

# Hanford Site Air Operating Permit 2011 Renewal Application

## Operating Summary Covering the Period January 1, 2007 Through December 31, 2010

Prepared for the U.S. Department of Energy  
Assistant Secretary for Environmental Management



U.S. DEPARTMENT OF  
**ENERGY**

Richland Operations  
Office

P.O. Box 550  
Richland, Washington 99352

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Operating Summary Covering the Period January 1,  
2007 Through December 31, 2010

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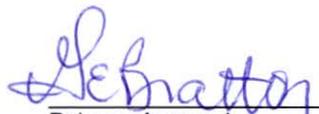
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CERTIFICATION FOR THE DOE/RL-2011-27  
HANFORD SITE AIR OPERATING PERMIT  
2011 RENEWAL APPLICATION

Certification:

In accordance with WAC 173-401-200(29)(c) as the responsible official, I certify, pursuant to WAC 173-401-520, that, based on information and belief formed after reasonable inquiry, the statements and information provided in this DOE/RL-2011-27, *Hanford Site Air Operating Permit 2011 Renewal Application, Operating Summary Covering the Period January 1, 2007 through December 31, 2010*, are true, accurate and complete.

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<sup>2</sup> For emission units under control of the U.S. Department of Energy, Richland Operations Office.

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**TERMS**

ALARACT	as low as reasonably achievable control technology
AOP	Air Operating Permit
CEMS	continuous emission monitoring system
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>
CFR	<i>Code of Federal Regulations</i>
CHPRC	CH2M HILL Plateau Remediation Company
CO <sub>2</sub> e	carbon dioxide equivalent
DOE	U.S. Department of Energy
DOE-ORP	U.S. Department of Energy, Office of River Protection
DOE-RL	U.S. Department of Energy, Richland Operations Office
DOH	State of Washington, Department of Health
Ecology	State of Washington, Department of Ecology
EPA	U.S. Environmental Protection Agency
GHG	greenhouse gas
HAP	hazardous air pollutant
HHV	high heating value
IEU	insignificant emission unit
LPG	liquefied petroleum gas
LSA	low specific activity
MSW	municipal solid waste
N/A	not applicable
NOC	notice of construction
NRC	U.S. Nuclear Regulatory Commission
PCB	polychlorinated biphenyl
PSD	prevention of significant deterioration
PTE	potential-to-emit
QA	quality assurance
WAC	<i>Washington Administrative Code</i>
WRAP	Waste Receiving and Processing Facility
WTP	Waste Treatment and Immobilization Plant
VOC	volatile organic compound
vp	vapor pressure

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## **1.0 INTRODUCTION**

The Hanford Site Air Operating Permit (AOP), permit number 00-05-006, was initially issued to the U.S. Department of Energy (DOE) Hanford Operations by the State of Washington, Department of Ecology (Ecology) on June 20, 2001 with an effective date of July 2, 2001. The AOP was renewed in 2006 for an additional five-year term, which is set to expire December 31, 2011. In accordance with *Washington Administrative Code* (WAC) 173-401-500 and WAC 173-401-710 requirements, the Hanford Site must submit an AOP renewal application at least six months prior to the expiration of the current AOP.

The draft permit is defined by WAC 173-401-200(10) as "...the version of a permit for which the permitting authority offers public participation or affected state review." This renewal application primarily contains information for the time period January 1, 2007 through December 31, 2010, but certain specified information is current through April 30, 2011. To ensure compliance with WAC 173-401-500(6), this renewal application will be supplemented, as necessary, until such time as Ecology issues a draft permit for public or affected state review.

This renewal application was prepared in accordance with applicable requirements for an AOP application. It is compatible with the underlying regulatory requirements for quality assurance.

### **1.1 PURPOSE AND PROCESS**

The purpose of this AOP renewal application is to inform affected regulatory agencies and the public of changes that have occurred over the five-year term of the current AOP. It is assumed that a renewed AOP will be issued when the current one expires, thus enabling continuous permitted operation of Hanford Site air emission sources.

For the Hanford Site, the permitting process began with the submittal and approval of the original AOP application (DOE/RL-95-07). Prior to expiration of the original AOP, a renewal application (DOE/RL-2005-24), along with supplemental information, was submitted for agency review. Following public review by the tribes, affected states, and the U.S. Environmental Protection Agency (EPA), on December 29, 2006, Renewal 1 of the Hanford Site AOP was issued. Renewal 1 of the Hanford Site AOP expires December 31, 2011; thus, requiring submittal of this renewal application.

### **1.2 OVERVIEW OF AIR OPERATING PERMIT RENEWAL APPLICATION REQUIREMENTS**

The Hanford Site AOP, Standard Terms and General Conditions Section 4.1, "Permit Renewal and Conditions," requires the application for renewal include the following information:

- Current AOP number
- Description of AOP revisions and off-permit changes that occurred during the permit term
- Any applicable requirements that were promulgated and not incorporated into the AOP during the permit term

- Information listed in the renewal application sent to the applicant no later than 18 months prior to the expiration date by Ecology and coordinated with the State of Washington, Department of Health (DOH) and the Benton Clean Air Agency.

Three additional renewal application requirements are contained in WAC 246-247-060(9). These requirements pertain only to radioactive air emission units regulated by WAC 246-247. The WAC 246-247-060(9) requirements are as follows:

- Summary of the operational status of all emission units regulated by WAC 246-247, “Radiation Protection – Air Emissions” (i.e., emission units in the Hanford Site Radioactive Air Emissions License #FF-01 [FF-01], diffuse and fugitive sources, and newly approved emission units not yet in the Hanford Site FF-01 or AOP)
- Status of facility compliance with WAC 246-247-040 standards
- Status of any corrective actions necessary to achieve compliance with the requirements of WAC 246-247.

## **2.0 AIR OPERATING PERMIT RENEWAL APPLICATION REQUIREMENTS**

Information to satisfy the primary AOP renewal application requirements is provided in the following sections.

### **2.1 CURRENT AIR OPERATING PERMIT NUMBER**

The current AOP number is 00-05-006. The major stationary source covered by this permit includes the following North American Industry Classification System categories:

- 541710 Research and Development in the Engineering and Life Sciences
- 562210 Waste Treatment and Disposal
- 562910 Remediation Services
- 924110 Administration of Air and Water Resource and Solid Waste Management Program
- 999999 Unclassified Establishments

### **2.2 AIR OPERATING PERMIT REVISIONS AND OFF-PERMIT CHANGES**

Table 2-1 lists the AOP revisions (i.e., significant modifications, minor modifications, and administrative amendments) and off-permit changes for the period from January 1, 2007 through April 30, 2011. In addition, any changes not requiring a permit revision (WAC 173-401-722) that have been attached to the permit are included as informational data to ensure that a complete and accurate permit is issued by Ecology for the Hanford Site.

### **2.3 APPLICABLE/INAPPLICABLE REQUIREMENTS**

#### **2.3.1 Applicable Requirements**

Table 2-2 contains a comprehensive list of federal, state, and local air quality requirements currently applicable to Hanford Site air emission sources for purposes of Title V permitting. The provided list includes not only new requirements which have been promulgated since the current Hanford Site AOP was issued in 2006 (such as those related to greenhouse gas emissions or a number of new federal regulations for internal combustion engine sources, among others), but also those requirements previously identified as applicable to Hanford Site sources in the original AOP application (DOE/RL-95-07, *Hanford Site Air Operating Permit Application*) and the first renewal application (DOE/RL-2005-24, *Hanford Site Air Operating Permit Renewal Application, Operating Summary July 2, 2001 – September 1, 2005*). If there are specific portions of the requirements listed in Table 2-2 that are considered inapplicable to Hanford Site operations, they are identified in Table 2-3.

#### **2.3.2 Inapplicable Requirements**

Table 2-3 contains a comprehensive list of federal, state, and local air quality requirements determined to currently be inapplicable to Hanford Site air emission sources for purposes of Title V permitting. Where a listed requirement is a specific portion of a broader requirement already included in Table 2-2 as applicable, only the specific section is considered inapplicable. Following Ecology review and inclusion in the final permit, a permit shield shall apply to these inapplicable requirements [WAC 173-401-640(2)].

**Table 2-1. Air Operating Permit Revisions and Off-Permit Changes that Occurred During the Permit Term. (4 Sheets)**

Type of Change	Letter	Letter Date	Description	Comment
Off-Permit Change	AIR 11-404	04/21/2011	Operation of New Ventilation Systems in AN and AW Tank Farms (NOC 802)	
Off-Permit Change	AIR 11-401	04/01/2011	Tank Farm As Low As Reasonably Achievable Control Technology (ALARACT) Demonstration for Installation/Operation/Removal of Push Mode Core Sampling Equipment (ALARACT 2)	
Off-Permit Change	11-ESQ-068	03/31/2011	Radioactive Air Emissions Notice of Construction for 241-SY, 241 AP, and 241-AY/AZ Tank Farm Ventilation System Upgrades	DOH approval still pending.
Off-Permit Change	AIR 11-302	03/09/2011	Notice of Construction (NOC) Application for the Minor Emission Unit EP-331-02-S, 331 Building (Emission Unit 1180, NOC_ID 787)	Original Hanford Site request submitted 11/17/2010 (Letter, 11-EMD-0005).
Change Not Requiring Permit Revision	11-AMRC-0095	02/28/2011	Notification of Change Not Requiring Permit Revision for 385 Building Emergency Backup Diesel Engine-Driven Fire-Water Pump	Pump was placed in 385 Building in March 2011 and is scheduled to be operational in October 2011. This engine is subject to 40 CFR 60, "Standards of Performance for New Stationary Sources," Subpart IIII and 40 CFR 63, "National Emission Standards for Hazardous Air Pollutants for Source Categories," Subpart ZZZZ. NOC application is not required.
Off-Permit Change	11-EMD-0034	02/28/2011	Consolidated Waste Receiving and Processing Facility Operations and the Central Waste Complex	DOH approval still pending.

**Table 2-1. Air Operating Permit Revisions and Off-Permit Changes that Occurred During the Permit Term. (4 Sheets)**

Type of Change	Letter	Letter Date	Description	Comment
CERCLA Transition	11-AMRC-0096	02/25/2011	Notice of Transition to CERCLA for the Emission Units Associated with the 320, 326 and 329 Buildings [EP-320-01-S (358), EP-320-02-S (355), EP-320-04-S (357), EP-326-01-S (362), EP-329-01-S (366)]	Official response from DOH pending. Emission units have been transitioned to CERCLA authority and need to be removed from AOP/FF-01.
CERCLA Transition	AIR 11-207	02/24/2011	Notice of Transition to CERCLA for 340 Complex and 307 Retention Basin [P-340DECON-001 (422), P-340NTEX-001 (434), P-340BBldg-001 (424), 307 (1121)]	Deletion of these emission units was incorporated as part of AOP Revision F in December 2010 based on originally submitted CERCLA Notice of Transition (Letter, 11-AMRC-0033, 11/23/2010). Included here for completeness since official DOH response was issued after Revision F.
Off-Permit Change	11-EMD-0030	02/17/2011	NOC Revision for Life Sciences Laboratory – 1 (331 Bldg.), Revision 2, Modification 1	DOH approval still pending.
Off-Permit Change	11-ESQ-017	2/11/2011	Submittal of Hanford Facility Criteria and Toxics Air Emissions NOC for the Operation of the 241-AP, 241-SY and 241-AY/AZ Tank Farm Ventilation System Upgrades	Ecology approval still pending. Ecology requested additional information on 03/17/2011 (Letter, 11-NWP-014). Hanford Site provided requested data on 04/27/2011 (Letter, 11-ESQ-091).
Off-Permit Change	AIR 11-204 (Draft Approval)	02/03/2011	NOC Application for Minor Emission Units for the 320 Building Mass Spectrometry Vents	DOH subsequently conducted a closure inspection for these emission units on 02/02/2011 and they will be removed from the FF-01. Documentation of closure submitted to DOH on 02/10/2011 (Letter 11-EMD-0028). Original Hanford submittal on 10/14/2010 (Letter 11-EMD-0003).

**Table 2-1. Air Operating Permit Revisions and Off-Permit Changes that Occurred During the Permit Term. (4 Sheets)**

Type of Change	Letter	Letter Date	Description	Comment
Off-Permit Change	AIR 11-203 (Draft Approval)	02/03/2011	NOC Application for Minor Emission Units for the 320 Building Perchloric Acid Hoods	DOH subsequently conducted a closure inspection for these emission units on 02/02/2011 and they will be removed from the FF-01. Documentation of closure submitted to DOH on 02/10/2011 (Letter 11-EMD-0028). Original Hanford submittal on 10/14/2010 (Letter 11-EMD-0003).
Off-Permit Change	AIR 10-1007	10/04/2010	Liquid Pumping and Enhanced Sluicing on Tank 241-C-106 (NOC ID 790)	DOH no longer working on this application per request from Hanford Site staff.
Administrative Amendments	Ecology, 2010	12/23/2010	Hanford Site Air Operating Permit, Renewal 1, Revision F Issuance	Administrative Amendments include: Incorporation of terms, conditions, and limitations of new orders of approval; Elimination of terms, conditions, and limitations of permanently removed emission sources; Correction of typographical errors.
Administrative Amendments	Ecology, 2009	12/18/2009	Hanford Site Air Operating Permit, Renewal 1, Revision E Issuance	Administrative Amendments include: Incorporation of terms, conditions, and limitations of new orders of approval; Elimination of terms, conditions, and limitations of permanently removed emission sources; Correction of typographical errors and re-organization consolidating conditions for one emission unit.
Administrative Amendments	Ecology, 2008	12/23/2008	Hanford Site Air Operating Permit, Renewal 1, Revision D Issuance	Administrative Amendments include: Incorporation of terms, conditions, and limitations of new orders of approval; Elimination of terms, conditions, and limitations of permanently removed emission sources; Correction of typographical errors and re-organization consolidating conditions for one emission unit.

**Table 2-1. Air Operating Permit Revisions and Off-Permit Changes that Occurred During the Permit Term. (4 Sheets)**

Type of Change	Letter	Letter Date	Description	Comment
Administrative Amendments	Ecology, 2007c	12/05/2007	Hanford Site Air Operating Permit, Renewal 1, Revision C Issuance	Administrative Amendments and off-permit changes include: Incorporation of terms, conditions, and limitations of new orders of approval; Elimination of terms, conditions, and limitations of permanently removed emission sources; Correction of typographical errors and re-organization consolidating conditions for one emission unit. Administrative amendments and off-permit changes affect the following documents of the Hanford Site AOP: Attachment 1, Ecology Condition, Attachment 2, Department of Health Conditions.
Minor Modifications, Off-Permit Changes, Change Not Requiring Permit Revision, and Administrative Amendments	Ecology, 2007b	07/26/2007	Hanford Site Air Operating Permit, Renewal 1, Revision B Issuance	Off-permit changes to AOP Attachment 2, Change not requiring permit revision relocating a memorandum of understanding within permit documentation, Administrative Amendments include: Incorporation of terms, conditions, and limitations of new orders of approval, Elimination of terms, conditions, and limitations of voided orders of approval and permanently removed emission sources, identification of name changes and correction of a typographical error. These modifications, changes, and amendments affect the following documents of the Hanford Site AOP: Statement of Basis for the Standard Terms and General Conditions, Standard Terms and General Conditions, Attachment 1, Statement of Basis for Attachment 2, Attachment 2.
Administrative Amendments	Ecology 2007a	05/03/2007	Hanford Site Air Operating Permit, Renewal 1, Revision A Issuance	Administrative Amendments to AOP Attachment 1 and AOP Attachment 2.

**Table 2-2. Hanford Site Applicable Requirements. (2 Sheets)**

<b>Requirement</b>
BCAA, Regulation 1, Article 5 “Outdoor Burning” and Article 8 “Asbestos”
WAC 173-400, “General Regulations for Air Pollution Sources” (except as identified in Table 2-3, Hanford Site Inapplicable Requirements)
WAC 173-401, “Operating Permit Regulation”
WAC 173-425, “Outdoor Burning”
WAC 173-441, “Reporting of Emissions of Greenhouse Gases”
WAC 173-455, “Air Quality Fee Regulation”
WAC 173-460, “Controls for New Sources of Toxic Air Pollutants”
WAC 173-470, “Ambient Air Quality Standards for Particulate Matter”
WAC 173-474, “Ambient Air Quality Standards for Sulfur Oxides”
WAC 173-475, “Ambient Air Quality Standards for Carbon Monoxide, Ozone, and Nitrogen Dioxide”
WAC 173-480, “Ambient Air Quality Standards and Emission Limits for Radionuclides”
WAC 173-481, “Ambient Air Quality and Environmental Standards for Fluorides”
WAC 173-491, “Emission Standards and Controls for Sources Emitting Gasoline Vapors”
WAC 246-247, “Radiation Protection – Air Emissions”
40 CFR 60 Subpart A, “Standards of Performance for New Stationary Sources, General Provisions”
40 CFR 60 Subpart Dc, “Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units ”
40 CFR 60 Subpart IIII, “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines”
40 CFR 60 Subpart JJJJ, “Standards of Performance for Stationary Spark Ignition Internal Combustion Engines”
40 CFR 61 Subpart A, “National Emission Standards for Hazardous Air Pollutants, General Provisions”
40 CFR 61 Subpart H, “National Emission Standards for Emissions of Radionuclide Other Than Radon from Department of Energy Facilities”
40 CFR 61 Subpart M, “National Emission Standard for Asbestos”
40 CFR 63 Subpart A, “National Emission Standards for Hazardous Air Pollutants for Source Categories, General Provisions”

**Table 2-2. Hanford Site Applicable Requirements. (2 Sheets)**

Requirement
40 CFR 63 Subpart D, "Regulations Governing Compliance Extensions for Early Reductions of Hazardous Air Pollutants"
40 CFR 63 Subpart ZZZZ, "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines"
40 CFR 63 Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters"
40 CFR 70, "State Operating Permit Programs"
40 CFR 82 "Protection of Stratospheric Ozone"

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

Requirement	Reason for Inapplicability
BCAA, Regulation 1, Articles 1, 2, 3, 4, 6, 7, 9	Authority to regulate Hanford Site air emissions pre-empted by Ecology, except for Articles 5 and 8.
WAC 173-400-040(4)(b)	The Hanford Site has not been identified as a significant contributor to the nonattainment status of a designated nonattainment area.
WAC 173-400-040(9)(b)	The Hanford Site has not been identified as a significant contributor to a PM-10 or PM-2.5 nonattainment area.
WAC 173-400-060, "Emission Standards for General Process Units"	No general process units have been identified on the Hanford Site.
WAC 173-400-070, "Emission Standards for Certain Source Categories"	No affected sources on the Hanford Site.
WAC 173-400-105(5)(b), (c) and (d), Continuous monitoring and recording for Sulfuric acid plants, fluid bed catalytic cracking units, and wood residue fuel-fired steam generators	No affected sources on the Hanford Site.
WAC 173-400-112, "Requirements for New Sources in Nonattainment Areas"	The Hanford Site and surrounding areas are not classified as nonattainment areas for any regulated pollutant.
WAC 173-400-151, "Retrofit Requirements for Visibility Protection"	The Hanford Site has not been identified as a cause or contributor to visibility impairment in any mandatory Class I area.
WAC 173-400-190, "Requirements for Nonattainment Areas"	The Hanford Site is not located in a nonattainment area.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

<b>Requirement</b>	<b>Reason for Inapplicability</b>
WAC 173-400-210, "Emission Requirements of Prior Jurisdictions"	The Hanford Site always has been regulated by Ecology. No local authority previously has regulated the Hanford Site.
WAC 173-405, "Kraft Pulp Mill"	No affected sources on the Hanford Site.
WAC 173-406, "Acid Rain Regulation"	No affected sources on the Hanford Site.
WAC 173-407, "Carbon Dioxide Mitigation Program Greenhouse Gases Emissions Performance Standard and Sequestration Plans and Programs for Thermal Electric Generating Facilities"	No affected sources on the Hanford Site.
WAC 173-410, "Sulfite Pulp Mill"	No affected sources on the Hanford Site.
WAC 173-415, "Primary Aluminum Plants"	No affected sources on the Hanford Site.
WAC 173-421, "Motor Vehicle Emission Control Systems"	The site is not located in a noncompliance area or emission contributing area requiring a vehicle inspection program.
WAC 173-422, "Motor Vehicle Emission Inspection"	The site is not located in a noncompliance area or emission contributing area requiring a vehicle inspection program.
WAC 173-430, "Agricultural Burning"	No affected sources on the Hanford Site.
WAC 173-433, "Solid Fuel Burning Devices"	No affected sources on the Hanford Site.
WAC 173-434, "Solid Waste Incinerator Facilities"	No affected sources on the Hanford Site.
WAC 173-490, Emission Standards and Controls for Sources Emitting Volatile Organic Compounds	This supplements WAC 173-400 and applies to volatile organic compound (VOC) sources in ozone nonattainment areas. The Hanford Site is not located in a designated ozone nonattainment area.
WAC 173-492, "Motor Fuel Specifications for Oxygenated Gasoline"	The site is not located in the control areas requiring oxygenated gasoline use.
WAC 246-247-060(10), Commercial Nuclear Power Plants	The permittee does not operate a commercial nuclear power plant.
WAC 246-247-075(5) and (7), Facilities Licensed by the U.S. Nuclear Regulatory Commission (NRC)	The permittee does not have point source emissions from NRC licensed facilities. Any NRC license would be to handle a specific sealed source term.
WAC 463-78, "General and Operating Permit Regulations for Air Pollution Sources"	The site emission sources are not subject to Energy Facility Site Evaluation Council (EFSEC) jurisdiction/authority.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

<b>Requirement</b>	<b>Reason for Inapplicability</b>
40 CFR 60 Subpart B, "Adoption and Submittal of State Plans for Designated Facilities"	These are permitting authority procedural requirements.
40 CFR 60 Subpart C, "Emission Guidelines and Compliance Times"	These are permitting authority procedural requirements.
40 CFR 60 Subpart Cb, "Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors that are Constructed on or Before September 20, 1994"	No affected sources on the Hanford Site.
40 CFR 60 Subpart Cc, "Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills"	No affected sources on the Hanford Site.
40 CFR 60 Subpart Cd, "Emissions Guidelines and Compliance Times for Sulfuric Acid Production Units"	No affected sources on the Hanford Site.
40 CFR 60 Subpart Ce, "Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators"	No affected sources on the Hanford Site.
40 CFR 60 Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971	No affected sources on the Hanford Site.
40 CFR 60 Subpart Da, "Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978"	No affected sources on the Hanford Site.
40 CFR 60 Subpart Db, "Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units"	No affected sources on the Hanford Site.
40 CFR 60 Subpart E, "Standards of Performance for Incinerators"	No affected sources on the Hanford Site.
40 CFR 60 Subpart Ea, "Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After December 20, 1989 and On or Before September 20, 1994"	No affected sources on the Hanford Site.
40 CFR 60 Subpart Eb, "Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced after September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996"	No affected sources on the Hanford Site.
40 CFR 60 Subpart Ec, "Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996"	No affected sources on the Hanford Site.
40 CFR 60 Subpart F, "Standards of Performance for Portland Cement Plants"	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

Requirement	Reason for Inapplicability
40 CFR 60 Subpart G, “Standards of Performance for Nitric Acid Plants	No affected sources on the Hanford Site.
40 CFR 60 Subpart H, Standards of Performance for Sulfuric Acid Plants”	No affected sources on the Hanford Site.
40 CFR 60 Subpart I, “Standards of Performance for Hot Mix Asphalt Facilities”	No affected sources on the Hanford Site.
40 CFR 60 Subpart J, “Standards of Performance for Petroleum Refineries”	No affected sources on the Hanford Site.
40 CFR 60 Subpart Ja, “Standards of Performance for Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007”	No affected sources on the Hanford Site.
40 CFR 60 Subpart K, “Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978”	No affected sources on the Hanford Site.
40 CFR 60 Subpart Ka, “Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984”	No affected sources on the Hanford Site.
40 CFR 60 Subpart Kb, “Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984”	No affected sources on the Hanford Site.
40 CFR 60 Subpart L, “Standards of Performance for Secondary Lead Smelters”	No affected sources on the Hanford Site.
40 CFR 60 Subpart M, “Standards of Performance for Secondary Brass and Bronze Production Plants”	No affected sources on the Hanford Site.
40 CFR 60 Subpart N, “Standards of Performance for Primary Emissions From Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973”	No affected sources on the Hanford Site.
40 CFR 60 Subpart Na, “Standards of Performance for Secondary Emissions from Basic Oxygen Process Steelmaking Facilities for Which Construction is Commenced After January 20, 1983”	No affected sources on the Hanford Site.
40 CFR 60 Subpart O, “Standards of Performance for Sewage Treatment Plants”	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

<b>Requirement</b>	<b>Reason for Inapplicability</b>
40 CFR 60 Subpart P, "Standards of Performance for Primary Copper Smelters"	No affected sources on the Hanford Site.
40 CFR 60 Subpart Q, "Standards of Performance for Primary Zinc Smelters"	No affected sources on the Hanford Site.
40 CFR 60 Subpart R, "Standards of Performance for Primary Lead Smelters"	No affected sources on the Hanford Site.
40 CFR 60 Subpart S, "Standards of Performance for Primary Aluminum Reduction Plants"	No affected sources on the Hanford Site.
40 CFR 60 Subpart T, "Standards of Performance for the Phosphate Fertilizer Industry: Wet-Process Phosphoric Acid Plants"	No affected sources on the Hanford Site.
40 CFR 60 Subpart U, "Standards of Performance for the Phosphate Fertilizer Industry: Superphosphoric Acid Plants"	No affected sources on the Hanford Site.
40 CFR 60 Subpart V, "Standards of Performance for the Phosphate Fertilizer Industry: Diammonium Phosphate Plants"	No affected sources on the Hanford Site.
40 CFR 60 Subpart W, "Standards of Performance for the Phosphate Fertilizer Industry: Triple Superphosphate Plants"	No affected sources on the Hanford Site.
40 CFR 60 Subpart X, "Standards of Performance for the Phosphate Fertilizer Industry: Granular Triple Superphosphate Storage Facilities"	No affected sources on the Hanford Site.
40 CFR 60 Subpart Y, "Standards of Performance for Coal Preparation and Processing Plants"	No affected sources on the Hanford Site.
40 CFR 60 Subpart Z, "Standards of Performance for Ferroalloy Production Facilities"	No affected sources on the Hanford Site.
40 CFR 60 Subpart AA, "Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974, and On or Before August 17, 1983"	No affected sources on the Hanford Site.
40 CFR 60 Subpart AAa, "Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983"	No affected sources on the Hanford Site.
40 CFR 60 Subpart BB, "Standards of Performance for Kraft Pulp Mills"	No affected sources on the Hanford Site.
40 CFR 60 Subpart CC, "Standards of Performance for Glass Manufacturing Plants"	No affected sources on the Hanford Site.
40 CFR 60 Subpart DD, "Standards of Performance for Grain Elevators"	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

<b>Requirement</b>	<b>Reason for Inapplicability</b>
40 CFR 60 Subpart EE, “Standards of Performance for Surface Coating of Metal Furniture”	No affected sources on the Hanford Site.
40 CFR 60 Subpart GG, “Standards of Performance for Stationary Gas Turbines”	No affected sources on the Hanford Site.
40 CFR 60 Subpart HH, “Standards of Performance for Lime Manufacturing Plants”	No affected sources on the Hanford Site.
40 CFR 60 Subpart KK, “Standards of Performance for Lead-Acid Battery Manufacturing Plants”	No affected sources on the Hanford Site.
40 CFR 60 Subpart LL, “Standards of Performance for Metallic Mineral Processing Plants”	No affected sources on the Hanford Site.
40 CFR 60 Subpart MM, “Standards of Performance for Automobile and Light Duty Truck Surface Coatings Operations”	No affected sources on the Hanford Site.
40 CFR 60 Subpart NN, “Standards of Performance for Phosphate Rock Plants”	No affected sources on the Hanford Site.
40 CFR 60 Subpart PP, “Standards of Performance for Ammonium Sulfate Manufacture”	No affected sources on the Hanford Site.
40 CFR 60 Subpart QQ, “Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing”	No affected sources on the Hanford Site.
40 CFR 60 Subpart RR, “Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations”	No affected sources on the Hanford Site.
40 CFR 60 Subpart SS, “Standards of Performance for Industrial Surface Coating: Large Appliances”	No affected sources on the Hanford Site.
40 CFR 60 Subpart TT, “Standards of Performance for Metal Coil Surface Coating”	No affected sources on the Hanford Site.
40 CFR 60 Subpart UU, “Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture”	No affected sources on the Hanford Site.
40 CFR 60 Subpart VV, “Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and On or Before November 7, 2006”	No affected sources on the Hanford Site.
40 CFR 60 Subpart VVa, “Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006”	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

<b>Requirement</b>	<b>Reason for Inapplicability</b>
40 CFR 60 Subpart WW, “Standards of Performance for the Beverage Can Surface Coating Industry”	No affected sources on the Hanford Site.
40 CFR 60 Subpart XX “Standards of Performance for Bulk Gasoline Terminals”	No affected sources on the Hanford Site.
40 CFR 60 Subpart AAA, “Standards of Performance for New Residential Wood Heaters”	No affected sources on the Hanford Site.
40 CFR 60 Subpart BBB, “Standards of Performance for the Rubber Tire Manufacturing Industry”	No affected sources on the Hanford Site.
40 CFR 60 Subpart DDD, “Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry”	No affected sources on the Hanford Site.
40 CFR 60 Subpart FFF, “Standards of Performance for Flexible Vinyl and Urethane Coating and Printing”	No affected sources on the Hanford Site.
40 CFR 60 Subpart GGG, “Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After January 4, 1983, and On or Before November 7, 2006”	No affected sources on the Hanford Site.
40 CFR 60 Subpart GGGa, “Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006”	No affected sources on the Hanford Site.
40 CFR 60 Subpart HHH, “Standards of Performance for Synthetic Fiber Production Facilities”	No affected sources on the Hanford Site.
40 CFR 60 Subpart III, “Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Synthetic Organic Chemical Manufacturing Industry (SOCMI) Air Oxidation Unit Processes”	No affected sources on the Hanford Site.
40 CFR 60 Subpart JJJ, “Standards of Performance for Petroleum Dry Cleaners”	No affected sources on the Hanford Site.
40 CFR 60 Subpart KKK, “Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants”	No affected sources on the Hanford Site.
40 CFR 60 Subpart LLL, “Standards of Performance for Onshore Natural Gas Processing: SO <sub>2</sub> Emissions”	No affected sources on the Hanford Site.
40 CFR 60 Subpart NNN, “Standards of Performance for Volatile Organic Compound (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations”	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

Requirement	Reason for Inapplicability
40 CFR 60 Subpart OOO, “Standards of Performance for Nonmetallic Mineral Processing Plants”	No affected sources on the Hanford Site.
40 CFR 60 Subpart PPP, “Standard of Performance for Wool Fiberglass Insulation Manufacturing Plants”	No affected sources on the Hanford Site.
40 CFR 60 Subpart QQQ, “Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems”	No affected sources on the Hanford Site.
40 CFR 60 Subpart RRR, “Standards of Performance for Volatile Organic Compound Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes”	No affected sources on the Hanford Site.
40 CFR 60 Subpart SSS, “Standards of Performance for Magnetic Tape Coating Facilities”	No affected sources on the Hanford Site.
40 CFR 60 Subpart TTT, “Standards of Performance for Industrial Surface Coating: Surface Coating of Plastic Parts for Business Machines”	No affected sources on the Hanford Site.
40 CFR 60 Subpart UUU, Standards of Performance for Calciners and Dryers in Mineral Industries”	No affected sources on the Hanford Site.
40 CFR 60 Subpart VVV, “Standards of Performance for Polymeric Coating of Supporting Substrates Facilities”	No affected sources on the Hanford Site.
40 CFR 60 Subpart WWW, “Standards of Performance for Municipal Solid Waste Landfills”	No affected sources on the Hanford Site.
40 CFR 60 Subpart AAAA, “Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001”	No affected sources on the Hanford Site.
40 CFR 60 Subpart BBBB, “Emission Guidelines and Compliance Times for Small Municipal Waste Combustion Units Constructed On or Before August 30, 1999”	No affected sources on the Hanford Site.
40 CFR 60 Subpart CCCC, “Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced On or After June 1, 2001”	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

Requirement	Reason for Inapplicability
40 CFR 60 Subpart DDDD, "Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999"	No affected sources on the Hanford Site.
40 CFR 60 Subpart EEEE, "Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced On or After June 16, 2006"	No affected sources on the Hanford Site.
40 CFR 60 Subpart FFFF, "Emission Guidelines and Compliance Times for Other Solid Waste Incineration Units that Commenced On or Before December 9, 2004"	No affected sources on the Hanford Site.
40 CFR 60 Subpart HHHH, "Emission Guidelines and Compliance Times for Coal-Fired Electric Steam Generating Units"	No affected sources on the Hanford Site.
40 CFR 60 Subpart KKKK, "Standards of Performance for Stationary Combustion Turbines"	No affected sources on the Hanford Site.
40 CFR 60 Subpart LLLL, "Standards of Performance for New Sewage Sludge Incinerator Units"	No affected sources on the Hanford Site.
40 CFR 60 Subpart MMMM, "Emission Guidelines and Compliance Times for Existing Sewage Sludge Incinerator Units"	No affected sources on the Hanford Site.
40 CFR 61 Subpart B, "National Emission Standards for Radon Emissions From Underground Uranium Mines"	No affected sources on the Hanford Site.
40 CFR 61 Subpart C, "National Emission Standard for Beryllium"	No affected sources on the Hanford Site.
40 CFR 61 Subpart D, "National Emission Standard for Beryllium Rocket Motor Firing"	No affected sources on the Hanford Site.
40 CFR 61 Subpart E, "National Emission Standard for Mercury"	No affected sources on the Hanford Site.
40 CFR 61 Subpart F, "National Emission Standard for Vinyl Chloride"	No affected sources on the Hanford Site.
40 CFR 61 Subpart I, "National Emission Standards for Radionuclide Emissions from Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H"	No affected sources on the Hanford Site.
40 CFR 61 Subpart J, "National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene"	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

<b>Requirement</b>	<b>Reason for Inapplicability</b>
40 CFR 61 Subpart K, "National Emission Standards for Radionuclide Emissions from Elemental Phosphorus Plants"	No affected sources on the Hanford Site.
40 CFR 61 Subpart L, "National Emission Standard for Benzene Emissions from Coke By-Product Recovery Plants"	No affected sources on the Hanford Site.
40 CFR 61 Subpart N, "National Emission Standard for Inorganic Arsenic Emissions from Glass Manufacturing Plants"	No affected sources on the Hanford Site.
40 CFR 61 Subpart O, "National Emission Standard for Inorganic Arsenic Emissions from Primary Copper Smelters"	No affected sources on the Hanford Site.
40 CFR 61 Subpart P, "National Emission Standard for Inorganic Arsenic Emissions from Arsenic Trioxide and Metallic Arsenic Production Facilities"	No affected sources on the Hanford Site.
40 CFR 61 Subpart Q, "National Emission Standards for Radon Emissions from Department of Energy Facilities"	No affected sources on the Hanford Site.
40 CFR 61 Subpart R, "National Emission Standards for Radon Emissions from Phosphogypsum Stacks"	No affected sources on the Hanford Site.
40 CFR 61 Subpart T, "National Emission Standards for Radon Emissions from the Disposal of Uranium Mill Tailings"	No affected sources on the Hanford Site.
40 CFR 61 Subpart V, "National Emission Standard for Equipment Leaks (Fugitive Emission Sources)"	No affected sources on the Hanford Site.
40 CFR 61 Subpart W, "National Emission Standards for Radon Emissions from Operating Mill Tailings"	No affected sources on the Hanford Site.
40 CFR 61 Subpart Y, "National Emission Standard for Benzene Emissions from Benzene Storage Vessels"	No affected sources on the Hanford Site.
40 CFR 61 Subpart BB, "National Emission Standard for Benzene Emissions from Benzene Transfer Operations"	No affected sources on the Hanford Site.
40 CFR 61 Subpart FF, "National Emission Standard for Benzene Waste Operations"	No affected sources on the Hanford Site.
40 CFR 63 Subpart E, "Approval of State Programs and Delegation of Federal Authorities"	These are permitting authority procedural requirements.
40 CFR 63 Subpart F, "National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry"	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

Requirement	Reason for Inapplicability
40 CFR 63 Subpart G, "National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations and Wastewater"	No affected sources on the Hanford Site.
40 CFR 63 Subpart H, "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks"	No affected sources on the Hanford Site.
40 CFR 63 Subpart I, "National Emission Standards for Organic Hazardous Air Pollutants for Certain Processes Subject to the Negotiated Regulation for Equipment Leaks"	No affected sources on the Hanford Site.
40 CFR 63 Subpart J, "National Emission Standards for Hazardous Air Pollutants for Polyvinyl Chloride and Copolymers Production"	No affected sources on the Hanford Site.
40 CFR 63 Subpart L, "National Emission Standards for Coke Oven Batteries"	No affected sources on the Hanford Site.
40 CFR 63 Subpart M, "National Perchloroethylene Air Emission Standards for Dry Cleaning Facilities"	No affected sources on the Hanford Site.
40 CFR 63 Subpart N, "National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks"	No affected sources on the Hanford Site.
40 CFR 63 Subpart O, "Ethylene Oxide Emissions Standards for Sterilization Facilities"	No affected sources on the Hanford Site.
40 CFR 63 Subpart Q, "National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers"	No affected sources on the Hanford Site.
40 CFR 63 Subpart R, "National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)"	No affected sources on the Hanford Site.
40 CFR 63 Subpart S, "National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry"	No affected sources on the Hanford Site.
40 CFR 63 Subpart T, "National Emission Standards for Halogenated Solvent Cleaning"	No affected sources on the Hanford Site.
40 CFR 63 Subpart U, "National Emission Standards for Hazardous Air Pollutant Emissions: Group I Polymers and Resins"	No affected sources on the Hanford Site.
40 CFR 63 Subpart W, "National Emission Standards for Hazardous Air Pollutants for Epoxy Resins Production and Non-Nylon Polyamides Production"	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

<b>Requirement</b>	<b>Reason for Inapplicability</b>
40 CFR 63 Subpart X, “National Emission Standards for Hazardous Air Pollutants from Secondary Lead Smelting”	No affected sources on the Hanford Site.
40 CFR 63 Subpart Y, “National Emission Standards for Marine Tank Vessel Loading Operations”	No affected sources on the Hanford Site.
40 CFR 63 Subpart AA, “National Emission Standards for Hazardous Air Pollutants from Phosphoric Acid Manufacturing Plants”	No affected sources on the Hanford Site.
40 CFR 63 Subpart BB, “National Emission Standards for Hazardous Air Pollutants from Phosphate Fertilizers Production Plants”	No affected sources on the Hanford Site.
40 CFR 63 Subpart CC, “National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries”	No affected sources on the Hanford Site.
40 CFR 63 Subpart DD, “National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations”	No affected sources on the Hanford Site.
40 CFR 63 Subpart EE, “National Emission Standards for Magnetic Tape Manufacturing Operations”	No affected sources on the Hanford Site.
40 CFR 63 Subpart GG, “National Emission Standards for Aerospace Manufacturing and Rework Facilities”	No affected sources on the Hanford Site.
40 CFR 63 Subpart HH, “National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities”	No affected sources on the Hanford Site.
40 CFR 63 Subpart II, “National Emission Standards for Shipbuilding and Ship Repair (Surface Coatings)”	No affected sources on the Hanford Site.
40 CFR 63 Subpart JJ, “National Emission Standards for Wood Furniture Manufacturing Operations”	No affected sources on the Hanford Site.
40 CFR 63 Subpart KK, “National Emission Standards for the Printing and Publishing Industry”	No affected sources on the Hanford Site.
40 CFR 63 Subpart LL, “National Emission Standards for Hazardous Air Pollutants for Primary Aluminum Reduction Plants”	No affected sources on the Hanford Site.
40 CFR 63 Subpart MM, “National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semicheical Pulp Mills”	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

<b>Requirement</b>	<b>Reason for Inapplicability</b>
40 CFR 63 Subpart OO, “National Emission Standards for Tanks – Level 1”	No affected sources on the Hanford Site subject to other rule subparts that reference this section for emission control requirements.
40 CFR 63 Subpart PP, “National Emission Standards for Containers”	No affected sources on the Hanford Site subject to other rule subparts that reference this section for emission control requirements.
40 CFR 63 Subpart QQ, “National Emission Standards for Surface Impoundments”	No affected sources on the Hanford Site subject to other rule subparts that reference this section for emission control requirements.
40 CFR 63 Subpart RR, “National Emission Standards for Individual Drain Systems”	No affected sources on the Hanford Site subject to other rule subparts that reference this section for emission control requirements.
40 CFR 63 Subpart SS, “National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices and Routing to a Fuel Gas System or a Process”	No affected sources on the Hanford Site subject to other rule subparts that reference this section for emission control requirements.
40 CFR 63 Subpart TT, “National Emission Standards for Equipment Leaks – Control Level 1”	No affected sources on the Hanford Site subject to other rule subparts that reference this section for emission control requirements.
40 CFR 63 Subpart UU, “National Emission Standards for Equipment Leaks – Control Level 2 Standards”	No affected sources on the Hanford Site subject to other rule subparts that reference this section for emission control requirements.
40 CFR 63 Subpart VV, “National Emission Standards for Oil-Water Separators and Organic-Water Separators”	No affected sources on the Hanford Site subject to other rule subparts that reference this section for emission control requirements.
40 CFR 63 Subpart WW, “National Emission Standards for Storage Vessels (Tanks) – Control Level 2”	No affected sources on the Hanford Site subject to other rule subparts that reference this section for emission control requirements.
40 CFR 63 Subpart XX, “National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations”	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

Requirement	Reason for Inapplicability
40 CFR 63 Subpart YY, “National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards”	No affected sources on the Hanford Site.
40 CFR 63 Subpart CCC, “National Emission Standards for Hazardous Air Pollutants for Steel Pickling – HCL Process Facilities and Hydrochloric Acid Regeneration Plants”	No affected sources on the Hanford Site.
40 CFR 63 Subpart DDD, “National Emission Standards for Hazardous Air Pollutants for Mineral Wool Production”	No affected sources on the Hanford Site.
40 CFR 63 Subpart EEE, “National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors”	No affected sources on the Hanford Site.
40 CFR 63 Subpart GGG, “National Emission Standards for Pharmaceuticals Production”	No affected sources on the Hanford Site.
40 CFR 63 Subpart HHH, “National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities”	No affected sources on the Hanford Site.
40 CFR 63 Subpart III, “National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production”	No affected sources on the Hanford Site.
40 CFR 63 Subpart JJJ, “National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins”	No affected sources on the Hanford Site.
40 CFR 63 Subpart LLL, “National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry”	No affected sources on the Hanford Site.
40 CFR 63 Subpart MMM, “National Emission Standards for Hazardous Air Pollutants for Pesticide Active Ingredient Production”	No affected sources on the Hanford Site.
40 CFR 63 Subpart NNN, “National Emission Standards for Hazardous Air Pollutants for Wool Fiberglass Manufacturing”	No affected sources on the Hanford Site.
40 CFR 63 Subpart OOO, “National Emission Standards for Hazardous Air Pollutant Emissions: Manufacture of Amino/Phenolic Resins”	No affected sources on the Hanford Site.
40 CFR 63 Subpart PPP, “National Emission Standards for Hazardous Air Pollutant Emissions for Polyether Polyols Production”	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

Requirement	Reason for Inapplicability
40 CFR 63 Subpart QQQ, “National Emission Standards for Hazardous Air Pollutants for Primary Copper Smelting”	No affected sources on the Hanford Site.
40 CFR 63 Subpart RRR, “National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production”	No affected sources on the Hanford Site.
40 CFR 63 Subpart TTT, “National Emission Standards for Hazardous Air Pollutants for Primary Lead Smelting”	No affected sources on the Hanford Site.
40 CFR 63 Subpart UUU, “National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units”	No affected sources on the Hanford Site.
40 CFR 63 Subpart VVV, “National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works”	No affected sources on the Hanford Site.
40 CFR 63 Subpart XXX, “National Emission Standards for Hazardous Air Pollutants for Ferroalloys Production: Ferromanganese and Silicomanganese”	No affected sources on the Hanford Site.
40 CFR 63 Subpart AAAA, “National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills”	No affected sources on the Hanford Site.
40 CFR 63 Subpart CCCC, “National Emission Standards for Hazardous Air Pollutants: Manufacturing of Nutritional Yeast”	No affected sources on the Hanford Site.
40 CFR 63 Subpart DDDD, “National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products”	No affected sources on the Hanford Site.
40 CFR 63 Subpart EEEE, “National Emission Standards for Hazardous Air Pollutants: Organic Liquid Distribution (Non-Gasoline)”	No affected sources on the Hanford Site.
40 CFR 63 Subpart FFFF, “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing”	No affected sources on the Hanford Site.
40 CFR 63 Subpart GGGG, “National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production”	No affected sources on the Hanford Site.
40 CFR 63 Subpart HHHH, “National Emission Standards for Hazardous Air Pollutants for Wet-Formed Fiberglass Mat Production”	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

