Minor
OPERATION AND MAINTENANCE
Activity Plan

EXCAVATE SINK HOLE AT
STORM WATER SEWER DRAIN MANHOLE 16
BEHIND L-AREA REACTOR

NEAR

SITE INDEX AREAS

303, 479 and 560

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Janice L. Lawson, L Area Project Operations Manager, SFP Date

1. INTRODUCTION

The Operation and Maintenance (O&M) Plan for to Excavate Sink Hole at Storm Water Sewer Drain Manhole 16 Behind L-Area Reactor within the L-Area Inner Fence will provide a means by which minor soil disturbance can commence within the buffer zones of Site Index Area (SIA) Numbers 303, 479 and 560 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 minor excavation will occur near the buffer zones of the SIAs listed above.

2. AREA DESCRIPTION AND CONDITIONS

Site Index Areas 303; 479 and 560 are as follows: Area 303 is the area around the disassembly basin. This area could have become contaminated from possible spills from the basin area. Area 479 is the area around the railroad tracks which are located within the entire L-Area Fence. This area could have become contaminated if rain washed radioactivity from a parked train car onto the ground or railroad tracks or during transit. Area 560 designates abandoned process sewer lines. Please refer to Attachment A for the location of these Site Index Areas.

The potential contaminants of concern are primarily radionuclides, chiefly as fission products and tritium from heavy water/D2O moderated reactor operations (Am-241, Ba-137, Co-60, Cs-137, Eu-152, Pu-238/241, Sr-90, Tc-99, Y-90). The potential for trace amounts of non-rad contaminants may be present from other activities performed in the area (oxalic acid, sodium hydroxide, surfactants, solvents, oil and grease, acids/caustics, nitrate, phosphate, sulfate, lead, cadmium and other unknown metals.

Safety and health concerns involve personnel exposure to radionuclides, but no radioactive contamination has been found in this area and none is expected. Radiological Protection (RP) may sample the soil disturbance in the area of the soil leveling activities per their standard protocol or procedures.

3. O&M ACTIVITY

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

The planned soil disturbing activity will be near the Site Index Areas 303, 479 and 560. The soil disturbance will be specifically around Storm Water Sewer Drain Manhole 16 on the backside of the Facility between the railroad tracks going to the Transfer Bay and the 107B Truck Well. (See area highlighted on Attachment A). A roughly 10' x 10' area of soil may be removed by hand shoveling or some other manual method around the storm water sewer drain. Coordinates of the approximate areas in which the soil disturbance activities will occur are as follows:

Storm Water Sewer Drain Sink Hole Coordinates: (442,024.507, 3674827.367), (442,028.384, 3674827.717), (442,028.681, 3674825.103), (442025.681, 3674825.059)

Grass and soil dislocated during the storm water sewer drain sink hole exploration/repair activities may be placed into a skid pan to await approval for release by RP or may be left in-place. The activity is expected to start in March but has not been scheduled; work will be performed before end of calendar year 2017. If the work scope requires change for any reason, contact the ECA (Linda S. Nass @ phone # 557-6177 / 14045). The ECA will determine if modifications to the O&M Plan are required.

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

RP will sample the location of the storm water sewer drain sink hole exploration/repair activities for radionuclide presence per their standard protocol and procedures, if deemed necessary. Radiological surveys of the area to date have revealed no contamination. If radiological contamination is encountered, RP will determine if protective equipment and personnel access requirements are required.

Worker health and safety will be directed and controlled as required in the Assisted Hazard Analysis.

C. Health and Safety Plan

RP will sample the location of the storm water sewer drain sink hole exploration/repair activities for radionuclide presence per their standard protocol and procedures, if deemed necessary. Radiological surveys of the area to date have revealed no contamination. If radiological contamination is encountered, RP will determine if protective equipment and personnel access requirements are required.

Worker health and safety will be directed and controlled as required in the Assisted Hazard Analysis.

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

No formal sampling plan will be utilized for radiological sampling regarding this task. The characterization and sampling for this minor intrusive O&M activity will simply be the RP sample data taken for the presence of radiological contamination in the disturbed soil, as deemed appropriate.

If any radioactive contamination is found from sampling, the ECA, along with RP, will devise an alternate plan by which to carry out the storm water sewer drain sink hole exploration/repair activity.

E. Contaminated Materials Management and/or Disposal

The disposal of any waste materials generated during this activity will be contingent upon sample results. If media (grass, soil and rock, etc.) is determined to be "clean," normal work practices would occur. If radiologically contaminated, however, RP will advise on disposition of waste originating from the task. This waste will be managed as appropriate per facility Waste Management and ECA guidance, and handled in accordance with existing L-Area waste guidance procedures. Clean soil (including grass and rock, etc.) can be left in place once the storm water sewer drain sink hole exploration/repair activity is complete.

F. Environmental Plans and Permit Modification Requests

This activity is next to a drain which goes to an L Area outfall, L-08. Erosion control measures should be taken to prevent sediment from reaching the outfall in case work is not completed prior to a rain event. This would include covering the storm water sewer drain grating with a thick sheet of plastic and securing it in-place with numerous sand bags which would take the drain out of service while this exploration/repair activity is being performed. Ditches down gradient of the soil disturbance should be protected using hay bales or silt fencing if the exploration/repair is not performed quickly or if significant rainfall is forecast.

