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TANK FARM ENVIRONMENTAL REQUIREMENTS

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CH2MHill Hanford Group, Inc.
Richland, WA 99352
U.S. Department of Energy Contract DE-AC27-99RL14047

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Abstract: This RPP describes the environmental requirements that must be met to continue to operate. Requirements include, env. surv. program, env. notifications, radioactive air emissions, env. operating specifications for ALARACTs, equipment requiring annual calibration, non-radioactive NOCs, liquid effluents, controls on storage tank systems, transfer operations, tank inspections, dst integrity assessments, soil contamination, and incidental discharges.

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ENVIRONMENTAL SPECIFICATION REQUIREMENTS

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ACRONYMS

ALARACT	as low as reasonably achievable control technology
AOP	Hanford Site Air Operating Permit
CAM	Continuous Air Monitor
DCRT	double-contained receiver tank
DST	double-shell tank
Ecology	State of Washington, Department of Ecology.
ESD	Environmental Specifications Document
ENRAF™	Enraf-Nonius Series 854 – Trademark of the ENRAF Corp., Houston, Texas
EP	Environmental Program
FIC	Food Instrument Corporation (tank waste level measuring device)
HEGA	High-efficiency gas absorber
NOC	Notice of Construction
MEI	Maximally Exposed Individual
mrem	millirem
MT	Manual Tape
OSD	Operating Specification Document
ORP	The U.S. Department of Energy, Office of River Protection
PTRAEU	Portable Temporary Radioactive Air Emission Units
RAE	Radioactive Air Emissions
RCRA	Resource Conservation and Recovery Act
SST	single-shell tank
TEDE	Total effective dose equivalent
TEDF	Treated Effluent Disposal Facility
TFC	Tank Farm Contractor
WDOH	Washington State Department of Health

DEFINITIONS

TERM	DEFINITION
ALARACT	(As Low As Reasonably Achievable Control Technology) – Routine requirements that mitigate any airborne release to the environment.
ALARACT Demonstration -	Regulatory term --formal documentation of environmental controls for frequently performed activities, including activity description, control statements and requirements for periodic monitoring.
Alternate Monitoring Devices	Alternate monitoring devices are those which may be used in place of a PRIMARY monitoring device to provide a similar or equivalent reading. An example is using a zip cord or manual tape as an ALTERNATE to an ENRAF™ reading. In most cases, an ALTERNATE device is not permanently installed on the tank and may be removed when not needed.
Contained - Regulatory term	Engineered barriers, which may be applied in varying degrees, to prevent the spread of contamination
Continuous HPT Coverage	Monitoring by a Health Physics technician, sufficient to immediately influence or stop work based on observed radiological conditions and/or work practices.
Decontamination	The process of removing contamination, including draining of liquids in a system if applicable.
Down Time	Any period of time that a component is not operating, either for maintenance or equipment malfunction.
Existing	Any system or component (riser, inlet port, etc) that is installed at the Tank Farms facility at the time.
Intermittent Coverage	Periodic monitoring considered sufficient to verify radiological conditions and frequent enough to exclude any reasonable potential for unmonitored change.
Intrusion Detection	Monitoring for increases in single-shell tank (SST) waste surface level or interstitial liquid level.
Leak Detection	For SST, in-tank waste monitoring for decreases in surface level or interstitial liquid level For DST, annulus monitoring for liquid level between the inner and outer tank shells or a decrease in primary liquid level For catch tanks or DCRT, either a) monitoring for liquid increases in the secondary containment for tanks with secondary containment monitoring capability, or b) in-tank waste surface monitoring for decreases in surface level for direct-buried tanks.
Limit	A minimum or maximum value or a required action to meet an

TERM	DEFINITION
	environmental requirement (found in a permit, regulation or agreement with a Regulator).
Major or Designated Stack	Regulatory term -an air emission point which has the potential to emit an offsite Total Effective Dose Equivalent of more than 0.1 mrem/year.
Minor or Non-Designated Stack	Regulatory term -an air emission point which has the potential to emit an offsite Total Effective Dose Equivalent of 0.1 mrem/year or less.
Out of Service	A device being unavailable due to electrical or mechanical failure of the device itself, or lack of a required support system, (e.g., electrical power or instrument air), or equipment being inaccessible due to nearby activities. This can be due to either planned and/or scheduled outages, unplanned failures, or natural disasters.
Periodic Confirmatory Measurement - Regulatory term	Emission sampling and analysis data, required by WDOH, used to ensure that ALARACT demonstration [requirements] are being met.
Post-Job [Survey] - Regulatory term	Health physics survey of work area after an activity using an ALARACT demonstration to verify that post-task radiological conditions (removable contamination) are at pre-job levels or better.
Primary Monitoring Device	A primary detection monitoring device for a single-shell tank is the instrument most capable of identifying a leak or intrusion with the highest level of confidence. Primary devices, were required, are specified for each tank in this ESD.
Radiological Surveys - Regulatory term -	Environmental radiological monitoring of pre-and post-task radiological conditions to provide required ALARACT demonstration data. **Note** -ALARACT Demonstrations were developed for WDOH for the purpose of verifying air emissions during normal operational type activities. The radiological surveys indicated for the demonstrations are swipes for removable contamination. These demonstrations do not exempt dose rate and direct contamination surveys from being performed in the assessment of radiological work conditions.
Regulator	A State or Federal agency with jurisdiction over the Hanford Site, usually interpreted to mean the DOE and those agencies with environmental responsibilities such as WDOH and the EPA.
Relay to -Reserved term	In Regulatory terminology, "relay to" means to notify a state agency.
Reporting Time - reserved term	The allowable time period between an event and required formal notification to WDOH.
Specification Limit	Specification limits are limits set on leak and intrusion detection or survey methods which must be adhered to. Specification limits on data measurements are those which set an action point for when a value is considered abnormally low or high, triggering further investigation.

TERM	DEFINITION
	Specification limits on data measurement frequencies are the maximum time limits permitted between successive measurements.
Swipes/Smears - interchangeably	A measurement technique using a cloth to collect loose radioactive contamination for measurement.
Trend Line	A baseline liquid level for a tank that allows for a naturally occurring decreasing or increasing trend. The changes are normally due to evaporation or condensation, but may also be due to physical changes with the waste or temperature effects. The historical trends of the level measurements for the tank are statistically evaluated to determine a least-squares fit through the data set.
Verified Reading	A re-measurement or instrument reading of a parameter found to be outside an ESD specification limit is repeatable, and is reliable..

DEFINITIONS OF DURATION TERMS
For this ESD, the definition of a monitoring frequency of "DAILY" means at least once in the period from 00:00 hours to 23:59 hours each day. There shall be a minimum of 8 hours between successive readings.
For this ESD, the definition of a monitoring frequency of "WEEKLY" means at least once in the period from 00:00 hours on Monday through 23:59 hours on the following Sunday. There shall be a minimum of 72 hours between successive readings.
For this ESD, the definition of a monitoring frequency of "MONTHLY" means at least once in the period from 00:00 hours on the 1st day of each month to 23:59 hours on the last day of the same month. There shall be a minimum of 7 days between successive readings.
For this ESD, the definition of a monitoring frequency of "QUARTERLY" means at least once in each of the periods from 00:00 hours on January 1 through 23:59 hours on March 31, 00:00 hours April 1 through 23:59 on June 30, 00:00 hours on July 1 through 23:59 on September 30, and 00:00 hours on October 1 through 23:59 hours on December 31. There shall be a minimum of 31 days between successive readings.
For this ESD, the definition of a monitoring frequency of "YEARLY" or "annual" means at least once in the period from 00:00 hours on January 1 to 23:59 hours on December 31 of the same calendar year. There shall be a minimum of 90 days between successive readings.

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE

Through regulations, permitting or binding negotiations, Regulators establish requirements, limits, permit conditions and Notice of Construction (NOC) conditions with which the Office of River Protection (ORP) and the Tank Farm Contractor (TFC) must comply. Operating Specifications are technical limits which are set on a process to prevent injury to personnel, or damage to the facility or environment. The main purpose of this document is to provide specification limits and recovery actions for the TFC Environmental Surveillance Program at the Hanford Site. Specification limits are given for monitoring frequencies and permissible variation of readings from an established baseline or previous reading. The requirements in this document are driven by environmental considerations and data analysis issues, rather than facility design or personnel safety issues. This document is applicable to all single-shell tank (SST) and double-shell tank (DST) waste tanks, and the associated catch tanks and receiver tanks, and transfer systems.

This Tank Farm Environmental Specifications Document (ESD) implements environmental-regulatory limits on the configuration and operation of the Hanford Tank Farms facility that have been established by Regulators. This ESD contains specific field operational limits and recovery actions for compliance with airborne effluent regulations and agreements, liquid effluents regulations and agreements, and environmental tank system requirements.

The scope of this ESD is limited to conditions that have direct impact on Operations/Projects or that Operations/Projects have direct impact upon. This document does not supercede or replace any Department of Energy (DOE) Orders, regulatory permits, notices of construction, or Regulatory agency agreements binding on the ORP or the TFC. Refer to the appropriate regulation, permit, or Notice of Construction for an inclusive listing of requirements.

1.2 APPLICATION OF LIMITATIONS

Specification limits (also called 'limitations') in this document are organized by type of regulation. For each limit statement in this document, a summary of the requirements driving the limit, a specific technical basis and recovery actions for a nonconformance are provided.

If discovery of a potential ESD limit nonconformance occurs, a screening for an occurrence report is required.

CH2MHill Hanford Group, Inc. Environmental Program (EP) is the organization tasked with interpretation of regulatory limits and with formal notification to Regulators if a limit is breached. Operations organizations shall notify EP of discovery of any nonconformance as soon as possible. EP shall make all notifications to Regulators within required timing (generally within 24 hours of an event).

Specification limits are provided for monitoring frequencies and permissible deviations of readings from an established baseline or previous reading. Each section lists the required response and actions to be followed when a specification limit is exceeded and what constitutes a violation of this ESD. Leak and intrusion detection is specified for each SST, DST, and Catch Tank, in OSD-T-151-00031, "Operating Specifications for Tank Farm Leak Detection and Single-Shell Tank Intrusion Detection". Pre-approved ALTERNATE measurement devices are also specified for SSTs, catch tanks, and receiver tanks, which can be used if the designated device is out of service per OSD-T-151-00031.

2.0 ENVIRONMENTAL PROGRAM

2.1 ENVIRONMENTAL SURVEILLANCE PROGRAM

The environmental surveillance program is established and maintained in accordance with TFC-ESHQ-ENV_AP-P-01, "Scheduling, Planning, and Conducting Surveillance/ Compliance Inspections."

2.2 ENVIRONMENTAL NOTIFICATIONS

Environmental notifications are specified within the text of each section of this ESD. The notification process within TFC (established in TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notifications") shall be adhered to when making the appropriate notifications.

Mode Applicability: Operation, Construction, and Standby

Basis Requirements

Reference
HNF-IP-0842, Volume 6, Section 2.1, "Scheduling, Planning, and Conducting Surveillance/ Compliance Inspections."
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notifications"

3.0 RADIOACTIVE AIR EMISSIONS

This section of the ESD provides the limitations associated with the Air Operating Permit, Radioactive and Non-radioactive Notices of Constructions, and as low as reasonably achievable control technology (ALARACT) demonstration requirements.

3.1 AIR OPERATING PERMIT

3.1.1 Emissions From Tank Farms Stacks

Emissions from the following designated emission units (major stacks) shall be continuously monitored via a functional continuous air monitor (CAM) and sampled via a functional record sampler during emission operations. Per Washington State Department of Health (WDOH) requirements, during periods or record sampler outage, waste disturbing activities (e.g., saltwell pumping, rotary mode sampling, waste transfers) within tanks served by the affected exhauster, must be shutdown).

Mode Applicability: Operation, Construction, and Standby

Stack Number	Tank or Equipment Served By Stack
296-P-32	Rotary Mode Core Sampler
296-P-33	Rotary Mode Core Sampler
296-P-34	Rotary Mode Core Sampler
296-A-42	241-AY/AZ Tank Farm Ventilation
296-P-47	Liquid Pumping and enhanced sluicing on Tank 241-C-106
296-A-25	244-A lift station
296-B-28	244-BX double contained receiver tank (DCRT)
296-C-5	244-CR vault
296-S-22	244-S DCRT
296-T-18	244-TX DCRT

Exception: After notification to EP, a record sampler may be taken out of service for preventive maintenance for 8 hours.

Exception: A record sampler may be taken out of service for 72 hours to perform repair or corrective maintenance. Outages for filter paper changes are excepted.

Note 1: A functional CAM or record sampler is defined as capable of performing its intended function (e.g. monitor/alarm or collection). Performing that function (e.g. filter paper in, O-rings in place, canister on, and vacuum pump on).

Note 2: From the regulatory perspective, it is desirable but not required that emissions from minor stacks be continuously monitored via a CAM and sampled via a record sampler.

Actions

Conditions/Information	Required Action	Inspection Monitoring Duration Requirements
Detection/Control: EP establishes stack sampling and monitoring system flow rates. These flow rates are documented in technical procedure HNF-IP-0842, Volume 6, Section 5.1, "Radioactive Airborne Effluent Sampling". Daily inspections of stack continuous air monitors (CAM) and effluent record samples are also conducted per technical procedure HNF-IP-0842, Volume 6, Section 5.1, "Radioactive Airborne Effluent Sampling".	If a CAM or record sampler on a major stack is found to be non-functional during surveillance or due to an alarm.	Notify EP.
	AND EP shall notify WDOH of a record sampler outage	Within 24 hours of the event.
	AND The function provided by the CAM or record sampler shall be restored	Within 72 hours
Recovery: Waste-disturbing activities with tanks served by the affected exhauster must be shutdown.	Failure to make notifications within the required timing to EP or the WDOH is considered an ESD nonconformance, AND Shall be screened for reporting as an Occurrence via the occurrence reporting system.	Per WDOH requirement, during periods of record sampler outage, waste disturbing activities within tanks served by the affected exhauster, must be shutdown IMMEDIATELY.

Basis Requirements

Reference:
TF-OPS-005, "Daily CAM and Record Sampler Inspections", current revision
Regulatory Basis: 40 CFR 61
Regulatory Basis: WAC 246-247

3.2 NOC FOR 241-AY/AZ PRIMARY VENTILATION (STACK 296-A-42)

Mode Applicability: Operation, Construction, and Standby
Emission Unit: (200E) P-296A042-001
WDOH Emission Unit ID: 93
Page in Air Operating Permit (AOP): 2-20

WDOH Abatement Conditions	
Zone or Area:	
Abatement Technology: Fan	Fan
Required Units: 1	1
Additional Description:	2 parallel flow paths
Zone or Area:	
Abatement Technology: HEGA	HEGA (High Efficiency Gas Absorber)
Required Units: 1	1
Additional Description:	2 parallel flow paths
Zone or Area:	
Abatement Technology: HEPA	HEPA
Required Units: 2	2
Additional Description: Before and	Before and after the HEGA 2 parallel flow paths
Zone or Area:	
Abatement Technology: Heater	Heaters
Required Units: 1	1
Additional Description:	2 parallel flow paths with 1 operational
Zone or Area:	
Abatement Technology:	High Efficiency Mist Eliminator (HEME)
Required Units: 1	1
Additional Description:	
Zone or Area:	
Abatement Technology:	Condensers
Required Units:	1
Additional Description:	

WDOH Monitor Condition	
Required Sampling:	Continuous
Sampling Frequency:	Continuous
Radionuclide Requiring Measurements:	Sr-90 All radionuclides that contribute greater than 10% of the potential-to-emit TEDE to the MEI, greater than 0.1 mrem/yr potential to emit TEDE to the MEI, and greater than 25% of the TEDE to the MEI after controls.
Federal and State Regulatory Requirement: 40 CFR 61.93(b)(4) WAC 246-247-75(2) **Permit Monitoring and Testing Procedure:** Method 2 appendix A method 114 appendix B 61.93(b)(2)(ii) ANSI N13.1	

NOC: Ventilation Upgrades
Permit: AIR 98-708
Date: 07-10-1998
NOC ID: 286
Date In AOP: 07-02-2001
Date Obsolete: 12-31-2002

WDOH Conditions
1. Any problems, which could affect the monitoring, ventilation or controls to this facility, must be reported to WDOH.
2. Abatement controls are those required to be in place at the point effluent enters the vapor space, not necessarily at a common header. Therefore, the following are required control: the recirculating and cooling system coming off each tank, consisting of a condenser, evaporative tower, pump and moisture separator; a condenser at the common header, with a water chiller, and pump, a high efficiency moisture eliminator; an electric heater, two parallel sets of HEPA filters, each with a high efficiency gas absorber. Down time for any of these components must be negotiated with WDOH.
3. The ventilation flow rate is limited to a maximum of 0.5 cubic meters per second.

NOC: Ventilation Upgrades, Rev 0A
Permit: NRA
Date: 01-19-1999
NOC ID: 333
Date In AOP: 07-02-2001
Date Obsolete: 12-31-2002

3.3 NOC FOR ENHANCED LIQUID REMOVAL AND SLUICING OF C-241-106

Mode Applicability: Operation, Construction, and Standby

Emission Unit ID: 486
Emission Unit Name: 200 Area Diffuse/Fugitive
WDOH NOC ID: 540

WDOH Monitor Condition
Federal and State Regulatory Requirement: WAC 246-247-075(3) **Permit Monitoring and Testing Procedure**: 40 CFR 61, Method 114 appendix B, latest revision
WDOH Conditions for 200 Area Diffuse/Fugitive Emissions
1. Prior to pumping liquid from 241-C-106 the breather filter shall be verified to be valved open.
2. Periodic confirmatory measurements of the breather filter shall be a monthly smear taken on the downstream side of the breather filter, during sluicing operations. Any positive results above back ground shall be reported to the WDOH.
3. The Breather Filter shall be tested annually in-place with a minimum efficiency of 99.95% in accordance with the requirements in ASME N510, section 10.
4. WDOH approved logs shall be used to track the Annual Possession Quantities for Pit Cover Removal and the abated offsite dose shall not exceed 5.96E-06 mrem/year.
5. A WDOH approved log shall be used to track total days of liquid pumping under passive ventilation, and shall not exceed 60 days.
6. Total soil excavated shall not exceed 5,000 cubic feet.
7. WDOH approved logs shall be used to track the Annual Possession Quantities for Equipment Removal and the abated offsite dose shall not exceed 6.3E-03 mrem/year.
8. WDOH approved logs shall be used to track the Annual Possession Quantities for Soil Excavation and the abated offsite dose shall not exceed 1.69E-03 mrem/year.

WDOH Abatement Equipment Condition/Requirements

Zone or Area:
Abatement Technology: Fan
Required Units: 1
Additional Description:
Zone or Area:
Abatement Technology: HEPA
Required Units: 2
Additional Description: In series
Zone or Area:
Abatement Technology: Prefilter
Required Units: 1
Additional Description:
Zone or Area:
Abatement Technology: Heater
Required Units: 1
Additional Description:
Zone or Area:
Abatement Technology: Demister
Required Units: 1
Additional Description:

NOC: Liquid Pumping and Enhanced Sluicing on Tank 241-C-106
Permit: AIR 02-1107
Date: 11-25-2002
NOC ID: 540
Emission Unit Name: 296-P-47
Emission Unit ID: 498
Date Obsolete: October 2003

WDOH Monitor Condition	
Required Sampling:	Continuous during emission unit operation
Sampling Frequency:	Change record sample every 2-weeks during emission unit operation
Radionuclide Requiring Measurement:	All radionuclides, which could contribute 10% of the potential EDE.
Federal and State Regulatory Requirement: WAC 246-247-075	

Permit Monitoring and Testing Procedure: 40 CFR 61, Method 114, Appendix B
WDOH Conditions
1. No activities, other than those explicitly described within this NOC, shall be conducted without prior written approval. The approved activities are limited to: Step 1: • Fix and/or remove contamination and blown in soil/debris in the 241-C-06B heel pit in accordance with ALARACT 4, ALARACT 6, ALARACT 14, and ALARACT 15. • If necessary, a HEPA vacuum will be used in accordance with the sitewide NOC. • Remove a heel pit pump out of riser R-13 in the 241-C-06B heel pit in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15, and ALARACT 16. • Place conduit in a trench in accordance with ALARACT 5. • Remove a thermocouple out of riser R-14 in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15, and ALARACT 16. • Install slurry pump for the sluicing operation in risers R-9, R-13, or R-14 in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15, and ALARACT 16.
Step 2: • Fix and/or remove any contamination and blown in soil/debris in the 241-C-06C sluice pit in accordance with ALARACT 4, ALARACT 6, ALARACT 14, and ALARACT 15. • If necessary, a HEPA vacuum will be used in accordance with the sitewide NOC. • Remove the old sluicer and install new sluicer equipment in the R-3 riser, if needed, in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15, and ALARACT 16.
Step 3: • Fix and/or remove any contamination and blown in soil/debris in the 241-C-06A sluice pit in accordance with ALARACT 4, ALARACT 6, ALARACT 14, and ALARACT 15. • If necessary, a HEPA vacuum will be used in accordance with the sitewide NOC. • Remove the failed pump equipment out of R-9 and R-6 risers used for prior slu9icing operation in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15, and ALARACT 16. • Install new sluicer equipment in the R-6, R-7, R-5, or R-9 riser, or use the existing project W-320 sluicing nozzle, in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15, and ALARACT 16. • Place an in-tank closed circuit television camera or television monitoring system in risers R-1, R-7, R-8, or R-14 in accordance with ALARACT 1, ALARACT 4, ALARACT 6, ALARACT 13, ALARACT 14, ALARACT 15, and ALARACT 16.
Step 4:

• Pump out remaining free liquid in the tank to the DST system through a pump installed in either riser R-9, R-13, or R-14 under passive ventilation. The addition raw water will be added to C-106 in a manner in which there is a net loss of liquid volume to the tank. For example there will be an addition of water 0-20 gpm at the pump face to help "cut" the liquids in the tank for ease in pumping. The pump rate will be similar to 50 gpm. Therefore, the net loss of liquid in the tank would be approximately 30-50 gpm. Controls for this activity will be done in accordance with ALARACT 11. The addition of this water is similar to how saltwell pumping occurs with no increase in the tank volume due to raw water additions.	
Step 5 (applies only to the 296-P-47 emission unit): • Sluice and pump the solids that become a slurry into the DST system using raw water (or recirculated 241-C-106 water) as the sluicing agent. This activity shall only be performed during operation of the 296-P-47 portable exhauster. The emission unit shall be sampled continuously with a shrouded probe. The same location, shrouded probe assembly, transport line and sample collection shall be qualified in accordance with the requirements of ANSI N13.1-1999.	
Step 6: • After sluicing an "in-tank vehicle" (ITV) could be used, if necessary, to collect the remaining tank contents to be slurried through the sluicing pump to bring the tank contents down to <360 cubic feet in volume. This activity shall only be performed during operation of the 296-P-45 portable exhauster. The ITV shall be installed through a riser in accordance with ALARACT 1 and ALARACT 13. The ITV will be used to push the remaining tank material into the center of the tank to be pumped. The ITV shall not move faster than 2 mph. If big chunks of sludge need to be broken, the tracks or plow blade could be used to break up the material so it can be pumped. The "water cannon" on the ITV shall not be used in tank 241-C-106. Upon removal of the tank the ITV shall be decontaminated with the in tank using ultrasonic decontamination and then go through a spray ring.	
2) Radiological field surveys will performed during replacement of the stack and associated sampling and monitoring equipment. HPT coverage will be provided during excavation with these activities stopping if evenly distributed (i.e., non-speck) contamination detection reading of 100,000 dpm/100cm2 beta-gamma, or 35 dpm/100cm2 above background alpha are encountered. If contamination levels in affected areas are greater than 1.000 dpm/100cm2 beta gamma and 20 dpm/100cm2 alpha, contamination controls including bagging and taping, applying fixatives, foaming, or glove bags will be used. A 20 mph sustained wind speed restriction shall apply to all demolition and replacement work. When ventilation is restored, between shutdown and completion of the upgrades, the stack emissions measurement system will be restored.	
3) The facility shall report to WDOH any unexpected release of	24 hours

radioactivity or if there is a shutdown or other condition that, if it were allowed to persist or lasts more than four hours, would result in emissions of radionuclides in excess of any standards or limitations in the license. Applicable standard (WAC 246-247-040) include unit specific emission limits (paragraph 5), the offsite dose standard (paragraph 1), BARCT (paragraph 3) or ALARACT (paragraph 4), whichever is applicable, or any limitations included in the approval (paragraph 5)).	
4) HEPA filters shall be individually tested in-place to the requirements of ASME N510, section 10, with a minimum efficiency of 99.95%.	Test annually
5) The emission unit shall be operational during all sluicing activities.	
6) The emission unit's hours of operation shall be tracked on a WDOH approved log and shall not exceed 2880 hours of operation.	
7) Checks shall be performed on the exhaust duct to ensure there is no deterioration of the ductwork or leakage at the connections points.	Monthly checks
8) Within one year of initial use of the exhauster the emission unit monitoring system shall have the following activities performed:	
• Inspect pitot tube systems for leaks	• At least annually
• Inspect nozzles for alignment, presence of deposits, damage to sharp-edged nozzles, or other potentially degrading factors.	• At least annually
• Check transport lines and if visible deposits are present, perform cleaning.	• At least annually • At least annually
• Checks to ensure the tightness of all fittings and connections as well as a leak test of the sample system.	• At the start of each sampling period
• Inspect rotameters of sampling systems for presence of foreign matter	• At least quarterly • At least annually
• Check the response of stack flow rate monitoring and control system. • A functional/calibration check of monitoring system instrumentation.	
USDOE shall provide to WDOH for review and approval, copies of the procedures used to perform the above activities	

3.4 CATEGORICAL NOC FOR USE OF THE GUZZLER VACUUM EXCAVATION SYSTEM FOR RADIOLOGICALLY LIMITED ACTIVITIES ON THE HANFORD SITE

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: This document provides the Regulatory requirements established per the "Categorical radiological NOC for use of the guzzler vacuum excavation system for radiologically limited activities on the Hanford site." Only the field activities allowed by the NOC are documented in this ESD. For work planning processes, the NOC should be used to document all specifics

associated with the use of the guzzler. This NOC applies to guzzler activity **outside** the 241-A, 241-AN, 241-AP, 241-AW, 241-AR, 241-AY, 241-AZ Tank Farms, 204-AR, and 244-A Lift Station facilities. It is also prohibited from being used under this NOC in the following areas as noted in the Requirements section B, below.

Actions

Conditions and Information	Required Action
Requirements	A. Activities approved under this NOC (AIR 02-302): The guzzler may be utilized for the following: • Potholing activities to support utility locations of soil (sand, dirt, gravel, gravel and tar mixtures and rock, or any combination of these items), • Soil removal/general excavations, and • Radiologically limited activities (i.e., less than or equal to 50,000 dpm beta-gamma and less than or equal to 140 dpm alpha contamination) involving roof or pit cleaning. **Note**: For purposes of this NOC, "soil" will be defined as sand, dirt, gravel, gravel and tar mixtures and rock, or any combination of these items.
	B. When the HEPA filters are replaced, an annual screening of the HEPA filtration system is required to be performed.
	C. In most cases, for excavations the soil will be used for backfilling of excavated areas. Backfilling will be performed manually (AIR 02-302). **Note**: The regulated guzzler is limited to: (AIR 02-302): • Potholing to support utility locations, soil removal/general excavations, and radiologically limited activities (e.g., stop work trigger is >50,000 dpm/probe size beta-gamma and/or 140-dpm/probe-size alpha) involving roof or pit cleaning. • .After backfilling a trench, the health physics technician will survey the surface to ensure the area is free of contamination. If contamination is found, it must be

Conditions and Information	Required Action	
	removed or fixed in place. • In most cases, excavated soil will be used for backfilling of the excavated areas. The backfilling will be completed manually, using shovels, or using backhoes, loaders, or packers. • For cleaning activities and some excavations, the soil will either be containerized for disposal or transported to the burial grounds within the Guzzler collection tank for non-containerized disposal. • Only radiologically contaminated or potentially contaminated soil will be removed or excavated using the regulated Guzzler • The regulated Guzzler will not be used for the decontamination valve pits within the tank farms. It is also excluded from areas containing regulated chemic al contamination and/or radiological contamination above 50,000 dpm/probe size beta-gamma and/or 140-dpm/probe-size alpha. • Soil can be slowly dumped from the collection tank by controlling the raising and lowering speed of the tank. • In those cases where the regulated Guzzler is physically inaccessible, cleaning or excavation as well as any backfilling activities will be completed using backhoes, loaders, compactors with plates, and/or picks and shovels, as appropriate. • The facility must be able to demonstrate the reliability and accuracy of emissions data and other test results from the Guzzler.	
	D. There is a stop work trigger at 50,000 dpm/probe size beta-gamma and alpha of 140 dpm/probe size (AIR 02-302).	
	E. During excavation, Health Physics Technicians soil will survey the soil every linear and vertical foot. (AIR 02-302).	
	F. If there is an unexpected release of radioactivity, or if there is a shut-down or other condition that, if allowed to persist would result in emissions of radionuclides in excess of any standards or limitations, or that last more than four hours, it must be promptly reported to EP in order that it is reported to WDOH <u>within 24 hours</u> (AIR 02-302).	Release must be reported to WDOH within 24 hours of occurrence
	G. All soil excavations must cease if sustained winds reach or exceed 20 mph. (AIR 02-302).	
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP.	
Recovery	Failure to notify EP of a release is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system. Survey the affected areas immediately upon discovery.	

Basis Requirements

Reference	Comment

FDH-9950235, National Emissions Standard for Hazardous Air Pollutants application for Approval of the Categorical use of the Guzzler Vacuum Excavation System for Radiologically Limited Activities on the Hanford Site.	NOC Application
WDOH Letter AIR 02-302, "Use of the Guzzler Vacuum Excavation System for Radiologically Limited Activities on the Hanford Site"	Author: A.W. Conklin, Washington State Dept. of Health
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.5 NOC FOR GUZZLER EXCAVATION AND BACKFILLING ACTIVITIES IN SUPPORT OF THE 200 EAST AREA A FARM COMPLEX

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: This document provides the Regulatory requirements established per NOC for guzzler excavation and backfilling activities in support of the 200 East Area A Farm Complex. Only the field activities allowed by the NOC are documented in this ESD. For work planning processes, the NOC should be used to document all specifics associated with the use of the guzzler. This NOC applies to guzzler activity **inside** the 241-A, 241-AN, 241-AP, 241-AW, 241-AR, 241-AY, 241-AZ Tank Farms, 204-AR Facility, and 244-A Lift Station.

Actions:

Conditions and Information	Required Action
Requirements	A. The guzzler may be utilized for excavation activities of soil and gravel within the A Farm Complex (see Process Area Applicability above). Activities include, for example, potholing for utility locations and soil removal/general excavations (98-EAP-037). **Note**–The regulated guzzler will not be used for decontamination of valve pits, nor will it be used in any other tank farm complexes or areas without an additional NOC.
	B Excavation activities will be completed using the guzzler, along with shovels and picks. In some cases, excavation may be inaccessible for the regulated guzzler. Backfilling and excavation may be done with backhoes, front-end loaders, compactors with plates, and/or picks and shovels (98-EAP-037).
	C Soil will be removed from the collection tank and hoppers within the tank farm where the activity took place prior to movement of the regulated guzzler into another farm (98-EAP-037).
	D. During excavation, Health Physics Technicians will survey the soil every linear and vertical foot prior to excavation (98-EAP-037).

Conditions and Information	Required Action
	E. If "Hot Specks" are detected, during the radiological surveys, the "specks" will be removed and containerized before the excavation is allowed to continue, unless located at the bottom of the trench. In the bottom of the trench, the specks will be covered with clean fill. The contaminated soil will be segregated from the "clean" soil during excavation in spoil piles.
	F. After backfilling a trench, the health physics technician will survey the surface to ensure the area is free of contamination. If contamination is found, it must be removed or fixed in place (98-EAP-037).
	G. Failure to empty the guzzler prior to movement to another farm, failure to survey properly prior to excavation, or failure to remove contamination or fix in place following backfilling operations, shall be reported to EP (98EAP037).
	H. The guzzler is not equipped with any sampling or monitoring devices. Therefore, a routine schedule for periodic confirmatory measurements will be conducted as follows (98-EAP-037). A general stop work trigger of 10,000 counts per minute per probe size (15 cm^2 B P-11 probe) beta-gamma and alpha of 5 counts per minute probe size (57 cm^2 B portable alpha meter) from direct contamination will be used. Excavation and backfilling can resume once control of the contamination has been assured and it is determined the activity will not cause the total effective dose equivalent to exceed the accumulative 0.5 mrem/year for the maximum exposed individual on the regulated guzzler.
	I. The known tank volume (14 cubic yards) will be utilized during each excavation to determine the cubic yards of soil which have been removed, in order not to exceed the initial calculated amount of excavated soil.
Limitations	If stop work triggers greater than or equal to 10,000 counts per minute (100,000 dpm) beta-gamma and/or 5 counts per minute (50 dpm) alpha are exceeded: • Stop work immediately • Notify EP of the condition • EP shall make the required calculations and determine if work may proceed.
Recovery	Failure to make proper notifications to EP or to stop work at or above the trigger level is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system. Work shall be stopped and evaluated per the NOC.

Basis Requirements

Reference	Comment
98-EAP-037 NOC for Guzzler Excavation and Backfilling Activities in Support of the 200 East Area A Farm Complex.	NOC Application
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.6 NOC FOR HEPA FILTERED VACUUM RADIOACTIVE AIR EMISSION UNITS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Only the field activities allowed by the NOC are documented in this ESD. For work planning processes, the NOC should be used to document all specifics associated with this activity.

Actions

Conditions and Information	Required Action
Requirements	**Note**: (HNF-IP-0842, Volume 6, Section 5.2, is the controlling procedure for operation of HEPA vacuums at tank farms). HEPA Vacuum Units (HVU) are portable cleaners with exhaust flow rates ranging from 50 to 300 cubic feet per minute.
	A.) HVUs fall into two categories or use in this application: • those used for the reduction of smearable contamination, and • those used to reduce fixed contamination (DOE/RL 97-050).
	B. For smearable contamination, the use of HVU is limited to reduction of contamination on hard surfaces (e.g., concrete, permanently installed metal equipment such as risers, ventilation system components, piping, etc.). Soil matrices are excluded. Smearable contamination will not exceed 100,000-dpm/100 cm beta-gamma and 2,000-dpm/100 cm 2 alpha (DOE/RL 97-050). An exception to these limits is restricted to spot surface contamination areas found during outdoor radiological field surveys, and to clean up locally (e.g., dust, dirt, bird droppings, animal feces, spider webs, tumbleweed fragments, etc.). These types of materials could have beta-gamma contamination levels exceeding 1-million dpm/100 cm^2. This exception does not apply to areas normally posted as high contamination areas.
	C. The second category of use is for fixed contamination involving removal and/or penetration of contaminated surfaces (DOE/RL 97-050).
	D. Annually, the HVU are field-tested requiring an aerosol test/efficiency test, or equivalent pass/fail criteria of 99.95% for particles of 0.3 micron median diameter. In addition, the HVU filtration system is tested whenever the configuration is modified and/or the filtration system is opened (DOE/RL 97-050).
	E. A smear of the exhaust port will be conducted before and after each use of the HVU. If the exhaust port smear is positive, the unit will be tagged and removed from service (AIR 99-1103).

Conditions and Information	Required Action	
	F. When implementing an HVU, the operator's logs must contain (AIR 99-1103): • Location of operation and make and model of the unit • Date(s) of operations • Purpose of operation • Air emissions source constituents (if other than plutonium 239 and strontium 90) • Area cleaned (square meters) • Maximum contamination level encountered or analysis result • Potential radionuclide releases (in curies-see NOC) • Results of smears on the exhaust port(s) positive (in dpm/100 cm 2) or negative.	
	G. If there is an unexpected release of radioactivity, or if there is a shut-down or other condition that, if allowed to persist would result in emissions of radionuclides in excess of any standards or limitations, or that last more than four hours, it must be promptly reported to EP in order that it is reported to WDOH within 24 hours (AIR 99-1103).	Release must be reported to WDOH within 24 hours of occurrence
	H. The required controls are described as follows: the HVU must be field-tested annually, requiring an aerosol test/efficiency test, or equivalent pass/fail criteria of 99.95% for particles of 0.3 micron median diameter. In addition, the HVU filtration systems are to be tested whenever the configuration is modified and/or the filtration system is opened. A smear of the exhaust port shall be conducted before and after each use of the HVU. If the exhaust port smear is positive, the unit shall be tagged and removed from service (AIR 99-1103).	Annually
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP.	
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.	

Basis Requirements

Reference	Comment
DOE/RL 97-50 NOC for HEPA Filtered Vacuum Radioactive Air Emission Units.	NOC Application
WDOH Letter AIR 99-1103, "NOC for the HEPA Filtered Vacuum Radioactive Air Emissi0on Units", Rev. 1, dated November 4, 1999	Author: A.W. Conklin, Washington State Dept. of Health
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.7 NOC FOR PORTABLE/TEMPORARY RADIOACTIVE AIR EMISSION UNITS (PTRAEU)

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Only the field activities allowed by the NOC are documented in this ESD. For work planning processes, the NOC should be used to document all specifics associated with this activity.