Requirement	Reason for Inapplicability
40 CFR 63 Subpart IIII, “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks”	No affected sources on the Hanford Site.
40 CFR 63 Subpart JJJJ, “National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating”	No affected sources on the Hanford Site.
40 CFR 63 Subpart KKKK, “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Cans”	No affected sources on the Hanford Site.
40 CFR 63 Subpart MMMM, “National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products”	No affected sources on the Hanford Site.
40 CFR 63 Subpart NNNN, “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Large Appliances”	No affected sources on the Hanford Site.
40 CFR 63 Subpart OOOO, “National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles”	No affected sources on the Hanford Site.
40 CFR 63 Subpart PPPP, “National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products”	No affected sources on the Hanford Site.
40 CFR 63 Subpart QQQQ, “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products”	No affected sources on the Hanford Site.
40 CFR 63 Subpart RRRR, “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture”	No affected sources on the Hanford Site.
40 CFR 63 Subpart SSSS, “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil”	No affected sources on the Hanford Site.
40 CFR 63 Subpart TTTT, “National Emission Standards for Hazardous Air Pollutants for Leather Finishing Operations”	No affected sources on the Hanford Site.
40 CFR 63 Subpart UUUU, “National Emission Standards for Hazardous Air Pollutants for Cellulose Products Manufacturing”	No affected sources on the Hanford Site.
40 CFR 63 Subpart VVVV, “National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing”	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

<b>Requirement</b>	<b>Reason for Inapplicability</b>
40 CFR 63 Subpart WWWW, “National Emissions Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production”	No affected sources on the Hanford Site.
40 CFR 63 Subpart XXXX, “National Emissions Standards for Hazardous Air Pollutants: Rubber Tire Manufacturing”	No affected sources on the Hanford Site.
40 CFR 63 Subpart YYYY, “National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines”	No affected sources on the Hanford Site.
40 CFR 63 Subpart AAAAA, “National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants”	No affected sources on the Hanford Site.
40 CFR 63 Subpart BBBB, “National Emission Standards for Hazardous Air Pollutants for Semiconductor Manufacturing”	No affected sources on the Hanford Site.
40 CFR 63 Subpart CCCCC, “National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks”	No affected sources on the Hanford Site.
40 CFR 63 Subpart EEEEE, “National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries”	No affected sources on the Hanford Site.
40 CFR 63 Subpart FFFFF, “National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Manufacturing Facilities”	No affected sources on the Hanford Site.
40 CFR 63 Subpart GGGGG, “National Emission Standards for Hazardous Air Pollutants: Site Remediation”	No affected sources on the Hanford Site.
40 CFR 63 Subparts HHHHH, “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing”	No affected sources on the Hanford Site.
40 CFR 63 Subpart IIII, “National Emission Standards for Hazardous Air Pollutants: Mercury Emissions from Mercury Cell Chlor-Alkali Plants”	No affected sources on the Hanford Site.
40 CFR 63 Subpart JJJJ, “National Emission Standards for Hazardous Air Pollutants for Brick and Structural Clay Products Manufacturing”	No affected sources on the Hanford Site.
40 CFR 63 Subpart KKKKK, “National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing”	No affected sources on the Hanford Site.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

Requirement	Reason for Inapplicability
40 CFR 63 Subpart LLLLLL, “National Emission Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing”	No affected sources on the Hanford Site.
40 CFR 63 Subpart MMMMMM, “National Emission Standards for Hazardous Air Pollutants: Flexible Polyurethane Foam Fabrication Operations”	No affected sources on the Hanford Site.
40 CFR 63 Subpart NNNNNN, “National Emission Standards for Hazardous Air Pollutants: Hydrochloric Acid Production”	No affected sources on the Hanford Site.
40 CFR 63 Subpart PTTTTT, “National Emission Standards for Hazardous Air Pollutants for Engine Test Cells/Standards”	No affected sources on the Hanford Site.
40 CFR 63 Subpart QQQQQQ, “National Emission Standards for Hazardous Air Pollutants for Friction Materials Manufacturing Facilities”	No affected sources on the Hanford Site.
40 CFR 63 Subpart RRRRRR, “National Emission Standards for Hazardous Air Pollutants: Taconite Iron Ore Processing”	No affected sources on the Hanford Site.
40 CFR 63 Subpart SSSSSS, “National Emission Standards for Hazardous Air Pollutants for Refractory Products Manufacturing”	No affected sources on the Hanford Site.
40 CFR 63 Subpart TTTTTT, “National Emissions Standards for Hazardous Air Pollutants for Primary Magnesium Refining”	No affected sources on the Hanford Site.
40 CFR 63 Subpart WWWW, “National Emission Standards for Hospital Ethylene Oxide Sterilizers”	No affected sources on the Hanford Site.
40 CFR 63 Subpart YYYYYY, “National Emission Standards for Hazardous Air Pollutants for Area Sources: Electric Arc Furnace Steelmaking Facilities”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart ZZZZZZ, “National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart BBBBBB, “National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart CCCCCC, “National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities”	The Hanford Site is not an Area Source.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

Requirement	Reason for Inapplicability
40 CFR 63 Subpart DDDDDD, “National Emission Standards for Hazardous Air Pollutants for Polyvinyl Chloride and Copolymers Production Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart EEEEEEE, “National Emission Standards for Hazardous Air Pollutants for Primary Copper Smelting Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart FFFFFFF, “National Emission Standards for Hazardous Air Pollutants for Secondary Copper Smelting Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart GGGGGG, “National Emission Standards for Hazardous Air Pollutants for Primary Nonferrous Metals Area Sources – Zinc, Cadmium, and Beryllium”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart HHHHHH, “National Emission Standards for Hazardous Air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart JJJJJJ, “National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial and Institutional Boiler Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart LLLLLL, “National Emission Standards for Hazardous Air Pollutants for Acrylic and Modacrylic Fibers Production Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart MMMMMM, “National Emission Standards for Hazardous Air Pollutants for Carbon Black Production Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart NNNNNN, “National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources: Chromium Compounds”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart OOOOOO, “National Emission Standards for Hazardous Air Pollutants for Flexible polyurethane Foam Production and Fabrication Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart PPPPPP, “National Emission Standards for Hazardous Air Pollutants for Lead Acid Battery Manufacturing Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart QQQQQQ, “National Emission Standards for Hazardous Air Pollutants for Wood Preserving Area Sources”	The Hanford Site is not an Area Source.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

Requirement	Reason for Inapplicability
40 CFR 63 Subpart RRRRRR, “National Emission Standards for Hazardous Air Pollutants for Clay Ceramics Manufacturing Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart SSSSSS, “National Emission Standards for Hazardous Air Pollutants for Glass Manufacturing Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart TTTTTT, “National Emission Standards for Hazardous Air Pollutants for Secondary Nonferrous Metals Processing Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart VVVVVV, “National Emission Standards for Hazardous Air Pollutants for Chemical Manufacturing Area Sources”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart WWWWWW, “National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Plating and Polishing Operations”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart XXXXXX, “National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart YYYYYY, “National Emission Standards for Hazardous Air Pollutants Area Sources: Ferroalloys Production Facilities”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart ZZZZZZ, “National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart AAAAAAA, “National Emission Standards for Hazardous Air Pollutants for Area Sources: Asphalt Processing and Asphalt Roofing Manufacturing”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart BBBBBBB, “National Emission Standards for Hazardous Air Pollutants for Area Sources: Chemical Preparations Industry”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart CCCCCC, “National Emission Standards for Hazardous Air Pollutants for Area Sources: Paints and Allied Products Manufacturing”	The Hanford Site is not an Area Source.
40 CFR 63 Subpart DDDDDDD, “National Emission Standards for Hazardous Air Pollutants for Area Sources: Prepared Feeds Manufacturing”	The Hanford Site is not an Area Source.

**Table 2-3. Hanford Site Inapplicable Requirements. (21 Sheets)**

Requirement	Reason for Inapplicability
40 CFR 63 Subpart EEEEEEE, “National Emission Standards for Hazardous Air Pollutants: Gold Mine Ore-Processing and Production Area Source Category”	The Hanford Site is not an Area Source.
40 CFR 64, “Compliance Assurance Monitoring”	No affected emission units on the Hanford Site.
40 CFR 68, “Chemical Accident Prevention Provisions”	The Hanford Site no longer has any facilities or activities subject to these requirements.
40 CFR 72 through 40 CFR 78, Acid Rain Regulations”	No affected sources on the Hanford Site.
40 CFR 79, “Registration of Fuels and Fuel Additives”	DOE does not manufacture or import fuel on the Hanford Site.
40 CFR 98, “Mandatory Greenhouse Gas Reporting”	Excluded by EPA rule from being considered an applicable requirement for Title V permits.

## 2.4 INSIGNIFICANT EMISSION UNITS

Insignificant Emission Units (IEUs) are small, minor sources of emissions at industrial facilities that are not subject to the operating permit regulation (specific IEU criteria are defined in WAC 173-401-530). They can include types of emission sources such as bathroom vents, lubricating-oil storage tanks, plastic pipe welding, and wet sand-and-gravel screening. IEUs can also be emission sources which have potential emissions below established thresholds. Although IEUs are not subject to AOP requirements, general emission standards as noted in Table 2-4 below are still applicable.

**Table 2-4. Insignificant Emission Unit Applicable Requirements. (2 sheets)**

IEU Requirement	Standard	Limit	Monitoring/Compliance Method
WAC 173-400-040(2)	Opacity	20%	None
WAC 173-400-040(3)	Fallout	<sup>a</sup>	None
WAC 173-400-040(4)	Fugitive Emissions	<sup>a</sup>	None
WAC 173-400-040(5)	Odor	<sup>a</sup>	None
WAC 173-400-040(6)	Emission Detrimental to Persons or Property	<sup>a</sup>	None
WAC 173-400-040(7)	Sulfur dioxide (SO <sub>2</sub> )	1000 <sup>b</sup>	None
WAC 173-400-040(8)	Concealment and Masking	<sup>a</sup>	None

**Table 2-4. Insignificant Emission Unit Applicable Requirements. (2 sheets)**

IEU Requirement	Standard	Limit	Monitoring/Compliance Method
WAC 173-400-040(9)	Fugitive Dust	<sup>a</sup>	None

<sup>a</sup> Reasonable precautions and/or best management practices, as specified in the Hanford Site AOP

<sup>b</sup> For applicable sources; units in parts per million on a dry basis, corrected to seven percent oxygen.

Potential Hanford Site IEUs were evaluated and identified using a process developed in coordination with Ecology for the Hanford Site AOP renewal application submitted in 2005, which was an extension of the approach used in the original AOP application (DOE/RL-95-07). The following types of air emission sources were specifically excluded from this IEU evaluation and identification process:

- Emission sources listed in the current AOP or with an active NOC approval order
- Emission sources subject to federally enforceable applicable requirements
- Emission sources regulated under the *Comprehensive Environmental Response, Compensation, and Liability Act of 1980* (CERCLA), including sources and activities supporting CERCLA activities
- Emission sources regulated under the *Resource Conservation and Recovery Act of 1976* Subparts AA, Subparts BB, or Subparts CC
- Emission sources undergoing Surveillance and Maintenance activities.

The results of this process identified Hanford Site IEUs that potentially fall into five categories. The specific types and categories of IEUs are shown in Sections 2.4.1 through 2.4.5. They include:

- Fugitive emission sources subject to no applicable requirement other than generally applicable requirements of the state implementation plan, such as the general standards identified in Table 2-4. Per WAC 173-401-530(1)(d), these IEUs must be listed in the renewal application (see Section 2.4.1).
- Emission units or activities categorically exempt per WAC 173-401-532. Per WAC 173-401-530(1)(b), these IEUs do not have to be listed in the renewal application. However, they have been included for convenient reference and completeness (see Section 2.4.2).
- Emission units or activities defined as insignificant based on size and production rates in WAC 173-401-533. Per WAC 173-401-530(1)(c), these IEUs must be listed in the renewal application (see Section 2.4.3).
- Emission units or activities meeting the description of selected miscellaneous category types previously accepted by Ecology (see Section 2.4.4).

- Emission units or activities with emissions below the thresholds listed in WAC 173-401-530(4) and WAC 173-401-531. Per WAC 173-401-530(1)(a), these IEUs must be listed in the renewal application (see Section 2.4.5).

#### **2.4.1 Fugitive Source Insignificant Emission Unit Processes/Activities**

There are numerous activities on the Hanford Site that may generate fugitive air emissions. These activities are often associated with construction or facility maintenance activities. Specific locations for sources in this category are not listed since these activities involve all areas and a majority of the facilities on the Hanford Site. The activities listed below may require operation of one or more point sources of regulated criteria/hazardous air pollutants in conjunction with the categories listed below. Projects utilizing the functions or categories listed below will be evaluated on a case-by-case basis to determine applicable general requirements, new source review, and the definition of a new source.

Functions or categories associated with fugitive emissions may include, but are not limited to, the following:

- Site Preparation
  - Vegetation clearing
  - Land leveling, including preparing areas for foundations
  - Excavation (e.g., power line trenching and plumbing trench activities)
  - Dredging
  - Dust suppression activities
- Roofing
  - Carpentry
  - Concreting
  - Coating
  - Demolition and/or replacement
  - Equipment and area cleaning
  - Miscellaneous repair and/or activities
- Concreting and Paving
  - Construction of foundations, walls, floors, pads, and other structural elements
  - Construction of parking areas, roads, and other vehicular areas
- Structural Construction
  - Building framing – metal and/or wood
  - Welding and cutting torch activities
  - Interior construction and installations (e.g., walls, floors, ceilings, counters, and cabinets)
  - Installation or removal of floor coverings

- Electrical Work
  - Interior lighting and power
  - Exterior lighting and power, including excavation for wire trench
  - Installation of temporary interior and exterior lighting
  - Miscellaneous lighting and power activities
- Plumbing
  - Pipe threading
  - Welding, brazing, soldering, or cutting torch activities supporting maintenance
  - Acid etching
  - Application of protective coatings
  - Equipment and area cleaning
- Metal Working Activities
  - Cutting, grinding, finishing, welding, drilling, machining, and other maintenance activities
  - Sheet metal application and/or repair
- Agricultural and Landscaping Activities
  - Site preparation
  - Revegetation activities
  - Application of agricultural and landscaping chemicals
  - Application of surface coatings (e.g., rock, gravel, plastics, bark)
- Miscellaneous Construction Activities
  - Installation of miscellaneous systems or equipment
  - Installation and use of portable sanitation facilities
  - Equipment and area cleaning
  - Fuel trucks and fuel filling operations
- Abatement Activities
  - Lead abatement positioning/repositioning
  - Polychlorinated Biphenyl (PCB) equipment management, abatement, and relocation
  - Radiological contamination abatement
  - Chemical contamination abatement
  - Asbestos abatement methods
  - Herbicide/pesticide abatement application
- Demolition Activities

- Standard demolition practices and/or equipment

The activities listed above may be conducted in radiological and/or chemically contaminated areas and may be conducted in exhausted greenhouses. Activities conducted in contaminated areas are assessed to determine regulatory agency approvals that may be required prior to commencement or construction activities. Certain activities conducted in exhausted greenhouses may also be permitted under NOC approvals with DOH.

The activities or equipment listed above may include the use of fuels for propelling or powering equipment or the use of gasses (e.g., acetylene and oxygen for welding or cutting activities).

#### 2.4.2 Categorically Exempt Insignificant Emission Units

Table 2-5 identifies each category of exempt IEUs listed in WAC 173-401-532 and whether or not that type of emission unit or activity is present on the Hanford Site.

**Table 2-5. Washington Administrative Code 173-401-532 Categorically Exempt Insignificant Emission Units. (6 Sheets)**

IEU Description	IEU Present	
	Yes	No
(2) Mobile transport tanks on vehicles, except for those containing asphalt.	X	
(3) Lubricating oil storage tanks.	X	
(4) Storage tanks, reservoirs, and pumping and handling equipment of any size, limited to soaps, lubricants, hydraulic fluid, vegetable oil, grease, animal fat, aqueous salt solutions, or other materials and processes using appropriate lids and covers where there is no generation of objectionable odor or airborne particulate matter.	X	
(5) Pressurized storage of oxygen, nitrogen, carbon dioxide, air, or inert gases.	X	
(6) Storage of solid material, dust-free handling.	X	
(7) Vehicle exhaust from auto maintenance and repair shops.	X	
(8) Vents from continuous emissions monitors and other analyzers.	X	
(9) Vents from rooms, buildings and enclosures that contain permitted emissions units or activities from which local ventilation, controls and separate exhaust are provided.	X	
(10) Internal combustion engines for propelling or powering a vehicle.	X	
(11) Recreational fireplaces including the use of barbecues, campfires, and ceremonial fires.	X	
(12) Brazing, soldering, and welding equipment and oxygen-hydrogen cutting torches for use in cutting metal where in components of the metal do not generate HAPs or HAPs precursors.	X	
(13) Atmospheric generators used in connection with metal heat treating processes.		X
(14) Metal finishing or cleaning using tumblers.		X

**Table 2-5. Washington Administrative Code 173-401-532 Categorically Exempt Insignificant Emission Units. (6 Sheets)**

IEU Description	IEU Present	
	Yes	No
(15) Metal casting molds and molten metal crucibles that do not contain potential HAPs.		X
(16) Die casting.		X
(17) Metal or glass heat-treating, in absence of molten materials, oils, or VOCs.	X	
(18) Drop hammers or hydraulic presses for forging or metalworking.	X	
(19) Electrolytic deposition, used to deposit brass, bronze, copper, iron, tin, zinc, precious and other metals not listed as the parents of HAPs.		X
(20) Metal fume vapors from electrically heated foundry/forge operations wherein the components of the metal do not generate HAPs or HAP precursors. Electric arc furnaces are excluded from consideration for listing as insignificant.		X
(21) Metal melting and molten metal holding equipment and operations wherein the components of the metal do not generate HAPs or HAP precursors. Electric arc furnaces are not considered for listing as insignificant.		X
(22) Inspection equipment for metal products.	X	
(23) Plastic and resin curing equipment, excluding FRP.		X
(24) Extrusion equipment, metals, minerals, plastics, grain or wood.		X
(25) Presses and vacuum forming, for curing rubber and plastic products or for laminating plastics.	X	
(26) Roller mills and calendars, rubber, and plastics.		X
(27) Conveying and storage of plastic pellets.		X
(28) Plastic compression, injection, and transfer molding and extrusion, rotocasting, pultrusion, blowmolding, excluding acrylics, PVC, polystyrene and related copolymers and the use of plasticizer. Only oxygen, carbon dioxide, nitrogen, air, or inert gas allowed as blowing agents.		X
(29) Plastic pipe welding.	X	
(30) Nonmetallic mineral mines and screening plants except for crushing and associated activities that are not subject to 40 CFR Part 60, Subpart OOO. Quarrying of silica rock and associated activities are not considered for listing as insignificant.	X	
(31) Wet sand and gravel screening.	X	
(32) Wax application.	X	
(33) Plant upkeep including routine housekeeping, preparation for and painting of structures or equipment, retarring roofs, applying insulation to buildings in accordance with applicable environmental and health and safety requirements and paving or stripping parking lots.	X	

**Table 2-5. Washington Administrative Code 173-401-532 Categorically Exempt Insignificant Emission Units. (6 Sheets)**

IEU Description	IEU Present	
	Yes	No
(34) Agricultural activities on a facility's property that are not subject to registration or new source review by the permitting authority.		X
(35) Cleaning and sweeping of streets and paved surfaces.	X	
(36) Ultraviolet curing processes.		X
(37) Hot melt adhesive application with no VOCs in the adhesive formulation.	X	
(38) Laundering, dryers, extractors, tumblers for fabrics, using water solutions of bleach and/or detergents.	X	
(39) Steam cleaning operations.	X	
(40) Steam sterilizers.	X	
(41) Food preparing for human consumption including cafeterias, kitchen facilities, and barbecues located at a source for providing food service on the premises.	X	
(42) Portable drums and totes.	X	
(43) Lawn and landscaping activities.	X	
(44) Flares used to indicate danger to the public.	X	
(45) General vehicle maintenance including vehicle exhaust from repair facilities.	X	
(46) Comfort air conditioning or air cooling systems, not used to remove air contaminants from specific equipment.	X	
(47) Natural draft hoods, natural draft stacks, or natural draft ventilators for sanitary and storm drains, safety valves, and storage tanks subject to size and service limitations expressed elsewhere in this section.	X	
(48) Natural and forced air vents and stacks for bathroom/toilet facilities.	X	
(49) Office activities.	X	
(50) Personal care activities.	X	
(51) Sampling connections used exclusively to withdraw materials for laboratory analyses and testing.	X	
(52) Firefighting and similar safety equipment and equipment used to train firefighters excluding fire drill pits.	X	
(53) Materials and equipment used by, and activity related to operation of infirmary; infirmary is not the source's business activity.	X	
(54) Fuel and exhaust emissions from vehicles in parking lots.	X	

**Table 2-5. Washington Administrative Code 173-401-532 Categorically Exempt Insignificant Emission Units. (6 Sheets)**

IEU Description	IEU Present	
	Yes	No
(55) Carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, shot blasting, shot peening, sintering, or polishing: Ceramics, glass, leather, metals, plastics, rubber, concrete, paper stock, or wood provided that: (a) Activity is performed indoors (b) Particulate emission control in the immediate vicinity of the activity (c) Exhaust from the particulate control is within the building housing the activity (d) No fugitive particulate emissions enter the environment.	X	
(56) Oxygen, nitrogen, or rare gas extraction and liquefaction equipment subject to other exemption limitation, e.g., internal and external combustion equipment.		X
(57) Slaughterhouse equipment except rendering cookers.		X
(58) Ozonation equipment.		X
(59) Nonasbestos brake shoe bonding.		X
(60) Batch loading and unloading of solid phase catalysts.		X
(61) Demineralization and oxygen scavenging (deaeration) of water.	X	
(62) Pulse capacitors.		X
(63) Laser trimmers, using dust collection to prevent fugitive emissions.		X
(64) Plasma etcher, using dust collection to prevent fugitive emissions and using only oxygen, nitrogen, carbon dioxide, or inert gas.	X	
(65) Gas cabinets using only gasses that are not regulated air pollutants.	X	
(66) CO <sub>2</sub> lasers used only on metals and other materials which do not emit HAPs in the process.		X
(67) Structural changes not having air contaminant emissions.	X	
(68) Confection cooking equipment.		X
(69) Mixing, packaging, storage and handling activities of any size, limited to soaps, lubricants, vegetable oil, grease, animal fat, aqueous salt solutions.	X	
(70) Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy, e.g., blueprint activity, photocopiers, mimeograph, telefax, photographic developing, and microfiche.	X	
(71) Pharmaceutical and cosmetics packaging equipment.		X
(72) Paper trimmers/binders.	X	
(73) Sample gathering, preparation, and management.	X	
(74) Repair and maintenance activities, not involving installation of an emission unit and not increasing potential emissions of a regulated air pollutant.	X	

**Table 2-5. Washington Administrative Code 173-401-532 Categorically Exempt Insignificant Emission Units. (6 Sheets)**

IEU Description	IEU Present	
	Yes	No
(75) Handling equipment and associated activities for glass and aluminum which is destined for recycling, not the re-refining process itself.	X	
(76) Hydraulic and hydrostatic testing equipment.	X	
(77) Batteries and battery charging.	X	
(78) Porcelain and vitreous enameling equipment.		X
(79) Solid waste (as defined in the Washington Administrative Code) containers.	X	
(80) Salt baths using nonvolatile salts and not used in operations which result in air emissions.		X
(81) Shock chambers.		X
(82) Wire strippers.	X	
(83) Humidity chambers.	X	
(84) Solar simulators.		X
(85) Environmental chambers not using hazardous air pollutant (HAPs) gasses.	X	
(86) Totally enclosed conveyors.		X
(87) Steam vents and safety relief valves.	X	
(88) Air compressors, pneumatically operated equipment, systems, and hand tools.	X	
(89) Steam leaks.	X	
(90) Recovery boiler blow-down tank.	X	
(91) Salt cake mix tanks.		X
(92) Continuous digester chip feeders.		X
(93) Weak liquor and filter tanks.		X
(94) Process water and white water storage tanks.	X	
(95) Demineralizer tanks.	X	
(96) Clean condensate tanks.	X	
(97) Alum tanks.		X
(98) Broke beaters, repulpers, pulp and repulping tanks, stock chests and pulp handling.		X
(99) Lime mud filtrate tank.		X
(100) Hydrogen peroxide tanks.		X
(101) Lime mud water.		X
(102) Lime mud filter.		X

**Table 2-5. Washington Administrative Code 173-401-532 Categorically Exempt Insignificant Emission Units. (6 Sheets)**

IEU Description	IEU Present	
	Yes	No
(103) Liquor clarifiers and storage tanks and associated pumping, piping, and handling.		X
(104) Lime grits washers, filters, and handling.		X
(105) Lime silos and feed bins.		X
(106) Paper forming.		X
(107) Dryers (Yankee, after dryer, curing systems, and coolings systems).		X
(108) Vacuum systems exhausts.	X	
(109) Starch cooking.		X
(110) Stock cleaning and pressurized pulp washing.		X
(111) Winders.		X
(112) Chipping.		X
(113) Debarking.		X
(114) Sludge dewatering and handling.	X	
(115) Screw press vents.		X
(116) Pond dredging.		X
(117) Polymer tanks and storage devices and associated pumping and handling equipment, used for solids dewatering and flocculation.		X
(118) Non-PCB oil filled circuit breakers, oil filled transformers and other equipment that is analogous to, but not considered to be, a tank.	X	
(119) Electric or steam-heated drying ovens and autoclaves.	X	
(120) Sewer manholes, junction boxes, sumps, and lift stations associated with wastewater treatment systems.	X	
(121) Water cooling towers processing exclusively noncontact cooling water.		X

### 2.4.3 Insignificant Emission Units Based on Size and Production Rates

Table 2-6 identifies each IEU size and production rate listed in WAC 173-401-533(2) and whether or not that type of emission unit or activity is present on the Hanford Site.

**Table 2-6. Insignificant Emission Units Based on Washington Administrative Code 173-401-533(2) Size and Production Rates. (2 Sheets)**

IEU Description	IEU Present	
	Yes	No
(a) Operation, loading, and unloading of storage tanks and storage vessels with lids or other appropriate closure and less than two hundred sixty gallon capacity (35 cft), heated only to the minimum extent to avoid solidification if necessary.	X	
(b) Operation, loading and unloading of storage tanks, not greater than one thousand one hundred gallon capacity, with lids or other appropriate closure, not for use with hazardous air pollutants (HAPs), maximum (max.) vp 550mm Hg.	X	
(c) Operation, loading, and unloading of VOC storage tanks (including gasoline storage tanks), ten thousand gallons capacity or less, with lids or other appropriate closure, vp not greater than 80mm Hg at 21°C.	X	
(d) Operation, loading, and unloading storage of butane, propane, or liquefied petroleum gas (LPG), storage tanks, vessel capacity under forty thousand gallons.	X	
(e) Combustion source less than five million Btu/hr. exclusively using natural gas, butane, propane, and/or LPG.	X	
(f) Combustion source, less than five hundred thousand Btu/hr., using any commercial fuel containing less than 0.4% by weight sulfur for coal or less than 1% by weight sulfur for other fuels.	X	
(g) Combustion source, of less than one million Btu/hr. if using kerosene, No. 1, or No. 2 fuel oil.	X	
(h) Combustion source, not greater than five hundred thousand Btu/hr. if burning used oil and not greater than four hundred thousand Btu/hr. if burning waste, wood, or waste paper.		X
(i) Welding using not more than one ton per day of welding rod.	X	
(j) Foundry sand molds, unheated and using binders with less than 0.25% free phenol by sand weight.		X
(k) "Parylene" coaters using less than five hundred gallons of coating per year.		X
(l) Printing and silk screening, using less than two gallon/day of any combination of the following: Inks, coatings, adhesives, fountain solutions, thinners, retarders, or nonaqueous cleaning solutions.	X	
(m) Water cooling towers and ponds, not using chromium-based corrosion inhibitors, not used with barometric jets or condensers, not greater than ten thousand gpm, not in direct contact with gaseous or liquid process streams containing regulated air pollutants.		X
(n) Combustion turbines, of less than 500 HP.		X
(o) Batch solvent distillation, not greater than fifty-five gallons batch capacity.	X	

**Table 2-6. Insignificant Emission Units Based on Washington Administrative Code 173-401-533(2) Size and Production Rates. (2 Sheets)**

IEU Description	IEU Present	
	Yes	No
(p) Municipal and industrial water chlorination facilities of not greater than twenty million gallons per day capacity. The exemption does not apply to waste water treatment.	X	
(q) Surface coating, using less than two gallons per day.	X	
(r) Space heaters and hot water heaters using natural gas, propane, or kerosene and generating less than five million Btu/hr.	X	
(s) Tanks, vessels, and pumping equipment, with lids or other appropriate closure for storage or dispensing of aqueous solutions of inorganic salts, bases, and acids excluding: (i) 99% or greater H <sub>2</sub> SO <sub>4</sub> or H <sub>3</sub> PO <sub>4</sub> (ii) 70% or greater HNO <sub>3</sub> (iii) 30% or greater HCl (iv) More than one liquid phase where the top phase is more than one percent VOCs	X	
(t) Equipment used exclusively to pump, load, unload, or store high boiling organic material, material with initial boiling point (IBP) not less than 150°C or vapor pressure (vp) not more than 5mm Hg at 21°C with lids or other appropriate closure.		X
(u) Smokehouses under twenty square feet.		X
(v) Milling and grinding activities, using paste-form compounds with less than one percent VOCs.	X	
(w) Rolling, forging, drawing, stamping, shearing, or spinning hot or cold metals.	X	
(x) Dip-coating operations, using materials with less than one percent VOCs.		X
(y) Surface coating, aqueous solution, or suspension containing less than one percent VOCs.	X	
(z) Cleaning and stripping activities and equipment, using solutions having less than one percent VOCs by weight. On metallic substrates, acid solutions are not considered for listing as insignificant.	X	
(aa) Storage and handling of water based lubricants for metal working where the organic content of the lubricant is less than ten percent.	X	
(bb) Municipal and industrial waste water chlorination facilities of not greater than one million gallons per day capacity.		X

#### 2.4.4 Selected Miscellaneous Insignificant Emission Unit Category Types

Table 2-7 identifies each category of miscellaneous emission units and activities previously accepted by Ecology as IEUs and whether or not they are present on the Hanford Site.

**Table 2-7. Miscellaneous Emission Units and Activities. (2 sheets)**

IEU Description	IEU Present	
	Yes	No
Chemical or physical analytical laboratory operations or equipment including fume hoods and vacuum pumps regulated as insignificant per WAC 173-401-533(3)(c): <i>WAC 173-401-533(3)(c), Chemical or physical analytical laboratory operations or equipment including fume hoods and vacuum pumps.</i>	X	
Insecticide, pesticide, or fertilizer spray or broadcast equipment.	X	
Internal combustion engines less than the affected source size threshold for 40 CFR Part 63 Subpart ZZZZ, including attached fuel tanks.	X	
Laboratory testing and quality assurance/control testing equipment used exclusively for chemical or physical analysis, teaching, or experimentation, including nonproduction bench scale research equipment.	X	
Storage tanks: (A) That do not store substances capable of emitting air contaminants; or (B) With a rated capacity of 1,000 gallons (3,780 liters) or less used for storage of gasoline or diesel fuel; or (C) With a rated capacity of less than 10,000 gallons (38,000 liters) used for storage of volatile organic compounds; or (D) With a rated capacity of less than 40,000 gallon (150,000 liters) used for storage of VOCs with a true vapor pressure less than 0.01kPa (0.002 psia).	X	
Petroleum liquid storage tanks not regulated under 40 CFR Part 60, Subpart K, Ka, or Kb.	X	
Wipe Solvent Cleaning.	X	
Equipment maintenance and repair, including off-road equipment.	X	
Instrument functional checks/calibration, maintenance, and repair; including the use of alcohol, gases, or other solvents and fluids.	X	
Groundwater remediation operations.	X	
Solvent cleaning of non-motor vehicle parts.	X	
Small industrial vacuum systems that vent outside.	X	
Miscellaneous abrasive blast units not requiring an Order of Approval.	X	
Liquid storage and transfer operations not requiring an NOC.	X	
Firearm training, maintenance, and cleaning.	X	
Hazardous waste worker training and training equipment.	X	

**Table 2-7. Miscellaneous Emission Units and Activities. (2 sheets)**

IEU Description	IEU Present	
	Yes	No
Any source emitting minimal amounts of criteria/hazardous air pollutants, but determined through evaluation not to trigger new source review applicability or portable/temporary notification pursuant to WAC 173-400-110, WAC 173-460-090, or WAC 173-400-035, respectively.	X	

#### 2.4.5 Insignificant Emission Units Below Emission Thresholds

No additional Hanford Site IEUs with emissions below the threshold levels of WAC 173-401-530(4) and WAC 173-401-531 were identified. IEUs which likely have emissions below the referenced thresholds were determined to fit into at least one of the IEU categories in Sections 2.4.1 through 2.4.4.

### 2.5 DIFFUSE AND FUGITIVE RADIOACTIVE EMISSION SOURCES

Fugitive emissions are defined in WAC 246-247 as "...radioactive air emissions which do not and could not reasonably pass through a stack, vent, or other functionally equivalent structure, and which are not feasible to directly measure and quantify." Diffuse emissions are not literally defined in WAC 246-247 but could be classified as similar to emissions from nonpoint sources. The term "nonpoint source" is defined in WAC 246-247 as "...a location at which radioactive air emissions originate from an area, such as contaminated ground above a near-surface waste disposal unit..." Diffuse and fugitive sources include radioactive emission sources that are not actively ventilated or are not routinely sampled at the source. Monitoring requirements for diffuse and fugitive sources are satisfied by the Hanford Site near-facility monitoring network.

The Hanford Site contains numerous types of sources of diffuse and fugitive emissions. These emission source types include, but are not limited to, buildings and structures without filtered ventilation systems and registered stacks, outdoor sites with dispersible radioactive material, passively ventilated tank systems, vented containers, and waste handling and disposal facilities such as cribs, ponds, ditches, trenches, retention basins valve pits, tanks diversion boxes, and burial grounds.

Consistent with the approach documented as part of the previous Hanford Site FF-01 license renewal process, updated information on diffuse and fugitive emission sources is being provided as part of this renewal application in support of the FF-01 license renewal process.

Table 2-8 provides an update of the list of the diffuse and fugitive sources maintained in Enclosure 2, Table 2-1 of the current Hanford Site FF-01 license. The identified changes are shown in redline/strikeout format, and include the deletion of emissions units that are regulated under CERCLA, as well as some editorial corrections.

**Table 2-8. Diffuse or Fugitive Radioactive Air Emission Sources at the Hanford Site. (4 Sheets)**

169	P-241ER153-001	170	P-241ER152-001	404	P-296B002-001
<del>424</del>	<del>P-340BBLDG-001<sup>a</sup></del>	<del>477</del>	<del>J-241ER152-001<sup>b</sup></del>	808	V10-11-1
<del>809</del>	<del>216A-2-2<sup>b</sup></del>	818	State Approved Land Disposal Structure Pipeline 1	819	State Approved Land Disposal Structure Pipeline 2
820	State Approved Land Disposal Structure Pipeline 3	821	State Approved Land Disposal Structure Pipeline 4	822	State Approved Land Disposal Structure Pipeline 5
823	State Approved Land Disposal Structure Pipeline 6	824	State Approved Land Disposal Structure Pipeline 7	825	State Approved Land Disposal Structure Pipeline 8
826	State Approved Land Disposal Structure Pipeline 9	827	State Approved Land Disposal Structure Pipeline 10	828	State Approved Land Disposal Structure Pipeline 11
829	State Approved Land Disposal Structure Pipeline 12	830	State Approved Land Disposal Structure Pipeline 13	832	WESF LLW Floor Drain Vent (Central)
833	WESF LLW Floor Drain Vent (Southeast)	841	291-B-1	887	J-244ER152-002
895	200-E-44	896	200-E-53 <sup>c</sup>	897	200-E-117
898	200-E-118	900	200-E-121	901	200-E-125
902	207-B	903	207-A-SOUTH	904	216-A-24
906	216-B-3	907	218-E-10	908	218-E-12A
909	218-E-12B	911	241-A-302A	913	P-241ER151-001
914	P-241AX155-001	915	P-241AR151-001	916	241-A
917	241-AN	918	241-AP	919	241-AW
920	241-AX	921	241-AY	923	241-AZ
924	241-B	925	241-BX-154	926	241-BX
927	241-EW-151	928	244-AR Vault	929	UPR-200-E-18
930	UPR-200-E-100	931	UPR-200-E-112	932	241-C
933	UPR-200-E-78	934	UPR-200-E-84	935	UPR-600-20
936	200-W-54	937	200-W-81	938	200-W-82
939	200-W-83	940	200-W-84	941	200-W-92
942	200-W-106	943	207-U	944	216-T-4b
945	218-W-3A	946	218-W-3AE	947	218-W-4B

**Table 2-8. Diffuse or Fugitive Radioactive Air Emission Sources at the Hanford Site. (4 Sheets)**

948	218-W-4C	949	231-W-151	950	241-S
951	241-SX	952	241-SY	953	241-T
954	241-TX	955	241-TX-154	956	241-TX-155
957	241-TY	958	241-U	960	241-U-151
961	241-U-152	962	242-T-135	963	291-S
<del>964</del>	<del>291 U</del> <sup>a</sup>	<del>965</del>	<del>600-148</del> <sup>a</sup>	966	UPR-200-W-38
967	UPR-20-W-65;UPR-200-W73	968	UPR-200-W-82	970	UPR-200-W-113
971	UPR-200-E-83	972	UPR-200-N-1	973	116-K-3
978	2025EC71	979	203A	980	204A
981	206A	982	207BA	983	207S
984	207SL	985	210A	986	210E
987	211A	988	211B	989	211BA
990	211BA151	991	211BB	992	211S
993	211T	994	211T52	995	212A
996	212B	<del>997</del>	<del>212N</del> <sup>a</sup>	<del>998</del>	<del>212P</del> <sup>a</sup>
<del>999</del>	<del>212R</del> <sup>a</sup>	1000	213A	1001	214T
1002	215C	1003	216A	1004	216A29A
1005	216A524	1006	216E28A	1007	216E28B
1008	216E28C	1009	216ZP1	<del>1010</del>	<del>216ZP1A</del> <sup>a</sup>
1011	216ZP1B	1012	216ZP1C	1013	217B
1014	218B	1015	218E14	1016	218E15
1017	218E7	1018	221A	1019	221BA
1020	221BB	1021	221BC	1022	221BD
1023	221BF	1024	221BG	1025	221BK
1026	221TA	1027	<del>211TB</del> 221TB <sup>c</sup>	1028	222B
1029	222T	<del>1030</del>	<del>224U</del> <sup>a</sup>	1035	225EC
1036	225W	<del>1037</del>	<del>225WA</del> <sup>a</sup>	1038	231Z
1039	241B361	1040	241WR	1041	2420W
1042	242AL11	1043	242B	1044	242BL
1045	252AB	1046	252AC	1047	2706T

**Table 2-8. Diffuse or Fugitive Radioactive Air Emission Sources at the Hanford Site. (4 Sheets)**

1048	2706TA	1049	2706TB	<del>1050</del> 2710S <sup>a</sup>	
1051	2711A	<del>1052</del> 2711B <sup>a</sup>		<del>1053</del> 2711S <sup>a</sup>	
<del>1054</del> 2712A <sup>a</sup>		1055	2713W	<del>1056</del> 2714A <sup>a</sup>	
1057	2715B	1058	2716B	1059	2716T
1060	2718S	1061	271B	1062	271BA
1063	271T	<del>1064</del> 271U <sup>a</sup>		<del>1065</del> 2727W <sup>a</sup>	
1066	272B	1067	272BA	1068	272BB
<del>1069</del> 275EA <sup>a</sup>		1070	276B	1071	276C
1072	276S	1073	276S141	1074	276S142
<del>1075</del> 276U <sup>a</sup>		<del>1076</del> 281A <sup>a</sup>		<del>1077</del> 2901A <sup>a</sup>	
1078	2904S160	1079	2904S170	1080	2904S171
1081	2904S172	<del>1082</del> 2904SA <sup>a</sup>		1083	291A
1084	291AA	1085	291AB	1086	291AC
1087	291AD	1088	291AE	1089	291AF
<del>1090</del> 291AG <sup>a</sup>		1091	291AH	<del>1092</del> 291AJ <sup>a</sup>	
1093	291AK	1094	291B	1095	291BA
1096	291BB	1097	291BC	1098	291BD
1099	291BF	1100	291BG	1101	291BH
1102	291BJ	1103	291BK	1104	292AA
1105	292AB	1106	292B	1107	292S
1108	292T	<del>1109</del> 292U <sup>a</sup>		1110	293A
1111	293S	1112	294A	1113	294B
1114	295A	1115	295AA	1116	295AB
1117	295AC	1118	295AD	<del>1119</del> 295AE <sup>a</sup>	
1120	296S012	1121	<del>307</del> 300-214 <sup>c</sup>	1122	403
1123	4713C	1124	4717	1125	<del>Alkali Metal</del> 1218 – HS Units at WRAP <sup>c</sup>
1136	241-BY	1137	241-A-401	1138	241-A-431
1140	241-AP-271	1141	241-BY-254	1142	241-BY-301
1143	241-BY-302	1144	241-CX-70	1145	241-CX-71
1146	241-CX-72	1147	242-A-702	1148	243-G-8

**Table 2-8. Diffuse or Fugitive Radioactive Air Emission Sources at the Hanford Site. (4 Sheets)**

1149	2707-AR	1150	2714-S	1151	271-CR
1152	292-AR				

<sup>a</sup>Transitioned to CERCLA<sup>b</sup>Duplicate Listing<sup>c</sup>Administrative Changes

## 2.6 FF-01 LICENSE RENEWAL APPLICATION REQUIREMENTS FOR RADIOACTIVE AIR EMISSION SOURCES

### 2.6.1 Summary of Emission Unit and Operational Status Information

Table 2-9 provides a list of emission units listed in the latest version (12/17/2010) of the FF-01 license, along with a summary of changes and updates to each individual emission unit license. Closure reports or CERCLA notices of transition have been (or will be) submitted for those emission units identified as needing to be deleted from the FF-01 license. In addition, where Table 2-9 indicates the need to delete specified NOCs, the Hanford Site requests that those NOCs be closed-out as part of the FF-01 license renewal process.

