Minor
OPERATION AND MAINTENANCE
Activity Plan 21-018

K-Area Excavation for the Installation of Electrical Power to a Handi-House West of the K-Area Settler Tank in Site Evaluation Area 572

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1. INTRODUCTION

This Operation and Maintenance (O&M) Plan was prepared specific to the *"K-Area Excavation for the Installation of Electrical Power to a Handi-House West of the K-Area Settler Tank in Site Evaluation Area 572"*. It will provide a means by which soil/media disturbance can commence within Site Evaluation Area (SEA) 572, while protecting human health and the environment, and minimizing impacts to long term characterization and remediation efforts. This O&M Plan is characterized as "minor intrusive" because less than 10 percent of the Site Evaluation Area will be excavated/disturbed.

2. AREA DESCRIPTION AND CONDITIONS

The Site Evaluation Area 572 is identified as requiring radiological evaluation due to the presence of process sewer lines that historically transported radioactive liquids from the K-Reactor to various process related disposition locations (to the K-Seepage Basin, in this case). This O & M Plan will direct sampling and O & M managed SEA disturbance activities just west of Building 701-10K in order to provide electrical power located at 701-10K to the nearby Handi-House 163-75K, via underground line installation. This minor excavation will require the digging/trenching of a small footprint over and around the SEA Unit 572 process sewer line of an area expected to be no larger than 60' (long) X 30' (wide) X 24" (deep).

As noted, the potential contaminants of concern are radionuclides, chiefly as fission products and tritium from heavy water/D2O moderated reactor operations. Safety and health concerns are primarily from personnel exposure to radionuclides. Previous work associated with this Site Evaluation Area, and for those similar within K-Area, have not yielded any evidence of radionuclide presence in the environment.

3. O&M ACTIVITY

A. <u>O&M Activity Description</u>

The planned soil disturbing activity in SEA 572 involves minor excavation of an area <60' (long) X 30' (wide) X 24" (deep), in

which an electrical line originating at 701-10K will be tied into nearby Handi-House Building 163-75K. This activity is expected to begin in late September of 2021 and complete by the end of Summer 2022. If this work scope requires significant change for any reason, the SRNS On-Scene Coordinator (OSC) will be contacted to determine if modifications to this O & M Plan are required.

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

Radiological Protection (RP) will perform sampling to support the subject soil disturbing activities that are described in this O & M Plan. There should be no waste associated with this activity in terms of soil, as it is anticipated that it be returned to the local area. However, if soils contaminated by radionuclides are discovered, waste disposition will be performed typical for SRS waste protocol. Given that the soil from SEA 572 is found to be at or below background for radiological constituents, RP will allow for the excavation to proceed, as described in Section D.

The work area will be barricaded to ensure that access is controlled.

Worker health and safety will be described and controlled, as required in the Assisted Hazards Analysis.

C. Health and Safety Plan

The health and safety concern for this O & M Plan primarily involves worker exposure to potential radiological contamination. While there has been no detectible radiological contamination (above background) found in recent soil disturbances in K-Area SEA 572, RP shall be available for any questions or oversight requested during the sampling or construction preparatory activities.

D. Characterization and Sampling Plan for the Affected Area within SEA 572

Soil sampling is required for any soil disturbance in this Site Evaluation Area. The soil sampling scope is defined in the *"Soil Sampling Plan for Work Order # 1791264-04 – Installation of*

Electrical Service for Handi-House 163-75-K per E-DCF-K-00909" (Ref. 2).

The characterization and sampling record for this minor intrusive O&M activity will be the RP sample data for the presence of radiological contamination in the soil/media.

If any radioactive contamination is found from sampling, the Environmental Compliance Authority (ECA), along with RP and K-Area Complex (KAC) Operations management will devise an alternative plan by which to carry out the tie-in of electrical service to 163-75K. As indicated above, evidence of soil contamination would likely require revision to this O & M Plan, or a possible addendum.

Additionally, the SRNS-OSC shall be notified by the Area ECA, and any additional work scope and sampling from the soil disturbance areas will be completed per SRNS-OSC guidance.

E. Contaminated Materials Management and/or Disposal

The disposition of any waste materials generated during this activity will be contingent upon soil sample results. If SEA 572 soil/media are determined to be "clean", normal waste disposal practices may be applied, as determined by the KAC Waste ECA. If contaminated, however, RP will advise soils/media/equipment disposition, in coordination with Waste Certification Engineering and the ECA. These options would be explored and fully described in a revised O & M Plan (or addendum).

Contaminated waste should be characterized and disposed of as "Radioactive Waste" under current SRNS/KAC Waste Management procedures, or deconned, if deemed appropriate by RP and the SRNS-OSC.

F. Environmental Plans and Permit Modification Requests

The soil disturbing aspect of this task is not expected to involve environmental plans/permits or other required maintenance and inspections, except for potential erosion control practices.

The Site Use/Site Clearance Permit process will be addressed prior to soil disturbance initiation, as needed.

4. CONTINGENCY PLAN

If at any time during the implementation of this activity the conditions change, such that the activity is no longer considered "minor" (is greater than 10% of a waste unit area impacted or disturbed) or any other unanticipated event occurs, the Facility Operations Manager or the ECA shall:

- Immediately notify the SRNS-OSC. The SRNS-OSC will notify the DOE-OSC.

- Contain and stabilize the area, investigate as necessary to determine the necessary change in the activity plan, secure the area and stop work.

- Update the SRNS-OSC as to the findings and the requested path forward. The SRNS-OSC will communicate the information to the DOE-OSC and obtain concurrence on the path forward.

5. DOCUMENTATION & REPORTING

The Facility Operations Manager or the ECA will transmit the following close-out documentation to the SRNS-OSC by the 20th day of the month following the month that the land disturbing activity was completed:

- the signed O&M Plan,

- any sampling and characterization data collected,

- quantity of contaminated materials generated, and

- treatment, storage and disposal location of contaminated material.

References

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

2. *"Soil Sampling Plan for Work Order # 1791264-04 – Installation of Electrical Service for Handi-House 163-75-K per E-DCF-K-00909".*