Actions

Conditions and Information	Required Action	
Requirements	A.) The operator's logs for PTRAEU, must contain (DOE/RL-96-75): • Operator's name • Purpose of operation • Location of operation • Date(s) and time of start-up/shut-down of ventilation system • Estimated emissions • Record total hour meter readings of ventilation system operation • Air emissions source constituents and type (liquid, gas, solid) • Type of control equipment connected to the unit • Periodic confirmatory measurement.	
	B. If there is an unexpected release of radioactivity, or if there is a shut-down or other condition that, if allowed to persist would result in emissions of radionuclides in excess of any standards or limitations, or that last more than four hours, it must be promptly reported to EP in order that it is reported to WDOH within 24 hours (AIR 99-1102).	Release must be reported to WDOH within 24 hours of occurrence
	C. Duct work, seams, and potential release locations on the portable radionuclide releases according to the NOC. These routine checks should be kept as retrievable records (AIR 99-1102).	
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP.	
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.	

Basis Requirements

Reference	Comment
DOE/RL 96-75 NOC Portable/Temporary Radioactive Air Emission Units.	NOC Application
WDOH Letter AIR 99-1102,	No Record Copy available
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.8 NOC FOR ROTARY MODE CORE SAMPLING IN SX TANK FARM

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Only the field activities allowed by the NOC are documented in this ESD. For work planning processes, the NOC should be used to document all specifics associated with this activity.

Actions

Conditions and Information	Required Action	
Requirements	A. The SX exhauster must be continuously sampled whenever samples are being collected under this NOC (AIR 97-1101).	
	B. Records must clearly indicate when core samples are collected in rotary mode (AIR 97-1101).	
	C. The project is approved for 241-SX-101 through 105 in any combination, not to exceed eight cores per year (AIR 97-1101).	8 core drills/yr.
	D. The SX tank being sampled in rotary mode must be actively ventilated at all times (AIR 97-1101).	At all times
	E. Health physics monitoring and existing near field monitoring must be routinely performed to verify that no fugitive emissions occur. The fan or fans must be operated sufficiently to ensure that tank pressure is maintained below atmospheric pressure. If negative pressure is lost in the tank being sampled in rotary mode, the drill system must be shut down (AIR 97-1101).	
	F. The HEPA filters must be successfully demonstrated to have passed efficiency test prior to operating in RMCS in rotary mode. It must be at least 99.95% (for 0.3 micron median diameter particles) (AIR 97-1101).	Prior to operation of RMCS
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP.	
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.	

Basis Requirements

Reference	Comment
DOE/RL 97-70 NOC for Rotary Mode Core Sampling in SX Tank Farm.	NOC Application
WDOH Letter AIR 97-1101, "Approval of NOC for Rotary Mode Core Sampling in SX Tank Farm."	Author: A.W. Conklin, Washington State Dept. of Health
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.9 NOC FOR SALTWELL PUMPING TANKS 241-SX-104 AND 241-SX-106

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Only the field activities allowed by the NOC are documented in this ESD. For work planning processes, the NOC should be used to document all specifics associated with this activity.

Actions

Conditions and Information	Required Action	
Requirement	A. Activities approved by NOC (98-EAP-137 and 98-EAP-375): • Initial planning • Installation of saltwell screen • Jet pump installation • Transferring the liquid waste • Addition of limited amounts of water to prevent plugging of salt well screen and transfer line • Flushing transfer lines.	
	B. Water lancing operations are not to exceed 72 hours and the time will be administratively controlled (98-EAP-137 and 98-EAP-375).	72 hours
	C. 296-S-15, 241-SX exhauster efficiency filter test, must be performed annually and after each filter change-out to assure HEPA filtration of at least 99.95 % efficiency for removal of 0.3 micron median diameter particles (98-EAP–137 and 98-EAP-375).	Perform annually
	D. The 296-S-15 record sample will be collected once every two weeks (98-EAP–137 and 98-EAP-375).	Collect record sample once, every 2 weeks.
Limitations	If there are any deviations from the above limitations, notify EP.	
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.	

Basis Requirements

Reference	Comment
98-EAP-137 NOC for Saltwell Pumping Tank 241-SX-104.	NOC Application
98-EAP-375 NOC for Saltwell Pumping Tank 241-SX-106. (FDH-9855922)	NOC Application
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.10 NOC FOR VADOSE ZONE CHARACTERIZATION

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Only the field activities allowed by the NOC are documented in this ESD. For work planning processes, the NOC should be used to document all specifics associated with this activity.

Actions

Conditions and Information	Required Action	
Requirements	A. Sampling and change-out of the drums will have continuous health physics technician coverage (DOE/RL 99-34).	Continuous HPT coverage
	B. Emissions from the air rotary drilling activities will be contained using an active ventilation system attached to the process equipment and a passive vent system attached to the process equipment containment structure. The active ventilation system will have radioactive air emissions (RAEs) abated by one stage of HEPA filter. The HEPA filter will be tested to provide a minimum collection efficiency of 99.95 % for particulate with a median diameter of 0.3 microns (DOE/RL 99-34).	
	C. The exhaust fan will have maximum average velocity of 0.85 m^3 per second (1800 ft^3 per minute) with a range of 1200 to 2400 ft^3 per minute to maintain the ducting between the cyclone and the HEPA filter at atmospheric of less (DOE/RL 99-34).	
	D. A wind speed restriction of 20 mph will be applied to all drilling, sampling, and casing removal work. This criterion applies to sustained wind speeds as determined by the Hanford Meteorological Station (DOE/RL 99-34).	
	E. Periodic confirmatory sampling is required. For the air rotary type drilling, this shall consist of a destructive or non-destructive analysis of the record filter combined with radiological field surveys during the work (AIR 00-515).	

Conditions and Information	Required Action	
	F. The United States Department of Energy (USDOE) shall monitor this project or emission unit as follows (AIR 00-515): • To confirm low emissions, periodic confirmatory monitoring will be accomplished by operating three fixed head air samples around the location of where the drilling and sampling operations are occurring. • The fixed head air samplers will be located within 100 feet of where the drilling and sampling work activities are occurring • The fixed head air samplers will be operated whenever the work activities have the potential to emit radionuclides • The samples shall be composited for each three individual sites (total of three samples) • The samples shall be analyzed at the end of each borehole.	
	• Packaging of equipment and samples for shipment shall have surveys (swipes for removable contamination) performed in accordance with the ALARACT demonstrations.	
	G. If there is an unexpected release of radioactivity, or if there is a shut-down or other condition that, if to persist would result in emissions of radionuclides in excess of any standards or limitations, or that last more than four hours, it must be promptly reported to EP in order that it is reported to WDOH <u>within 24 hours</u> (AIR 00-515).	Release must be reported to WDOH within 24 hours.
	H. Emission from the activities shall be tracked via a log approved by WDOH (AIR 00-515).	
	I. No more than an average of 2,000 gallons of water (includes purge water, perched water, and ground water sampling) will be removed from each equivalent borehole. This is not to exceed 20,000 gallons of water per year (AIR 00-515).	20,000 gallons of water per year.
	J. The following controls are mandatory when handling perched water, ground water and ground water sampling: • all contaminated liquids shall be contained, • all exterior surfaces of liquid holding devices shall be maintained at the current radiological free release limit, • vented drums shall be maintained non-smearable; • storage and handling of the vented drums shall be as described in the site-wide vented drum NOC (AIR 00-515).	
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP.	
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.	

Basis Requirements

Reference	Comment
DOE/RL 99-34 NOC for Tank Waste Remediation System Vadose Zone Characterization.	NOC Application
WDOH Letter AIR 00-515, "NOC for Tank Waste Remediation System Vadose Zone Characterization"	Author: A.W. Conklin, Washington State Dept. of Health
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.11 NOC FOR PROJECT W-314 TANK RESTORATION AND SAFE OPERATIONS PHASE I

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Only the field activities allowed by the NOC are documented in this ESD. For work planning processes, the NOC should be used to document all specifics associated with this activity.

Actions

Conditions and Information	Required Action
	EXCAVATION
	A. Excavation • Areas may be encountered during excavation where components are covered by very hard soil or controlled density fill (low-strength concrete. Mechanical impact tools, such as jackhammer/roto-tool, would be used to break up such areas before excavation. • Removal of excavated material is normally done by mechanical methods such as a crane with skip bucket, powered skip, or front-end loaders. • Excavated material is placed in spoil piles. **NOTE:** Industrial safety requirements may require the use of intermediate transfer piles.) • Contaminated soil (>100,000 dpm/100cm^2 beta/gamma) is segregated from other soil. • Excavated areas shall be backfilled with the excavated soil or soil containing less contamination than the soil that was excavated. • Backfilling of excavated areas is accomplished by first placing controlled bucket, powered skip, and front-end loader to the top of the excavation area in minimized. • Contaminated soil is the first soil placed in the excavated areas, then covered with other excavated soil. • To meet density requirements, soil compaction is done using hand-guided mechanical compaction equipment. Outside of a tank farm, in a non-contamination area, vibratory roller compactors may be used. • Excavation shall also be conducted to allow for the pouring of concrete pads for future placement of equipment within the tank farm.

Conditions and Information	Required Action
	• To determine the Potential-to-Emit and calculate the annual dose to the Maximally Exposed Individual, all gross alpha contamination shall be assumed to be Am-241 and all gross beta contamination shall be assumed to be Sr-90. • The Radiological Containment Selection, Design, & Specifications Guide, RPP-7933, Revision 0, shall be used. Changes made to RPP-7933, Revision 0 shall be provided to WDOH. WDOH retains the right to change or add approval conditions and limitations based on the changes to RPP-7933. • The Annual Possession Quantity and the Potential-to-Emit to the MEI shall be tracked on a WDOH approved log. • When HEPA vacuums are used they shall follow all the requirements of the latest revision of the Radioactive Air Emissions Notice of Construction for HEPA Vacuums.
	B. Guzzler Operations Specifics • All guzzler operations shall meet the requirements of the latest approved Site-Wide Notice of Construction or the Tank Farm A-Complex Notice of Construction. • The Annual Possession Quantity and Potential-to-Emit to the MEI shall be tracked on a WDOH approved lot. The total APQ and Potential-to-Emit to the MEI for the Guzzler and hand excavation of soil shall not exceed the total APQ and Potential-to-Emit values. • To determine the Potential-to-Emit, and calculate the annual dose to the MEI, all gross alpha contamination shall be assumed to be Am-241 and all gross beta contamination shall be assumed to be Sr-90.
	PIT WORK

Conditions and Information	Required Action
	A) Frequently performed activities shall be done in accordance with activity descriptions found in ALARACT Demonstrations (HNF-4327): • ALARACT 4 "Packaging and Transportation of Waste" • ALARACT 6 "Pit Access" • ALARACT 12 "Packaging and Transportation of Equipment & Vehicles" • ALARACT 13 "Installation, Operation, and Removal of Tank Equipment" • ALARACT 14 "Pit Work" and, if required, • ALARACT 15 "Size Reduction of Waste Equipment for Disposal." • The process is the establishment of controls to prevent the spread of radioactive contamination, removal of pit cover blocks by heavy rigging methods, decontamination of pit by waster washing (pressure and non-pressure methods), application of fixative material on contamination, disconnection of equipment, equipment removal by manual or mechanical methods, package equipment for disposal (size reduction if necessary), pit surface preparation by manual abrasion (scrapping, sanding, chipping; on a surface that is damp or has fixative) of existing pit coating, application of pit coating material by manual methods or pressure spray methods, installation of new replacement equipment, installation of pit cover blocks by heavy rigging, packaging of waste, and transportation of waste and removed equipment.
	B. Project pit activities will include: • Preparation of pit surfaces and coring of walls or cover blocks. • Pit surface preparation is accomplished by mechanical abrasion of the existing pit coating, concrete substrate, and steel surfaces as needed. • Needle guns, sanders, wet blasting, and grinders are typical tools used. • In addition, surface preparation also may include repair of cracked concrete/concrete coatings. • Repair will require removal of cracked material to allow application grouting material. • Removal of cracked material may be performed using manual and power tools, and may also include using a HEPA vacuum to assist in the removal of loose debris. • Coring of pit walls and/or cover blocks for new nozzles or equipment installation comprised of replacing wall nozzles, leak detectors, cover blocks, pipe snub outs, and jumpers will also be performed. • A new AZ valve pit will be constructed and connected to the AZ tanks.
	PIPE CUTS

Conditions and Information	Required Action	
	• The cutting of waste transfer lines, tank risers, or contaminated piping shall be made using a low or high speed reciprocating or cut-off saw (sawzall, bandsaw), or other mechanical methods, such as a tri-tool. • Surveys of the exterior and/or interior of the pipe/riser shall be used to determine containment selection in accordance with Radiological Containment Selection, Design, & Specification Guide, RPP-7933.	
	• Continuous health physic technician coverage shall be present during all pipe work activities. • Abrasive methods, such as grinders or sanders, may be used to prepare the cut area for connection to the new section of transfer line. • Mating of the new piping to the existing transfer lines or tank riser, and other similar connections if necessary, will be performed using mechanical connection methods or welded flange connections.	
	MISCELLANEOUS CONDITIONS AND LIMITATIONS	
	A. Any unexpected release of radioactivity, shutdown, or other condition, that if allowed to persist, or lasts more than four hours spread of contamination would result in the emission of radionuclides in excess of any standards or limitation in the license, must be reported to WDOH within 24 hours. Notification will be through the Environmental Programs On-Call list (AIR 02-1227).	Release must be reported to WDOH within 24 hours of occurrence

Basis Requirements

Reference	Comment
Radiological Containment Selection, Design, & Specification Guide, RPP-7933, latest revision	Guide for Rad Containment
DOE/ORP NOC for Tank Restoration and Safe Operations Project W-314. (see CH2MHill letter CHG-9759636)	NOC Application
WDOH Letter AIR 02-1227, "NOC for the Tank Farm Restoration and Safe Operations, Project W-314"	Author: A.W. Conklin, Washington State Dept. of Health
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.12 NOC FOR SALTWELL PUMPING TANKS 241-SX-101, 241-SX-102, 241-SX-103, AND 241-SX-105

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Only the field activities allowed by the NOC are documented in this ESD work planning processes. The NOC should be used to document all specifics associated with this activity.

Actions

Conditions and Information	Required Action	
Requirements	A. The following activities are approved by this NOC for 241-SX-101, 241-SX-102, 241-SX-103, and 241-SX-105. (DOE/ORP 99-04 and AIR 00-108): • Installation of salt well screen • Jet pump installation • Transferring the liquid waste (via pumping process) • Addition of limited amounts of water to prevent plugging of saltwell screen and transfer line • Flushing transfer lines • Miscellaneous activities that will not increase emissions above those described in the NOC.	
	B. If there is an unexpected release of radioactivity, or if there is a shut-down or other condition that, if allowed to persist would result in emissions of radionuclides in excess of any standards or limitations in the license, or that lasts more than four hours, the facility must report, via EP, to WDOH within 24 hours (AIR 00-108).	Report release to WDOH within 24 hours of occurrence
	C. Testing of the 296-S-15 HEPA filters will be performed annually (AIR 00-108).	Annual testing
	D. Saltwell pumping will normally occur with the 296-S-15 exhauster operating. Saltwell pumping may be performed when 296-S-15 is shutdown for routine maintenance, filter change-outs, power outages, corrective maintenance, or upgrades (DOE/OR 99-04).	
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP to determine if a regulatory requirement has been violated.	
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.	

Basis Requirements

Reference	Comment
DOE/ORP 99-04 NOC for Saltwell Pumping Tanks 241 SX-101, 241-SX-102, 241-SX-103, and 241-SX-105.	NOC Application

WDOH Letter AIR 00-108, "NOC for Saltwell Pumping Tanks 241-SX-101, 241-SX-102, 241-SX-103, and 241-SX-105"	Author: A.W. Conklin, Washington State Dept. of Health
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.13 NOC FOR PROJECT W-211 INSTALLATION AND OPERATION OF A WASTE RETRIEVAL SYSTEM IN TANKS 241-AP-102 AND 241-AP-104

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Only the field activities allowed by the NOC are documented this document. For work planning processes, the NOC should be used to document all specifics associated with this activity.

Actions

Conditions and Information	Required Action
Requirements	A.) Activities authorized under this NOC are (DOE/ORP 99-09) • Installation of one mixer pump in each tank for mobilizing settled solids • Installation of a high pressure spray wash system on top of each of the 42 inch risers used of the mixer pumps • Installation of one decant/transfer pump in each tank for the transfer of waste • Installation of one closed circuit television for each tank • Construction of an annex to the existing 241-AP-271 Instrument Building to house retrieval instrumentation/electrical equipment and operator stations • Installation of electrical power and instrument cables and other utility tie-ins and/or upgrades • Removal of one transfer pump from AP-102 and AP-104 • Removal of a slurry distributor from AP-104 • Removal of a drop leg jumper from AP-102 • Relocation of a dip tube assembly to a different riser • Removal of jumpers from each of the three pits, central pump pit covers, and pump pit cover blocks • Removal of an existing 2-inch waste line • Removal of existing 8-inch annulus ventilation piping • Use of equipment and containers for removal, cleaning, decontamination, transport, storage and burial of in-tank components and soil • Performance of miscellaneous activities in support of construction and operation activities that will not increase emissions above those estimated in the NOC.

Conditions and Information	Required Action	
	B.) If needed for use during these activities, the regulated guzzler, a portable/temporary radioactive air emission unit, and a HEPA filtered vacuum radioactive air emission unit, may be used in accordance with the latest revisions of their NOC (DOE/ORP 99-09).	
	C.) Riser cutting and weld preparation will take place in a glove bag if the levels of removable contamination in the cut and weld area are greater than 10,000 dpm/100 cm^2 beta-gamma and 200 dpm/100 cm^2 alpha. Work in glove bags will not be performed if sustained winds are greater than 30 mph. Pit work will not be performed if sustained wind speeds are greater than 25 mph (DOE/ORP 99-09).	
	D.) While the 296-A-40 record sampler is operating, it will be inspected daily to ensure it is operating, and it will be calibrated in accordance with established practices (DOE/ORP 99-09).	
	E.) The mixer pump operation is limited to 450 hours of operation per year (DOE/ORP 99-09).	450 hours of operation per year.
	F.) If there is an unexpected release of radioactivity, or if there is a shut-down or other condition that, if allowed to persist would result in emissions of radionuclides in excess of any standards or limitations in the license, or that lasts more than four hours, it must be reported to WDOH <u>within 24 hours</u> (Make notification via EP) (AIR 00-106).	Release must be reported to WDOH within 24 hours of occurrence
	G.) The use of the regulated guzzler, portable/temporary radioactive air emission unit, and HEPA filtered vacuum radioactive emission units may be used, as needed, as prescribed by WDOH in their NOC approval (AIR 00-106).	
	H.) Soil excavation is limited to approximately 6000 cubic yards total, which includes 3600 cubic yards inside the tank farm. (AIR 00-106).	
	I.) J) If wind speeds exceed 30 mph, the work in glove bags will stop (AIR 00-106).	
	J.) In-tank emission controls for the installation and removal of equipment activates must be based on ALARACT 13 and must comply with the radiological controls specified in that ALARACT (AIR 00-106).	
	K.) Equipment removal will be in accordance with ALARACT 12 and ALARACT 13 (AIR 00-106).	
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP to determine if a regulatory requirement has been violated.	
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.	

Basis Requirements

Reference	Comment

Reference	Comment
DOE/ORP 99-09 NOC for Installation and Operation of a Waste Retrieval System in Tanks 241-AP-102 and 241-AP-104, Project W-211.	NOC Application
WDOH Letter AIR 00-106, "NOC for Installation and Operation of a Waste Retrieval System in Tanks 241-AP-102 and 241-AP-104, Project W-211"	Author: A.W. Conklin, Washington State Dept. of Health
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.14 NOD FOR WORK IN TANK FARM WASTE 244-CR VAULT

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: This document provides the Regulatory requirements established per NOC for work in tank farm 244-CR vault. Only the field activities allowed by the NOC are documented in this ESD. For work planning processes, this NOC should be used for work in Tank Farms 244-CR Vault to document all specifics associated with this activity.

Actions

Conditions and Information	Required Action
Requirements	A.) Whenever, possible, cover blocks should remain in place. If the containment tent is left unattended at any time the cover blocks are off, a temporary cover must be in place (AIR 00-206).
	B.) Cover blocks must be in place for leak testing (DOE/ORP 99-07).
	C.) All equipment coming out of the pit is contained or decontaminated. Removable contamination on the outer most container shall not exceed 1,000 dpm/100 cm^2 beta-gamma and 20 dpm/100cm^2 alpha before removal from the containment tent (DOE/ORP 99-07).
	D.) Removable contamination in the accessible portions of the pit is reduced to less than 100,000 dpm/100 cm^2 beta-gamma and 2,000-dpm/100 cm^2 alpha by washing, or an approved fixative is applied to the pit surfaces (DOE/ORP 99-07).
	E.) Plugged drains may be cleared using pressurized water up to 50 psi. Above 50 psi requires Engineering concurrence (DOE/ORP 99-07).
	F.) Unplugging transfer lines may use water pressure up to 150 psi. Above 150 psi requires an Engineering evaluation documented (see WDOH approval condition) (DOE/ORP 99-07).

Conditions and Information	Required Action
	G.) This NOC approval includes the following activities that might be performed in the diversion box of the 244-CR vault: • remove or install cover blocks, • perform inspections, • install, disconnect, change and cut up jumpers/blanks or other pit equipment, • Repair/replace valves, jumpers, pumps, filters, leak detectors, or other instrumentation/equipment. • Perform decontamination activities, • apply fixative with cover blocks on or off, • clear drains and check flow of drains, • Unplug transfer lines. • Miscellaneous activities • that will not increase emissions above the sum of the conservative concentration of particulate radionuclides potentially airborne due to the splashing of drain back to the pit, plus • The radionuclides partitioned from the remaining 10 gallons of liquid and solid waste after 490 gallons to the vault (AIR 00-206).
	H.) The required controls are as described (AIR 00-206): • Pre-job and post-job radiation surveys by Health Physics Technicians • Radiation work permits • Pit work is shut down or not initiated if wind speeds exceed 25 mph • Fixatives could be applied inside the pit with cover blocks on or off, or accessible portions of the pit decontaminated to less than 100,000 dpm beta/gamma and 2000 dpm for alpha • When cover blocks are removed, a handrail for fall protection is installed. The handrail must be draped in plastic, forming a contamination barrier • Affected transfer lines could be flushed with cover blocks in place with water before removing jumpers • Health Physics Technicians monitor the affected work area while jumpers are being removed from nozzles • Additional controls will be used for any pit activity that has a potential for exposing additional waste to the pit environment that would otherwise remain constant in transfer lines or their pit equipment • Primary activities that would require these additional controls include jumper change-outs, valve and nozzle replacements, and cutting up contaminated equipment. The additional controls are: • an open top containment tent designed to minimize the top opening if the containment tent is to left unattended at any time, a temporary cover is placed over the pit or the cover blocks will be re-installed • Active ventilation of the containment tent will be used after removal of the cover blocks during work activities to minimize radiological releases • Air in-flow will be achieved by using a 1000 cfm exhauster.

Conditions and Information	Required Action	
	I.) If there is an unexpected release of radioactivity, or if there is a shut-down or other condition that, if allowed to persist would result in emissions of radionuclides in excess of any standards or limitations, or that last more than four hours, it must be promptly reported to EP in order that it is reported to WDOH within 24 hours.	Release must be reported to WDOH within 24 hours of occurrence
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP to determine if a regulatory requirement has been violated.	
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.	

Basis Requirements

Reference	Comment
DOE/ORP-99-07 NOC for work in Tank Farms 244-CR Vault.	NOC Application
WDOH Letter AIR 00-206, "NOC for work in Tank Farms 244-CR Vault"	Author: A.W. Conklin, Washington State Dept. of Health
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.15 NOC FOR VAPOR SAMPLING OF MISCELLANEOUS UNDERGROUND UNITS WITH NO KNOWN PATH OF VENTILATION

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Only the field activities allowed by the NOC are documented in this ESD. For work planning processes, the NOC should be used to document all specifics associated with this activity.

Actions

Conditions and Information	Required Action

Conditions and Information	Required Action	
Requirements	A.) Activities allowed per this NOC are: • Performance of vapor sampling of miscellaneous underground units with no known path of ventilation. **Note:** This activity includes active and inactive underground tanks, wells, and other units • The NOC also allows for installation of temporary or permanent passive HEPA filtration on any units if vapor sample results show combustible gas levels in excess of 25% of the Lower Flammability Limit.	
	B.) Access to units covered under this NOC shall be in accordance with the controls and requirements of ALARACT 1 (NOC).	
	C.) Vapor sampling shall be performed in accordance with the controls and requirements of ALARACT 8. Excepted sections of ALARACT 8 as they apply to this activity are listed in the NOC.	
	D.) If there is an unexpected release of radioactivity, or if there is a shutdown or other condition that, if allowed to persist, would result in emissions of radionuclides in excess of any standards or limitations, or that last more than four hours, it must be promptly reported to EP in order that it can be reported to WDOH <u>within 24 hours</u> (AIR 00-510).	Release to be reported to WDOH within 24 hours of occurrence
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP to determine if a regulatory requirement has been violated.	
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.	

Basis Requirements

Reference	Comment
NOC "Radioactive Air Emissions Notice of Construction Vapor Sampling of Miscellaneous Underground Units with No Known Path of Ventilation" dated April 2000.	NOC Application
WDOH Letter Air 00-510, "Notice of Construction Vapor Sampling of Miscellaneous Underground Units with No Known Path of Ventilation", dated May 18,2000	Author: A.W. Conklin, Washington State Dept. of Health
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.16 NOC FOR TANK FARM INACTIVE FACILITY ENTRY AND SURVEILLANCE

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: This NOC is not intended to require controls for inactive buildings/structures that may be contaminated or contain contaminated equipment, but are not controlled as Airborne Radioactivity Areas, such as Air Lift Circulator shacks, lateral shacks, storage sheds, connex boxes, instrument buildings, or control rooms. Only the field activities allowed by the NOC are documented in this ESD. For work planning processes, the NOC should be used to document all specifics associated with this activity.

Actions

Conditions and Information	Required Action	
Requirements	A.) Activities allowed under this NOC are: • Facility access • Surveillance and inspection • Photography and videotaping • Sampling and surveying • Removal of access port shield plugs • Installation of video equipment • Electrical equipment inspections • Housekeeping • Application of fixatives	
	B.) Activities that will **NOT** be performed under this NOC include activities such as cutting, cleaning, drilling, decontamination, or other aggressive activities that would resuspend contaminates present on walls and other equipment (NOC).	
	C.) Controls will be determined by using the approved containment matrix from TFC Administration, TFC-ESHQ-RP_RWP-C-02, current revision, "Radiological Containment".	
	D.) If there is an unexpected release of radioactivity, or if there is a shutdown or other condition that, if allowed to persist, would result in emissions of radionuclides in excess of any standards or limitations, or that last more than four hours, it must be promptly reported to EP in order that it can be reported to WDOH within 24 hours (AIR 01-103).	Release to be reported to WDOH Within 24 hours of occurrence
	E.) The facility must maintain a log in an approved format by WDOH for these activities or emissions units (AIR 01-103).	
	F.) Whenever active ventilation is in operation, a PTRAEU must be used and those emissions will be tracked under the currently approved PTRAEU NOC. All of the applicable conditions and limitations stated for the PTRAEU NOC approval must be adhered to and clearly documented. This includes the emission limits and controls. The emissions from these activities are documented and recorded under the PTRAEU NOC only (AIR 01-103).	

Conditions and Information	Required Action	
	G.) During facility entries using a passive ventilation system, surveys and smears must be conducted and recorded on log sheets or survey reports. These reports and/or survey records must be readily retrievable (AIR 01-103).	Readily retrievable
	H.) If there is an unexpected release of radioactivity, or if there is a shutdown or other condition that, if allowed to persist, would result in emissions of radionuclides in excess of any standards or limitations, or that last more than four hours, it must be promptly reported to EP in order that it can be reported to WDOH within 24 hours (AIR 01-103).	Report to WDOH Within 24 hours of occurrence
	I.) The facility must maintain a log in an approved format by WDOH for these activities or emissions units (AIR 01-103).	
	J.) Whenever active ventilation is in operation, a PTRAEU must be used and those emissions will be tracked under the currently approved PTRAEU NOC. All of the applicable conditions and limitations stated for the PTRAEU NOC approval must be adhered to and clearly documented. This includes the emission limits and controls. The emissions from these activities are documented and recorded under the PTRAEU NOC only (AIR 01-103).	
	K.) During facility entries using a passive ventilation system, surveys and smears must be conducted and recorded on log sheets or survey reports. These reports and/or survey records must be readily retrievable (AIR 01-103).	
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP to determine if a regulatory requirement has been violated.	
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.	

Basis Requirements

Reference	Comment
NOC "Radioactive Air Emissions Notice of Construction Categorical Tank Farm Facility Entry and Surveillance".	NOC Application
WDOH Letter AIR 01-103, "Notice of Construction Categorical Tank Farm Facility Entry and Surveillance"	Author: A.W. Conklin, Washington State Dept. of Health
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.17 NOC FOR INSTALLATION AND OPERATION OF A WASTE RETRIEVAL SYSTEM IN TANKS 241-AN-101, 241-AN-102, 241-AN-103, 241-AN-104, 241-AN-105, AND 241-AN-107

Process Area Applicability: Only the field activities allowed by the NOC are documented in this ESD. For work planning processes, the NOC should be used to document all specifics associated with this activity.

Actions

Conditions and Information	Required Action	
Requirements	A.) A total of approximately 6000 cubic yards of soil will be excavated, which includes approximately 3600 cubic yards inside the tank farm. Backfill will be made with the original removed soil or non-contaminated controlled density fill (DOE/ORP-2000-15).	
	B.) Soil activities inside the tank farm fence will be performed in accordance with ALARACT 5 (DOE/ORP-2000-15).	
	C.) Clean spoil piles may be moved from one place to another within the tank farm with heavy equipment (backhoe, front end loader, etc). Soil excavation outside the tank farm fence may also be performed with heavy equipment. The regulated Guzzler may also be used as described in its NOC for use in the 241-A Tank Farm Complex (98-EAP-037) (DOE/ORP-2000-15).	
	D.) Any required cuts of contaminated piping will be made inside a glove bag using appropriate equipment such as a sawzall or tri-tool. Cuts without a glove bag may be performed providing the riser has removable contamination levels equal to or less than 10,000 dpm/100 cm^2 beta-gamma and 200 dpm/100 cm^2 alpha (DOE/ORP-2000-15).	
	E.) Work in glove bags will not be performed if sustained wind speeds are greater than 30 miles per hour (DOE/ORP-2000-15).	
	F.) If needed for use during these activities, a PTRAEU or HEPA filtered vacuum may my used in accordance with the latest revision of their NOCs (DOE/RL 96-75 and DOE/RL-97-50 respectively) (DOE/ORP-2000-15).	
	G.) Pit access and pit work will be performed in accordance with ALARACTs 6 and 14 (DOE/ORP-2000-15).	
	H.) Tank equipment removal will be performed in accordance with ALARACT 13 (DOE/ORP-2000-15).	
	I.) If there is an unexpected release of radioactivity, or if there is a shutdown or other condition that, if allowed to persist, would result in emissions of radionuclides in excess of any standards or limitations, or that last more than four hours, it must be promptly reported to EP in order that it can be reported to WDOH within 24 hours (AIR 00-701).	Release to be reported to WDOH within 24 hours of occurrence
	J.) The facility must maintain a log in an approved format for this activity to track the annual dose to the Maximally Exposed Individual and the Annual Possession Quantity (AIR 00-701).	
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP	

Conditions and Information	Required Action
	to determine if a regulatory requirement has been violated.
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.

Basis Requirements

Reference	Comment
DOE/ORP-2000-15, "Radioactive Air Emissions Notice of Construction Application for Installation and Operation of a Waste Retrieval System in Tanks 241-AN-101, 241-AN-102, 241-AN-103, 241-AN-104, 241-AN-105, and 241-AN-107".	NOC Application
WDOH Letter AIR 00-701, "Notice of Construction Application for Installation and Operation of a Waste Retrieval System in Tanks 241-AN-101, 241-AN-102, 241-AN-103, 241-AN-104, 241-AN-105, and 241-AN-107".	Author: A.W. Conklin, Washington State Dept. of Health
WAC246-247, "Radiation Protection-Air Emissions"	
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.18 NOC FOR INSTALLATION AND OPERATION OF A WASTE RETRIEVAL SYSTEM IN TANKS 241-AZ-101, AND 241-AN-102

Process Area Applicability: Only the field activities allowed by the NOC are documented in this ESD. For work planning processes, the NOC should be used to document all specifics associated with this activity.

Actions

Conditions and Information	Required Action
	<u>REMOVAL, REPAIR, DECONTAMINATION, AND DEMOLITION OF EXISTING EQUIPMENT</u> ▪ Removal of transfer pumps. ▪ Removal/repair of mixer pumps. ▪ Removal of existing thermocouple trees.

Conditions and Information	Required Action
	CONSTRUCTION ACTIVITIES SHALL BE LIMITED TO THE FOLLOWING ▪ Soil shall be excavated inside and outside of the 241-AZ Tank Farm as noted in the NOC. ▪ Soil excavation activities both inside and , if contamination is present, outside the tank farm fence shall be performed in accordance with ALARACT Demonstration 5. ▪ If the regulated Guzzler is used to excavate soild it shall be used as described in the NOC for Guzzler use in the 241-A Tank Farm Complex and comply with all Conditions and Limitations of Short form Approval Form, dated 12/31/1997. ▪ Required cuts of contaminated piping shall be made inside a glove bag using a sawzall or tri-tool, or equivalent. ▪ Pit access and work shall be performed in accordance with ALARACT Demonstrations 6 and 14. ▪ At the start of pit work, the cover blocks will be lifted off and radiologically surveyed to determine an appropriate disposal method. (ALARACT 4). ▪ Core drilling shall occur below grade level and on the outside of the pit to the inside. ▪ Existing flexible receiver equipment shall be used to remove and decontaminate long-length components to acceptable levels. (ALARACT 13). ▪ If a HEPA filter vacuum radioactive air emission unit is chosen to be used, it shall comply with all requirements of the latest revision of NOC DOE/RL-97-50. ▪ If a portable/temporary radioactive air emission unit is chosen to be used it shall comply with all requirements of the latest revision of NOC DOE/RL-96-75. ▪ Waste samples shall be collected in accordance with ALARACT 7, to verify adequate mixing of the waste has been achieved.
	SPECIFIC GUZZLER REQUREMENTS 1) The total volume of soil excavated with the use of the Guzzler shall be limited to either 700 cubic feet, or the radionuclide content of the soil excavated shall not exceed the total APQ and shall be tracked on a WDOH approved log. 2) The maximum radiological soil measurements shall not exceed 10 cpm alpha, and 10,000 cpm beta. The results of radiological surveys shall be documented on a WDOH approved log.

Conditions and Information	Required Action
	SPECIFIC 200 AREA DIFFUSE/FUGITIVE EMISSIONS 1) A total of approximately 6000 cubic yards of soil will be excavated, which includes approximately 3600 cubic yards inside the tank farm. Backfill will be made with the original removed soil or non-contaminated controlled density fill (AIR 02-503) 2) Clean spoil piles may be moved from one place to another within the tank farm with heavy equipment (backhoe, front end loader, etc). Soil excavation outside the tank farm fence may also be performed with heavy equipment. 3) When welding on contaminated piping contamination levels will be reduced to 1,000 dpm/100cm^2 beta/gamma and 200 dpm/100cm^2 alpha. 4) Work in glove bags will not be performed if sustained wind speeds are greater than 30 miles per hour 5) Any required cuts of contaminated piping will be made inside a glove bag using appropriate equipment such as a sawzall or tri-tool. Cuts without a glove bag may be performed providing the riser has removable contamination levels equal to or less than 10,000 dpm/100 cm^2 beta-gamma and 200 dpm/100 cm^2 alpha. 6) Work to be performed in pump pits shall be limited to the replacing of existing sets of cover blocks with newly designed cover blocks, core drilling, installing new nozzles, and removing and replacing existing jumpers.
	7) The number of pit entries will either be limited to 10 or total radionuclide content of all pit entries shall be less than the APQ and shall be tracked on a WDOH approved log. 8) The average surface contamination within the 241-AZ-101 and 241-AZ-102 pump pits shall be limited to less than 1,000,000 dpm/100cm^2 beta/gamma and 700,000 dpm/100cm^2 alpha.. This shall be tracked a WDOH approved log..
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP to determine if a regulatory requirement has been violated.
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.

Basis Requirements

Reference	Comment
DOE/ORP-2000-15, "Radioactive Air Emissions Notice of Construction Application for Installation and Operation of a Waste Retrieval System in Tanks 241-AN-101, 241-AN-102, 241-AN-103, 241-AN-104, 241-AN-105, and 241-AN-107".	NOC Application
WDOH Letter AIR 02-503, "Notice of Construction Application for	Author: A.W. Conklin,

Installation and Operation of a Waste Retrieval System in Tanks 241-AN-101, 241-AN-102, 241-AN-103, 241-AN-104, 241-AN-105, and 241-AN-107".	Washington State Dept. of Health
WAC246-247, "Radiation Protection-Air Emissions"	Current Revision
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.19 NOC FOR THE INSTALLATION AND OPERATION OF WASTE RETRIEVAL SYSTEMS IN SST 241-S-112

The approved activities are limited to:

- Pit entries
- Excavation work,
- Active and passive ventilation for the Salt Cake Dissolution Retrieval Demonstration Project in SST 241-S-112.
- This process uses water that is introduced in a controlled fashion to dissolve and mobilize solids in the tank.
- The resulting solution is then pumped and transferred to the DST system.
- A portable exhauster will provide active ventilation for some dissolution activities and all waste transfer activities until structural safety considerations force shut down, at which time passive ventilation shall be used.

