Minor
OPERATION AND MAINTENANCE
Activity Plan

K-Area Quonset Building Installation at 105-13K in Site Evaluation Area 476

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1. INTRODUCITON

This Operation and Maintenance (O&M) Plan for the K-Area Quonset Building Installation at (adjacent to) 105-13K will provide a means by which soil/media 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 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 476 is identified as requiring radiological evaluation due to the presence of moderator/radioactive impurities from spills associated with rail transport of cask cars containing filters, deionizers, etc. (Purification Area) along the K-Area railroad (RR) system. This SEA disturbance exists within the K-Area Complex (KAC) in the vicinity between the deactivated Powerhouse and Building 105-13K. This minor excavation is required to place fence posts/fencing which will serve as the boundary around the Quonset building being constructed to store materials for use in the K-Area plutonium down-blending process (primarily drums).

Evaluation Area 476 is identified within the Federal Facility Agreement with the Environmental Protection Agency because of the potential release/migration of radiological materials from the RR tracks.

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, has not yielded any evidence of radionuclide presence in the environment.

3. O&M ACTIVITY

A. O&M Activity Description

The planned soil disturbing activity in SEA 476 involves minor excavation (hole placement/augering) for fence posts/fencing to provide a boundary around the Quonset Building being installed adjacent to 105-13K.

This activity is expected to begin in February of 2019 and complete by December 2019. 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

It is anticipated that Radiological Protection (RP) will perform sampling to support the subject fence posts/fencing installation. There should be no waste associated with this activity. However, if soils contaminated by radionuclides are discovered, waste disposition will be performed typical for SRS waste protocol. Given that the soil from SEA 476 is found to be at or below background for radiological constituents, RP will allow for the excavation as described in Section D to proceed.

The work area will be barricaded to ensure that access is controlled. This is a personnel safety issue.

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 have been no detectible radiological contamination (above background) found in recent soil disturbances in K-Area, RP shall be

available for any questions or oversight requested during the process of fencing or Quonset Building installation.

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

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 Excavations Associated with Fence Posts Placement at Building 105-13K Pad* (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 pole placement (options may consider the removal of the contamination, provide for new pole locations, etc.). 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 sample results. If SEA 476 soil/media are determined to be "clean," normal waste disposal practices may be applied, as determined by 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 the 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 Excavations Associated with Fence Posts Placement at Building 105-13K Pad*