All changes and updates to individual emission unit license pages, including operational status summaries and emission unit specific information, various clarifications and language corrections to reflect operational experience gained during the current license term, and previous guidance/interpretation provided by DOH staff are included in Appendix A, "Summary of Emission Unit and Operational Status Information," in redline/strikeout format.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

Emission Unit ID		Changes/Updates to Individual Emission Unit Pages
0001	200E P-241C111-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0050	200 W-296P045-001	Abatement Technology, Monitoring Requirements, Sampling Requirements, and Operational Status sections contain revised information.
0053	200W P-296P022-001	Monitoring Requirements and Operational Status sections contain revised information.
<del>0054</del>	<del>200W P-296P028-001</del>	Delete this closed Emission Unit from the FF-01.
0056	200W P-296SY-001	Monitoring Requirements and Operational Status sections contain revised information.
0057	200 W-296P043-001	Monitoring Requirements, Sampling Requirements, and Operational Status sections contain revised information. Delete and close out NOCs 694 and 788.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

Emission Unit ID	Changes/Updates to Individual Emission Unit Pages
0058      200 W-296P044-001	Monitoring Requirements, Sampling Requirements, and Operational Status sections contain revised information. Delete and close out NOC 694.
0059      200W S-296S025-001	Monitoring Requirements and Operational Status sections contain revised information.
0062      600 S-6266-001	Emission Unit Information section contains revised information.
0063      600 S-6266-002	Emission Unit Information section contains revised information.
0065      200W P-241T105-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0066      200W P-241T106-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0067      200W P-241T109-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0068      200W P-241T102-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0069      200W P-241T107-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0070      200W P-241T111-001	Emission Unit Information, Monitoring Requirements and Additional Requirements sections contain revised information.
0071      200W P-241T104-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0072      200W P-241T112-001	Emission Unit Information, Monitoring Requirements and Additional Requirements sections contain revised information.
0073      200W P-241T108-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0074      200W P-241T203-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0075      200W P-241T204-001	Emission Unit Information, Monitoring Requirements and Additional Requirements sections contain revised information.
0076      200W P-241T110-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0077      200W P-241T202-001	Monitoring Requirements and Additional Requirements sections contain revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

<b>Emission Unit ID</b>		<b>Changes/Updates to Individual Emission Unit Pages</b>
0078	200W P-241T103-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0079	200W P-241T101-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0080	200W P-241T201-001	Emission Unit Information, Monitoring Requirements and Additional Requirements sections contain revised information.
0081	200W P-241TY106-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0082	200W P-241TY102-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0083	200W P-241TY105-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0084	200W P-241TY104-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0085	200W P-241TY103-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0086	200W P-241TY101-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0087	200E P-241A103-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0088	200E P-241A104-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0090	200E P-241A102-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0091	200E P-241A105-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0092	200E P-241A101-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0093	200E P-296A042-001	Abatement Technology, Monitoring Requirements and Operational Status sections contain revised information.
0094	200E P-241A106-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0096	200E P-204AR-001	Monitoring Requirements, Sampling Requirements and Operational Status sections contain revised information.
0097	200W P-241U103-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

<b>Emission Unit ID</b>		<b>Changes/Updates to Individual Emission Unit Pages</b>
0098	200W P-241U108-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0099	200W P-241U107-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0100	200W P-241U203-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0101	200W P-241U102-001	Emission Unit Information, Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0102	200W P-241U201-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0103	200W P-241U101-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0104	200W P-241U204-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0105	200W P-241U109-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0106	200W P-241U202-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0107	200W P-241U111-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0108	200W P-241U112-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0109	200W P-241U104-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0110	200W P-241U110-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

<b>Emission Unit ID</b>		<b>Changes/Updates to Individual Emission Unit Pages</b>
0111	200W P-241U106-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0112	200W P-241U105-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0113	200W P-241TX117-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0114	200W P-241TX107-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0115	200W P-241TX112-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0116	200W P-241TX105-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0117	200W P-241TX113-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0118	200W P-241TX104-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0119	200W P-241TX114-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0120	200W P-241TX103-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0121	200W P-241TX110-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0122	200W P-241TX116-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0123	200W P-241TX108-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

<b>Emission Unit ID</b>		<b>Changes/Updates to Individual Emission Unit Pages</b>
0124	200W P-241TX102-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0125	200W P-241TX115-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0126	200W P-241TX106-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0127	200W P-241TX101-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0128	200W P-241TX109-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0129	200W P-241TX118-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0130	200W P-241TX111-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0131	200W P-241S104-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0132	200W P-241S101-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0133	200W P-241S103-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0134	200W P-241S102-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information. Delete and close out NOC 694.
0135	200W P-241S108-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0136	200W P-241S109-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

Emission Unit ID		Changes/Updates to Individual Emission Unit Pages
0137	200W P-241S105-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0138	200W P-241S110-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0139	200W P-241S106-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0140	200W P-241S107-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0141	200E P-242A-001	Emission Unit Information and Monitoring Requirements sections contain revised information.
0142	200E P-242A-002	Emission Unit Information and Monitoring Requirements sections contain revised information.
0146	200E P-242AL44-001	Emission Unit Information section contains revised information.
0147	200E P-242AL43-001	Emission Unit Information section contains revised information.
0148	200E P-242AL42-001	Emission Unit Information section contains revised information.
<del>0150</del>	<del>200E P-296AW-001</del>	Delete this closed Emission Unit from the FF-01.
0156	200E P-296A028-001	Emission Unit Information, Monitoring Requirements and Operational Status sections contain revised information.
0163	200W P-242S-001	Monitoring Requirements section contains revised information.
<del>0168</del>	<del>100K R-1706KE-001</del>	Delete this CERCLA Emission Unit from the FF-01.
0174	200E P-296A020-001	Monitoring Requirements and Operational Status sections contain revised information.
0175	300 EP-318-01-S	Emission Unit Information and Operational Status sections contain revised information.
0193	200W P-296W004 001	No Changes
0200	200W P-241SX115-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0201	200W P-241SX113-001	Monitoring Requirements and Additional Requirements sections contain revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

Emission Unit ID		Changes/Updates to Individual Emission Unit Pages
0202	200W P-241S111-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0203	200W P-241S-001	Monitoring Requirements and Additional Requirements sections contain revised information. Delete and close out NOC 788.
0204	200E P-296AP-001	Emission Unit Information and Monitoring Requirements sections contain revised information.
0205	200E P-296A041-001	Emission Unit Information, Monitoring Requirements and Operational Status sections contain revised information.
0210	200E P-296P031-001	Emission Unit Information and Abatement Technology sections contain revised information.
0216	200E P-296A043-001	Abatement Technology and Monitoring Requirements sections contain revised information.
0217	200E P-296A018-001	Abatement Technology, Monitoring Requirements and Operational Status sections contain revised information.
0218	200E P-296A019-001	Abatement Technology, Monitoring Requirements and Operational Status sections contain revised information.
0227	200E P-296AN-001	Monitoring Requirements and Operational Status sections contain revised information.
0228	200E P-296A030-001	Abatement Technology, Monitoring Requirements and Operational Status sections contain revised information.
0230	200E P-241C107-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0231	200E P-241C108-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0232	200E P-241C112-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0233	200E P-241C201-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0235	200E P-241C204-001	Monitoring Requirements and Additional Requirements sections contain revised information.
<del>0236</del>	<del>200E C 106 Sluicing</del>	Delete this closed Emission Unit from the FF-01.
0237	200E P-241C102-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0242	200E P-241C203-001	Monitoring Requirements and Additional Requirements sections contain revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

<b>Emission Unit ID</b>		<b>Changes/Updates to Individual Emission Unit Pages</b>
0244	200E P-241C110-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0245	200E P-241C109-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0246	200E P-241C202-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0247	200E P-241C101-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0254	200W S-296S021-001	Monitoring Requirements section contains revised information.
0255	200E P-241BX104-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0256	200E P-241BX110-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0257	200E P-241BX103-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0258	200E P-241BX107-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0259	200E P-241BX101-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0260	200E P-241BX112-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0261	200E P-241BX106-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0262	200E P-241BX102-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0263	200E P-241BX109-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

<b>Emission Unit ID</b>		<b>Changes/Updates to Individual Emission Unit Pages</b>
0264	200E P-241BX111-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0265	200E P-241BX108-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0266	200E P-241B105-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0267	200E P-241B201-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0268	200E P-241B108-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0269	200E P-241B101-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0270	200E P-241B102-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0271	200E P-241B204-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0272	200E P-241B104-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0273	200E P-241BX105-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0274	200E P-241B112-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0275	200E P-241B107-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0276	200E P-241B111-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

<b>Emission Unit ID</b>		<b>Changes/Updates to Individual Emission Unit Pages</b>
0277	200E P-241B109-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0278	200E P-241B110-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0279	200E P-241B103-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0280	200E P-241B202-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0281	200E P-241B106-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0282	200E P-241B203-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0283	200E P-241BY101-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0284	200E P-241BY105-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0285	200E P-241BY106-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0286	200E P-241BY102-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0287	200E P-241BY112-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0288	200E P-241BY103-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0289	200E P-241BY104-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

Emission Unit ID		Changes/Updates to Individual Emission Unit Pages
0290	200E P-241BY109-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0291	200E P-241BY108-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0292	200E P-241BY111-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0293	200E P-241BY110-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0294	200E P-241BY107-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0301	200E P-2025E ETF	Emission Unit Information section contains revised information.
0302	200E P-241AX104-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0303	200E P-241AX102-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0304	200E P-241AX103-001	Monitoring Requirements and Additional Requirements sections contain revised information.
0305	200E P-241AX101-001	Monitoring Requirements and Additional Requirements sections contain revised information.
<del>0308</del>	<del>200W P-213W-001</del>	Delete this closed Emission Unit from the FF-01.
0314	200W P-291T001-001	No Changes
0315	200W P-296T007-001	No Changes
0332	200W P-291S001-001	Emission Unit Information section contains revised information.
0337	200W P-296S016-001	Monitoring Requirements section contains revised information.
0340	200E P-296B010-001	No Changes
<del>0355</del>	<del>300 EP-320-02-S</del>	Delete this CERCLA Emission Unit from the FF-01.
<del>0357</del>	<del>300 EP-320-04-S</del>	Delete this CERCLA Emission Unit from the FF-01.
<del>0358</del>	<del>300 EP-320-01-S</del>	Delete this CERCLA Emission Unit from the FF-01.
0361	300 EP-325-01-S	Emission Unit Information, Abatement Technology and Monitoring Requirements sections contain revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

Emission Unit ID		Changes/Updates to Individual Emission Unit Pages
<del>0362</del>	<del>300 EP 326 01 S</del>	Delete this CERCLA Emission Unit from the FF-01. Delete and close out NOC 677.
<del>0366</del>	<del>300 EP 329 01 S</del>	Delete this CERCLA Emission Unit from the FF-01. Delete and close out NOC 701.
0369	200E P-291A001-001	Emission Unit Information section contains revised information.
0384	200E P-296A010-001	No Changes
0385	400 P-437MN&ST-001	Operational Status section contains revised information.
0395	400 P-FFTFRESB-001	Monitoring Requirements and Operational Status sections contain revised information.
0396	400 P-FFTFHTTR-001	Monitoring Requirements and Operational Status sections contain revised information.
0397	400 P-FFTFCEBEX-001	Operational Status section contains revised information.
0398	400 Sodium Storage Facility	Abatement Technology and Operational Status sections contain revised information.
0399	400 P-437-002	Operational Status section contains revised information.
0402	200E P-296B001-001	No Changes
0412	300 EP-331-01-V	Emission Unit Information, Abatement Technology and Operational Status sections contain revised information.
<del>0422</del>	<del>300 P 340DECON 001</del>	Delete this CERCLA Emission Unit from the FF-01.
<del>0423</del>	<del>300 P 340NTEX 001</del>	Delete this CERCLA Emission Unit from the FF-01. Delete and close out NOC 704.
0435	200E P-296H212 001	No Changes
0436	100K P-296K142 001	No Changes
0438	200W S-296S023-001	No Changes
0439	200W J-CWC 001	Abatement Technology section contains revised information.
0443	300 Area Emissions	No Changes
0447	Hanford Sitewide type-1, type-2, type-3	Sampling Requirements section contains revised information.
0448	Hanford Sitewide Vented Containers	Abatement Technology section contains revised information.
0454	200 Area ISA	Abatement Technology section contains revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

Emission Unit ID		Changes/Updates to Individual Emission Unit Pages
0455	Hanford Sitewide W-PORTEX 007	No Changes
0461	200 W-PORTEX 011	Abatement Technology section contains revised information.
0465	200 J-NONPOINT 012	Abatement Technology section contains revised information. Delete and close out NOC 747.
0472	200W P-Trench31 001	Abatement Technology and Operational Status sections contain revised information.
0473	200W P-Trench34 001	Abatement Technology and Operational Status sections contain revised information.
0476	Hanford Sitewide Guzzler-001	No Changes
0486	200 Area Diffuse/Fugitive	Monitoring Requirements section contains revised information. Delete and close out NOCs 655, 694, 698, 705, and 788.
0498	200 W-296P047-001	Monitoring Requirements and Sampling Requirements sections contain revised information. Delete and close out NOC 683.
0504	600 J NONPOINT SOURCE	No Changes
<del>0539</del>	<del>200 P Vadose-002</del>	Delete this closed Emission Unit from the FF-01. Delete and close out NOC 785.
<del>0541</del>	<del>200 P Vadose-003</del>	Delete this closed Emission Unit from the FF-01. Delete and close out NOC 785.
0689	100K 100 Area Diffuse/Fugitive	No Changes
0712	200E P-241C106-0041	Header Information, Abatement Technology, Monitoring Requirements and Additional Requirements sections contain revised information.
0713	200E P-244CR-002	Abatement Technology, Monitoring Requirements and Additional Requirements sections contain revised information.
0714	200E P-244CR-003	Emission Unit Information, Abatement Technology and Operational Status sections contain revised information.
0716	200E P-241C104-0021	Header Information, Abatement Technology, Monitoring Requirements and Additional Requirements sections contain revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

Emission Unit ID		Changes/Updates to Individual Emission Unit Pages
0717	200E P-241C105-0031	Header Information, Abatement Technology, Monitoring Requirements and Additional Requirements sections contain revised information.
0735	200E P-296A044-001	Monitoring Requirements and Sampling Requirements sections contain revised information.
0736	200E P-296A045-001	Monitoring Requirements and Sampling Requirements sections contain revised information.
0737	200E P-241C103-001	Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0738	200E P-244A-002	Abatement Technology, Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0740	200E P-244BX-002	Abatement Technology, Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0742	200W P-244S-002	Abatement Technology, Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0744	200W P-244TX-002	Abatement Technology, Monitoring Requirements, Sampling Requirements and Additional Requirements sections contain revised information.
0749	200 W-296P048-001	Monitoring Requirements and Sampling Requirements sections contain revised information. Delete and close out NOC 698.
0751	200E P-241AZ301-001	Emission Unit Information, Abatement Technology and Additional Requirements sections contain revised information.
0755	200W DVS - Active	No Changes
0756	200W DVS - Passive	No Changes
0855	200E P-296A046-001	Emission Unit Information, Monitoring Requirements and Sampling Requirements sections contain revised information.
0856	200E P-296A047-001	Emission Unit Information, Monitoring Requirements and Sampling Requirements sections contain revised information.
<del>0874</del>	<del>200W Concrete Containers</del>	Delete this CERCLA Emission Unit from the FF-01. Delete and close out NOC 655.
0878	200W P-BULKVIT-001	Delete and close out NOC 705.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

Emission Unit ID		Changes/Updates to Individual Emission Unit Pages
0885	200 W-296P049-001	Monitoring Requirements, Sampling Requirements and Operational Status sections contain revised information.
0886	200 W-296P050-001	Monitoring Requirements, Sampling Requirements and Operational Status sections contain revised information.
0888	Hanford Sitewide-Tanker Loading of Contaminated Waste Water	No Changes
<del>0891</del>	<del>100K Diffuse/Fugitive</del>	Delete this closed Emission Unit from the FF-01. Redundant with EU 0689. Delete and close out NOC 742.
0894	200W P-241UX302A-001	Abatement Technology, Monitoring Requirements and Additional Requirements sections contain revised information.
0910	200 E P-241ER311-001	Abatement Technology, Monitoring Requirements and Additional Requirements sections contain revised information.
0912	200E P-244A-003	Abatement Technology, Monitoring Requirements and Additional Requirements sections contain revised information.
0922	200E P-244BX-003	Abatement Technology, Monitoring Requirements and Additional Requirements sections contain revised information.
0959	200W P-244S-003	Abatement Technology, Monitoring Requirements and Additional Requirements sections contain revised information.
0969	200W P-244TX-003	Abatement Technology, Monitoring Requirements and Additional Requirements sections contain revised information.
1128	400 Area Diffuse/Fugitive	No Changes
1129	200W P-241U301B-001	Abatement Technology, Monitoring Requirements and Additional Requirements sections contain revised information.
1130	200E P-241AZ154-001	Abatement Technology, Monitoring Requirements and Additional Requirements sections contain revised information.
<del>1176</del>	<del>FFTF PTRAEU's</del>	Delete this closed Emission Unit from the FF-01. Delete and close out NOC 776.
1181	Categorical Drum Venting System 2	No Changes

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

Emission Unit ID		Changes/Updates to Individual Emission Unit Pages
1183	200W S-MO444-001	No Changes
1185	361 Building	Monitoring Requirements and Operational Status sections contain revised information.
1186	Decon Trailer (intermittent powered Exhaust)	No Changes
1187	Decon Trailer (Collection Tank Vents)	Abatement Technology section contains revised information.
1207	200W P-241SX107-001	Monitoring Requirements and Additional Requirements sections contain revised information.
1208	200W P-241SX108-001	Monitoring Requirements and Additional Requirements sections contain revised information.
1209	200W P-241SX109-001	Monitoring Requirements and Additional Requirements sections contain revised information.
1210	200W P-241SX110-001	Monitoring Requirements and Additional Requirements sections contain revised information.
1211	200W P-241SX111-001	Monitoring Requirements and Additional Requirements sections contain revised information.
1212	200W P-241SX112-001	Monitoring Requirements and Additional Requirements sections contain revised information.
1213	200W P-241SX114-001	Monitoring Requirements and Additional Requirements sections contain revised information.
1219	200W P-241SX101-001	Monitoring Requirements and Additional Requirements sections contain revised information.
1220	200W P-241SX102-001	Monitoring Requirements and Additional Requirements sections contain revised information.
1221	200W P-241SX103-001	Monitoring Requirements and Additional Requirements sections contain revised information.
1222	200W P-241SX104-001	Monitoring Requirements and Additional Requirements sections contain revised information.
1223	200W P-241SX105-001	Monitoring Requirements and Additional Requirements sections contain revised information.
1224	200W P-241SX106-001	Monitoring Requirements and Additional Requirements sections contain revised information.
1227	200W P-241S304-001	Monitoring Requirements, Additional Requirements and Operational Status sections contain revised information.
<del>1228</del>	<del>600 P-6241V-001</del>	Delete this closed Emission Unit from the FF-01.
1229	200E P-241A417-001	Monitoring Requirements, Additional Requirements and Operational Status sections contain revised information.

**Table 2-9. Status of Emission Units Included in the FF-01 License. (18 Sheets)**

Emission Unit ID		Changes/Updates to Individual Emission Unit Pages
<del>1230</del>	<del>600 P-6241A-001</del>	Delete this closed Emission Unit from the FF-01.
1231	200 P-241EW151-001	Header Information, Monitoring Requirements, Additional Requirements and Operational Status sections contain revised information.
1232	200W P-241S302-001	Abatement Technology and Additional Requirements section contains revised information.
1243	200 W-TRUDECON-001	No Changes
1244	200 W-TRUDECON-002	Abatement Technology section contains revised information.
<del>1249</del>	<del>200W P-241S102-002</del>	Delete this closed Emission Unit from the FF-01.
1250	600 J-Hammer-001	No Changes
1289	Decon Trailer 200 East (Int. Powered Exhaust)	Abatement Technology section contains revised information.
1290	Decon Trailer 200 West (Int. Powered exhaust)	Abatement Technology section contains revised information.
1291	Decon Trailer 200 East (Collection Tank Vent)	Abatement Technology section contains revised information.
1292	Decon Trailer 200 West (Collection Tank Vent)	Abatement Technology section contains revised information.
1293	200 W-296P107-001	Header Information, Monitoring Requirements, Sampling Requirements and Operational Status sections contain revised information.
1294	200E P-242A-003	Monitoring Requirements and Sampling Requirements sections contain revised information.
1322	200 W-PES-001	Emission Unit Information section contains revised information.

### 2.6.2 Status of Facility Compliance

The Hanford Site is required to report the status of compliance with the standards in WAC 246-247-040 in the renewal application. Compliance status with the standards in WAC 246-247-040(1) is reported annually in the annual radionuclide air emissions report. WAC 246-247-040(2) is not applicable because the Hanford Site does not have a radioactive materials license. Individual NOC approvals contain terms and conditions for meeting the requirements of all applicable paragraphs of WAC 246-247-040, including incorporated WAC 246-247-040(3), (4), and (5). Compliance status with the active terms and conditions in NOC approvals incorporated into the AOP is reported annually in the AOP annual compliance certification report. Deviations from the active NOC approval terms or conditions are reported in the appropriate AOP semiannual report.

The annual radionuclide air emissions report is available by June 30 of each year and contains information for the previous calendar year. The AOP annual compliance certification report is available by July 31 of each year and contains information for the previous calendar year. AOP semiannual reports are available by March 15 and September 15 of each year. The March 15 report contains information for the period July 1 through December 31 of each year. The September 15 report contains information from January 1 through June 30 of the same year. Table 2-10 provides calendar year specific reports issued during the current permit term. Calendar year 2011 compliance status information will not be available until after this renewal application is submitted.

**Table 2-10. Compliance Demonstration Documentation.**

<b>Calendar Year</b>	<b>Annual Radionuclide Air Emissions Report</b>	<b>AOP Annual Compliance Certification Report</b>	<b>AOP Semiannual Reports</b>
2007	DOE/RL-2008-03	DOE/RL-2008-24	DOE/RL-2007-05 (January through June 2007) DOE/RL-2008-12 (July through December 2007)
2008	DOE/RL-2009-14	DOE/RL-2009-03	DOE/RL-2008-48 (January through June 2008) DOE/RL-2009-02 (July through December 2008)
2009	DOE/RL-2010-17	DOE/RL-2010-02	DOE/RL-2009-04 (January through June 2009) DOE/RL-2010-01 (July through December 2009)
2010	DOE/RL-2011-12	DOE/RL-2011-08	DOE/RL-2010-03 (January through June 2010) DOE/RL-2011-07 (July through December 2010)

### 2.6.3 Status of Corrective Actions

Corrective actions consist of notices of correction and notices of violation. Table 2-11 contains a status of DOH corrective actions per WAC 246-247-060(9) for the period from January 1, 2007 through April 30, 2011. There are no corrective actions remaining open from this operating period.

**Table 2-11. Status of State of Washington, Department of Health Corrective Actions  
per Washington Administrative Code 246-247-060(9). (2 Sheets)**

Title	Requested Action	Date Received	Date Due	Date Completed	Status	Responses
Request for Information from DOH Level II Air Inspection of PUREX (291-A-1)	Provide an ALARACT demonstration to assure the integrity of the 291-A-1 filter housing #9.	06/13/2008	12/12/2008	12/08/2008	Closed	DOH letter AIR 08-807 to DOE-RL, dated 08/11/2008, approved an extension of the due date to 10/07/2008. DOH letter AIR 08-1008 to DOE-RL, dated 10/15/2008 approved an extension of the ALARACT due date to 12/12/2008 and provided comments on the draft document. DOE-RL letter 09-EMD-0021 to DOH, dated 12/08/2008, transmitted the ALARACT demonstration for the PUREX facility. DOH letter AIR 09-406, dated 04/28/2009 to DOE-RL, accepts the ALARACT and closes the inspection.
Level II Inspection of Emission Unit 296-H-212 (Canister Storage Building)	Initiate actions with DOH to clarify license requirements for collection and analysis of record filters.	06/13/2008	N/A	11/07/2008	Closed	DOE-RL letter 09-EMD-0016 to Ecology and DOH, dated 11/07/2008, transmitted the revised NOC for the Canister Storage Building. DOH letter AIR 08-1110 to DOE-RL, dated 11/12/2008, provided approval of the NOC and closure for this action.
Notice of Non-Compliance for Shipment of low specific activity (LSA) Waste to Perma-Fix Northwest (packaging)	Provide a letter to the Washington State Office of Radiation Protection describing actions to bring activities into compliance.	09/05/2008	02/02/2009	03/17/2009	Closed	DOE-ORP letter 08-ESQ-226 to DOH, dated 09/25/2008, provided responses to the letter on non-compliance indicating that corrective actions are being identified. DOE-ORP letter 09-ESQ-051, dated 03/17/2009, transmitted a description of the corrective actions to DOH.

**Table 2-11. Status of State of Washington, Department of Health Corrective Actions  
per Washington Administrative Code 246-247-060(9). (2 Sheets)**

Title	Requested Action	Date Received	Date Due	Date Completed	Status	Responses
Letter of Inquiry to Establish Compliance with Quality Assurance (QA) Requirements for the 296-W-4 Stack (Waste Receiving and Processing Facility [WRAP])	The facility must provide a general overview of the QA program detailing how it establishes compliance and how it meets the intent of the regulations.	10/13/2008	N/A	03/10/2009	Closed	DOE-RL letter 09-EMD-0048, dated 03/10/2009, transmitted a response to DOH that included a matrix that shows how the QA requirements contained in 40 CFR 61, Appendix B, Method 114 are implemented.
Notice of Non-Compliance for Unplacarded Shipment of LSA Waste to Perma-Fix Northwest.	Respond in writing to DOH describing actions taken to bring activities into compliance with applicable State and Federal regulations.	11/18/2008	N/A	12/05/2008	Closed	CHPRC letter CHPRC 0802859A R1, dated 12/05/2008, to DOH provided requested causal analysis and corrective actions information. DOH letter (IDMS #0802905), dated 12/08/2008, to CHPRC accepted the corrective actions and closes the issue.
Notice of Violation for the 296-H-212 Canister Storage Building Emission Unit 435.	Provide a written plan to be incorporated into the Air QA program to ensure future inspections are completed on time.	05/24/2010	08/23/2010	08/23/2010	Closed	E-mail from DOE-RL to DOH, dated 06/29/2010, requesting an extension to the actions due date. E-mail from DOH to DOE-RL, dated 07/01/2010, approving the DOE-RL request for an extension of the actions due date to 08/23/2010. DOE-RL letter 10-EMD-0089 to DOH, dated 10/23/2010, submitted the requested information and closes the actions. DOH letter AIR 11-105, dated 01/10/2011, to DOE-RL, transmitted formal closure of the inspection.
	Provide documentation of completed inspections as required by 40 CFR 61 for all Hanford emission units with a potential-to-emit>0.1		08/23/2010	08/23/2010		
	Complete the annual stack flow inspection and leak test, and submit the report to DOH. Report was submitted prior to issuance of notice of violation.		03/24/2010	N/A		

### 3.0 MISCELLANEOUS REQUESTED PERMIT CHANGES

#### 3.1 ATTACHMENT 1 – ECOLOGY PERMIT

##### 3.1.1 Modifications to Air Operating Permit Attachment 1, Table 1.1, List of Significant Emission Units.

During the term of the current Hanford Site AOP, several Significant Emission Units have been permanently deactivated. Table 3-1 below reflects the changes necessary to permanently remove these units from Attachment 1, Table 1.1, List of Significant Emission Units during this AOP renewal effort. Corresponding changes to Attachment 1, Table 1.6 will also be required.

**Table 3-1. Deactivated Emission Units to be Removed from Air Operating Permit Attachment 1, Table 1.1. (2 Sheets)**

Emission Unit	Requirements	Description
200CC, Boiler 1		80 HP oil boiler permanently deactivated in September 2007 (per DOE 9/28/2007 letter, 07-SED-0407).
225-B, Boiler 1		150 HP fuel oil boiler permanently shutdown in July 2010 (per DOE 8/12/2010 letter, 10-EMD-0084).
275-E, Boiler 1		80 HP oil boiler permanently deactivated in September 2007 (per DOE 9/28/2007 letter, 07-SED-0407).
272-W, Boiler 1		250 HP fuel oil boiler permanently shutdown in October 2009 (per DOE 10/20/2009 letter, 10-EMD-0007).
283-W, Boiler 1		200 HP fuel oil boiler permanently shutdown in July 2010 (per DOE 8/12/2010 letter, 10-EMD-0084).
283-E, Boiler 1		200 HP fuel oil boiler permanently shutdown in July 2010 (per DOE 8/12/2010 letter, 10-EMD-0084).
327, Boiler 1 (Permanently deactivated 10/2008)	Table 1.3	200 HP natural gas boiler, not subject to 40 CFR 60 Subpart Dc (WAC 173-400-115) (Deactivated per DOE 10/27/2008 letter, 09-EMD-0011).
328, Boiler 1		30 HP natural gas boiler permanently deactivated in May 2007 (per DOE 5/22/2007 letter, 07-SED-0247).
337-B, Boilers 1 & 2		60 HP natural gas boiler permanently deactivated in May 2007 (per DOE 5/22/2007 letter, 07-SED-0247).
300 E-900 001		900 HP diesel engine permanently shutdown. Verified by inspection 10/28/2010.
300 E-900 002		900 HP diesel engine permanently shutdown. Verified by inspection 10/28/2010.
300 E-900 003		900 HP diesel engine permanently shutdown. Verified by inspection 10/28/2010.
300 E-1000 001 <sup>a</sup>	Table 1.4	500 HP or greater internal combustion engine.

**Table 3-1. Deactivated Emission Units to be Removed from Air Operating Permit  
Attachment 1, Table 1.1. (2 Sheets)**

Emission Unit	Requirements	Description
300 E-1450 001	1450 HP diesel engine permanently shut down 1/24/2007. Verified 10/28/2010.	
100K N-1724K 001	Removed from Table 1.6 (Revision C)	NOC approval for 1724K Building Maintenance Shop. NOC: 97NM-551 [Per WAC 173-400-110(9), this approval order voided in December 2007.]
Bulk Vitrification Demonstration Facility (200 Area)	Removed from Table 1.6 (Revision B)	NOC approval for 200 Area Bulk Vitrification Demonstration Facility. NOC: DE04NWP-002 [Per WAC 173-400-110(9), this approval order rendered invalid in May 2007.]
300 EP-331C 01-V	Removed from Table 1.6 (Revision F)	NOC approval for 331-C Building gas cylinder management process. NOC: DE98NWP-003 [Per WAC 173-400-110(10), this approval order voided Dec. 2010].
300 EP-329-01-S	Removed from Table 1.6 (Revision F)	NOC approval for Chemical Sciences Laboratory, 329 Building modification and ventilation upgrades. NOC: NWP95-329/300A [Per WAC 173-400-110(10), this approval order voided Dec 2010.]
300 P-340NTEX-001	Table 1.6	NOC approval for 340-A Building tank solids removal. NOC: 97NM-137 [CERCLA Notice of Transition submitted 11/23/2010, 11-AMRC-0033].
300 336 Building Diesel Engines	Table 1.6	300 Area 2 Diesel Engines supporting 336 High Bay Testing Facility. NOC: DE06NWP-002 (NOC Closure on 10/22/2008 due to Building Demolition).
200E WTP Blasting and Painting Booths	Removed from Table 1.6 (Revision F)	Hanford Tank Waste Treatment and Immobilization Plant (WTP) Blasting and Painting Booths. NOC: DE08NWP-002 [Per WAC 173-400-110(9), this approval order voided in August 2010.]
200W 283-W Water Treatment Plant (Chlorine Tank)	Table 1.7	Miscellaneous emission unit. De-registration Effective Date 4/23/2009 (Hanford Risk Management Plant for EPA Facility ID #100000077276).
200W P-291Z001-001	Table 1.6	NOC approval for Plutonium Finishing Plant. NOC: DE04NWP-001 [Transitioned to CERCLA].

<sup>a</sup>The 300 E-1000 001 diesel generator has been permanently deactivated; the batteries were removed, fluids drained, and fuel supply tank emptied.

### 3.1.2 Modifications to Air Operating Permit Attachment 1 Table 1.3, Emission Limits and Periodic Monitoring Requirements for Steam Generating Units

To reflect the changes to Table 1.1 of Attachment 1, the permanently deactivated steam generating units as shown in Table 3-2 below also need to be removed from Table 1.3 of the current AOP.

**Table 3-2. Deactivated Steam Generating Units to be Removed from Air Operating Permit Attachment 1, Table 1.3.**

Boiler Annex	Unit	>5 mmBTU/hr input	Fuel
200CC	Boiler 1 permanently deactivated in September 2007.		
225-B	Boiler 1 permanently shutdown in July 2010.		
275-E	Boiler 1 permanently deactivated in September 2007.		
272-W	Boiler 1 permanently shutdown in October 2009.		
283-W	Boiler 1 permanently shutdown in July 2010.		
283-E	Boiler 1 permanently shutdown in July 2010.		
327	Boiler permanently deactivated in October 2008.		
328	Boiler 1 permanently deactivated in May 2007.		
337-B	Boilers 1 & 2 permanently deactivated in May 2007.		

### 3.1.3 Modifications to Air Operating Permit Attachment 1, Table 1.4, Internal Combustion Engines: 500 Horsepower and Greater

To reflect changes to Table 1.1 of Attachment 1, the permanently deactivated internal combustion engines with greater than or equal to 500 horsepower, as shown in Table 3-3 below, also need to be removed from Table 1.4 of the current AOP.

**Table 3-3. Deactivated Internal Combustion Engines to be Removed from Air Operating Permit Attachment 1, Table 1.4.**

Discharge Point Number
300 E-900 001
300 E-900 002
300 E-900 003
300 E-1000 001
300 E-1450 001

### 3.1.4 Proposed Changes to Attachment 1, Section 2.1

To reflect operational experience gained during the term of the current AOP and to correct existing gaps in the visible emission survey requirements, the Hanford Site proposes the following redline/strikeout changes to the current Hanford Site AOP language be incorporated into the renewed AOP.

#### **2.1 Visible Emission Surveys**

*Visible emission surveys must be conducted during daylight hours and during periods when the emission unit is operating.*

##### Tier 1

*This method applies primarily to fossil-fuel combustion units and other emission units that might be a source of visible emissions.*

*Tier 1(a). If the combustion unit is certified to meet EPA emission standards contained in 40 CFR Part 89.112, Table 1, then limited visible emission surveys may be performed. A visible emission survey will be performed upon initial installation as described below in method Tier 1(b) to document no visible emissions are observed during normal operations. If visible emissions are observed during normal operations, then a visible emission survey will be performed as described below in method Tier 1(b). Visible emission surveys are to be conducted during daylight hours, after the unit has reached normal operating temperature and revolutions per minute, or 15 minutes after startup.*

*Tier 1(b). The method consists of operating personnel observing visible emissions from the emission unit according to the frequency identified in the table. If the operator observes visible emissions for more than 10 consecutive minutes during the observation period, the cause(s) of the visible emissions will be determined and corrective actions taken as necessary, or a visible determination of opacity will be performed using EPA Method 9. Records of corrective actions taken to reduce opacity shall be maintained and available for Ecology inspection. Visible emission surveys are to be conducted during daylight hours, after the unit has reached normal operating temperature and revolutions per minute, or 15 minutes after startup. Where no frequency is specified, visible emission surveys will be performed a minimum of once per quarter.*

*Provided the emissions observed during the Method 9 ~~test tests are~~ representative of normal operations and the Method 9 test shows the emission unit is compliant, no further observations are required until the next required periodic monitoring. Records of corrective actions taken to reduce opacity shall be maintained and available for Ecology inspection.*

*If after corrective actions have been taken and results from the Method 9 indicate visible emissions in excess of the limit, a deviation report will be filed with Ecology as required by Section 4.5.*

Tier 2

*Some emission units are unlikely sources of visible emissions and are not expected to exceed applicable opacity limit based on past operating experience and/or expected process behavior. These ~~emission units can~~ include research and development laboratories, analytical laboratories, ~~and small natural~~ gas-fired boilers ~~and engines and some fossil-fueled combustion units~~. For these emission units, a ~~surveillance~~ visible emission survey will be conducted and the results recorded. If visible emissions from one of these emission units are observed for more than 10 consecutive minutes, an attempt to identify the cause(s) of the visible emissions will be made and those results recorded. The recorded entry also will identify any corrective actions taken and the likely frequency of a future re-~~oc~~urrence. If the event is likely to be re~~oc~~curing, and can not be demonstrated to consist of water vapor, a determination of opacity will be made using EPA Method 9. The frequency of the visible emission surveys shall be as required in the table unless the following procedure has been completed satisfactorily. Where no frequency is specified, visible emission surveys will be performed a minimum of once per year.*

*The procedure for reducing visible emission survey frequencies is as follows.*

*If weekly visible emission surveys for 3 months are negative, quarterly measurements will be taken for the next 6 months. After 9 months of no visible emissions, visible emission surveys will be performed only when visible emissions are observed or expected (e.g., during startup, shutdown, or periods of malfunction). Visible emission surveys during these periods will be conducted for non-radionuclide-emitting stacks according to the process described in Tier 2.*

### **3.2 ATTACHMENT 2 –RADIOACTIVE AIR EMISSIONS LICENSE, FF-01**

To reflect operational experience gained during the term of the current FF-01 and provide clarification of specified license requirements, the Hanford Site proposes the following redline/strikeout changes be incorporated into the renewed FF-01.

#### **3.2.1 Proposed Changes to the General Permit Language**

Section 2.4 Emissions monitoring and test procedures, paragraph (1)(iii) of the FF-01 license specifies that “The frequency of the (stack or vent) flow rate measurements shall depend upon the variability of the effluent flow rate. For variable flow rates, continuous or frequent flow rate measurements shall be made. For relatively constant flow rates only periodic measurements are necessary.” In addition, paragraph (2)(iv) specifies that “A quality assurance program shall be conducted that meets the performance requirements described in appendix B, Method 114.” One of the requirements of Table 2 of Section 4 of Method 114 specifies an “annual” frequency for several inspection and calibration items.

Based upon clarification of the requirements for annual inspections obtained in a November 16, 2005 email from EPA Region 10 directed to DOE-RL, the Hanford Site requests the following

two clarifications be incorporated into the renewed FF-01 license to reflect the established EPA interpretation of these requirements:

1. In the case of annual inspections and associated calibrations conducted at major stacks for compliance with the requirements of Table 2 of Section 4 of Method 114, each inspection or calibration shall be done once every calendar year. However, the time in between the inspection or calibration does not have to be exactly 12 months. As long as the inspections or calibrations are conducted at least 6 months, but no more than 18 months apart, the requirement for “annual” periodicity will have been adequately met.
2. In the case of annual effluent flow rate measurements conducted at major stacks for compliance with Section 2.4, paragraph (1)(iii) of the FF-01 license, each such flow measurement shall be conducted once each calendar year. However, the time in between the measurements does not have to be exactly 12 months. As long as the measurements are conducted at least 6 months, but no more than 18 months apart, the requirement for “annual” periodicity will have been adequately met.

Section 4.0, *Quality Assurance Requirements for PCM Using Stack Sampling (AIR 05-303 dated March 18, 2005) State Only Requirement*, paragraph 3 of the FF-01 license states that “An annual calibration will be performed on the existing sample flow meter or an annual function check will be performed if the flow meter is replaced by either a rotameter or a magnahelic gauge.” This language lacks sufficient clarity and can be interpreted a number of ways. For example, it could be read in part to specify annual function checks for rotameters or magnahelic gauges. On the other hand, it could also be read to allow for either an annual calibration or an annual function check for rotameters or magnahelic gauges. To provide better clarity of this requirement, the Hanford Site proposes paragraph (3) be reworded as follows during the FF-01 license renewal:

*An annual calibration will be performed on the existing sample flow meter. If the sample flow meter is replaced by a rotameter or magnahelic gauge, then an annual function check will be performed.*

### **3.2.2 Corrections to Specific Notice of Construction Approvals**

The following corrections to NOC 690 “Operation of the Liquid Effluent Retention Facility and the 200 Area Effluent Treatment Facility” (Emission Units 146, 147, 148, 301 and 486) need to be made.

- Insert missing potential release rates (curies/year) for total alpha and total beta in NOC condition #3 as follows: total alpha, 4.45E-04; total beta, 2.95E+00

### **3.2.3 Changes Due to Transition of Emission Units to Comprehensive Environmental Response, Compensation, and Liability Act Regulation**

As Low As Reasonably Achievable Control Technology Agreement 32 “Pre-Planned, Temporary Shutdown of Stacks 296-Z-5, 296-Z-6, and 296-Z-7 Unrelated to Exempted Maintenance” needs to be deleted from Enclosure 3 “ALARACT Agreements” of the FF-01 License to reflect the transition of these emission units to CERCLA in 2009.

### 3.3 ATTACHMENT 3 – BENTON CLEAN AIR AGENCY

To streamline and improve the clarity of specified AOP requirements, the Hanford Site proposes the following redline/strikeout changes to the current Hanford Site AOP be incorporated into the renewed AOP.

#### 3.3.1 Proposed Changes to General Permit Language

~~The National Emissions Standards for Hazardous Air Pollutants (NESHAP), 40 Code of Federal Regulations (CFR) Part 61, Subpart M, “National Emission Standard for Asbestos,” and the Benton Clean Air Authority (BCAA) Regulation 1, Article 8, “Asbestos” require the Department of Energy, its contractors, or its subcontractors to file a notification prior to commencement of a demolition or renovation activity at an affected facility. Pursuant to the authorities delegated by the State of Washington, Department of Ecology (Ecology) and the U. S. Environmental Protection Agency (EPA), the BCAA is the responsible authority to conduct day to day regulatory responsibility and ensure compliance with 40 CFR 61 Subpart M and Article 8 of Regulation 1 of BCAA, adopted by reference in this air operating permit (AOP), for the Hanford Site. BCAA shall inform Ecology prior to taking any final permitting or enforcement actions at Hanford.~~

~~In addition, Chapter 173-425 Washington Administrative Code (WAC) and BCAA Regulation 1, Article 5, “Outdoor Burning,” require the Department of Energy, its contractors, or its subcontractors to follow these rules regulating outdoor burning, including obtaining special outdoor burning permits if required. The BCAA, pursuant to the authorities delegated by Ecology, is the responsible authority to ensure compliance with WAC 173-425 and Article 5 of Regulation 1 of BCAA adopted by reference in this AOP for the Hanford Site.~~

Pursuant to delegated authorities from the State of Washington, Department of Ecology (Ecology) and the U. S. Environmental Protection Agency (EPA), as appropriate, the Benton Clean Air Agency (BCAA) is responsible to ensure compliance on the Hanford Site with the following requirements:

- 40 CFR 61 Subpart M “National Emission Standard for Asbestos,” as implemented and supplemented by BCAA Regulation 1, Article 8 “Asbestos;” and
- WAC 173-425 “Outdoor Burning,” as implemented and supplemented by BCAA Regulation 1, Article 5 “Outdoor burning.”

The Department of Energy, its contractors and its subcontractors will comply with each of the referenced regulations:

- 40 CFR 61 Subpart M and BCAA Regulation 1, Article 8 [Asbestos NESHAP]; and

- [WAC 173-425 and BCAA Regulation 1, Article 5 \[outdoor burning activities-state only requirement\]](#)

[BCAA will inform Ecology prior to taking any final permitting or enforcement actions related to Hanford Site activities.](#)

### 3.4 NEWLY REGULATED STATIONARY ENGINES

At the time of the previous AOP renewal application, only internal combustion engines greater than 500 horsepower were potentially subject to any applicable federal rules. All other internal combustion engine stationary sources were classified as IEUs. Subsequent federal rule changes have significantly expanded the universe of internal combustion engine size and types which are potentially subject to one or more of the following applicable standards:

- 40 CFR 60 Subpart IIII, “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines”
- 40 CFR 60 Subpart JJJJ, “Standards of Performance for Stationary Spark Ignition Internal Combustion Engines”
- 40 CFR 63 Subpart ZZZZ, National Emissions “Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines”

Table 3-4 below identifies the additional Hanford Site stationary engines that are potentially subject to either 40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart IIII and/or 40 CFR 60 Subpart JJJJ. These engines are exempt from Ecology’s new source review permitting requirements in WAC 173-400-110. However, sources subject to a federally enforceable rule, per WAC 173-401-530(2)(a), cannot be classified as an IEU and need to be added to the renewed AOP. Table 3-4 also includes additional information to assist Ecology in determining the appropriate applicable requirements for each engine source.