Actions

Conditions and Information	Required Action
Requirements	THE FOLLOWING ACTIVTIES WILL BE PERFORMED:

Conditions and Information	Required Action
	A.) PIT 1) Opening the 241-S-112 Condenser Pit to remove the old cover plate and install a new cover plate to allow for the connection of a HEPA filter to the exhauster trunk for a portable exhauster. 2) Enter 241-S-C Valve Pit to disconnect the existing 241-S-112 Hose-in-Hose Transfer Line (HIHTL). 3) Enter the 241-S-109 Valve Pit to remove the existing HIHTL that is no longer needed. 4) Accessing the 241-S-112A Central Pump Pit to: i. Install an instrument manifold ii. Install a transfer pump, and iii. Replacement of the existing HIHTL that is not needed for this project with a new HIHTL. 5) Enter the 241-S-A Valve Pit to: i. Connect the HIHTL from the 241-S-112 tank to the SDT receiver tank, and ii. Install the leak detection hardware. Pit work shall be performed in accordance with ALARACTs 6 and 14.
	B.) SOIL EXCAVATION 1.) Excavation of soil inside the tank farm for the installation of an electrical and instrumentation conduit to monitor transfer progress. 2.) Excavation of soil outside the tank farm for conduit and transformer installation. 3.) Excavation of soil inside the tank farm for installation of a new raw water header installed between the 241-SY tank farm and the 241-S tank farm to the 241-S-112 tank. 4.) Installation of a HIHTL to convey waste from 241-S-112 to the DST transfer system. Soil excavation shall be performed in accordance with ALARACT 5
	C.) IN-TANK EQUIPMENT 1.) Installation of various motor controlled spray devices into 3 risers near the outside perimeter of the tank and an automatic indexing spray device will be installed on a centrally located riser. 2.) Remove the LOW. 3.) Installation of Stilwell Level Monitoring Device protection. This work shall be performed in accordance with ALARACTs 1 and 13.

Conditions and Information	Required Action	
	D.) WATER ADDITION/DILUTION 1.) Installation of a new heat traced and insulated raw water line installed between the 241-S tank farm and the 241-SY tank to the water distribution skid on top of tank 241-S-112. 2.) Water addition and dilution for salt cake dissolution shall use portable exhausters for active ventilation when water addition flow rate is above 80 gallons per minute; at less than 80 gallons per minute salt cake dissolution shall use either a breather HEPA filter for passive ventilation, or active ventilation.	
	E.) WASTE TRANSFER 1.) Installation of a progressive cavity pump and supporting equipment to recover and transport waste from tank 241-S-112 to the DST system. 2.) Waste transfer activities shall use portable exhausters for active ventilation until structural safety considerations force shut down, at which time passive ventilation shall be used.	
	F.) OTHER 1) Removal of the Standard Hydrogen Monitoring Probe.	
	GENERAL NOC CONDITIONS	
	Once an emission unit is permanently shut down or an activity is completed, thereby rendering existing permit terms and conditions irrelevant, the permittee shall not be required, after the shut down or completion, to meet any monitoring, record keeping, and reporting, requirements which are no longer applicable for that emission unit or activity. All records, relating to the shut down emission unit or completion of an activity, generated while the emission unit or activity was in operation, shall be kept in accordance with WAC 246-247-080(8)).	
	G.) Equipment removal and monitoring (pre- and post-job surveys) shall be performed in accordance with ALARACT 13, equipment disposition shall be performed in accordance with ALARACTs 4 and 15. (AIR 03-209) H.) The Annual Possession Quantity and Potential-to-Emit to the MEI shall be tracked on a WDOH approved log. (AIR 03-209)	
	I.) If there is an unexpected release of radioactivity, or if there is a shut-down or other condition that, if to persist would result in emissions of radionuclides in excess of any standards or limitations, or that last more than four hours, it must be promptly reported to EP in order that it is reported to WDOH within 24 hours (AIR 03-209).	Release must be reported to WDOH within 24 hours.

Conditions and Information	Required Action
	J.) Pre- and post-job surveys shall be made in accordance with ALARACTs 5, 6, and 13 during pit work activities, soil excavation activities, and for equipment removal and/or installation. K.) Not more than 2,000 cubic feet of soil shall be removed. The disturbed soil shall not leave the 241-S tank farm area. (AIR 03-209)
	L.) A wind speed restriction of 20 mph will be applied to all drilling, sampling, and casing removal work. This criterion applies to sustained wind speeds as determined by the Hanford Meteorological Station. (AIR 03-209)
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP.
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.

Basis Requirements

Reference	Comment
WDOH Letter AIR 03-209, "Notice of Construction for Installation and Operation of Waste Retrieval Systems in SST 241-S-112".	Author: A.W. Conklin, Washington State Dept. of Health
WAC 246-247, "Radiation Protection-Air Emissions"	Current Revision
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

3.20 NOC OF FOR 241-AZ-101 ANNULUS EXHAUSTER

The approved activities are limited to:

- Exhausting the annulus of the 241-AZ-101 and 241-AZ-102 Double-Shell Tanks (DST)
- The 296-A-20 stack exhauster ventilates the annular space of both 241-AZ-101 and 241-AZ-102.
- The inlet filter assembly shall consists of two filter stages, a pre-filter bank, and an inlet filter.
- The air will pass through a distribution manifold and flow control valves into the annular space of both the 241-AZ-101 and 241-AZ-102 tanks via underground ductwork.
- The flow control butterfly dampers can be adjusted to distribute air between the sides of the annuli and the air slots below the primary tanks.
- Exhaust air shall be drawn out of each annulus trough underground ducting to individual aboveground exhaust HEPA filter banks, associated heaters, and isolation dampers.
- To allow for balancing flow between annuli or to allow isolation of an individual exhaust HEPA filter bank, dampers shall be installed upstream of each exhaust HEPA filter bank.

Actions

Conditions and Information	Required Action	
	A.) If there is an unexpected release of radioactivity, or if there is a shut-down or other condition that, if to persist would result in emissions of radionuclides in excess of any standards or limitations, or that last more than four hours, it must be promptly reported to EP in order that it is reported to WDOH within 24 hours (AIR 01-805).	Release must be reported to WDOH within 24 hours.
	B.) The flow rate through the HEPA filters shall not exceed the manufactures rating of those HEPA filters.	
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP to determine if there has been a reportable occurrence.	
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.	

Basis Requirements

Reference	Comment
WDOH Letter AIR 01-805, "Notice of Construction for 241-AZ Tank Farm Annulus Exhauster Operation".	Author: A.W. Conklin, Washington State Dept. of Health
WAC 246-247, "Radiation Protection-Air Emissions"	Current Revision
TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Current Revision

4.0 ENVIRONMENTAL OPERATING SPECIFICATIONS FOR ALARACT

4.1 PURPOSE AND SCOPE

The ALARACT demonstrations were agreed to between WDOH, DOE and the TFC to document environmental regulatory requirements for frequently performed work activities. The ALARACT demonstrations are not to be used for new activities, modifications, construction, or decommissioning and demolition (D&D) as defined in WAC 246-247. ALARACT demonstrations may be used to cover tasks defined as "Similar Work" in an NOC. The ALARACT Demonstration ESD are provided to implement the applicable portions of the ALARACT demonstrations that impose field operational limits or conditions. The requirements in this ESD do not replace or relieve the work planning process from using the full ALARACT demonstration in performing work activities.

4.1.1 Limitations

Exceeding a radiological requirement, equipment requirement, or monitoring requirement may not be an ESD nonconformance, but must be reported promptly to EP to determine if a regulatory requirement has been violated.. Failure to comply with the recovery action requirements is an ESD nonconformance will result in a non-compliance action.

4.1.2 Recovery

If any of the above radiological requirements, equipment requirements, monitoring requirements are not within the stated specifications, work must be halted on the specific activity, notifications must be made to the Environmental Programs Compliance Officer, or his representative, in order that the required notifications be made to the WDOH, and the appropriate recovery actions be determined.

4.1.3 Basis

HNF-4327, "Control of Airborne Radioactive Emissions for Frequently Performed TWRS Work Activities (ALARACT Demonstrations).

4.2 ALARACT 1: DEMONSTRATION FOR RISER PREPARATION/OPENING

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: This ALARACT applies to risers that open directly into tanks containing high-level waste, such as waste storage tanks, catch tanks, double contained receiver tanks, and IMUSTs.

Actions

Conditions and Information	Required Action
Description of Activity	RISERS: May have screw caps, blind flanges, shield plugs, or equipment installed in them. Preparation may include the following: • Screw caps: 1) A pre-work survey shall be completed of the riser and the area around the riser. 2) Soil covering shall be installed around the riser. 3) If the riser or screw cap is highly contaminated, a glove bag may be installed to control contamination spread. 4) Slight contamination shall be wiped off the riser with damp rags. • Blind flanges: 1) A pre-work survey shall be completed of the riser and the immediate work area around the riser. 2) A glove bag may be used to contain the blind flange during removal. 3) Slight contamination shall be removed with damp rags.

Conditions and Information	Required Action
	Shield plugs and other equipment to be removed from riser: • Risers may have various types of equipment installed. The equipment will be installed and removed per ALARACT 13. • To open the riser, it will be necessary to remove the equipment. A pre-work survey is completed of the riser, installed equipment, and the area around the riser. • Soil covering is installed around the risers. If necessary, glove bags or sleeving may be used on smaller pieces of equipment to be removed. • Larger items may require the need for a windbreak or containment tent. • When the riser is opened, Industrial Hygiene samples may be taken. • All containments used shall be in accordance with the Containment Selection Guide, Appendix A, (TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment"). • Soil covering may be of material such as, plastic sheeting, rubber mating, foil-backed paper, griflon, or any material that will prevent possible contamination form reaching the soil. • The riser shall be closed after all riser activities are completed.
Radiological Controls	• Follow ALARACT demonstration for "Packaging and Transportation of Waste" (#4) • Follow ALARACT demonstration for "Installation, Operation, and Removal of Equipment" (#13) • Use an approved Containment Selection Guide, Appendix A, from TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment". • Do not open risers if sustained winds are >25 mph. A local wind speed measurement device may be utilized in lieu of Hanford Meteorological Station readings, provided the reading is taken in an unobstructed location that is representative of the work area. Use of a local device and the measured wind speed-readings taken from it must be documented in the JCS work record. • Open riser time will be minimized. • Perform Pre-job survey • HPT coverage will be performed as specified in the Radiological Work Permit.
Monitoring	At a minimum pre and post job surveys shall be performed Radiological monitoring shall be in accordance with the latest revision of the HNF-5183, Tank Farms Radiological Control Manual.
Records/Do	Work Packages

Conditions and Information	Required Action
cumentation	Radiological Work Permit Radiological survey report(s)
Emission Pathway	Existing, active or passive point sources
Facility Description	All Tank Farm Facilities

4.3 ALARACT 2: DEMONSTRATION FOR INSTALLATION, OPERATION, OR REMOVAL OF PUSH MODE CORE SAMPLING EQUIPMENT

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Push mode core sampling (PMCS) is conducted with the Rotary Mode Core Sampling (RMCS) System. The RMCS system can operate in either push mode or rotary mode. The preferred mode of RMCS sampling is push mode, which does not involve rotation of the drill string or significant purge gas flow, and is the subject of this ALARACT demonstration. Each RMCS system consists of the sample truck, an optional diesel powered electric generator an optional in-tank video camera, a pressurized nitrogen supply, and other support equipment.

Actions

Conditions and Information	Required Action
Description of Activity	A.) Core sampling system set up and sampling are controlled by operating procedures. Prior to moving the RMCS truck and equipment onto a tank, a walk down is performed. The walk down identifies any physical obstructions/barriers to truck placement and verifies the riser locations. The Core Sampling truck and equipment are then moved to the tank farm for system set up. System set up includes installation of the riser sleeve and riser equipment. This requires that the riser flange cover be removed. Following removal of the riser flange cover, the riser sleeve and riser adapter equipment are installed. This equipment seals against the riser flange, protecting the air pathway. The time between the removal of the flange cover and installation of the raiser adapter equipment is kept to the minimum necessary to safely complete the task. HPT coverage is provided the entire time the riser is open.

Conditions and Information	Required Action
	B.) The operation of core sampling begins by inserting a drill string made up of drill rod sections, into the waste. The first section to be installed is the core barrel in which the core sampler itself is seated. The rotary mode core samplers contain a seal against the bottom of the core barrel. The seal is designed to prevent back flow of tank waste into the drill string. This protects the air pathway out of the tank. The remaining drill rod sections are screwed on to the drill string and inserted into the tank until the starting point for the first core sample segment is reached.
	C.) After the first core sample segment has been taken, additional drill string sections and samplers may be added as needed. During push mode sampling, nitrogen (or other fluid such as water with a Lithium Bromide tracer) is used only in amounts sufficient to maintain the hydrostatic head and prevent or minimize movement of tank waste into the core barrel.
	D.) When the segment is complete, the drill string is disconnected from the core sample truck and is capped. The core sampler truck platform is rotated to align and connect the shielded receiving vessel (shielded receiver) with the drill string. During the connection the air pathway is protected by closed valves on the shielded receiver and on the adapter on the end of the drill string.
	E.) When the sampler is removed from the tank, it is placed directly into the shielded receiver without disturbing the airtight seal between the shielded receiver and the drill string. The isolation valves on the shielded receiver and the drill string adapter are closed before disconnecting the shielded receiver from the drill string. The truck platform then rotates to place the shielded receiver either directly over a shipping cask, or the shielded receiver may be positioned over an x-ray machine to allow the sampler to be x-rayed. In either case, the sealed drill string remains in place at the tank riser to maintain the seal to the atmosphere. From the shielded receiver, the sampler is mechanically lowered into a transport cask. Once the sampler is in the transport cask and the shielded receiver has been disconnected, the cask in immediately sealed. While the sampler is being replace after each segment, with the RMCS system, nitrogen is injected into the drill string at approximately 0.3 cubic meters per minute. This maintains the hydrostatic head in the drill string, minimizing waste from entering the drill string. This also allows for pressurization and depressurization the shielded receiver, as necessary, for sampler change out. For the RMCS system, water is used to maintain the hydrostatic head. Once a complete core has been obtained, the RMCS truck can be repositioned on the same riser or moved to a different riser on the same tank to obtain additional cores. During RMCS breakdown, the drill string is sleeved as it is removed from the tank and placed into a waste container. When sampling is complete at one tank, the RMCS system will be disconnected and moved to the next tank.
Radiological Controls	• When opening a riser, use ALARACT demonstration controls for "Riser Preparation/Opening" (ALARACT 1) • Follow ALARACT demonstration for "Packaging and Transportation of Waste" (#4).

Conditions and Information	Required Action
	1.) HPT coverage will be performed as specified in the Radiological Work Permit. 2.) Do not open risers if sustained winds are >25 mph. A local wind speed measurement device may be utilized in lieu of Hanford Meteorological Station readings, provided the reading is taken in an unobstructed location that is representative of the work area. Use of a local device and the measured wind speed-readings taken from it must be documented in the JCS work record. • Valves, caps, and plugs are used to minimize open riser time • Core sampler seal must be in place • Threaded connections and/or cam-locks • Verify passive or active HEPA filtration on tanks. • Use approved *Containment Selection Guide, Appendix A*, in TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment".
Monitoring	A.) At a minimum pre and post job surveys shall be performed B.) Radiological monitoring shall be in accordance with the latest revision of the HNF-5183, *Tank Farms Radiological Control Manual.*
Records/Documentation	• Work Packages • Radiological Work Permit • Radiological survey report(s)
Emission Pathway	Existing active or passive point sources (Displacement gas is used in drill string which is a closed system and has minimal/no emission impact.
Facility Description	All SSTs, DSTs, and IMUSTs.

4.4 ALARACT 3: TANK FARM ALARACT DEMONSTRATION FOR INSTALLATION/OPERATION/REMOVAL OF AUGER SAMPLING EQUIPMENT

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Auger sampling represents on technique to remove a sample from tanks that have less than 25 vertical inches of hardened waste material. The auger sampling assembly uses the auger "bit" to obtain a sample of tank waste. Auger sampling equipment consists of an auger "bit", auger rod, auger sleeving assembly, receiving cask, and an onsite transfer cask (OTC).

Actions

Conditions and Information	Required Action

Conditions and Information	Required Action
Description of Activity	A.) Initially, a tank riser is opened and the auger adapter sleeving assembly is installed into the tank headspace. The installation of the auger sleeving assembly reduces open riser time. The auger sleeving assembly provides lateral strength to the auger bit and auger rod, and extends from the riser to the top of the waste surface. The receiver cask is then mounted on top of the auger adapter sleeving assembly via a cam lock fitting. This cam lock fitting seals the receiver cask to the auger adapter assembly that is sealed to the riser, thereby minimizing the open riser time.
	B.) The auger rod and auger bit assembly are lowered through the top of the receiver cask assembly, through the interior of the auger sleeving assembly, down to the surface of the tank waste. The portion of the auger rod extending above the riser is then hand rotated forcing the auger bit to penetrate the tank waste. The tank waste material fills the grooves (flutes) of the auger bit and this constitutes the waste sample.
	C.) The auger bit (now containing the sample) and auger rod are pulled up from the tank waste surface, through the auger sleeving, and into the receiver cask on top of the riser. During this sample removal step, the auger rod exits the top of the receiver cask into the ambient environment. The auger rod is surveyed for contamination as it is extracted and contained if found to be contaminated. When the auger bit (sample) is within the receiver cask, a ball valve, mounted on the bottom of the receiver cask is closed. The receiver cask is then isolated by placing a temporary cover over the auger rod port.
	D.) The receiver cask is moved via crane to the OTC. Once the receiver cask has been connected by a cam lock to the OTC, a handle is connected to the auger bit through the top of the receiver cask and the sample is lowered into the cask. The OTC is sealed and then provides a shipping container for the auger sample.
Radiological Controls	• When opening a riser, use ALARACT demonstration controls for "Riser Preparation/Opening" (ALARACT 1) • Follow ALARACT demonstration for "Packaging and Transportation of Waste" (#4). HPT coverage will be performed as specified in the Radiological Work Permit. • Do not open risers if sustained winds are >25 mph. A local wind speed measurement device may be utilized in lieu of Hanford Meteorological Station readings, provided the reading is taken in an unobstructed location that is representative of the work area. Use of a local device and the measured wind speed-readings taken from it must be documented in the JCS work record. • Use valves, caps, and plugs are used to minimize open riser time • Cam locks used to secure receiving cask to riser and shipping cask. • Verify passive or active HEPA filtration on tanks • Contain contaminated equipment • Temporary cover placed on top of receiving cask.

Conditions and Information	Required Action
	• Sample contained when in shipping cask..
Monitoring	At a minimum pre and post job surveys shall be performed Radiological monitoring shall be in accordance with the latest revision of the HNF-5183, *Tank Farms Radiological Control Manual.*
Records/Documentation	• Work Packages • Radiological Work Permit • Radiological survey report(s)
Emission Pathway	Existing active or passive point sources
Facility Description	All Tank Farm Facilities

4.5 ALARACT 4: TANK FARM ALARACT DEMONSTRATION FOR PACKAGING AND TRANSPORTATION OF WASTE

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: All Tank Farm Facilities (except special nuclear material in 2718-E)

Actions

Conditions and Information	Required Action
Description of Activity	A.) Some materials become contaminated during work conducted within all Tank Farm facilities. Such contaminated materials, which are not released or otherwise controlled, are handled as radioactive waste. B.) Radioactive waste generated from Tank Farms operations activities such as pit work, excavations, surveillances, housekeeping, maintenance, and tank sampling, will be double-contained at a minimum. A radiological survey is conducted prior to storage or transportation of the out-most container to verify that removable contamination meets the requirements under the Radiological Controls section.
Radiological Controls	• Follow ALARACT Demonstration for "Size Reduction of Waste Equipment for Disposal" (ALARACT 15). • A Rad survey is to be conducted prior to storage or transportation of the out-most container to verify that removable contamination meets the requirements under the RadCon section.
Monitoring	A.) At a minimum pre and post job surveys shall be performed B.) Radiological monitoring shall be in accordance with the latest revision of the

Conditions and Information	Required Action
	HNF-5183, *Tank Farms Radiological Control Manual.*
Records/Documentation	Radiological Work Permit Radiological survey report(s)
Emission Pathway	Active or passive, point sources and fugitive sources.
Facility Description	All Tank Farm Facilities (except special nuclear material in 2718-E)

4.6 ALARACT 5: TANK FARM ALARACT DEMONSTRATION FOR SOIL EXCAVATION - (USING HAND TOOLS)

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: If soil excavation (using hand tools) is performed in support of this work document, the following ALARACT controls apply to all Tank Farms

Actions

Conditions and Information	Required Action
Description of Activity	• Soil is routinely excavated in the Tank Farm facilities to support riser preparation, repair, maintenance activities, soil sampling, cleanup of contamination, removal of vegetation and biological hazards, and operational activities (laying conduit or cables for power). • An initial survey is performed of the area to be excavated. Surveys are performed throughout the excavation to assure that work safety and environmental protection is maintained. • Once the excavation begins, water is used, as necessary, to prevent the spread of dust. • To the extent practicable using hand held instrument field survey techniques, the clean soil is separated from the soil identified as contaminated. The contaminated soil has a fixative applied or is covered by plastic at the end of the shift, and as necessary, to stabilize the contaminated soil. • The activities covered by this ALARACT demonstration do not include D&D. • All radioactively contaminated soil excavation is conducted using hand tools.
Radiological Controls	• Follow ALARACT #4 for "Packaging and Transportation of Waste" • HPT coverage will be performed as specified in the Radiological Work Permit. • A beta-gamma survey of the ground surface is required prior to excavation in CA's, HCA's, SCA's, and URMA's. An alpha survey may be required prior to excavation per HNF-3391, "Justification for Dual Survey Exemption in Tank Farm Facilities."

Conditions and Information	Required Action
	• For excavation in CA's, HCA's, SCA's, and URMA's, if beta-gamma activity is greater than 1,000-dpm/probe area (5,000 dpm/100cm^2) is identified, alpha surveys will also be performed. • Suppressants such as water, fixatives, covers, or windscreens will be used as necessary, including at the end of each shift or when sustained or predicted winds are >20 mph. • Excavation of radioactive material shall cease if sustained winds exceed 20 mph. Suppressants such as waster. Fixatives. Covers. Pr windscreens will be used as necessary, including at the end of each shift or when sustained or predicted winds are >20 mph. • If the net contamination for the general area is greater than 200-dpm/probe area alpha or greater than 500,000 dpm/probe area beta-gamma, stop work, notify Environmental and Radcon, and implement the controls listed below. Once notifications have been made and the following controls implemented, excavation may continue: • Soil shall be wetted prior to excavation if not already damp • General area workplace air monitoring shall be performed during excavation activities • Excavation and contaminated soil piles will be covered with plastic, or fixative applied at the end of each shift, and/or as necessary to prevent airborne dust particles • Contaminated soil containing >500,000 dpm per probe area beta-gamma or >200 dpm/probe area alpha will be containerized or covered with clean fill if it is to be left for greater than 48 hours • If soil contamination exceeds 20 mrad/hr (open window reading), work will be stopped, Environmental and Radcon notified, and adequacy of controls will be reassessed. WDOH will be notified. Work may continue when approved by Environmental and Radcon with WDOH concurrence. • If hot specks are detected during the radiological surveys, the specks will be removed and contained before the activity is allowed to continue unless located in the bottom of the trench after excavation has been completed. Specks found in the bottom of the completed trench may be covered with clean fill. A hot speck will be defined as a very small amount (i.e. less than or equal to 100 cm 2) of contamination reading greater than or equal to 1,000,000 dpm/probe size beta-gamma and/or greater than or equal to 490 dpm/probe size alpha.
Monitoring	A.) At a minimum, pre and post-job surveys shall be made B.) Radiological monitoring shall be in accordance with the latest revision of HNF-5183, *Tank Farms Radiological Control Manual*
Records/Documentation	• Work Packages • Radiological Work Permit • Radiological survey report(s)
Emission Pathway	Existing passive (fugitive/diffuse)

Conditions and Information	Required Action
Facility Description	All Tank Farm facilities

4.7 ALARACT 6: TANK FARM ALARACT DEMONSTRATION FOR PIT ACCESS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: This ALARACT Demonstration applies to all pits and filter pits which have the potential for exposing tank waste to the pit environment, except 241-ER-152, 241-S-151, 241-UX-154, 241-TX-154, 244-CR Vault DCRT, 244-A Lift Station DCRT, and 244-TX DCRT. Access to these pits must follow the existing Notice of Constructions for these facilities.

Actions

Conditions and Information	Required Action
Description of Activity	A.) PREPARATION WORK: • A pre-job survey is performed on the exterior surface of the pit and the surrounding area. • For pits that are partially or entirely below grade, a fall protection handrail is installed around the pit. • The fall protection is draped in plastic sheeting that extends to the top of the pit. This establishes a splashguard around the pit. • Before the pit covers are removed, an approved fixative may be applied inside the pit or the pit may be decontaminated. • These processes are generally performed through an access port. • If there is no access port(s), the pit covers are raised and suspended, a radiological survey is performed, and/or a fixative may be applied inside the pit as described in Section 2, radiological Control. • The pit covers are removed.

Conditions and Information	Required Action
	B.) DECONTAMINATION: • Uniformly distributed removable contamination levels in the pit are decontaminated to less than 100,000 dpm/100 cm^2 beta/gamma and 2,000-dpm/100 cm^2 alpha by washing or an approved fixative is applied to pit surfaces. • A fixative will matrix the contamination to ensure minimization of potential airborne contamination. • If a high pressure (up to 3,000 psi) or low pressure (approximately 125 psi) whirly is installed, it is done through an opening (if one exists) in the pit covers and the pit is washed down. • The pit covers are lifted and contained if the removable level is greater thank 50,000 dpm/100cm^2 beta/gamma and 20-dpm/100cm^2 alpha. • The pit covers are then moved to a storage area. • With the pit covers off, additional decontamination activities may include the use of chemicals, peel and strip paints, water, or manual scrub brushes. • When decontamination activities are complete, other work may begin or a temporary cover is installed over the pit.
	C.) CLOSURE • After all activities in the pit are completed, the pit covers are reinstalled and the splashguard is removed.
Radiological Controls	• When opening a riser, use ALARACT demonstration controls for "Riser Preparation/Opening" (ALARACT 1) • Follow ALARACT demonstration for "Packaging and Transportation of Waste" (#4). • Uniformly distributed removable contamination levels within the pit are decontaminated so that a swipe reads less than 100,000 dpm/100 cm^2 beta/gamma and 2,000 dpm/100 cm^2 alpha. Alternately, a fixative may be applied. • Alternatively, a fixative may be applied • An approved fixative will be applied to pit surfaces if contamination levels exceed the limits stated above or as needed. Note: The fixative will matrix the contamination to ensure minimization of potential airborne contamination. • Swipes will be taken to determine that splashguards are to be maintained below 50,000-dpm/100cm^2 beta/gamma and 20-dpm/100cm^2 alpha. • Use a splashguard extending to the edge of the pit. • Splashguard will be taped or sealed to the edge of the pit. • If it is not feasible to seal the splashguard to the edge of the pit, an additional rail will be installed at the base of the handrail and the splashguard will be taped or sealed to that bottom rail. • This rail will be as close as possible to the pit edge. • A ground cover will be placed around the edge of the pit and extending under the bottom rail. • Pit work will not be performed if sustained winds are >25 mph. • A local wind speed measurement device may be utilized in lieu of Hanford

Conditions and Information	Required Action
	Meteorological Station readings, provided the reading is taken in an unobstructed location that is representative of the work area. • Use of a local device and the measured wind speed velocity readings taken from it must be documented in the JCS Work Record. • HPT coverage will be performed as specified in the Radiological Work Permit. • Use approved *Containment Selection Guide, Appendix A, in HNF-IP-0842, Volume 7, Radiological Control, Section 16.7, latest revision.* • Active ventilation may be utilized in accordance with the PTRAEU NOC.
Monitoring	A.) At a minimum, pre-and post-job surveys (smears) shall be taken. B.) Radiological monitoring shall be in accordance with the latest revision of HNF-5183, "Tank Farms Radiological Control Manual".
Records/Documentation	• Work Packages • Radiological Work Permit • Radiological survey report(s)
Emission Pathway	Existing passive non-point sources.

4.8 ALARACT 7: TANK FARM ALARACT DEMONSTRATION FOR TANK WASTE GRAB SAMPLING

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: All Tank Farm SSTs, DSTs, and IMUSTs

Actions

Conditions and Information	Required Action
Description of Activity	A.) Grab sampling is used to obtain small volume samples of tank waste materials. • Individual samples are typically <1 liter, but multiple samples can be taken from the tank. • The sampled material consists of liquid, sludges, and solids. • Grab sampling techniques are suitable for relatively soft waste. • If the waste material is too thick or hard, other sampling techniques (such as core sampling) may be required.

Conditions and Information	Required Action
	B.) Grab samples are acquired through tank risers. • A riser is prepared for grab sampling by first installing a riser adapter called a "top hat". • The top hat acts as a temporary seal for the open riser to minimize open riser time. • The next step is to install a glove bag over the tank riser.
	C.) The sampling assembly consists of a sample device suspended on a wire cable. • The most commonly used sample devices are a bottle in a weighted bottle holder, and finger sampler. • The bottle is used when the waste material is primarily liquid, while the finger sampler is used to sample relatively solid material.
	D.) the sample assembly is placed into the glove bag, the glove bag is closed and the riser is opened. • The sample device is lowered with a winch, the waste sample collected, and retrieved from the tank. • If the collected sample is a bottle, the bottle is capped, bagged and placed into a shielded container. • If the sample is collected in a finger sampler, the waste is transferred to a secondary container, bagged and placed into the shielded container.
	E.) When sampling is finished, the glove bag is collapsed, venting air through a small HEPA type filter, and all contaminated sampling equipment contained inside is disposed of as waste
	F.) small percentage of grab-sampling jobs are performed on top of a tank riser without a glove bag. • An example would be raising a saltwell pump (accessed from within a pit) and sampling between the pump legs and the saltwell screen. • Such sample jobs are controlled through work planning utilizing the *Containment Selection Guide, Appendix A*, in TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment".
Radiological Controls	• When opening a riser, use ALARACT demonstration controls for "Riser Preparation/Opening" (ALARACT 1) • Follow ALARACT demonstration for "Packaging and Transportation of Waste" (#4). • Follow ALARACT Demonstration for "Pit Access" (ALARACT 6), if applicable. • HPT coverage will be performed as specified in the Radiological Work Permit. • Do not initiate sampling if sustained winds are >25 mph. A local wind speed measurement device may be utilized in lieu of Hanford Meteorological Station readings, provided the reading is taken in an unobstructed location that is representative of the work area. Use of a local device and the measured wind

Conditions and Information	Required Action
	speed-readings taken from it must be documented in the JCS work record. • Use riser adapter to minimize open riser time. • Samples contained prior shipping to are placed in a shielded container. • Sample contained when in shipping cask. • Contain contaminated equipment. Use approved *Containment Selection Guide, Appendix A*, in TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment"..
Monitoring	A.) At a minimum, pre-and post-job surveys (smears) shall be taken. *B.)* Radiological monitoring shall be in accordance with the latest revision of HNF-5183, *Tank Farms Radiological Control Manual.*
Records/Documentation	• Work Packages • Radiological Work Permit • Radiological survey report(s)
Emission Pathway	Existing active or passive point sources.
Facility Description	All Tank Farm SSTs, DSTs, and IMUSTs

4.9 ALARACT 8: TANK FARM ALARACT DEMONSTRATION FOR VAPOR SAMPLING

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Vapor samples are acquired through risers or other accessible ports such as Standard Hydrogen Monitoring Systems (SHMS) ports, flush ports, or test ports. There are two methods to collect vapor samples from waste tanks: grab sampling (with SUMMA canisters), and In-Situ Vapor Sampling (ISVS or Type IV) equipment. SUMMA is an evacuated container. Other equivalent evacuated containers may be used in its place.

Actions

Conditions and Information	Required Action

Conditions and Information	Required Action
Description of Activity	SUMMA VAPOR SAMPLING: SUMMA sampling equipment consists of a riser adapter (not used for drill string vapor samples), sample tubing, and SUMMA canisters. • To begin SUMMA sampling through a tank riser, the riser is opened and the riser adapter is installed. • The riser adapter contains sampling tubes that extend above the top of the riser and continue down into the tank headspace. • The sampling tubers are fitted with isolation valves. • An installed riser adapter with the sample tube valve closed isolates the tank vapor space from the ambient environment. • To sample through a port, the port is opened, a tube in inserted and an adapter or fitting is installed as appropriate. • In the first step, the sampling tube is purged using portable industrial hygiene instruments and the headspace vapor is drawn into the tube. A tank headspace sample is collected by attaching a SUMMA canister to the top end of a sampling tube and opening the valve. The SUMMA canister, an evacuated container, allows the tank headspace gas to be pulled into the container. The self-contained sample canister is shipped to a laboratory for analysis. • When vapor sampling is finished, the riser adapter/tubing assembly is removed, surveyed by an HPT, and placed into containment sleeving if found contaminated. If a riser is used, a cap or flange is then installed.
	TYPE IV VAPOR SAMPLING: The second method of vapor sampling is the In-Situ Vapor sampling (ISVS or Type IV sampling) method. Contrasting SUMMA grab sampling, ISVS sample media is directly exposed to tank vapor gases by placement in the tank headspace. The ISVS sampling equipment consists of a riser adapter, an air pump mounted on a handcart, a manifold for connecting sample tubing, tube bundle assembly that has a sampling head containing the sample and the sample media. • The sampling begins by opening a tank riser designated for sampling; installing the riser adapter; inserting the plastic sleeved sample tubes (with the sampling head/media attached) into the riser to the required sampling depth; attaching the sample tubes to the air pump handcart; sampling for a period of time; removal of the sample lines and sample media; removal of the riser adapter and closing the riser; packaging the samples for shipment to a laboratory; and packaging waste for eventual disposal.
Radiological Controls	• When opening a riser, use ALARACT demonstration controls for "Riser Preparation/Opening" (ALARACT 1) • Follow ALARACT demonstration for "Packaging and Transportation of Waste" (ALARACT #4).

Conditions and Information	Required Action
	• HPT coverage will be performed as specified in the Radiological Work Permit. • Minimize open riser and port time. • Verify passive or active HEPA filtration on tanks. • HEPA-type filtration in sample line. • Contain contaminated equipment • Sample contained when in shipping container.
Monitoring	A.) At a minimum Pre and Post-job surveys (smears) must be performed B.) Radiological monitoring shall be in accordance with the latest revision of the HNF-5183 "Tank Farms Radiological Control Manual."
Records/Documentation	• Work Packages • Radiological Work Permit • Radiological survey report(s)
Emission Pathway	Existing passive non-point sources.
Facility Description	All Tank Farm SSTs, DSTs, and IMUSTs

4.10 ALARACT 9: TANK FARM ALARACT DEMONSTRATION FOR LIGHT DUTY UTILITY ARM (LDUA)

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: The Light Duty Utility Arm is a long robotic manipulator arm that is installed, operated, and removed in waste tanks through existing tank risers. The manipulator is maintained in a housing on a truck that transports the equipment. The truck contains equipment for vertical and horizontal position of the arm and housing. The manipulator arm, housing, and positioning equipment is collectively called the Vertical Positioning Mast (VPM).

Actions

Conditions and Information	Required Action
Description of Activity	A.) The riser is opened per ALARACT #1 and a riser isolation valve is installed. The VPM is connected to the riser isolation valve with the Tank Riser Interface and Confinement (TRIC) system. The TRIC provides radiological confinement when the riser isolation valve is open. The TRIC contains gloved ports for hands-on activities, access to change end effectors, and to allow vapor sampling. The TRIC is equipped with a HEPA-type filter. B.) A decontamination system provides for gross removal of external contamination

Conditions and Information	Required Action
	from the mast, arm, and end effector. The decontamination system is attached to the bottom of the confinement enclosure. The decontamination system sprays a ring of water through which the mast, arm, and end effector are withdrawn from the tank and into the housing of the VPM. C.) When the LDU is operated in a waste tank, a purge system provides a constant low volume flow of instrument grade air into the LDUA, VPM, and any end effectors. The purge air creates a positive pressure inside the system. This is required for operation in flammable gas environments and also minimizes radioactive contamination from entering the in-tank components. The purge gas exits through the TRIC HEPA-type filter or the tank ventilation system.
Radiological Controls	• Follow ALARACT demonstration for "Riser Preparation/Opening" (ALARACT 1) • Follow ALARACT demonstration for "Packing and Transportation of Waste" (ALARACT 4) 1) HPT coverage will be performed as specified in the Radiological Work Permit. 2) Verify passive or active HEPA filtration of tanks. 3) The LDVA TRIC will not be set up or removed if sustained winds are >25 mph. A local wind-speed measurement device may be utilized in lieu of Hanford Meteorological Station readings, provide the reading is taken in an unobstructed location that is representative of the work area. Use of a local device and measured wind-speed readings taken from it must be documented in the JCS work record. 4) Riser isolation valve minimizes open riser time. 5) HEPA-type filter equipped TRIC. The HEPA-type filter is tested by the manufacturer and used once per tank evolution 6) Vertical Positioning Mast Housing
Monitoring	A.) At a minimum Pre and Post-job surveys must be performed B.) Radiological monitoring shall be in accordance with the latest revision of the HNF-5183 "*Tank Farms Radiological Control Manual.*"
Records/Documentation	• Work Packages • Radiological Work Permit • Radiological survey report(s)
Emission Pathway	Existing passive non-point sources.
Facility Description	All Tank Farm SSTs, DSTs, and IMUSTs

4.11 ALARACT 10: TANK FARM ALARACT DEMONSTRATION FOR WATER LANCING

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Water lancing the waste in an underground storage tank is performed to determine the depth of the tank from the riser location and to prepare for equipment installation, such as saltwell screens, jet pump assemblies, and liquid observation wells.

