Table of Contents

1.0 PURPOSE AND SCOPE .................................................................................................................. 3
  1.1 Purpose ....................................................................................................................................... 3
  1.2 Scope ........................................................................................................................................... 3

2.0 INFORMATION ................................................................................................................................. 4
  2.1 General Information ...................................................................................................................... 4

3.0 PRECAUTIONS AND LIMITATIONS .......................................................................................... 5
  3.1 Personnel Safety ............................................................................................................................ 5
  3.2 Radiation and Contamination Control ......................................................................................... 5
  3.3 Environmental Compliance ......................................................................................................... 6
  3.4 Limits ........................................................................................................................................... 6

4.0 PREREQUISITES .............................................................................................................................. 7
  4.1 Special Tools, Equipment and Supplies ....................................................................................... 7
  4.2 Performance Documents ............................................................................................................. 7

5.0 PROCEDURE .................................................................................................................................... 8
  5.1 Roll On Roll Off Inspections ......................................................................................................... 8
  5.2 Remove Liquids by Evaporation Method ..................................................................................... 10
  5.3 Remove Liquid by Absorption Method ....................................................................................... 11
  5.4 Remove Liquids by Pump Out Method ......................................................................................... 12
  5.5 Remove Storm Water by Discharge to Ground Method .............................................................. 14
  5.6 Manage Leaking RO/RO Containers .......................................................................................... 15
5.7 Records ................................................................................................................................. 16

Figure 1 - Roll On / Roll Off Storm Water Discharge Approval .................................................. 17
1.0 PURPOSE AND SCOPE

1.1 Purpose

This procedure provides direction to ensure that CP-60156, Environmental Restoration Disposal Facility (ERDF) Waste Disposal Requirements to remove liquids from an empty ERDF roll-on and roll-off (RO/RO) containers is implemented as soon as practical following a precipitation event.

This procedure implements requirements associated with DOE O 435.1, WAC 173-216, the State Waste Discharge Permit (SWDP) ST0004511 (ST 4511), and TFC-ESHQ-ENV_RM-C-04, “Water Discharge in Tank Farm Facilities”.

1.2 Scope

This procedure provides instructions for inspecting empty ERDF Roll On / Roll Off (RO/RO) containers, managing precipitation (rain, snow, ice) that has accumulated in empty RO/RO containers, and providing appropriate notifications, as necessary.
2.0 INFORMATION

2.1 General Information

2.1.1 ERDF RO/RO containers are provided by the Environmental Restoration Disposal Facility contractor. As a waste generator, WRPS is responsible for ensuring that liquids found in empty waste containers are removed as well as removing precipitation (rain, snow, ice) from the waste container tarps as soon as practical after a precipitation event. RO/RO containers containing liquids are not acceptable for receipt at ERDF.

2.1.2 It is the responsibility of the FWS or designee to maintain control of containers and ensure liquids do not accumulate in RO/RO containers.

2.1.3 Inspections shall be performed monthly, prior to movement, and within four days following a precipitation event. Inspections are documented on Site Form A-6005-463 and submitted with container PIN file to Waste Operation Services.

2.1.4 Potentially or radiologically contaminated cans require Radiological Control (RadCon) support to perform surveys before, during and after liquid removal only for potentially radiologically contaminated cans.

2.1.5 Prior to discharging storm water from RO/RO containers to the ground, Site Form A-6007-475, Roll On / Roll Off Storm Water Discharge Approval, must be completed. Approvals are required from Waste Technical Services (WTS), the Environmental Compliance Field Representative (EFR) and RadCon to ensure that the discharge requirements outlined in TFC-ESHQ-ENV_RM -C-04 are met. See IH for Beryllium controls.

2.1.6 Containers that are contaminated with hazardous/dangerous waste constituents are prohibited from discharge to the ground.

2.1.7 TO-100-052 and TFC-OPS-WM-C-27 procedures provide additional waste handling and packaging information.

2.1.8 Waste Technical Services must be contacted if the ERDF RO/RO container contains liquids that are not precipitation (rain, snow, ice) and/or waste as defined by WAC 173-303.
3.0 PRECAUTIONS AND LIMITATIONS

3.1 Personnel Safety

WARNING - Failure to maintain positive control of the bungee during tarp release may result in personnel injury.

WARNING - Placing limbs under an elevated container represents a pinch point/crushing hazard.