**Table 3-4. Non-Permitted Stationary Engines Less-Than 500 Horsepower. (3 Sheets)**

Stationary Engine Location	HP	Model Year	Usage	Fuel Type	Potentially Applicable Regulation(s)	Compliance Date
100 Area Fire Station (Building 609) Potable Water Supply	29.5	2008	Emergency Backup	Propane	40 CFR 60 Subpart JJJJ	To Be Determined
100K Water Treatment	181	2010	Emergency Backup, Fire Pump	Diesel	40 CFR 60 Subpart IIII	To Be Determined
222-SB	450	1993	Emergency Backup	Diesel	40 CFR 63 Subpart ZZZZ	05/03/2013

**Table 3-4. Non-Permitted Stationary Engines Less-Than 500 Horsepower. (3 Sheets)**

Stationary Engine Location	HP	Model Year	Usage	Fuel Type	Potentially Applicable Regulation(s)	Compliance Date
234-5Z	300	1996	Emergency Backup	Diesel	40 CFR 63 Subpart ZZZZ	05/03/2013
241-AW (Sullair 100)	61	1994	Non-Emergency	Diesel	40 CFR 63 Subpart ZZZZ	05/03/2013
241-AW (Sullair 185)	61	2007	Non-Emergency	Diesel	40 CFR 60 Subpart IIII	To Be Determined
241-BX	31	2010	Non-Emergency	Diesel	40 CFR 60 Subpart IIII	To Be Determined
241-BX (MO-152)	85	2010	Non-Emergency	Diesel	40 CFR 60 Subpart IIII	To Be Determined
241-C (Lower South)	150	2006	Non-Emergency	Diesel	40 CFR 60 Subpart IIII	To Be Determined
241-C (East)	42	1992	Non-Emergency	Diesel	40 CFR 63 Subpart ZZZZ	05/03/2013
241-C (Northwest)	275	2005	Non-Emergency	Diesel	40 CFR 63 Subpart ZZZZ	05/03/2013
241-SY	152	2010	Non-Emergency	Diesel	40 CFR 60 Subpart IIII	To Be Determined
241-SY (Change Trailer)	31.5	2006	Non-Emergency	Diesel	40 CFR 60 Subpart IIII	To Be Determined
241-TX (241-T106)	34.5	2009	Non-Emergency	Diesel	40 CFR 60 Subpart IIII	To Be Determined
242-A Evaporator	306	1989	Emergency Backup	Diesel	40 CFR 63 Subpart ZZZZ	05/03/2013
242-S	34.5	2009	Non-Emergency	Diesel	40 CFR 60 Subpart IIII	To Be Determined
271-CR	102	2005	Non-Emergency	Diesel	40 CFR 63 Subpart ZZZZ	05/03/2013
382B Building (2 Engines) <sup>a</sup>	250	1993	Emergency Backup Fire Water Pump	Diesel	40 CFR 63 Subpart ZZZZ	05/03/2013
385 Building <sup>b</sup>	123	2010	Emergency Backup Fire Water Pump	Diesel	40 CFR 60 Subpart IIII	To Be Determined

**Table 3-4. Non-Permitted Stationary Engines Less-Than 500 Horsepower. (3 Sheets)**

Stationary Engine Location	HP	Model Year	Usage	Fuel Type	Potentially Applicable Regulation(s)	Compliance Date
600 Area Fire Station (Building 609A)	162	2006	Emergency Backup	Propane	40 CFR 63 Subpart ZZZZ	10/19/2013
2701HV (CSB)	210	2009	Emergency Backup	Propane	40 CFR 60 Subpart JJJJ	To Be Determined
2720EA	40	2010	Emergency Backup	Propane	40 CFR 60 Subpart JJJJ	To Be Determined
2721E	210	2000	Emergency Backup	Propane	40 CFR 63 Subpart ZZZZ	10/19/2013
CVDF	150	2000	Emergency Backup	Diesel	40 CFR 63 Subpart ZZZZ	05/03/2013
Rattle Snake Barricade	25	2008	Emergency Backup	Propane	40 CFR 60 Subpart JJJJ	To Be Determined
TEDF Pump Station 2 (225E)	107	1994	Emergency Backup	Propane	40 CFR 63 Subpart ZZZZ	10/19/2013
Wye Barricade	30	2008	Emergency Backup	Propane	40 CFR 60 Subpart JJJJ	To Be Determined
Yakima Barricade	30	2004	Emergency Backup	Propane	40 CFR 60 Subpart JJJJ	To Be Determined

<sup>a</sup> = The 382B Building fire pumps will be replaced by the 385 Building fire pump.

<sup>b</sup> = The 385 Building engine is scheduled to become operational in October 2011.

### 3.5 ALTERNATIVE APPROVALS

Table 3-5 below provides a list of approvals issued by appropriate regulatory agencies as “alternatives” to applicable 40 CFR 61 Subpart H and WAC 246-247 requirements for specified radioactive air emission units on the Hanford Site. These alternative approvals are being included in the AOP renewal application at the request of DOH for purposes of documentation and to establish a complete record.

**Table 3-5. Radioactive Air Emissions “Alternative” Approvals. (2 Sheets)**

Emission Unit	Approved Method Description	Approval Documentation
210 (209-E Building) NOC_ID 793 (Replaces NOC_ID 707)	Alternative Approval for Stack Flow Measurement Method and Alternative Approval for Alternative Sample Extraction System  Alternative Approval for Quality Assurance Requirements Related to Sample System Inspections, Sample Handling, and Sample Analysis	AIR 10-1021 (Replaced AIR 08-1022)
314 (T Plant) NOC_ID 711	Alternative Approval for Stack Flow Measurement Method	AIR 07-306, Condition #14, DOE Letter 03-RCA-0210, dated April 9, 2003
340 (WESF)	Alternative Approval for Stack Flow Measurement Method	OAQ-107, Aug 16, 1999, A. J. Frankel, EPA, to J. E. Rasmussen, DOE-RL; AIR 98-803, Aug 17, 1998, A.W. Conklin, DOH, to J. E. Rasmussen, DOE-RL
361 (EP-325-01-S) NOC_ID 687	Alternative Approval for Stack Flow Measurement	
397 (FFTF-CB-EX) NOC_ID 776	Alternative Approval for Sampling	AIR 10-412, Condition #4
435 (296-H-212), Canister Storage Building NOC_ID 652	Alternative Approval for Stack Sampling System	
455 NOC_ID 719	Alternative Release Fraction	AIR 07-1012, Condition 4.
476 (Guzzler in Tank Farm Facilities) NOC_ID 774	Alternative Release Fraction	AIR 10-506
486 (200 Area Diffuse/Fugitive) NOC_ID 719	Alternative Release Fraction	AIR 07-1012, Conditions 4 and 5
756 (Mobile Drum venting System (Passive Vent)) NOC_ID 719	Alternative Release Fraction	AIR 07-1012, Condition 6
1181, Categorical Drum Venting System 2 NOC_ID 719	Alternative Release Fraction	AIR 07-1012, Condition 4

**Table 3-5. Radioactive Air Emissions “Alternative” Approvals. (2 Sheets)**

Emission Unit	Approved Method Description	Approval Documentation
1183 (MO444) NOC_ID 656	Alternative Approval for Sampling	AIR 07-304, Condition #6 (Condition 6 is emission calculations and sampling condition does not state alternative)
1294 (242-A Evaporator Building Exhauster K-1 Upgrade) NOC_ID 794	Alternative Release Fraction (Based on back calculations)	AIR 10-1204
1322 (TRU Retrieval PES) NOC_ID 795	Alternative Approval for Stack Flow and Monitoring	AIR 10-1022, Condition #25
General Hanford Site	Alternative Approval for Stack Flow Measurements, Interpretation for Implementing amended 40 CFR 61 Subpart H published 9/9/2002	03-ED-141

#### 4.0 REFERENCES

- 0802905, 2008, (Letter to J. G. Lehew III, CH2M Hill) from M. J. Elsen, State of Washington Department of Health, Olympia, Washington, December 8.
- 11-AMRC-0033, 2010, "Transition of the 340 Complex and the 307 Retention Basin to Regulation under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)," (Letter to J. A. Hedges, State of Washington Department of Ecology, and P.J. Martell, State of Washington Department of Health), from M. S. French, U.S. Department of Energy, Richland Operations Office, Richland, Washington, November 23.
- 11-AMRC-0095, 2011, "Notification of Change not Requiring Permit Revision for 385 Building Emergency Backup Diesel Engine-Driven Fire-Water Pump," (Letter to J. A. Hedges, State of Washington Department of Ecology) from J. R. Franco, U.S. Department of Energy, Richland Operations Office, Richland, Washington, February 28.
- 11-AMRC-0096, 2011, "Transition of Emissions Units Associated with the 320 Building, 326 Building, and 329 Building to Regulation Under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)," (Letter to P. J. Martell, State of Washington Department of Health, and J. A. Hedges, State of Washington Department of Ecology), from J. R. Franco, U.S. Department of Energy, Richland Operations Office, Richland, Washington, February 25.
- 09-EMD-0011, 2008, "Request on 327 Boiler Annex," (Letter to J. A. Hedges, State of Washington Department of Ecology), from R. J. Corey, U.S. Department of Energy, Pacific Northwest Site Office, Richland, Washington, October 27.
- 09-EMD-0016, 2008, "Transmittal of Notice of Construction Revision and Notification for the Canister Storage Building," (Letter to J. Martell, State of Washington Department of Health, and O. S. Wang, State of Washington Department of Ecology), from R. J. Corey, U.S. Department of Energy, Richland Operations Office, Richland, Washington, November 7.
- 09-EMD-0021, 2008, "Transmittal of the As Low As Reasonably Achievable Control Technology (ALARACT) Demonstration in Response to Corrosion Material Found During the Annual Plutonium-Uranium Extraction Facility Major Stack Inspection and Responses to State of Washington, Department of Health Questions and Comments," (Letter to J. P. Martell, State of Washington, Department of Health) from D. A. Brockman, U. S. Department of Energy, Richland Operations Office, Richland, Washington, December 8.
- 09-EMD-0048, 2009, "Response Concerning Quality Assurance (QA) Requirements," (Letter to J. Martell, State of Washington Department of Health), from R. J. Corey, U.S. Department of Energy, Richland Operations Office, Richland, Washington, March 10.

- 10-EMD-0007, 2009, “Request on 272W Boiler Annex,” (Letter to J. A. Hedges, State of Washington Department of Ecology), from R. J. Corey, U.S. Department of Energy, Richland Operations Office, Richland, Washington, October 20.
- 10-EMD-0084, 2010, “Shutdown Notification on Boiler Annexes,” (Letter to J. A. Hedges, State of Washington Department of Ecology), from R. J. Corey, U.S. Department of Energy, Richland Operations Office, Richland, Washington, August 12.
- 10-EMD-0089, 2010, “Response to Notice of Violation (NOV) for the 296-H-212 Canister Storage Building (CSB), Emission Unit 435 (Air 10-504),” (Letter to J. Martell, State of Washington Department of Health), from R. J. Corey, U.S. Department of Energy, Richland Operations Office, Richland, Washington, August 23.
- 11-EMD-0003, 2010, “Addendum to Compliance Plan and Request for Approval to Operate Two Vents and Unfiltered Laboratory Spaces for the 320 Building, 300 Area, Hanford Site,” (Letter to J. Martell, State of Washington Department of Health), from R. J. Corey, U.S. Department of Energy, Richland Operations Office, Richland, Washington, October 14.
- 11-EMD-0005, 2010, “Notice of Construction (NOC) Application for the EP-331-02-S Emission Unit 331 Building (Life Sciences Laboratory – I), 300 Area, Hanford Site,” (Letter to P. J. Martell, State of Washington Department of Health, and O.S. Wang, State of Washington Department of Ecology), from R. J. Corey, U.S. Department of Energy, Richland Operations Office, Richland, Washington, November 17.
- 11-EMD-0028, 2011, “Closure of the Operations of the Compliance Plans and Approvals and the Notice of Construction Applications for Four Perchloric Acid Hoods and Mass Spectrometry Laboratory Vents at the 320 Building, 300 Area, Hanford Site,” (Letter to J. Martell, State of Washington Department of Health), from R. J. Corey, U.S. Department of Energy, Richland Operations Office, Richland, Washington, February 10.
- 11-EMD-0030, 2011, “Radioactive Air Pollutants Notice of Construction (NOC) Permit Revision for the Life Sciences Laboratory – 1 (331 Building), Revision 2, 300 Area, Hanford Site, Richland, Washington,” (Letter to J. Martell, State of Washington Department of Health, and O.S. Wang, State of Washington Department of Ecology), from R. J. Corey, U.S. Department of Energy, Richland Operations Office, Richland, Washington, February 17.
- 11-EMD-0034, 2011, “Radioactive Air Emissions Notice of Construction (NOC) for the Consolidated Waste Receiving and Processing (WRAP) Facility Operations and the Central Waste Complex (CWC),” (Letter to J. Martell, State of Washington Department of Health, and O.S. Wang, State of Washington Department of Ecology), from R. J. Corey, U.S. Department of Energy, Richland Operations Office, Richland, Washington, February 28.

- 08-ESQ-226, 2008, “U.S. Department of Energy, Office of River Protection (ORP) Shipment of Radioactive Waste Material Sent to Perma-Fix Northwest,” (Letter to M. J. Elsen, Washington State Department of Health), from S. J. Olinger, U.S. Department of Energy, Office of River Protection, Richland, Washington, September 25.
- 09-ESQ-051, 2009, “Corrective Actions Regarding the U.S. Department of Energy, Office of River Protection (ORP) Shipment of Radioactive Waste Material Set to Perma-Fix Northwest,” (Letter to M. J. Elsen, Washington State Department of Health), from S. J. Olinger, U.S. Department of Energy, Office of River Protection, Richland, Washington, March 17.
- 11-ESQ-017, 2011, “Submittal of Hanford Facility Criteria and Toxics Air Emissions Notice of Construction (NOC) for the Operation of the 241-AP, 241-SY, and 241-AY/AZ Tank Farm Ventilation System Upgrades and Second Tier Review Petition for the Operation of the 241-AP, 241-AY, and 241-AY/AZ Tank Farm Ventilation System Upgrades,” (Letter to J. A. Hedges, State of Washington Department of Ecology, and D. Ogulei, State of Washington Department of Ecology), from J. A. Dowell, U.S. Department of Energy, Office of River Protection, Richland, Washington, February 11.
- 11-ESQ-068, 2011, “U.S. Department of Energy (DOE), Office of River Protection (ORP) Request for Approval of the Radioactive Air Emissions Notice of Construction (NOC) for 241-SY, 241-AP, and 241-AY/AZ Tank Farm Ventilation System Upgrades,” (Letter to J. Martell, State of Washington Department of Health), from S. Charboneau, U.S. Department of Energy, Office of River Protection, Richland, Washington, March 31.
- 11-ESQ-091, 2011, “Determination of Incomplete Application, Tank Ventilation Upgrades,” (Letter to J. A. Hedges, State of Washington Department of Ecology), from S. Charboneau, U.S. Department of Energy, Office of River Protection, Richland, Washington, April 27.
- 11-NWP-014, 2011, “Determination of Incomplete Application, Tank Ventilation Upgrade,” (Letter to J. A. Dowell, U.S. Department of Energy, Office of River Protection), from D. Hendrickson, State of Washington Department of Ecology, Richland, Washington, March 17.
- 03-RCA-0210, 2003, “Request for Approval of an Alternative Method for Flow Measurements for the 291-T-1 Stack at T-Plant,” (Letter to A. W. Conklin, Washington State Department of Health), from J. Hebdon, U.S. Department of Energy, Richland Operations Office, Richland, Washington, April 9.
- 07-SED-0247, 2007, “Transmittal of Notice on Permanently Deactivated 300 Area ESPC Boilers,” (Letter to J. A. Hedges, State of Washington Department of Ecology), from K. A. Klein, U. S. Department of Energy, Richland Operations Office, Richland, Washington, May 22.

07-SED-0407, 2007, “Hanford Site Air Operating Permit (Number: 00-05-006 Renewal 1),” (Letter to J. A. Hedges, State of Washington Department of Ecology), from R. G. Hastings, U. S. Department of Energy, Richland Operations Office, Richland, Washington, September 28.

[40 CFR 60](#), “Standards of Performance for New Stationary Sources,” Title 40, *Code of Federal Regulations*, Part 60, as amended.

[40 CFR 61](#), “National Emission Standards for Hazardous Air Pollutants,” Title 40, *Code of Federal Regulations*, Part 61, as amended.

[40 CFR 63](#), “National Emission Standards for Hazardous Air Pollutants for Source Categories,” Title 40, *Code of Federal Regulations*, Part 63, as amended.

[40 CFR 64](#), “Compliance Assurance Monitoring,” Title 40, *Code of Federal Regulations*, Part 64, as amended.

[40 CFR 68](#), “Chemical Accident Prevention Provisions,” Title 40, *Code of Federal Regulations*, Part 68, as amended.

[40 CFR 70](#), “State Operating Permit Programs,” Title 40, *Code of Federal Regulations*, Part 70, as amended.

[40 CFR 72](#), “Permit Regulation,” Title 40, *Code of Federal Regulations*, Part 72, as amended.

[40 CFR 73](#), “Sulfur Dioxide Allowance System,” Title 40, *Code of Federal Regulations*, Part 73, as amended.

[40 CFR 74](#), “Sulfur Dioxide Opt-Ins,” Title 40, *Code of Federal Regulations*, Part 74, as amended.

[40 CFR 75](#), “Continuous Emission Monitoring,” Title 40, *Code of Federal Regulations*, Part 75, as amended.

[40 CFR 76](#), “Acid Rain Nitrogen Oxides Emission Reduction Program,” Title 40, *Code of Federal Regulations*, Part 76, as amended.

[40 CFR 77](#), “Excess Emissions,” Title 40, *Code of Federal Regulations*, Part 77, as amended.

[40 CFR 78](#), “Appeal Procedures,” Title 40, *Code of Federal Regulations*, Part 78, as amended.

[40 CFR 79](#), “Registration of Fuels and Fuel Additives,” Title 40, *Code of Federal Regulations*, Part 79, as amended.

[40 CFR 82](#), “Protection of Stratospheric Ozone,” Title 40, *Code of Federal Regulations*, Part 82, as amended.

[40 CFR 98](#), “Mandatory Greenhouse Gas Reporting,” Title 40, *Code of Federal Regulations*, Title 98, as amended.

- AIR-08-807, 2008, “Re: Request for Extension to Complete 291-A-1 (EU 369) As Low As Reasonably Achievable Control Technology (ALARACT) Demonstration,” (Letter to S. Weil, U.S. Department of Energy, Richland Operations Office), from P. J. Martell, State of Washington Department of Health, Richland, Washington, August 11.
- AIR 08-1008, 2008, “Re: Comment and Request for Formal Submittal of PUREX High Efficiency Particulate Air (HEPA) Filter Housing Corrosion Evaluation,” (Letter to S. Weil, U.S. Department of Energy, Richland Operations Office), from P. J. Martell, State of Washington Department of Health, Richland, Washington, October 15.
- AIR 08-1110, 2008, “Re: Closeout of Compliance Inspection (Emission Unit 296-H-212),” (Letter to S. Weil, U.S. Department of Energy, Richland Operations Office), from J. Martell, State of Washington Department of Health, Richland, Washington, November 12.
- AIR 09-406, 2009, “Re: Closeout of Inspection (Audit 544) for Emission Unit 291-A-1 (EU 369),” (Letter to S. Weil, U.S. Department of Energy, Richland Operations Office), from J. Martell, State of Washington Department of Health, Richland, Washington, April 28.
- AIR 10-1007, 2010, “Liquid Pumping and Enhanced Sluicing on Tank 241-C-106 (NOC 790; EU 486 & 498),” (Letter to D. Brockman, U.S. Department of Energy, Office of River Protection), from J. Martell, State of Washington Department of Health, Richland, Washington, October 4.
- AIR 11-105, 2011, “Re: Closeout of Inspection (Audit 622) – Emission Unit 296-H-212 (EU 435), (Letter to R. J. Corey, U.S. Department of Energy, Richland Operations Office), from J. Martell, State of Washington Department of Health, Richland, Washington, January 10.
- AIR 11-203, 2011, “Application for the Analytical and Nuclear Research Laboratory (320 Building), Revision 0, 300 Area, Hanford Site, Richland, Washington for Perchloric Acid Hood Operations (NOC 781; EU 1305, 1306, 1307, and 1308),” (Letter to R. J. Corey, U.S. Department of Energy, Richland Operations Office), from J. Martell, State of Washington Department of Health, Richland, Washington, February 3.
- AIR 11-204, 2011, “Analytical and Nuclear Research Laboratory (320 Building), Revision 0, 300 Area, Hanford Site Richland, Washington (NOC 789; EU 1323 and 1324),” (Letter to R.J. Corey, U.S. Department of Energy, Richland Operations Office), from J. Martell, State of Washington Department of Health, Richland, Washington, February 3.
- AIR 11-207, 2011, “Transition of the 340 Complex and the 307 Retention Basin to Regulation under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA),” (Letter to R. J. Corey, U.S. Department of Energy, Richland Operations Office), from J. Martell, State of Washington Department of Health, Richland Washington, February 24.

- AIR 11-302, 2011, “Life Science Laboratory – I (331 Building), Revision 0 (NOC 787; EU 1180)”, (Letter to R. J. Corey, U.S. Department of Energy, Office of River Protection), from J. Martell, State of Washington Department of Health, Richland, Washington, March 9.
- AIR 11-401, 2011, “Tank Farm ALARACT Demonstration for Installation/Operation/Removal of Push Mode Core Sampling Equipment (ALARACT 2),” (Letter to J. A. Dowell, U.S. Department of Energy, Office of River Protection), from J. Martell, State of Washington Department of Health, Richland, Washington, April 1.
- AIR 11-404, 2011, “Operation of New Ventilation Systems in AN and AW Tank Farms (NOC 802),” (Letter to J. A. Dowell, U.S. Department of Energy, Office of River Protection), from J. Martell, State of Washington Department of Health, Richland, Washington, April 21.
- AIR 98-803, 1998, (Letter to J. E. Rasmussen, U.S. Department of Energy, Richland Operations Office), from A. W. Conklin, State of Washington Department of Health, Olympia, Washington, August 17.
- CHPRC-0802859A R1, 2008, “Non-Placarded Shipment, HB080, to Perma-Fix Northwest on November 11, 2008,” (Letter to M. Elsen, State of Washington Department of Health) from J. G. Lehew III, CH2M HILL Plateau Remediation Company, Richland, Washington, December 5.
- Comprehensive Environmental Response, Compensation, and Liability Act of 1980, [42 USC 9601](#), et seq.*
- DOE, 2005a, Letter (06-ESD-0029), K.A. Klein, DOE/RL to M.A. Wilson, Ecology, *Hanford Site Insignificant Emission Unit Sources*, dated December 20, 2005.
- DOE, 2005b, Letter (06-ESD-0019), K. A. Klein, DOE/RL to A. W. Conklin, WDOH, *Hanford Site Diffuse and Fugitive Radioactive Emission Sources*, dated November 28, 2005
- [DOE/RL-95-07, 1995](#), *Hanford Site Air Operating Permit Application*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2005-24, 2005, *Hanford Site Air Operating Permit Renewal Application, Operating Summary July 2, 2001 – September 1, 2005*, Rev. 1, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2007-05, 2007, *Hanford Site Air Operating Permit Semiannual Report for January 1, 2007 through June 30, 2007*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2008-03, 2008, *Radionuclide Air Emissions Report for the Hanford Site, Calendar Year 2007*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

- DOE/RL-2008-12, 2008, *Hanford Site Air Operating Permit Semiannual Report for July 1, 2007 through December 31, 2007*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2008-24, 2008, *Hanford Site Air Operating Permit Annual Compliance Certification Report for the Period January 1, 2007 through December 31, 2007*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2008-48, 2008, *Hanford Site Air Operating Permit Semiannual Report for the Period January 1, 2008 through June 30, 2008*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2008-54, 2009, *Hanford Site Solid Waste Landfill Closure Plan*, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2009-02, 2009, *Hanford Site Air Operating Permit Semiannual Report for the Period July 1, 2008 through December 31, 2008*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2009-03, 2009, *Hanford Site Air Operating Permit Annual Compliance Certification Report for the Period January 1, 2008 through December 31, 2008*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2009-04, 2009, *Hanford Site Air Operating Permit Semiannual Report for the Period January 1, 2009 through June 30, 2009*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2009-14, 2009, *Radionuclide Air Emissions Report for the Hanford Site, Calendar Year 2008*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2010-01, 2010, *Hanford Site Air Operating Permit Semiannual Report for the Period July 1, 2009 through December 31, 2009*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2010-02, 2010, *Hanford Site Air Operating Permit Annual Compliance Certification Report for the Period January 1, 2010 through December 31, 2010*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2010-03, 2010, *Hanford Site Air Operating Permit Semiannual Report for the Period January 1, 2010 through June 30, 2010*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.
- DOE/RL-2010-17, 2010, *Radionuclide Air Emissions Report for the Hanford Site, Calendar Year 2009*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2011-07, 2011, *Hanford Site Air Operating Permit Semiannual Report for the Period July 1, 2010 through December 31, 2010*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2011-08, 2011, *Hanford Site Air Operating Permit Annual Compliance Certification Report for the Period January 1, 2010 through December 31, 2010*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-2011-12, 2011, *Radionuclide Air Emissions Report for the Hanford Site, Calendar Year 2010*, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

Ecology, 2007a, "Re: Issuance of Revision A of the Hanford Site Air Operating Permit," (Letter to K. Klein, U.S. Department of Energy, Richland Operations Office, and S. Olinger, U.S. Department of Energy, Office of River Protection), from J. Hedges and O. Wang, State of Washington Department of Ecology, Richland, Washington, May 3.

Ecology, 2007b, "Re: Hanford Site Air Operating Permit, Revision B Issuance," (Letter to L. Kral, U.S. Environmental Protection Agency, A. Ginsburg, State of Oregon, Department of Environmental Quality, D. Brockman, U.S. Department of Energy, Richland Operations Office, S. Olinger, U.S. Department of Energy, Office of River Protection, S. Harris, Confederated Tribes of the Umatilla Indian Reservation, and R. Jim, Yakama Indian Nation) from J. Hedges and D. Hendrickson, State of Washington Department of Ecology, Richland, Washington, July 26.

Ecology, 2007c, "Re: Hanford Site Air Operating Permit, Revision C Issuance," (Letter to L. Kral, U.S. Environmental Protection Agency, A. Ginsburg, State of Oregon, Department of Environmental Quality, D. Brockman, U.S. Department of Energy, Richland Operations Office, S. Olinger, U.S. Department of Energy, Office of River Protection, S. Harris, Confederated Tribes of the Umatilla Indian Reservation, and R. Jim, Yakama Indian Nation), from J. Hedges and D. Hendrickson, State of Washington Department of Ecology, Richland, Washington, December 5.

Ecology, 2008, "Re: Hanford Site Air Operating Permit, Revision D Issuance," (Letter to L. Kral, U.S. Environmental Protection Agency, A. Ginsburg, State of Oregon, Department of Environmental Quality, D. Brockman, U.S. Department of Energy, Richland Operations Office, S. Olinger, U.S. Department of Energy, Office of River Protection, S. Harris, Confederated Tribes of the Umatilla Indian Reservation, and R. Jim, Yakama Indian Nation), from J. Hedges and D. Hendrickson, State of Washington Department of Ecology, Richland, Washington, December 23.

Ecology, 2009, “Re: Hanford Site Air Operating Permit, Revision E Issuance,” (Letter to L. Kral, U.S. Environmental Protection Agency, A. Ginsburg, State of Oregon, Department of Environmental Quality, D. Brockman, U.S. Department of Energy, Richland Operations Office, S. Olinger, U.S. Department of Energy, Office of River Protection, S. Harris, Confederated Tribes of the Umatilla Indian Reservation, and R. Jim, Yakama Indian Nation, from J. Hedges and D. Hendrickson, State of Washington Department of Ecology, Richland, Washington, December 18.

Ecology, 2010, “Re: Hanford Site Air Operating Permit, Revision F Issuance,” (Letter to L. Kral, U.S. Environmental Protection Agency, A. Ginsburg, State of Oregon, Department of Environmental Quality, M. McCormick, U.S. Department of Energy, Richland Operations Office, D. Brockman, U.S. Department of Energy, Office of River Protection, S. Harris, Confederated Tribes of the Umatilla Indian Reservation, R. Jim, Yakama Indian Nation), from J. Hedges and D. Hendrickson, State of Washington Department of Ecology, Richland, Washington, December 23.

*Resource Conservation and Recovery Act of 1976, [42 USC 6901](#), et seq.*

[WAC 173-400](#), “General Regulations for Air Pollution Sources,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-401](#), “Operating Permit Regulation,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-405](#), “Kraft Pulp Mill,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-406](#), “Acid Rain Regulation,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-407](#), “Carbon Dioxide Mitigation Program, Greenhouse Gases Emissions Performance Standard and Sequestration Plans and Programs for Thermal Electric Generating Facilities,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-410](#), “Sulfite Pulp Mill,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-415](#), “Primary Aluminum Plants,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-421](#), “Motor Vehicle Emission Control Systems,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-422](#), “Motor Vehicle Emission Inspection,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-425](#), “Outdoor Burning,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-430](#), “Agricultural Burning,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-433](#), “Solid Fuel Burning Devices,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-434](#), “Solid Waste Incinerator Facilities,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-441](#), “Reporting of Emissions of Greenhouse Gases,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-455](#), “Air Quality Fee Regulation,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-460](#), “Controls for New Sources of Toxic Air Pollutants,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-470](#), “Ambient Air Quality Standards for Particulate Matter,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-474](#), “Ambient Air Quality Standards for Sulfur Oxides,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-475](#), “Ambient Air Quality Standards for Carbon Monoxide, Ozone, and Nitrogen Dioxide,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-480](#), “Ambient Air Quality Standards and Emission Limits for Radionuclides,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-481](#), “Ambient Air Quality and Environmental Standards for Fluorides,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-490](#), “Emission Standards and Controls for Sources Emitting Volatile Organic Compounds (VOC),” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-491](#), “Emission Standards and Controls For Sources Emitting Gasoline Vapors,” *Washington Administrative Code*, Olympia, Washington.

[WAC 173-492](#), “Motor Fuel Specifications for Oxygenated Gasoline,” *Washington Administrative Code*, Olympia, Washington.

[WAC 246-247](#), “Radiation Protection—Air Emissions,” *Washington Administrative Code*, Olympia, Washington.

[WAC 463-78](#), “General and Operating Permit Regulations for Air Pollution Sources,” *Washington Administrative Code*, Olympia, Washington.

**APPENDIX A**

**SUMMARY OF EMISSION UNIT AND OPERATIONAL STATUS INFORMATION**

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**Emission Unit ID:** **1**  
**200E P-241C111-001** **241-C-111**

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-C TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B Method 114	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 50  
**200 W-296P045-001** 296-P-45

This is a MAJOR, ACTIVELY ventilated emission unit.

#### TANK FARMS

#### Emission Unit Information

Stack Height (ft)	21.00	Stack Height (m)	6.40	Average Stack Effluent Temperature (°F)	90
Stack Diameter (ft.)	0.50	Stack Diameter (m)	0.15	Average Stack Effluent Temperature (°C)	32
				Average Stack Velocity (ft/sec)	38.22
				Average Stack Velocity (m/sec)	11.65

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	1	<del>Passive Breather Filter</del>
	Heater	1	
	HEPA	2	2 HEPAs in series
	Fan	1	
	Demister	1	

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114	<del>CS-137, Sr-90 Each radionuclide that could contribute greater than 10% of the potential FEDE</del>	Continuous

**Sampling Requirements:** Record sample ~~collected biweekly~~

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a skid/mobile type portable exhauster used to support tank farm operations, such as but not limited to, waste characterization, waste retrieval, decommissioning, deactivation, maintenance, and construction and operation support activities. The emission unit is a portable exhauster that operates intermittently ~~or continuously~~.

There are 2 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Removal of Liquid from Catch Tank 241-ER-311	AIR 08-1106	11/10/2008	718
Categorical Tank Farm Facility Waste Retrieval and Closure: Phase II Waste Retrieval Operations (Replaced NOC ID 703)	AIR 10-1104	11/4/2010	780

<b>Emission Unit ID:</b>	<b>53</b>
<b>200W0P-296P022-001</b>	<b>296-P-22</b>

This is a MINOR, ACTIVELY ventilated emission unit.

241-SY TANK FARM

**Emission Unit Information**

Stack Height (ft)	13.17	Stack Height (m)	4.01	Average Stack Effluent Temperature (°F)	68
Stack Diameter (ft.)	0.69	Stack Diameter (m)	0.21	Average Stack Effluent Temperature (°C)	20
				Average Stack Velocity (ft/sec)	33.04
				Average Stack Velocity (m/sec)	10.07

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
	HEPA	2	2 in series
	Fan	1	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<u>1 week sample/4 times per year</u> <del>4-week sample/year</del>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a DST annulus exhauster used to support tank farm operations and ventilates the annuli of DSTs 241-SY Tank Farm. The tanks store radioactive waste until the waste is retrieved, treated, and properly disposed under the applicable federal and state regulations and/or permits. The annulus is the space between the inner wall and outer wall of the tank, and is used for leak detection. The emission unit operates ~~continuously~~ intermittently.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **54**  
**200W-P-296P028-001** **296-P-28**

This is a ~~MINOR, ACTIVELY~~ Ventilated emission unit.

241-SY TANK FARM

### Emission Unit Information

Stack Height (ft)	--	Stack Height (m)	--	Average Stack Effluent Temperature (°F)	--
Stack Diameter (ft.)	--	Stack Diameter (m)	--	Average Stack Effluent Temperature (°C)	--
				Average Stack Velocity (ft/sec)	--
				Average Stack Velocity (m/sec)	--

**Abatement Technology:** ~~ALARACT WAC 246-247-040(4)~~

**State only enforceable:** ~~WAC 246-247-010(4), 040(5), 060(5)~~

Zone or Area	Abatement Technology	Required # Units	Additional Description
	De-entrainer	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.
	Heater	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.
	Prefilter	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.
	HEPA	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.
	Fan	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.

### Monitoring Requirements

state enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
	Non-Operational		

**Sampling Requirements:** ~~Non-Operational~~

**Additional Requirements:** ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable~~

**Operational Status:** ~~The emission unit is non-operational, removed from service and will not be utilized for future tank farm operations. If the emission unit is required for tank farm operations, the proper regulatory requirements and permits will be obtained prior to returning the emission unit to service. Closure is pending submittal of closure form and final inspection and approval by WDOH.~~

There are ~~0~~ Active NOC(s) for this Unit

**Emission Unit ID:**  
200W P-296SY-001

**56**  
**296-P-23**

This is a MINOR, ACTIVELY ventilated emission unit.

241-SY TANK FARM

**Emission Unit Information**

Stack Height (ft)	17.30	Stack Height (m)	5.27	Average Stack Effluent Temperature (°F)	68
Stack Diameter (ft.)	0.51	Stack Diameter (m)	0.16	Average Stack Effluent Temperature (°C)	20
				Average Stack Velocity (ft/sec)	83.07
				Average Stack Velocity (m/sec)	25.32

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	De-entrainer	1	
	Heater	Non-Operational	
	Prefilter	1	
	HEPA	2	In series
	Fan	1	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<u>1 week sample/4 times per year</u> <del>4-week sample/year</del>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit ([241-SY B Train – western-most unit](#)) is a primary exhauster used to support tank farm operations by ventilating the DSTs in 241-SY Tank Farm during storage, maintenance, and normal operations. Any activity other than storage, maintenance, and normal operations will be regulated and/or permitted under the applicable regulations and/or permits for the activity being performed and the emission units associated with the activity. ~~This emission unit operates with the "B" train (Western most unit) while the "A" train (Eastern most unit) operates in conjunction with the emission unit (296-S-25).~~ This emission unit is operated in alternation with the "A" train when "B" train ([296-S-25](#)) is not operational. The emission unit operates intermittently.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200 W-296P043-001

**57**  
**296-P-43**

This is a MAJOR, ACTIVELY ventilated emission unit.

#### TANK FARMS

#### Emission Unit Information

Stack Height (ft)	21.00	Stack Height (m)	6.40	Average Stack Effluent Temperature (°F)	90
Stack Diameter (ft.)	0.50	Stack Diameter (m)	0.15	Average Stack Effluent Temperature (°C)	32
				Average Stack Velocity (ft/sec)	38.22
				Average Stack Velocity (m/sec)	11.65

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	1	
	Heater	1	
	HEPA	2	2 HEPAs in series
	Fan	1	
	Demister	1	

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114	<del>CS-137, Sr-90 Each radionuclide that could contribute greater than 10% of the potential FEDE</del>	Continuous

**Sampling Requirements:** Record sample ~~collected biweekly~~

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a skid/mobile type portable exhauster used to support tank farm operations, such as but not limited to, waste characterization, waste retrieval, decommissioning, deactivation, maintenance, and construction and operation support activities. The emission unit is a portable exhauster that is not planned for further use at 241-S-102. When used, it operates intermittently ~~or continuously~~.

There are ~~3~~ **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
<del>241-S-102 Installation and Operation of Waste Retrieval Systems (Replaced NOC ID 567)</del>	<del>AIR-09-708</del>	<del>7/29/2009</del>	<del>694</del>

Project Title	Approval Number	Date Approved	NOC_ID
Categorical Tank Farm Facility Waste Retrieval and Closure: Phase II Waste Retrieval Operations (Replaced NOC ID 703)	AIR 10-1104	11/4/2010	780
<del>Installation and Operation of Waste Retrieval Systems in Single-Shell Tank (SST) 241-S-112 (Replaces NOC ID 686)</del>	<del>AIR 10-1202</del>	<del>12/8/2010</del>	<del>788</del>

**Emission Unit ID:** 58  
**200 W-296P044-001** 296-P-44

This is a MAJOR, ACTIVELY ventilated emission unit.

#### TANK FARMS

#### Emission Unit Information

Stack Height (ft)	21.00	Stack Height (m)	6.40	Average Stack Effluent Temperature (°F)	90
Stack Diameter (ft.)	0.50	Stack Diameter (m)	0.15	Average Stack Effluent Temperature (°C)	32
				Average Stack Velocity (ft/sec)	38.22
				Average Stack Velocity (m/sec)	11.65

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	1	
	Heater	1	
	HEPA	2	2 HEPAs in series
	Fan	1	
	Demister	1	

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114	<del>Cs-137, Sr-90</del> Each radionuclide that could contribute greater than 10% of the potential FEDE	Continuous

**Sampling Requirements:** Record sample ~~collected biweekly~~

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a skid/mobile type portable exhauster used to support tank farm operations, such as but not limited to, waste characterization, waste retrieval, decommissioning, deactivation, maintenance, and construction and operation support activities. The emission unit is a portable exhauster that is not planned for further use at 241-S-112. When used it operates intermittently ~~or continuously~~.

There are ~~2~~ **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
<del>241-S-102 Installation and Operation of Waste Retrieval Systems (Replaced NOC ID 567)</del>	<del>AIR-09-708</del>	<del>7/29/2009</del>	<del>694</del>

Project Title	Approval Number	Date Approved	NOC_ID
Categorical Tank Farm Facility Waste Retrieval and Closure: Phase II Waste Retrieval Operations (Replaced NOC ID 703)	AIR 10-1104	11/4/2010	780

**Emission Unit ID:** 200W S-296S025-001 **59**  
**296-S-25**

This is a MINOR, ACTIVELY ventilated emission unit.

241-SY TANK FARM

**Emission Unit Information**

Stack Height (ft)	19.08	Stack Height (m)	5.82	Average Stack Effluent Temperature (°F)	78
Stack Diameter (ft.)	0.67	Stack Diameter (m)	0.20	Average Stack Effluent Temperature (°C)	26
				Average Stack Velocity (ft/sec)	47.27
				Average Stack Velocity (m/sec)	14.41

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	De-entrainer	1	
	Heater	1	Heater runs intermittently due to temperature Regulations
	Prefilter	1	
	HEPA	2	In series
	Fan	1	Emission unit operates intermittently

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<u>1 week sample/4 times per year</u> <del>4-week-sample/year</del>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit ([241-SY A Train – eastern-most unit](#)) is a primary exhauster used to support tank farm operations by ventilating the DSTs in 241-SY Tank Farm during storage, maintenance, and normal operations. Any activity other than storage, maintenance, and normal operations will be regulated and/or permitted under the applicable regulations and/or permits for the activity being performed and the emission units associated with the activity. ~~This emission unit operates with the "A" train (Eastern most unit) while the "B" train (Western most unit) operates in conjunction with the emission unit (295 P-23).~~ This emission unit is operated in alternation with the "B" train ([296-P-23](#)) when "A" train is not operational. The emission unit operates intermittently.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
600 S-6266-001

**62**  
**696-W-1**

This is a MINOR, ACTIVELY Ventilated emission unit.

Waste Sampling and Characterization Facility WSCF

### Emission Unit Information

Stack Height (ft)	<del>25.00</del> 46.5	Stack Height (m)	<del>7.62</del> 13	Average Stack Effluent Temperature (°F)	<del>78</del> 70
Stack Diameter (ft.)	4.50	Stack Diameter (m)	1.37	Average Stack Effluent Temperature (°C)	<del>26</del> 21
				Average Stack Velocity (ft/sec)	<del>51.90</del> 56.6
				Average Stack Velocity (m/sec)	<del>15.82</del> 17.4

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	2	In parallel
	HEPA	2	In parallel
	Fan	2	In parallel

### Monitoring Requirements

state enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	2 week sample/quarter

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Operations at the Waste Sampling and Characterization Facility involve low level radiological and chemical sample analyses and storage on the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Use of Portable Tanks and Revised Source Term Description at Waste Sampling and Characterization Facility (WSCF)	AIR 06-1029	10/5/2006	669

**Emission Unit ID:**  
600 S-6266-002

**63**  
**696-W-2**

This is a MINOR, ACTIVELY Ventilated emission unit.

Waste Sampling and Characterization Facility WSCF

**Emission Unit Information**

Stack Height (ft)	32.00	Stack Height (m)	9.75	Average Stack Effluent Temperature (°F)	<del>90</del> 70
Stack Diameter (ft.)	<del>3.00</del> 3x1 <u>rectang.</u>	Stack Diameter (m)	<del>0.91</del> 0.33 <u>x 0.94</u> <u>rectang.</u>	Average Stack Effluent Temperature (°C)	<del>32</del> 21
				Average Stack Velocity (ft/sec)	<del>6.60</del> 11.1
				Average Stack Velocity (m/sec)	<del>2.01</del> 3.4

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	2	In parallel
	HEPA	2	In parallel
	Fan	1	An additional standby fan recirculates the air flow back to Building (Bldg. 6266) or can vent it to the atmosphere.

**Monitoring Requirements**

state enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	2 week sample/quarter

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Operations at the Waste Sampling and Characterization Facility involve low level radiological and chemical sample analyses and storage on the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Use of Portable Tanks and Revised Source Term Description at Waste Sampling and Characterization Facility (WSCF)	AIR 06-1029	10/5/2006	669

**Emission Unit ID:** 200W P-241T105-001 **65**  
**241-T-105**

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-T TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200W P-241T106-001

**66**  
**241-T-106**

This is a MINOR, PASSIVELY ventilated emission unit.

241-T TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200W P-241T109-001

**67**  
**241-T-109**

This is a MINOR, PASSIVELY ventilated emission unit.

241-T TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200W P-241T102-001

**68**  
**241-T-102**

This is a MINOR, PASSIVELY ventilated emission unit.

241-T TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200W P-241T107-001

**69**  
**241-T-107**

This is a MINOR, PASSIVELY ventilated emission unit.

241-T TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 70  
**200W P-241T111-001** 241-T-111

This is a MINOR, PASSIVELY ventilated emission unit.

241-T TANK FARM

### Emission Unit Information

Stack Height (ft)	<del>3.00</del> <u>5.00</u>	Stack Height (m)	<del>0.91</del> <u>1.52</u>	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	<del>1.00</del> <u>1.13</u>	Stack Diameter (m)	<del>0.30</del> <u>0.34</u>	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	<del>0.17</del> <u>0.25</u>
				Average Stack Velocity (m/sec)	<del>0.05</del> <u>0.08</u>

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1-per-year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 71  
**200W P-241T104-001** 241-T-104

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-T TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 72  
**200W P-241T112-001** 241-T-112

This is a MINOR, PASSIVELY ventilated emission unit.

241-T TANK FARM

### Emission Unit Information

Stack Height (ft)	<del>3.00</del> <u>5.00</u>	Stack Height (m)	<del>0.91</del> <u>1.52</u>	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	<del>1.00</del> <u>1.13</u>	Stack Diameter (m)	<del>0.30</del> <u>0.34</u>	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	<del>0.17</del> <u>0.25</u>
				Average Stack Velocity (m/sec)	<del>0.05</del> <u>0.08</u>

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <u>Every 365 days</u>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 73  
**200W P-241T108-001** 241-T-108

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-T TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 74  
**200W P-241T203-001** 241-T-203

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-T TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 75  
**200W P-241T204-001** 241-T-204

This is a MINOR, PASSIVELY ventilated emission unit.

241-T TANK FARM

**Emission Unit Information**

Stack Height (ft)	<del>3.00</del> <u>5.00</u>	Stack Height (m)	<del>0.91</del> <u>1.52</u>	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	<del>1.00</del> <u>1.13</u>	Stack Diameter (m)	<del>0.30</del> <u>0.34</u>	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	<del>0.17</del> <u>0.25</u>
				Average Stack Velocity (m/sec)	<del>0.05</del> <u>0.08</u>

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <u>Every 365 days</u>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 76  
**200W P-241T110-001** 241-T-110

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-T TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 77  
**200W P-241T202-001** 241-T-202

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-T TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 78  
**200W P-241T103-001** 241-T-103

This is a MINOR, PASSIVELY ventilated emission unit.