Actions

Conditions and Information	Required Action
Description of Activities	THREE TYPES OF WATER LANCES 1) A long pipe approximately 7.62 cm in diameter with a single nozzle at the end. This design uses hot water (supplied by a truck) at low pressure, approximately 1034 kilopascals (150 psi). Use of this design may require the lance to be raised and lowered into the waste multiple times so that a large enough hole can be formed in the waste to accommodate the equipment to be installed in the hole. 2) A newer design lance has a 28 cm diameter pipe and multiple nozzles on the bottom to facilitate waste penetration. It is designed to create a large hole with one insertion of the lance into the waste. This design requires less (hot) water volume and operates at higher pressure, 20,685 kilopascals (3,000 psi). 3) A pipe approximately 7.62 cm in diameter with multiple nozzles on the bottom to facilitate waste penetration. It is designed to create a large hole with one insertion into the waste. This design uses hot water and operates a pressure of approximately 20,865 kilopascals (3,000 +/-20%).
	In each case: • A hose from a water truck is connected to the top end of the water lance. The water lance is inserted into a tank riser which has a water spray ring mounted within the riser. Additionally, a plastic sleeve is staged and tied off at the top of the lance for deployment during lance retrieval. During insertion of the water lance, air emissions are controlled by the use of the water spray ring. The water spray ring sprays water in the annulus between the outside diameter of the water lance and the inside diameter of the riser. The water lance is lowered until it penetrates the solid portions of the waste that need to be broken up to allow insertion of the saltwell screen or other equipment. The water lance withdrawal steps are the reverse of the insertion sequence. The water spray ring is used to wash radioactive tank waste from the outside of the water lance. Hand wiping of the lance may also take place immediately above the riser and below the plastic sleeving. Washing is repeated until radiation readings are <100 mrem/hr. If the lance cannot be decontaminated below 100 mrem/hr, the lance will be sleeved in plastic, removed from the tank, and stored. The pit or riser will be closed.

Conditions and Information	Required Action
	Contingency plans within the scope of this ALARACT demonstration are: • Removing the lance from the tank for further decontamination by washing, wiping, or brushing. The activities will be conducted in accordance with the *Containment Selection Guide, Appendix A*, TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment". • Replacement of contaminated parts if they cannot be adequately decontaminated as noted in (a) above. This activity will be conducted in accordance with the *Containment Selection Guide, Appendix A*, TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment". • Packaging, storing, and transporting the lance "as is" if the external dose rates exceed 100 mrem/hr.
	• As the water lance is with drawn from the tank, it is placed inside a plastic sleeve (during the withdrawal process), surveyed, and stored until its next use. • The actual water lancing time (residence time in waste) usually ranges from 10 minutes to 4 hours with an average time of about 30 minutes. Riser open time is minimized.
Radiological Controls	• Follow ALARACT demonstration for "Riser Preparation/Opening" (ALARACT 1) • Follow ALARACT demonstration for "Packing and Transportation of Waste" (ALARACT 4) • Follow ALARACT demonstration for "Pit Access" (ALARACT 6) • Follow ALARACT demonstration for "Packaging and Transportation of Equipment" (ALARACT 12) 1) During insertion and removal, radionuclide control is achieved by spraying the annulus between the lance outside diameter and riser inside diameter with water 2) Verify passive or active HEPA filtration on tanks 3) Use approved *Containment Selection Guide, Appendix A*, TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment". 4) HPT coverage will be performed as specified in the Radiological Work Permit (RWP).
Monitoring	A.) At a minimum Pre and Post-job surveys (smears) must be performed B.) Radiological monitoring shall be in accordance with the latest revision of the HNF-5183 "Tank Farms Radiological Control Manual."
Records/Documentation	• Work Packages • Radiological Work Permit • Radiological survey report(s)
Emission Pathway	Existing passive non-point sources.
Facility Descrip.	All Tank Farm Facilities

4.12 ALARACT 11: TANK FARM ALARACT DEMONSTRATION FOR WASTE TRANSFERS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: All Tank Farm Facilities

Actions

Conditions and Information	Required Action
Description of Activity	1) Wastes are transferred to, from, and within actively ventilated tank farm storage facilities (i.e., double-shell tanks), chemical processing facilities, receiver vaults, mobile tanks, and evaporators. 2) Wastes are also transferred from SSTs during (and due to) salt well pumping. 3) Transfers are made through a network of existing or to be installed above or below ground pipelines, and operating equipment. 4) Transfers also utilize the existing network of controls or transfer structures (currently in use, or constructed under a Notice of Construction) such as diversion boxes, valve pits, double contained receiver tanks, and diverter stations. 5) Jet, submersible, or transfer pumps are used to transfer waste at flow rates up to 300 gallons (1,132 liters) per minute. 6) The pit covers are reinstalled on the pits before starting any waste transfer operation. 7) Occasionally, water is added to a tank or transfer system to prevent or remove plugs. 8) Other techniques to free blockages include chemical flushing, pressurization, temporary jumpers, hydraulic scouring, and the use of heat tracing. 9) Flow rates and pressures used are determined by engineering evaluations. 10) Flow into the sending/receiving tank is exhausted using a HEPA filtered vent.
Radiological Controls	1) Verify HEPA filtration on receiving tanks. 2) Follow ALARACT demonstration for "Riser Preparation/Opening" (ALARACT 1) 3) Follow ALARACT demonstration for "Packing and Transportation of Waste" (ALARACT 4) 4) Follow ALARACT demonstration for "Pit Access" (ALARACT 6) 5) Follow ALARACT demonstration for "Packaging and Transportation of Equipment" (ALARACT 12) 6) Follow ALARACT demonstration for "Installation and Removal of Equipment from Tanks" (ALARACT 13) 7) Follow ALARACT demonstration for "Pit Work" (ALARACT 14)
Monitoring	1) Radiological monitoring shall be in accordance with the latest revision of the HNF-5183 "*Tank Farms Radiological Control Manual.*" 2) Radiological surveys (swipes for removable contamination) of the work area as required by the work package and/or the procedure

Conditions and Information	Required Action
	3) Post-job surveys must be performed
Records/Documentation	1) Flow rate and pressure engineering evaluations. 2) Work Packages and/or Procedures 3) Radiological Work Permit 4) Radiological survey report(s)
Emission Pathway	Existing active Tank Farm passive point sources or fugitive non-point sources.
Facility Description	All Tank Farm Facilities

4.13 ALARACT 12: TANK FARM ALARACT DEMONSTRATION FOR PACKAGING AND TRANSPORTATION OF EQUIPMENT AND VEHICLES

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: All Tank Farm facilities

Actions

Conditions and Information	Required Action
Description of Activity	A.) Equipment and vehicles that become contaminated during work activities are reused when possible. B.) If the equipment or vehicle is to be reused or stored in a contamination area, the removable activity levels on the surface of the item, or the outer-most container, must be in accordance with the latest revision of HNF-5183, "*Tank Farms Radiological Control Manual*"
Radiological Controls	Radiological controls shall be in accordance with the latest revision of the HNF-5183 "*Tank Farms Radiological Control Manual.*"
Monitoring	A.) At a minimum, pre-and post-job surveys (smears) shall be taken. B.) Radiological controls shall be in accordance with the latest revision of the HNF-5183 "Tank Farms Radiological Control Manual."
Records/Documentation	• Radiological Work Permit • Radiological survey report(s)
Emission Pathway	Fugitive/diffuse sources
Facility Description	All Tank Farm facilities

4.14 ALARACT 13: TANK FARMS DEMONSTRATION FOR INSTALLATION, OPERATION, AND REMOVAL OF TANK EQUIPMENT

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: All Tank Farm facilities

Actions

Conditions and Information	Required Action
Description of Activity	This ALARACT demonstration does not provide approval for the following activities: • waste sampling, • sluicing, lancing, • operations of mixer pumps, and • use of the LDUA. 1) While operating under these activities, the applicable ALARACT demonstrations must be complied with. 2) A multitude of equipment may be installed, operated, and removed from tanks (actively and passively ventilated). 3) When installing and removing equipment from tanks, risers and pits opened. ALARACT 1 (Riser Preparation/Opening) and ALARACT 6 (Pit Access) describe the activities necessary to prepare the risers and pits. 4) If water lancing is performed to assist in the installation of equipment, it will be done in accordance with ALARACT 10 (Water Lancing).
	5) Equipment is lowered into and removed from tanks either manually or remotely (e.g., using a crane). Once the equipment is installed, mating surfaces of the equipment and riser(s) are sealed. 6) All equipment removed from tanks is contained using glovebags, sleeving, or other containment devices in accordance with the latest revision of the *Containment Selection Guide, Appendix A*, in latest revision of TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment". 7) The riser is closed under ALARACT 1 (Riser Preparation/Opening) and the pit is closed under ALARACT 6 (Pit Access) following installation or removal of equipment. 8) Waste is packaged and transported per ALARACT 4 (Packaging and Transportation of Waste). Equipment is packaged and transported per ALARACT 12 (Packaging and Transportation of Equipment and Vehicles).
Radiological	• Follow ALARACT demonstration for "Riser Preparation/Opening" (ALARACT

Conditions and Information	Required Action
Controls	1) • Follow ALARACT demonstration for "Packing and Transportation of Waste" (ALARACT 4) • Follow ALARACT demonstration for "Pit Access" (ALARACT 6) • Follow ALARACT demonstration for "Water Lancing" (ALARACT 10) • Follow ALARACT demonstration for "Packaging and Transportation of Equipment" (ALARACT 12) • Follow ALARACT demonstration for "Size Reduction of Waste Equipment for Disposal" (ALARACT 15) 1) Equipment is decontaminated or contained when removed from tanks 2) Swipes will be taken to determine that the surface of the item or the outermost surface of the container are maintained at <50,000 dpm/100 cm 2 beta-gamma and/or <20 dpm/100 cm^2 alpha 3) HPT coverage will be performed as specified in the Radiological Work Permit (RWP). 4) Do not initiate sampling if sustained winds are >25 mph. A local wind-speed measurement device may be utilized in lieu of Hanford Meteorological Station readings, provide the reading is taken in an unobstructed location that is representative of the work area. Use of a local device and measured wind-speed readings taken from it must be documented in the JCS work record. 5) Use approved Containment Selection Guide, Appendix A, TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment".
Monitoring	A.) At a minimum Pre and Post-job surveys (smears) shall be taken B.) Radiological monitoring shall be in accordance with the latest revision of the HNF-5183 "Tank Farms Radiological Control Manual."
Records/Documentation	• Work Packages • Radiological Work Permit • Radiological survey report(s)
Emission Pathway	Active or passive, pint sources and fugitive sources
Facility Description	All Tank Farm facilities

4.15 ALARACT 15: TANK FARM ALARACT DEMONSTRATION FOR PIT WORK

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: This ALARACT demonstration applies to all Tank Farm pits except 241-ER-152, 241-S-151, 241-UX-154, 241-TX-154, 244-CR Vault DCRT, 244-A Lift Station DCRT, and 244-TX DCRT.

Actions

Conditions and Information	Required Action
Description of Activity	Requirements: 1) When entering or exiting the pit, ALARACT 6, "Pit Access" must be complied with. 2) All equipment removed from the pit is decontaminated or contained. A temporary or permanent cover is placed over the pit if ever left unattended. 3) Installing pit leak detectors, unplugging drains, and housekeeping/waste removal activities are performed following the above description.
	Specific activities performed in pits covered by this ALARACT are as follows: (NOTE: The "Pit Viper" may be used for any of the following activities as long as the appropriate controls, identified below, are implemented.) A) Jumper Work 1) Before any jumper work takes place, the affected lines are flushed (if possible) and an approved fixative is applied. The fixative will be applied in accordance with ALARACT # 6 and reapplied as necessary. 2) Swipes of the splashguard will be taken during the jumper work. If a used jumper is to be removed from the pit, it is to be drained and a fixative applied. If removable contamination is greater 50,000-dpm/100 cm^2 beta/gamma and 20-dpm/100 cm^2 alpha, the jumper will be contained and/or decontaminated. 3) If jumpers are cut, hydraulic shears or a portable band saw within the pit cuts them. The pieces are contained before they are removed from the pit. B) Pressure Testing Lines 1) A pressure test assembly is installed on the line to be tested in one pit. A blank with a drain is installed on the other end of the line in a separate pit. Temporary and/or permanent covers are placed over the pits during the pressure test.
Radiological Controls	• Follow the appropriate ALARACTs as noted in the ALARACT procedure. • Follow ALARACT demonstration for "Riser Preparation/Opening" (ALARACT 1) • Follow ALARACT demonstration for "Packing and Transportation of Waste" (ALARACT 4) • Follow ALARACT demonstration for "Pit Access" (ALARACT 6) • Follow ALARACT demonstration for "Packaging and Transportation of Equipment" (ALARACT 12) 1) Use a splashguard extending to the edge of the pit. 2) Splashguard will be taped or sealed to the edge of the pit. 3) If it is not feasible to seal the splashguard to the edge of the pit, an additional rail will be installed at the base of the handrail and the splashguard will be taped or

Conditions and Information	Required Action
	sealed to that bottom rail. 4) This rail will be as close as possible to the pit edge. 5) A ground cover will be placed around the edge of the pit and extending under the bottom rail. 6) Swipes will be taken to determine that the surface of the item or the outermost surface or the container are maintained <50,000 dpm/100 cm^2 beta/gamma and <20 dpm/100 cm^2 alpha. 7) Uniformly distributed removable contamination levels within the pit are decontaminated so that a swipe reads less than 100,000 dpm/100 cm^2 beta/gamma and 2,000 dpm/100 cm^2 alpha. An approved fixative will be applied to pit surfaces if contamination levels exceed the limits stated above or as needed. Note: The fixative will matrix the contamination to ensure minimization of potential airborne contamination. 8) If a used jumper is to be removed from the pit, it is drained and a fixative is applied. If removable contamination is greater than 50,000 dpm/100 cm^2 beta/gamma and 20 dpm/100 cm^2 alpha, the jumper will be contained and/or decontaminated. 9) A temporary or permanent cover is placed over the pit if the pit is ever left unattended. 10) Pit work will not be performed if sustained winds are >25 mph. 11) A local wind speed measurement device may be utilized in lieu of Hanford Meteorological Station readings, provided the reading is taken in an unobstructed location that is representative of the work area. 12) Use of a local device and the measured wind speed-readings taken from it must be documented in the JCS Work Record. 13) HPT coverage will be performed as specified in the Radiological Work Permit.
Monitoring	A.) At a minimum, pre-and post-job surveys (smears) shall be taken. B.) Radiological monitoring shall be in accordance with the latest revision of HNF-5183, "Tank Farms Radiological Control Manual".
Records/Documentation	• Work Packages • Radiological Work Permit • Radiological survey report(s)
Emission Pathway	Existing passive non-point sources.
Facility Description	This ALARACT demonstration applies to all Tank Farm pits except 241-ER-152, 241-S-151, 241-UX-154, 241-TX-154, 244-CR Vault DCRT, 244-A Lift Station DCRT, and 244-TX DCRT.

4.16 ALARACT 15: TANK FARM ALARACT DEMONSTRATION OF SIZE REDUCTION OF WASTE EQUIPMENT FOR DISPOSAL

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: All Tank Farm facilities

Actions

Conditions and Information	Required Action
Description of Activity	1) Size reducing, cutting or disassembling contaminated material and equipment is done for more economical waste packaging. Containment devices are employed as applicable per the *Containment Selection Guide, Appendix A*, TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment". 2) The process is limited to mechanical cutting techniques such as low speed and high-speed sawing, snipping, shearing, as well as hot work such as cutting torches. 3) The process will also include bending, crimping, and compaction to preclude the need for cutting operations. <u>Examples</u> of items cut up or disassembled for waste disposal during facility operations include long-length contaminated equipment (i.e., waste tank level instrumentation, thermocouple trees, specific gravity probes, observation ports, hose and piping). Waste sampling equipment (I.e., drill strings or augers), pumps, compressors, and deactivated exhausters with associated ductwork. This includes replacement and disposal of flexible ventilation ductwork located upstream of HEPA filtration.
Radiological Controls	• Follow ALARACT demonstration for "Packing and Transportation of Waste" (ALARACT 4) 1) Equipment with removable contamination will be contained per the *Containment Selection Guide, Appendix A*, TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment", or decontaminated. 2) HPT coverage will be performed as specified in the Radiological Work Permit (RWP).
Monitoring	A.) At a minimum Pre and Post-job surveys must be performed. B.) Radiological monitoring shall be in accordance with the latest revision of the HNF-5183 "Tank Farms Radiological Control Manual."
Records/Documentation	• Radiological Work Permit • Radiological survey report(s)
Emission Pathway	Active or passive, point sources and fugitive sources.
Facility Descrip.	All Tank Farm Facilities

4.17 ALARACT 16: TANK FARM ALARACT DEMONSTRATION OF WORK ON POTENTIALLY CONTAMINATED VENTILATION SYSTEM COMPONENTS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: All Tank Farm facilities

Actions

Conditions and Information	Required Action
Description of Activity	Scope: Work on potentially contaminated ventilation system components. This may include repair or replacement of: • Ductwork, • dampers, • valves, • Recirculation fans, • flexible boots, • heaters, • instrumentation, or • Other ventilation system components.
	1) The process will be performed using mechanical techniques such as unbolting, drilling, snipping, shearing, cutting, abrading, or low and high-speed sawing, as well as hot work such as cutting torches. Other activities may include installation of instrumentation, test ports, or sample ports. Containment devices are employed as applicable per the *Containment Selection Guide, Appendix A*, TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment". 2) If exhaust systems are replaced under the "replacement-in-kind" provisions of WAC 246-247 utilizing this ALARACT demonstration, then the abatement controls of the new system must be equivalent or better than those of the system that is replaced. The operational flow rate of the new system may not exceed that of the replaced system.
Radiological Controls	• Follow ALARACT demonstration for "Packing and Transportation of Waste" (ALARACT 4) 1) Equipment/work with removable contamination will be contained per the *Containment Selection Guide, Appendix A*, TFC-ESHQ-RP_RWP-C-02, latest revision, "Radiological Containment", or decontaminated. 2) HPT coverage will be performed as specified in the Radiological Work Permit (RWP).
Monitoring	A.) At a minimum Pre and Post-job surveys must be performed. B.) Radiological monitoring shall be in accordance with the latest revision of the HNF-5183 "Tank Farms Radiological Control Manual."
Records/Documentation	• Radiological Work Permit • Radiological survey report(s)

Conditions and Information	Required Action
Emission Pathway	Active or passive, point sources and fugitive sources.
Facility Description	All Tank Farm Facilities

5.0 EQUIPMENT REQUIRING ANNUAL CALIBRATION

5.1 ITEMS REQUIRING ANNUAL CALIBRATION/TESTING PER WAC 246-247 AND WAC 173-303

NOTE: To meet WDOH requirements, the calibration must be completed by the end of the calendar month in which it is due.

- Tank breather filters.
- Tank inlet HEPA filters.
- Exhaust system HEPA filters on all active exhaust stacks and portable exhausters.
- Record sampler loops on all active exhaust stacks.
- CAMs on operable major exhaust stacks:

296-A-25 (244-A lift station)	296-B-28 (244-BX)	296-P-33 (Rotary core sampling exhauster)	296-S-22 (244-S)
296-A-42 (702-AZ)	296-C-05 (CR vault)	296-P-34 (Rotary core sampling exhauster)	296-T-18 (244-TX)

- Differential pressure gauges for exhaust HEPA filter monitoring (see section 5.1.1).
- Annual stack flow test.
- Exhaust Stack HEPA Filter DP Gauge.
- Cathodic protection system components (WAC 173-303)

Facility	Stack	Instrument	PM/S # (w/ inspection duration schedule)
101-AY Annulus	296-A-18	AY101-VTA-PDI-220	ET-2365
		AY101-VTA-PDI-221	ET-2341
101-AY Annulus	296-A-19	AY101-VTA-PDI-320	ET-01529

Facility	Stack	Instrument	PM/S # (w/ inspection duration schedule)
		AY101-VTA-PDI-321	ET-02366
244-A	296-A-25	A244-VTA-PDI-201	ET-00652
		A244-VTA-PDI-301	ET-00645
		A244-VTA-PDI-203	ET-00665
		A244-VTA-PDI-303	ET-00651
204-AR	296-A-26	DPIAS-1	ET-02417
		DPIAS-2	ET-02416
241-AW Primary	296-A-27	AW241-VTP-PDIT-327	ET-07474
		AW241-VTP-PDIT-328	ET-07475
		AW241-VTP-PDIT-329	ET-07467
		AW241-VTP-PDIT-427	ET-07476
		AW241-VTP-PDIT-428	ET-07477
		AW241-VTP-PDIT-429	ET-07466
241-AW Annulus	296-A-28	AW241-VTI-PDI-702	EE-00391
		AW241-VTI-PDI-703	EE-00398
		AW241-VTI-PDI-802	EE-00388
		AW241-VTI-PDI-803	EE-00403
241-AN Primary	296-A-29	AN241-VTP-PDIT-327	ET-07470
		AN241-VTP-PDIT-328	ET-07471
		AN241-VTP-PDIT-329	ET-07469
		AN241-VTP-PDIT-427	ET-07472
		AN241-VTP-PDIT-428	ET-07473
		AN241-VTP-PDIT-429	ET-07468
241-AN Annulus	296-A-30	AN241-VTI-PDI-702	ET-02342
		AN241-VTI-PDI-703	ET-01604
		AN241-VTI-PDI-802	ET-02343
		AN241-VTI-PDI-803	ET-01605
241-AP Primary	296-A-40	AP241-VTP-PDIT-327	ET-07478
		AP241-VTP-PDIT-328	ET-07479
		AP241-VTP-PDIT-329	ET-07482

Facility	Stack	Instrument	PM/S # (w/ inspection duration schedule)
		AP241-VTP-PDIT-427	ET-07480
		AP241-VTP-PDIT-428	ET-07481
		AP241-VTP-PDIT-429	ET-07465
241-AP Annulus	296-A-41	AP241-VTA-PDIS-761	EE-01418
		AP241-VTA-PDIS-762	EE-00475
		AP241-VTA-PDIS-861	EE-01419
		AP241-VTA-PDIS-862	EE-00470
702-AZ Primary Exhaust	296-A-42	PDT-AZK104-1A	ET-07516
		PDT-AZK104-2A	ET-07518
		PDT-AZK104-3A	ET-07519
		PDT-AZK104-1B	ET-07513
		PDT-AZK104-2B	ET-07514
		PDT-AZK104-3B	ET-07515
702-A Building Exhaust	296-A-43	PDT-AZ702K304-1A	ET-06459
		PDT-AZ702K304-1B	ET-06460
244-BX	296-B-28	DPIC-3	WT-05209
		DPIC-4	WT-05239
		DPIC-5	WT-04992
		DPIC-6	WT-05281
		DPIC-7	WT-05131
244-CR	296-C-05	CR244-VTP-PDIT-327	ET-07520
		CR244-VTP-PDIT-328	ET-07521
		CR244-VTP-PDIT-329	ET-07522
Core Sampling Exhauster	296-P-33	VTP-PDI-2203B	ES-00380
		VTP-PDI-2204B	ES-00383
		VTP-PDI-2205B	ES-00384
	296-P-34	VTP-PDI-2203C	ES-00387
		VTP-PDI-2204C	ES-00388
		VTP-PDI-2205C	ES-00389
Saltwell Exhauster	296-P-43	POR04-VTP-PDI-180	WT-06055

Facility	Stack	Instrument	PM/S # (w/ inspection duration schedule)
		POR04-VTP-PDI-181	WT-06056
		POR04-VTP-PDI-182	WT-06057
	296-P-44	POR05-VTP-PDI-180	WT-06257
		POR05-VTP-PDI-181	WT-06258
		POR05-VTP-PDI-182	WT-06259
241-SY Annulus	296-P-22	SY241-VTA-PDI-702	WT-0257
		SY241-VTA-PDI-703	WT-0258
241-SY Primary	296-P-23 (B Train)	SY241-VTA-PDI-302	WT-00255
		SY241-VTA-PDI-303	WT-00259
	296-S-25 (A Train)	PS-3(P2810-1)	WT-01056
		PS-4 (P2809-1)	WT-01055
		PS-5 (P2808-1)	WT-01054
241-SX	296-S-15	SX241-VTP-PDI-221	WT-00278
		SX241-VTP-PDI-222	WT-00279
		SX241-VTP-PDI-241	WT-00280
		SX241-VTP-PDI-242	WT-00277
242-S	296-S-18	P1-K1-4-1	WT-00284
		P1-K1-4-2	WT-00285
		P1-K1-4-3	WT-00283
		P1-K1-4-4	WT-00286
242-T	296-T-17	DPI-1-1	WT-00261
		DPI-1-2	WT-00254
		DPI-1-3	WT-00250
		DPI-1-4	WT-00263
		DPI-1-5	WT-00260
		DPI-1-6	WT-00251
		DPI-1-7	WT-00262
		DPI-1-8	WT-00253
244-TX	296-T-18	DPCI-244TX-3	WT-01059
		DPCI-244TX-4	WT-01060

Facility	Stack	Instrument	PM/S # (w/ inspection duration schedule)
		DPCI-244TX-5	WT-01061
		DPCI-244TX-6	WT-01053
		DPCI-244TX-7	WT-01051
		DPCI-244TX-8	WT-01052

6.0 NON-RAD NOTICES OF CONSTRUCTION

6.1 NON-RAD NOC FOR 200 AREA DIFFUSE/FUGITIVE EMISSIONS

Mode Applicability: Operation, Construction, and Standby

Emission Unit: 200 Area Diffuse/fugitive-Tank Farms
NOC: Installation and Operation of the Waste Retrieval System
Permit: DE00NWP-001
Date: 06-13-2000
Date In AOP: 07-02-2001
Page in AOP: 1-21

State of Washington, Department of Ecology (Ecology) Conditions	
Condition: Operation of the proposed boilers shall: • Not exceed 720 hours per year per boiler, and • Be in accordance with good combustion practices (GCP) to minimize emissions, based on the manufacturer's recommendations, and • Require the use of fuel with a Sulfur content of 0.05% or less. • Periodic preventive maintenance and combustion adjustments shall be made, as necessary, to maintain GCP, but at least annually.	
Model ID:	Not applicable.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.

Periodic Monitoring:.	Record keeping. Frequency: Annually

Condition: Tanks: Notification will be made ten (10) days prior to initiating waste retrieval operations in each tank covered by this order.	
Model ID: Not applicable.	Not specified.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	Record keeping.

Condition: • The data obtained in the course of monitoring worker exposure will be used by the Permittee as an administrative control measure to verify that VOC emissions do not exceed 500 parts per million (PPM). • The 500 PPM level will be used as an indicator to facilitate field monitoring of potential VOC emissions, using the existing Industrial Hygiene equipment.	
Model ID:	Not applicable.
EPA Test Method:	Organic Vapor Analyzers (OVAs) or similar instruments.
EPA Test Method Frequency:	At least once per year during mixer pump operations. If mixer pumps do not operate, no monitoring is required.
Periodic Monitoring:	VOC measurements from each stack

Condition: No visible emissions shall be allowed beyond the property line.	
Model ID:	Not applicable.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	Boilers: See Section 2.1, Tier 1 Frequency: At least once per quarter Tanks: See Section 2.1, Tier 3.

Condition: • Any modification to any equipment or operating procedures, contrary to information in the NOC application, shall be reported to Ecology at least sixty (60) days before such modification. • Such modification may require a new, or amended, NOC Approval Order.

Model ID:	Not applicable.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	Applicable if triggered.

NOC: AOP Table 1.6 Non-combustion Fugitive Emission Units
Permit: 00-05-006
Date: 07-01-2001
Date In AOP: 07-01-2001

Ecology Conditions	
Condition: Fugitive Dust: Requires reasonable precautions be taken to prevent fugitive dust from becoming airborne and to minimize dust generation.	
Model ID:	Not applicable.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	Fugitive Dust: Requires reasonable precautions be taken to prevent fugitive dust from becoming airborne and to minimize dust generation.
Condition: Fugitive Emissions: The permittee shall take reasonable precautions to prevent the release of air contaminants from any emissions unit engaging in materials handling, construction, demolition, or any other operation that is a source of fugitive emissions.	
Model ID:	Not applicable.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	Pre-job planning to determine reasonable control measures.
Condition: Reasonably available control technology (RACT).	
Model ID:	Not applicable.

EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	Permit terms considered RACT.

6.2 NON-RADIOLOGICAL NOC FOR ROTARY MODE CORE SAMPLING (RMCS) SYSTEMS 2, 3, AND 4 (P-296P033-001 AND P296P034-001)

Emission Unit: P-296P033-001 & P-296P034-001
NOC: Rotary Mode Core Sampling (RMCS) Systems 2, 3, and 4
Permit: DE98NWP-005
Date: 09-03-1998
Date In AOP: 07-02-2001
Page in AOP: 1-23

Ecology Conditions	
Condition: • The permittee shall conduct a vapor composition analysis for each tank to be core-sampled. • The emissions estimates, monitoring and exhauster operation will be conducted as described by the NOC application.	
Model ID:	10A & 10B.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	Record keeping and emission calculations.
Condition: Emissions of volatile organic compounds (VOCs) on a daily average at the stack, shall not exceed the WAC 173-400-110 NSR thresholds.	
Model ID:	10C.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	Record keeping and emission calculations.

NOC: Non-combustion Unit with HEPA (00-05-006)
Permit: 00-05-006
Date: 07-02-2001

Date In AOP: 07-02-2001

Ecology Conditions	
Condition: Fugitive Emissions: The permittee shall take reasonable precautions to prevent the release of air contaminants from any emissions unit engaging in materials handling, construction, demolition, or any other operation that is a source of fugitive emissions.	
Model ID:	Not applicable.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	Emissions that pass through a stack are not sources of fugitive emissions per WAC 173-400-030(32) or fugitive dust per WAC 173-400-030(31).
Condition: Fugitive Dust: Requires reasonable precautions be taken to prevent fugitive dust from becoming airborne and to minimize dust generation.	
Model ID:	Not applicable.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	Emissions that pass through a stack are not sources of fugitive emissions per WAC 173-400-030(32) or fugitive dust per WAC 173-400-030(31).
Condition: Reasonably available control technology (RACT).	
Model ID:	Not applicable.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	Permit terms considered RACT.
Condition: 20% Opacity Prohibits visible emissions exceeding 20% opacity for more than 3 minutes in any 1 hour of an air contaminant from any emissions unit or within a reasonable distance of the emission unit except for scheduled soot blowing/grate cleaning or due to documented water.	
Model ID:	Not applicable.

EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	Maintain abatement control technology as required in Attachment 2, Tables 1.1, 1.2 and 2.1 for this emission unit.
Condition: 1000 ppm SO2 @ 7% O2 on a dry basis Prohibits emission of a gas containing sulfur dioxide from any emissions unit in excess of 1000 ppm of a dry basis, corrected to 7% oxygen for combustion sources, and based on the average of any period of 60 consecutive minutes.	
Model ID:	Not applicable.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	The process has not been modified to increase SO2 emissions.

6.3 NON-RADIOLOGICAL VENTILATION UPGRADES AND WASTE RETRIEVAL FROM THE 241-AZ-101 TANK (P296A042-001)

Emission Unit: P-296A042-001
NOC: Ventilation Upgrades and Waste Retrieval from the 241-AZ-101 Tank
Permit: NOC 94-07
Date: 12-22-1997
Date In AOP: 07-02-2001
Page in AOP: 1-29

Ecology Conditions	
Condition: VOC max emission limit, 50 ppm, measured as Total Organic Carbon.	
Model ID:	4A.
EPA Test Method:	EPA Method 25A or approved alternative.
EPA Test Method Frequency:	Annually.
Periodic Monitoring:	Recordkeeping and emission calculations.

NOC: Ventilation Upgrades and Waste Retrieval from the 241-AZ-101 Tank
Permit: NOC 94-07

Date: 08-29-1994
Date In AOP: 07-02-2001

Ecology Conditions	
Condition: Ammonia, 0.05 lbs/hr.	
Model ID:	5.
EPA Test Method:	Field instruments, which may include Draeger Tubes.
EPA Test Method Frequency:	Annually.
Periodic Monitoring:	Recordkeeping and emission calculations.
Condition: Opacity, 5%.	
Model ID: Not applicable.	Not applicable.
EPA Test Method:	EPA Method 9 of 40 CFR Part 60, App. A.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	See Section 2.1, Tier 3.
Condition: Fugitive Dust: Requires reasonable precautions be taken to prevent fugitive dust from becoming airborne and to minimize dust generation.	
Model ID:	Not applicable.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	Fugitive Dust: Requires reasonable precautions be taken to prevent fugitive dust from becoming airborne and to minimize dust generation.
Condition: 1000 ppm SO2 @ 7% O2 on a dry basis Prohibits emission of a gas containing sulfur dioxide from any emissions unit in excess of 1000 ppm of a dry basis, corrected to 7% oxygen for combustion sources, and based on the average of any period of 60 consecutive minutes.	
Model ID: Not specified.	Not applicable.
EPA Test Method:	Not specified.
EPA Test Method Frequency:	Not applicable.
Periodic Monitoring:	The process has not been modified to increase SO2 emissions.

6.4 NON-RADIOLOGICAL NOC FOR CONSTRUCTION AND OPERATION OF THE 241-S-102, 241-S-112, AND 241-U-107 WASTE RETRIEVAL SYSTEM

All proposed activities performed in support of installation and operation of a waste retrieval system in SSTs shall comply with all requirements as specified in:

- RCW Chapter 70.94, Washington Clean Air Act
- WAC Chapter 173-400, General Regulations for Air Pollution Sources
- WAC Chapter 173-460, Controls for New Sources of Toxic Air Pollutants.

Conditions and Information	Required Action
Approval Conditions	1) TOTAL EMISSION LIMITS A. The portable exhausters and other operations associated with dissolution and retrieval of waste from tanks 241-S-112, 241-S-102, and 241-U-107 are permitted without additional control technology provided that the total emissions from all activities will not result in exceedances of WAC 173-460, Small Quantity Emission Rates (SQER) (DE03NWP-001)
	2) GENERAL REQUIREMENTS A) Notifications will be made 10 days prior to initiating waste retrieval operations. (DE03NWP-001) B) An updated schedule of installation and operation activities will be made available upon request. (DE03NWP-001)
	3) EMISSION CONTROLS A) The portable exhauster may be used to control emissions. If the exhauster is in use, exhaust will be monitored for VOCs and ammonia until levels rise and fall off, or until the dome space VOC and ammonia concentrations are reduced to minimum levels. (DE03NWP-001)
	4) EMISSION CONTROL MONITORS: A.) Volatile Organic Compounds, ammonia, and other air toxic levels, to include NDMA as necessary, will be monitored in accordance with the IH work safety program and site-specific IH Monitoring Plan and this NOC order. A plan for monitoring shall be submitted to Ecology upon request. (DE03NWP-001) B.) A grab sample will be drawn and analyzed for nitrosamines (N-Nitrosodiethylamine and other related compounds) from the sampling port of the exhauster stack on each of the three tanks to be retrieved. Samples will be drawn within 15 minutes after the first start of an exhauster, approximately two hours after the first start of waste retrieval and again when approximately half of the waste has been transferred. (DE03NWP-001) C.) Additional SUMA sampling will be performed in accordance with the IH

Conditions and Information	Required Action
	sampling plan to obtain a representative sample of standard target compounds. However, any spikes detected during analysis that are not on the target compound list will be noted and analyzed for if warranted.(DE03NWP-001) D.) If the exhauster is not operated at all during the retrieval operation, alternative sampling and analysis methods to determine maximum emissions will be established under the IH Monitoring Plan. (DE03NWP-001)
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP to determine if a regulatory requirement has been violated.
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.

7.0 LIQUID EFFLUENTS APPROVED INCIDENTAL DISCHARGES PER STATE DISCHARGE PERMITS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Only the field activities allowed by each permit are documented in this ESD. For work planning processes, the State Discharge Permit text itself should be used to document all specifics associated with a planned activity.

Table 1 Approved Incidental Discharges
(Tank Farm Facility Raw or Process Water Discharges
within a Surface Contamination Area Exempt from Reporting.)

