Minor
OPERATION AND MAINTENANCE
Activity Plan 25-004

K-Area Soil Disturbance for Sinkhole Investigation & Repair at East End of the Materials Access Area Trailer Located South of 105-K, in Site Evaluation Areas 476

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1. INTRODUCTION

This Operation and Maintenance (O&M) Plan is for soil disturbance associated with the sinkhole investigation and repair located adjacent to the newly installed Materials Access Area (MAA) trailer which is south of (external to) the 105-K Assembly Area. It will provide a means by which soil disturbance can commence within Site Evaluation Area (SEA) 476 while protecting human health and the environment and minimizing impacts to long term characterization and remediation. This O&M Plan is characterized as "minor intrusive" because less than 10 percent of the Site Evaluation Area will be disturbed.

2. AREA DESCRIPTION AND CONDITIONS

The Site Evaluation Area 476 is identified as requiring radiological assessment due to the presence of moderator/radioactive impurities from spills associated with rail transport of cask cars containing filters, deionizers, etc. (from the Purification Area) along the K-Area railroad system.

This O & M Plan credits recent Radiological Protection Department sampling and O & M managed SEA disturbance activities within the K-Area Complex Protected Area performed to support the recent MAA trailer installation in SEA 476. No new sampling will be required/needed.

The title for the RP sampling plan is contained in the MAA trailer installation O & M Plan provided as Refences 2 in the References Section of this O & M Plan.

Discrete sampling by Radiological Protection (RP) during the MAA trailer installation was conducted in order to ensure that the potential contaminants of concern (primarily radionuclides from fission products and tritium from heavy water/D2O moderated reactor operations) were evaluated. Safety and health concerns were for personnel exposure to radionuclides.

Previous K-Area sampling in SEA 476 have not yielded any evidence of radionuclides presence. Nor did the sampling provided per Reference 2 discover the presence of any constituents of concern.

The radiological sampling report from O & M Plan 22-014 serves as the documents of record for allowance of soil disturbance in the MAA trailer sinkhole repair.

3. O&M ACTIVITY

A. O&M Activity Description

This soil disturbing activity in SEA 476 will primarily involve minor excavation in support of sinkhole investigation and repair at the MAA trailer. Aspects of this work scope included excavation to allow access to the sinkhole source (anticipated as a water line breach), necessary shoring needed to support excavation/safety, and manpower entry for repair of the line break.

This sinkhole investigation/repair activity is expected to begin in November of 2024 and complete by the end of March 2025. 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) has previously completed soil sampling (as per Reference 2) to support the soil disturbing activities that were described in O & M Plan 22-014. This sampling is being credited to this activity, as it is within the same footprint. Those sample results yielded "clean" results.

There is no anticipated waste associated with this activity in terms of soil. It will be returned to the local area as needed. The soil from the MAA trailer project was found to be at or below background levels for radiological constituents, therefore, RP allowed for the excavation in support of the MAA trailer installation to be completed.

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 476, RP shall be available for any questions or oversight requested during the MAA trailer sinkhole repair.

D. Characterization and Sampling Plan for the Affected Area within SEA 476

Soil sampling is required for any soil disturbance in Site Evaluation Area 476. The soil sampling plan scope of work for the MAA trailer installation is defined in the soil sample plan found in the MAA trailer installation, Reference 2.

Had any radioactive contamination been found from Ref. 2 sampling, the Environmental Compliance Authority (ECA), along with RP and K-Area Complex (KAC) Operations management would have had to devise an alternative plan by which to carry out MAA trailer sinkhole repairs.

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

E. Contaminated Materials Management and/or Disposal

Based on soil sample results from the MAA trailer installation, no soil waste materials should be generated during this activity, as SEA 476 soil/media were determined to be "clean".

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 the activity, the conditions change, such that the activity is no longer considered "minor" (is greater than 10% of the 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. "*K-Area Soil Disturbance for Project Associated with the Materials Access Area Entry Control Facility Restroom Trailer, Duct Banks, Poles, Etc. in Site Evaluation Area 476*". O & M Plan 22-014, March 17, 2022.