241-T TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 79  
**200W P-241T101-001** 241-T-101

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-T TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **80**  
**200W P-241T201-001** **241-T-201**

This is a MINOR, PASSIVELY ventilated emission unit.

241-T TANK FARM

### Emission Unit Information

Stack Height (ft)	<del>3.00</del> <u>5.00</u>	Stack Height (m)	<del>0.91</del> <u>1.52</u>	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	<del>1.00</del> <u>1.13</u>	Stack Diameter (m)	<del>0.30</del> <u>0.34</u>	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	<del>0.17</del> <u>0.25</u>
				Average Stack Velocity (m/sec)	<del>0.05</del> <u>0.08</u>

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <u>Every 365 days</u>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **81**  
**200W P-241TY106-001** **241-TY-106**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TY TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **82**  
**200W P-241TY102-001** **241-TY-102**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TY TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **83**  
**200W P-241TY105-001** **241-TY-105**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TY TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **84**  
**200W P-241TY104-001** **241-TY-104**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TY TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **85**  
**200W P-241TY103-001** **241-TY-103**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TY TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **86**  
**200W P-241TY101-001** **241-TY-101**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TY TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **87**  
**200E P-241A103-001** **241-A-103**

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-A TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **88**  
**200E P-241A104-001** **241-A-104**

This is a MINOR, PASSIVELY ventilated emission unit.

241-A TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 90  
**200E P-241A102-001** 241-A-102

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-A TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 91  
**200E P-241A105-001** 241-A-105

This is a MINOR, PASSIVELY ventilated emission unit.

241-A TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 92  
**200E P-241A101-001** 241-A-101

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-A TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200E P-296A042-001

**93**  
**296-A-42**

This is a MAJOR, ACTIVELY ventilated emission unit.

241-AY/AZ TANK FARM

**Emission Unit Information**

Stack Height (ft)	55.00	Stack Height (m)	16.76	Average Stack Effluent Temperature (°F)	75
Stack Diameter (ft.)	0.83	Stack Diameter (m)	0.25	Average Stack Effluent Temperature (°C)	24
				Average Stack Velocity (ft/sec)	30.56
				Average Stack Velocity (m/sec)	9.31

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Condenser	1	<a href="#">(In the common exhaust train)</a> At common header. Downtime to be reported by the Tank Farm air emissions notification procedure.
	Water Chiller	1	<a href="#">(In the common exhaust train)</a> Downtime to be reported by the Tank Farm air emissions notification procedure.
	HEME	1	<a href="#">(In the common exhaust train)</a> Downtime to be reported by the Tank Farm air emissions notification procedure.
	<del>Cooling Water Pump</del>	<del>1</del>	<del>Downtime to be reported by the Tank Farm air emissions notification procedure.</del>
	Heater	1	<a href="#">(In the common exhaust train)</a> 2 parallel flow paths with 1 operational. Downtime to be reported by the Tank Farm air emissions notification procedure.
	HEPA	2	<a href="#">(In the common exhaust train)</a> 2 parallel flow paths. Downtime to be reported by the Tank Farm air emissions notification procedure.

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Chiller Pump	1	<a href="#">(In the common exhaust train)</a> Downtime to be reported by the Tank Farm air emissions notification procedure.
	Moisture Separator	1	Downtime to be reported by the Tank Farm air emissions notification procedure.
	Fan	1	<a href="#">(In the common exhaust train)</a> 2 parallel flow paths. Downtime to be negotiated with the department.
	<del>Evaporator Tower</del>	<del>1</del>	<del>Downtime to be reported by the Tank Farm air emissions notification procedure.</del>

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114	<del>Each radionuclide that could contribute greater than 10% Sr-90, Cs-137 and Am-241</del>	Continuous

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a primary exhauster used to support tank farm operations by ventilating the DSTs in 241AY/AZ Tank Farm during storage, maintenance, and normal operations. Any activity other than storage, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a primary exhauster ventilation system that operates ~~continuously~~ [intermittently](#).

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
License to Operate Ventilation of the 241 AY/AZ Tank Farm (Replaced NOC ID 708)	AIR 10-1101	11/4/2010	782

**Emission Unit ID:** **94**  
**200E P-241A106-001** **241-A-106**

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-A TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200E P-204AR-001

**96**  
**296-A-26**

This is a MINOR, ACTIVELY ventilated emission unit.

204 AR Building

**Emission Unit Information**

Stack Height (ft)	27.00	Stack Height (m)	8.23	Average Stack Effluent Temperature (°F)	78
Stack Diameter (ft.)	1.17	Stack Diameter (m)	0.36	Average Stack Effluent Temperature (°C)	26
				Average Stack Velocity (ft/sec)	25.50
				Average Stack Velocity (m/sec)	7.77

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	2	1 filter is located on the line directly to the catch tank. 2nd filter is on the shared/main line for the facility and catch tank.
	Fan	1	
	De-entrainer	2	1 located just upstream of each HEPA filter.
	Heater	1	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<u>1 week sample/4 times per year (if operated other than for HEPA filter testing) 4</u> <del>week sample/year</del>

**Sampling Requirements:** Record Sample [\(if run other than for aerosol testing of the HEPA filters\).](#)

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a building/facility exhauster that is used to ventilate building and facility operations such as but not limited to process vessels, contaminated rooms, catch tank, abandoned facilities awaiting decommissioning, and vaults that support tank farm operations, maintenance, and surveillance activities for tank farms. The exhauster can be used to support current surveillance, maintenance activities, operations or decommissioning, decontamination, and cleanup activities within the building/facility. Many of the activities other than normal surveillance, maintenance, and operation support will be or are regulated and/or permitted under the appropriate regulations and/or

permits for the activity being performed and the emission units associated with the activity. The emission unit is a building/facility exhaust ventilation system that is currently inactive. The building is currently not used for operational activities: exhauster is operated for purpose of annual aerosol testing of HEPA filters.~~operates intermittently.~~

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 97  
**200W P-241U103-001** 241-U-103

This is a MINOR, PASSIVELY ventilated emission unit.

241-U TANK FARM

### Emission Unit Information

Stack Height (ft)	15.00	Stack Height (m)	4.57	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	0.33	Stack Diameter (m)	0.10	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	1.91
				Average Stack Velocity (m/sec)	0.58

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** ~~Contamination surveys of breather filters with stack extensions will be performed on the downstream side of the filter or on the outside of the screen covering the outlet of vent (if one exists) or~~ [An alternate sampling method for breather filters with stack extensions may be performed](#) by removing the test port cap downstream of the HEPA filter, surveying the cap and inserting smear media (e.g. swab, masslin) in the opening and smearing the interior ducting surface on the opposite side of the test port cap opening. [Breather filters shall be aerosol tested every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the

activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 200W P-241U108-001 **98**  
**241-U-108**

This is a MINOR, PASSIVELY ventilated emission unit.

241-U TANK FARM

### Emission Unit Information

Stack Height (ft)	15.00	Stack Height (m)	4.57	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	0.33	Stack Diameter (m)	0.10	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	1.91
				Average Stack Velocity (m/sec)	0.58

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** ~~Contamination surveys of breather filters with stack extensions will be performed on the downstream side of the filter or on the outside of the screen covering the outlet of vent (if one exists) or~~ [An alternate sampling method for breather filters with stack extensions may be performed](#) by removing the test port cap downstream of the HEPA filter, surveying the cap and inserting smear media (e.g. swab, masslin) in the opening and smearing the interior ducting surface on the opposite side of the test port cap opening. [Breather filters shall be aerosol tested every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the

activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 200W P-241U107-001      **99**  
**241-U-107**

This is a MINOR, PASSIVELY ventilated emission unit.

241-U TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT      WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **100**  
**200W P-241U203-001** **241-U-203**

This is a MINOR, PASSIVELY ventilated emission unit.

241-U TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 101  
**200W P-241U102-001** 241-U-102

This is a MINOR, PASSIVELY ventilated emission unit.

241-U TANK FARM

### Emission Unit Information

Stack Height (ft)	15.00	Stack Height (m)	4.57	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	0.33	Stack Diameter (m)	0.10	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	<del>0.17</del> <u>1.91</u>
				Average Stack Velocity (m/sec)	<del>0.05</del> <u>0.58</u>

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>+per year</del> <u>Every 365 days</u>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** ~~Contamination surveys of breather filters with stack extensions will be performed on the downstream side of the filter or on the outside of the screen covering the outlet of vent (if one exists) or~~ [An alternate sampling method for breather filters with stack extensions may be performed](#) by removing the test port cap downstream of the HEPA filter, surveying the cap and inserting smear media (e.g. swab, masslin) in the opening and smearing the interior ducting surface on the opposite side of the test port cap opening. [Breather filters shall be aerosol tested every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the

activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 102  
**200W P-241U201-001** 241-U-201

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-U TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 103  
**200W P-241U101-001** 241-U-101

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-U TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **104**  
**200W P-241U204-001** **241-U-204**

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-U TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 105  
**200W P-241U109-001** 241-U-109

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-U TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 106  
**200W P-241U202-001** 241-U-202

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-U TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 107  
**200W P-241U111-001** 241-U-111

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-U TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 108  
**200W P-241U112-001** 241-U-112

This is a MINOR, PASSIVELY ventilated emission unit.

241-U TANK FARM

### Emission Unit Information

Stack Height (ft)	15.00	Stack Height (m)	4.57	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	0.33	Stack Diameter (m)	0.10	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	1.91
				Average Stack Velocity (m/sec)	0.58

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** ~~Contamination surveys of breather filters with stack extensions will be performed on the downstream side of the filter or on the outside of the screen covering the outlet of vent (if one exists) or~~ [An alternate sampling method for breather filters with stack extensions may be performed](#) by removing the test port cap downstream of the HEPA filter, surveying the cap and inserting smear media (e.g. swab, masslin) in the opening and smearing the interior ducting surface on the opposite side of the test port cap opening. [Breather filters shall be aerosol tested every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the

activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **109**  
**200W P-241U104-001** **241-U-104**

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-U TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 110  
**200W P-241U110-001** 241-U-110

This is a MINOR, PASSIVELY ventilated emission unit.

241-U TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 111  
**200W P-241U106-001** 241-U-106

This is a MINOR, PASSIVELY ventilated emission unit.

241-U TANK FARM

### Emission Unit Information

Stack Height (ft)	15.00	Stack Height (m)	4.57	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	0.33	Stack Diameter (m)	0.10	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	1.91
				Average Stack Velocity (m/sec)	0.58

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** ~~Contamination surveys of breather filters with stack extensions will be performed on the downstream side of the filter or on the outside of the screen covering the outlet of vent (if one exists) or~~ [An alternate sampling method for breather filters with stack extensions may be performed](#) by removing the test port cap downstream of the HEPA filter, surveying the cap and inserting smear media (e.g. swab, masslin) in the opening and smearing the interior ducting surface on the opposite side of the test port cap opening. [Breather filters shall be aerosol tested every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the

activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 112  
**200W P-241U105-001** 241-U-105

This is a MINOR, PASSIVELY ventilated emission unit.

241-U TANK FARM

### Emission Unit Information

Stack Height (ft)	15.00	Stack Height (m)	4.57	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	0.33	Stack Diameter (m)	0.10	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	1.91
				Average Stack Velocity (m/sec)	0.58

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** ~~Contamination surveys of breather filters with stack extensions will be performed on the downstream side of the filter or on the outside of the screen covering the outlet of vent (if one exists) or~~ [An alternate sampling method for breather filters with stack extensions may be performed](#) by removing the test port cap downstream of the HEPA filter, surveying the cap and inserting smear media (e.g. swab, masslin) in the opening and smearing the interior ducting surface on the opposite side of the test port cap opening. [Breather filters shall be aerosol tested every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the

activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
**200W P-241TX117-001**

**113**  
**241-TX-117**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200W P-241TX107-001

**114**  
**241-TX-107**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200W P-241TX112-001

**115**  
**241-TX-112**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
**200W P-241TX105-001**

**116**  
**241-TX-105**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 117  
**200W P-241TX113-001** 241-TX-113

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
**200W P-241TX104-001**

**118**  
**241-TX-104**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
**200W P-241TX114-001**

**119**  
**241-TX-114**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 120  
**200W P-241TX103-001** 241-TX-103

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 121  
**200W P-241TX110-001** 241-TX-110

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 122  
**200W P-241TX116-001** 241-TX-116

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 123  
**200W P-241TX108-001** 241-TX-108

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 124  
**200W P-241TX102-001** 241-TX-102

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 125  
**200W P-241TX115-001** 241-TX-115

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 126  
**200W P-241TX106-001** 241-TX-106

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 127  
**200W P-241TX101-001** 241-TX-101

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
**200W P-241TX109-00**

**128**  
**241-TX-109**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
**200W P-241TX118-001**

**129**  
**241-TX-118**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **130**  
**200W P-241TX111-001** **241-TX-111**

This is a MINOR, PASSIVELY ventilated emission unit.

241-TX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 131  
**200W P-241S104-001** 241-S-104

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-S TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 132  
**200W P-241S101-001** 241-S-101

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-S TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 133  
**200W P-241S103-001** 241-S-103

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-S TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200W P-241S102-001

**134**  
**241-S-102**

This is a MINOR, PASSIVELY ventilated emission unit.

241-S TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are ~~1~~<sup>0</sup> Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
<del>241-S-102 Installation and Operation of Waste Retrieval Systems</del>	<del>AIR-09-708</del>	<del>7/29/2009</del>	<del>694</del>

**Emission Unit ID:** 135  
**200W P-241S108-001** 241-S-108

This is a MINOR, PASSIVELY ventilated emission unit.

241-S TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 136  
**200W P-241S109-001** 241-S-109

This is a MINOR, PASSIVELY ventilated emission unit.

241-S TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 137  
**200W P-241S105-001** 241-S-105

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-S TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 138  
**200W P-241S110-001** 241-S-110

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-S TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 139  
**200W P-241S106-001** 241-S-106

This is a MINOR, PASSIVELY ventilated emission unit.

241-S TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **140**  
**200W P-241S107-001** **241-S-107**

This is a MINOR, PASSIVELY ventilated emission unit.

241-S TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200E P-242A-001

**141**  
**296-A-21**

This is a MINOR, ACTIVELY ventilated emission unit.

242-A Evaporator

### Emission Unit Information

Stack Height (ft)	22.00	Stack Height (m)	6.71	Average Stack Effluent Temperature (°F)	117
Stack Diameter (ft.)	3.50	Stack Diameter (m)	1.07	Average Stack Effluent Temperature (°C)	47
				Average Stack Velocity (ft/sec)	<del>33.43</del> 37.7
				Average Stack Velocity (m/sec)	<del>10.19</del> 11.51

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	1	2 parallel flow paths with 1 bank per flow path
	HEPA	2	2 parallel flow paths with 1 bank per flow path
	Fan	1	2 parallel flow paths (Minimum 1 parallel path in operation)

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B Method 114(3)	TOTAL ALPHA TOTAL BETA	<u>1 week sample/4 times per year</u> <del>4 week sample/year</del>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a building/facility exhauster that is used to ventilate building and facility operations such as but not limited to process vessels, contaminated rooms, cells, glove boxes, hoods, abandoned facilities awaiting decommissioning, and vaults that support tank farm operations, maintenance, and surveillance activities for tank farms. The exhauster can be used to support current surveillance, maintenance activities, operations or decommissioning, decontamination, and cleanup activities within the building/facility. Many of the activities other than normal surveillance, maintenance, and operation support will be or are regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a building/facility exhauster ventilation system that operates intermittently.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 142  
**200E P-242A-002** 296-A-22

This is a MINOR, ACTIVELY ventilated emission unit.

242-A Evaporator

**Emission Unit Information**

Stack Height (ft)	63.58	Stack Height (m)	19.38	Average Stack Effluent Temperature (°F)	120
Stack Diameter (ft.)	0.67	Stack Diameter (m)	0.20	Average Stack Effluent Temperature (°C)	49
				Average Stack Velocity (ft/sec)	<del>37.82</del> 33.43
				Average Stack Velocity (m/sec)	<del>11.53</del> 10.19

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Heater	1	
	HEPA	2	In series
	Fan	1	Fan operates during 242-A processing
	Prefilter	1	
	De-entrainer	1	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	During campaigns: 40 CFR 60, Appendix A, Method 2; 40 CFR 61, Appendix B, Method 114: During non-campaigns: 40 CFR 61, Appendix B, Method 114(3).	Campaign: TOTAL ALPHA, TOTAL BETA, 137Cs, 90Sr, 239Pu, 238Pu, 241Am, <del>and each radionuclide that could contribute greater than 10% of the potential TEDI.</del> Non- Campaign: Total Alpha, Total Beta.	One week sample per quarter, and continuous sampling during campaign.

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a Vessel Vent exhauster that is used to ventilate the process equipment including the evaporator vessel, C-100 tank and associated piping. The emission unit is a building/facility exhauster ventilation system that operates intermittently

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of the 242-A Evaporator emission unit 296-A-22	AIR 06-1016	10/5/2006	651

**Emission Unit ID:**  
200E P-242AL44-001

**146**  
**LERF Basin #44**

This is a MINOR, PASSIVELY ventilated emission unit.

Liquid Effluent Retention Facility (LERF)

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	77
Stack Diameter (ft.)	<del>0.25</del> 0.17	Stack Diameter (m)	<del>0.08</del> 0.05	Average Stack Effluent Temperature (°C)	25
				Average Stack Velocity (ft/sec)	32.50
				Average Stack Velocity (m/sec)	9.91

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Charcoal Filter	1	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	Air - every 2 weeks continuous/deposition - annually

**Sampling Requirements:** Near Field Environment Sampling

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Operations at LERF involve receipt and storage of wastewaters on the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of the Liquid Effluent Retention Facility and the 200 Area Effluent Treatment Facility	AIR 06-1045	10/5/2006	690

**Emission Unit ID:**  
200E P-242AL43-001

**147**  
**LERF Basin #43**

This is a MINOR, PASSIVELY ventilated emission unit.

Liquid Effluent Retention Facility (LERF)

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	77
Stack Diameter (ft.)	<del>0.25</del> 0.17	Stack Diameter (m)	<del>0.08</del> 0.05	Average Stack Effluent Temperature (°C)	25
				Average Stack Velocity (ft/sec)	32.50
				Average Stack Velocity (m/sec)	9.91

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Charcoal Filter	1	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	Air - every 2 weeks continuous/deposition - annually

**Sampling Requirements:** Near Field Environment Sampling

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Operations at LERF involve receipt and storage of wastewaters on the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of the Liquid Effluent Retention Facility and the 200 Area Effluent Treatment Facility	AIR 06-1045	10/5/2006	690

**Emission Unit ID:**  
200E P-242AL42-001

**148**  
**LERF Basin #42**

This is a MINOR, PASSIVELY ventilated emission unit.

Liquid Effluent Retention Facility (LERF)

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	77
Stack Diameter (ft.)	<del>0.25</del> <u>0.17</u>	Stack Diameter (m)	<del>0.08</del> <u>0.05</u>	Average Stack Effluent Temperature (°C)	25
				Average Stack Velocity (ft/sec)	32.50
				Average Stack Velocity (m/sec)	9.91

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Charcoal Filter	1	
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	Air - every 2 weeks continuous/deposition - annually

**Sampling Requirements:** Near Field Environment Sampling

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Operations at LERF involve receipt and storage of wastewaters on the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of the Liquid Effluent Retention Facility and the 200 Area Effluent Treatment Facility	AIR 06-1045	10/5/2006	690

<b>Emission Unit ID:</b>	<b>150</b>
<b>200E-P-296AW-001</b>	<b>296-A-27</b>

This is a ~~MINOR, ACTIVELY~~ Ventilated emission unit.

~~241-AW TANK FARM~~

~~Emission Unit Information~~

Stack Height (ft)	16.27	Stack Height (m)	4.96	Average Stack Effluent Temperature (°F)	110
Stack Diameter (ft.)	0.83	Stack Diameter (m)	0.25	Average Stack Effluent Temperature (°C)	43
				Average Stack Velocity (ft/sec)	30.56
				Average Stack Velocity (m/sec)	9.31

~~Abatement Technology: ALARACT WAC 246-247-040(4)~~

~~State only enforceable: WAC 246-247-010(4), 040(5), 060(5)~~

<del>Zone or Area</del>	<del>Abatement Technology</del>	<del>Required # Units</del>	<del>Additional Description</del>
	<del>De-entrainer</del>	<del>1</del>	<del>2 parallel flow paths</del>
	<del>Heater</del>	<del>1</del>	<del>2 parallel flow paths</del>
	<del>Fan</del>	<del>2</del>	<del>2 parallel flow paths, 1 in operation at a time</del>
	<del>HEPA</del>	<del>2</del>	<del>2 parallel flow paths with 2 HEPAs in series</del>
	<del>Prefilter</del>	<del>1</del>	<del>2 parallel flow paths</del>

~~Monitoring Requirements~~

~~state enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 subpart H~~

<del>Federal and State Regulatory</del>	<del>Monitoring and Testing Requirements</del>	<del>Radionuclides Requiring Measurement</del>	<del>Sampling Frequency</del>
<del>40 CFR 61.93(b)(4)(i) &amp; WAC 246-247-075(3)</del>	<del>40 CFR 61, Appendix B, Method 114(3)</del>	<del>TOTAL ALPHA TOTAL BETA</del>	<del>4 week sample/ year</del>

~~Sampling Requirements: Record Sample~~

~~Additional Requirements: Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

~~Operational Status: This emission unit is a primary exhauster used to support tank farm operations by ventilating the DSTs in 241-AW Tank Farm during storage, maintenance, and normal operations. Any activity other than storage, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit operates intermittently.~~

~~There are 0 Active NOC(s) for this Unit~~

**Emission Unit ID:**  
200E P-296A028-001

**156**  
**296-A-28**

This is a MINOR, ACTIVELY ventilated emission unit.

241-AW TANK FARM

**Emission Unit Information**

Stack Height (ft)	23.50	Stack Height (m)	7.16	Average Stack Effluent Temperature (°F)	<del>68</del> <u>120</u>
Stack Diameter (ft.)	2.00	Stack Diameter (m)	0.61	Average Stack Effluent Temperature (°C)	<del>20</del> <u>48.89</u>
				Average Stack Velocity (ft/sec)	<del>31.83</del> <u>31.34</u>
				Average Stack Velocity (m/sec)	<del>9.70</del> <u>9.55</u>

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	2	2 filter in series for each train, trains may be operated independently or together
	Fan	1	1 for each train, trains may be operated independently or together
	De-entrainer	1	1 for each train
	Heater	1	1 for each train

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<u>1 week sample/4 times per year</u> <del>4-week sample/year</del>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a DST annulus exhaustor used to support tank farm operations and ventilates the annuli of DSTs 241-AW Tank Farm. The tanks store radioactive waste until the waste is retrieved, treated, and properly disposed under the applicable federal and state regulations and/or permits. The annulus is the space between the inner wall and outer wall of the tank, and is used for leak detection. The emission unit operates ~~continuously~~ intermittently.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200W P-242S-001

**163**  
**296-S-18**

This is a MINOR, ACTIVELY ventilated emission unit.

242-S Evaporator

**Emission Unit Information**

Stack Height (ft)	22.00	Stack Height (m)	6.71	Average Stack Effluent Temperature (°F)	117
Stack Diameter (ft.)	3.50	Stack Diameter (m)	1.07	Average Stack Effluent Temperature (°C)	47
				Average Stack Velocity (ft/sec)	5.80
				Average Stack Velocity (m/sec)	1.77

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	2	2 in parallel with 2 in series (1 fan abandoned in place, only one flow path is available for operations)
	Fan	1	2 parallel flow paths (1 fan abandoned in place, only one flow path is available for operations)

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<u>1 week sample/4 times per year</u> <del>4-week sample/year</del>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a building/facility exhauster that is used to ventilate building and facility operations such as but not limited to process vessels, contaminated rooms, cells, glove boxes, hoods, abandoned facilities awaiting decommissioning, and vaults that support tank farm operations, maintenance, and surveillance activities for tank farms. The exhauster can be used to support current surveillance, maintenance activities, operations or decommissioning, decontamination, and cleanup activities within the building/facility. Many of the activities other than normal surveillance, maintenance, and operation support will be or are regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a building/facility exhauster ventilation system that operates intermittently.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **168**  
**100K R-1706KE-001** **1706KE**

This is a ~~MINOR, ACTIVELY~~ ventilated emission unit.

1706-KE Lab

**Emission Unit Information**

Stack Height (ft)	25.00	Stack Height (m)	7.62	Average Stack Effluent Temperature (°F)	78
Stack Diameter (ft.)	1.50	Stack Diameter (m)	0.46	Average Stack Effluent Temperature (°C)	26
				Average Stack Velocity (ft/sec)	113.00
				Average Stack Velocity (m/sec)	34.44

**Abatement Technology:** ~~ALARACT~~ WAC 246-247-040(4)

**State only enforceable:** ~~WAC 246-247-010(4), 040(5), 060(5)~~

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	
	Fan	1	Intermittent operation

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61-Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA-TOTAL BETA.	4-week sample/year

**Sampling Requirements:** ~~Record Sample~~

**Additional Requirements:** ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

**Operational Status:** ~~Activities at the 1706KE Laboratory involve decontamination and decommissioning activities including CERCLA cleanup operations at the Hanford Site.~~

There are ~~0~~ Active NOC(s) for this Unit

**Emission Unit ID:**  
200E P-296A020-001

**174**  
**296-A-20**

This is a MINOR, ACTIVELY ventilated emission unit.

241-AZ TANK FARM

**Emission Unit Information**

Stack Height (ft)	15.70	Stack Height (m)	4.79	Average Stack Effluent Temperature (°F)	68
Stack Diameter (ft.)	2.00	Stack Diameter (m)	0.61	Average Stack Effluent Temperature (°C)	20
				Average Stack Velocity (ft/sec)	10.61
				Average Stack Velocity (m/sec)	3.23

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	4	2 HEPA's in series for each train, 2 trains
	Fan	1	
	Radial Damper	1	Set to allow only 2, 000 CFM (1,000 CFM per annulus)
	Heater	2	1 per train, 2 trains

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<del>4 week sample/year</del> <u>1 week sample/4 times per year.</u>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a DST annulus exhauster used to support tank farm operations by ventilating the annuli of DSTs 241-AZ-101 and 241-AZ-102. Each train of this emission unit supports an individual tank (Train A for 241-AZ-101 and Train B for 241-AZ-102). The tank stores radioactive waste until the waste is retrieved, treated, and properly disposed under the applicable federal and state regulations and/or permits. The annulus is the space between the inner wall and outer wall of the tank, and is used for leak detection. The emission unit operates ~~continuously~~ intermittently.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
241-AZ Tank Farm Annulus Exhauster Operation	AIR 06-1031	10/5/2006	671

**Emission Unit ID:** **175**  
**300 EP-318-01-S** **EP-318-01-S**

This is a MINOR, ACTIVELY ventilated emission unit.

318 Building

**Emission Unit Information**

Stack Height (ft)	29.00	Stack Height (m)	8.84	Average Stack Effluent Temperature (°F)	<del>79</del> 73
Stack Diameter (ft.)	0.82	Stack Diameter (m)	0.25	Average Stack Effluent Temperature (°C)	<del>26</del> 23
				Average Stack Velocity (ft/sec)	<del>18.9</del> 16.78
				Average Stack Velocity (m/sec)	<del>5.76</del> 5.11

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)  
**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
Exhaust Duct	HEPA	1	12" x 24" x 24" HEPA filter installed in the exhaust duct from the fume hood in Room 126.

Exhaust Duct	Exhaust Fan	1
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**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	2 week sample/year

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at the 318 Building support operations. This 29 foot tall stack exhausts emissions from [room 126 through](#) a single fume hood. Particulate emissions are sampled. The building contains areas for calibrating radiation survey instruments and processing personnel dosimeters.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Calibration and Development Activities in the Radiological Calibrations Laboratory (318 Building)	AIR 06-1037	10/5/2006	681

**Emission Unit ID:**  
200W P-296W004 001

**193**  
**296-W-4**

This is a MAJOR, ACTIVELY ventilated emission unit.

Waste Receiving and Processing Facility (WRAP)

**Emission Unit Information**

Stack Height (ft)	47.00	Stack Height (m)	14.33	Average Stack Effluent Temperature (°F)	70
Stack Diameter (ft.)	2.63	Stack Diameter (m)	0.80	Average Stack Effluent Temperature (°C)	21
				Average Stack Velocity (ft/sec)	44.30
				Average Stack Velocity (m/sec)	13.50

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	2	Redundant systems in parallel consisting of two banks each
	HEPA	2	Redundant systems in parallel consisting of two banks each
	Prefilter	1	Prefilter for each HEPA housing
	Fan	2	2 parallel paths (1-in use, 1 in backup)

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 60 Appendix A, Method 2; 40 CFR 61, Appendix B, Method 114; 61.93(b)(2)(ii) ANSI N13.1	Each radionuclide that could contribute greater than 10% of the potential TEDE	Continuous, Collect samples biweekly at a minimum

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Operations at the WRAP Facility involve storage, treatment, and disposal of waste containers at the Hanford Site.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Construction and operation of the Waste Receiving and Processing (WRAP) Facility	AIR 08-802	8/5/2008	638

**Emission Unit ID:** 200  
**200W P-241SX115-001** 241-SX-115

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<del>40 CFR 60 Appendix A, Method 2;</del> 40 CFR 61, Appendix B, Method 114; <del>61.93(b)(2)(ii) ANSI N13.1</del>	<del>Each radionuclide that could contribute greater than 10% of the potential TEDE Levels below 10,000 dpem/100 cm<sup>2</sup> beta/gamma and 200 dpm/100 cm<sup>2</sup> alpha will verify low emissions.</del>	<del>Continuous, Collect samples biweekly at a minimum</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 201  
**200W P-241SX113-001** 241-SX-113

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit.

**Emission Unit ID:** 202  
**200W P-241S111-001** 241-S-111

This is a MINOR, PASSIVELY ventilated emission unit.

241-S TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 203  
**200W P-241S-001** 241-S-112

This is a MINOR, PASSIVELY ventilated emission unit.  
 241-S TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are ~~1~~ **0** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
<del>Installation and Operation of Waste Retrieval Systems in Single Shell Tank (SST) 241-S-112 (Replaces NOC ID 686)</del>	<del>AIR-10-1202</del>	<del>12/8/2010</del>	<del>788</del>

**Emission Unit ID:**  
200E P-296AP-001

**204**  
**296-A-40**

This is a MINOR, ACTIVELY ventilated emission unit.

241-AP TANK FARM

### Emission Unit Information

Stack Height (ft)	<del>20.58</del> 19.58	Stack Height (m)	<del>6.27</del> 5.97	Average Stack Effluent Temperature (°F)	110
Stack Diameter (ft.)	<del>0.50</del> 0.55	Stack Diameter (m)	<del>0.15</del> 0.17	Average Stack Effluent Temperature (°C)	43
				Average Stack Velocity (ft/sec)	<del>84.88</del> 37.75
				Average Stack Velocity (m/sec)	<del>25.87</del> 11.50

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	De-entrainer	1	2 parallel flow paths
	Heater	1	2 parallel flow paths
	Prefilter	1	2 parallel flow paths
	HEPA	2	2 parallel flow paths with 2 HEPAs in series
	Fan	1	2 parallel flow paths, 1 in operation at a time

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<del>1 week sample/4 times per year</del> 2-week sample/quarter

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a primary exhauster used to support tank farm operations by ventilating the DSTs in 241AP Tank Farm during storage, maintenance, and normal operations. Any activity other than storage, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit operates intermittently.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Installation and operation of Waste Retrieval System in Tanks 241-AP-102 and 241-AP-104	AIR 06-1027	10/5/2006	666

**Emission Unit ID:** 205  
**200E P-296A041-001** 296-A-41

This is a MINOR, ACTIVELY ventilated emission unit.

241-AP TANK FARM

### Emission Unit Information

Stack Height (ft)	<del>30.88</del> 29.25	Stack Height (m)	<del>9.41</del> 8.92	Average Stack Effluent Temperature (°F)	78
Stack Diameter (ft.)	2.33	Stack Diameter (m)	0.71	Average Stack Effluent Temperature (°C)	26
				Average Stack Velocity (ft/sec)	35.05
				Average Stack Velocity (m/sec)	10.68

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Heater	1	2 parallel flow paths with 1 heater
	HEPA	2	2 parallel flow paths with 2 HEPAs in series
	Fan	1	2 parallel flow paths, minimum of 1 in operations at a time; annulus exhauster

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<u>1 week sample/4 times per year</u> <del>4-week sample/year</del>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a DST annulus exhauster used to support tank farm operations and ventilates the annuli of DSTs 241-AP Tank Farm. The tanks store radioactive waste until the waste is retrieved, treated, and properly disposed under the applicable federal and state regulations and/or permits. The annulus is the space between the inner wall and outer wall of the tank, and is used for leak detection. The emission unit operates ~~continuously~~ intermittently.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200E P-296P031-001

**210**  
**296-P-31**

This is a MAJOR, ACTIVELY ventilated emission unit.

209 E CRITICALITY LAB

### Emission Unit Information

Stack Height (ft)	33.00	Stack Height (m)	10.06	Average Stack Effluent Temperature (°F)	78
Stack Diameter (ft.)	2.00	Stack Diameter (m)	0.61	Average Stack Effluent Temperature (°C)	26
				Average Stack Velocity (ft/sec)	<del>6.00</del> 5.7
				Average Stack Velocity (m/sec)	<del>1.83</del> 1.74

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	4	1 bank (No Abatement Credit Taken)
	HEPA	8	2 banks of 4 HEPAs each (A 2 X 99.95% abatement credit taken for combined banks of HEPAs)
	Fan	1	<del>2-parallel flow paths, minimum of 1 in operations at a time; annulus exhauster</del>

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114. (Frequency of inspection/cleaning of the sample system is extended to 5 years) See Alternative Approval Letter AIR 07- 1205.	All radionuclides which could contribute greater than 0.1 mrem/yr to the MEI, or represent greater than 10% of the unabated PTE or represent greater than 25% of the abated dose.	Continuous

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at the 209-E Facility involve surveillance, maintenance, and deactivation activities at the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Deactivation of 209-E Building (Replaces NOC ID 707)	AIR 10-1021	10/29/2010	793

**Emission Unit ID:**  
200E P-296A043-001

**216**  
**296-A-43**

This is a MINOR, ACTIVELY ventilated emission unit.

241-AY/AZ TANK FARM

**Emission Unit Information**

Stack Height (ft)	35.50	Stack Height (m)	10.82	Average Stack Effluent Temperature (°F)	70
Stack Diameter (ft.)	0.83	Stack Diameter (m)	0.25	Average Stack Effluent Temperature (°C)	21
				Average Stack Velocity (ft/sec)	30.56
				Average Stack Velocity (m/sec)	9.31

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	1	2 parallel flow paths; <del>only 1 flow path normally operates at a time</del>
	HEPA	1	2 parallel flow paths; <del>only 1 flow path normally operates at a time</del>
	Fan	1	2 parallel flow paths; <del>only 1 flow path normally operates at a time</del>
	Isolation Damper	1	Allows for operation of one flow path at a time

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<u>1 week sample/4 times per year</u> <del>4 week sample/year</del>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a building/facility exhauster that is used to ventilate building and facility operations such as but not limited to process vessels, contaminated rooms, cells, glove boxes, hoods, abandoned facilities awaiting decommissioning, and vaults that support tank farm operations, maintenance, and surveillance activities for tank farms. The exhauster can be used to support current surveillance, maintenance activities, operations or decommissioning, decontamination, and cleanup activities within the building/facility. Many of the activities other than normal surveillance, maintenance, and operation support will be or are regulated and/or permitted under the appropriate

regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a building/facility exhaust ventilation system that operates intermittently.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 217  
**200E P-296A018-001** 296-A-18

This is a MINOR, ACTIVELY ventilated emission unit.

241-AY Tank Farm

**Emission Unit Information**

Stack Height (ft)	12.50	Stack Height (m)	3.81	Average Stack Effluent Temperature (°F)	68
Stack Diameter (ft.)	1.33	Stack Diameter (m)	0.41	Average Stack Effluent Temperature (°C)	20
				Average Stack Velocity (ft/sec)	47.75
				Average Stack Velocity (m/sec)	14.55

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	2	<del>In-series</del> <a href="#">2 parallel flow paths with 2 HEPAs in series</a>
	Fan	1	<del>Annulus exhaustor AY-101, intermittent operations;</del> <a href="#">2 parallel flow paths</a>
	Heater	1	<a href="#">2 parallel flow paths</a>

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<a href="#">1 week sample/4 times per year</a> <del>4-week sample/year</del>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a DST annulus exhaustor used to support tank farm operations and ventilates the annulus of DST 241-AY-101. The tank stores radioactive waste until the waste is retrieved, treated, and properly disposed under the applicable federal and state regulations and/or permits. The annulus is the space between the inner wall and outer wall of the tank, and is used for leak detection. The emission unit operates ~~continuously~~ [intermittently](#).

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 218  
**200E P-296A019-001** 296-A-19

This is a MINOR, ACTIVELY ventilated emission unit.

241-AY Tank Farm

### Emission Unit Information

Stack Height (ft)	12.90	Stack Height (m)	3.93	Average Stack Effluent Temperature (°F)	68
Stack Diameter (ft.)	1.33	Stack Diameter (m)	0.41	Average Stack Effluent Temperature (°C)	20
				Average Stack Velocity (ft/sec)	47.75
				Average Stack Velocity (m/sec)	14.55

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	2	<del>In-series</del> 2 parallel flow paths with 2 HEPAs in series
	Fan	1	<del>Annulus exhaustor</del> 2 parallel flow paths
	Heater	1	2 parallel flow paths

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<del>1 week sample/4 times per year</del> 4 week sample/year

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a DST annulus exhaustor used to support tank farm operations and ventilates the annulus of DST 241-AY-102. The tank stores radioactive waste until the waste is retrieved, treated, and properly disposed under the applicable federal and state regulations and/or permits. The annulus is the space between the inner wall and outer wall of the tank, and is used for leak detection. The emission unit operates ~~continuously~~ intermittently.

There are 0 Active NOC(s) for this Unit

**Emission Unit ID:** 227  
**200E P-296AN-001** 296-A-29

This is a MINOR, ACTIVELY ventilated emission unit.

241-AN TANK FARM

### Emission Unit Information

Stack Height (ft)	16.79	Stack Height (m)	5.12	Average Stack Effluent Temperature (°F)	110
Stack Diameter (ft.)	0.83	Stack Diameter (m)	0.25	Average Stack Effluent Temperature (°C)	43
				Average Stack Velocity (ft/sec)	30.56
				Average Stack Velocity (m/sec)	9.31

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	De-entrainer	1	Normally 1 unit is operated for each fan in operation. If both fans are in operation both de-entrainers should be in operation. Either unit may support either train. Located upstream of the split in flow path to individual trains
	Heater	1	1/train, 2 trains
	HEPA	2	2 HEPA banks in Series/train, 2 trains
	Fan	1	1/train, 2 trains
	Prefilter	2	1/train, 2 trains

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	Total Alpha Total Beta.	<a href="#">1 week sample/4 times per year</a> <del>4-week sample/year</del>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a primary exhauster used to support tank farm operations by ventilating the DSTs in 241AN Tank Farm during storage, maintenance, and normal operations. Any activity other than storage, maintenance, and normal operations will be regulated and/or permitted under

the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit ~~operates intermittently~~ is currently not operating.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Installation and Operation of a Waste Retrieval System in Tanks 241-AN- 101,102,103, 104, 105, 106 and 107.	AIR 06-1028	10/5/2006	668

**Emission Unit ID:** 228  
**200E P-296A030-001** 296-A-30

This is a MINOR, ACTIVELY ventilated emission unit.

241-AN TANK FARM

**Emission Unit Information**

Stack Height (ft)	23.40	Stack Height (m)	7.13	Average Stack Effluent Temperature (°F)	68
Stack Diameter (ft.)	2.00	Stack Diameter (m)	0.61	Average Stack Effluent Temperature (°C)	20
				Average Stack Velocity (ft/sec)	32.49
				Average Stack Velocity (m/sec)	9.90

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	De-entrainer	1	<a href="#">2 parallel flow paths with 1 de-entrainer</a> in each train
	Heater	1	<a href="#">2 parallel flow paths with 1 heater</a> in each train
	Fan	1	2 parallel flow paths <a href="#">with 1 fan in each train</a> ; <del>only 1 flow path normally operates at a time, however both trains may be operated at the same time</del>
	HEPA	2	2 parallel flow paths <a href="#">with 2 HEPAs in series in each train</a> ; <del>only 1 flow path normally operates at a time, however both trains may be operated at the same time</del>

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<a href="#">1 week sample/4 times per year</a> <del>4-week sample/year</del>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a DST annulus exhauster used to support tank farm operations and ventilates the annuli of DSTs 241-AN Tank Farm. The tanks store radioactive waste until the waste is retrieved, treated, and properly disposed under the applicable federal and state regulations and/or permits. The annulus is the space between the inner wall and outer wall of the tank, and is used for leak detection. The emission unit operates ~~continuously~~ intermittently.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 230  
**200E P-241C107-001** 241-C-107

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-C TANK FARM

#### Emission Unit Information

Stack Height (ft)	3.00	Stack Height (m)	0.91	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	0.33	Stack Diameter (m)	0.10	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	1.91
				Average Stack Velocity (m/sec)	0.58

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Breather filters shall be aerosol tested every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 231  
**200E P-241C108-001** 241-C-108

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-C TANK FARM

#### Emission Unit Information

Stack Height (ft)	3.00	Stack Height (m)	0.91	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.00	Stack Diameter (m)	0.30	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.17
				Average Stack Velocity (m/sec)	0.05

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter ~~or on the outside of the screen covering the outlet of the vent.~~

**Additional Requirements:** [Breather filters shall be aerosol tested every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 232  
**200E P-241C112-001** 241-C-112

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-C TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 233  
**200E P-241C201-001** 241-C-201

This is a MINOR, PASSIVELY ventilated emission unit.

241-C TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 235  
**200E P-241C204-001** 241-C-204

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-C TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 236  
**200E-C-106 Sluicing** 296-C-6

This is a MAJOR, ACTIVELY Ventilated emission unit.

241-C TANK FARM

**Abatement Technology:** ~~BARCT~~ WAC 246-247-040(3), 040(4)

**State only enforceable:** ~~WAC 246-247-010(4), 040(5), 060(5)~~

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.
	De-entrainer	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.
	Heater	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.
	HEPA	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.
	Fan	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.

**Monitoring Requirements**

state enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
	Non-Operational		

**Sampling Requirements:** ~~Non-Operational~~

**Additional Requirements:** ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

**Operational Status:** ~~The emission unit is non-operational, removed from service and will not be utilized for future tank farm operations. If the emission unit is required for tank farm operations, the~~

~~proper regulatory requirements and permits will be obtained prior to returning the emission unit to service. Closure is pending submittal of closure form and final inspection and approval by WDOH.~~

~~There are 0 Active NOC(s) for this Unit~~

**Emission Unit ID:** 237  
**200E P-241C102-001** 241-C-102

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-C TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 242  
**200E P-241C203-001** 241-C-203

This is a MINOR, PASSIVELY Ventilated emission unit.

#### 241-C TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 244  
**200E P-241C110-001** 241-C-110

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-C TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	0.13	Stack Diameter (m)	0.04	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity a required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 245  
**200E P-241C109-001** 241-C-109

This is a MINOR, PASSIVELY ventilated emission unit.

241-C TANK FARM

**Emission Unit Information**

Stack Height (ft)	3.00	Stack Height (m)	0.91	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.00	Stack Diameter (m)	0.30	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.17
				Average Stack Velocity (m/sec)	0.05

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter. ~~or on the outside of the screen covering the outlet of the vent~~

**Additional Requirements:** [Breather filters shall be aerosol tested every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity a required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 246  
**200E P-241C202-001** 241-C-202

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-C TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 247  
**200E P-241C101-001** 241-C-101

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-C TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 254  
**200W S-296S021-001** 296-S-21

This is a MAJOR, ACTIVELY ventilated emission unit.