State Waste Discharge Permit ST4508 and ST4509 Incidental Discharge Exempt from Reporting (Maximum Volume per Discharge–60 Gallons) NOTE: These incidental discharges have been approved by the Washington State Department of Ecology
Interim Stabilization (IS) Pump test drum
IS New dilution system piping flushes
Water filter and strainer preventative maintenance
IS PIC Skid water tank draining for skid movement
Repair/modification of piping
Draining of sight glasses
Blowing out 1" hoses
Blowing out 2" hoses
Trouble shoot leak detectors (3 gallon bucket)
Water pump/flow meter testing
Draining of equipment for maintenance
Emergency drain for freeze protection

Air compressor blow down
Moisture separator
New water line pressure test
Disconnect water hose
Equipment failure (e.g. pump seal, valve stem, valve body, piping)
Draining water hoses after: 1) instrument flushes; 2) pump flushes; 3) tank equipment removal; 4) pressure test of transfer lines; 5) deentrainer flushes; 6) sludge weight measurements; 7) water lancing operations; 8) supply line from water truck; 9) blow down of integrity assessment equipment lines; 10) ultrasonic testing
Condensate from small air conditioning units used to cool containment tents or cool down locations
Misters used for worker comfort
Incidental Discharges that Are Not Within the Scope of State Waste Discharge Permits ST 4508, ST 4509, or ST 4510
Characterization Project grab sampling rinse water
Characterization Project Spray tank winterization
Accumulated rainwater (plastic sheets, 55 gallon drum lids, burial box lids)
Pumping rainwater from sumps, buildings
SY Farm mixer pump skid rainwater
Construction Projects backfill soil compaction water (Projects W-314, W-211)

7.1 STATE DISCHARGE PERMIT 4508: TESTING, MAINTENANCE, AND CONSTRUCTION DISCHARGES IN THE TANK FARMS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: All Tank Farm Facilities

Actions

CONDITIONS INFORMATION REQUIREMENTS	REQUIRED ACTION
Purpose and Scope	The scope of activities for this permit is: • Hydro testing discharges, including hydro testing of a system or component and development testing • Maintenance discharges • Construction discharges.
Requirements	A.) Each discharge must be less than 10 gallons per minute averaged annually.
	B.) Each discharge must be less than 150 gallons per minute instantaneously.

CONDITIONS INFORMATION REQUIREMENTS	REQUIRED ACTION
	C.) Each discharge must meet the ground water quality criteria.
	D.) The total flow of all discharges covered by this permit shall not exceed a maximum daily flow of 2,000,000 gallons. This condition is considered met if the total flow of all measured significant discharges is below 1,500,000 gallons per day.
	E.) Source water can only be raw Columbia River water, potable water (treated Columbia River water or groundwater), or demineralized water (treated potable water).
	F.) The following DOE/RL-97-67, Pollution Prevention and Best Management Practices Plan for State Waste Discharge Permits ST 45208, ST 4509, and ST 4510, Best Management Practices are enforceable under the Discharge permits and must be complied with: • No discharge shall be allowed within a surface contamination area with the exception of incidental discharges listed in section 7.1, Table 1 • No discharge shall be allowed within 300 feet horizontal radius of a known active or inactive crib, ditch, or trench used for disposal of dangerous and/or radioactive contaminants • No discharge shall be allowed to affect an ecologically sensitive area • Reasonable efforts shall be taken to prevent ponding due to discharge flow rates above the expected infiltration capacity. • There shall be no discharges or run-off of waste water to any surface waters of the state or to any land not owned by or under the control of the Permittee • If the discharge meets the requirements to be accepted by the 200 Area Treated Effluent Disposal Facility (TEDF) and there is a TEDF connection near by, all reasonable efforts should be made to send the discharge to TEDF. • Effort should be made to recycle, store, and reuse all water.

CONDITIONS INFORMATION REQUIREMENTS	REQUIRED ACTION
	Significant discharges covered by this permit shall be tracked in a log germane to the project/task. The log shall include: • Type and date of discharge, • Source of water, • Additives, • Total volume (gallons) discharge rate (gallons/minute), • Location, • Soil-loading rate (gallons/minute/ft^2, • Name of assigned responsible person, and • other pertinent information. A **Significant Discharge** is: 1) Any single discharge over 14,500 gallons in a 24 hour period, or 2) Any single discharge over 50,000 gallons total in a calendar year.
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP to determine if a regulatory requirement has been violated.
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system (HNF-IP-0842, Vol. 6, Section 1.3, Environmental Notification).

7.2 STATE DISCHARGE PERMIT 4509: COOLING WATER AND CONDENSATE DISCHARGES IN THE TANK FARMS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: All Tank Farm Facilities

Actions

CONDITIONS INFORMATION REQUIREMENTS	REQUIRED ACTION
Purpose and Scope	The scope of activities for this permit is: • Cooling water discharges, that include activities related to cooling parts of heat

CONDITIONS INFORMATION REQUIREMENTS	REQUIRED ACTION
	generating systems. Systems using cooling water include air compressors, diesel engines, air conditioning, ventilation, evaporative cooling, and ice machines • Condensate discharges, that include discharges from systems such as steam lines, steam heating systems, air compressors, air conditioning, ventilation, and ice machines • Other miscellaneous discharges, that include discharges from pump leaks, valve wastewater, water tank overflows, and quench tanks.
Requirements	A) Each discharge must be less than 10 gallons per minute averaged annually. (See permit 4509 for calculation)
	B) Each discharge must be less than 150 gallons per minute instantaneously.
	C) Each discharge must meet the ground water quality criteria.
	D) The total flow of all discharges covered by this permit shall not exceed a maximum daily flow of 100,000 gallons.
	E) Source water can only be raw Columbia River water, potable water (treated Columbia River water or groundwater), or demineralized water (treated potable water), or condensed water vapor from ambient air.
	F) The following DOE/RL-97-67, Pollution Prevention and Best Management Practices Plan for State Waste Discharge Permits ST 45208, ST 4509, and ST 4510, Best Management Practices are enforceable under the Discharge permits and must be complied with as follows : • No discharge shall be allowed within a surface contamination area with the exception of incidental discharges listed in ESD section 7.0, Table 1 • No discharge shall be allowed within 300 feet horizontal radius of a known active or inactive crib, ditch, or trench used for disposal of dangerous and/or radioactive contaminants • No discharge shall be allowed to affect an ecologically sensitive area • Reasonable efforts shall be taken to prevent ponding • There shall be no discharges or run-off of waste water to any surface waters of the state or to any land not owned by or under the control of the Permittee • If the discharge meets the requirements to be accepted by the 200 Area TEDF and there is a TEDF connection near by, all reasonable efforts should be made to send the discharge to TEDF.

CONDITIONS INFORMATION REQUIREMENTS	REQUIRED ACTION
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP to determine if a regulatory requirement has been violated.
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system (HNF-IP-0842, Vol. 6, Section 1.3, Environmental Notification).

7.3 STATE DISCHARGE PERMIT 4510: INDUSTRIAL STORM WATER DISCHARGE IN THE TANK FARMS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: All Tank Farm Facilities

Actions

CONDITIONS INFORMATION REQUIREMENTS	REQUIRED ACTION
Purpose and Scope	The scope of activities for this permit is: • Industrial storm water discharge that are collected in engineered structures such as lined trenches, basins, retention structures, secondary containment structures, tanks, sumps, roofs, parking lots, and other impervious surfaces..
Requirements	A) Each discharge must be less than 10 gallons per minute averaged annually.
	B) Each discharge must meet the ground water quality criteria.
	C) Source water can only be storm water discharges. Storm water is that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of an engineered storm water drainage system into a constructed infiltration facility.

CONDITIONS INFORMATION REQUIREMENTS	REQUIRED ACTION
	D) The following DOE/RL-97-67, Pollution Prevention and Best Management Practices Plan for State Waste Discharge Permits ST 45208, ST 4509, and ST 4510, Best Management Practices are enforceable under the Discharge permits and must be complied with: • No industrial storm water discharge shall be allowed within a surface contamination area • No industrial storm water discharge shall be allowed within 300 feet horizontal radius of a known active or inactive crib, ditch, or trench used for disposal of dangerous and/or radioactive contaminants • The collection of storm water in any tank, etc., shall be field screened for contaminates prior to discharge • Reasonable efforts shall be taken to prevent ponding • There shall be no discharges or run-off of industrial storm water to any surface waters of the state or to any land not owned by or under the control of the Permittee
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP to determine if a regulatory requirement has been violated.
Recovery	Failure to make proper notifications to EP is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system (HNF-IP-0842, Vol. 6, Section 1.3, Environmental Notification).

7.4 702 AZ COOLING TOWER DISCHARGES

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: 702-AZ Cooling Tower Facility

Actions

CONDITIONS INFORMATION REQUIREMENTS	REQUIRED ACTION
Purpose and Scope	The scope of this permit is: • 702-AZ Cooling Tower Discharges.

CONDITIONS INFORMATION REQUIREMENTS	REQUIRED ACTION	
Requirements	A.) The liquid discharges from the 702-AZ cooling towers to the TEDF are regulated under WAC173-240, TEDF permit ST4502, and HNF-SD-WO49H. Periodic sampling of the 702-AZ cooling system is required to ensure that the liquid effluents meet all listed requirements. Normally, a composite sample from operating cooling towers (in wet mode) is taken whenever the towers are placed in the wet mode of operation, six months later, and upon switching from the wet mode to the dry mode for the winter months. Individual samples from each operating cooling tower will be taken at this time to determine if any of the cooling towers have a high concentration of dissolved solids..	Periodic Sampling requirements: whenever the towers are placed in the wet mode of operation, six months later, and upon switching from the wet mode to the dry mode for the winter months.
	B.) The maximum total flow-rate to TEDF is 600 gallons per minute.	
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP to determine if a regulatory requirement has been violated.	
Recovery	Failure to make proper notifications to the On-Call EP Representative is considered an ESD nonconformance and shall be screened for reportability via the occurrence reporting system.	
Basis	Registration of Hanford Site Class V Underground Injection Wells State Waste Discharge Permit Numbers ST 4508, ST 4509, and ST 4510.	

8.0 CONTROLS ON STORAGE TANK SYSTEMS

8.1 SST CONTROLS AND LIMITATIONS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: SST Controls and Limitations.

Actions

CONDITIONS INFORMATION	REQUIRED ACTION

CONDITIONS INFORMATION	REQUIRED ACTION	
Purpose and Scope	This section provides environmental limits and recovery actions for TFC SSTs at the Hanford site. This document provides the Regulatory requirements and necessary corrective actions for: • General environmental regulations, • Leak detection requirements, and • Intrusion requirements per WAC173-303-640 and 40 CFR 265, Subpart J.	
Requirements	The owner/operator of the SST system must use appropriate controls and practices to prevent spills and overflows from a tank or containment system. All SST tank farms must be marked with labels or signs to identify the waste contained in the tank. The label or sign must be legible at a distance of at least fifty feet, and must bear a legend that identifies the waste in a manner that adequately warns employees, emergency response personnel, and the public of the major risk(s) associated with the waste being stored or treated in the tank systems.	
Limitations	Any deviations from the above approval conditions shall be promptly relayed to EP to determine if a regulatory requirement has been violated.	Promptly notify On-Call EP Representative
Recovery	Failure to report nonconforming conditions to the ES is considered an ESD nonconformance and shall be screened for reporting via the occurrence reporting system.	
Leak Detection and Intrusion	Leak detection and intrusion detection must meet the specific requirements of OSD-T-151-00031, "Operating Specifications for Tank Farm Leak Detection and Single Shell Tank Intrusion Detection."	
Limitations	The following limits apply: A) Any leak, intrusion or equipment failure per OSD-T-151-00031 criteria shall be reported immediately to the On-Call EP Representative B) Leak Detection system repairs shall be completed in accordance with OSD-T-151-00031 guidelines, latest revision.	Immediate notification of On-Call EP Representative
Recovery	Failure to report nonconforming conditions to the EP is considered an ESD nonconformance and shall be screened for reporting via the occurrence reporting system. NOTE: -EP must notify Ecology of a reportable spill or leak within 24 hours, UNLESS the leak/spill is less than a reportable quantity established in 40 CFR 302, or less than or equal to one pound of material.	24 Hours
Response to Leaks or Spills	Stop any activities associated with an SST tank system from which there has been a leak or spill, and: Comply with the strategies and emergency pumping actions outlined in HNF-SD-WM-AP-005, "Single Shell Tank Leak Emergency Pumping Guide"	Immediate notification required

CONDITIONS INFORMATION	REQUIRED ACTION
	Report any releases to the On-Call EP Representative immediately. The On-Call EP Representative shall determine reportability to Ecology in accordance with TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notifications."
Limitation	Any leak or spill must be reported to the On-Call EP Representative as soon as possible.
Recovery	Failure to report leaks/spills to the On-Call EP Representative is considered an ESD nonconformance and shall be screened for reporting as an Occurrence via the occurrence reporting system.
Basis	• WAC173-303-640, • 40 CFR 265, Subpart J, and • OSD-T-151-00031.

8.2 DOUBLE SHELL TANK CONTROLS AND LIMITATIONS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Double-Shell Tank Facilities Controls and Limitations Requirements.

Actions

CONDITIONS INFORMATION	REQUIRED ACTION
Purpose and Scope	This section provides environmental limits and recovery actions for DST tank systems at the Hanford site. It also provides the Regulatory requirements and necessary corrective actions for general environmental regulations, annulus leak detection requirements, integrity assessment requirements per WAC173-303-640; 40 CFR 265, Subpart J, and requirements established via the 241-SY Tank Farm Compliance Inspection Settlement Agreement and Stipulated Order of Dismissal (PCBH No. 98-249; No. 98-250.)
#1 Requirements	A.) The owner/operator of the DST tank system must use appropriate controls and practices to prevent spills and overflows from a tank or containment system B.) All DST tank farms must be marked with labels or signs to identify the waste contained in the tank. The label or sign must be legible at a distance of at least fifty feet, and must bear a legend that identifies the waste in a manner that adequately warns employees, emergency response personnel, and the public of the major risk(s) associated with the waste being stored or treated in the tank systems.

CONDITIONS INFORMATION	REQUIRED ACTION	
#1 Limitations	Any equipment failure of spills or overflows prevention controls must be reported to the On-Call EP Representative to be evaluated for regulatory compliance.	As soon as possible.
#1 Recovery Actions	The following Recovery Actions apply: • Equipment whose function is to protect the environment that failures is not necessarily an ESD nonconformance but must be reported to the EP On-Call-Representative. • Failure to report nonconforming conditions is considered an ESD nonconformance and shall be screened for reporting via the occurrence reporting system.	
#2 Containment and Detection of Releases per WAC 173-303-640; 40 CFR 265, Subpart J	A.) In order to prevent the release of dangerous waste or dangerous constituents to the environment, secondary containment shall: • Be provided with a leak detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure (annulus) or the presence of any release of dangerous waste or accumulated liquid in the secondary containment system (annulus leak detection) within 24 hours	Detect a leak within 24 hours
	B.) Spilled or leaked waste and accumulated precipitation must be removed from the secondary containment system.	Within 24 hours.
#2 Requirements	A.) Failure of any <u>annulus leak detection system</u> must be immediately reported to the Environmental Organization per TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notification"	Immediately
	B.) Any <u>spilled or leaked waste</u> in a double-shell tank farm must be immediately reported to the Environmental On-Call-Representative per TFC-ESHQ-ENV_FS-C-01, latest revision.	Immediately
	NOTE -The following limitations are per verbal agreement with Ecology: C.) If a leak detector probe alarm is caused by known events, such as rain or condensate, and fails to clear within four hours, then notification must be made to the On-Call EP Representative. The On-Call EP Representative shall notify Ecology.	4 hours

CONDITIONS INFORMATION	REQUIRED ACTION	
	D.) The following limitations are per the 241-SY Tank Farm Compliance Inspection Settlement Agreement and Stipulated Order of Dismissal: • A leak detection system shall be installed for each of the 28 DST, and shall include the following equipment: ➢ Three annulus leak detector probes within the annulus of each DST, operated to the terms of the Agreement. ➢ The leak detection probes shall be placed as equidistantly as possible within the annulus of each DST. ➢ An annulus leak detection system probe shall be a conductivity type probe, or equal or better device. ➢ Each leak detection probe will be set within a 1/4 inch from the annulus floor with allowance for normal engineering tolerances	
	➢ An alarm of the annulus leak detection probe at its set point, that has been determined not to be attributable to operational activities, must be reported to the On-Call EP Representative immediately. <u>The On-Call EP Representative shall notify Ecology of alarms within 24 hours of the determination.</u>	Within 24 hours
	➢ At least one in-tank surface level monitor installed within the primary tank of each DST.	
	E.) All leak detection system devices shall be maintained and operated continuously, with the following exceptions: 1) Down time for preventive maintenance and periodic functional testing <u>shall not exceed 24 hours</u>.	Max. 24 Hours
	2) Down time for repair of a leak detection system device discovered to be inoperable or requiring repair <u>shall not normally exceed 90 days</u>. Ecology <u>must be notified of any leak detection device out of service for more than 90 days</u>. This notification must include a schedule for repair and return to service of the device as soon as possible.	90 Days
	3) All maintenance, repair, and functional testing activities of the leak detection system shall be documented in the operating record (work package is satisfactory).	

CONDITIONS INFORMATION	REQUIRED ACTION	
	• Clarification to the Settlement Agreement with Ecology: ➢ In case of a planned facility shutdown, which will render the Leak Detection System inoperable for any period greater than 24 hours, Ecology must be notified. ➢ The alternate leak detection requirements during the outage must be documented in a letter from the EP Environmental Compliance Officer to the Closure Project or Waste Feed Operations Project.	Not to exceed 24 hours
	• The leak detection system may be supplemented by operation of annulus ventilation CAM. If used for this purpose, any double-shell tanks equipped with operating CAM will be monitored daily for airborne releases into the annulus that could give an indication of a leak from the primary tank structure into the annulus. These CAM will be set to alarm at set points no higher than 3000 counts per minute	Monitor Daily
	• Notify the On-Call EP Representative of any annulus CAM readings exceeding the alarm set point, that have been determined are not attributable to atmospheric radon or operational activities (e.g., vacuum imbalance between the annulus and primary tank ventilation). EP shall notify Ecology within 24 hours of the determination.	Within 24 hours
#2 Recovery	• Report nonconforming conditions to the On-Call EP Representative. Failure to report nonconforming conditions to the On-Call EP Representative is considered an ESD nonconformance, and • shall be screened for reporting via the occurrence reporting system.	
#3 Response to Leaks or Spills	A.) Remove from service immediately any DST system or secondary containment system from which there has been a leak or spill, and:	
	B.) Comply with the strategies and emergency pumping actions outlined in HNF-3484, "Double Shell Tank Emergency Pumping Guide"	
	C.) Report any releases to On-Call EP Representative, who must notify Ecology of a reportable spill or leak within 24 hours, UNLESS the leak/spill is less than or equal to a reportable quantity established in 40 CFR 302, or D.) Less than or equal to one pound of material. immediately. EP shall determine reportability to Ecology in accordance with TFC-ESHQ-ENV_FS-C-01, latest revision, "Environmental Notifications."	1. 24 Hours 2. Immediately if it is a reportable quantity
#3 Limitation	Any leak or spill must be reported to the On-Call EP Representative as soon as possible.	As soon as possible

CONDITIONS INFORMATION	REQUIRED ACTION	
#3 Recovery	Report leaks/spills to the On-Call EP Representative. Failure to report leaks/spills to the On-Call EP Representative is considered an ESD nonconformance and shall be screened for reporting as an Occurrence via the occurrence reporting system.	
#4 Double-Shell Tank Gas Release Events Reporting Requirements	Ecology requires notification of any DST gas release event within 24 hours of the event. A gas release event is defined as an indication of 0.25% hydrogen (2500 ppm) or more per standard DST hydrogen monitoring system readings.	Within 24 hours of the event
#4 Limitations	EP shall be immediately notified of any DST gas release event. EP shall notify Ecology within 24 hours of any gas release event.	Within 24 hours of an event
#4 Recovery	Notify EP On-Call EP Representative for recovery requirements. Failure to notify the On-Call EP Representative of a gas release event is considered an ESD nonconformance and shall be screened for reporting as an Occurrence via the occurrence reporting system.	
Basis	• WAC173-303-640, • 40 CFR 265, Subpart J, • OSD-T-151-0013, • OSD-T-151-00031 • 241-SY Tank Farm Compliance Inspection Settlement Agreement and Stipulated Order of Dismissal (PCBH No. 98-249; No. 98-250).	

8.3 CATCH AND RECEIVER TANK CONTROLS AND LIMITATIONS

Mode Applicability: Operation, Construction, and Standby

Purpose and Scope: This section provides environmental limits and recovery actions for TFC catch tanks and receiver tanks. This document provides the Regulatory requirements and necessary corrective actions for general environmental regulations, leak detection requirements, and compliance resolutions per WAC173-303-640; 40 CFR 265, Subpart J, and requirements established via the environmental compliance issues identified in DOE/RL Letter 95-PCA-342, dated July 6, 1995 (Silver List Closeout Requirements and Agreements).

Actions

CONDITIONS INFORMATION	REQUIRED ACTION

CONDITIONS INFORMATION	REQUIRED ACTION	
General Requirements per WAC173-303-640; and 40 CFR 265, Subpart J	Catch tanks and receiver tanks serve as the secondary containment system for waste transfers. These regulations, cited as conditions and information, require the operator of a Treatment Storage and Disposal (TSD) facility (i.e., Tank Farms) to remove liquids in secondary containment <u>within 24 hours or in a timely manner</u> as are possible to prevent harm to human health and the environment.	Within 24 hours or in a timely manner.
Leak Detection Requirements	Operation of the following catch/receiver tanks shall meet the monitoring requirements of OSD-T-151-00031, "Operating Specifications for Tank Farm Leak Detection and Single-Shell Tank Intrusion Detection", latest revision: A-350 A-302-A E/W Vent Station A-302-B 244-A 244-BX 151-AZ 244-S 154-AZ 241-S-304 244-TX 311-ER 240-S-302 241-TX-302-B 241-TX-302-C 241-U-301-B 241-UX-302-A	
Limitations	Any deviations from the catch tank or DCRT requirements of OSD-T-151-00031, latest revision, shall be reported to the On-Call EP Representative. The deviation will be evaluated to determine if there is a regulatory non-compliance.	
Recovery	Report leaks/spills to the On-Call EP Representative. Failure to report nonconforming conditions to the On-Call EP Representative is considered an ESD nonconformance and shall be screened for reporting as an Occurrence via the occurrence reporting system.	
"Silver List" Close-Out Requirements and Agreements	1. Tank 241-UX-302A Heel: 2 inches (1073 gallons) Tank 241-UX-302A will be entered into the integrity assessment plan. After W-058 completion, all pumpable liquids will be removed from the tank. During the period of time between W-058 completion and plugging of the drain line from the U-Plant stack, the tank will be pumped of all pumpable liquid when level exceeds the nominal heel value. If tank 241-UX-302A is of no potential for use, the tank will be transferred to the Inactive Miscellaneous Underground Storage Tank (IMUST) program.	
	2. Tank 241-U-301B Heel: 8 inches (3526 gallons) Tank 241-U-301B will be entered into the integrity assessment plan. After activation of 244-U, the tank will be pumped to heel level on a semi-annual basis (January through June, July through December). The tank will be pumped to heel level prior to transfers. When no longer required to support PFP operations, all pumpable liquid shall be removed, the tank will be sealed for rainwater/snowmelt intrusion prevention, and will be placed into stand-by until needed for retrieval operations.	

CONDITIONS INFORMATION	REQUIRED ACTION	
	3. Tank 241-TX-302-CHeel: 8 inches (591 gallons) Tank 241-TX-302-C shall be entered into the integrity assessment plan. The tank cover block will be sealed to prevent rainwater/snowmelt intrusion. The pumping frequency will be annually, commencing April 30, 1999.	
	4. Tank 241-S-304 Heel: 3 inches (12 gallons) Tank 241-S-304 will be entered into integrity assessment plan. The tank will be pumped semi-annually (January through June, July through December) to heel level. The tank must be below the high level limit in OSD-T-151-00015, Section 15.7, prior to transfer. The tank shall be sealed to prevent rainwater/snowmelt intrusion.	
	5. Tank 241-A-302A Heel: 10 inches (395 gallons) Tank 241-A-302A shall be isolated and transferred to the IMUST program.	
	6. Tank 241-A-350 Heel: 22 inches Tank 241-A-350 will be entered into the integrity assessment plan. The tank will be pumped to heel level when indicated level approaches 70%, and at least once every two months if indicated level is above the nominal heel value and the tank has not been pumped during the two-month period. The tank must be below the high level limit in OSD-T-151-00015, Section 15.7, prior to transfer.	
	7. Tank 241-AZ-151 Heel: 20 inches (1828 gallons) Tank 241-AZ-151 will be entered into the integrity assessment plan. The tank will be pumped to heel level when indicated level approaches 70% *, and at least once every two months if indicated level is above the nominal heel value and the tank has not been pumped during the two month period. NOTE -In the event that the Tank 241-AZ-151 70% liquid level is exceeded, see OSD-T-151-00015, section 15.7.B.1.a., latest revision for catch tank liquid level limits.	
	8. Tank 241-AZ-154 Heel: 1 inch (41 gallons) Tank 241-AZ-154 will be transferred to the IMUST program.	
	9. Tank 241-ER-311 Heel: 15 inches (1486 gallons) Tank 241-ER-311 will be entered into the integrity assessment plan. This tank must be pumped on an annual basis if level is above the nominal heel level value. The cover blocks shall be sealed after each entry to prevent rainwater/snowmelt intrusion. The tank must be below 50% of the high level limit in OSD-T-151-00015, Section 15.7, latest revision, prior to transfer.	
Limitations	The On-Call EP Representative shall be immediately notified of any deviations from catch tank	Immediate notification

CONDITIONS INFORMATION	REQUIRED ACTION
	requirements to determine if a regulatory requirement has been violated.
Recovery	A.) Report non-conforming conditions to On-Call EP Representative. B.) Failure to report nonconforming conditions to the On-Call EP Representative is considered an ESD nonconformance and shall be screened for reporting as an Occurrence via the occurrence reporting system.
Basis	A.) WAC173-303-640 B.) Environmental Compliance issues identified in DOE/RL Letter 95-PCA-342, Dated July 6, 1995 (Silver List Closeout Requirements and Agreements).

9.0 WASTE TRANSFER OPERATIONS

9.1 WASTE TRANSFER LEAK TESTING OPERATIONS

Mode Applicability: Operation, Construction, and Standby

Purpose and Scope: This section provides environmental limits and recovery actions for TFC pipeline waste transfer operations. This document provides the Regulatory requirements and necessary corrective actions for general environmental regulations, leak detection requirements, and requirements per response to Office of River Protection letter 99-OPD-078, dated November 24, 1999, "Requesting Ecology Approval of Alternative Integrity Assessment of Direct Buried Transfer Lines in Support of the Interim Stabilization Project."

Actions

CONDITIONS INFORMATION	REQUIRED ACTION
Direct Buried Transfer Line Leak Testing	In-Service Direct-buried transfer lines must be leak-tested annually. Direct buried transfer lines that have been out of service for greater than 1 year, must be leak-tested prior to return to service and annually there after.
Limitations	The On-Call EP Representative shall be immediately notified of any deviations from catch tank requirements (in accordance with OSD-T-151-00031, Operating Specifications For Tank Farm Leak Detection and SST Intrusion Detection) to determine if a regulatory requirement has been violated.
Recovery	Report nonconforming conditions to On-Call EP Representative. Failure to report nonconforming conditions to On-Call EP Representative is considered an ESD nonconformance and shall be screened for reporting as an Occurrence via the occurrence reporting system.
Basis	A.) WAC173-303-640,

CONDITIONS INFORMATION	REQUIRED ACTION
	B.) 40 CFR 265, Subpart J

10.0 TANK INSPECTION REQUIREMENTS

In accordance with Washington Department of Ecology (WDOE), the following equipment is considered to be "Environmental" for RCRA/WAC 173-303-640 purposes:

Tank inspection prioritization process as agreed to between WDOE and the TFC (see letter from Department of Ecology to ORP/CH2MHill, "Notice of Non-Compliance for Tank System Inspection and Repair Program in Hanford Double-Shell Tank Farms",dated February 6, 2003):

- DST primary tank level instrumentation
- DST annulus leak detection instrumentation
- Transfer line leak detection (during transfers)
- Pit/diversion box leak detection
- Catch tank and DCRT level/leak detection instrumentation
- Cathodic protection
- DST primary vapor space pressure
- SST level and temperature per SST Dangerous Waste Inspection Schedules, as noted in this document.

1.) Operator discovers issue during rounds and assigns Equipment Deficiency List (EDL) number per TFC-OPS-OPER-C-08, Shift Routines and Operating Practices.
2.) Shift supervision reviews the round sheets and generates Problem Evaluation Request (PER) in accordance with TFC-OPS-OPER-C-08 and TFC-ESHQ-Q-C-C-01, Problem Evaluation Request. The PER is evaluated against OSD-T-151-00031, Operating Specifications For Tank Farm Leak Detection and SST Tank Intrusion Detection, and this document.
3.) The PER is evaluated by the screening team and reviewed at Senior Leadership Morning Meeting. The PER is assigned as a Track Until Finished and assigned to the appropriate facility manager. The environmental organization is represented at the morning leadership meeting. The screening team also verifies that the EDL number is entered on the PER.
4.) Facility manager evaluates the PER and generates a Job Control System (JCS) work package per TFC-OPS-MAINT-C-01, TFC Work Control.
5.) The work package is validated as a work package or a Routine Work Request (RWR) and receives a JCS number (e.g., 2E-03-00XXX/W). The JCS number for the work package is entered into the PER form and the PER is changed to Trend Only. If the PER results in an RWR, the PER retains the Track Until Finished (TUF) designation. The screening team at the Senior Leadership meeting reviews the change of the PER status.
6.) The facility manager reviews the JCS work package and assigns appropriate priority based on facility needs. Environmental equipment receives a 2.1 or 2.2 priority in accordance with TFC-OPS-MAINT-C-01.

7.) Level and leak detection instrumentation is prioritized based on the requirements of OSD-T-151-00031.
8.) Deficiencies are placed on the 12-week rolling schedule in accordance with HNF-IP-0842, Volume 2, Section 2.7. Environmental concerns with a time requirement for repair (leak detection, level detection) are placed on the schedule consistent with the requirements of OSD-T-151-00031.
9.) When completed, the JCS package becomes a permanent part of the tank farm operating record and is scanned into the Records Management Information System (RMIS) system.

10.1 DANGEROUS WASTE INSPECTION SCHEDULE FOR 204-AR WASTE UNLOADING STATION

Mode Applicability: Operation -Standby

Process Area Applicability: 204-AR Waste Unloading Station

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Catch Tank Dip Tube System-Liquid Level, High Level Alarm: Tank 1 (AR204-WT-LI-101) Catch Tank Dip Tube System-Liquid Level, High Level Alarm is monitored at 204-AR control room. 242-A Evaporator control room, and TMACS.	CONDITION: • High-level alarm RESPONSE: Ensure the following: • Catch Tank Dip Tube System-Liquid Level, High Liquid level does not exceed > 1,000 gallons • Respond to high-level alarm in accordance with facility alarm response procedure. • 204-AR Rail Car Waste Unloading Building Daily Rounds for baseline, max and min surface level limits do not exceed the liquid level of <150 gallons. (See TF-OR-EF-204AR)	Visually inspect Catch Tank Dip Tube System-Liquid Level, High Level Alarm and review data DAILY
Catch Tank Sump Leak Detector: Tank 1 Catch Tank Sump Leak Detector is monitored at 204-AR control room, 242-A Evaporator control room and	CONDITION: Alarming Catch Tank Sump Leak Detector at monitoring locations RESPONSE: Acknowledge and respond to alarming Catch Tank Sump Leak Detector at monitoring	Visually inspect the Catch Tank Sump Leak Detector during transfers per operating procedure

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
TMACS.	locations in accordance with alarm response procedures.	
Transfer Line Equipment – Conductivity Probe Leak Detector LIQW-702 Transfer Line Equipment – Conductivity Probe Leak Detector is monitored at 204-AR control room, 242-A Evaporator control room and TMACS.	CONDITION: Alarming Monitor Transfer Line Equipment – Conductivity Probe Leak Detector RESPONSE: Acknowledge alarming Monitor Transfer Line Equipment – Conductivity Probe Leak Detector at monitoring locations.	Visually inspect the Transfer Line Equipment – Conductivity Probe Leak Detector during transfers per operating procedure
Equipment -Rail out/tank trailer unloading room floor	CONDITION: Leaks and spills in Equipment – Rail out/tank trailer unloading room floor. RESPONSE: Report leaks and spills to TFC management and request mitigative measures.	Visually inspect the Rail out/tank trailer unloading room floor during waste transfer unloading operations. Inspect the Rail out/tank trailer unloading room floor DAILY when waste transfer unloading operations are not ongoing.

10.2 DOUBLE SHELL TANK SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-AN TANK FARM

Mode Applicability: Operation. Construction, Standby

Process Area Applicability: 241-AN Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Annulus Conductivity Probe Leak Detectors (21 total) at Tanks 241-AN-101, -102, -	CONDITION: Annulus Conductivity Probe Leak Detectors alarming condition indicated at monitoring locations	Visual Inspect Annulus Conductivity Probe Leak Detectors

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
103, -104, -105, -106, -107. Conductivity probe not at specified elevation	RESPONSE: Acknowledge alarming condition indicated at 271-AN Control Room monitoring locations. Ensure Annulus Conductivity Probe Leak Detectors are set at a specified elevation	–DAILY in accordance with OSD-151-T-00031, latest revision.
Manual Tapes-(MT) for Primary Tank Surface Level: Tanks 241-AN-101, -102, -103, -104, -105, -106, -107 (MT readings taken at field locations only)	Monitor and trend liquid level for change. Ensure there is no change in liquid level > ¼ inches from last readings. CONDITION: Tank liquid level is > ¼ inch from last reading RESPONSE: Enter reading on rounds sheet and report change to TFC management.	1) Review Primary Tank Surface Level MT Data DAILY in accordance with OSD-151-T-00031, latest revision. 2) Monitor Primary Tank Surface Level MT during transfer
ENRAF – Tank Surface Level: Tanks 241-AN-101, -102, -103, -104, -105, -106, -107 ENRAF readings taken at field locations or monitored at TMACS ENRAF readings recorded on 241-AN Tank Farm Round sheets	CONDITION: Liquid level exceeds recent levels. RESPONSE: Monitor ENRAF readings to ensure there is no change in liquid level >0.3 inches from last readings. RESPONSE: Enter reading on rounds sheet and report change to TFC management.	1) Review ENRAF reading data DAILY in accordance with OSD-151-T-00031, latest revision. 2) Monitor ENRAF readings during transfers
Valve Pits -Conductivity Probe Leak Detectors: 241-AN-A, 241-AN-B Conductivity Probe Leak Detectors are monitored at 271-AN Instrument Bldg, and 242-A Evaporator control room, or at field locations.	CONDITION: Valve Pit Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge Valve Pit Conductivity Probe Leak Detector alarms at 271-AN Control Room monitoring instrumentation locations.	Valve Pit Conductivity Probe Leak Detectors are visually monitored during transfers per operating procedures in accordance with OSD-151-T-00031, latest revision.
Central Pump Pits -	CONDITION:	Central Pump Pits -

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Conductivity Probe Leak Detector 241-AN-01A, 02A, 03A, 04A, 05A, 06A, 07A Central Pump Pits - Conductivity Probe Leak Detectors are monitored at 271-AN Instrument Bldg, and 242-A Evaporator control room, or at field locations.	Central Pump Pit Conductivity Probe Leak Detector Alarming. RESPONSE: Acknowledge Central Pump Pit Conductivity Probe Leak Detector Alarms indicated at monitoring locations.	Conductivity Probe Leak Detectors are visually monitored during transfers per operating procedures.
Annulus Pump Pits - Conductivity Probe Leak Detectors 241-AN-01A, 02A, 03A, 04A, 05A, 06A, 07A Annulus Pump Pit Conductivity Probe Leak Detectors are monitored at 271-AN Instrument Bldg, and 242-A Evaporator control room, or at field locations.	CONDITION: Central Pump Pit Conductivity Probe Leak Detector Alarming. RESPONSE: Acknowledge alarming Annulus Pump Pits -Conductivity Probe Leak Detectors at monitoring locations.	Annulus Pump Pit Conductivity Probe Leak Detectors are visually monitored during transfers per operating procedures, in accordance with OSD-151-T-00031, latest revision.
Flush Pit Conductivity Probe Leak Detectors for 241-FP. Flush Pit Conductivity Probe Leak Detectors are monitored at 271-AN Instrument Bldg, and 242-A Evaporator control room, or at field locations.	CONDITION: Flush Pit Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Flush Pit Conductivity Probe Leak Detectors at monitoring locations.	Flush Pit Conductivity Probe Leak Detectors are visually monitored during transfers per operating procedures.
Service Pit -Conductivity Probe Leak Detector: 241-AN-SP. Service Pit -Conductivity Probe Leak Detectors are monitored at 271-AN Instrument Bldg, and 242-A Evaporator control room, or at field locations.	CONDITON: Service Pit Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Service Pit Conductivity Probe Leak Detectors at monitoring locations.	Service Pit Conductivity Probe Leak Detectors are visually monitored during transfers per operating procedures.

