environmental Evaluation Checklist (EEC), TC-A-2016-0082, Rev. 2. The activity occurs within a general SI and adjacent to several identified SIs. Work is expected to take no more than nine months.

Important Note:
Excavated soil will be used as backfill where possible. If excavated soils or if other material require disposal, they will be sent to Three Rivers Landfill after characterization and approval form the Site SME. If radiological contamination is identified during the soil sampling, the soil will be shipped to the Solid Waste Management Facility (SWMF) as Low-Level Waste (LLW) after characterization and subject to approval from SWMF.

B. O&M Activity Sampling and Monitoring for Health and Safety

The identified SIs units are in the FFA, Attachment 1, because of possible radiological contamination from past releases from A-Area operations.

Radiation contamination monitoring will be performed before, during, and after work to verify the RWP Suspension Guides are not exceeded at the excavation site. If radiological contamination is encountered, Radiological Protection (RP) will determine if protective equipment and personnel access restrictions are required.

Worker health and safety will be directed and controlled as required in the AHA and the on-scene Radiation Protection personnel.

C. Health and Safety Plan

The health and safety concerns involve worker exposure to potential radiological contamination. RP shall provide for radiological monitoring during the excavation activities per radiological sampling plan.

The work will be completed in accordance with the requirements stated in the AHA. The safety requirements and personal protective equipment described in the AHA are appropriate for the potential hazards related to the RCRA/CERCLA units.

D. Characterization and Sampling Plan for the Affected Area within the Unit

A sampling plan for work in this area has been prepared, and Radiation Protection (RP) will conduct sampling of the soil excavated during this activity. If unexpected contamination is found, the SRNS On-Scene Coordinator (OSC) may request additional work scope and sampling from soil disturbed by the activity.

E. Contaminated Materials Management and/or Disposal

Based on previous excavations in the vicinity, radiological contamination is not expected in the excavated soil. Excavated soil will be backfilled where possible. Waste soil and asphalt is expected to be generated and will be fully characterized prior to disposal. All other wastes, such as Job Control Wastes, will be disposed in accordance with guidance from Radiation Protection (RP), the Generation Certification Official (GCO), and the Environmental Compliance Authority (ECA).

F. Environmental Plans and Permit Modification Requests

This activity requires an approved Site Clearance Plan and approval form EC & ACP prior to soil excavation. It is not expected to involve other environmental plans / permits, required maintenance and inspections, or erosion control practices.

4. CONTINGENCY PLAN

During implementation of the activity, if the conditions change at any time such that the activity is no longer considered Minor Intrusive Operation and Maintenance Activity which is defined as:

"Minor intrusive activities will have no (or minimal) impact to future investigation, characterization, or remediation, if required, of the unit, and impact less than 10% of the surface area, excluding structures. Examples include: excavating to repair a ruptured water main, excavating an area to accommodate service repairs or replacements, routing, or replacing a few pipelines or electrical services through a RCRA/CERCLA unit or SE area." (excerpt, Reference 2) or any other unanticipated event occurs, the PIC or ECA shall:

(Section 4 Continued - Contingency Plan)

- Immediately notify the SRNS-OSC. If necessary, the SRNS-OSC will notify the DOE-OSC.

- Stop work, secure the area, contain and stabilize the area, and determine any necessary change to the activity plan.

- Notify the SRNS-OSC of the findings and proposed path forward. The SRNS-OSC will communicate the information to the DOE-OSC and obtain concurrence on the path forward.

5. DOCUMENTATION & REPORTING

SRNL will transmit the following documentation to the SRNS-OSC within twenty days of the completion of the activity:

- The signed O&M plan

- Sampling and characterization data collected will be transmitted when completed.

The following information is not expected to be generated by this activity, but, if generated, will be forwarded to the SRNS-OSC:

- The quantity (if any) of any radioactively contaminated materials generated, and

- The disposal location of any radioactively contaminated material, if generated.

Attachments

Attachment 1. Drawings Showing Approximate Location of Excavations (Blue Area) and Nearby RCRA/CERCLA Units Site Indices (Red Areas)

Attachment 2. A-01 Outfall Drainage Map with location of Diesel Generator 503-2A

Attachment 3. Aerial Image Showing Location of Excavations (Red Outlined Area)