## 222-S LABORATORY

### Emission Unit Information

Stack Height (ft)	68.00	Stack Height (m)	20.73	Average Stack Effluent Temperature (°F)	78
Stack Diameter (ft.)	5.50	Stack Diameter (m)	1.68	Average Stack Effluent Temperature (°C)	26
				Average Stack Velocity (ft/sec)	63.16
				Average Stack Velocity (m/sec)	19.25

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	3	In series for both the primary and backup exhaust systems (222-S Lab Hot Cells)
	HEPA	1	For both primary and backup exhaust systems (222-S Lab Complex)
	Fan	3	Primary exhaust operated in parallel, serves both hot cell addition & main lab.
	Fan	1	Backup exhaust operates independently or in parallel with primary exhaust

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114	<del>Each radionuclide that could contribute greater than 10% of the potential</del> <u>TEDE, Sr-90, Cs-137 and Pu-239</u>	Continuous

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a laboratory building/facility exhauster that is used to ventilate building and facility operations such as but not limited to contaminated rooms, hot cells, glove

boxes, and hoods, that support tank farm waste characterization activities, research and development, environmental sample analysis, and Hanford operations and remediation projects. The exhauster can be used to support current surveillance, maintenance activities, operations, decontamination, and cleanup activities within the building/facility. The emission unit is a laboratory building/facility exhauster ventilation system that operates continuously.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
License to Operate the 222-S Laboratory	AIR 08-904	9/8/2008	716

**Emission Unit ID:** 255  
**200E P-241BX104-001** 241-BX-104

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BX TANK FARM

#### Emission Unit Information

Stack Height (ft)	15.00	Stack Height (m)	4.57	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	0.33	Stack Diameter (m)	0.10	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	1.91
				Average Stack Velocity (m/sec)	0.58

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** ~~Contamination surveys of breather filters with stack extensions will be performed on the downstream side of the filter or on the outside of the screen covering the outlet of vent (if one exists) or~~ [An alternate sampling method for breather filters with stack extensions may be performed](#) by removing the test port cap downstream of the HEPA filter, surveying the cap and inserting smear media (e.g. swab, masslin) in the opening and smearing the interior ducting surface on the opposite side of the test port cap opening. [Breather filters shall be aerosol tested every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the

activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 256  
**200E P-241BX110-001** 241-BX-110

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BX TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 257  
**200E P-241BX103-001** 241-BX-103

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BX TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 258  
**200E P-241BX107-001** 241-BX-107

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BX TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 259  
**200E P-241BX101-001** 241-BX-101

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BX TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 260  
**200E P-241BX112-001** 241-BX-112

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BX TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 261  
**200E P-241BX106-001** 241-BX-106

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BX TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 262  
**200E P-241BX102-001** 241-BX-102

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BX TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200E P-241BX109-001

**263**  
**241-BX-109**

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BX TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 264  
**200E P-241BX111-001** 241-BX-111

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BX TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 265  
**200E P-241BX108-001** 241-BX-108

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BX TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 266  
**200E P-241B105-001** 241-B-105

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 267  
**200E P-241B201-001** 241-B-201

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 268  
**200E P-241B108-001** 241-B-108

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 269  
**200E P-241B101-001** 241-B-101

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 270  
**200E P-241B102-001** 241-B-102

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 271  
**200E P-241B204-001** 241-B-204

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 272  
**200E P-241B104-001** 241-B-104

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 273  
**200E P-241BX105-001** 241-BX-105

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BX TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 274  
**200E P-241B112-001** 241-B-112

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 275  
**200E P-241B107-001** 241-B-107

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 276  
**200E P-241B111-001** 241-B-111

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 277  
**200E P-241B109-001** 241-B-109

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 278  
**200E P-241B110-001** 241-B-110

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 279  
**200E P-241B103-001** 241-B-103

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 280  
**200E P-241B202-001** 241-B-202

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 281  
**200E P-241B106-001** 241-B-106

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 282  
**200E P-241B203-001** 241-B-203

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-B TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 283  
**200E P-241BY101-001** 241-BY-101

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BY TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 284  
**200E P-241BY105-001** 241-BY-105

This is a MINOR, PASSIVELY ventilated emission unit.

241-BY TANK FARM

### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 285  
**200E P-241BY106-001** 241-BY-106

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BY TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **286**  
**200E P-241BY102-001** **241-BY-102**

This is a MINOR, PASSIVELY ventilated emission unit.

241-BY TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 287  
**200E P-241BY112-001** 241-BY-112

This is a MINOR, PASSIVELY ventilated emission unit.

241-BY TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200E P-241BY103-001

**288**  
**241-BY-103**

This is a MINOR, PASSIVELY ventilated emission unit.

241-BY TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
**200E P-241BY104-001**

**289**  
**241-BY-104**

This is a MINOR, PASSIVELY ventilated emission unit.

241-BY TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 290  
**200E P-241BY109-001** 241-BY-109

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BY TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200E P-241BY108-001

**291**  
**241-BY-108**

This is a MINOR, PASSIVELY ventilated emission unit.

241-BY TANK FARM

### Emission Unit Information

Stack Height (ft)	15.00	Stack Height (m)	4.57	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	0.33	Stack Diameter (m)	0.10	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	1.91
				Average Stack Velocity (m/sec)	0.58

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter on the outside of the screen covering the outlet vent.

**Additional Requirements:** ~~Contamination surveys of breather filters with stack extensions will be performed on the downstream side of the filter or on the outside of the screen covering the outlet of vent (if one exists) or~~ [An alternate sampling method for breather filters with stack extensions may be performed](#) by removing the test port cap downstream of the HEPA filter, surveying the cap and inserting smear media (e.g. swab, masslin) in the opening and smearing the interior ducting surface on the opposite side of the test port cap opening. [Breather filters shall be aerosol tested every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the

activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 292  
**200E P-241BY111-001** 241-BY-111

This is a MINOR, PASSIVELY ventilated emission unit.

241-BY TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 293  
**200E P-241BY110-001** 241-BY-110

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BY TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive HEPA Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 294  
**200E P-241BY107-001** 241-BY-107

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-BY TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive HEPA Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 301  
**200E P-2025E ETF** 296-E-1

This is a MINOR, ACTIVELY ventilated emission unit.

Effluent Treatment Facility (ETF)

**Emission Unit Information**

Stack Height (ft)	51.00	Stack Height (m)	15.54	Average Stack Effluent Temperature (°F)	8572
Stack Diameter (ft.)	6.00	Stack Diameter (m)	1.83	Average Stack Effluent Temperature (°C)	2922
				Average Stack Velocity (ft/sec)	33.3029.9
				Average Stack Velocity (m/sec)	10.159.11

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
Vessel Off-Gas Systems	HEPA	3	1 heater and 2 filters in series, with 2 parallel fans (minimum of 1 in operations). VOG discharges into Building Ventilation
Vessel Off-Gas Systems	Fan	1	Passive HEPA Filter
Building Ventilations System	HEPA	2	3 parallel flowpaths each with 1 filter and 1 fan; minimum 2 in operation.
Building Ventilations System	Fan	2	Serves both areas

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	4 week sample/ year

**Sampling Requirements:** Monitoring stations N498, N499, N972, and N999

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Operations at the 200 Area Effluent Treatment Facility (ETF) receive and treat liquid effluents at the Hanford Site.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of the Liquid Effluent Retention Facility and the 200 Area Effluent Treatment Facility	AIR 06-1045	10/5/2006	690

**Emission Unit ID:** 302  
**200E P-241AX104-001** 241-AX-104

This is a MINOR, PASSIVELY ventilated emission unit.

241-AX TANK FARM

### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200E P-241AX102-001

**303**  
**241-AX-102**

This is a MINOR, PASSIVELY ventilated emission unit.

241-AX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200E P-241AX103-001

**304**  
**241-AX-103**

This is a MINOR, PASSIVELY ventilated emission unit.

241-AX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 305  
**200E P-241AX101-001** 241-AX-101

This is a MINOR, PASSIVELY ventilated emission unit.

241-AX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** ~~200W-P-213W-001~~ **308**  
~~200W-P-213W-001~~ **296-W-3**

This is a ~~MINOR, ACTIVELY~~ ventilated emission unit.  
~~213-W~~

~~Abatement Technology:~~ ~~ALARACT~~ ~~WAC 246-247-040(4)~~

~~State only enforceable:~~ ~~WAC 246-247-010(4), 040(5), 060(5)~~

<del>Zone or Area</del>	<del>Abatement Technology</del>	<del>Required # Units</del>	<del>Additional Description</del>
	HEPA	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.
	Fan	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.
	Pre-filter	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.
	Heater	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.
	De-entrainer	Non-Operational	This emission unit is inactive and will require an NOC to resume operation or a report of closure to de-register.

**Monitoring Requirements**

State enforceable: ~~WAC 246-247-040(5), 060(5)~~, and federally enforceable: ~~40-CFR-61-Subpart H~~

<del>Federal and State Regulatory</del>	<del>Monitoring and Testing Requirements</del>	<del>Radionuclides Requiring Measurement</del>	<del>Sampling Frequency</del>
	Non-Operational		

~~Sampling Requirements:~~ ~~Non-Operational~~

~~Additional Requirements:~~ ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

~~Operational Status:~~ ~~The emission unit is non-operational, removed from service and will not be utilized for future tank farm operations. If the emission unit is required for tank farm operations, the proper regulatory requirements and permits will be obtained prior to returning the emission unit to service. Closure is pending submittal of closure form and final inspection and approval by WDOH.~~

There are ~~0~~ Active NOC(s) for this Unit

**Emission Unit ID:**  
200W P-291T001-001

**314**  
**291-T-1**

This is a MAJOR, ACTIVELY ventilated emission unit.

T PLANT COMPLEX

**Emission Unit Information**

Stack Height (ft)	200.00	Stack Height (m)	60.96	Average Stack Effluent Temperature (°F)	78
Stack Diameter (ft.)	6.50	Stack Diameter (m)	1.98	Average Stack Effluent Temperature (°C)	26
				Average Stack Velocity (ft/sec)	20.10
				Average Stack Velocity (m/sec)	6.13

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	1	
	HEPA	2	In series
	Fan	2	2 in parallel (with one as a backup)

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B, Method 114 NDA as detailed in conditions below.	All radionuclides that contribute greater than 10 percent 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 percent of the TEDE to the MEI after controls	Particulates shall be continuously sampled and analyzed every two weeks for gross alpha and gross beta/gamma, composited quarterly, and analyzed isotopically.

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at the T Plant Complex involve waste management operations in support of decontamination and decommissioning operations at the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Consolidated T Plant Operations	AIR 07-306	3/23/2007	711

**Emission Unit ID:**  
200W P-296T001-001

**315**  
**296-T-1**

This is a MINOR, ACTIVELY ventilated emission unit.

T PLANT COMPLEX

**Emission Unit Information**

Stack Height (ft)	28.00	Stack Height (m)	8.53	Average Stack Effluent Temperature (°F)	78
Stack Diameter (ft.)	2.30	Stack Diameter (m)	0.70	Average Stack Effluent Temperature (°C)	26
				Average Stack Velocity (ft/sec)	81.00
				Average Stack Velocity (m/sec)	24.69

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Demister	1	To operate per Conditions and Limitations of the license.
	Heater	1	To operate per Conditions and Limitations of the license.
	Prefilter	1	
	HEPA	1	
	Fan	1	To operate per Conditions and Limitations of the license.

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(c)(4)(e) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	See special conditions.

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at the 2706-T Facility involve waste management operations in support of decontamination and decommissioning operations at the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of the 2706-T Building	AIR 06-1013	10/5/2006	648

**Emission Unit ID:** 332  
**200W P-291S001-001** 291-S-1

This is a MINOR, ACTIVELY ventilated emission unit.

S PLANT (REDOX)

**Emission Unit Information**

Stack Height (ft)	200.00	Stack Height (m)	60.96	Average Stack Effluent Temperature (°F)	78
Stack Diameter (ft.)	6.50	Stack Diameter (m)	1.98	Average Stack Effluent Temperature (°C)	26
				Average Stack Velocity (ft/sec)	<del>11.30</del> <u>33.1</u>
				Average Stack Velocity (m/sec)	<del>3.44</del> <u>10.09</u>

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Sandfilter	1	
	Fan	2	In parallel, only 1 operates at a time

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	4 week sample/year

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at the 202-S Facility involve surveillance and maintenance at the Hanford Site.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 337  
**200W P-296S016-001** 296-S-16

This is a MINOR, ACTIVELY ventilated emission unit.

219-S Building

**Emission Unit Information**

Stack Height (ft)	12.50	Stack Height (m)	3.81	Average Stack Effluent Temperature (°F)	78
Stack Diameter (ft.)	0.33	Stack Diameter (m)	0.10	Average Stack Effluent Temperature (°C)	26
				Average Stack Velocity (ft/sec)	29.41
				Average Stack Velocity (m/sec)	8.96

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	
	Fan	1	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	<u>1 week sample/4 times per year</u> <del>4-week sample/year</del>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a waste handling building/facility exhauster that is used to ventilate building and facility operations such as but not limited to liquid waste tanks that support tank farm waste characterization activities, research and development, environmental sample analysis, and Hanford operation and remediation projects. This emission unit operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200E P-296B010-001

**340**  
**296-B-10, WESF**

This is a MAJOR, ACTIVELY ventilated emission unit.

Waste Encapsulation and Storage Facility (WESF)

**Emission Unit Information**

Stack Height (ft)	75.00	Stack Height (m)	22.86	Average Stack Effluent Temperature (°F)	68
Stack Diameter (ft.)	3.50	Stack Diameter (m)	1.07	Average Stack Effluent Temperature (°C)	20
				Average Stack Velocity (ft/sec)	42.20
				Average Stack Velocity (m/sec)	12.86

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
K-1 Filter Bldg.	Prefilter	2	In series
K-1 Filter Bldg.	HEPA	2	In series
K-1 Filter Bldg.	Fan	1	2 in parallel
K-3 Filter Pit	Demister	1	Not operable
K-3 Filter Pit	Heater	1	Not operable
K-3 Filter Pit	Impingement Vanes	1	
K-3 Filter Pit	HEPA	2	2 parallel flow paths, in-series
K-3 Filter Pit	Fan	1	2 parallel paths (1 in-use, 1 backup)

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 60, Appendix A, Method 2; 40 CFR 61, Appendix B, Method 114; 61.93(b)(2)(ii) ANSI N13.1	Each radionuclide that could contribute greater than 10% of the potential TEDE	Continuous

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities for WESF involve surveillance, maintenance and storage of radioactive capsules on the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Waste Encapsulation and Storage Facility (WESF) Liquid Low Level Radioactive Liquid Removal from Tank 100.	AIR 06-1014	10/5/2006	649

**Emission Unit ID:** **355**  
**300 EP-320-02-S** **EP-320-02-S**

This is a ~~MINOR, ACTIVELY~~ Ventilated emission unit.

~~320 Building~~

**Emission Unit Information**

Stack Height (ft)	32.00	Stack Height (m)	9.75	Average Stack Effluent Temperature (°F)	78
Stack Diameter (ft.)	0.83	Stack Diameter (m)	0.25	Average Stack Effluent Temperature (°C)	26
				Average Stack Velocity (ft/sec)	14.80
				Average Stack Velocity (m/sec)	4.51

**Abatement Technology:** ~~ALARACT WAC 246-247-040(4)~~

**State only enforceable:** ~~WAC 246-247-010(4), 040(5), 060(5)~~

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
	HEPA	2	In-series
	Fan	+	

**Monitoring Requirements**

state-enforceable: WAC 246-247-040(5), 060(5), and federally-enforceable: 40 CFR 61 subpart H

<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA-TOTAL BETA	2-week sample/year

**Sampling Requirements:** ~~Record Sample~~

**Additional Requirements:** ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

**Operational Status:** ~~Operations at the 320 Building support operations. This 32-foot tall stack releases emissions from a filtered chemistry hood. Particulate emissions are sampled. The building contains environmental radiochemistry laboratories.~~

There are ~~0~~ Active NOC(s) for this Unit

**Emission Unit ID:** **357**  
**300 EP-320-04-S** **EP-320-04-S**

~~This is a MINOR, ACTIVELY Ventilated emission unit.~~

~~320 Building~~

**Emission Unit Information**

Stack Height (ft)	26.00	Stack Height (m)	7.92	Average Stack Effluent Temperature (°F)	76
Stack Diameter (ft.)	0.59	Stack Diameter (m)	0.18	Average Stack Effluent Temperature (°C)	24
				Average Stack Velocity (ft/sec)	28.00
				Average Stack Velocity (m/sec)	8.53

~~Abatement Technology: ALARACT WAC 246-247-040(4)~~

~~State only enforceable: WAC 246-247-010(4), 040(5), 060(5)~~

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
	HEPA	±	
	Fan	±	

**Monitoring Requirements**

~~state enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 subpart H~~

<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
<del>40 CFR 61.93(b)(4)(i) &amp; WAC 246-247-075(3)</del>	<del>40 CFR 61, Appendix B, Method 114(3)</del>	<del>TOTAL ALPHA TOTAL BETA</del>	<del>2-week sample/year</del>

~~Sampling Requirements: Record Sample~~

~~Additional Requirements: Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

~~Operational Status: Operations at the 320 Building support operations. This 26-foot tall stack emissions from filtered chemistry hoods. Particulate emissions are sampled. The building contains environmental radiochemistry laboratories.~~

~~There are 0 Active NOC(s) for this Unit~~

**Emission Unit ID:** **358**  
**300 EP-320-01-S** **EP-320-01-S**

~~This is a MINOR, ACTIVELY Ventilated emission unit.~~

~~320 Building~~

**Emission Unit Information**

Stack Height (ft)	40.00	Stack Height (m)	12.19	Average Stack Effluent Temperature (°F)	76
Stack Diameter (ft.)	5.00	Stack Diameter (m)	1.53	Average Stack Effluent Temperature (°C)	24
				Average Stack Velocity (ft/sec)	25.20
				Average Stack Velocity (m/sec)	7.68

~~Abatement Technology: ALARACT WAC 246-247-040(4)~~

~~State only enforceable: WAC 246-247-010(4), 040(5), 060(5)~~

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
	HEPA	2	In-series
	Fan	2	1 operational, 1 backup

**Monitoring Requirements**

~~state enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 subpart H~~

<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
<del>40 CFR 61.93(b)(4)(i) &amp; WAC 246-247-075(3)</del>	<del>40 CFR 61, Appendix B, Method 114(3)</del>	<del>TOTAL ALPHA-TOTAL BETA</del>	<del>2-week sample/year</del>

~~Sampling Requirements: Record Sample~~

~~Additional Requirements: Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

~~Operational Status: Activities at the 320 Building support operations. This 40-foot tall stack exhausts filtered building ventilation air. Particulate emissions are sampled. The building contains environmental radiochemistry laboratories.~~

~~There are 0 Active NOC(s) for this Unit~~

**Emission Unit ID:**  
300 EP-325-01-S

**361**  
**EP-325-01-S**

This is a MAJOR, ACTIVELY ventilated emission unit.

325 Building Radiological Processing Laboratory

**Emission Unit Information**

Stack Height (ft)	89.00	Stack Height (m)	27.13	Average Stack Effluent Temperature (°F)	<del>72</del> 77
Stack Diameter (ft.)	8.00	Stack Diameter (m)	2.44	Average Stack Effluent Temperature (°C)	<del>22</del> 25
				Average Stack Velocity (ft/sec)	<del>47.10</del> 46.53
				Average Stack Velocity (m/sec)	<del>14.36</del> 14.18

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	2	2 in series
	Fan	<del>3</del> 1	Variable flow (4 in parallel, up to <del>3</del> operational, <del>1</del> backup)

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	<del>40 CFR 60 Appendix A, Method 2;</del> 40 CFR 61, Appendix B, Method 114	Each radionuclide that could contribute greater than 10% of the potential TEDE	Particulates are continuously sampled and collected every two-weeks for gross alpha and gross beta analysis, and composited on a semiannual basis and analyzed isotopically. Tritium samples are collected on a monthly basis for analysis.

**Sampling Requirements:** Record Sample; tritium by silica gel

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This 89 foot tall stack exhausts filtered building air. Emissions were sampled using a record particulate sampler and a tritium sampler. The building contains radiochemistry laboratories and hot cells used for research process development, mixed waste treatment activities, and radio analytical services.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Conducting General Laboratory Processes Research Activities in the 325 Building	AIR 06-1042	10/5/2006	687

**Emission Unit ID:**  
300 EP-326-01-S

**362**  
**EP-326-01-S**

This is a ~~MINOR, ACTIVELY~~ Ventilated emission unit.

~~326 MATERIAL SCIENCE LAB~~

**Emission Unit Information**

Stack Height (ft)	47.60	Stack Height (m)	14.51	Average Stack Effluent Temperature (°F)	77
Stack Diameter (ft.)	6.00	Stack Diameter (m)	1.83	Average Stack Effluent Temperature (°C)	25
				Average Stack Velocity (ft/sec)	32.40
				Average Stack Velocity (m/sec)	9.88

**Abatement Technology:** ~~ALARACT~~ ~~WAC 246-247-040(4)~~

**State only enforceable:** ~~WAC 246-247-010(4), 040(5), 060(5)~~

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Fan	3	In parallel, common to both areas
Hoods, SEM	HEPA	2	In series
Hot cells and hoods	HEPA	1	

**Monitoring Requirements**

state enforceable: ~~WAC 246-247-040(5), 060(5)~~, and federally enforceable: 40 CFR 61 subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	2-week sample/year

**Sampling Requirements:** ~~Record Sample~~

**Additional Requirements:** ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

**Operational Status:** ~~Activities at the 326 Building support operations. This 47.6 foot tall stack exhausts both filtered and unfiltered air. Particulate emissions are sampled. The building contains laboratories and equipment for studies of metallurgical, chemical, and physical behavior of reactor components, fuel materials, mixed fission products mixed activation products, and ceramic composite materials.~~

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Research at the 326 Facility	AIR-06-1036	10/5/2006	677

**Emission Unit ID:**  
300 EP-329-01-S

**366**  
**EP-329-01-S**

This is a ~~MINOR, ACTIVELY~~ Ventilated emission unit.

329 BUILDING

**Emission Unit Information**

Stack Height (ft)	62.50	Stack Height (m)	19.05	Average Stack Effluent Temperature (°F)	77
Stack Diameter (ft.)	5.00	Stack Diameter (m)	1.52	Average Stack Effluent Temperature (°C)	25
				Average Stack Velocity (ft/sec)	40.00
				Average Stack Velocity (m/sec)	12.19

**Abatement Technology:** ~~ALARACT~~ WAC 246-247-040(4)

**State only enforceable:** ~~WAC 246-247-010(4), 040(5), 060(5)~~

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	2	In series, (System includes up to 5 banks of 2 stages of HEPA filters in series, minimum of 1 bank of 2 testable filters in use)
	Fan	2	2 in parallel, 1 Standby (3 total)

**Monitoring Requirements**

state enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	2-week sample/year

**Sampling Requirements:** ~~Record Sample~~

**Additional Requirements:** ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

**Operational Status:** ~~Activities at the 329 Building support operations. This 62.5 foot tall stack exhausts filtered building air. Particulate emissions are sampled. The building contains laboratories for radioanalytical studies, environmental radionuclide studies, and radiation detection instrumentation development.~~

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of Research Activities Conducted in the Chemical Sciences Laboratory (329 Building)	AIR-06-1055	10/5/2006	701

**Emission Unit ID:**  
200E P-291A001-001

**369**  
**291-A-1**

This is a MAJOR, ACTIVELY ventilated emission unit.

PUREX

**Emission Unit Information**

Stack Height (ft)	200.00	Stack Height (m)	60.96	Average Stack Effluent Temperature (°F)	68
Stack Diameter (ft.)	7.00	Stack Diameter (m)	2.13	Average Stack Effluent Temperature (°C)	20
				Average Stack Velocity (ft/sec)	<del>17.00</del> <u>15.5</u>
				Average Stack Velocity (m/sec)	<del>5.18</del> <u>4.72</u>

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Fiberglass Filter	1	(Deep Bed Fiberglass filter)
	HEPA	2	In series
	Fan	2	In parallel, one operating, one back-up

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 60, Appendix A, Method 2; 40 CFR 61, Appendix B, Method 114 61.93(b)(2)(ii) ANSI N13.1	239/240Pu, 241Am	Continuous

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at PUREX involve surveillance and maintenance operations at the Hanford Site.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 384  
**200E P-296A010-001** 296-A-10

This is a MINOR, ACTIVELY ventilated emission unit.

PUREX

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	1 bank
	Fan	1	Intermittent, as needed. Prior approval of operation is required.

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	1 week sample / year (when operating)

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at the PUREX tunnels involve surveillance and maintenance operations including equipment storage at the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Reactivation of PUREX Storage Tunnel Number 2	AIR 06-1026	10/5/2006	665

**Emission Unit ID:**  
400 P-437MN&ST-001

**385**  
437-MN&ST

This is a MINOR, ACTIVELY ventilated emission unit.

437 Maintenance and Storage (MASF)

**Emission Unit Information**

Stack Height (ft)	30.00	Stack Height (m)	9.14	Average Stack Effluent Temperature (°F)	68
Stack Diameter (ft.)	8.00	Stack Diameter (m)	2.44	Average Stack Effluent Temperature (°C)	20
				Average Stack Velocity (ft/sec)	4.90
				Average Stack Velocity (m/sec)	1.49

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Fan	2	In parallel, serves all MN&ST, intermittent use
Decon 1 & 2 Activities	HEPA	1	2 parallel flow paths, minimum of one HEPA operational
Liquid Radioactive Waste Loadout Facility Ventilation	Prefilter	1	
Liquid Radioactive Waste Loadout Facility Ventilation	HEPA	1	
Radiological Waste Tank Room Ventilation	Prefilter	1	
Radiological Waste Tank Room Ventilation	HEPA	1	
Waste Tank 1 & 2 Vents	HEPA	1	1 stage with 2 parallel flowpaths
Contaminated Equipment Repair Area	Prefilter	1	
Contaminated Equipment Repair Area	HEPA	1	2 in parallel

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	1 week sample / year (when operating)

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** [Activities at the MASF support K Basin sludge research and development activities.](#) ~~Activities at the MASF support FTF deactivation activities, and surveillance and maintenance operations at the Hanford Site.~~

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Sodium Residuals Reaction/Removal and other Deactivation Work Activities at the Fast Flux Test Facility	AIR 10-412	4/30/2010	776

**Emission Unit ID:**  
**400 P-FFTFRESB-001**

**395**  
**FFTF-RE-SB**

This is a MINOR, ACTIVELY ventilated emission unit.

**FAST FLUX TEST FACILITY COMPLEX**

**Emission Unit Information**

Stack Height (ft)	20.00	Stack Height (m)	6.10	Average Stack Effluent Temperature (°F)	68
Stack Diameter (ft.)	4.40	Stack Diameter (m)	1.34	Average Stack Effluent Temperature (°C)	20
				Average Stack Velocity (ft/sec)	13.10
				Average Stack Velocity (m/sec)	3.99

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Fan	1	Intermittent use. No other controls

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	4 week sample/ year <a href="#">or continuously during operation whichever is less (if operated)</a>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at the FFTF support surveillance and maintenance operations for decontamination and deactivation at the Hanford Site. ~~This 20 foot tall stack, located in the Lower Reactor Service Building (RSB), exhausts unfiltered air from the lower level of the RSB. Particulate emissions are sampled. This facility is a 400 megawatt thermal, sodium cooled, low pressure, high temperature reactor plant, had been used for irradiation testing of breeder reactor fuels and materials. It has not has not operated since 1993.~~

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
**400 P-FFTFHTTR-001**

**396**  
**FFTF-HT-TR**

This is a MINOR, ACTIVELY ventilated emission unit.

**FAST FLUX TEST FACILITY COMPLEX**

**Emission Unit Information**

Stack Height (ft)	29.00	Stack Height (m)	8.84	Average Stack Effluent Temperature (°F)	68
Stack Diameter (ft.)	2.20	Stack Diameter (m)	0.67	Average Stack Effluent Temperature (°C)	20
				Average Stack Velocity (ft/sec)	17.40
				Average Stack Velocity (m/sec)	5.30

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Fan	1	Intermittent use

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	4 week sample/ year <a href="#">or continuously during operation whichever is less (if operated)</a>

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** [Activities at the FFTF support surveillance and maintenance operations for decontamination and deactivation at the Hanford Site.](#) ~~The FFTF is undergoing deactivation.~~

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Sodium Residuals Reaction/Removal and other Deactivation Work Activities at the Fast Flux Test Facility	AIR 10-412	4/30/2010	776

**Emission Unit ID:**  
**400 P-FFTF-CBEX-001**

**397**  
**FFTF-CB-EX**

This is a MINOR, ACTIVELY ventilated emission unit.

**FAST FLUX TEST FACILITY COMPLEX**

**Emission Unit Information**

Stack Height (ft)	47.00	Stack Height (m)	14.33	Average Stack Effluent Temperature (°F)	70
Stack Diameter (ft.)	4.90	Stack Diameter (m)	1.49	Average Stack Effluent Temperature (°C)	21
				Average Stack Velocity (ft/sec)	19.80
				Average Stack Velocity (m/sec)	6.04

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
Bldg 405 Process Operations	Fan	2	In parallel (intermittent use)
Access Control Area Process	Fan	1	Intermittent use

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Engineering calculations based on WAC 246-247-030(21)(a)	TOTAL ALPHA TOTAL BETA Tritium	Annual (calculation)

**Sampling Requirements:** Radionuclide emissions will be estimated annually using WAC 246-247-030(21)(a) calculation in lieu of monitoring.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** [Activities at the FFTF support surveillance and maintenance operations for decontamination and deactivation at the Hanford Site.](#) The FFTF is currently in Surveillance and Maintenance Mode, which began June 1, 2009.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Sodium Residuals Reaction/Removal and other Deactivation Work Activities at the Fast Flux Test Facility	AIR 10-412	4/30/2010	776

**Emission Unit ID:** 398  
**400 Sodium Storage Facility** FFTF-402-1

This is a MINOR, ACTIVELY ventilated emission unit.

FAST FLUX TEST FACILITY COMPLEX

**Abatement Technology:** NONE WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
--			
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)		TOTAL ALPHA TOTAL BETA	

**Sampling Requirements:** None

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** [Activities at the SSF support surveillance and maintenance operations for decontamination and deactivation at the Hanford Site by storing the sodium. The Sodium Storage Facility \(SSF\) stores the sodium in a solid state for an extended period. Approximately 984,100 liters of sodium from the FFTF was offloaded to four tanks in SSF.](#) ~~The mission of the Sodium Storage Facility (SSF) is to receive molten sodium coolant from the Fast Flux Test Facility (FFTF) and store the sodium in a solid state for an extended period. Approximately 984,100 liters of sodium from the FFTF will be offloaded to tank storage in SSF. Unused, carbon steel sodium tanks (three 302,800 liter tanks and one 196,800 liter tank) originally built for the Clinch River Breeder Reactor Plant have been installed adjacent to the FFTF complex~~

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Construction and Operation of Sodium Storage Facility	AIR 06-1007	10/5/2006	639

**Emission Unit ID:** 399  
**400 P-437-002** 437-1-61

This is a MINOR, ACTIVELY ventilated emission unit.

437 Maintenance and Storage (MASF)

**Emission Unit Information**

Stack Height (ft)	38.40	Stack Height (m)	11.70	Average Stack Effluent Temperature (°F)	72
Stack Diameter (ft.)	1.10	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	22
				Average Stack Velocity (ft/sec)	18.75
				Average Stack Velocity (m/sec)	5.72

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	1	16 Parallel flow paths, each path provides 1 prefilter minimum of 1 in operation intermittent operation
	HEPA	1	16 Parallel flow paths, each path provides 1 prefilter minimum of 1 in operation; intermittent operation
	Fan	1	Intermittent operation

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	4 week sample/ year

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at the MASF [support K Basin sludge research and development activities, support FFTF deactivation activities, and surveillance and maintenance operations at the Hanford Site.](#)

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Sodium Residuals Reaction/Removal and other Deactivation Work Activities at the Fast Flux Test Facility	AIR 10-412	4/30/2010	776

**Emission Unit ID:**  
200E P-296B001-001

**402**  
**296-B-1**

This is a MAJOR, ACTIVELY ventilated emission unit.

**B- PLANT**

**Emission Unit Information**

Stack Height (ft)	90.00	Stack Height (m)	27.43	Average Stack Effluent Temperature (°F)	0
Stack Diameter (ft.)	2.67	Stack Diameter (m)	0.81	Average Stack Effluent Temperature (°C)	0
				Average Stack Velocity (ft/sec)	0
				Average Stack Velocity (m/sec)	0

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	2	Two trains, one bank in each train
	HEPA	4	Two trains, 2 banks in each train
	Fan	2	Only one fan operates at a time.

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114	137Cs, 90Sr	Continuous

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at B Plant involve surveillance and maintenance operations at the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
B Plant Modification of the Ventilation System (Emission Point: 296-B-1)	AIR 06-1010	10/5/2006	645

**Emission Unit ID:**  
300 EP-331-01-V

**412**  
**EP-331-01-V**

This is a MAJOR, ACTIVELY ventilated emission unit.

331 LIFE SCI LAB

### Emission Unit Information

Stack Height (ft)	62.00	Stack Height (m)	18.90	Average Stack Effluent Temperature (°F)	<del>77</del> <u>75</u>
Stack Diameter (ft.)	6.50	Stack Diameter (m)	1.98	Average Stack Effluent Temperature (°C)	<del>25</del> <u>24</u>
				Average Stack Velocity (ft/sec)	<del>31.60</del> <u>26.53</u>
				Average Stack Velocity (m/sec)	<del>9.63</del> <u>8.09</u>

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	<a href="#">Labs and Hoods and Glove Boxes</a> <del>Third Floor labs and hoods</del>
	Fan	1	1 of 3 fans operating
	<del>HEPA</del>	<del>1</del>	<del>Labs and Hoods and Glove Boxes</del>

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114	Each radionuclide that could contribute greater than 10 percent of the potential-to-emit TEDE	Continuous

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This 62 foot tall stack exhausts filtered building ventilation air. Particulate emissions are sampled. The mission of the 331 Building is to conduct fundamental science and to develop environmental technology. ~~Research activities conducted in the 331 Building support the Hanford Site environmental mission and other key DOE missions of national and international importance. Research activities performed within the 331 Building include the use of radioactive materials. Laboratory processes are conducted "continuously" (i.e., year round, during normal business, swing shift, night shift, and weekend hours).~~ The 331 Building provides research capabilities to study the interactions of chemicals and radionuclides with plants, animals, and microorganisms and the fate of chemicals and radionuclides in the environment. The building also has research capabilities for

conducting studies on the uptake and transformation effects of radioactive material and chemicals in soils, plants, animals, and microorganisms.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Life Sciences Laboratory-1 (331 Building)	AIR 08-607	6/26/2008	712

**Emission Unit ID:** **422**  
**300 P-340DECON-001** **340 Decon**

This is a ~~MINOR, ACTIVELY Ventilated~~ emission unit.

~~340-BUILDING~~

**Emission Unit Information**

Stack Height (ft)	27.00	Stack Height (m)	8.23	Average Stack Effluent Temperature (°F)	68
Stack Diameter (ft.)	2.50	Stack Diameter (m)	0.76	Average Stack Effluent Temperature (°C)	20
				Average Stack Velocity (ft/sec)	0
				Average Stack Velocity (m/sec)	0

**Abatement Technology:** ~~ALARACT WAC 246-247-040(4)~~

**State only enforceable:** ~~WAC 246-247-010(4), 040(5), 060(5)~~

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Pre-filter	1	3 in parallel, Change Room doesn't pass through pre-filter
	HEPA	2	In series, both HEPA filters are tested as a single unit
	Fan	1	
	Moisture Separator	1	Serves the decon sump

**Monitoring Requirements**

state enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	4 weeks/year

**Sampling Requirements:** ~~Record Sample~~

**Additional Requirements:** ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

**Operational Status:** ~~Activities at the 340 Building support surveillance and maintenance deactivation operations at the Hanford Site. This 27-foot tall stack exhausts filtered air from the 340 Building Decontamination Room. Within the 340 Complex is the 340 A Building, which contains six aboveground tanks that had been used to store temporarily liquid mixed waste. Those tanks have been flushed and are currently empty. The 340 B Building was used for the railcar loadout of liquid mixed waste, and was shut down in 1998. The 340 B Building is currently used to store nonradioactive and radioactive solid waste. The 340 Vault houses two tanks, which have been emptied to the maximum extent practical. Operations within the vaults have permanently ceased.~~

There are ~~0~~ Active NOC(s) for this Unit

**Emission Unit ID:**  
300 P-340NTEX-001

**423**  
~~340-NT-EX~~

This is a ~~MINOR, ACTIVELY~~ Ventilated emission unit.

340 BUILDING

### Emission Unit Information

Stack Height (ft)	18.00	Stack Height (m)	5.49	Average Stack Effluent Temperature (°F)	68
Stack Diameter (ft.)	1.60	Stack Diameter (m)	0.49	Average Stack Effluent Temperature (°C)	20
				Average Stack Velocity (ft/sec)	16.60
				Average Stack Velocity (m/sec)	5.06

**Abatement Technology:** ~~ALARACT~~ WAC 246-247-040(4)

**State only enforceable:** ~~WAC 246-247-010(4), 040(5), 060(5)~~

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	1	3-parallel flow paths, (Minimum of 2 active flow paths providing 1 stage prefiltration and 2 stages HEPA filtration)
	HEPA	2	In series, 3-parallel flow paths, (Minimum of 2 active flow paths providing 1 stage prefiltration and 2 stages HEPA filtration)
	Fan	2	In parallel, (only one fan operates at a time, one is a backup)
	Moisture- Separator	1	Serves the vessel off-gas portion of the treatment system

### Monitoring Requirements

state enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61-subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Actions to assure quality of periodic confirmatory measurement as described in section 4.0 of the Standard Conditions.	TOTAL ALPHA-TOTAL BETA	The sample requirements is to take 4 one-week duration samples each year (utilizing the stack record sampling system).

**Sampling Requirements:** ~~Record-Sample~~

**Additional Requirements:** ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

**Operational Status:**—Activities at the 340 A Building support surveillance and maintenance deactivation operations at the Hanford Site. This 20 foot tall stack exhausts filtered air from the 340 Building vault, the 340 Building vault tanks, the 340 A Building aboveground storage tanks, and the associated piping system. Particulate emissions are sampled. The 340 NT EX Emission unit is in surveillance and maintenance mode for ongoing current activities. These include activities like entries into the vault area to calibrate equipment in the sump, perform inspections currently required by Ecology, or corrective maintenance to remove precipitation, which might accumulate via leakage through the vault roof or doorways. Maintenance and surveillance activities do not increase the potential to emit.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of the 340 Waste Storage	AIR-06-1058	10/5/2006	704

**Emission Unit ID:**  
200E P-296H212 001

**435**  
**296-H-212 (CSB)**

This is a MAJOR, ACTIVELY ventilated emission unit.

CANISTER STORAGE BLDG (CSB)

**Emission Unit Information**

Stack Height (ft)	75.00	Stack Height (m)	22.86	Average Stack Effluent Temperature (°F)	0
Stack Diameter (ft.)	2.30	Stack Diameter (m)	0.70	Average Stack Effluent Temperature (°C)	0
				Average Stack Velocity (ft/sec)	34.50
				Average Stack Velocity (m/sec)	10.52

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	2	double stage, operates in parallel, one HEPA at a time and one in backup mode
	Fan	2	operates in parallel, one fan at a time and one in backup mode

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B, Method 114	Each radionuclide that could contribute greater than 10 percent of the potential-to-emit TEDE	Continuous

**Sampling Requirements:** The record filter is replaced monthly and analyzed quarterly (either destructive or non-destructive technique) using a gamma spectrometer calibrated to Cs-137.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at CSB involve surveillance and maintenance operations for the safe storage of radioactive containers holding SNF at the Hanford Site.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Canister Storage Building, Building 212-H	AIR 09-106	1/26/2009	652

**Emission Unit ID:**  
100K P-296K142 001

**436**  
**296-K-142**

This is a MAJOR, ACTIVELY ventilated emission unit.

COLD VACUUM DRY FACILITY (CVD)

**Emission Unit Information**

Stack Height (ft)	48.00	Stack Height (m)	14.63	Average Stack Effluent Temperature (°F)	0
Stack Diameter (ft.)	2.50	Stack Diameter (m)	0.76	Average Stack Effluent Temperature (°C)	0
				Average Stack Velocity (ft/sec)	54.90
				Average Stack Velocity (m/sec)	16.73

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
Process Bay Local Exhaust.	Isolation Damper	2	
Process Bay Local Exhaust.	Backdraft Damper	2	
Process Bay Recirculation	HEPA	4	
Process Bay Recirculation	Fan	4	
Process Bay General Exhaust	HEPA	1	Two stage HEPA.
Process Bay General Exhaust	Prefilter	1	
Process Bay General Exhaust	Backdraft Damper	2	
Process Bay General Exhaust	Isolation Damper	2	
Process Bay General Exhaust	Fan	2	
Process Bay Local Exhaust.	HEPA	1	Two stage HEPA.
Process Bay Local Exhaust.	Fan	2	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B, Method 114	Each radionuclide that could contribute greater than 10 percent of the potential-to-emit TEDE	Monthly Sample

**Sampling Requirements:** Record Sample

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at the CVDF building involve operations in support of irradiated fuel management at the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Construction and Operation of the Cold Vacuum Drying Facility (CVDF)	AIR 06-1009	10/5/2006	643

**Emission Unit ID:** 438  
**200W S-296S023-001** 296-S-23

This is a MINOR, ACTIVELY ventilated emission unit.

219-S Building

**Emission Unit Information**

Stack Height (ft)	21.50	Stack Height (m)	6.55	Average Stack Effluent Temperature (°F)	78
Stack Diameter (ft.)	1.00	Stack Diameter (m)	0.30	Average Stack Effluent Temperature (°C)	26
				Average Stack Velocity (ft/sec)	42.46
				Average Stack Velocity (m/sec)	12.94

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

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

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	1 every 2 years

**Sampling Requirements:** NDA

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is an exhauster that is used to ventilate a hood located in the 219-S Sample Gallery. The hood is used to collect samples from two of the waste tanks located in the 219-S Waste Handling Facility. The emission unit is a hood exhauster ventilation system that operates intermittently.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200W J-CWC 001

**439**  
**Central Waste Complex**

This is a MINOR, ACTIVELY ventilated emission unit.

Central Waste Complex

**Abatement Technology:** **NONE** WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
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**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)		Near field ambient monitoring program as specified in the Conditions and Limitations.

**Sampling Requirements:** Environment Sampling; Ambient air monitors N-449, N-457, N-964, and N-433.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at the CWC building involve operations in support of waste management at the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Central Waste Complex (CWC) Operations	AIR 08-801	8/5/2008	654

**Emission Unit ID:** 443  
**300 Area Emissions** 300 Area Diffuse/Fugitive

This is a MINOR, FUGITIVE non-point source emission unit

300 Diffuse/Fugitive Emissions

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
	Administrative Controls		Abatement controls as required in the following Conditions and Limitations.
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	Each radionuclide that could contribute greater than 10 percent of the potential-to-emit TEDE	Per the sitewide ambient monitoring program

**Sampling Requirements:** Per the sitewide ambient monitoring program samples will be collected from the existing near-facility monitoring stations.

**Additional Requirements:** See Section 5 of the general conditions in this license for additional information. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Associated with emissions from operations, deactivation, surveillance and maintenance in the 300 Area from sources not actively ventilated.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
300 Area Excavation Activities	AIR 08-1020	10/31/2008	684

**Emission Unit ID:** 447  
**Hanford Sitewide type-1, type-2, type-3** type-1, type-2, type-3

This is a MINOR, ACTIVELY ventilated emission unit.

PTRAEU

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Type-1
	HEPA	1	Type-2 and Type-3
	Charcoal Filter	1	Type-2 and Type-3

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114	GROSS ALPHA/BETA	Annual, unless specified by the NOC.

**Sampling Requirements:** One of the following methods may be chosen for actual emissions reporting: nondestructive assay, record sampler, [smears of the exhaust port](#) or continuous air monitoring, whichever is more appropriate.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Operations using PTRAEUs involve mobile filtration, sample preparation, screening and analysis units, and ventilation of operations at the Hanford Site.

There are **6** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Portable/Temporary Radionuclide Airborne Emissions Units (PTRAEU)	AIR 06-1025	10/5/2006	664
Roof Replacement Activities Involving Radioactive Contamination at Facilities on the Central Plateau	AIR 06-1030	10/5/2006	670
Categorical Tank Farm Facility Entry and Surveillance	AIR 06-1033	10/5/2006	673
Consolidated T Plant Operations	AIR 07-306	3/23/2007	711
License to Operate Ventilation of the 241 AY/AZ Tank Farm (Replaced NOC ID 708)	AIR 10-1101	11/4/2010	782
Tank Farm Restoration and Safe Storage (Replaced NOC ID 689)	AIR 10-1102	11/4/2010	783

**Emission Unit ID:** **448**  
**Hanford Sitewide Vented Containers** **Vented Containers**

This is a MINOR, PASSIVELY ventilated emission unit.