3.1.1 The interior of “Orange” ERDF RO/RO containers are considered to be radiologically contaminated.

3.1.2 ERDF RO/RO containers are considered Non-Permit Confined Space.

3.2 Radiation and Contamination Control

3.2.1 Planned work in radiological areas must be approved by Radiological Control personnel per the Radiological Risk Screening procedure TFC-ESHQ-RP_RWP-C-01.

3.2.2 When work is performed without a formal work package, this procedure is limited to radiological areas and work activities permitted by a low risk Radiological Work Permit (RWP).

3.2.3 Radiological areas may be downposted based on survey results. Areas will be re-posted as changing conditions and work activities require.
3.3 Environmental Compliance

NOTE - Discharges of storm water to the ground shall be performed in accordance with the following:
- ST4511, State Waste Discharge Permit

3.3.1 Immediately report to WRPS Environmental Protection in accordance with Environmental Protection On-Call List leaking RO/RO containers or unintended/unauthorized discharge of liquid waste from an ERDF RO/RO Containers.

3.4 Limits

3.4.1 Liquids are limited to precipitation (rain, snow, ice) that has not become contaminated upon contact with dangerous or hazardous waste.

3.4.2 Movement of containers with the presence of liquid is prohibited.

3.4.3 No discharge exceeding 60 gallons shall be performed within the surface contaminated area (areas with dangerous waste/hazardous waste and radioactive contaminants (e.g., mixed waste).

3.4.4 No discharge exceeding 60 gallons shall be performed within a 300 feet horizontal radius of a known active or inactive crib, ditch, or trench used for disposal of dangerous/hazardous waste and radioactive contaminants (e.g., mixed waste).
4.0 **PREREQUISITES**

4.1 **Special Tools, Equipment and Supplies**

The following supplies may be needed to perform this procedure:

- Absorbent socks or pads
- Peristaltic pump
- Hose
- Ladder
- Scaffolding
- Catch basin
- Spill pallet
- Other tools, equipment and supplies as identified by FWS/EFR.

4.2 **Performance Documents**

The following documents may be needed to perform this procedure:

- DOE-0359, Hanford Site Electrical Safety Program (HSESP)
- TFC-ESHQ-ENV_RM-C-04, Water Discharge in Tank Farm Facilities
- TFC-OPS-WM-C-27, Waste Generation
- TO-100-052, Perform Waste Generation, Segregation, Accumulation and Clean-up
- Site Form A-6002-935, Container Request
- Site Form A-6002-936, Waste Inventory Sheet
- Site Form A-6007-147, Pink Slip Needs Repair Form
- Site Form A-6007-475, Roll On / Roll Off Storm Water Discharge Approval.
5.0 PROCEDURE

5.1 Roll On Roll Off Inspections

NOTE - Movement of containers with the presence of liquid is prohibited.

5.1.1 IF ambient temperatures are below freezing, REMOVE any liquid/ice/snow from the tarp.

5.1.2 IF tarp has evidence of damage

5.1.2.1 COMPLETE Site Form A-6007-147
5.1.2.2 PLACE in the RO/RO shipping pouch
5.1.2.3 NOTIFY Waste Operations Dispatch.

5.1.3 INSPECT bungee cords for damage (e.g., fraying) and maintaining the tarp secured.

5.1.4 IF container is radiologically controlled, POST or CONTROL the horizontal container lip and inner edges of the tarp as a Radiological Buffer Area (RBA) at a minimum, and interior surfaces as a Contamination Area (CA).

WARNING
Failure to maintain positive control of the bungee during tarp release may result in personnel injury

5.1.5 RELEASE bungee cords from container hooks while maintaining positive control.

5.1.6 ROLL back tarp to minimize contact with potentially contaminated surfaces.

NOTE - Radiological postings may be modified based on survey results.

5.1.6.1 IF potentially radiologically contaminated, ENSURE HPT validates current radiological postings are adequate for the following:
  • RO/RO exposed container lip
  • Inner surface of tarp.

5.1.7 DOCUMENT inspection on form (A-6005-463).
5.1 - Roll On Roll Off Inspections (Cont.)

NOTE - Section 5.2 is the preferred method.
- Movement of containers with the presence of liquid is prohibited.

5.1.8 IF accumulated liquid is found inside the container, REMOVE by performing one of the following Sections:

- Section 5.2
- Section 5.3
- Section 5.4, or
- Section 5.5.
5.2 Remove Liquids by Evaporation Method

5.2.1 If present, REMOVE any liquid/ice/snow from the tarp.

5.2.2 IF containers are radiologically controlled containers, POST or CONTROL the horizontal container lip and inner edges of the tarp as a Radiological Buffer Area (RBA) at a minimum, and interior surfaces as a Contamination Area (CA).