This activity is not expected to involve other environmental plans / permits, required maintenance and inspections, or erosion control practices. While this activity does not directly involve a SIA, the location is directly next to a drain which goes to an L Area outfall. Therefore, an Environmental Evaluation Checklist has been submitted.

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), the Shift Operations Manager (SOM) shall be notified and the Facility Manager (or designee) 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 ECA, as the Facility Manager's designee, will transmit the following 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. OBU-L-2017-0017, Environmental Evaluation Checklist: Excavate Sink Hole at Storm Sewer Drain Manhole Behind L-Area Reactor, 2/2/17.

ATTACHMENT A

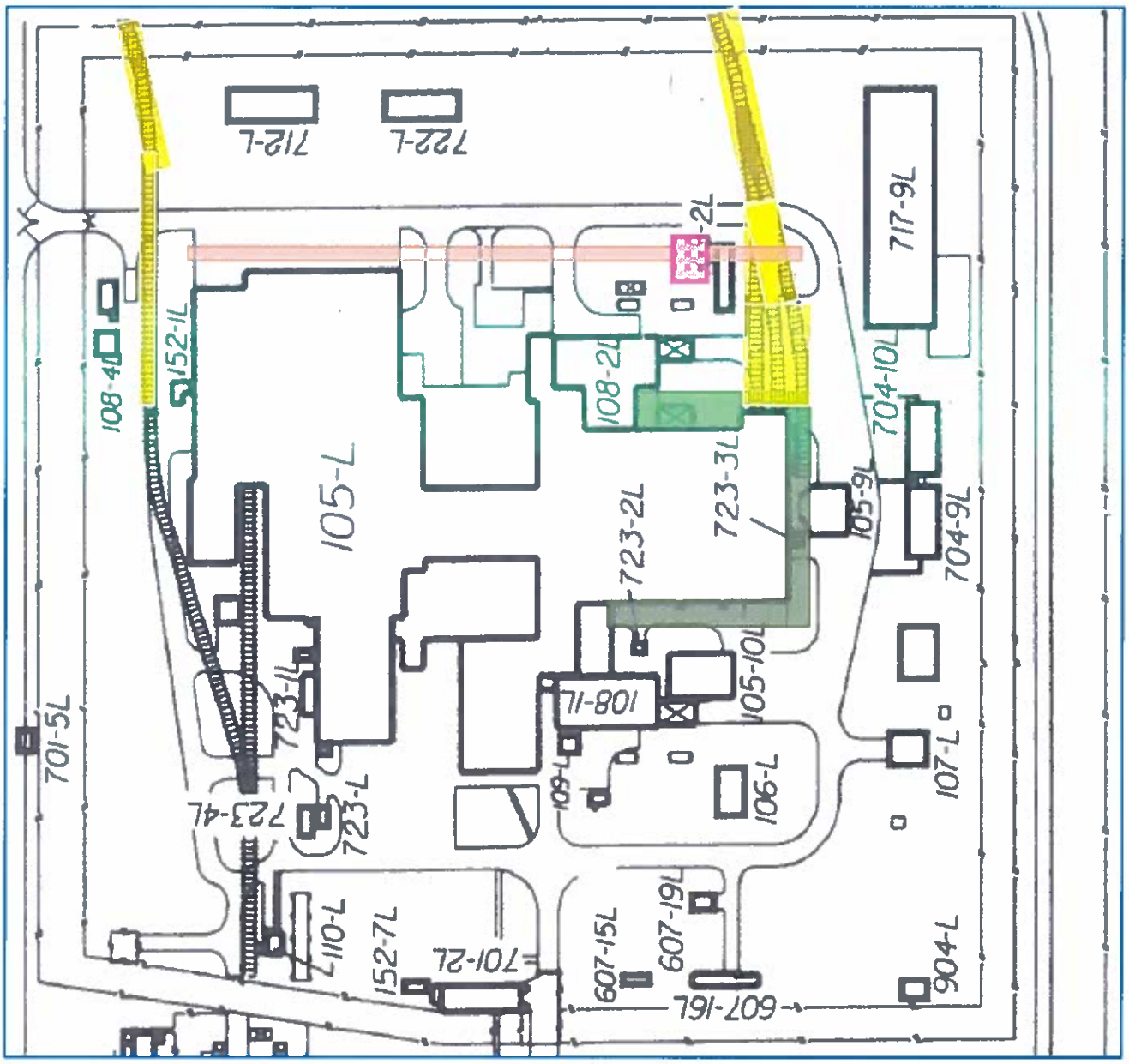


Figure 1: OSSC Storage Location

Site Index Area 479, Railroad Tracks.

Site Index Area 303, Basin Water, Rad.

Site Index Area 560, Abandoned Process Sewer Lines, Rad.

Approximate Sink Hole/Storm Sewer Drain Location.