PTRAEU

**Abatement Technology:** **NONE** WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
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<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	Air - every 2 weeks continuous/deposition - annually

**Sampling Requirements:** Environment Sampling

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities for vented containers involve storing, surveillance and monitoring operations on the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Sitewide Vented Container Storage	AIR 07-701	7/2/2007	641

**Emission Unit ID:** 454  
**200 200 Area ISA** 200 Area Interim Storage Area (ISA)

This is a MINOR, ACTIVELY ventilated emission unit.

200 diffuse/fugitive emissions

**Abatement Technology:** NONE WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
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<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
WAC 246-247-075(3)			Annual

**Sampling Requirements:** Smear Survey

**Additional Requirements:** See Section 5 of the general conditions in this license for additional information. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Operations at the 200 Area ISA are for interim dry storage of SNF materials on the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Construction and Operation of the 200 Area Interim Storage Area (ISA)	AIR 06-1015	10/5/2006	650

**Emission Unit ID:** 455  
**Hanford Sitewide W-PORTEX 007** HEPA vacuums

This is a MINOR, ACTIVELY ventilated emission unit.

PTRAEU

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
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<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)			

**Sampling Requirements:** None

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Operation of HEPA vacuums involve reduction of smearable and fixed contamination and evacuation of enclosures at the Hanford Site.

There are **5** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
HEPA Filtered Vacuum Radioactive Air Emission Units (HVU)	AIR 06-1024	10/5/2006	663
Roof Replacement Activities Involving Radioactive Contamination at Facilities on the Central Plateau	AIR 06-1030	10/5/2006	670
Operation of the Transuranic Waste Retrieval Project	AIR 07-1012	10/19/2007	719
License to Operate Ventilation of the 241 AY/AZ Tank Farm (Replaced NOC ID 708)	AIR 10-1101	11/4/2010	782
License to Operate the Retrieval and Disposal Activities for Boxes 80 and 82 for the TRU Waste Retrieval Project	AIR 10-1022	10/29/2010	795

**Emission Unit ID:**  
**200 W-PORTEX 011**

**461**  
**Permacon Unit**

This is a MINOR, ACTIVELY ventilated emission unit.

Miscellaneous Support Facilities

**Abatement Technology:** ~~NONE~~ WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)		Quarterly frequency revisited after a year for changes to annual.

**Sampling Requirements:** Quarterly for 2 weeks of operations.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Operations at the PERMACON unit involve headspace gas sampling of waste containers at the CWC.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Central Waste Complex (CWC) Operations	AIR 08-801	8/5/2008	654

**Emission Unit ID:**  
200 J-NONPOINT 012

**465**  
**Purgewater Modutanks**

This is a MINOR, FUGITIVE non-point source emission unit.

Miscellaneous Support Facilities

**Abatement Technology:** **NONE** WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
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**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114(3)	TOTAL ALPHA TOTAL BETA	Air - every 2 weeks continuous/deposition - annually

**Sampling Requirements:** Near Facility Ambient Air Sampling

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Operations at purgewater tanks involve solar evaporation of purgewater on the Hanford Site.

There are **1** 0 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
<del>Demolition of the Purgewater Storage and Treatment Facility Unit #1</del>	<del>AIR-09-804</del>	<del>8/11/2009</del>	<del>747</del>

**Emission Unit ID:**  
200W P-Trench31 001

**472**  
**Leachate Collection Tank for Trench 31**

This is a MINOR, FUGITIVE non-point source emission unit.

200 West Burial Grounds

**Abatement Technology:** **NONE** WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
--			
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
WAC 246-247-075(3)			Before and after emptying the tank. When the tank is not empty, take a monthly smear (after commencement of bulk waste disposal).

**Sampling Requirements:** Smear sample of overflow pipe

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities in Trench 31 and 34 involve receipt and disposal of [RCRA and](#) TSCA wastes on the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Trench 31 and 34: Leachate Collection and Storage Tank (LLBG Mixed Waste Disposal)	AIR 06-1023	10/5/2006	662

**Emission Unit ID:**  
**200W P-Trench34 001**

**473**  
**Leachate Collection Tank for Trench 34**

This is a MINOR, FUGITIVE non-point source emission unit.

200 West Burial Grounds

**Abatement Technology:** **NONE** WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
--			
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
WAC 246-247-075(3)			Before and after emptying the tank. When the tank is not empty, take a monthly smear (after commencement of bulk waste disposal).

**Sampling Requirements:** Smear sample of overflow pipe

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities in Trench 31 and 34 involve receipt and disposal of [RCRA and](#) TSCA wastes on the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Trench 31 and 34: Leachate Collection and Storage Tank (LLBG Mixed Waste Disposal)	AIR 06-1023	10/5/2006	662

**Emission Unit ID:**  
**Hanford Sitewide Guzzler-001**

**476**  
**Guzzler**

This is a MINOR, ACTIVELY ventilated emission unit.

#### GUZZLER

#### Emission Unit Information

Stack Height (ft)	12.00	Stack Height (m)	3.66	Average Stack Effluent Temperature (°F)	54
Stack Diameter (ft.)	0.75	Stack Diameter (m)	0.23	Average Stack Effluent Temperature (°C)	12
				Average Stack Velocity (ft/sec)	0
				Average Stack Velocity (m/sec)	0

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Collection Tank and Plate Separator	1	
	Cyclone Separator	2	
	Micro-strainer Device	1	
	HEPA	3	Three in-place tested HEPA filters in parallel.
	Baghouse	2	Baghouse system with a total of 68 bags (i.e., 34 bags per baghouse).

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61; Appendix B, Method 114(3)	Each radionuclide that could 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.	When the HEPA filters are replaced and annually screening the HEPA filtration system.

**Sampling Requirements:** Radiation surveys and to include but not limited to NDA testing of the HEPA filters and screening the HEPA filtration system using gamma spectroscopy.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** The Guzzler ® portable emission unit is a completely self-contained vacuum used to support operations, such as but not limited to, waste characterization, waste retrieval,

decommissioning, deactivation, maintenance, and construction and operation support activities. The emission unit operates intermittently.

There are **7** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Use of the Guzzler™ (Filter Vacuum Truck) Vacuum Excavation System for Radiologically Limited Activities on the Hanford Site.	AIR 08-404	4/30/2008	658
Roof Replacement Activities Involving Radioactive Contamination at Facilities on the Central Plateau	AIR 06-1030	10/5/2006	670
Operation of the Guzzler™ in Tank Farm Facilities (Replaced NOC ID 647)	AIR 10-506	5/26/2010	774
Categorical Tank Farm Facility Waste Retrieval and Closure: Phase 1 – Site Preparation and System Installation (Replaced NOC ID 702)	AIR 10-1015	10/20/2010	775
License to Operate Ventilation of the 241 AY/AZ Tank Farm (Replaced NOC ID 708)	AIR 10-1101	11/4/2010	782
Tank Farm Restoration and Safe Storage (Replaced NOC ID 689)	AIR 10-1102	11/4/2010	783
244-CR Vault Isolation and Interim Stabilization (Replaced NOC ID 685)	AIR 10-1103	11/4/2010	784

**Emission Unit ID:** 486  
**200 Area Diffuse/Fugitive** 200 Area Diffuse/Fugitive

This is a MAJOR, FUGITIVE non-point source emission unit.

200 diffuse/fugitive emissions

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
--			
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
WAC 246-247-075 <del>(2)</del> (3)	40 CFR 61, Appendix B, Method 114(3)	Each radionuclide that could contribute greater than 10 percent of the potential-to-emit TEDE	Per the sitewide ambient monitoring program

**Sampling Requirements:** Per the sitewide ambient monitoring program samples will be collected from the existing near-facility monitoring stations

**Additional Requirements:** See Section 5 of the general conditions in this license for additional information. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Associated with emissions from operations, deactivation, surveillance and maintenance, and inactive sites in the 200 Area from sources not actively ventilated.

There are ~~33~~ 28 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Construction and operation of the Waste Receiving and Processing (WRAP) Facility (Replaced NOC ID 23)	AIR 08-802	8/5/2008	638
Operation of the 2706-T Building	AIR 06-1013	10/5/2006	648
<del>Transition of the Plutonium Finishing Plant</del>	<del>AIR 06-1020</del>	<del>10/5/2006</del>	<del>655</del>
Roof Replacement Activities Involving Radioactive Contamination at Facilities on the Central Plateau	AIR 06-1030	10/5/2006	670
Categorical Tank Farm Facility Entry and Surveillance	AIR 06-1033	10/5/2006	673
Vapor Sampling of Miscellaneous Underground Units	AIR 06-1034	10/5/2006	674
200/600 Areas Facilities Support Decontamination Trailer (Intermittent powered exhaust)	AIR 07-1102	11/15/2007	678
Operation of the Liquid Effluent Retention Facility and the 200 Area Effluent Treatment Facility (Replaced NOC ID 562)	AIR 06-1045	10/5/2006	690
241-AN Tank Farm Installation and Operation of a New Ventilation System	AIR 06-1046	10/5/2006	692
241-AW Tank Farm Installation and Operation of a New Ventilation System	AIR 06-1047	10/5/2006	693
<del>241-S-102 Installation and Operation of Waste Retrieval Systems (Replaced NOC ID 567)</del>	<del>AIR 09-708</del>	<del>7/29/2009</del>	<del>694</del>

Project Title	Approval Number	Date Approved	NOC_ID
<del>241-C-200 Series Tanks Retrieval</del>	<del>AIR 06-1052</del>	<del>10/5/2006</del>	<del>698</del>
Characterization and Stabilization Activities Involving Radioactive Contamination at Facilities on the Central Plateau	AIR 06-1053	10/5/2006	699
<del>Supplemental Treatment Test and Demonstration Facility</del>	<del>AIR 06-1059</del>	<del>10/5/2006</del>	<del>705</del>
Consolidated T Plant Operations	AIR 07-306	3/23/2007	711
Operation of the Integrated Disposal Facility (IDF)	AIR 06-1063	10/5/2006	713
Cleaning Radiologically Contaminated Vehicles (Replaced NOC ID 631)	AIR 06-1065	10/5/2006	715
Removal of Liquid from Catch Tank 241-ER-311	AIR 08-1106	11/10/2008	718
Operation of the Transuranic Waste Retrieval Project	AIR 07-1012	10/19/2007	719
Decontamination Trailer at the Transuranic Waste Retrieval Project	AIR 09-502	5/12/2009	743
Categorical Tank Farm Facility Waste Retrieval and Closure: Phase 1 – Site Preparation and System Installation (Replaced NOC ID 702)	AIR 10-1015	10/20/2010	775
Categorical Tank Farm Facility Waste Retrieval and Closure: Phase II Waste Retrieval Operations (Replaced NOC ID 703)	AIR 10-1104	11/4/2010	780
License to Operate Ventilation of the 241 AY/AZ Tank Farm (Replaced NOC ID 708)	AIR 10-1101	11/4/2010	782
Tank Farm Restoration and Safe Storage (Replaced NOC ID 689)	AIR 10-1102	11/4/2010	783
244-CR Vault Isolation and Interim Stabilization (Replaced NOC ID 685)	AIR 10-1103	11/4/2010	784
Tank Waste Remediation System Vadose Zone Characterization (Replaced NOC ID 635)	AIR 10-801	8/3/2010	785
E-525 Double-Shell Tank (DST) Transfer System Modifications Project (Replaced NOC ID 688)	AIR 10-904	9/2/2010	786
<del>Installation and Operation of Waste Retrieval Systems in Single Shell Tank (SST) 241-S-112 (Replaces NOC ID 686)</del>	<del>AIR 10-1202</del>	<del>12/8/2010</del>	<del>788</del>
Tank Farm Decontamination Trailer East( Replaces NOC 695)	AIR 10-1105	11/4/2010	791
Tank Farm Decontamination Trailer West( Replaces NOC 695)	AIR 10-1106	11/4/2010	792
Deactivation of 209-E Building (Replaces NOC ID 707)	AIR 10-1021	10/29/2010	793
License to Operate the Retrieval and Disposal Activities for Boxes 80 and 82 for the TRU Waste Retrieval Project	AIR 10-1022	10/29/2010	795
Isolation and Closure of Exhaust Stacks 296-A-25, 296-B-28, 296-S-22 and 296- T-18 (Replaces NOC 697)	AIR 10-1201	12/8/2010	796

**Emission Unit ID:**  
200 W-296P047-001

**498**  
**296-P-47**

This is a MAJOR, ACTIVELY ventilated emission unit.

Tank Farms

**Emission Unit Information**

Stack Height (ft)	40.00	Stack Height (m)	12.19	Average Stack Effluent Temperature (°F)	90
Stack Diameter (ft.)	0.50	Stack Diameter (m)	0.15	Average Stack Effluent Temperature (°C)	32
				Average Stack Velocity (ft/sec)	80.68
				Average Stack Velocity (m/sec)	24.59

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Heater	1	
	Demister	1	
	Prefilter	1	
	HEPA	2	2 HEPA filters in series
	Fan	1	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114.	<del>Cs-137, Sr-90</del> Each radionuclide that could contribute greater than 10 percent of the potential FEDE	Continuous

**Sampling Requirements:** Record sample ~~collected biweekly~~

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a skid/mobile type portable exhauster used to support tank farm operations, such as but not limited to, waste characterization, waste retrieval, decommissioning, deactivation, maintenance, and construction and operation support activities. The emission unit is a portable exhauster that operates intermittently.

There are ~~3~~ 2 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
<del>Liquid Pumping and Enhanced Sluicing on Tank 241 C-106 (Replaced NOC ID 540) (Replaced by NOC ID 790)</del>	<del>AIR 06-1038</del>	<del>10/5/2006</del>	<del>683</del>

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Project Title	Approval Number	Date Approved	NOC_ID
Categorical Tank Farm Facility Waste Retrieval and Closure: Phase II Waste Retrieval Operations (Replaced NOC ID 703)	AIR 10-1104	11/4/2010	780
244-CR Vault Isolation and Interim Stabilization (Replaced NOC ID 685)	AIR 10-1103	11/4/2010	784

**Emission Unit ID:**  
**600 J NONPOINT SOURCE**

**504**  
**600 Area Diffuse/Fugitive**

This is a MINOR, FUGITIVE, non-point source emission unit.

600 Area Diffuse Emissions

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
--			
<b>Monitoring Requirements</b>			
state enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114	Each radionuclide that could contribute greater than 10 percent of the potential-to-emit TEDE	Per the sitewide ambient monitoring program

**Sampling Requirements:** Per the sitewide ambient monitoring program samples will be collected from the existing near-facility monitoring stations.

**Additional Requirements:** See Section 5 of the general conditions in this license for additional information. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Associated with emissions from operations, deactivation, surveillance and maintenance, and inactive sites in the 600 Area from sources not actively ventilated.

There are **1** Active NOC's for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Use of Portable Tanks and Revised Source Term Description at Waste Sampling and Characterization Facility (WSCF)	AIR 06-1029	10/5/2006	669

**Emission Unit ID:**  
200 P-Vadose-002

**539**  
**Air Rotary Drilling**

This is a ~~MINOR, ACTIVELY~~ ventilated emission unit.

Tank Farms

**Abatement Technology:** ~~BARCT~~ WAC 246-247-040(3), 040(4)

**State only enforceable:** ~~WAC 246-247-010(4), 040(5), 060(5)~~

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	<del>On the containment structure or the Air Rotary Exhaust and to be used as a record filter when used on Air Rotary Exhaust.</del>

**Monitoring Requirements**

State enforceable: ~~WAC 246-247-040(5), 060(5)~~, and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114-3)	Each radionuclide that could contribute greater than 10 percent of the potential TEDE	The record filter is to be counted annually

**Sampling Requirements:** ~~Perform either a destructive or non-destructive analysis of the record filter using gamma spectrometer calibrated to Cs-137 and radiological field surveys.~~

**Additional Requirements:** ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

**Operational Status:** ~~This emission unit supports Vadose Zone characterization activities that include drilling and sampling of soil from the surface to the depth of groundwater. The emission unit operates on an intermittent basis.~~

There are ~~1~~ Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Tank Waste Remediation System Vadose Zone Characterization (Replaced NOC ID-635)	AIR-10-801	8/3/2010	785

**Emission Unit ID:**  
200 P-Vadose-003

**541**  
**Air Hammer Drilling**

This is a ~~MINOR, ACTIVELY~~ ventilated emission unit.

Tank Farms

**Abatement Technology:** ~~BARCT~~ WAC 246-247-040(3), 040(4)

**State only enforceable:** ~~WAC 246-247-010(4), 040(5), 060(5)~~

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	The HEPA filter may or may not have an exhaust fan associated with it.

**Monitoring Requirements**

State enforceable: ~~WAC 246-247-040(5), 060(5)~~, and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114	Each radionuclide that could contribute greater than 10 percent of the potential TEDE	After each borehole and record filter counted annually

**Sampling Requirements:** ~~For passive HEPA filter, perform field survey of the filter housing. Perform a non-destructive NDA of the record filter using gamma spectroscopy calibrated to Cs137 and radiological surveys~~

**Additional Requirements:** ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

**Operational Status:** ~~This emission unit supports Vadose Zone characterization activities that include drilling and sampling of soil from the surface to the depth of groundwater. The emission unit operates on an intermittent basis.~~

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Tank Waste Remediation System Vadose Zone Characterization (Replaced NOC ID-635)	AIR-10-801	8/3/2010	785

**Emission Unit ID:**  
**100K 100 Area Diffuse/Fugitive**

**689**  
**100 Area Diffuse/Fugitive Emissions**

This is a MINOR, FUGITIVE non-point source emission unit.

100 K diffuse/fugitive emissions

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
			Abatement controls as required in the following Conditions and Limitations.

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
WAC 246-247-075[3]	40 CFR 61, Appendix B, Method 114	Each radionuclide that could contribute greater than 10 percent of the potential TEDE	Per the sitewide ambient monitoring program

**Sampling Requirements:** Per the sitewide ambient monitoring program samples will be collected from the existing near-facility monitoring stations.

**Additional Requirements:** See Section 5 of the general conditions in this license for additional information. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Associated with emissions from operations, deactivation, surveillance and maintenance, and inactive sites in the 100 K Area, 100 Area from sources not actively ventilated.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 712  
~~200E P-241C-004~~ 200E P-241C106-001 241-C-106

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-C TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<u>40 CFR 61, Appendix B, Method 114</u>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <u>Every 365 days</u>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows the SST to vent to the atmosphere under tank farm storage, maintenance, and operations. The tanks store radioactive waste until the waste is retrieved, treated, and properly disposed under the applicable federal and state regulations and/or permits. The tanks are scheduled for waste retrieval, decommissioning, and eventual closure under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200E P-244CR-002

**713**  
**244-CR Vault Passive Filter A**

This is a MINOR, PASSIVELY ventilated emission unit.

244-CR VAULT

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT~~ ~~WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B Method 114(3)	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	1 per year

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a building/facility passive breather filter that is used to ventilate building and facility operations such as but not limited to process vessels, contaminated rooms, cells, glove boxes, hoods, abandoned facilities awaiting decommissioning, and vaults that support tank farm operations, maintenance, and surveillance activities for tank farms. Entry into the building/facility consists of activities to support current surveillance, maintenance, operations, decommissioning, decontamination, and cleanup activities. Many of the activities other than normal surveillance, maintenance, and operation support will be or are regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation system that operates continuously.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
244-CR Vault Isolation and Interim Stabilization (Replaced NOC ID 685)	AIR 10-1103	11/4/2010	784

**Emission Unit ID:**  
200E P-244CR-003

**714**  
**244-CR Vault Passive Filter B**

This is a MINOR, PASSIVELY ventilated emission unit.

244-CR VAULT

**Emission Unit Information**

Stack Height (ft)	3.00	Stack Height (m)	0.91	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	0.33	Stack Diameter (m)	0.10	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	1.91
				Average Stack Velocity (m/sec)	0.58

**Abatement Technology:** ~~BARCT~~ ~~ALARACT~~ ~~WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B Method 114	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	1 per year

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a building/facility passive breather filter that is used to ventilate building and facility operations such as but not limited to process vessels, contaminated rooms, cells, glove boxes, hoods, abandoned facilities awaiting decommissioning, and vaults that support tank farm operations, maintenance, and surveillance activities for tank farms. Entry into the building/facility consists of activities to support current surveillance, maintenance, operations, decommissioning, decontamination, and cleanup activities. Many of the activities other than normal surveillance, maintenance, and operation support will be or are regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is ~~a passive breather filter ventilation system that operates continuously~~ not installed.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
244-CR Vault Isolation and Interim Stabilization (Replaced NOC ID 685)	AIR 10-1103	11/4/2010	784

**Emission Unit ID:** **716**  
~~200E P-241C-002~~ 200E P-241C104-001 **241-C-104**

This is a MINOR, PASSIVELY ventilated emission unit.

241-C TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<u>40 CFR 61, Appendix B, Method 114</u>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	1 per year

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows the SST to vent to the atmosphere under tank farm storage, maintenance, and operations. The tanks store radioactive waste until the waste is retrieved, treated, and properly disposed under the applicable federal and state regulations and/or permits. The tanks are scheduled for waste retrieval, decommissioning, and eventual closure under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 717  
~~200E P-241C-003~~ 200E P-241C105-001 241-C-105

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-C TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<u>40 CFR 61, Appendix B, Method 114</u>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	1 per year

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows the SST to vent to the atmosphere under tank farm storage, maintenance, and operations. The tanks store radioactive waste until the waste is retrieved, treated, and properly disposed under the applicable federal and state regulations and/or permits. The tanks are scheduled for waste retrieval, decommissioning, and eventual closure under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 735  
**200E P-296A044-001** 296-A-44

This is a MAJOR, ACTIVELY ventilated emission unit.

241-AN TANK FARM

**Emission Unit Information**

Stack Height (ft)	28.13	Stack Height (m)	8.57	Average Stack Effluent Temperature (°F)	110
Stack Diameter (ft.)	0.84	Stack Diameter (m)	0.26	Average Stack Effluent Temperature (°C)	43
				Average Stack Velocity (ft/sec)	91.31
				Average Stack Velocity (m/sec)	27.83

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	De-entrainer	1	Operational at all times, when the exhauster is in use.
	Heater	1	Operational at all times, when the exhauster is in use.
	Prefilter	1	
	HEPA	2	In series
	Fan	1	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B, Method 114	Sr-90, Cs-137, Am-241, <del>C-14</del> , Y90, Cs-134, <del>Eu-154</del> , <del>Ae-227</del> , Pa-231, <del>U-233</del> , Pu-238, <del>Pu-239</del> , Pu-240, Pu-241, Cm-244.	Continuous

**Sampling Requirements:** Record sample ~~collected biweekly~~

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a primary exhauster used to support tank farm operations by ventilating the DSTs in 241AN Tank Farm during storage, maintenance and normal operations. Any activity other than storage, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. This emission unit may be operated independently or concurrently with emission unit 296-A-45. The emission unit operates intermittently.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of New Ventilation Systems in AN and AW Tank Farms	AIR 06-1060	10/5/2006	706

**Emission Unit ID:** 736  
**200E P-296A045-001** 296-A-45

This is a MAJOR, ACTIVELY ventilated emission unit.

241-AN TANK FARM

### Emission Unit Information

Stack Height (ft)	28.13	Stack Height (m)	8.57	Average Stack Effluent Temperature (°F)	110
Stack Diameter (ft.)	0.84	Stack Diameter (m)	0.26	Average Stack Effluent Temperature (°C)	43
				Average Stack Velocity (ft/sec)	91.31
				Average Stack Velocity (m/sec)	27.83

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	De-entrainer	1	Operational at all times, when the exhauster is in use.
	Heater	1	Operational at all times, when the exhauster is in use.
	Prefilter	1	
	HEPA	2	In series
	Fan	1	

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B, Method 114	Sr-90, Cs-137, Am-241, <del>C-14</del> , Y90, Cs-134, <del>Eu-154</del> , <del>Ae-227</del> , Pa-231, <del>U-233</del> , Pu-238, <del>Pu-239</del> , Pu-240, Pu-241, Cm-244.	Continuous

**Sampling Requirements:** Record sample ~~collected biweekly~~

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a primary exhauster used to support tank farm operations by ventilating the DSTs in 241AN Tank Farm during storage, maintenance and normal operations. Any activity other than storage, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. This emission unit may be operated independently or concurrently with emission unit 296-A-45. The emission unit operates intermittently.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of New Ventilation Systems in AN and AW Tank Farms	AIR 06-1060	10/5/2006	706

**Emission Unit ID:**  
200E P-241C103-001

**737**  
**241-C-103**

This is a MINOR, PASSIVELY ventilated emission unit.

241-C TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	1 per year

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter [or](#) on the outside of the screen covering the outlet vent.

**Additional Requirements:** ~~Contamination surveys of breather filters with stack extensions will be performed on the downstream side of the filter or on the outside of the screen covering the outlet of the vent (if one exists) or by removing the test port cap downstream of the HEPA filter, surveying the cap and inserting smear media (e.g. swab, masslin) in the opening and smearing the interior ducting surface on the opposite side of the test port cap opening.~~ [Radial breather filters shall be replaced every 365 days.](#)

Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200E P-244A-002

**738**  
**244-A Primary HEPA**

This is a MINOR, PASSIVELY ventilated emission unit.

244-A DCRT

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT~~ ~~ALARACT~~ ~~WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B Method 114(3)	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	1 per year

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a double contained receiver tank (DCRT) passive breather filter ventilation system used to support tank farm operations, such as waste retrieval and operation support activities for the 241-A Tank Farm. The tank stored radioactive waste during transfer operations. Any activity other than temporary storage and normal operation support will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit has a passive breather filter ventilation system that operates continuously.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Isolation and Closure of Exhaust Stacks 296-A-25, 296-B-28, 296-S-22 and 296- T-18 (Replaces NOC 697)	AIR 10-1201	12/8/2010	796

**Emission Unit ID:**  
200E P-244BX-002

**740**  
**244-BX Primary HEPA**

This is a MINOR, PASSIVELY ventilated emission unit.

244-BX-DCRT

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT WAC 246-247-040(3), 040(4)~~ [WAC 246-247-040\(4\)](#)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	1 per year

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a double container receiver tank (DCRT) passive breather filter ventilation system used to support tank farm operations, such as but not limited to waste retrieval and operation support activities for 241 BX Tank Farm. The tanks stored radioactive waste during transfer operations. Any activity other than temporary storage and normal operation support will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation system that operates continuously.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Isolation and Closure of Exhaust Stacks 296-A-25, 296-B-28, 296-S-22 and 296- T-18 (Replaces NOC 697)	AIR 10-1201	12/8/2010	796

**Emission Unit ID:**  
200W P-244S-002

**742**  
**244-S Primary HEPA**

This is a MINOR, PASSIVELY ventilated emission unit.

244 S-DCRT

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT WAC 246-247-040(3), 040(4)~~ [WAC 246-247-040\(4\)](#)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	1 per year

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a double container receiver tank (DCRT) passive breather filter ventilation system used to support tank farm operations, such as but not limited to waste retrieval and operation support activities for 241 S Tank Farm. The tanks stored radioactive waste during transfer operations. Any activity other than temporary storage and normal operation support will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit has a passive breather filter ventilation system that operates continuously.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Isolation and Closure of Exhaust Stacks 296-A-25, 296-B-28, 296-S-22 and 296- T-18 (Replaces NOC 697)	AIR 10-1201	12/8/2010	796

**Emission Unit ID:**  
200W P-244TX-002

**744**  
**244-TX Primary HEPA**

This is a MINOR, PASSIVELY ventilated emission unit.

244-TX DCRT

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT~~ ~~WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B Method 114(3)	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	1 per year

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a double container receiver tank (DCRT) passive breather filter ventilation system used to support tank farm operations, such as but not limited to waste retrieval and operation support activities for 241 TX Tank Farm. The tanks stored radioactive waste during transfer operations. Any activity other than temporary storage and normal operation support will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation system that operates continuously.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Isolation and Closure of Exhaust Stacks 296-A-25, 296-B-28, 296-S-22 and 296- T-18 (Replaces NOC 697)	AIR 10-1201	12/8/2010	796

**Emission Unit ID:** 749  
**200 W-296P048-001** 296-P-48

This is a MAJOR, ACTIVELY ventilated emission unit.

Tank Farms

**Emission Unit Information**

Stack Height (ft)	40.00	Stack Height (m)	12.19	Average Stack Effluent Temperature (°F)	90
Stack Diameter (ft.)	0.50	Stack Diameter (m)	0.15	Average Stack Effluent Temperature (°C)	32
				Average Stack Velocity (ft/sec)	38.22
				Average Stack Velocity (m/sec)	11.65

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Demister	1	
	Heater	1	
	Prefilter	1	
	HEPA	2	2 HEPAs in series.
	Fan	1	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114	<u>Cs-137, Sr-90</u> Each radionuclide that could contribute greater than 10 percent of the potential FEDE.	Continuous

**Sampling Requirements:** Record sample ~~collected biweekly~~

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a skid/mobile type portable exhauster used to support Tank Farm operations, such as, but not limited to waste characterization, waste retrieval, decommissioning, deactivation, maintenance, and construction and construction and operational support activities. The emission unit is a portable exhauster that operates intermittently.

There are ~~2~~ 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
<del>241-C-200 Series Tanks Retrieval</del>	<del>AIR-06-1052</del>	<del>10/5/2006</del>	<del>698</del>
Categorical Tank Farm Facility Waste Retrieval and Closure: Phase II Waste Retrieval Operations (Replaced NOC ID 703)	AIR 10-1104	11/4/2010	780

**Emission Unit ID:**  
200E P-241AZ301-001

**751**  
**241-AZ-301**

This is a MINOR, PASSIVELY ventilated emission unit.

241-AZ TANK FARM

**Emission Unit Information**

Stack Height (ft.)	<del>3.00</del> 5.00	Stack Height (m)	<del>0.91</del> 1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	<del>0.33</del> 1.13	Stack Diameter (m)	<del>0.10</del> 0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	<del>1.91</del> 0.25
				Average Stack Velocity (m/sec)	<del>0.58</del> 0.08

**Abatement Technology:** ~~BARCT ALARACT WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B Method 114	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	1 per year

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a catch tank passive breather filter ventilation system used to support tank farm operations, such as but not limited to waste retrieval and operation support activities for 241-AZ Tank Farm. The tanks stored radioactive waste during transfer operations. Any activity other than temporary storage and normal operation support will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation system that operates continuously.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
E-525 Double-Shell Tank (DST) Transfer System Modifications Project (Replaced NOC ID 688)	AIR 10-904	9/2/2010	786

**Emission Unit ID:**  
200W DVS - Active

**755**  
**Mobile Drum Venting System (Active Vent)**

This is a MINOR, ACTIVELY ventilated emission unit.

TRU Waste Retrieval

**Emission Unit Information**

Stack Height (ft)	0	Stack Height (m)	0	Average Stack Effluent Temperature (°F)	70
Stack Diameter (ft.)	0.10	Stack Diameter (m)	0.03	Average Stack Effluent Temperature (°C)	21
				Average Stack Velocity (ft/sec)	0
				Average Stack Velocity (m/sec)	0

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA Type Filter	1	Shall be a NucFil ® Model IHF-004 or other with prior approval by the department.

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)		TOTAL ALPHA TOTAL BETA TOTAL GAMMA	End of each shift of operation

**Sampling Requirements:** Smears of the exhaust vent at the end of each shift of operation.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities for the TRU retrieval project Drum Venting Systems support decontamination and decommissioning operations at the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of the Transuranic Waste Retrieval Project	AIR 07-1012	10/19/2007	719

**Emission Unit ID:**  
200W DVS - Passive

**756**  
**Mobile Drum Venting System (Passive Vent)**

This is a MINOR, PASSIVELY ventilated emission unit.

TRU Waste Retrieval

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA Type Filter	1	Shall be a Pall ® Model Ultramet or other with prior

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)		TOTAL ALPHA TOTAL BETA TOTAL GAMMA	End of each shift of operation

**Sampling Requirements:** Smears of the exhaust vent at the end of each shift of operation.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities for the TRU retrieval project Drum Venting Systems support decontamination and decommissioning operations at the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of the Transuranic Waste Retrieval Project	AIR 07-1012	10/19/2007	719

**Emission Unit ID:** 855  
**200E P-296A046-001** 296-A-46

This is a MAJOR, ACTIVELY ventilated emission unit.

241-AW TANK FARM

**Emission Unit Information**

Stack Height (ft)	<del>28.13</del> 27.88	Stack Height (m)	<del>8.57</del> 8.50	Average Stack Effluent Temperature (°F)	<del>0</del> 94
Stack Diameter (ft.)	0.84	Stack Diameter (m)	<del>0.26</del> 0.25	Average Stack Effluent Temperature (°C)	<del>0</del> 34.44
				Average Stack Velocity (ft/sec)	<del>91.31</del> 47.52
				Average Stack Velocity (m/sec)	<del>27.83</del> 14.48

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	De-entrainer	1	Operational at all times, when the exhauster is in use.
	Heater	1	Operational at all times, when the exhauster is in use.
	Prefilter	1	
	HEPA	2	In Series
	Fan	1	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114	Sr-90, Cs-137, Am-241, <del>C-14</del> , Y90, Cs-134, <del>Eu-154</del> , <del>Ae-227</del> , Pa-231, <del>U-233</del> , Pu-238, <del>Pu-239</del> , Pu-240, Pu-241, <del>Cm-244</del> .	Continuous

**Sampling Requirements:** Record sample ~~collected biweekly~~

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a primary exhauster used to support tank farm operations by ventilating the DSTs in 241-AW Tank Farm during storage, maintenance, and normal operations. Any activity other than storage, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. This emission unit may be operated independently or concurrently with emission unit 296-A-47. The emission unit operates intermittently.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of New Ventilation Systems in AN and AW Tank Farms	AIR 06-1060	10/5/2006	706

**Emission Unit ID:** 856  
**200E P-296A047-001** 296-A-47

This is a MAJOR, ACTIVELY ventilated emission unit.

241-AW TANK FARM

### Emission Unit Information

Stack Height (ft)	<del>28.13</del> <u>27.88</u>	Stack Height (m)	<del>8.57</del> <u>8.50</u>	Average Stack Effluent Temperature (°F)	<del>94</del>
Stack Diameter (ft.)	0.84	Stack Diameter (m)	<del>0.26</del> <u>0.25</u>	Average Stack Effluent Temperature (°C)	<del>34.44</del>
				Average Stack Velocity (ft/sec)	<del>91.31</del> <u>47.52</u>
				Average Stack Velocity (m/sec)	<del>27.83</del> <u>14.48</u>

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	De-entrainer	1	Operational at all times, when the exhauster is in use.
	Heater	1	Operational at all times, when the exhauster is in use.
	Prefilter	1	
	HEPA	2	In Series
	Fan	1	

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114	Sr-90, Cs-137, Am-241, <del>C-14</del> , Y90, Cs-134, <del>Eu-154</del> , <del>Ae-227</del> , Pa-231, U-233, Pu-238, <u>Pu-239</u> , Pu-240, Pu-241, <del>Cm-244</del>	Continuous

**Sampling Requirements:** Record sample ~~collected biweekly~~

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a primary exhauster used to support tank farm operations by ventilating the DSTs in 241-AW Tank Farm during storage, maintenance, and normal operations. Any activity other than storage, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. This emission unit may be operated independently or concurrently with emission unit 296-A-46. The emission unit operates intermittently.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of New Ventilation Systems in AN and AW Tank Farms	AIR 06-1060	10/5/2006	706

~~Emission Unit ID: 200W Concrete Containers~~ **874 Concrete Containers**

~~This is a MINOR, PASSIVELY ventilated emission unit.~~

~~PLUTONIUM FINISHING PLANT (Z PLANT)~~

~~Abatement Technology: BARCT~~ **WAC 246-247-040(3), 040(4)**

~~State only enforceable: WAC 246-247-010(4), 040(5), 060(5)~~

<del>Zone or Area</del>	<del>Abatement Technology</del>	<del>Required # Units</del>	<del>Additional Description</del>
<del>—</del>	<del>—</del>	<del>1</del>	<del>Operational at all times, when the exhauster is in use.</del>

**Monitoring Requirements**

~~State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H~~

<del>Federal and State Regulatory</del>	<del>Monitoring and Testing Requirements</del>	<del>Radionuclides Requiring Measurement</del>	<del>Sampling Frequency</del>
<del>40 CFR 61.93(b)(4)(i) &amp; WAC 246-247-075(3)</del>	<del>WAC 246-247-040(3) &amp; (5)</del>	<del>TOTAL ALPHA TOTAL BETA</del>	<del>Annually at a minimum</del>

~~Sampling Requirements: Radiological surveys to include smears of vents and seal area~~

~~Additional Requirements: Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

~~Operational Status: Activities at the 200 W Concrete Containers, PFP, hold radioactive materials to support the surveillance and maintenance mission at the Hanford Site.~~

There are **10** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Transition of the Plutonium Finishing Plant	AIR-06-1020	10/5/2006	655

**Emission Unit ID:**  
200W P-BULKVIT-001

**878**  
**Bulk Vit Demo Exhauster**

This is a MAJOR, ACTIVELY ventilated emission unit.

Supplemental Treatment Test Demonstration Facility

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Quench		One in operation
	Mist Eliminator		One in operation
	Heater		One in operation
	HEPA		Two banks of HEPAs in series.

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B, Method 114	Cs-137, C-14, Sr-90, Tc-99	Continuous

**Sampling Requirements:** Record Sample collected biweekly, and a continuous air monitor for beta, and gamma.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a building/facility exhauster that is use to ventilate building and facility operations such as but not limited to process vessels, contaminated rooms, cells, glove boxes, hoods, abandoned facilities awaiting decommissioning, and vaults that support tank farm operations, maintenance and surveillance activities for tank farms. The exhauster can be used to support current surveillance, maintenance activities, operations or decommissioning, decontamination, and cleanup activities within the building/facility. Many of the activities other normal surveillance, maintenance, and operation support will be or are regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a building/facility exhauster ventilation system that operates intermittently. This exhauster is not operational at this time.

There are **1** 0 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
<del>Supplemental Treatment Test and Demonstration Facility</del>	<del>AIR-06-1059</del>	<del>10/5/2006</del>	<del>705</del>

**Emission Unit ID:**  
200 W-296P049-001

**885**  
**296-P-49**

This is a MAJOR, ACTIVELY ventilated emission unit.

Tank Farms

**Emission Unit Information**

Stack Height (ft)	28.00	Stack Height (m)	8.53	Average Stack Effluent Temperature (°F)	90
Stack Diameter (ft.)	0.83	Stack Diameter (m)	0.25	Average Stack Effluent Temperature (°C)	32
				Average Stack Velocity (ft/sec)	91.72
				Average Stack Velocity (m/sec)	27.96

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	De-entrainer	1	Operational at all times, when the exhauster is in use.
	Heater	1	Operational at all times, when the exhauster is in use.
	Prefilter	1	
	HEPA	2	In series.
	Fan	1	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B, Method 114	<del>Cs-137, Sr-90</del> Each radionuclide that could contribute greater than 10 percent of the potential TEDE.	Continuous

**Sampling Requirements:** Record sample ~~collected biweekly~~

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a skid/mobile type portable exhauster used to support tank farm operations, such as but not limited to, waste characterization, waste retrieval, decommissioning, deactivation, maintenance, and construction and operation support activities. The emission unit is a portable exhauster that operates intermittently ~~or continuously~~. The exhauster is not operational at this time.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Categorical Tank Farm Facility Waste Retrieval and Closure: Phase II Waste Retrieval Operations (Replaced NOC ID 703)	AIR 10-1104	11/4/2010	780

**Emission Unit ID:**  
200 W-296P050-001

**886**  
**296-P-50**

This is a MAJOR, ACTIVELY ventilated emission unit.

Tank Farms

**Emission Unit Information**

Stack Height (ft)	28.00	Stack Height (m)	8.53	Average Stack Effluent Temperature (°F)	90
Stack Diameter (ft.)	0.83	Stack Diameter (m)	0.25	Average Stack Effluent Temperature (°C)	32
				Average Stack Velocity (ft/sec)	91.72
				Average Stack Velocity (m/sec)	27.96

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	De-entrainer	1	Operational at all times, when the exhauster is in use.
	Heater	1	Operational at all times, when the exhauster is in use.
	Prefilter	1	
	HEPA	2	In series.
	Fan	1	

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B, Method 114	<del>Cs-137, Sr-90</del> Each radionuclide that could contribute greater than 10 percent of the potential TEDE.	Continuous

**Sampling Requirements:** Record sample ~~collected biweekly~~

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a skid/mobile type portable exhauster used to support tank farm operations, such as but not limited to, waste characterization, waste retrieval, decommissioning, deactivation, maintenance, and construction and operation support activities. The emission unit is a portable exhauster that operates intermittently ~~or continuously~~. The exhauster is not operational at this time.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Categorical Tank Farm Facility Waste Retrieval and Closure: Phase II Waste Retrieval Operations (Replaced NOC ID 703)	AIR 10-1104	11/4/2010	780

**Emission Unit ID:**  
**Hanford Sitewide**

**888**  
**Tanker Loading of Contaminated Waste Water**

This is a MINOR, PASSIVELY ventilated emission unit.

Tanker Truck Loading Categorical

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
--			
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114	Total alpha, total beta	As listed in the following Conditions and Limitations.

**Sampling Requirements:** As listed in the following Conditions and Limitations.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** The tanker trucks are designed to receive and temporarily hold low level contaminated liquids for transport to LERF, ETF, and/or DST.

There are **1** Active NOC(s) for this Unit

<b>Project Title</b>	<b>Approval Number</b>	<b>Date Approved</b>	<b>NOC_ID</b>
Tanker Truck Loading of Radioactively Contaminated Waste Water	AIR 09-705	7/28/2009	696

**Emission Unit ID:** 891  
**100K** 100 K diffuse/fugitive

This is a MINOR, FUGITIVE non point source emission unit.

100 K diffuse/fugitive emissions

**Abatement Technology:** ~~————— NONE —————~~ WAC 246-247-040(3), 040(4)

**State only enforceable:** ~~—————~~ WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
WAC 246-247-075{3}	40 CFR 61, Appendix B, Method 114 (3)	Each radionuclide that could contribute greater than 10 percent of the potential to emit TEDE	Per the sitewide ambient monitoring program

**Sampling Requirements:** ~~————~~ Per the sitewide ambient monitoring program samples will be collected from the existing near facility monitoring stations

**Additional Requirements:** ~~————~~ See Section 5 of the general conditions in this license for additional information. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** ~~————~~

There is 1 Active NOC(s) for this Unit

<b>Project Title</b>	<b>Approval Number</b>	<b>Date Approved</b>	<b>NOC_ID</b>
Waste Repackaging Outdoors at Cold Vacuum Drying Facility	AIR-08-1019	10/31/2008	742

**Emission Unit ID:**  
**200W P-241UX302A-001**

**894**  
**241-UX-302A**

This is a MINOR, PASSIVELY ventilated emission unit.

241-U TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<u>40 CFR 61, Appendix B, Method 114</u>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <u>Every 365 days</u>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows the catch tank to vent to the atmosphere under tank farm storage, maintenance, and operations. Any activity other than waste transfer support, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation that operates continuously.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Installation and Operation of Breather Filters on Miscellaneous Tanks	AIR 08-1014	10/16/2008	739

**Emission Unit ID:**  
200 E P-241ER311-001

**910**  
**241-ER-311**

This is a MINOR, PASSIVELY ventilated emission unit.

Tank Farms

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT~~ ~~WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<u>40 CFR 61, Appendix B, Method 114</u>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <u>Every 365 days</u>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows the catch tank to vent to the atmosphere under tank farm storage, maintenance, and operations. Any activity other than waste transfer support, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation system that operates continuously.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Removal of Liquid from Catch Tank 241-ER-311	AIR 08-1106	11/10/2008	718

**Emission Unit ID:**  
200E P-244A-003

**912**  
**244-A Annulus HEPA**

This is a MINOR, PASSIVELY ventilated emission unit.