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Condensate Receiver Pit – Conductivity Probe Leak Detector: 241-AN-01D Condensate Receiver Pit Conductivity Probe Leak Detector is monitored at 271-AN Instrument Bldg, and 242-A Evaporator control room, or at field locations.	CONDITION: Condensate Receiver Pit Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge the alarming Condensate Receiver Pit Conductivity Probe Leak Detector at monitoring location.	Condensate Receiver Pit Conductivity Probe Leak Detector is visually monitored during transfers per operating procedures.
Salt Well Receiver Pit -Probe Leak Detector 241-AN-01E Salt Well Receiver Pit -Probe Leak Detector is monitored at 271-AN Instrument Bldg, and 242-A Evaporator control room, or at field locations.	CONDITION: Salt Well Receiver Pit Probe Leak Detector alarming. RESPONSE: Acknowledge the alarming Salt Well Receiver Pit Probe Leak Detector at monitoring location.	Salt Well Receiver Pit -Probe Leak Detector is visually monitored during transfers per operating procedures.
Transfer Line Encasements - Conductivity Probe Detector: DR-368, SL-160, SL-168, SN-260, SN-268 Transfer Line Encasement Conductivity Probe Detectors are monitored at 271-AN Instrument Bldg, and 242-A Evaporator control room, or at field locations.	CONDITION: Transfer Line Encasements Conductivity Probe Detectors alarming. RESPONSE: Acknowledge alarming Transfer Line Encasements Conductivity Probe Detectors at monitoring locations.	Transfer Line Encasements - Conductivity Probe Detectors are visually monitored during transfers per operating procedures.
Transfer Line Clean Out Boxes (COB) -Conductivity Probe Leak Detectors: COB-AN-1, -2, -3, -4, -5, -6, -7, -8, -9 Transfer Line COB Conductivity Probe Leak Detectors are monitored at 271-AN Instrument Bldg, and 242-A Evaporator control room, or at field locations.	CONDITION: Transfer Line COB Conductivity Probe Leak Detectors alarming RESPONSE: Acknowledger alarming Transfer Line COB Conductivity Probe Leak Detectors at monitoring locations.	Transfer Line COB Conductivity Probe Leak Detectors are visually monitored during transfers per operating procedures.

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Annulus Conductivity Probe Leak Detector: Tanks 241-AN-101, -102, -103, -104, -105, -106, -107 Annulus Conductivity Probe Leak Detectors are tested in accordance with TF-FT-229-008	CONDITION: Annulus Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Annulus Conductivity Probe Leak Detectors at tank annulus monitoring locations.	Annulus Conductivity Probe Leak Detectors are functionally tested every 182 days.

NOTE -Measurement of tank surface level using the MT or the LIT will meet inspection requirements.

10.3 DOUBLE SHELL TANK SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-AY TANK FARM

Mode Applicability: Operation, Construction, Standby

Process Area Applicability: 241-AY Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Annulus Conductivity Probe Leak Detectors (6): Tanks 241-AY-101, -102 Monitoring Locations: TMACS 271-AN Instrument Bldg, and 242-A Evaporator control room, or at field locations. Annulus conductivity probes are monitored by manual tape.	CONDITION: Annulus Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Annulus Conductivity Probe Leak Detectors at monitoring locations If conductivity probes are not at a specified elevation, report to management that the conductivity probe requires adjustment to specified elevation.	Each of the annulus conductivity probe leak detector's alarm instrumentation is <u>visually inspected DAILY</u>

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Manual Tape (MT) -Primary Tank Surface Level: Tanks 241-AY-101, -102 MT readings are taken at field locations (2 places) OR ENRAF -Tank Surface Level: Tanks 241-AY-101, -102	CONDITION: Monitor MT and trend liquid level for change. Ensure there is no change in liquid level > ¼ inches from last readings. CONDITION: Tank liquid level is > ¼ inch from last reading RESPONSE: Enter reading on rounds sheet and report change to TFC management.	Review MT data DAILY and Monitored during transfer per operating procedure.
ENRAF Tank Surface Level reading are taken at field locations, or monitored at TMACS.	Monitor ENRAF and trend liquid level for change. Ensure there is no change in liquid level > 0.3 inches from last readings. CONDITION: Tank liquid level is > 0.3 inch from last reading RESPONSE: Enter reading on rounds sheet and report change to TFC management.	Review ENRAF data DAILY and Monitored ENRAF's during transfer per operating procedure.
Central Pump Pits - Conductivity Probe Leak Detector 241-AY-01A, 02A Central Pump Pits - Conductivity Probe Leak Detectors are Monitored at 242-A Evaporator Control Room, or at field locations.	CONDITION: Central Pump Pit's -Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Central Pump Pit's -Conductivity Probe Leak Detectors at 242-A Evaporator Control Room, or at field locations.	Central Pump Pits - Conductivity Probe Leak Detector alarms are visually inspected/monitored during transfers per operating procedure.
Annulus Pump Pits - Conductivity Probe Leak Detector: 241-AY-01F, 02F. Annulus Pump Pits - Conductivity Probe Leak Detector are monitored at 242-A Evaporator Control Room, or at field locations	CONDITION: Annulus pump pit's -Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming annulus pump pit's -Conductivity Probe Leak Detectors at 241-AY-801A Instrument Bldg., or at field locations.	Annulus Pump Pits - Conductivity Probe Leak Detectors are visually inspected/monitored during transfers per operating procedure.
Sluice Pits – Conductivity Probe Leak Detector: 241-	CONDITION: Sluice Pits – Conductivity Probe Leak	Sluice Pits – Conductivity Probe

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
AY-01B, -01C, -02C, -01D, -01E, -02E Sluice Pits – Conductivity Probe Leak Detectors are monitored at 242-A Evaporator Control Room, or at field locations.	Detectors alarming. RESPONSE: Acknowledge Sluice Pits – Conductivity Probe Leak Detectors at 242-A Evaporator Control Room, or at field locations.	Leak Detectors are visually inspected/monitored during transfers per operating procedure.
Valve Pit -Conductivity Probe Leak Detector: 241-AY-501 Valve Pit -Conductivity Probe Leak Detectors are monitored at 271-AN Instrument Bldg., and 242-A Evaporator Control Room, or at field locations.	CONDITION: Valve Pit -Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge Valve Pit -Conductivity Probe Leak Detector at 242-A Evaporator Control Room, or at field locations.	Valve Pit - Conductivity Probe Leak Detectors are visually inspected/monitored during transfers per operating procedure.
Transfer Line Clean Out Boxes -Conductivity Probe Leak Detector: COB-AY-1 Transfer Line Clean Out Boxes -Conductivity Probe Leak Detectors are located in the field.	CONDITION: Transfer Line Clean Out Boxes - Conductivity Probe Leak Detectors(s) alarming. RESPONSE: Acknowledge Transfer Line Clean Out Boxes -Conductivity Probe Leak Detectors(s) at field locations.	Transfer Line Clean Out Boxes - Conductivity Probe Leak Detectors(s) are visually inspected/monitored during transfers per operating procedure.
Transfer Line Encasements – Conductivity Probe Leak Detector: SL-500, SL-501, SL-502, SL-503, SL-504, SL-505, DR-700, V-720 Transfer Line Encasements – Conductivity Probe Leak Detector(s) located in the field.	CONDITION: Transfer Line Clean Out Boxes - Conductivity Probe Leak Detectors(s) alarming. RESPONSE: Acknowledge alarming Transfer Line Encasements –Conductivity Probe Leak Detectors at field locations.	Perform functional tests of the transfer line encasement– Conductivity Probe Leak Detectors every 182 days.
Annulus Conductivity Probe Leak Detectors (6)	CONDITION: Conductivity probes are malfunctioning. RESPONSE: Ensure that malfunctioning conductivity	Perform functional tests of the Annulus Conductivity Probe Leak Detectors every 182 days in

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	probes are reported to management for repair.	accordance with TF-FT-259-008

NOTE -Measurement of tank surface level using the MT or the LIT will meet inspection requirements.

10.4 DOUBLE SHELL TANK SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-AZ TANK FARM

Mode Applicability: Operation

Process Area Applicability: 241-AZ Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Annulus Conductivity Probe Leak Detectors (6): Tanks 241-AZ, 101, -102 Monitored at 271-A Instrument Bldg. Monitored by manual tape.	CONDITION: Annulus Conductivity Probe Leak Detectors alarming. RESPONSE: • Acknowledge alarming Annulus Conductivity Probe Leak Detectors at monitoring location. • If conductivity probes are not at a specified elevation, report to management that the conductivity probe requires adjustment to specified elevation.	Each of the annulus conductivity probe leak detector's alarm instrumentation is visually inspected DAILY
Manual Tape (MT) -Primary Tank Surface Level: Tanks 241-AZ 101, -102 MT readings taken at field location. OR	CONDITION: Monitor MT and trend liquid level for change. Tank liquid level is > ¼ inch from last reading RESPONSE: Enter reading on rounds sheet and report change to TFC management.	Review MT data DAILY and MTs monitored during transfer per operating procedure.

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
ENRAF -Tank Surface Level: Tanks 241-AZ, 101, -102. Readings taken at field locations, or monitored at TMACS.	Monitor ENRAF and trend liquid level for change. There is a change in liquid level > 0.3 inches from last readings. RESPONSE: Enter reading on rounds sheet and report change to TFC management.	Review ENRAF data DAILY and ENRAF's shall be monitored during transfer per operating procedure.
Central Pump Pits - Conductivity Probe Leak Detector 241-AZ-01A, -02A Monitored at 242-A Evaporator control room, or at field locations.	CONDITION: Central Pump Pit's -Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Central Pump Pit's -Conductivity Probe Leak Detectors at 242-A Evaporator Control Room, or at field locations.	Central Pump Pits - Conductivity Probe Leak Detector alarms are visually inspected/monitored during transfers per operating procedure.
Annulus Pump Pits – Conductivity Probe Leak Detector 241-AZ-01F, 02F Monitored at 242-A Evaporator control room, or at field locations.	CONDITION: Annulus Pump Pits – Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Annulus Pump Pits – Conductivity Probe Leak Detectors at 242-A Evaporator Control Room, or at field locations.	Annulus Pump Pits – Conductivity Probe Leak Detectors are visually inspected/monitored during transfers per operating procedure.
Sluice Pits – Conductivity Probe Leak Detector: 241-AZ-01B, -02B, -01C, -02C Monitored at 242-A Evaporator control room, or at field locations.	CONDITION: Sluice Pits – Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Sluice Pits – Conductivity Probe Leak Detectors at 242-A Evaporator Control Room, or at field locations.	Sluice Pits – Conductivity Probe Leak Detector are visually inspected/monitored during transfers per operating procedure.
Transfer Line Encasement-Conductivity Probe Leak Detectors: SN 600, SN 601, DR 713, V 714, V719, PW-4507/ 4509, PW-4508 Monitored at 271-AN	CONDITION: Transfer Line Encasement-Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Transfer Line Encasement-Conductivity Probe Leak	Transfer Line Encasement-Conductivity Probe Leak Detectors are visually inspected/monitored during transfers per

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Instrument Bldg and 242-A Evaporator control room, or at field locations.	Detectors at 242-A Evaporator Control Room, or at field locations.	operating procedure.
Transfer Line Clean Out Boxes -Conductivity Probe Leak Detector: COB-AW-9, 10 Monitored at 242-A Evaporator control room, or at field locations.	CONDITION: Transfer Line Clean Out Boxes - Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Transfer Line Clean Out Boxes -Conductivity Probe Leak Detectors at 242-A Evaporator Control Room, or at field locations.	Transfer Line Clean Out Boxes - Conductivity Probe Leak Detector are visually inspected/monitored during transfers per operating procedure.

NOTE -Measurement of tank surface level using the MT or the LIT will meet inspection requirements.

10.5 DOUBLE SHELL TANK SYSTEM DANGEROUS WASTE INSPECTION SCHEDULE FOR 241-AP TANK FARM

Mode Applicability: Operations, Construction, Standby

Process Area Applicability: 241-AP Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Annulus Conductivity Probe Leak Detectors: Tanks 241-AP-101, -102, -103, -104, -105, -106, -107, -108 Monitored at 271-AP Instrument Bldg and 242-A Evaporator control room. Monitored by manual tape.	CONDITION: Annulus Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Annulus Conductivity Probe Leak Detectors at monitoring location. If conductivity probes are not at a specified elevation, report to management that the conductivity probe requires adjustment to	Each of the annulus conductivity probe leak detector's alarm instrumentation shall be <u>visually inspected DAILY</u>

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	specified elevation.	
Manual Tape (MT) -Primary Tank Surface Level: Tanks 241-AP-101, -102, -103, -104, -105, -106, -107, -108 MT readings taken at field location. OR ENRAF -Tank Surface Level: Tanks 241AP-101, -102, -103, -104, -105, -106, -107, -108 ENRAF readings taken at field locations or monitored at TMACS.	Monitor MT and trend liquid level for change. There is a change in liquid level > ¼ inches from last readings. RESPONSE: Enter reading on rounds sheet and report change to TFC management.	Review MT data DAILY and MTs monitored during transfer per operating procedure.
	Monitor ENRAF and trend liquid level for change. There is no change in liquid level > 0.3 inches from last readings. RESPONSE: Enter reading on rounds sheet and report change to TFC management.	Review ENRAF data DAILY and the ENRAF's shall be monitored during transfers per operating procedure.
Valve Pit -Conductivity Probe Leak Detector: 241-AP-VP Monitored at 271-AP Instrument Bldg and 242-A Evaporator control room, or at field locations.	CONDITION: Valve pit -Conductivity Probe Leak Detector alarming RESPONSE: Acknowledge valve pit -Conductivity Probe Leak Detector alarming condition indicated at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations	Valve Pit - Conductivity Probe Leak Detector are visually monitored during transfers per operating procedure
Central Pump Pits - Conductivity Probe Leak Detector 24-AP-01A, -02A, -03A, -04A, -05A, -06A, -07A, -08A Monitored at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations.	CONDITION: Central Pump Pits -Conductivity Probe Leak Detector(s) alarming. RESPONSE: Acknowledge Central Pump Pits - Conductivity Probe Leak Detector(s) alarming condition indicated at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations	Central Pump Pits - Conductivity Probe Leak Detector(s) are visually monitored during transfers per operating procedure
Annulus Pump Pits – Conductivity Probe Leak Detector 241-AP-01B, -02B, -03B, -04B, -05B, -06B, -07B, -08B	CONDITION: Annulus Pump Pits -Conductivity Probe Leak Detector(s) alarming. RESPONSE:	Annulus Pump Pits Conductivity Probe Leak Detector(s) are visually monitored during transfers per

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Monitored at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations.	Acknowledge Annulus Pump Pits - Conductivity Probe Leak Detector(s) alarming condition indicated at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations	operating procedure
Pump Pit (Grout Feed) – Conductivity Probe Leak Detector: 241-AP-02D Monitored at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations.	CONDITION: Pump Pit (Grout Feed) -Conductivity Probe Leak Detector(s) alarming. RESPONSE: Acknowledge Pump Pit (Grout Feed) - Conductivity Probe Leak Detector(s) alarming condition indicated at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations	Pump Pit (Grout Feed) Conductivity Probe Leak Detector(s) are visually monitored during transfers per operating procedure
Flush Pit -Conductivity Probe Leak Detector: 241-A-FP Monitored at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations.	CONDITION: Flush Pit -Conductivity Probe Leak Detector(s) alarming. RESPONSE: Acknowledge Flush Pit -Conductivity Probe Leak Detector(s) alarming condition indicated at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations	Flush Pit Conductivity Probe Leak Detector(s) are visually monitored during transfers per operating procedure
Service Pit -Conductivity Probe Leak Detector: 241-A-SP Monitored at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations.	CONDITION: Service Pit -Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge Service Pit -Conductivity Probe Leak Detector alarming condition indicated at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations	Service Pit - Conductivity Probe Leak Detector is visually monitored during transfers per operating procedure
Drain Pit -Conductivity Probe Leak Detector: 241-A-03D Monitored at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations.	CONDITION: Valve pit -Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge valve pit -Conductivity Probe Leak Detector alarming condition indicated at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations	Drain Pit - Conductivity Probe Leak Detector is visually monitored during transfers per operating procedure
Transfer Line Encasements-	CONDITION:	Transfer Line

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Conductivity Probe Leak Detectors: SL-509, SL-510, SN-609, SN-610, SN-621, SN-650 Monitored at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations.	Transfer Line Encasements -Conductivity Probe Leak Detector(s) alarming. RESPONSE: Acknowledge Transfer Line Encasements - Conductivity Probe Leak Detector(s) alarming condition indicated at 271-AP Instrument Bldg, 242-A Evaporator, or at field locations	Encasements -visually monitored during transfers per operating procedure
Transfer Line Clean Out Boxes -Conductivity Probe Leak Detector	N/A	N/A There are no COB's in 241-AP Tank Farm.
Annulus Conductivity Probe Leak Detectors: Tanks 241-A-101, -102, -103, -104, -105, -106, -107, -108 Days Malfunctioning conductivity probe. Perform TF-FT-279-008. "Perform AP DST 101 Through 108 Annulus Conductivity Probe Leak Detection Functional Test"	CONDITION: Annulus Conductivity Probe Leak Detector Functional Tests required every 182 days. RESPONSE: Perform Annulus Conductivity Probe Leak Detector Functional Tests in accordance with TF-FT-279-008	Perform Functional Tests every 182 Days.

NOTE -Measurement of tank surface level using the MT or the LIT will meet inspection requirements.

10.6 DOUBLE SHELL TANK SYSTEM RCRA INTERIM STATUS INSPECTION SCHEDULE FOR 241-AW TANK FARM

Mode Applicability: Operations, Construction, and Standby

Process Area Applicability: 241-AW Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Annulus Conductivity Probe Leak Detectors: Tanks 241-AW-101, -102, -103, -104, -105, -106 Monitored at 271-AW Instrument Bldg, and 242-A Evaporator Control Room. Monitored by manual tape	CONDITION: Annulus Conductivity Probe Leak Detectors alarming. RESPONSE: • Acknowledge alarming Annulus Conductivity Probe Leak Detectors at 271-AW Control Room monitoring locations. • Ensure conductivity probe set at a specified elevation. If required, report to management the probe elevation needs to be re-set.	Visual Inspect Annulus Conductivity Probe Leak Detectors - DAILY
Manual Tape (MT) -Primary Tank Surface Level: Tanks 241-AW-101, -102, -103, -104, -105, -106 MT readings taken at field location.	Monitor MT and trend liquid level for change. There is no change in liquid level > ¼ inches from last readings. RESPONSE: Enter reading on rounds sheet and report change to TFC management.	Review Primary Tank Surface Level MT Data DAILY Monitor Primary Tank Surface Level MT during transfer per Operating Procedure
OR ENRAF -Tank Surface Level: Tanks 241-AW-101, -102, -103, -104, -105, -106 Readings taken at field locations, or monitored at TMACS.	Monitor ENRAF and trend liquid level for change. There is a change in liquid level > 0.3 inches from last readings. RESPONSE: Enter reading on rounds sheet and report change to TFC management.	Review ENRAF reading Data DAILY Monitor ENRAF readings during transfers per Operating Procedure
Valve Pit -Conductivity Probe Leak Detector: 241-AW-A, 241-AW-B Monitored at 271-AW Instrument Bldg., 242-A Evaporator, or at field locations.	CONDITION: Valve Pit Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Valve Pit Conductivity Probe Leak Detectors at 271-AW Instrument Bldg. or at field locations.	Valve Pit Conductivity Probe Leak Detectors are visually inspected and monitored during transfers per operating procedures.
Central Pump Pit-Conductivity Probe Leak Detector 241AW-01A, -02A, -03A, -04A, -05A, -06A	CONDITION: Central Pump Pit-Conductivity Probe Leak Detectors alarming.	Central Pump Pit-Conductivity Probe Leak Detectors are visually monitored

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Monitored at 271-AW Instrument Bldg., 242-A Evaporator, or at field locations.	RESPONSE: Acknowledge alarming Central Pump Pit-Conductivity Probe Leak Detectors at 271-AW Instrument Bldg., or at field locations.	during transfers per operating procedures.
Annulus Pump Pits - Conductivity Probe Leak Detector 241-A-01B, 02B, -03B, -04B, -05B, -06B Monitored at 271-AW Instrument Bldg., 242-A Evaporator control room, or at field locations.	CONDITION: Annulus Pump Pits -Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Annulus Pump Pits -Conductivity Probe Leak Detectors at 271-AW Instrument Bldg., or at field locations.	Annulus Pump Pits - Conductivity Probe Leak Detectors are visually inspected and monitored during transfers per operating procedures..
Flush Pit -Conductivity Probe Leak Detector: 241-AW-FP Monitored at 271-AW Instrument Bldg., 242-A Evaporator control room, or at field locations.	CONDITION: Flush Pit -Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming Flush Pit - Conductivity Probe Leak Detector at 271-AW Instrument Bldg., or at field locations.	Flush Pit - Conductivity Probe Leak Detectors are visually monitored during transfers per operating procedures.
Service Pit -Conductivity Probe Leak Detector: 241-AW-SP Monitored at 271-AW Instrument Bldg., 242-A Evaporator control room, or at field locations.	CONDITION: Service Pit -Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming Service Pit - Conductivity Probe Leak Detector at 271-AW Instrument Bldg., or at field locations.	Service Pit - Conductivity Probe Leak Detectors are visually inspected and monitored during transfers per operating procedures.
Feed Pit -Conductivity Probe Leak Detector: 241-AW-02E Monitored at 271-AW Instrument Bldg., 242-A Evaporator control room, or at field locations.	CONDITION: Feed Pit -Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming Feed Pit - Conductivity Probe Leak Detector at 271-AW Instrument Bldg., or at field locations.	Feed Pit -Conductivity Probe Leak Detectors are visually inspected and monitored during transfers per operating procedures.
Drain Pit -Conductivity Probe Leak Detector: 241-AW-02D Monitored at 271-AW	CONDITION: Drain Pit -Conductivity Probe Leak Detector alarming. RESPONSE:	Drain Pit - Conductivity Probe Leak Detectors are visually inspected and monitored during

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Instrument Bldg., Evaporator control room or at field locations.	Acknowledge alarming Drain Pit - Conductivity Probe Leak Detector at 271-AW Instrument Bldg., or at field locations.	transfers per operating procedures.
Transfer Line Encasement-Conductivity Probe Leak Detectors: V021, V022, V023, SL-167, SL-168, SN-219, SN-220, SN-267, SN-268, SN-269, SN-270, DR-334, DR-335, DR-338, DR-361, PW-481. Monitored at 271-AW Instrument Bldg and 242-A Evaporator control room, or at field locations.	CONDITION: Transfer Line Encasement-Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Transfer Line Encasement-Conductivity Probe Leak Detectors at 271-AW Instrument Bldg., or at field locations.	Transfer Line Encasement-Conductivity Probe Leak Detectors are visually inspected and monitored during transfers per operating procedures.
Transfer Line Clean Out Boxes -Conductivity Probe Leak Detector: COB-AW-9, -10. Monitored at 271-AW Instrument Bldg and 242-A Evaporator control room, or at field locations.	CONDITION: Transfer Line Clean Out Boxes - Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Transfer Line Clean Out Boxes -Conductivity Probe Leak Detectors at 271-AW Instrument Bldg., or at field locations.	Transfer Line Encasement-Conductivity Probe Leak Detectors are visually inspected and monitored during transfers per operating procedures.
Annulus Conductivity Probe Leak Detectors: Tanks 241-AW-101, -102, -103, -104, -015, -106 Perform Annulus Conductivity Probe Leak Detector tests in accordance with TF-FT 239-008	CONDITION: Annulus Conductivity Probe Leak Detectors are malfunctioning when tested. RESPONSE: • Acknowledge alarming Malfunctioning Annulus Conductivity Probe Leak Detectors at tank annulus monitoring locations. • Report to TFC management.	Annulus Conductivity Probe Leak Detectors are functionally tested every 182 days.
NOTE -Measurement of tank surface level using the MT or the LIT will meet inspection requirements.		

10.7 DOUBLE SHELL TANK SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-SY TANK FARM

Mode Applicability: Operations, Construction, and Standby

Process Area Applicability: 241-SY Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Annulus ENRAF Leak Detectors: Tanks 241-SY, 101, -102, -103. Monitored at field locations only. Monitored by manual tape	CONDITION: Annulus ENRAF Leak Detectors alarming. RESPONSE: • Acknowledge alarming Annulus ENRAF Leak Detectors at monitoring locations. • Ensure ENRAF plummet conductivity probe set at a specified elevation. If not at specified elevation, report to management the ENRAF plummet conductivity probe elevation needs to be re-set.	Visually Inspect Annulus ENRAF Leak Detectors -DAILY
Manual Tape (MT) -Primary Tank Surface Level: Tanks 241-SY-101, -102, -103. MT readings taken at field locations only. OR ENRAF -Tank Surface Level: tanks 241-SY-101, -102, -103. ENRAF readings are taken at field locations, or monitored at TMACS.	Monitor MT and trend liquid level for change. There is a change in liquid level > ¼ inches from last readings. RESPONSE: Enter reading on rounds sheet and report change to TFC management.	Review Primary Tank Surface Level MT Data DAILY Monitor Primary Tank Surface Level MT during transfer per Operating Procedure
	Monitor ENRAF and trend liquid level for change. There is a change in liquid level > 0.3 inches from last readings. RESPONSE: Enter reading on rounds sheet and report change to TFC management.	Review ENRAF -Tank Surface Level Data DAILY Monitor ENRAF -Tank Surface Levels during transfer per Operating Procedure
Valve Pit -Conductivity Probe Leak Detector: 241-SY-A, 241-SY-B	CONDITION: Valve Pit Conductivity Probe Leak Detectors alarming.	Valve Pit Conductivity Probe Leak Detectors are visually inspected and monitored during

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Monitored at 242-S Evaporator control room, or at field locations.	RESPONSE: Acknowledge alarming Valve Pit Conductivity Probe Leak Detectors at 271-SY Instrument Bldg. or at field locations.	transfers per operating procedures.
Central Pump Pits - Conductivity Probe Leak Detector 241-SY-01A, 02A, 03. Monitored at 242-S Evaporator control room, or at field locations.	CONDITION: Central Pump Pits -Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Central Pump Pits - Conductivity Probe Leak Detectors at 271-SY Instrument Bldg. or at field locations.	Central Pump Pits - Conductivity Probe Leak Detectors are visually inspected and monitored during transfers per operating procedures.
Annulus Pump Pits – Conductivity Probe Leak Detector Monitored at 242-S Evaporator control room, or at field locations.	CONDITION: Annulus Pump Pits –Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming Annulus Pump Pits –Conductivity Probe Leak Detector at 271-SY Instrument Bldg. or at field locations.	Annulus Pump Pits – Conductivity Probe Leak Detector is visually inspected and monitored during transfers per operating procedures.
Flush Pit -Conductivity Probe Leak Detectors at 241-SY-A, -B, -02E Monitored at TMACS	CONDITION: Flush Pit -Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Flush Pit - Conductivity Probe Leak Detectors at 271-SY Instrument Bldg. or at field locations.	Flush Pit - Conductivity Probe Leak Detectors are visually inspected and monitored during transfers per operating procedures.
Drain Pit -Conductivity Probe Leak Detector: 241-SY-02D Monitored at 242-S Evaporator control room, or at field locations.	CONDITION: Flush Pit -Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming Flush Pit - Conductivity Probe Leak Detector at 271-SY Instrument Bldg. or at field locations.	Flush Pit - Conductivity Probe Leak Detector is visually inspected and monitored during transfers per operating procedures.
Feed Pump Pit –Conductivity Probe Leak Detector: 241-SY-02E Monitored at 242-S Evaporator control room, or at field locations.	CONDITION: Feed Pump Pit –Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming Feed Pump Pit – Conductivity Probe Leak Detector at 271-	Feed Pump Pit – Conductivity Probe Leak Detector is visually inspected and monitored during transfers per operating procedures.

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	SY Instrument Bldg. or at field locations.	
Service Pit: 241-SY (1 place) Drains to 241-SY-02E Flush Pit.	No Required Action	No required inspection/monitoring duration requirements.
Transfer Line Clean Out Boxes –Conductivity Probe Leak Detectors: COB-SY-1, -2, -3, -4, -5, -6 (6 places) Monitored at 242-S Evaporator control room, or at field locations.	CONDITION: Transfer Line Clean Out Boxes – Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming Transfer Line Clean Out Boxes –Conductivity Probe Leak Detectors at 271-SY Instrument Bldg. or at field locations.	Transfer Line Clean Out Boxes – Conductivity Probe Leak Detectors are visually inspected and monitored during transfers per operating procedures.
Annulus ENRAF Leak Detectors (9 places) Malfunctioning ENRAF instrumentation functional tests performed per TF-FT-439-009.	CONDITION: Annulus ENRAF Leak Detectors are malfunctioning alarming. RESPONSE: Acknowledge alarming Malfunctioning Annulus ENRAF Leak Detectors at tank annulus monitoring locations.	Annulus ENRAF Leak Detectors are functionally tested every 182 days.

NOTE -Measurement of tank surface level using the MT or the LIT will meet inspection requirements

10.8 DOUBLE SHELL TANK SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR MISCELLANEOUS TRANSFER DIVERSION BOX EQUIPMENT

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Miscellaneous Transfer Diversion Box Equipment

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
241-A-401 Diverter Caisson	CONDITION:	241-A-401 Diverter

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Conductivity Probe Leak Detector Monitored at 271-A Instrument Building, or at field location.	241-A-401 Diverter Caisson - Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-A-401 Diverter Caisson -Conductivity Probe Leak Detector at the 271-A Instrument Building or at the field location.	Caisson Conductivity Probe Leak Detector is visually inspected and monitored during transfers per operating procedures.
241-ER-151 Conductivity Probe Leak Detector Monitored at field location.	CONDITION: 241-ER-151 Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-ER-151 Conductivity Probe Leak Detector at the field location.	241-ER-151 Conductivity Probe Leak Detector is visually inspected and monitored during transfers per operating procedures.
241-ER-152 Conductivity Probe Leak Detector Monitored at field location.	CONDITION: 241-ER-152 Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-ER-152 Conductivity Probe Leak Detector at the field location.	241-ER-152 Conductivity Probe Leak Detector is visually inspected and monitored during transfers per operating procedures.
241-ER-153 Conductivity Probe Leak Detector Monitored at field location.	CONDITION: 241-ER-153 Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-ER-153 Conductivity Probe Leak Detector at the field location.	241-ER-153 Conductivity Probe Leak Detector is visually inspected and monitored during transfers per operating procedures.
241-S-151 Conductivity Probe Leak Detector Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 241-S-151 Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-S-151 Conductivity Probe Leak Detector at the 242-S Evaporator control room, or at the field location.	241-S-151 Conductivity Probe Leak Detector is visually inspected and monitored during transfers per operating procedures.
241-TX-52 Conductivity	CONDITION:	241-TX-52 Conductivity

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Probe Leak Detector Monitored at field location.	241-TX-52 Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-TX-52 Conductivity Probe Leak Detector at field location.	Probe Leak Detector is visually inspected and monitored during transfers per operating procedures.
241-TX-154 Conductivity Probe Leak Detector Monitored at field location.	CONDITION: 241-TX-154 Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-TX-154 Conductivity Probe Leak Detector at the field location.	241-TX-154 Conductivity Probe Leak Detector is visually inspected and monitored during transfers per operating procedures.
241-U-151 Conductivity Probe Leak Detector Monitored at field location.	CONDITION: 241-U-151 Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-U-151 Conductivity Probe Leak Detector at the field location.	241-U-151 Conductivity Probe Leak Detector is visually inspected and monitored during transfers per operating procedures.
241-U-152 Conductivity Probe Leak Detector Monitored at field location.	CONDITION: 241-U-152 Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-U-152 Conductivity Probe Leak Detector at the field location.	241-U-152 Conductivity Probe Leak Detector is visually inspected and monitored during transfers per operating procedures.
241-UX-154 Conductivity Probe Leak Detector Alarming conditions indicated at monitoring locations.	CONDITION: 241-UX-154 Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-UX-154 Conductivity Probe Leak Detector at field location.	241-UX-154 Conductivity Probe Leak Detector is visually inspected and monitored during transfers per operating procedures.

10.9 DOUBLE SHELL TANK SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR MISCELLANEOUS TRANSFER CATCH TANK EQUIPMENT

Mode Applicability: Operations, Construction, and Standby

Process Area Applicability: Miscellaneous Transfer Catch Tank Equipment

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
241-A-350 Dip Tube Assembly – Tanks Surface Level Monitored at 241-A Evaporator control room, 271-A Instrument Building, or at field locations.	CONDITION: 241-A-350 Dip Tube Assembly – Tanks Surface liquid level exceeds > 65 inches from the lowest point of the sloped tank bottom RESPONSE: Report liquid levels that exceed 65 inches to TFC management.	Review 241-A-350 Dip Tube Assembly – Tanks Surface Level data is reviewed -DAILY
241-A-350 Pump Pit - Conductivity Probe Leak Detector Monitored at 241-A Evaporator control room, 271-A Instrument Building, or at field locations.	CONDITION: 241-A-350 Pump Pit -Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-A-350 Pump Pit -Conductivity Probe Leak Detector at monitoring locations.	241-A-350 Pump Pit - Conductivity Probe Leak Detector is visually inspected and monitored during transfers per Operating Procedure.
Conductivity Probe -Pump Pit Leak Detector Monitored at 271-A Instrument Building or at field location.	CONDITION: Conductivity Probe -Pump Pit Leak Detector alarming. RESPONSE: Acknowledge alarming Conductivity Probe -Pump Pit Leak Detector at monitoring locations.	Conductivity Probe - Pump Pit Leak Detector data is visually reviewed, and monitored during transfers per Operating Procedure.
241-AZ-151 Level Indicating Transmitter -Tank Surface Level Monitored at field location.	CONDITION: 241-AZ-151 Level Indicating Transmitter - Tank Surface liquid level exceeds 106 inches. RESPONSE: Report liquid levels at 106 inches or greater to TFC management.	241-AZ-151 Level Indicating Transmitter - Tank Surface Level data is reviewed -DAILY

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
241-AZ-151 Conductivity Probe – Pump Pit Leak Detector Monitored at field location.	CONDITION: 241-AZ-151 Conductivity Probe – Pump Pit Leak Detector alarming. RESPONSE: Acknowledge alarming 241-AZ-151 Conductivity Probe – Pump Pit Leak Detector at monitoring locations.	241-AZ-151 Conductivity Probe – Pump Pit Leak Detector in visually inspected and monitored during transfers per Operating Procedure.
241-ER-311 Level Indicating Transmitter -Tank Surface Level Monitored at field location.	CONDITION: 241-ER-311 Level Indicating Transmitter - Tank Surface liquid level exceeds 80 inches. RESPONSE: Report liquid levels that exceed 80 inches to TFC management.	241-ER-311 Level Indicating Transmitter - Tank Surface liquid level data is reviewed WEEKLY and monitored during transfers per Operating Procedure.
241-ER-311 Conductivity Probe Leak Detector -Pump Pit Leak Detection Monitored at field location.	CONDITION: 241-ER-311 Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-ER-311 Conductivity Probe Leak Detector at field location.	241-ER-311 Conductivity Probe Leak Detector -Pump Pit Leak Detection system is visually inspected and monitored during transfers per Operating Procedure.
241-EW-151 Manual Tape – Tank Surface Level Monitored at field location.	CONDITION: 241-EW-151 Manual Tape –Tank Surface liquid level exceeds 610 gallons. RESPONSE: Report liquid volumes that exceed 610 gallons to TFC management.	241-EW-151 Manual Tape –Tank Surface level data is reviewed -DAILY
241-EW-151 Pump Pit – Conductivity Probe Leak Detector Monitored at 271-SX Instrument Building, at field location	CONDITION: 241-EW-151 Pump Pit – Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-EW-151 Pump Pit – Conductivity Probe Leak Detector at field location.	241-EW-151 Pump Pit – Conductivity Probe Leak Detector system is visually inspected and monitored during transfers per Operating Procedure.
241-EW-151 Conductivity Probe Leak Detector -Sump Leak Detection	CONDITION: 241-EW-151 Conductivity Probe Leak Detector -Sump Leak Detection readings indicate liquid in the sump, and/ or	241-EW-151 Conductivity Probe Leak Detector -Sump Leak Detection system is

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Monitored at field location.	alarming RESPONSE: • Ensure that 241-EW-151 Conductivity Probe Leak Detector - Sump Leak Detection readings do not indicate liquid in the sump, and/ or alarming condition indicated at monitoring locations. • Report alarming condition to TFC management.	visually inspected and monitored during transfers per Operating Procedure.
241-S-304 Level Indicating Transmitter -Tank Surface Level Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 241-S-304 Level Indicating Transmitter - Tank Surface Liquid level exceeds 128 inches. RESPONSE: Report liquid levels at 128 inches or greater to TFC management.	241-S-304 Level Indicating Transmitter - Tank Surface Level data is reviewed WEEKLY and monitored during transfers per Operating Procedure.
241-S-304 Conductivity Probe Leak Detector -Pump Pit and Sump Leak Detection Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 241-S-304 Conductivity Probe Leak Detector -Pump Pit and Sump Leak Detection readings indicate liquid in the sump, and/ or alarming condition. RESPONSE: • Verify 241-S-304 Conductivity Probe Leak Detector -Pump Pit and Sump Leak Detection readings indicate liquid in the sump, and/ or alarming condition indicated at monitoring locations. • Report alarming condition to TFC management.	241-S-304 Conductivity Probe Leak Detector - Pump Pit and Sump Leak Detection system is visually inspected and monitored during transfers per Operating Procedure.
241-U-301B Level Indicating Transmitter-Tank Surface Level Monitored at field location.	CONDITION: 241-U-301B Liquid Level Indicating Transmitter-Tank Surface Level exceeds144 inches. RESPONSE: • Ensure 241-U-301B Liquid Level Indicating Transmitter-Tank Surface Level does not exceed 144 inches.	241-U-301B Level Indicating Transmitter-Tank Surface Level data is reviewed – MONTHLY and monitored during transfers per Operating Procedure.

