Minor

OPERATION AND MAINTENANCE
Activity Plan

CONCRETE CULVERTS STORAGE PAD, K-AREA
RCRA/CERCLA UNIT 476

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1. INTRODUCITON

The Operation and Maintenance (O&M) Plan for the Concrete Culverts Storage Pad will provide a means by which soil/media disturbance can commence within RCRA/CERCLA Unit 476, while protecting human health and the environment, and minimizing the impact to long term characterization and remediation efforts. This O&M Plan is characterized as "minor intrusive" because less than 10 percent of the RCRA/CERCLA Unit will be excavated/disturbed.

2. AREA DESCRIPTION AND CONDITIONS

The RCRA/CERCLA Unit 476 is the K-Reactor Area Cask Car RR Tracks that exist within the Restricted and Protected Areas of the K-Area Complex (KAC). The Concrete Culverts Storage Pad will be located in the PA portion of the RR track system, southeast of the K-Reactor Building.

Unit 476 is on the RCRA/CERCLA list primarily due to radiological material conveyance to the rail system from coolant/moderator containing vessels such as deionizer units transported in shielded cask cars. Other sources, such as cooling water heat exchangers, may have also have been staged in this area and contributed to contamination in Unit 476.

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 RCRA/CERCLA Unit 476 has 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 Unit 476 involves the removal of the rocks, crossties, and railing from the RR tracks south of the K-Reactor Building in the PA, and the possible excavation of

several inches (up to 18") of soil to allow for concrete pad forming and framing.

This activity is expected to begin, and complete, in the April-June timeframe, 2012. If this work scope requires change for any reason, the SRNS On-Scene Coordinator (OSC), Stephanie Yazzie, 725-9253/21534 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 Construction Services will prepare the concrete culverts storage pad footprint to allow for a concrete pad installation (or similar, e.g. crusher run pad). This will require that all of the rocks, crossties, and railing be removed from the pad site. Provided that the radiological soil/media sampling results from Unit 476 pad area are at or below background for radiological constituents, Radiological Protection (RP) will allow the pad construction to proceed without controls.

Construction Services is not allowed to proceed with the removal of rocks, crossties, railing, or soils from the Unit 476 without the prior sampling and clearing of the area by RP.

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 has been no detectible radiological contamination (above background) found in recent soil disturbances in Unit 476, RP shall be available for any questions or oversight required during the process of storage pad preparation/installation as described in this O & M Plan.

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

Soil sampling, and a radiological assessment of the rocks, crossties, and railing, will be required for any type disturbance in this waste unit. 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, will devise a plan by which to carry out installation of the concrete culverts storage pad (options may consider the complete removal of the contamination, provide for a clean buffer, etc.). As indicated above, evidence of soil contamination would likely require revision to this O & M Plan (or 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 Unit 476 soil/media is determined to be "clean," normal waste disposal practices may be appropriate, as determined by KAC Waste Engineering. If contaminated, however, RP will advise soils/media/equipment disposition, in coordination with Waste Certification Engineering and the ECA, or as eluded to above, may allow for a buffer layer, etc., between the contamination area and the storage pad. 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

This activity is not expected to involve environmental plans/permits or other required maintenance and inspections, beyond those required for erosion control practices.

The Site Use/Site Clearance Permit process will be addressed and approved prior to soil disturbance initiation.

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" (greater than 10% of a waste unit area impacted or disturbed) or any other unanticipated event occurs, the Facility 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 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.