Attachment 4. Photo Showing Physical Location

References

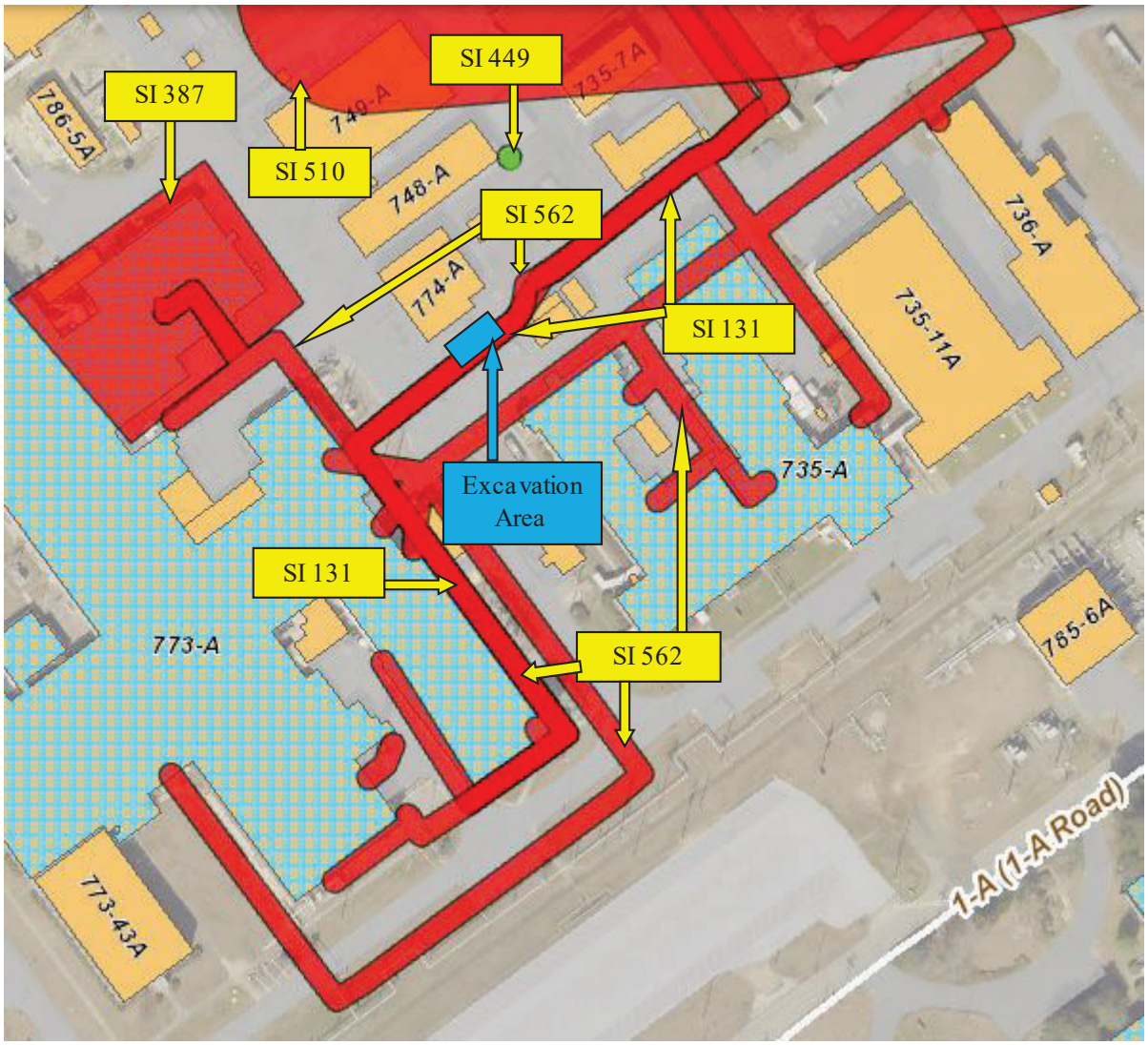
1. WSRC-OS-94-42, Federal Facility Agreement for the Savannah River Site, Administrative Document Number 89-05-FF, effective August 16, 1993, Revision 0 of Appendix C and Revision 0 of Appendix E for Fiscal Year 2021.

2. WSRC-RP-96-45, *Savannah River Site Plan for Performing Maintenance in Federal Facility Agreement Area (O&M) Plan (U)*, December 15, 1996.

3. Assisted Hazard Analysis (AHA), SRT-32220, Rev 1, entitled *"Install Replacement Diesel Generator, 503-2A, Civil"*. created by Clifford Lewis, on 2/23/2021.

4. Asset Suite Work Order #1788187-03, R1, created by Clifford Lewis, on 04/27/21.

Attachment 1. Drawing Showing Approximate Location of Excavations (Green Area)



RCRA/CERCLA Units Indices (Red Areas)

Attachment 2. A-01 Outfall Drainage Map (yellow area)



Attachment 3. Aerial Image Showing Location of Excavations (Red Outline)



The map represents the approximate area to be excavated on the East, North and South sides of the generator. Soil will be excavated to a depth of less than 8 inches to install concrete supports and an approximately 4'2" x 9'6" stair platform.

Attachment 4. Photo Showing Physical Location