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	• Report liquid levels at or exceed 144 inches to TFC management.	
241-UX-302A Level Indicating Transmitter -Tank Surface Level Monitored at field location.	CONDITION: 241-UX-302A Level Indicating Transmitter -Tank Surface Level Liquid level exceeds 86 inches. RESPONSE: • Ensure 241-UX-302A Level Indicating Transmitter -Tank Surface Level Liquid level does not exceed 86 inches. • Report liquid levels at 86 inches or greater to TFC management.	241-UX-302A Level Indicating Transmitter -Tank Surface Level data is reviewed – WEEKLY and monitored during transfers per Operating Procedure.
241-UX-302A Conductivity Probe Leak Detector -Pump Pit Leak Detections Monitored at field location.	CONDITION: 241-UX-302A Conductivity Probe Leak Detector -Pump Pit Leak Detectors alarming. RESPONSE: Acknowledge alarming 241-UX-302A Conductivity Probe Leak Detector -Pump Pit Leak Detectors at monitoring locations. Report alarming condition to management.	241-UX-302A Conductivity Probe Leak Detector -Pump Pit Leak Detection system is visually inspected and monitored during transfers per Operating Procedure.

10.10 DOUBLE SHELL TANK SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR MISCELLANEOUS TRANSFER LINE ENCASEMENT LEAK DETECTORS

Mode Applicability: Operations, Construction, and Standby

Process Area Applicability: Miscellaneous Transfer Line Encasement Leak Detectors

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
V456 -Conductivity Probe Leak Detector-From 241-U-	CONDITION: V456 -Conductivity Probe Leak Detector-	V456 -Conductivity Probe Leak Detector-

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
M Diversion Box to 244-S DCRT. Monitored at 242-S Evaporator control room, or at field location.	from 241-U-M Diversion Box to 244-S DCRT alarming. RESPONSE: Acknowledge alarming V456 - Conductivity Probe Leak Detector-From 241-U-M Diversion Box to 244-S DCRT at monitoring locations.	From 241-U-M Diversion Box to 244-S DCRT system is inspected visually and monitored during transfers per Operating Procedure.
V522 -Conductivity Probe Leak Detector -From 244S DCRT to 241-S-151 Diversion Box Monitored at 242-S Evaporator control room, or at field location.	CONDITION: V522 -Conductivity Probe Leak Detector - From 244S DCRT to 241-S-151 Diversion Box alarming. RESPONSE: Acknowledge alarming V522 - Conductivity Probe Leak Detector -From 244S DCRT to 241-S-151 Diversion Box at monitoring locations.	V522 -Conductivity Probe Leak Detector - From 244S DCRT to 241-S-151 Diversion Box system is inspected visually and monitored during transfers per Operating Procedure.
V560 -Conductivity Probe Leak Detector -From 241 S-151 Diversion Box to 244 S DCRT. Monitored at 242-S Evaporator control room, or at field location.	CONDITION: V560 -Conductivity Probe Leak Detector - From 241 S-151 Diversion Box to 244 S DCRT alarming. RESPONSE: Acknowledge alarming V560 - Conductivity Probe Leak Detector -From 241 S-151 Diversion Box to 244 S DCRT at monitoring locations.	V560 -Conductivity Probe Leak Detector - From 241 S-151 Diversion Box to 244 S DCRT system is inspected visually and monitored during transfers per Operating Procedure.
V561 -Conductivity Probe Leak Detector-From 241 SY Valve Pit to 244-S DCRT Monitored at 242-S Evaporator control room, or at field location.	CONDITION: V561 -Conductivity Probe Leak Detector-From 241 SY Valve Pit to 244-S DCRT alarming. RESPONSE: Acknowledge alarming V561 - Conductivity Probe Leak Detector-From 241 SY Valve Pit to 244-S DCRT at monitoring locations.	V561 -Conductivity Probe Leak Detector-From 241 SY Valve Pit to 244-S DCRT system is inspected visually and monitored during transfers per Operating Procedure.
V562 -Conductivity Probe Leak Detector-From 244S DCRT to 241-SY-A Valve Pit	CONDITION: V562 -Conductivity Probe Leak Detector-From 244S DCRT to 241-SY-A Valve Pit alarming.	V562 -Conductivity Probe Leak Detector-From 244S DCRT to 241-SY-A Valve Pit system is inspected

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Monitored at 242-S Evaporator control room, or at field location.	RESPONSE: Acknowledge alarming V562 - Conductivity Probe Leak Detector-From 244S DCRT to 241-SY-A Valve Pit at monitoring locations	visually and monitored during transfers per Operating Procedure.
V402 Conductivity Probe Leak Detector -From 244TX DCRT to 241-TX-152 Diversion Box Monitored at 242-S Evaporator control room, or at field location.	CONDITION: V402 Conductivity Probe Leak Detector - From 244TX DCRT to 241-TX-152 Diversion Box alarming. RESPONSE: Acknowledge alarming V402 Conductivity Probe Leak Detector -From 244TX DCRT to 241-TX-152 Diversion Box at monitoring locations	V402 Conductivity Probe Leak Detector - From 244TX DCRT to 241-TX-152 Diversion Box system is inspected visually and monitored during transfers per Operating Procedure.
V5350 -Conductivity Probe Leak Detector -From 219S to S-DCRT Monitored at 242-S Evaporator control room, or at field location.	CONDITION: V5350 -Conductivity Probe Leak Detector -From 219S to S-DCRT alarming. RESPONSE: Acknowledge alarming V5350 - Conductivity Probe Leak Detector -From 219S to S-DCRT at monitoring locations	V5350 -Conductivity Probe Leak Detector - From 219S to S-DCRT system is inspected visually and monitored during transfers per Operating Procedure.

10.11 DOUBLE SHELL TANK SYSTEM RCRA DANGEROUS WASTE INTERIM INSPECTION SCHEDULE FOR MISCELLANEOUS TRANSFER LINE ENCASEMENT LEAK DETECTORS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Miscellaneous Transfer Line Encasement Leak Detectors

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
V456 -Conductivity Probe Leak Detector-From 241-U-M Diversion Box to 244-S DCRT.	CONDITION: V456 -Conductivity Probe Leak Detector-From 241-U-M Diversion Box to 244-S DCRT alarming.	V456 -Conductivity Probe Leak Detector-From 241-U-M Diversion Box to 244-

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Monitored at 242-S Evaporator control room, or at field location.	RESPONSE: Acknowledge alarming V456 - Conductivity Probe Leak Detector-From 241-U-M Diversion Box to 244-S DCRT at monitoring locations.	S DCRT system is inspected visually and monitored during transfers per Operating Procedure.
V522 -Conductivity Probe Leak Detector -From 244S DCRT to 241-S-151 Diversion Box Monitored at 242-S Evaporator control room, or at field location.	CONDITION: V522 -Conductivity Probe Leak Detector - From 244S DCRT to 241-S-151 Diversion Box alarming. RESPONSE: Acknowledge alarming V522 - Conductivity Probe Leak Detector -From 244S DCRT to 241-S-151 Diversion Box at monitoring locations.	V522 -Conductivity Probe Leak Detector - From 244S DCRT to 241-S-151 Diversion Box system is inspected visually and monitored during transfers per Operating Procedure.
V560 -Conductivity Probe Leak Detector -From 241 S-151 Diversion Box to 244 S DCRT. Monitored at 242-S Evaporator control room, or at field location.	CONDITION: V560 -Conductivity Probe Leak Detector - From 241 S-151 Diversion Box to 244 S DCRT alarming. RESPONSE: Acknowledge alarming V560 - Conductivity Probe Leak Detector -From 241 S-151 Diversion Box to 244 S DCRT at monitoring locations.	V560 -Conductivity Probe Leak Detector - From 241 S-151 Diversion Box to 244 S DCRT system is inspected visually and monitored during transfers per Operating Procedure.
V561 -Conductivity Probe Leak Detector-From 241 SY Valve Pit to 244-S DCRT Monitored at 242-S Evaporator control room, or at field location.	CONDITION: V561 -Conductivity Probe Leak Detector- From 241 SY Valve Pit to 244-S DCRT alarming. RESPONSE: Acknowledge alarming V561 - Conductivity Probe Leak Detector-From 241 SY Valve Pit to 244-S DCRT at monitoring locations.	V561 -Conductivity Probe Leak Detector- From 241 SY Valve Pit to 244-S DCRT system is inspected visually and monitored during transfers per Operating Procedure.
V562 -Conductivity Probe Leak Detector-From 244S DCRT to 241-SY-A Valve Pit Monitored at 242-S Evaporator control room, or	CONDITION: V562 -Conductivity Probe Leak Detector- From 244S DCRT to 241-SY-A Valve Pit alarming. RESPONSE: Acknowledge alarming V562 -	V562 -Conductivity Probe Leak Detector- From 244S DCRT to 241-SY-A Valve Pit system is inspected visually and monitored during transfers per

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
at field location.	Conductivity Probe Leak Detector-From 244S DCRT to 241-SY-A Valve Pit at monitoring locations	Operating Procedure.
V402 Conductivity Probe Leak Detector -From 244TX DCRT to 241-TX-152 Diversion Box Monitored at 242-S Evaporator control room, or at field location.	CONDITION: V402 Conductivity Probe Leak Detector - From 244TX DCRT to 241-TX-152 Diversion Box alarming. RESPONSE: Acknowledge alarming V402 Conductivity Probe Leak Detector -From 244TX DCRT to 241-TX-152 Diversion Box at monitoring locations	V402 Conductivity Probe Leak Detector - From 244TX DCRT to 241-TX-152 Diversion Box system is inspected visually and monitored during transfers per Operating Procedure.
V5350 -Conductivity Probe Leak Detector -From 219S to S-DCRT Monitored at 242-S Evaporator control room, or at field location.	CONDITION: V5350 -Conductivity Probe Leak Detector -From 219S to S-DCRT alarming. RESPONSE: Acknowledge alarming V5350 - Conductivity Probe Leak Detector -From 219S to S-DCRT at monitoring locations	V5350 -Conductivity Probe Leak Detector - From 219S to S-DCRT system is inspected visually and monitored during transfers per the Operating Procedure.

10.12 DOUBLE SHELL TANK SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR MISCELLANEOUS TRANSFER EQUIPMENT – DCRTS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Miscellaneous Transfer Equipment -DCRTs

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
244-A Dip Tube Assembly - Tank Surface Level Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 244-A Dip Tube Assembly -Tank Surface liquid level exceeds > 147 inches. RESPONSE: Report liquid levels that exceed 147 inches	244-A Dip Tube Assembly -Tank Surface liquid level data is reviewed DAILY and monitored during transfers per

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	to TFC management.	Operating Procedure.
244-A Dip Tube Assembly - Sump Pit Leak Detection Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 244-A Dip Tube Assembly -Sump Pit Leak Detection system alarming. RESPONSE: Acknowledge alarming 244-A Dip Tube Assembly -Sump Pit Leak Detection system at monitoring locations.	244-A Dip Tube Assembly -Sump Pit Leak Detection data is reviewed and monitored during transfers per Operating Procedure.
244-A Conductivity Probe Leak Detector -Pump Pit and Flush Pit leak detection (2 places) Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 244-A Conductivity Probe Leak Detector - Pump Pit and Flush Pit leak detection system alarming. RESPONSE: Acknowledge alarming 244-A Conductivity Probe Leak Detector -Pump Pit and Flush Pit leak detection system at monitoring locations.	244-A Conductivity Probe Leak Detector - Pump Pit and Flush Pit leak system is visually inspected and monitored during transfers per Operating Procedure.
244-BX Dip Tube Assembly or Manual Tape -Tank Surface Level Dip tube high-level alarm monitored at 271-BX and 254-BY Instrument Buildings. Manual tape readings taken at field locations.	CONDITION: 244-BX Dip Tube Assembly or Manual Tape -Tank Surface liquid level exceeds > 144 inches. RESPONSE: Report liquid levels that exceed 144 inches to TFC management.	244-BX Dip Tube Assembly or Manual Tape -Tank Surface Level data is reviewed – DAILY and monitored during transfers per Operating Procedure.
244-BX Conductivity Probe Leak Detector -Sump Pit Leak Detection Monitored at 271-BX or 254-BY Instrument Buildings, or at field location.	CONDITION: 244-BX Conductivity Probe Leak Detector -Sump Pit Leak Detection system alarming. RESPONSE: Acknowledge alarming 244-BX Conductivity Probe Leak Detector -Sump Pit Leak Detection system at monitoring locations.	244-BX Conductivity Probe Leak Detector - Sump Pit Leak Detection data is reviewed every 24 hours and monitored during transfers per Operating Procedure.
244-BX Conductivity Probe Leak Detector -Pump Pit and Flush Pit Leak Detection (2 places)	CONDITION: 244-BX Conductivity Probe Leak Detector -Pump Pit and Flush Pit Leak Detection - Sump Pit Leak Detection system alarming.	244-BX Conductivity Probe Leak Detector - Pump Pit and Flush Pit Leak Detection is

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Monitored at 271-BX or 254-BY Instrument Buildings, or at field location.	RESPONSE: Acknowledge alarming 244-BX Conductivity Probe Leak Detector -Pump Pit and Flush Pit Leak Detection -Sump Pit Leak Detection system at monitoring locations.	visually inspected–and monitored during transfers per Operating Procedure.
244-S Dip Tube Assembly - Tank Surface Level Monitored at 271-SY Instrument Building, 242-S Evaporator control room, or at field locations.	CONDITION: 244-S Dip Tube Assembly -Tank Surface liquid level exceeds > 175 inches. RESPONSE: Report liquid levels that exceed 175 inches to TFC management.	244-S Dip Tube Assembly -Tank Surface Level data is reviewed – DAILY and monitored during transfers per Operating Procedure.
244-S Dip Tube Assembly - Sump Pit Leak Detection Monitored at 271-SY Instrument Building,	CONDITION: 244-S Dip Tube Assembly -Sump Pit Leak Detection readings indicate there is liquid in the sump, and/ or a sharing condition RESPONSE: Acknowledge alarming condition at the monitoring locations.	244-S Dip Tube Assembly -Sump Pit Leak Detection data is reviewed every 24 hours and monitored during transfers per Operating Procedure.
244-S Conductivity Probe Leak Detector -Pump Pit Leak Detection Monitored at 271-SY Instrument Building, 242-S Evaporator control room, or at field locations.	CONDITION: 244-S Conductivity Probe Leak Detector - Pump Pit Leak Detection system alarming. RESPONSE: Acknowledge alarming 244-S Conductivity Probe Leak Detector -Pump Pit Leak Detection system at monitoring locations.	244-S Conductivity Probe Leak Detector - Pump Pit Leak Detection system is visually inspected and monitored during transfers per Operating Procedure.
244-TX Dip Tube Assembly or Manual Tape -Tank Surface Level Monitored at 244-TX Instrument Building, or at field location. Liquid level measurement by manual tape.	CONDITION: 244-TX Dip Tube Assembly or Manual Tape -Tank Surface liquid level exceeds > 144 inches. RESPONSE: Report liquid levels that exceed 144 inches to TFC management.	244-TX Dip Tube Assembly or Manual Tape -Tank Surface Level data is reviewed DAILY and monitored during transfers per Operating Procedure.
244-TX Conductivity Probe Leak Detector -Sump Pit Leak Detection	CONDITION: 244-TX Conductivity Probe Leak Detector -Sump Pit Leak Detection system is	244-TX Conductivity Probe Leak Detector - Sump Pit Leak

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Monitored at 244-TX Instrument Building, or at field location.	alarming. RESPONSE: Ensure 244-TX Conductivity Probe Leak Detector -Sump Pit Leak Detection readings do not indicate liquid in the sump, and/ or alarming condition indicated at monitoring locations.	Detection system is visually inspected every 24 hours and monitored during transfers per Operating Procedure.
244-TX Conductivity Probe Leak Detector -Pump Pit, Filter Pit, Flush Pit, Instrument Pit Leak Detection (4 places) Monitored at 244-TX Instrument Building, or at field location.	CONDITION: 244-TX Conductivity Probe Leak Detector -Pump Pit, Filter Pit, Flush Pit, and Instrument Pit Leak Detection systems are alarming. RESPONSE: Acknowledge alarming 244-TX Conductivity Probe Leak Detector -Pump Pit, Filter Pit, Flush Pit, and Instrument Pit Leak Detection systems at monitoring locations.	244-TX Conductivity Probe Leak Detector -Pump Pit, Filter Pit, Flush Pit, and Instrument Pit Leak Detection systems are visually inspected and monitored during transfers per Operating Procedure.
244-U DCRT has never received waste, and is currently not on line.	No required actions	No inspection/monitoring duration requirements

10.13 DOUBLE SHELL TANK SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR CATHODIC PROTECTION

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Tank Farm Cathodic Protection

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Rectifier 2 Located adjacent to South	CONDITION: Rectifier 2 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil,	Visually inspect Rectifier 2 Bi-monthly (every other month)

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
wall of PUREX.	oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	
Rectifier R1 Located next to the 271-AP Instrument Building, North of AP Tank Farm fence.	CONDITION: Rectifier R1 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier R1 Bi-monthly (every other month)
Rectifier R2 Located next to the 271-AP Instrument Building, North of AP Tank Farm fence.	CONDITION: Rectifier R2 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier R2 Bi-monthly (every other month)
Rectifier 7 Located next to the 271-AP Instrument Building, North of AP Tank Farm fence.	CONDITION: Rectifier 7 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 7 Bi-monthly (every other month)
Rectifier 8 Located between Buffalo Avenue and the West side of AY Tank Farm fence.	CONDITION: Rectifier 8 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 8 Bi-monthly (every other month)
Rectifier 9 Located West of AY Tank Farm fence	CONDITION: Rectifier 9 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output	Visually inspect Rectifier 9 Bi-monthly (every other month)

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	RESPONSE: Report Discrepancies to TFC management.	
Rectifier 10 Located at South East corner of AX Tank Farm fence.	CONDITION: Rectifier 10 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 10 Bi-monthly (every other month)
Rectifier 11 Located between parking area and West fence of AN Tank Farm.	CONDITION: Rectifier 11 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 11 Bi-monthly (every other month)
Rectifier 12 Located rear of West fence of AN Tank Farm.	CONDITION: Rectifier 12 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 12 Bi-monthly (every other month)
Rectifier 13 Located rear West fence of the AN Tank Farm.	CONDITION: Rectifier 13 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 13 Bi-monthly (every other month)
Rectifier 14 Located between Buffalo Avenue and the West side of A Tank Farm fence, South East of the 241-AR-151 Diversion Box.	CONDITION: Rectifier 14 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 14 Bi-monthly (every other month)
Rectifier 15	CONDITION:	Visually inspect

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Located near the West side of A Tank Farm fence.	Rectifier 15 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Rectifier 15 Bi-monthly (every other month)
Rectifier 16 Located between Buffalo Avenue and the West side of A Tank Farm fence.	CONDITION: Rectifier 16 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 16 Bi-monthly (every other month)
Rectifier 17 Located in the 244-AR Vault, next to the West wall of the 701-AR Emergency Generator building.	CONDITION: Rectifier 17 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 17 Bi-monthly (every other month)
Rectifier 19 Located in the 271-AW Instrument Building.	CONDITION: Rectifier 19 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 19 Bi-monthly (every other month)
Rectifier 22 Located South of PFP front gate, near PFP perimeter fence.	CONDITION: Rectifier 22 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 22 Bi-monthly (every other month)
Rectifier 23 Located West of TX Tank Farm fence.	CONDITION: Rectifier 23 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no	Visually inspect Rectifier 23 Bi-monthly (every other month)

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	electrical current output RESPONSE: Report Discrepancies to TFC management.	
Rectifier 24 Located near the corner of 16th and Camden.	CONDITION: Rectifier 24 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 24 Bi-monthly (every other month)
Rectifier 25 Located near the corner of 16th and Camden.	CONDITION: Rectifier 25 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 25 Bi-monthly (every other month)
Rectifier 26 Located South East of 242-S Evaporator, near East side of SY Tank Farm fence.	CONDITION: Rectifier 26 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 26 Bi-monthly (every other month)
Rectifier 27 Located North East of 241S-151 Diversion Box.	CONDITION: Rectifier 27 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 2 Bi-monthly (every other month)
Rectifier 31 Located near the West side of AY Tank Farm fence.	CONDITION: Rectifier 31 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE:	Visually inspect Rectifier 27 Bi-monthly (every other month)

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	Report Discrepancies to TFC management.	
Rectifier 34 Located North West of 241-TX-152 Diversion Box.	CONDITION: Rectifier 34 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 31 Bi-monthly (every other month)
Rectifier 35 Located near the corner of 16th and Camden.	CONDITION: Rectifier 35 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 35 Bi-monthly (every other month)
Rectifier 36 Located South East of 242-S Evaporator, near East side of SY Tank Farm fence.	CONDITION: Rectifier 36 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 36 Bi-monthly (every other month)
Rectifier 37 Located North of 242-T Evaporator, near fence.	CONDITION: Rectifier 37 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 37 Bi-monthly (every other month)
Rectifier 41	CONDITION: Rectifier 41 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 41 Bi-monthly (every other month)
Rectifier 46	CONDITION: Rectifier 46 has frayed or broken wiring,	Visually inspect Rectifier 46 Bi-

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Located South of corner of 7th Street and Buffalo Avenue.	leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output. RESPONSE: Report Discrepancies to TFC management.	monthly (every other month)
Rectifier 47 Located North East of C Tank Farm.	CONDITION: Rectifier 47 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output. RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier 47 Bi-monthly (every other month)
RB-220 Located West of A Tank Farm.	CONDITION: RB-220 has frayed or broken wiring, leaks, gasket seal not adequate, murky oil, oil level low, incorrect top setting, no electrical current output. RESPONSE: Report Discrepancies to TFC management.	Visually inspect Rectifier RB-220 Bi-monthly (every other month)
Inspection of Cathodic Protection System Some dangerous waste piping of the DST System may not meet the NACE Recommended Practice RP-0285 due to adverse soil conditions, other metal structures within the soil, design constraints, etc	CONDITION: Cathodic Protection System readings are outside the National Association of Corrosion Engineers (NACE) Recommended Practice RP 0315 RESPONSE: Report Discrepancies to management.	Visually inspect and review data Annually.

10.14 DOUBLE SHELL TANK SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR GENERAL ENVIRONMENTAL INSPECTIONS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Tank Farm General Environmental Inspections

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Leaks and Spills All tank farms.	CONDITION: Evidence of visible leaks and spills to the environment (not weather related) inside the tank farm are found. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Visually inspect for leaks and spills DAILY.
Alarms Panel Inspections Location: 204-AR control room, 241-A, and 241-S Evaporator control rooms, tank farm instrument buildings.	CONDITION: Lit flashing alarms, alarm lamps inoperable when tested. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Perform Alarms Panel Inspection operability tests DAILY.
Building Doors and Tank Farm Perimeter Fence 204-AR building, tank farm change trailer entrances, tank farm perimeter fence gates.	CONDITION: Broken locks, doors and gates in poor condition or not functioning properly, doors and gates unlocked when not staffed for access control. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Visually inspect Building Doors and Tank Farm Perimeter Fences to ensure they are in good repair – DAILY.
Inspection of the Aboveground Portion of Tank Systems All tank farms.	CONDITION: Visible damage to, or leaks from aboveground portion of Tank Farm process and support pits, diversion boxes and catch tanks. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Visually inspect the Aboveground Portion of Tank Systems – DAILY.
Lock and Key Control 272-AW, and 278-WA Shift Offices.	CONDITION: Non-returned or missing keys, incomplete key control log entries. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Visually inspect Tank Farm Lock and Key Control system for Unreturned or missing keys, incomplete key control log entries – DAILY.
Fire Protection System Inspection	CONDITION: • Fire alarm pull boxes that are	Visually inspect the Fire Protection System

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	incorrect or not clearly identified. • Trouble alarms on supervisory control panels. • Water leaks from piping system, sprinkler heads, etc. • Post Indicating Valve (PIV) that supplies the water indicated CLOSED on display window, valve control handle out of place or not sealed. • Sprinkler heads that are destroyed. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	-WEEKLY
Safety Showers (Fixed) 204-AR Mechanical Equipment Room & balcony of Tanker Car Unloading Room, 272-AW & 272-WA Buildings	CONDITION: • inaccessible, • not clearly identified (green light overhead is burned out), • leaks, • inoperable, • expired inspection tag. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Perform operability tests on fixed Safety Showers -WEEKLY
Tank Farm Fencing All tank farms, East/ West Vent Station and 244-A DCRT.	CONDITION: • fencing that is inadequate (fence is sagging, • openings underneath or through the fencing that a person can pass through) to prevent unauthorized access. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Perform visual inspections of Tank Farm Fencing - WEEKLY
Posted "Danger-Hazardous Materials, Unauthorized Personnel Keep Out" Warning Signs. Signs should be present on	CONDITION: • fallen or illegible warning signs, • signs not visible from a 25-foot distance. RESPONSE:	Perform operability tests on Posted "Danger-Hazardous Materials, Unauthorized Personnel Keep Out"

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
all entrances into the tank farms, 244-A DCRT, the East/ West Vent Station and 204-AR Building.	Report findings to the Tank Farm Shift Office, 373-2689.	Warning Signs - WEEKLY
Crash Alarm Telephones Site-wide inspection performed by the site emergency preparedness organization	CONDITION: Crash alarm systems/phones that are inoperable.. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Perform operability tests of Crash Alarm Telephone system - MONTHLY
Emergency Lighting 272-AW and 272-WA buildings, see Appendix 7A for other locations	CONDITION: Emergency lights are inoperable. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Perform visual inspections of Emergency Lighting systems -MONTHLY
Emergency Siren (Take cover & evacuation alarms) 272-AW, 272-WA, and 2750E Buildings. Inspection performed by the site emergency preparedness organization and operations	CONDITION: Emergency Siren alarms are not sounding or inaudible in specified area when tested each month. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Emergency Siren (Take cover & evacuation alarms) are operability tested - MONTHLY
Eye Wash Stations (Portable & Fixed) 204-AR Mechanical Equipment Room & balcony of Tanker Car Unloading Room, 272-AW & 272-WA Buildings and 701-A compressor building.	CONDITION: • Leaks, missing hardware, • Expired inspection tag. • RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Perform operability test of the Eye Wash Stations (Portable & Fixed) -MONTHLY
Fire Extinguishers 204-AR, Tank Farm Instrument Buildings. Tank Farm Change Trailers, 272-AW, 272-WA, 278-WA, MO-28.	CONDITION: • Inaccessible, not clearly identified by red/ white stripped wallboards or borders around wall cabinets or fire extinguisher sign. • Pressure gauge indicates poor charge. • For extinguishers without pressure gauge, lift extinguisher to ensure	Perform visual inspection of the Fire Extinguishers - MONTHLY

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	weight (lack of weight indicates loss of charge). • Hose and nozzle in poor condition, obstructions present. • Handle in poor condition. Inspection tag expired illegible. • Fire extinguisher number (on tag or wall-mount board) incorrect. • Hydrotest date bad (expires after 10 years). RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	
Spill Kits (For chemical spill) 204-AR Mechanical Equipment Room. 701-A Compressor Building.	CONDITION: • Inaccessible or not properly identified Spill Kits. • Inventory list missing. • Seal (if equipped) broken (indicates kit has been opened and requires inventory of spill kit materials). • Incorrect spill kit for hazardous materials. • Expired inspection tag. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Perform visual inspection of the Spill Kits (For chemical spill) -MONTHLY
Protective Clothing 272-AW and 272-WA Buildings, most tank farm change trailers	CONDITION: • Low inventory (check size and type), • Inaccessible or • not clearly identified. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Perform visual inspection of Protective Clothing - MONTHLY
Ignitable/ Reactive Waste Storage Inspection All tank farms. Inspection performed by the Hanford Fire Department.	CONDITION: Chemicals with properties, issues and potential areas of concern are found. RESPONSE: Ensure findings are reported to the Tank	Review Ignitable/ Reactive Waste Storage Inspection data and perform a visual inspection - ANNUALLY

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	Farm Shift Office, 373-2689.	

10.15 SST SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-A TANK FARM

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: 241-A Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Liquid Observation Well (LOW) – Tank Surface Level: Tanks 241-A-101, -103. See OSD-T-151-00031, latest revision, for LOWSL	CONDITION: Readings outside of Liquid Observation Well Specification Limits (LOWSL) are found. RESPONSE: Report readings outside of Liquid Observation Well Specification Limits (LOWSL) are reported to the Shift Office, 373-2689	Visually inspect Liquid Observation Well (LOW) – Tank Surface Level for: Tanks 241-A-101, -103 –as required in OSD-T-151-00031, latest revision
Spill Kits (for Chemical Spills) Inspected monthly by custodian organization or sooner if the seal is broken.	CONDITION: • Inaccessible or not properly identified. • Inventory list missing. • Seal (if equipped) broken indicating kit has been opened and requires inventory of spill kit materials. • Incorrect spill kit for hazardous materials. • Expired inspection tag RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Chemical spill kits are inspected MONTHLY by custodian organization or sooner if the seal is broken
ENRAF -Tank Surface Level: Tanks	CONDITION: • Readings displayed on TMACs are in	Review ENRAF -Tank Surface Level data for

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
241-A-101, -103, -104, -106 Data automatically transmitted to TMACs/SACs except A-104, which is manually entered into SACs. See TF-OR-EF-AAX-Q, A & AX Tank Farms Quarterly Rounds for baseline, max and min surface level limits	an alarm state. • Changes in readings above max or below min specified levels on ENRAF. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Tanks 241-A-101, -103, -104, -106. Visually inspect ENRAF equipment as required in OSD-T-151-00031, latest revision.
FIC –Tank Surface Level: Tank 241-A-102 See TF-OR-EF-AAX-Q, A & AX Tank Farms Quarterly Rounds for baseline, max and min surface level limits.	CONDITION: Changes in readings above max or below minimum Food Instrument Corporation (FIC) specified levels. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Visually inspect FIC – Tank Surface Level equipment for Tank 241-A-102 as required in OSD-T-151-00031, latest revision
Manual Tape (MT) Tank Surface Level: Tank 241-A-105 See TF-OR-EF-AAX-Q, A & AX Tank Farms Quarterly Rounds for baseline, max and min surface level limits	CONDITION: Changes in MT readings above max or below min specified levels. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Visually inspect MT Tank Surface Level equipment for Tank 241-A-105 as required in OSD-T-151-00031, latest revision
Direct Buried Transfer Lines Annual hydrostatic pressure testing requirements detailed in procedure TO-140-170 and in OSD-T-151-00010.	CONDITION: Direct Buried Transfer Lines exceed 5% pressure drop in 30 minutes for lines with valves. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Perform operability test of Direct Buried Transfer Lines – as required in OSD-T-151-00031, latest revision.

10.16 SST SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-AZ TANK FARM

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: 241-AX Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	
Liquid Observation Well (LOW)–Tank Surface Level: Tank 241-AX-101 exceeds operating range. See OSD-T-151-00031 for LOWSL.	CONDITION: LOW readings are outside of Liquid Observation Well Specification Limits (LOWSL). RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	V Su re la
ENRAF –Tank Surface Level: Tanks 241-AX-101, -102, -103, -104 exceeds operating range. Data automatically transmitted to TMACs/ SACs except AX-102 which is manually entered into SACs. See TF-OR-EF-AAX-Q, A & AX Tank Farm Quarterly Rounds for baseline, max and min surface level limits.	CONDITION: ENRAF readings displayed are on TMACs in an alarm state. RESPONSE: Record changes in readings above max or below min specified levels. Report findings to the Tank Farm Shift Office, 373-2689.	R Le 10 in re la

10.17 SST SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-B TANK FARM

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: 241-B Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
ENRAF –Tank Surface Level: Tanks 241-B-102, -106, -112, -201, -202, -203, -204 exceeds operating range. (7 places). See TF-OR-EF-B-D, B, BX, BY Tank Farms Daily Rounds for baseline, max and min surface levels.	CONDITION: There are changes in ENRAF –Tank Surface Level readings above max or below min specified levels. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	ENRAF –Tank Surface Level local tank equipment readout must be visually inspected - as required in OSD-T-151-00031, latest revision, and in accordance with TF-

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Data Manually entered into SACs.		OR-EF-B-D, B, BX, BY Tank Farms Daily Rounds for baseline, max and min surface levels.
Liquid Observation Well (LOW)–Tank Surface Level: Tanks 241-B-104, -105, -110, and -111 exceeds operating range. See OSD-T-151-00031 for LOWSL	CONDITION: LOW readings are outside of Liquid Observation Well Specification Limits, RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	LOW Tank Surface Level: equipment/readout must be visually inspected – as required in OSD-T-151-00031, latest revision, and in accordance with OSD-T-151-00031 for LOWSL
ENRAF –Tank Surface Level: Tanks 241-B-101, -103, -104, -105, -107, -108, -109, -110, -111 exceeds operating range.	CONDITION: ENRAF tank surface level readings did change above max or below min specified levels. RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	ENRAF –Tank Surface Level equipment is equipment readout must be visually inspected - as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-EF-B-Q, B, BX, BY Tank Farms Quarterly Rounds for baseline, max and min surface levels.

10.18 SST SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR241-BX TANK FARM

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: 241-BX Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
ENRAF –Tank Surface Level: Tanks 241-BX-101, -103, -104, -107, -112 (5-places) ENRAF data automatically transmitted to TMACS/SACS. See TF-OR-EF-B-D, B, BX, BY Tank Farms Daily Rounds for baseline, max and min surface levels	CONDITION: • There are alarming ENRAF readings displayed on TMACS. • Changes in readings are above max or below min specified surface levels RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Review ENRAF – Tank Surface Level data at local equipment as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-EF-B-D, B, BX, BY Tank Farms Daily Rounds for baseline, max and min surface levels
Liquid Observation Well (LOW)– Tank Surface Level: Tank 241-BX-111 See OSD-T-151-00031 for LOWSL.	CONDITION: • LOW readings are outside of Liquid Observation Well Specification Limits (LOWSL). • LOW readings are outside of the LOW specified surface levels RESPONSE: Report findings to the Tank Farm Shift Office, 373-2689.	Visually inspect LOW–Tank Surface Level data as required in OSD-T-151-00031, latest revision for LOWSL.
ENRAF –Tank Surface Level: Tanks 241-BX-102, -105, -106, -108, -109, -110, -111 (7-places) Data automatically transmitted to TMACS/SACS. See TF-OR-EF-B-Q, B, BX, BY Tank Farms Quarterly Rounds for baseline, max and min surface levels.	CONDITION: There are alarming ENRAF readings displayed on TMACS. RESPONSE: Report alarming readings above max specified levels to the Tank Farm Shift Office, 373-2689.	Review ENRAF – Tank Surface Level data at local equipment as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-EF-B-Q, B, BX, BY Tank Farms Quarterly Rounds for baseline, max and min surface levels.

NOTE -The minimum limit is N/A for these tanks.
-BX Tank Farm is connected to TMACS.

10.19 SST SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-BY TANK FARM

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: 241-BY Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Liquid Observation Well (LOW) – Tank Surface Level: Tanks 241-BY-101, -102, -103, -104, -105, -106, -107, -109, -110, -111, -112 (11 places) Reference OSD-T-151-0031 for LOWSL	CONDITION: LOW readings are outside of Liquid Observation Well Specification Limits (LOWSL). RESPONSE: Report readings outside of LOWSL specifications to the Shift Office, 373-2689.	Visual inspection of LOW equipment shall be as required in OSD-T-151-00031, latest revision
Manual Tape (MT) – Tank Surface Level: Tanks 241-BY-101, -104, -107, -108, -112 (5 places). Reference TF-OR-EF-B-Q, B, BX, BY Tank Farms Quarterly Rounds for baseline, ma x and min surface levels.	CONDITION: MT reading have changed above the maximum or below the minimum specified limits. RESPONSE: Report readings outside of max. or min. MT reading specifications to the Tank Farm Shift Office, 373-2689.	Visual inspection MT equipment as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-EF-B-Q, B, BX, BY Tank Farms Quarterly Rounds for baseline, max and min surface levels.
ENRAF – Tank Surface Level: Tanks 241-BY-102, -103,-110, -111 (4 places) ENRAF data is manually entered into SACs.	CONDITION: ENRAF readings have changed above the maximum or below the minimum specified limits. RESPONSE: Report readings outside of max. or min. ENRAF reading specifications to the Shift Office, 373-2689. Reference TF-OR-EF-B-Q, B, BX, and BY Tank Farms Quarterly Rounds for baseline, max and min surface levels.	Visual inspection of ENRAF equipment shall be as required in OSD-T-151-00031, latest revision.and in accordance with TF-OR-EF-B-Q, B, BX, BY Tank Farms Quarterly Rounds for baseline, max and min surface levels.
FIC – Tank Surface Level – Tank 241-BY-109 (1 place)	CONDITION: FIC readings have changed above the maximum or below the minimum specified	Visual inspection of FIC equipment shall be as required in OSD-

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
FIC data manually entered into SACs. Reference TF-OR-EF-B-Q, B, BX, and BY Tank Farms Quarterly Rounds for baseline, max and min surface levels.	limits. RESPONSE: Report readings outside of max. or min. FIC reading specifications to the Shift Office, 373-2689.	T-151-00031, latest revision, and in accordance with TF-OR-EF-B-Q, B, BX, and BY Tank Farms Quarterly Rounds for baseline, max and min surface levels.