5.2.3 IF tarp has not been rolled back, ROLL back tarp.

5.2.3.1 IF potentially radiologically contaminated, ENSURE HPT validates current radiological postings are adequate for the following:

- RO/RO exposed container lip
- Inner surface of tarp.

NOTE - Removal of liquids by evaporation can only be performed on a WAC 173-303-160 empty RO/RO container.

5.2.4 ALLOW liquid to evaporate AND periodically MONITOR to determine if evaporation is complete.

5.2.5 IF successful REINSTALL tarp,

OR

IF unsuccessful, FWS EVALUATE alternative method.
5.3 Remove Liquid by Absorption Method

NOTE - Waste Technical Services must be contacted if the ERDF RO/RO container contains liquids that are not precipitation (rain, snow, ice) and/or waste as defined by WAC 173-303.

- Movement of containers with the presence of liquid is prohibited.

5.3.1 If present, **REMOVE** any liquid/ice/snow from the tarp.

5.3.2 **IF** the containers are radiologically controlled, **POST** or **CONTROL** the horizontal container lip and inner edges of the tarp as a Radiological Buffer Area (RBA) at a minimum, and interior surfaces as a Contamination Area (CA).

5.3.3 **IF** tarp has not been rolled back, **ROLL** back tarp.

5.3.3.1 **IF** potentially radiologically contaminated, **ENSURE** HPT validates current radiological postings are adequate for the following:

- RO/RO exposed container lip
- Inner surface of tarp.

NOTE - Addition of SP400 or similar loose absorbents is not an acceptable means of liquid removal.

5.3.4 **PLACE** sufficient absorbent pads/socks into the ERDF RO/RO.

5.3.5 **CONFIRM** that liquids have been absorbed.

NOTE - All absorbent material should remain in the ERDF RO/RO.

5.3.5.1 **ENSURE** absorbent material is not saturated (i.e., exceeded its absorption capacity and prone to future leakage).

5.3.6 **REPLACE** tarp and secure.
5.4 Remove Liquids by Pump Out Method

NOTE - Waste Technical Services must be contacted if the ERDF RO/RO container contains liquids that are not precipitation (rain, snow, ice) and/or waste as defined by WAC 173-303.

- Movement of containers with the presence of liquid is prohibited.

5.4.1 If present, REMOVE any liquid/ice/snow from the tarp.

5.4.2 IF the containers are radiologically controlled, POST or CONTROL the horizontal container lip and inner edges of the tarp as a Radiological Buffer Area (RBA) at a minimum, and interior surfaces as a Contamination Area (CA).

5.4.3 IF tarp has not been rolled back, ROLL back tarp.

5.4.3.1 IF potentially radiologically contaminated, ENSURE HPT validates current radiological postings are adequate for the following:
   • RO/RO exposed container lip
   • Inner surface of tarp.

5.4.4 FWS VERIFY that PPE is adequate.

5.4.5 PLACE pump or pump intake hose into the RO/RO container.

5.4.6 INSTALL ground cover with absorbent below collection container(s) or spill pallet.

5.4.7 POSITION liquid collection container(s) on spill pallet outside RO/RO container.

5.4.8 IF pump is outside of RO/RO container, PLACE pump on spill pallet.

5.4.9 PLACE open end of pump discharge hose into liquid collection container(s).

5.4.10 SECURE hose(s) to prevent inadvertent movement across CA boundaries.

5.4.11 ENSURE CA is established around liquid collection container(s).

5.4.12 PUMP liquid into collection container(s).
5.4 - Remove Liquids by Pump Out Method (Cont.)

5.4.13 WHEN pump out is complete, PERFORM the following as directed by FWS:

5.4.13.1 REMOVE the pump/hose from RO/RO container, PLACE into separate radioactive material storage container.

5.4.13.2 HPT PERFORM dose rate and contamination survey to support storage or disposal.

5.4.13.3 CLOSE AND LABEL liquid collection container(s).

5.4.13.4 FWS NOTIFY WOS Dispatch of the following:

- Container is full
- No longer will have waste added.

5.4.14 HPT PERFORM contamination survey to support downposting CA and removal of containers.

5.4.14.1 IF needed to support downposting, NCO PERFORM decontamination.

5.4.15 REMOVE containers from CA.

5.4.16 DOWNPOST the CA.

5.4.16.1 REMOVE ground cover.

5.4.17 COMPLETE Waste Inventory Sheet (Site Form A-6002-936).
5.5 Remove Storm Water by Discharge to Ground Method

The option to remove storm water by discharge to ground from roll on roll off containers is currently not allowed.
5.6 Manage Leaking RO/RO Containers

NOTE - Movement of containers with the presence of liquid is prohibited.