NOTE -BY Tank Farm is connected to TMACS.

10.20 SST SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-C SST FARM

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: 241-C SST Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
ENRAF – Tank Surface Level: Tanks 241-C-103, -107 (2 places) ENRAF data is automatically transmitted to TMACS/SACS. Reference TF-OR-EF-C-D, C, CR Tank Farms and 244A DCRT Lift Station Daily Rounds for baseline, max and min surface limits.	CONDITION: ENRAF readings, displayed on TMACS, are in an ALARM state. Changes in ENRAF readings above max or below min specified levels. RESPONSE: Report readings outside of max. or min. MT reading specifications to the Shift Office, 373-2689.	Review ENRAF – Tank Surface Level data as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-EF-C-D, C, CR Tank Farms and 244A DCRT Lift Station Daily Rounds for baseline, max and min surface limits.
Manual Tape (MT) – Tank Surface Level: Tanks 241-C-110	CONDITION: MT reading has changed above the maximum or below the minimum specified	Visual inspection of MT equipment as required in OSD-T-

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
MT data is manually entered into SACs. Reference TF-OR-EF-C-D, C, CR Tank Farms and 244A DCRT Lift Station Daily Rounds for baseline, max and min surface limits.	limits. RESPONSE: Report readings outside of max. or min. MT reading specifications to the Shift Office, 373-2689.	151-00031, latest revision, and in accordance with TF-OR-EF-C-D, C, CR Tank Farms and 244A DCRT Lift Station Daily Rounds for baseline, max and min surface limits.
ENRAF – Tank Surface Level: 241-C-104, -106, -112. (3 places). Reference TF-OR-EF-D, C, and CR Tank Farms Quarterly Rounds for baseline, max and min surface levels.	CONDITION: ENRAF readings have changed above the maximum or below the minimum specified limits. RESPONSE: Report readings outside of max. or min. ENRAF reading specifications to the Shift Office, 373-2689.	Visual inspection of MT equipment shall be as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-EF-D, C, and CR Tank Farms Quarterly Rounds for baseline, max and min surface levels.
Manual FIC – Tank Surface Level: Tank 241-C-102 Manual FIC data is manually entered into SACs. Reference TF-OR-EF-D, C, and CR Tank Farms Quarterly Rounds for baseline, max and min surface levels.	CONDITION: Manual FIC readings have changed above the maximum or below the minimum specified limits. RESPONSE: Report manual FIC readings outside of max. or min. FIC reading specifications to the Shift Office, 373-2689.	Visually inspect FIC equipment as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-EF-D, C, and CR Tank Farm Quarterly Rounds for baseline, max and min surface limits.
Manual Tape (MT) – Tank Surface Level: Tanks 241-C-101, -108, -109, -111, -201, -202, -203, -204 (8 places) MT – Tank Surface Level data is manually entered into SACs. Reference TF-OR-EF-C-Q, C Tank Farm Quarterly	CONDITION: MT reading has changed above the maximum or below the minimum specified limits. RESPONSE: Report readings outside of max. or min. MT reading specifications to the Shift Office, 373-2689.	Visual inspection MT equipment as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-EF-C-Q, C Tank Farm Quarterly Rounds for baseline, max and min surface limits.

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Rounds for baseline, max and min surface limits.		

NOTE -All tanks are connected to TMACS

10.21 SST SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-S SST FARM

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: 241-S SST Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
ENRAF –Tank Surface Level: Tanks 241-S-101, -102, -103, -107, -111 (5 places) ENRAF–tank surface level data is manually entered into SACs for S-101. ENRAF–tank surface level data is automatically transmitted to TMACS/SACS. for 241-S-102, -103, -106, -107, -111. Reference: TF-OR-WST-D, 242-S, 244-S, 241-SY, 241-S and 241-SX Day and Night Rounds for baseline, max and min surface limits.	CONDITION: ENRAF tank surface level readings are not displayed on TMACS in an ALARM state. Readings exceed the max increase or max decrease limits. RESPONSE: Report readings outside of ENRAF specifications to the Shift Office, 373-2689.	Review ENRAF – Tank Surface Level data as required in OSD-T-151-00031, latest revision, and visually inspect field equipment readings in accordance with TF-OR-WST-D, 242-S, 244-S, 241-SY, 241-S and 241-SX Day and Night Rounds for baseline, max and min surface limits.
LOW –Tank Surface Level: Tanks 241-S-102, -104, -105, -106, -108, -109, -110, -112	CONDITION: LOW readings are outside of the Liquid Observation Well Specification Limits	Visual inspection of LOW equipment shall be as required in OSD-

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
(8 places) Reference OSD-T-151-0031 for LOWSL	(LOWSL). RESPONSE: Report readings outside of LOWSL specifications to the Shift Office, 373-2689.	T-151-00031, latest revision.
ENRAF –Tank Surface Level: Tanks 241-S-104, -105, -106, 108, -109, -110, -112 (7 places) Reference TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.	CONDITION: ENRAF readings have changed above the maximum or below the minimum specified limits. RESPONSE: Report readings outside of max. or min. ENRAF reading specifications to the Shift Office, 373-2689.	Review ENRAF data and visually inspect local equipment as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.

10.22 SST SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-SX SST FARM

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: 241-SX SST Tank Farm
Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Liquid Observation Well (LOW)– Tank Surface Level: Tanks 241-SX-101, -102, -103, -104, -105, -106 (6 places) Reference OSD-T-151-0031 for LOWSL.	CONDITION: LOW readings are outside of Liquid Observation Well Specification Limits (LOWSL). RESPONSE: Report readings outside of LOWSL specifications to the Shift Office, 373-2689.	Visual inspection of LOW equipment shall be performed as required in OSD-T-151-00031, latest revision.
ENRAF –Tank Surface Level:	CONDITION: ENRAF tank surface level readings are	Review ENRAF data at local equipment as

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Tank 241-SX-101, -102, -103, -104, -105 , -106, -107, -108,-109, -110, -111, -112, -113, -114, -115 (15 places) ENRAF –tank surface level data is automatically transmitted to TMACS/SACS. Readings displayed on TMACS are in an ALARM state.	displayed on TMACS in an ALARM state. Readings are above max increase or below max decrease specified levels. RESPONSE: Report readings outside of ENRAF specifications to the Shift Office, 373-2689.	required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.

NOTE -Tank 241-SX-113 is connected to TMACS.

10.23 SST SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-T SST FARM

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: 241-T SST Tank Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
ENRAF – Tank Surface Level Measurement: Tank 241-T-102, -107, -108, -112 (4 places) ENRAF – tank surface level measurement data is automatically transmitted to TMACS/SACS.	CONDITION: ENRAF tank surface level readings are displayed on TMACS in an ALARM state. Readings exceed the max increase or max decrease limits. RESPONSE: Report readings outside of ENRAF specifications to the Shift Office, 373-2689.	Review ENRAF – Tank Surface Level data as required in OSD-T-151-00031, latest revision, and visually inspect field equipment readings in accordance with TF-OR-WST-02-DT, TX, TY, and U Tank

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Reference: TF-OR-WST-02-DT, TX, TY, and U Tank Farms, 244-TX DCRT and Catch Tanks Day and Night Shift Rounds for baseline, max increase and max decrease surface limits.		Farms, 244-TX DCRT and Catch Tanks Day and Night Shift Rounds for baseline, max increase and max decrease surface limits.
Manual Tape (MT) – Tank Surface Level Measurement: Tanks 241-T-201, -202, -204 (3 places) Reference: TF-OR-WST-02-D T, TX, TY, U Tank Farms, 244-TX DCRT and Catch Tanks Day and Night Shift Rounds for baseline, max increase and max decrease surface limits.	CONDITION: MT reading has changed above the maximum or below the minimum specified limits. RESPONSE: Report readings outside of max. or min. MT reading specifications to the Shift Office, 373-2689.	Visually inspect the MT equipment as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-WST-02-DT, TX, TY, and U Tank Farms, 244-TX DCRT and Catch Tanks Day and Night Shift Rounds for baseline, max increase and max decrease surface limits.
Liquid Observation Well (LOW) – Tank Surface Level Measurement: Tanks 241-T-104, -110, -111	CONDITION: LOW readings are outside of Liquid Observation Well Specification Limits (LOWSL). RESPONSE: Report readings outside of LOWSL specifications to the Shift Office, 373-2689.	Visual inspection of LOW equipment shall be as required in OSD-T-151-00031, latest revision.
ENRAF – Tank Surface Level Measurement: Tank 241-T-101 ENRAF – tank surface level data is automatically transmitted to TMACS/ SACS. Reference TF-OR-WST-02-DT, TX, TY, and U Tank Farms, 244-TX DCRT and	CONDITION: ENRAF tank surface level readings are displayed on TMACS in an ALARM state. Readings exceed the max increase or max decrease limits. RESPONSE: Report readings outside of ENRAF specifications to the Shift Office, 373-2689.	Review ENRAF – Tank Surface Level data as required in OSD-T-151-00031, latest revision, and visually inspect field equipment readings in accordance with TF-OR-WST-02-W, West Area Weekly Rounds for base level, max increase and max decrease limits

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Catch Tanks Day and Night Shift Rounds for baseline, max increase and max decrease surface limits.		
ENRAF –Tank Surface Level Measurement: Tanks 241-T-103, -104, -105, -106, -109, -110, -111 Reference: TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.	CONDITION: ENRAF readings have changed above the maximum or below the minimum specified limits. RESPONSE: Report readings outside of max. or min. ENRAF reading specifications to the Shift Office, 373-2689.	Review ENRAF data and visually inspect local equipment as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.
Manual Tape (MT) – Tank Surface Level Measurement: Tank 241-T-203 Reference TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.	CONDITION: MT reading has changed above the maximum or below the minimum specified limits. RESPONSE: Report readings outside of max. or min. MT reading specifications to the Shift Office, 373-2689.	Visual inspection MT equipment as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.
Tank Temperature Monitoring for: Tanks 241-T-102, -105	N/A	Monitoring is in accordance with TO-040-650, T Tank Farm Semi-Annual Temperature Data Sheet.

NOTE -T Tank Farm is connected to TMACS.

10.24 SST FARM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR MISCELLANEOUS SUPPORT PITS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Miscellaneous Support Pits

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
241-A-A, -B Valve Pits – Conductivity Probe Leak Detector (2 places) Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 241-A-A, -B Valve Pits – Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming 241-A-A, -B Valve Pits – Conductivity Probe Leak Detectors at monitoring locations.	241-A-A, -B Valve Pits – Conductivity Probe Leak Detector system is inspected visually and monitored during transfers per Operating Procedure.
241-AX-Z, -B Valve Pits – Conductivity Probe Leak Detector (2 places) Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 241-AX-Z, -B Valve Pits – Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming 241-AX-Z, -B Valve Pits – Conductivity Probe Leak Detectors at monitoring locations.	241-AX-Z, -B Valve Pits – Conductivity Probe Leak Detector systems are inspected visually and monitored during transfers per Operating Procedure.
241-AX-501 Valve Pit – Conductivity Probe Leak Detector Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 241-AX-501 Valve Pit – Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-AX-501 Valve Pit – Conductivity Probe Leak Detector at monitoring locations.	241-AX-501 Valve Pit – Conductivity Probe Leak Detector system is inspected visually and monitored during transfers per Operating Procedure.
241-AX Service Pit - Conductivity Probe Leak Detector Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 241-AX Service Pit -Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-AX Service Pit -Conductivity Probe Leak Detector at monitoring locations.	241-AX Service Pit - Conductivity Probe Leak Detector system is inspected visually and monitored during transfers per Operating Procedure.

10.25 SST SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-TX SST FARM

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: 241-TX SST Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
ENRAF –Tank Surface Level Measurement: Tank 241-TX-101 ENRAF –Tank Surface Level Data is automatically transmitted to TMACS/SACS. Reference TF-OR-WST-02-D T, TX, TY, U Tank Farms, 244-TX DCRT and Catch Tanks Day and Night Shift Rounds for baseline, max increase and max decrease of surface limits.	CONDITION: ENRAF tank surface level readings are displayed on TMACS in an ALARM state. Readings shall not exceed the max increase or max decrease limits. RESPONSE: Report readings outside of ENRAF specifications to the Shift Office, 373-2689.	Review ENRAF – Tank Surface Level data as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-WST-02-D T, TX, TY, U Tank Farms, 244-TX DCRT and Catch Tanks Day and Night Shift Rounds for baseline, max increase and max decrease of surface limits.
Liquid Observation Well (LOW) –Tank Surface Level Measurement: Tanks 241-TX-102, -106, -109, -110, -112, -113, -114, -115, -117, -118 (10 places) Reference: OSD-T-151-00031 for LOWSL.	CONDITION: LOW readings are outside of Liquid Observation Well Specification Limits (LOWSL). RESPONSE: Report readings outside of LOWSL specifications to the Shift Office, 373-2689.	Visual inspection of LOW equipment shall be as required in OSD-T-151-00031, latest revision.
ENRAF –Tank Surface Level Measurement: Tanks 241-TX-102, -103, -104, -105, -106, -107, -108, -109, -110, -111, -112, -113, -114, -115, -116, -117, -118 (17 places) ENRAF –Tank Surface Level Measurement data is automatically transmitted to TMACS/SACS.	CONDITION: ENRAF tank surface level readings are displayed on TMACS in an ALARM state. Readings shall not exceed the max increase or max decrease limits. RESPONSE: Report readings outside of ENRAF specifications to the Shift Office, 373-2689.	Review ENRAF data as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Reference TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.		

NOTE -TX Tank Farm is connected to TMACS

10.26 SST SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-TY SST FARM

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: 241-TY SST Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
ENRAF –Tank Surface Level Measurement: Tanks 241-TY-102, -104 ENRAF –Tank Surface Level Measurement: data is automatically transmitted to TMACS/SACS Reference TF-OR-WST-02-D T, TX, TY, U Tank Farms, 244-TX DCRT and Catch Tanks Day and Night Shift Rounds for baseline, max increase and max decrease of surface limits.	CONDITION: ENRAF tank surface level readings are displayed on TMACS in an ALARM state. Readings shall not exceed the max increase or max decrease limits. RESPONSE: Report readings outside of ENRAF specifications to the Shift Office, 373-2689.	Review ENRAF – Tank Surface Level data as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-WST-02-D T, TX, TY, U Tank Farms, 244-TX DCRT and Catch Tanks Day and Night Shift Rounds for baseline, max increase and max decrease of surface limits.
Liquid Observation Well – Tank Surface Level Measurement: Tank 241-TY-103	CONDITION: LOW readings are outside of Liquid Observation Well Specification Limits (LOWSL).	Visual inspection of LOW equipment shall be as required in OSD-T-151-00031, latest revision.

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Reference: OSD-T-151-00031 for LOWSL.	RESPONSE: Report readings outside of LOWSL specifications to the Shift Office, 373-2689.	
ENRAF –Tank Surface Level Measurements: Tanks 241-TY-101, -103, -105, -106 ENRAF –Tank Surface Level Data is automatically transmitted to TMACS/SACS. Reference TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.	CONDITION: ENRAF tank surface level readings are displayed on TMACS in an ALARM state. Readings exceed the max increase or max decrease limits. RESPONSE: Report readings outside of ENRAF specifications to the Shift Office, 373-2689.	Review ENRAF data as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.

NOTE -TY Tank Farm is connected to TMACS

10.27 SST FARM SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR 241-U SST FARM

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: 241-U SST Farm

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
ENRAF – Tank Surface Level Measurements: Tanks 241-U-102, -103, -105, -106, -107, -109, -111, -204 (8 places) ENRAF – Tank Surface Level Measurements Data is	CONDITION: ENRAF tank surface level readings are displayed on TMACS in an ALARM state. Readings exceed the max increase or max decrease limits. RESPONSE: Report readings outside of ENRAF	Review ENRAF – Tank Surface Level data as required in OSD-T-151-00031, latest revision, and visually inspect field equipment readings in accordance with TF-

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
automatically transmitted to TMACS/ SACS for 241-U-103, -105, -106, -107, -109 ENRAF – Tank Surface Level Measurements Data Is manually entered into SACs for 241-U–204 Reference TF-OR-WST-02-D T, TX, TY, U Tank Farms, 244-TX DCRT and Catch Tanks Day and Night Shift Rounds for baseline, max increase and max decrease of surface limits.	specifications to the Shift Office, 373-2689.	OR-WST-02-D T, TX, TY, U Tank Farms, 244-TX DCRT and Catch Tanks Day and Night Shift Rounds for baseline, max increase and max decrease of surface limits.
Manual Tape (MT) – Tank Surface Level Measurement: Tanks 241-U-101, -201, -202 Reference. TF-OR-WST-02-D T, TX, TY, U Tank Farms, 244-TX DCRT and Catch Tanks Day and Night Shift Rounds for baseline, max increase and max decrease of surface limits.	CONDITION: MT reading has changed above the maximum or below the minimum specified limits. RESPONSE: Report readings outside of max. or min. MT reading specifications to the Shift Office, 373-2689.	Visual inspection of MT equipment as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-WST-02-D T, TX, TY, U Tank Farms, 244-TX DCRT and Catch Tanks Day and Night Shift Rounds for baseline, max increase and max decrease of surface limits.
ENRAF – Tank Surface Level Measurement: Tank 241-U-110 Reference TF-OR-WST-02-W, West Tank Farms Weekly Rounds for baseline, max increase and max decrease surface limits.	CONDITION: ENRAF readings have changed above the maximum or below the minimum specified limits. RESPONSE: Report readings outside of max. or min. ENRAF reading specifications to the Shift Office, 373-2689.	Visual inspection of ENRAF equipment as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-WST-02-W, West Tank Farms Weekly Rounds for baseline, max increase and max decrease surface limits.
Liquid Observation Well	CONDITION:	Visual inspection of

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
(LOW) – Tank Surface Level Measurement: Tanks 241-U-102, -108, -111 Reference OSD-T-151-00031 for LOWSL.	LOW readings are outside of Liquid Observation Well Specification Limits (LOWSL). RESPONSE: Report readings outside of LOWSL specifications to the Shift Office, 373-2689.	LOW equipment shall be as required in OSD-T-151-00031, latest revision.
ENRAF –Tank Surface Level Measurement: Tank 241-U-108, -203 ENRAF data is manually entered to SACS. Reference TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.	CONDITION: ENRAF readings have changed above the maximum or below the minimum specified limits. RESPONSE: Report readings outside of max. or min. ENRAF reading specifications to the Shift Office, 373-2689.	Visually inspect ENRAF equipment readout as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.
Manual Tape (MT)–Tank Surface Level Measurement: Tanks 241-U-104, -112 Reference TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.	CONDITION: MT readings have changed above the maximum or below the minimum specified limits. RESPONSE: Report readings outside of max. or min. MT reading specifications to the Shift Office, 373-2689.	Visually inspect MT equipment as required in OSD-T-151-00031, latest revision, and in accordance with TF-OR-WST-02-Q, West Tank Farms Quarterly Rounds for baseline, max increase and max decrease surface limits.

NOTE -U Tank Farm is connected to TMACS.

10.28 SST FARM SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR MISCELLANEOUS SUPPORT PITS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Miscellaneous Support Pits

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
241-A-A, -B Valve Pits – Conductivity Probe Leak Detector (2 places) Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 241-A-A, -B Valve Pits – Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming 241-A-A, -B Valve Pits – Conductivity Probe Leak Detectors at monitoring locations.	241-A-A, -B Valve Pits – Conductivity Probe Leak Detector system is inspected visually and monitored during transfers per Operating Procedure.
241-AX-Z, -B Valve Pits – Conductivity Probe Leak Detector (2 places) Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 241-AX-Z, -B Valve Pits – Conductivity Probe Leak Detectors alarming. RESPONSE: Acknowledge alarming 241-AX-Z, -B Valve Pits – Conductivity Probe Leak Detectors at monitoring locations.	241-AX-Z, -B Valve Pits – Conductivity Probe Leak Detector systems are inspected visually and monitored during transfers per Operating Procedure.
241-AX-501 Valve Pit – Conductivity Probe Leak Detector Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 241-AX-501 Valve Pit – Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-AX-501 Valve Pit – Conductivity Probe Leak Detector at monitoring locations.	241-AX-501 Valve Pit – Conductivity Probe Leak Detector system is inspected visually and monitored during transfers per Operating Procedure.
241-AX Service Pit - Conductivity Probe Leak Detector Monitored at 242-S Evaporator control room, or at field location.	CONDITION: 241-AX Service Pit -Conductivity Probe Leak Detector alarming. RESPONSE: Acknowledge alarming 241-AX Service Pit -Conductivity Probe Leak Detector at monitoring locations.	241-AX Service Pit - Conductivity Probe Leak Detector system is inspected visually and monitored during transfers per Operating Procedure.

10.29 SST SYSTEM RCRA DANGEROUS WASTE INTERIM STATUS INSPECTION SCHEDULE FOR GENERAL SST FARMS

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: General SST Farm Inspections

Actions

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
Alarms Panel Inspection	CONDITION: Alarm panel alarms have • lit or flashing alarms, • alarm lamps are inoperable when tested, RESPONSE: Report findings to the Shift Office, 373-2689.	Operability tests are performed as required in OSD-T-151-00031, latest revision. Alarms are recorded on facility alarm status data sheet and alarm status log book according to procedure TO-020-755.
Building Doors and Tank arm Perimeter Fence Gates	CONDITION: Broken locks, doors and gates in poor condition or not functioning properly, doors and gates unlocked when not staffed for access control. RESPONSE: Report findings to the Shift Office, 373-2689.	Visually inspect Tank Farm change trailer entrances, tank farm perimeter fence gates DAILY. Observations recorded on Daily Round Sheets.
Tank Farm Fencing	CONDITION: Fencing is inadequate (fence sagging, opening underneath or through the fencing that a person can pass through) to prevent unauthorized access RESPONSE: Report findings to the Shift Office, 373-2689..	Visually inspect Tank Farm Fencing DAILY. All tank farm observations are recorded on Daily Round Sheets.
Inspection of the Aboveground Portion of Tank Systems	CONDITION: Visible damage to, or leaks from aboveground portion of Tank Farm process and support pits, diversion boxes and catch tanks RESPONSE: Report findings to the Shift Office, 373-2689.	Visually inspect and record DAILY all the tank farms aboveground portion of Tank Systems on the Daily Round Sheets.
Lock and key control inspection.	CONDITION: Unreturned or missing keys, incomplete key control log entries. RESPONSE:	Perform visual inspection of Lock and Key Control system at 272-AW & 278-WA Shift Offices DAILY.

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	Report findings to the Shift Office, 373-2689.	
Posted "Danger – Hazardous Materials, Unauthorized Personnel Keep Out" Warning Signs	CONDITION: Fallen or illegible warning signs, signs not visible from a 25 foot distance. RESPONSE: Report findings to the Shift Office, 373-2689.	Visually inspect for signs that should be present on all entrances into the tank farms DAILY. Record on Daily Round Sheets.
Protective Clothing	CONDITION: Low Inventory of Protective Clothing (check size and type), inaccessible or not clearly identified. RESPONSE: Report findings to the Shift Office, 373-2689.	Tank Farms Operations performs visual inspections per HNF-IP-0263-TF (DAILY). Inspection locations: 272-AW and 272-WA Buildings, most tank farm change trailers.
Leaks and Spills	CONDITION: Evidence of visible leaks or spills to the environment (not weather related) within the tank farm). RESPONSE: Report findings to the Shift Office, 373-2689 for proper notification.	Inspect All tank farms DAILY. Anomalies are also recorded on Daily Round Sheets.
Self-Contained Breathing Apparatus (SCBA) Emergency Use	CONDITION: • Inaccessible or not clearly identified for emergency use SCBA equipment. • SCBA bottle pressure bad, cabinet seal broken, expired or illegible inspection tag. RESPONSE: Report findings to the Shift Office, 373-2689.	Perform operability test weekly and monthly by Tank Farms Operations per HNF-IP-0842 Volume 9 Section 4.2, Weekly inspections required for SCBA designated as "Emergency Use Only."
Eye Wash Stations (Portable and Fixed)	CONDITION: Leaks, missing hardware, expired inspection tag. RESPONSE:	Perform operability test MONTHLY by Tank Farms Operations and Maintenance per HNF-

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	Report findings to the Shift Office, 373-2689.	IP-0842 Volume 9, Section 4.26.
Crash Alarm Telephones	CONDITION: Crash alarm phone system is operable during monthly system test. RESPONSE: Report findings to the Shift Office, 373-2689.	Perform operability test on last Monday of each month by the site Emergency Preparedness organization.
Emergency Siren (Take Cover and Evacuation Alarms)	CONDITION: Emergency Sirens (Take Cover and Evacuation Alarms) are not sounding and audible in specified areas. RESPONSE: Ensure Emergency Sirens (Take Cover and Evacuation Alarms) are sounding and audible in specified area in accordance with DOE/ RL 94-02, Hanford Management Response Plan, Sec. 10. Report findings to the Shift Office, 373-2689.	Perform MONTHLY operability tests at the 272-AW, 272-WA and 2750E buildings. Inspection is performed by the site emergency preparedness organization and operations per DOE/ RL 94-02, Hanford Management Response Plan, See 10.
Fire Protection System Inspection –(alarms, sprinklers, deluge, etc.)	CONDITION: Fire Protection Systems in inoperable. RESPONSE: Report findings to the Shift Office, 373-2689.	Visual inspection is performed at various times by the Hanford Fire Department in accordance with HNF-IP-0842 Volume 9 Section 5.6.
Fire Extinguishers	CONDITION: The following (one or more) are found: • there are no Inaccessible, not clearly identified by red/ white striped wallboards or borders around wall cabinets of fire extinguisher sign conditions • Pressure gauges that indicate poor charge • For extinguishers without pressure gauge, lift extinguisher to ensure weight (lack of weight indicates loss of charge)	Operability tests are performed MONTHLY at Tank Farm Instrument Buildings, Tank Farm Change Trailers, 272-AW, 272-WA, 278-WA, MO-281. Inspection criteria HNF-IP-0842 Volume 9 Section 5.10

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	• Hose and nozzle in poor condition, obstructions present • Handle in poor condition, inspection tag expired, illegible • Fire extinguisher number (on tag or wall-mount board) incorrect • Hydro test date bad (expires after 10 years) RESPONSE: Ensure there are no Inaccessible, not clearly identified by red/ white striped wallboards or borders around wall cabinets of fire extinguisher sign conditions. Pressure gauges that indicate poor charge. For extinguishers without pressure gauge, lift extinguisher to ensure weight (lack of weight indicates loss of charge). Hose and nozzle in poor condition, obstructions present. Handle in poor condition, inspection tag expired, illegible. Fire extinguisher number (on tag or wall-mount board) incorrect. Hydro test date bad (expires after 10 years). Report findings to the Shift Office, 373-2689.	
Emergency Lighting	CONDITION: There are inoperable Emergency Lights. RESPONSE: Report findings to the Shift Office, 373-2689.	Perform visual inspection MONTHLY by Tank Farms Operations and Maintenance per HNF-IP-0842 Volume 9 Section 5.6. TWRS Maintenance performs inspections ANNUALLY.
Ignitable/ Reactive Waste Storage Inspection	CONDITION: A storage inspection determined that proper chemical properties, issues and potential areas of concern are identified in the storage area.	Visually inspect all tank farms Ignitable/ Reactive Waste Storage areas. The Hanford Fire

EQUIPMENT INFORMATION	CONDITION/REQUIRED RESPONSE	INSPECTION AND MONITORING DURATION REQUIREMENTS
	RESPONSE: Report findings to the Shift Office, 373-2689.	Department performs inspections MONTHLY and ANNUALLY.
Safety Showers (portable)	CONDITION: Safety Showers (portable) are determined to have leaks, are inoperable, and/or expired inspection tag. RESPONSE: Report findings to the Shift Office, 373-2689.	Operability tests are performed PRIOR TO USE. Tank Farms Operations and Maintenance performs inspections per HNF-IP-0842 Volume 9 Section 4.26.
Radios, Portable	CONDITION: Radios are not operable or are damaged. RESPONSE: Report findings to the Shift Office, 373-2689.	Perform operability test prior to using portable radios. Radios are stored at 278-WA and 272-AW Shift Offices.

11.0 DOUBLE SHELL TANK SYSTEM INTEGRITY ASSESSMENT

11.1 VIDEO EXAMINATION OF DST PRIMARY TANK INTERIORS AND ANNULUS REGIONS

Mode Applicability: Operation, Construction, and Standby

Purpose and Scope: visual examinations of the Double-Shell Tanks (DST) are to be performed to assess any visible degradation of exposed surfaces of the primary tank interior and tank annulus regions.

DSTs will be visually examined for conditions in both the interior of the tank, and the annulus surfaces of the primary and secondary tanks, using remote video equipment during planned periodic visual assessments. The revised approach for conducting visual examinations of DSTs is to perform a video examination of each tank's interior and annulus regions approximately every 5 years (not to exceed 7 years), and will be performed in conjunction with the 10 year periodic scheduled ultrasonic testing, whichever occurs first.

The primary tank's interior visual examination would be performed via access through one of the primary tank's risers; the primary and secondary tank's annulus visual examination will be performed via four of the secondary tank's risers located so that a near 360-degree visual examination conducted. These visual examinations will establish a baseline that can be compared against for future planned re-examinations.

Actions

INFORMATION	CONDITION/REQUIRED RESPONSES	INSPECTION AND MONITORING DURATION REQUIREMENTS
Requirements	A.) Visual examinations will be conducted under the following conditions (Letter from J.E. Rasmussen to M.A. Wilson, "Submission of an Updated Plan for Examination of Double-Shell Tanks Contained in Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement) Milestone M-48 Series, M-48-05, 02-TOD-052, dated July 12, 2002):	Visual examinations will be performed approximately every 5 years (not to exceed 7 years) and will be performed in conjunction with the 10 year periodic scheduled ultrasonic testing, whichever occurs first. Visual examinations will be performed when ultrasonic testing of the primary tank walls exhibit conditions of indications requiring additional assessments. The primary tank interior will be visually inspected following complete pump-down of the tank, to view previously inaccessible surfaces that have not been documented for at least 5 years.
	B.) Specific requirements for conducting the visual examination of the interiors of DST primary tanks and records retention are provided in Tank Farm Plant Operating Procedure TO-020-142.	Time requirements for conducting visual examination are specified in Tank Farm Plant Operating Procedure TO-020-142
	C.) Upon request, all examinations will be made available to Ecology within sixty (60) days of completion of each visual examination report. The results of the examination shall be documented and released as a supporting document for each tank farm. The report shall include a discussion of the results, areas of interest, recommendations and conclusions of the examination.	Within sixty (60) days of completion of each visual examination.

INFORMATION	CONDITION/REQUIRED RESPONSES	INSPECTION AND MONITORING DURATION REQUIREMENTS
	D.) TFC will summarize the results of the DSTs primary internal tank visual examinations for the fiscal year (FY) in the UT submittal letter to Ecology at the end of the FY. Ecology will also be provided with the annual schedule of planned DST visual inspections for the next FY.	Annual Schedule of planned inspections.
	E.) Should the video examination identify significant indications, a panel of experts shall be convened to evaluate the indications, assess probable cause and implications, and provide recommendations for corrective action and/or gathering of additional information in the form of a written report. This panel shall consist of TFC personnel and, where appropriate, TFC contract personnel. The report prepared by the panel shall serve as a basis for development of an action plan, if required, by appropriate levels of TFC management.	As required by a panel of experts
Limitations	The On-Call EP Representative shall be immediately notified of any deviations from catch tank requirements to determine if a regulatory requirement has been violated.	Report deviations immediately to CH2MHill Environmental Programs.
Recovery	Failure to report nonconforming conditions to the EP is considered an ESD nonconformance and shall be screened for reporting as an Occurrence per HNF-IP-0842, Volume 2, Section 4.6.2, "Occurrence Reporting and Processing of Operations Information."	Report immediately

Basis Requirements

REQUIREMENT	Comment
Letter from J.J. Lyon to J.E. Rasmussen, dated August 12, 2002	This revised plan was approved by Ecology August 12, 2002.

11.2 VIDEO EXAMINATION OF EXPOSED UNDERGROUND PIPING

Mode Applicability: Operation, Construction, and Standby

Purpose and Scope: This section provides requirements for video examination of exposed underground piping, as proposed in a plan transmitted by the ORP to the Ecology on February 15,

2001 and approved by Ecology via letter from Bob Wilson to H. L. Boston, ORP, and M. P. Delozier, CHG, on April 23, 2001.

Actions

INFORMATION	CONDITION/REQUIRED RESPONSES	INSPECTION - MONITORING DURATION REQUIREMENTS
Requirements	These requirements apply to direct-buried transfer piping or the secondary containment boundary of double-contained transfer pipe that is part of the DST system (Federal Facility Agreement and Consent Order Tri-Party Agreement (TPA), Milestone M-48 Series)	
	A.) Video data of the exterior surface(s) of DST system transfer lines will be obtained only when a line is exposed incidentally during construction or other activities. Lines will not be exposed specifically for video data collection, and no insulation or other protective coatings/coverings will be removed for the video data collection process (Federal Facility Agreement and Consent Order Tri-Party Agreement (TPA), Milestone M-48 Series).	Video data of the exterior surface(s) only when a line is exposed during construction or other activities
	B.) Video data of the exterior surface(s) of DST system transfer lines will be obtained only when a line is exposed incidentally during construction or other activities. Lines will not be exposed specifically for video data collection, and no insulation or other protective coatings/coverings will be removed for the video data collection process (Federal Facility Agreement and Consent Order Tri-Party Agreement (TPA), Milestone M-48 Series).	A minimum length of pipe equal to five times the nominal diameter must be exposed No equipment, components or other items will be removed specifically for the purpose of obtaining video data of DST system transfer piping The collection of all DST transfer piping video data shall be performed in consonance with ALARA principles.
	C.) Specific requirements for conducting the visual examination of the exterior of exposed underground piping and records retention are provided in Tank Farm Plant Operating Procedure TO-020-142 (Federal Facility Agreement and Consent Order Tri-Party Agreement (TPA), Milestone M-48 Series).	

INFORMATION	CONDITION/REQUIRED RESPONSES	INSPECTION - MONITORING DURATION REQUIREMENTS
	D.) A video evaluation report will be prepared and issued to provide in writing the detailed findings and any recommended subsequent actions. The report will be updated and modified each time video data is collected (Federal Facility Agreement and Consent Order Tri-Party Agreement (TPA), Milestone M-48 Series).	The report will be updated and modified each time video data is collected
Limitations	The On-Call EP Representative shall be immediately notified of any deviations from catch tank requirements to determine if a regulatory requirement has been violated.	Report deviations to Environmental Programs immediately.
Recovery	Failure to report nonconforming conditions to the Environmental Programs is considered an ESD nonconformance and shall be screened for reporting as an Occurrence per HNF-IP-0842, Volume 2, Section 4.6.2, "Occurrence Reporting and Processing of Operations Information."	Failure to report immediately is considered a non-conformance.

Basis Requirements

Reference	
Administrative Order Nos. 00NWPKW-0250 and 00NWPKW-0251, Item 4, and plan approved by Ecology on April 23, 2001.	

12.0 ENVIRONMENTAL AND CONTAMINATED SOIL POLICY

12.1 CONTAMINATED SOIL

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: Provide the requirements for the management of contaminated soil within the Tank Farm Facilities

Actions

CONDITIONS INFORMATION	REQUIRED RESPONSES	INSPECTION MONITORING DURATION REQUIREMENTS

CONDITIONS INFORMATION	REQUIRED RESPONSES	INSPECTION MONITORING DURATION REQUIREMENTS
Requirement	A.) All soil excavated within a tank farm area must be maintained within that fenced area. The intent is to return the soil to the excavation itself; however, if there is a compelling reason not to do so, approval for alternate soil disposition must be received in writing and in advance from the Ecology project manager.	Deviation from keeping excavated soil in the Tank Farm must be approved and received in writing in advance from Ecology.
	B.) Soil removed for the installation of temporary footings for drilling activities will be managed per this policy.	
	C.) While awaiting return to the ground, contaminated soil will be managed in a manner to prevent the spread of contamination and to be protective of human health and the environment.	
	D.) Contaminated soil that cannot be returned to the excavation or used within the fence-line, in which it was generated, will be properly designated, and managed as Mixed Waste or as Low Level Waste.	
Limitation	Any deviations from the above requirements shall be reported to EP.	
Recovery	Failure to report non-conforming conditions to EP is considered an ESD non-conformance and shall be screened for reporting as an Occurrence per HNF-IP-0842, Volume 2, Section 4.6.2, "Occurrence Reporting and Processing of Operations Information."	

Basis Requirements

Reference	Comment
A) 96-EAP-186, Management of Contaminated Soil From Non-Remediation Activities at the Hanford Site	NOC Application
B) Washington State Department of Ecology Letter, Policy For the Management of Contaminated Soil from Non-Remediation Activities at the Hanford Site, dated January 30, 2001.	
C) HNF-IP-0842, Volume 2, Section 4.6.2, "Occurrence Reporting and Processing of Operations Information."	

13.0 APPROVED INCIDENTAL AND ROUTINE SST WATER ADDITIONS

13.1 SST WATER ADDITIONS

Purpose and Scope: This section provides requirements for the management of SST water additions.

Water additions are allowed in accordance with the requirements of OSD-T-151-00013, "Operating Specifications for Single-Shell Waste Storage Tanks".

Mode Applicability: Operation, Construction, and Standby

Process Area Applicability: SST Farm Facilities.