5.6.1 IF a leak is discovered from a RO/RO container:

5.6.1.1 STOP work in the immediate area.

5.6.1.2 WARN other personnel in the immediate area.

5.6.1.3 ISOLATE the area.

5.6.1.4 MINIMIZE exposure.

5.6.1.5 NOTIFY FWS.

5.6.2 FWS NOTIFY EFR, Central Shift Office and RadCon Management.

5.6.3 FWS VERIFY that PPE is adequate.

5.6.4 IF PPE is adequate, PROCEED to next step OR

IF PPE is not adequate, STOP AND EXIT this procedure.

5.6.5 PLACE absorbent material at the area of the leak.

5.6.6 POST the container and ground area as a CA until radiological surveys are performed.

5.6.7 PLACE plastic or catch basin under the leak to contain spread of liquid.

5.6.8 PLACE absorbent material on the catch container to absorb any leakage.

5.6.9 TRANSFER catch basin wastewater into a low level waste container obtained from WOS.

5.6.10 MANAGE remaining liquid in container in accordance with Sections 5.3, 5.4, or 5.5 as approved by EFR, WTS, and RadCon.
5.7 Records

5.7.1 **PERFORM** the following records identified within this procedure:

5.7.1.1 **COMPLETE** Technical Procedures Records Submittal Checklist (Site form A-6006-885).

5.7.1.2 **ATTACH** the completed records to the site form.

5.7.1.3 **SUBMIT** the package for verification of records.

- Site Form A-6005-463, Roll Off Box Instructions
- Site Form A-6007-475, Roll On / Roll Off Stormwater Discharge Approval.

The record custodian identified in the Company-Level Records Inventory and Disposition Schedule (RIDS) is responsible for record retention in accordance with TFC-BSM-IRM_DC-C-02.
NOTE - Current Revision of Site Form A-6007-475 must be used during the performance of this procedure.

ROLL ON/ROLL OFF STORM WATER DISCHARGE APPROVAL

NOTE: If WTS, Radcon or EFR do not approve, determine alternative method for management of liquids.

A. FWS to Complete this Section:

Name: ___________________________ Date: ___________________________
Container Location: ___________________________
Container Number: ___________________________ □ Blue □ Orange
Is Container Leaking? □ Yes □ No
If Yes, notification made to Central Shift Office? □ Yes □ No
Does RO/RO Contain Waste? □ Yes □ No
If Yes, contact Waste Technical Services: □ Yes □ No
Approximate Volume of Storm Water Present in RO/RO Container? ___________________________
Proposed Discharge Location: ___________________________
Comments: ___________________________

Field Work Supervisor (FWS):
_____________________________ ________________________________ Date: ___________
Print First and Last Name Signature

B. WTS to Complete this Section:

Name: ___________________________ Date: ___________________________
Meets RCRA empty per WAC-173-303-180? □ Yes □ No
Designation Required? □ Yes □ No
If Yes, please attach Designation: ___________________________
Type of Waste: □ MW □ LLW □ NR Codes: ___________________________
Comments: ___________________________

Waste Technical Services (WTS):
_____________________________ ________________________________ Date: ___________
Print First and Last Name Signature
If Radcon review is not applicable, provide reason: ___________________________

C. RadCon Manager (or Designee) to complete this Section:

RWF No: ___________________________ Container RSR No.: ___________________________
Discharge Location RSR No.: ___________________________
Any detectable contamination identified in/on container or ground? □ Yes □ No □ Unknown
Did liquid proposed for discharge potentially contact radioactive contamination? □ Yes □ No □ Unknown
Comments: ___________________________

Liquid approved for discharge? □ Yes □ No
RadCon Manager or Designee: ___________________________
_____________________________ ________________________________ Date: ___________
Print First and Last Name Signature

D. EFR to Complete this Section:

Source: Non-Industrial Storm Water: Discharge Location Approved: □ Yes □ No
Authorized under ST4511 G12.G? □ Yes □ No
Best Management Practices and Comments: ___________________________
Discharge Documentation Completed? □ Yes □ No Modifications Made? □ Yes □ No □ N/A
_____________________________ ________________________________ Date: ___________
Print First and Last Name Signature