244-A DCRT

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<u>40 CFR 61, Appendix B, Method 114</u>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>+per year</del> <u>Every 365 days</u>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a double contained receiver tank (DCRT) passive breather filter ventilation system used to support tank farm operations, such as waste retrieval and operation support activities for the 241-A Tank Farm. The tank stored radioactive waste during transfer operations. Any activity other than temporary storage and normal operation support will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit has a passive breather filter ventilation system that operates continuously.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Isolation and Closure of Exhaust Stacks 296-A-25, 296-B-28, 296-S-22 and 296- T-18 (Replaces NOC 697)	AIR 10-1201	12/8/2010	796

**Emission Unit ID:**  
200E P-244BX-003

**922**  
**244-BX Annulus HEPA**

This is a MINOR, PASSIVELY ventilated emission unit.

244-BX-DCRT

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT~~ ~~WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<u>40 CFR 61, Appendix B, Method 114</u>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>+per year</del> <u>Every 365 days</u>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a double container receiver tank (DCRT) passive breather filter ventilation system used to support tank farm operations, such as but not limited to waste retrieval and operation support activities for 241-BX Tank Farm. The tanks stored radioactive waste during transfer operations. Any activity other than temporary storage and normal operation support will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation system that operates continuously.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Isolation and Closure of Exhaust Stacks 296-A-25, 296-B-28, 296-S-22 and 296-T-18 (Replaces NOC 697)	AIR 10-1201	12/8/2010	796

**Emission Unit ID:**  
200W P-244S-003

**959**  
**244-S Annulus HEPA**

This is a MINOR, PASSIVELY ventilated emission unit.

244 S-DCRT

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<u>40 CFR 61, Appendix B, Method 114</u>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>+per year</del> <u>Every 365 days</u>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a double container receiver tank (DCRT) passive breather filter ventilation system used to support tank farm operations, such as but not limited to waste retrieval and operation support activities for 241-S Tank Farm. The tanks stored radioactive waste during transfer operations. Any activity other than temporary storage and normal operation support will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation system that operates continuously.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Isolation and Closure of Exhaust Stacks 296-A-25, 296-B-28, 296-S-22 and 296-T-18 (Replaces NOC 697)	AIR 10-1201	12/8/2010	796

**Emission Unit ID:**  
200W P-244TX-003

**969**  
**244-TX Annulus HEPA**

This is a MINOR, PASSIVELY ventilated emission unit.

244-TX DCRT

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT~~ ~~WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<u>40 CFR 61, Appendix B, Method 114</u>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>+per year</del> <u>Every 365 days</u>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a double container receiver tank (DCRT) passive breather filter ventilation system used to support tank farm operations, such as but not limited to wasted retrieval and operation support activities for 241-TX Tank Farm. The tanks stored radioactive waste during transfer operations. Any activity other than temporary storage and normal operation support will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation system that operates continuously.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Isolation and Closure of Exhaust Stacks 296-A-25, 296-B-28, 296-S-22 and 296-T-18 (Replaces NOC 697)	AIR 10-1201	12/8/2010	796

**Emission Unit ID:** 1128  
**400 Area Diffuse/Fugitive** 400 Area Diffuse/Fugitive Emissions

This is a MINOR, FUGITIVE non-point source emission unit

400 Area diffuse/fugitive emissions

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
--			
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
WAC 246-247-075(3)	40 CFR 61, Appendix B, Method 114	Each radionuclide that could contribute greater than 10 percent of the potential-to-emit TEDE	Per the sitewide ambient monitoring program

**Sampling Requirements:** Per the sitewide ambient monitoring program samples will be collected from the existing near-facility monitoring stations.

**Additional Requirements:** See Section 5 of the general conditions in this license for additional information. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Associated with emissions from operations, deactivation, surveillance and maintenance, and inactive sites in the 400 Area from sources not actively ventilated.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Sodium Residuals Reaction/Removal and other Deactivation Work Activities at the Fast Flux Test Facility	AIR 10-412	4/30/2010	776

**Emission Unit ID:**  
**200W P-241U301B-001**

**1129**  
**241-U-301B**

This is a MINOR, PASSIVELY ventilated emission unit.

241-U TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<u>40 CFR 61, Appendix B, Method 114</u>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <u>Every 365 days</u>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows the catch tank to vent to the atmosphere under tank farm storage, maintenance and operations. Any activity other than waste transfer support, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter that operated continuously.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Installation and Operation of Breather Filters on Miscellaneous Tanks.	AIR 08-1014	10/16/2008	739

**Emission Unit ID:**  
200E P-241AZ154-001

**1130**  
**241-AZ-154**

This is a MINOR, PASSIVELY ventilated emission unit.

241-AZ TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ~~BARCT ALARACT WAC 246-247-040(3), 040(4)~~ WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<u>40 CFR 61, Appendix B, Method 114</u>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <u>Every 365 days</u>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** Radial breather filters shall be replaced every 365 days. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows the catch tank to vent to the atmosphere under tank farm storage, maintenance and operations. Any activity other than waste transfer support, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter that operated continuously.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Installation and Operation of Breather Filters on Miscellaneous Tanks.	AIR 08-1014	10/16/2008	739

**Emission Unit ID:** ~~400~~ **1176**  
**FFTF PTRAEU's**

~~This is a MINOR, ACTIVELY ventilated emission unit.~~

~~FAST FLUX TEST FACILITY COMPLEX~~

~~Abatement Technology: NONE WAC 246-247-040(3), 040(4)~~

~~State only enforceable: WAC 246-247-010(4), 040(5), 060(5)~~

<del>Zone or Area</del>	<del>Abatement Technology</del>	<del>Required # Units</del>	<del>Additional Description</del>
<del>—</del>			
<b>Monitoring Requirements</b>			
<del>State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H</del>			
<del>Federal and State Regulatory</del>	<del>Monitoring and Testing Requirements</del>	<del>Radionuclides Requiring Measurement</del>	<del>Sampling Frequency</del>
<del>40 CFR 61.93(b)(4)(i) &amp; WAC 246-247-075(3)</del>	<del>Estimates based on sodium residuals reacted.</del>	<del>Ratio of dissolved isotopic sodium.</del>	<del>Prior to transfer; or once a calendar year during active operations.</del>

~~Sampling Requirements: Samples of waste water.~~

~~Additional Requirements: Estimates will be based on sample analyses of collected waste water from sodium residuals reaction. The basis for determining the maximum airborne radiological releases would be a 1:1 ratio of dissolved isotopic sodium (i.e., sodium-22) to the calculated curies released. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

~~Operational Status: —~~

~~There are 1 Active NOC(s) for this Unit~~

<del>Project Title</del>	<del>Approval Number</del>	<del>Date Approved</del>	<del>NOC_ID</del>
<del>Sodium Residuals Reaction/Removal and other Deactivation Work Activities at the Fast Flux Test Facility</del>	<del>AIR-10-412</del>	<del>4/30/2010</del>	<del>776</del>

**Emission Unit ID:**  
200W

**1181**  
**Categorical Drum Venting System 2**

This is a MINOR, ACTIVELY ventilated emission unit.

TRU Waste Retrieval

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA		Up to 3 per Drum Venting System, aerosol tested annually.
	Glove Bag		Up to 3 per Drum Venting System.

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)		TOTAL ALPHA TOTAL BETA TOTAL GAMMA	End of each shift of operation

**Sampling Requirements:** Smears of the exhaust vent at the end of each shift of operation.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities for the TRU retrieval project support decontamination and decommissioning operations at the Hanford Site.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of the Transuranic Waste Retrieval Project	AIR 07-1012	10/19/2007	719

**Emission Unit ID:**  
200W S-MO444-001

**1183**  
**HSGS Analysis Facility**

This is a MINOR, ACTIVELY ventilated emission unit.

Waste Receiving and Processing Facility (WRAP)

**Emission Unit Information**

Stack Height (ft)	10.00	Stack Height (m)	3.05	Average Stack Effluent Temperature (°F)	70
Stack Diameter (ft.)	0.50	Stack Diameter (m)	0.15	Average Stack Effluent Temperature (°C)	21
				Average Stack Velocity (ft/sec)	4.00
				Average Stack Velocity (m/sec)	1.22

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
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**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
WAC 246-247-075(3)	Emissions will be calculated per conditions below	Total Alpha (assumed Am- 241) and Total Beta (assumed Sr-90)	

**Sampling Requirements:** None

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Activities at the WRAP HSGS Analysis Facility involve laboratory scale analysis operations supporting the Hanford TRU program mission.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Head Space Gas Sampling (HSGS) Analysis at M0-444	AIR 07-304	3/23/2007	656

**Emission Unit ID:** 1185  
**300** 361 Building

This is a MINOR, FUGITIVE non-point source emission unit.

300 Diffuse/Fugitive Emissions

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
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<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
WAC 246-247-075[3]	None	<del>Radioxenon and radon</del> None	None

**Sampling Requirements:** Radionuclide emissions will be determined using 40 CFR 61 Appendix D calculations in lieu of monitoring.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** [The 361 Building provides a space to house monitoring instrumentation.](#)

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Operation of the 361 Building in Testing Equipment Operability Utilizing Radioxenon and Radon	AIR 08-403	4/14/2008	657

**Emission Unit ID:**  
200

**1186**  
**Decon Trailer (intermittent powered exhaust)**

This is a MINOR, ACTIVELY ventilated emission unit.

Miscellaneous Support Facilities

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
	Fan	1	Intermittent operation
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
WAC 246-247-075[2]	40 CFR 61, Appendix B, Method 114	Each radionuclide that could contribute greater than 10 percent of the potential-to-emit TEDE	Per the sitewide ambient monitoring program samples will be collected from the existing near-facility monitoring stations

**Sampling Requirements:** Per the sitewide ambient monitoring program.

**Additional Requirements:** See Section 5 of the general conditions in this license for additional information. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:**

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
200/600 Areas Facilities Support Decontamination Trailer (Intermittent powered exhaust)	AIR 07-1102	11/15/2007	678

**Emission Unit ID:**  
200

**1187**  
**Decon Trailer (Collection Tank Vents)**

This is a MINOR, PASSIVELY ventilated emission unit.

Miscellaneous Support Facilities

**Abatement Technology:** **NONE** WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
--			
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
WAC 246-247-075[2]	40 CFR 61, Appendix B, Method 114	Each radionuclide that could contribute greater than 10 percent of the potential-to-emit TEDE	Per the sitewide ambient monitoring program samples will be collected from the existing near-facility monitoring stations

**Sampling Requirements:** Per the sitewide ambient monitoring program.

**Additional Requirements:** See Section 5 of the general conditions in this license for additional information. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:**

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
200/600 Areas Facilities Support Decontamination Trailer (Intermittent powered exhaust)	AIR 07-1102	11/15/2007	678

**Emission Unit ID:** 1207  
**200W P-241SX107-001** 241-SX-107

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1-per-year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 1208  
**200W P-241SX108-001** 241-SX-108

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
**200W P-241SX109-001**

**1209**  
**241-SX-109**

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1-per-year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 1210  
**200W P-241SX110-001** 241-SX-110

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-SX TANK FARM

#### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

#### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1-per-year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 1211  
**200W P-241SX111-001** 241-SX-111

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1-per-year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 1212  
**200W P-241SX112-001** 241-SX-112

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1-per-year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 1213  
**200W P-241SX114-001** 241-SX-114

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1-per-year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 1219  
**200W P-241SX101-001** 241-SX-101

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1-per-year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 1220  
**200W P-241SX102-001** 241-SX-102

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1-per-year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 1221  
**200W P-241SX103-001** 241-SX-103

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1-per-year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 1222  
**200W P-241SX104-001** 241-SX-104

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1-per-year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 1223  
**200W P-241SX105-001** 241-SX-105

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1-per-year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 1224  
**200W P-241SX106-001** 241-SX-106

This is a MINOR, PASSIVELY ventilated emission unit.

241-SX TANK FARM

### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1-per-year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** 1227  
**200W P-241S304-001** 241-S-304

This is a MINOR, PASSIVELY ventilated emission unit.

241-S TANK FARM

### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B Method 114	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** [This emission unit is a passive breather filter that allows the catch tank to vent to the atmosphere under tank farm storage, maintenance, and operations. Any activity other than waste transfer support, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation that operates continuously.](#)

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** ~~1228~~  
**600 P-6241V-001** ~~6241-V Vent Station Cross Site~~

~~This is a MINOR, PASSIVELY ventilated emission unit.~~

~~Cross Site Vent Station 6241~~

**Emission Unit Information**

Stack Height (ft)	0	Stack Height (m)	0	Average Stack Effluent Temperature (°F)	0
Stack Diameter (ft.)	0	Stack Diameter (m)	0	Average Stack Effluent Temperature (°C)	0
				Average Stack Velocity (ft/sec)	8.30
				Average Stack Velocity (m/sec)	2.53

**Abatement Technology:** ~~ALARACT~~ WAC 246-247-040(3), 040(4)

**State only enforceable:** ~~WAC 246-247-010(4), 040(5), 060(5)~~

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
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**Monitoring Requirements**

~~State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H~~

<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
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**Sampling Requirements:** ~~None~~

**Additional Requirements:** ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

**Operational Status:** ~~—~~

There are ~~0~~ Active NOC(s) for this Unit

**Emission Unit ID:** 1229  
**200E P-241A417-001** 241-A-417

This is a MINOR, PASSIVELY ventilated emission unit.

241-A TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	<a href="#">40 CFR 61, Appendix B, Method 114</a>	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** [This emission unit is a passive breather filter that allows the catch tank to vent to the atmosphere under tank farm storage, maintenance, and operations. Any activity other than waste transfer support, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation that operates continuously.](#)

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:** **1230**  
**600 P-6241A-001** **6241-A Diversion Box**

This is a ~~MINOR, PASSIVELY~~ ventilated emission unit.

~~Diversion Box~~

**Emission Unit Information**

Stack Height (ft)	0	Stack Height (m)	0	Average Stack Effluent Temperature (°F)	0
Stack Diameter (ft.)	0	Stack Diameter (m)	0	Average Stack Effluent Temperature (°C)	0
				Average Stack Velocity (ft/sec)	8.30
				Average Stack Velocity (m/sec)	2.53

**Abatement Technology:** ~~ALARACT~~ WAC 246-247-040(4)

**State only enforceable:** ~~WAC 246-247-010(4), 040(5), 060(5)~~

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
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**Monitoring Requirements**

State enforceable: ~~WAC 246-247-040(5), 060(5)~~, and federally enforceable: 40 CFR 61 Subpart H

<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
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**Sampling Requirements:** ~~None~~

**Additional Requirements:** ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

**Operational Status:** ~~—~~

There are ~~0~~ Active NOC(s) for this Unit

**Emission Unit ID:**  
200 P-241EW151-001

**1231**  
**241-EW-151**

This is a MINOR, PASSIVELY ventilated emission unit.

~~214~~ [241](#)-EW

### Emission Unit Information

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	1.13	Stack Diameter (m)	0.34	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** ALARACT WAC 246-247-040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter

### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B Method 114	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	<del>1 per year</del> <a href="#">Every 365 days</a>

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** [This emission unit is a passive breather filter that allows the catch tank to vent to the atmosphere under tank farm storage, maintenance, and operations. Any activity other than waste transfer support, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation that operates continuously.](#)

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
200W P-241S302-001

**1232**  
**241-S-302**

This is a MAJOR, PASSIVELY ventilated emission unit.

241-S TANK FARM

**Emission Unit Information**

Stack Height (ft)	5.00	Stack Height (m)	1.52	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	0.13	Stack Diameter (m)	0.04	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	0.25
				Average Stack Velocity (m/sec)	0.08

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	<del>Passive Breather Filter (HEPA)</del>	<u>1</u>	<del>Operation of Passive Breather Filter on Catch Tank 241-S-302.</del> <a href="#">Passive Breather Filter</a>

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B Method 114	Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions.	Once per month.

**Sampling Requirements:** Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.

**Additional Requirements:** [Radial breather filters shall be replaced every 365 days.](#) Annual NDA of the filter shall be conducted for reporting purposes. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a passive breather filter that allows the catch tank to vent to the atmosphere under tank farm storage, maintenance, and operations. Any activity other than waste transfer support, maintenance, and normal operations will be regulated and/or permitted under the appropriate regulations and/or permits for the activity being performed and the emission units associated with the activity. The emission unit is a passive breather filter ventilation that operates continuously.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Installation and Operation of Breather Filters on Miscellaneous Tanks.	AIR 08-1014	10/16/2008	739

**Emission Unit ID:**  
200 200 W-TRUDECON-001

**1243**  
**Decon Trailer TRU Waste Retrieval (Intermit. Op.)**

This is a MINOR, PASSIVELY ventilated emission unit.

Miscellaneous Support Facilities

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
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<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
WAC 246-247-075[2]	40 CFR 61, Appendix B Method 114	Each radionuclide that could contribute greater than 10 percent of the potential-to-emit TEDE	Per the sitewide ambient monitoring program samples will be collected from the existing near-facility monitoring stations

**Sampling Requirements:** Per the sitewide ambient monitoring program.

**Additional Requirements:** See Section 5 of the general conditions in this license for additional information. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:**

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Decontamination Trailer at the Transuranic Waste Retrieval Project	AIR 09-502	5/12/2009	743

**Emission Unit ID:**  
200 W-TRUDECON-002

**1244**  
**Decon Trailer TRU (Collection Tank Vents)**

This is a MINOR, PASSIVELY ventilated emission unit.

Miscellaneous Support Facilities

**Abatement Technology:** **NONE** WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
--			
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>

**Sampling Requirements:** None

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:**

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Decontamination Trailer at the Transuranic Waste Retrieval Project	AIR 09-502	5/12/2009	743

**Emission Unit ID:**  
200W-P-241S102-002

**1249**  
**241-S-102 Inlet Filter**

This is a MINOR, PASSIVELY ventilated emission unit.

#### 241-S TANK FARM

#### Emission Unit Information

Stack Height (ft)	3.00	Stack Height (m)	0.91	Average Stack Effluent Temperature (°F)	55
Stack Diameter (ft.)	0.33	Stack Diameter (m)	0.10	Average Stack Effluent Temperature (°C)	13
				Average Stack Velocity (ft/sec)	1.91
				Average Stack Velocity (m/sec)	0.58

**Abatement Technology:** ~~NONE~~ WAC 246-247-040(3), 040(4)

**State only enforceable:** ~~WAC 246-247-010(4), 040(5), 060(5)~~

Zone or Area	Abatement Technology	Required # Units	Additional Description
	HEPA	1	Passive Breather Filter
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)		Levels below 10,000 dpm/100cm <sup>2</sup> beta/gamma and 200 dpm/100cm <sup>2</sup> alpha will verify low emissions	1 per year

**Sampling Requirements:** ~~Smear survey on the inside surface of the ducting and downstream of the HEPA filter or on the outside of the screen covering the outlet of the vent.~~

**Additional Requirements:** ~~Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.~~

**Operational Status:** ~~This emission unit is a passive breather filter that allows a SST to vent to the atmosphere under tank farm storage, maintenance, and operation. The tank stores the radioactive waste awaiting retrieval, treatment, and proper disposal under the applicable federal and state regulations and/or permits. The SST scheduled activities of waste retrieval, decommissioning, and eventual closure will be completed under applicable federal and state regulations and/or permits. Any activity other than storage, maintenance, and normal operation conducted at the tank will obtain the appropriate permits for the activity and the emission units associated with the activity as required by the regulations applicable to the activity. The emission unit is a passive breather filter and is part of the tank's ventilation system that operates continuously.~~

There are **0** Active NOC(s) for this Unit

**Emission Unit ID:**  
**600 J-Hammer-001**

**1250**  
**HAMMER**

This is a MINOR, FUGITIVE, non-point source emission unit.

HAMMER

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
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<b>Monitoring Requirements</b>			
state enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>
WAC 246-247-075(4)	In accordance with the Radiation Protection Plan and Radiological Control Manual .	TOTAL BETA/GAMMA	During each use of material

**Sampling Requirements:** After each use - with radiological surveys/smears.

**Additional Requirements:** Radioactive material survey and inventory records will be maintained for the activity to demonstrate that total Tc-99m usage each calendar year stays below the projected annual possession quantity. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Training using Tc-99m (Technetium-99 metastable) within the Hazardous Materials Management and Emergency Response (HAMMER) training complex, but will typically occur at either 1) a tank farm simulator facility on the western side of the complex; 2) a tactical maze building in the northeast corner of the complex; 3) a simulated hazardous waste facility in the north central part of the complex; or 4) a training tower near the center of the complex.

There are **1** Active NOC's for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Use of Radioactive Materials at the Volpentest HAMMER/Hanford Training and Education Center	AIR 09-903	9/15/2009	749

**Emission Unit ID:**  
200

**1289**  
**Decon Trailer 200 East (Int. Power Exhaust)**

This is a MINOR, ACTIVELY ventilated emission unit.

Miscellaneous Support Facilities

**Abatement Technology:** **NONE** WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
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**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
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**Sampling Requirements:** None

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Intermittent Powered exhaust of the Decon Trailer at 200 East Tank Farm.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Tank Farm Decontamination Trailer East( Replaces NOC 695)	AIR 10-1105	11/4/2010	791

**Emission Unit ID:**  
200

**1290**  
**Decon Trailer 200 West (int Powered exh)**

This is a MINOR, ACTIVELY ventilated emission unit.

Miscellaneous Support Facilities

**Abatement Technology:** **NONE** WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
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**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
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**Sampling Requirements:** None

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Intermittent Powered exhaust of the 200 West Decontamination Trailer.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Tank Farm Decontamination Trailer West( Replaces NOC 695)	AIR 10-1106	11/4/2010	792

**Emission Unit ID:**  
200

**1291**  
**Decon Trailer 200 E (Collection Tank Vent)**

This is a MINOR, PASSIVELY ventilated emission unit.

Miscellaneous Support Facilities

**Abatement Technology:** **NONE** WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
--			
<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>

**Sampling Requirements:** None

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:**

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Tank Farm Decontamination Trailer East( Replaces NOC 695)	AIR 10-1105	11/4/2010	791

**Emission Unit ID:**  
200

**1292**  
**Decon Trailer 200 West (Collection Tank Vent)**

This is a MINOR, PASSIVELY ventilated emission unit.

Miscellaneous Support Facilities

**Abatement Technology:** **NONE** WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

<b>Zone or Area</b>	<b>Abatement Technology</b>	<b>Required # Units</b>	<b>Additional Description</b>
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<b>Monitoring Requirements</b>			
State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H			
<b>Federal and State Regulatory</b>	<b>Monitoring and Testing Requirements</b>	<b>Radionuclides Requiring Measurement</b>	<b>Sampling Frequency</b>

**Sampling Requirements:** None

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:**

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Tank Farm Decontamination Trailer West( Replaces NOC 695)	AIR 10-1106	11/4/2010	792

**Emission Unit ID:** 1293  
**200 W-296P107-001** 296-P-107

This is a ~~MINOR~~ MAJOR, ACTIVELY ventilated emission unit.

Tank Farms

### Emission Unit Information

Stack Height (ft)	28.00	Stack Height (m)	8.53	Average Stack Effluent Temperature (°F)	90
Stack Diameter (ft.)	0.83	Stack Diameter (m)	0.25	Average Stack Effluent Temperature (°C)	32
				Average Stack Velocity (ft/sec)	91.28
				Average Stack Velocity (m/sec)	27.82

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
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### Monitoring Requirements

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114	<del>Cs-137, Sr-90</del> Each radionuclide that could contribute greater than 10 percent of the potential TEDE.	Continuous

**Sampling Requirements:** Record sample ~~collected biweekly~~

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** This emission unit is a skid/mobile type portable exhauster used to support tank farm operations, such as but not limited to, waste characterization, waste retrieval, decommissioning, deactivation, maintenance, and construction and operation support activities. The emission unit is a portable exhauster that operates intermittently ~~or continuously~~.

There are 1 Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
Categorical Tank Farm Facility Waste Retrieval and Closure: Phase II Waste Retrieval Operations (Replaced NOC ID 703)	AIR 10-1104	11/4/2010	780

**Emission Unit ID:**  
200E P-242A-003

**1294**  
**296-A-21A**

This is a MINOR, ACTIVELY ventilated emission unit.

242-A Evaporator

**Emission Unit Information**

Stack Height (ft)	50.00	Stack Height (m)	15.24	Average Stack Effluent Temperature (°F)	80
Stack Diameter (ft.)	3.00	Stack Diameter (m)	0.91	Average Stack Effluent Temperature (°C)	27
				Average Stack Velocity (ft/sec)	47.10
				Average Stack Velocity (m/sec)	14.36

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
K-1 Exhaust System	Prefilter	3	3 parallel flow paths, 1 bank (3 x 3 array) per flow path, 2 in operation, 1 in standby
K-1 Exhaust System	HEPA	3	3 parallel flow paths, 2 bank (3 x 3 array per bank) per flow path, 2 in operation, 1 in standby
K-1 Exhaust System	Fan	2	1 in operation, 1 in standby

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	40 CFR 61, Appendix B Method 114(3)	TOTAL ALPHA TOTAL BETA	<u>1 week sample/4 times per year</u> <del>4 separate one-week samples/year</del>

**Sampling Requirements:** ~~Periodic Confirmatory Monitoring~~ Record Sample

**Additional Requirements:** The exhaust air from the stack is monitored by a record sampler through shrouded probe extraction nozzle on sample probe located in the stack. The filter paper is analyzed and the results of the analysis document emissions. Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** The 242-A Evaporator Building K-1 ventilation system is designed for air flow from areas of lesser contamination to areas of greater contamination. The contaminated K-1 zones are maintained at a negative pressure to control the spread of contamination. The K-1 ventilation system exhaust rooms in the Hot Zones: evaporator; pump; condenser; load out and hot equipment storage; and loading rooms; and the ion exchange enclosure.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
242-A Evaporator Building Exhauster K-1 Upgrade	AIR 10-1204	12/2/2010	794

**Emission Unit ID:**  
200 W-PES-001

**1322**  
**Portable Enclosure System #1**

This is a MAJOR, ACTIVELY ventilated emission unit.

Portable Enclosure System

**Emission Unit Information**

Stack Height (ft)	26.00	Stack Height (m)	7.92	Average Stack Effluent Temperature (°F)	70
Stack Diameter (ft.)	1.67	Stack Diameter (m)	0.51	Average Stack Effluent Temperature (°C)	21
				Average Stack Velocity (ft/sec)	<del>14.60</del> 14.9
				Average Stack Velocity (m/sec)	<del>4.45</del> 4.6

**Abatement Technology:** BARCT WAC 246-247-040(3), 040(4)

**State only enforceable:** WAC 246-247-010(4), 040(5), 060(5)

Zone or Area	Abatement Technology	Required # Units	Additional Description
	Prefilter	6	Three by two for total of six.
	1st Stage HEPA Filter	6	Aerosol tested annually to 99.95% removal of a particulate with a median diameter of 0.7 micron. Three by two housing for total of six HEPA filters.
	2nd Stage HEPA Filter	6	Aerosol tested annually to 99.95% removal of a particulate with a median diameter of 0.7 micron. Three by two housing for total of six HEPA filters.

**Monitoring Requirements**

State enforceable: WAC 246-247-040(5), 060(5), and federally enforceable: 40 CFR 61 Subpart H

Federal and State Regulatory	Monitoring and Testing Requirements	Radionuclides Requiring Measurement	Sampling Frequency
40 CFR 61.93(b)(4)(i) & WAC 246-247-075(2)	40 CFR 61, Appendix B Method 114	Each radionuclide that could contribute greater than 10% of the potential TEDE	Once per year minimum.

**Sampling Requirements:** Destructive Examination (DE) of the filters. SEE CONDITION 25 FOR DETAILS OF ALTERNATIVE APPROVAL.

**Additional Requirements:** Additional monitoring or sampling requirements established by this License will be listed in the Conditions and Limitations section, if applicable.

**Operational Status:** Portable enclosure used to support waste retrieval.

There are **1** Active NOC(s) for this Unit

Project Title	Approval Number	Date Approved	NOC_ID
License to Operate the Retrieval and Disposal Activities for Boxes 80 and 82 for the TRU Waste Retrieval Project	AIR 10-1022	10/29/2010	795

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**APPENDIX B**  
**GREENHOUSE GAS POTENTIAL-TO-EMIT CALCULATIONS**

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## **B.1 GREENHOUSE GAS POTENTIAL-TO-EMIT ESTIMATES**

The following greenhouse gas (GHG) calculations are performed to document the maximum annual potential-to-emit (PTE) of GHGs from Hanford Site sources identified in the federal GHG reporting rule (40 CFR 98) and state GHG reporting rule (WAC 173-441). Because the potential GHG emissions from identified Hanford Site sources based on federally enforceable limits is greater than 100,000 metric tons of carbon dioxide equivalent (CO<sub>2</sub>e), the Hanford Site AOP renewal application must address GHG emissions to satisfy the requirements of EPA's recent Greenhouse Gas PSD and Title V Tailoring Rule. Inclusion of this information is solely intended to satisfy renewal application completeness criteria in accordance with the aforementioned Tailoring Rule, and is not an acknowledgment of whether the Hanford Site will be subject to either the federal or state GHG emissions reporting rules.

Information for all active stationary combustion sources, including emergency engines, is used in the calculations to determine the maximum annual PTE of GHG. It should be noted that GHG emissions from emergency engines are excluded from being reported under 40 CFR 98 or WAC 173-441, if applicable. They are included in these calculations solely to ensure completeness.

From 40 CFR 98, Subpart A, the Tier 1 Calculation Methodology was chosen to perform the calculations. Tier 1 uses a default high heating value (HHV) from Table C-1. As opposed to Tier 2, Tier 3, and Tier 4 Calculation Methodology, Tier 1 does not require the sampling of fuel, the use of flow meters to determine fuel usage, or require the use of continuous emission monitoring system (CEMS) data to perform the calculations.

Equation C-1 from 40 CFR 98, Subpart C was used to calculate the annual carbon dioxide (CO<sub>2</sub>) mass emissions for each combustion source. The specific HHV for each fuel type was appropriately used in the calculations.

Equation C-8 from 40 CFR 98, Subpart C was used to calculate the annual methane (CH<sub>4</sub>) and nitrous oxide (N<sub>2</sub>O) mass emissions for each combustion source. As with the CO<sub>2</sub> mass calculations, a specific HHV for each fuel type was used as appropriate.

Equation A-1 from 40 CFR 98, Subpart A was used to convert CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O mass emissions into GHG emissions expressed as metric tons of CO<sub>2</sub>e/year.

Table B-1 identifies Hanford Site stationary combustion sources with potential GHG emissions.

**Table B-1. Stationary Combustion Source Greenhouse Gas Emission Calculation Data. (4 Sheets)**

Engine/Source	Fuel Type	Maximum Fuel Consumption Rate	Maximum Annual Operating Hours	Maximum Annual Fuel Consumption
222-S, Boilers 1&2	Diesel #2	--	--	6,007,146 gal (combined)
234-5Z, Boilers 1, 2, & 3				
242-A, Boiler 1				
242-A, Boilers 2 & 3				
Portable Boiler 1	Diesel #2 or Propane (Dual-Fuel)	Will only replace an existing boiler. Will not increase total GHG emissions PTE.		
200E E-225BC 001 (Emergency Engine)	Diesel #2	10 gal/hr	100	1000 gal
200E E-225BG 001 (Emergency Engine)	Diesel #2	10 gal/hr	100	1000 gal
200E E-282ED 001, Engine E (Emergency Engine)	Diesel #2	99.4 gal/hr	350	34790 gal
200E E-282WD 001, Engine W (Emergency Engine)	Diesel #2	84 gal/hr	350	29400 gal
325 and 331 Emergency Diesel Generators	Diesel #2	40.4 gal/hr (each)	160 (combined)	6464 gal (combined)
3709A Emergency Diesel Generator	Diesel #2	7.5 gal/hr	80	600 gal
400 E-4250 001, G-3 (Emergency Engine)	Diesel #2	180 gal/hr	100	18000 gal
600 E WSCF 001 (Emergency Engine)	Diesel #2	53.4 gal/hr	100	5340 gal
200E P-WTP-001 (6-Boilers)	Diesel #2	--	--	13,400,000 gal (combined)
200E P-WTP-001 (1-Type I Emergency Generator)	Diesel #2	136 gal/hr	164	22304 gal
200E P-WTP-001 (2-Type II Emergency Generators)	Diesel #2	275 gal/hr (each)	164 (each)	90200 gal (combined)

B-2

DOE/RL-2011-27, Rev. 0

**Table B-1. Stationary Combustion Source Greenhouse Gas Emission Calculation Data. (4 Sheets)**

Engine/Source	Fuel Type	Maximum Fuel Consumption Rate	Maximum Annual Operating Hours	Maximum Annual Fuel Consumption
200E P-WTP-001(2-Diesel Fire Water Pumps)	Diesel #2	17 gal/hr (each)	110 (each)	3740 gal (combined)
200E Concrete Batch Plant (Fuel Oil Boiler)	Diesel #2	32 gal/hr	2000	64000 gal
200E Concrete Batch Plant (Generator)	Diesel #2	36 gal/hr	1600	57600 gal
100B-181B/182B Emergency Diesel Engines (3 total)	Diesel #2	125 gal/hr (combined)	100 (each)	37500 gal
339A (Emergency Engine)	Diesel #2	17.7 gal/hr	100	1770 gal
200E WTP Heaters and Dehumidifiers (multiple)	Diesel #2	--	--	933,000 gal (combined)
382B Building (2 total) (Emergency Engines) <sup>a</sup>	Diesel #2	13gal/hr (each)	100 (each)	2600 gal (combined)
385 Building (Emergency Engine) <sup>b</sup>	Diesel #2	6.3 gal/hr	100	630 gal
Cold Vacuum Drying Facility (CVDF) (Emergency Engine)	Diesel #2	6 gal/hr	100	600 gal
100K Water Treatment (Emergency Engine)	Diesel #2	10 gal/hr	100	1000 gal
222-SB (Emergency Engine)	Diesel #2	25.1 gal/hr	100	2510 gal
234-5Z (Emergency Engine)	Diesel #2	19.1 gal/hr	100	1910 gal
241-AW Generator (Sullair 100)	Diesel #2	4.8 gal/hr	8760	42048 gal
241-AW Generator (Sullair 185)	Diesel #2	4.8 gal/hr	8760	42048 gal
241-BX Generator	Diesel #2	2.9 gal/hr	8760	25404 gal
241-BX (MO-152) Generator	Diesel #2	6.1 gal/hr	8760	53436 gal
241-C (Lower South) Generator	Diesel #2	9.1 gal/hr	8760	79716 gal
241-C (East) Generator	Diesel #2	2.9 gal/hr	8760	25404 gal

B-3

DOE/RL-2011-27, Rev. 0

**Table B-1. Stationary Combustion Source Greenhouse Gas Emission Calculation Data. (4 Sheets)**

Engine/Source	Fuel Type	Maximum Fuel Consumption Rate	Maximum Annual Operating Hours	Maximum Annual Fuel Consumption
241-C (Northwest) Generator	Diesel #2	17 gal/hr	8760	148920 gal
241-SY Generator	Diesel #2	9.1 gal/hr	8760	79716 gal
241-SY (Change Trailer) Generator	Diesel #2	2.9 gal/hr	8760	25404 gal
241-TX (241-T106) Generator	Diesel #2	2.9 gal/hr	8760	25404 gal
242-A Evaporator (Emergency Engine)	Diesel #2	16.6 gal/hr	100	1660 gal
242-S Generator	Diesel #2	2.9 gal/hr	8760	25404 gal
271-CR Generator	Diesel #2	7.4 gal/hr	8760	64824 gal
318, Boiler 1	Natural Gas	--	--	831,889,807 scf (combined)
320, Boilers 1 & 2				
323, Boiler 1				
324, Boilers 1 & 2				
325, Boilers 1 & 2				
326, Boilers 1 & 2				
329, Boilers 1, 2, 3 & 4				
331, Boilers 1 & 2				
382-A-D, Boiler 1				
3709A, Boiler 1				
200E WTP Heaters and Dehumidifiers (multiple)	Propane	--	--	1,109,500 gal (combined)
600 Area Fire Station (Building 609A) (Emergency Engine)	Propane	602 scf/hr	100	60200 scf

B-4

DOE/RL-2011-27, Rev. 0

**Table B-1. Stationary Combustion Source Greenhouse Gas Emission Calculation Data. (4 Sheets)**

Engine/Source	Fuel Type	Maximum Fuel Consumption Rate	Maximum Annual Operating Hours	Maximum Annual Fuel Consumption
100 Area Fire Station (Building 609) (Emergency Engine)	Propane	84.6 scf/hr	100	8460 scf
2701HV (CSB) (Emergency Engine)	Propane	784 scf/hr	100	78400 scf
2720EA (Emergency Engine)	Propane	142 scf/hr	100	14200 scf
2721E (Emergency Engine)	Propane	784 scf/hr	100	78400 scf
Rattle Snake Barricade (Emergency Engine)	Propane	78.24 scf/hr	100	7824 scf
Yakima Barricade (Emergency Engine)	Propane	102.3 scf/hr	100	10230 scf
Wye Barricade (Emergency Engine)	Propane	102.3 scf/hr	100	10230 scf
TEDF Pump Station 2 (225E) (Emergency Engine)	Propane	526 scf/hr	100	52600 scf

<sup>a</sup> The 382B Building fire pumps will be replaced by the 385 Building fire pump.

<sup>b</sup> The 385 Building engine is scheduled to become operational in October 2011.

The other GHG emissions source category identified in 40 CFR 98 and WAC 173-441 that is potentially present on the Hanford Site is the Solid Waste Landfill (SWL), which is conservatively being treated as a municipal solid waste (MSW) landfill for GHG PTE calculation purposes. The Hanford Site has previously determined that it does not have any MSW sources subject to Clean Air Act rules/standards. MSW GHG emissions were calculated using the methodology outlined in 40 CFR 98 Subpart HH.

40 CFR 98 Subpart HH requires the calculation and reporting of methane (CH<sub>4</sub>). Landfill waste data from the landfill closure plan (DOE/RL-2008-54, *Hanford Site Solid Waste Landfill Closure Plan*) was utilized to identify the amount and types of waste disposed of in the landfill. Equation HH-3 was performed using the landfill closure plan data to get an average weight per year of waste placed in the landfill. The data in the landfill closure plan was also used to find the average density of waste per year.

Equation HH-1 was then used to calculate the methane generated for each waste category outlined in Table HH-1. The methane generated for each waste type was then combined to get a total amount of methane generated.

Because the landfill has been covered, an adjustment to the amount of methane for oxidation was performed using Equation HH-5.

The total adjusted methane generation was then multiplied by Equation A-1 of 40 CFR 98, Subpart A to get the annual GHG emissions (expressed as CO<sub>2</sub>e) for the landfill.

The total Hanford Site GHG PTE is summarized in Table B-2 below

**Table B-2. Total Hanford Site GHG Emissions Potential to Emit (PTE)  
(metric tons CO<sub>2</sub>e/year).**

	<b>Combined CO<sub>2</sub>e</b>
Stationary Combustion Sources	270,437
Municipal Solid Waste Landfill	15,331
<b>Total</b>	<b>285,768</b>

## **B.2 ASSUMPTIONS**

To calculate the maximum potential greenhouse gas emissions from stationary combustion sources on the Hanford Site, the following assumptions were made. This calculation assumed that each stationary combustion source would operate at maximum capacity for the maximum allowable time limited either by the operating permit or regulatory hours allowed for the source. Emergency backup engines were assumed to use the regulatory maximum allowable 100 hours per year (based on the federal definition of an emergency engine) unless otherwise identified within an applicable permit or approval order. Propane gas fuel consumption rates were converted to the gallon equivalent prior to calculation of GHG. Actual GHG emissions from stationary combustion sources are significantly lower.

For the municipal solid waste landfill calculations, it was assumed that liquid waste has a density of 1000 kg/m<sup>3</sup> and that solid waste has a density of 1 metric ton/ m<sup>3</sup>. Calendar year 2010 was used as the assumed reporting year for these calculations.

### B.3 EXAMPLE GHG EMISSIONS CALCULATIONS

#### B.3.1 STATIONARY COMBUSTION SOURCES

The Tier 1 Calculation Methodology outlined in 40 CFR 98.33(a)(1) *Tier 1 Calculation Methodology*, was utilized to perform the CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O mass emissions calculations. The annual CO<sub>2</sub> mass emissions for each stationary combustion unit using Diesel #2, Propane, or Natural Gas fuels was calculated by using Equation C-1. CH<sub>4</sub> and N<sub>2</sub>O mass emissions were calculated using Equation C-8. Equation A-1 was used to convert the CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O mass emissions to GHG emissions expressed as metric tons CO<sub>2</sub>equivalent/year.

Below are example calculations for Equations C-1, C-8 and A-1.

Engine 200E P-WTP-001 (Type I Emergency Generator) information was utilized to perform the example calculations.

Step 1: Calculating Maximum Fuel Usage/Year:

$$\begin{aligned} \text{Maximum Fuel Usage gallons or scf/hr} \times \text{Maximum Operating hours hr/yr} \\ = \text{Maximum Fuel Usage gallons or scf/yr} \\ 136 \text{ gal/hr} \times 164 \text{ hr/yr} = 22304 \text{ gal/yr} \end{aligned}$$

Step 2: Utilizing the calculated maximum annual fuel usage, Equation C-1 from 40 CFR 98, Subpart C was used to calculate the annual CO<sub>2</sub> emissions for each combustion source.

Equation C-1 (Determined annual fuel combusted by utilizing the maximum potential fuel consumption rate and the maximum allowable operating hours for each source. This provides maximum annual potential-to-emit mass emissions rather than actual annual mass emissions.)

$$\begin{aligned} CO_2 &= 1 \times 10^{-3} \times \text{Fuel} \times \text{HHV} \times \text{EF} \\ CO_2 &= 1 \times 10^{-3} \times 22304 \text{ gal/yr} \times 0.138 \text{ mmBtu/gal} \times 73.96 \text{ kg CO}_2/\text{mmBtu} \\ CO_2 &= 228 \text{ metric tons CO}_2/\text{year} \end{aligned}$$

Where:

CO<sub>2</sub>= Annual CO<sub>2</sub>mass emissions for the specific fuel type (metric tons).

Fuel = Quantity of fuel combusted per year.

HHV = Default high heat value of the fuel, from Table C-1 of 40 CFR 98, Subpart C (mmBtu per mass or mmBtu per volume, as applicable).

EF = Fuel-specific default CO<sub>2</sub> emission factor, from Table C-1 of 40 CFR 98 Subpart C (kg CO<sub>2</sub>/mmBtu).

$1 \times 10^{-3}$  = Conversion factor from kilograms to metric tons.

Step 3: To calculate the annual CH<sub>4</sub> and N<sub>2</sub>O emissions for each combustion source, Equation C-8 from 40 CFR 98, Subpart C was used as follows.

Equation C-8 (Determined annual fuel combusted by utilizing the maximum potential fuel usage and the maximum allowable operating hours for each source. This provides maximum annual potential-to-emit mass emissions rather than actual annual mass emissions.)

Calculating CH<sub>4</sub> Emissions:

$$CH_4 \text{ or } N_2O = 1 \times 10^{-3} \times Fuel \times HHV \times EF$$

$$CH_4 = 1 \times 10^{-3} \times 22304 \text{ gal/yr} \times 0.138 \text{ mmBtu/gal} \times 0.003 \text{ kg CH}_4/\text{mmBtu}$$

$$CH_4 = 0.0092 \text{ metric tons CH}_4/\text{year}$$

Calculating N<sub>2</sub>O Emissions:

$$N_2O = 1 \times 10^{-3} \times 22304 \text{ gal/yr} \times 0.138 \text{ mmBtu/gal} \times 0.0006 \text{ kg N}_2\text{O}/\text{mmBtu}$$

$$N_2O = 0.0018 \text{ metric tons N}_2\text{O}/\text{year}$$

Where:

CH<sub>4</sub> or N<sub>2</sub>O = Annual CH<sub>4</sub> or N<sub>2</sub>O emissions from the combustion of a particular type of fuel (metric tons).

Fuel = Quantity of the fuel combusted

HHV = Default high heat value of the fuel from Table C-1 of 40 CFR 98 Subpart C (mmBtu per mass or volume).

EF = Fuel-specific default emission factor for CH<sub>4</sub> or N<sub>2</sub>O, from Table C-2 of 40 CFR 98 Subpart C (kg CH<sub>4</sub> or N<sub>2</sub>O per mmBtu).

$1 \times 10^{-3}$  = Conversion factor from kilograms to metric tons.

Step 4: The resulting calculated annual GHG emission components from CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O for all combustion sources were combined. To determine the total amount of GHG emissions from CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O, Equation A-1 from 40 CFR 98, Subpart A was used as follows:

Equation A-1

$$CO_2e = \sum_{i=1}^n GHG_i \times GWP_i$$

For CO<sub>2</sub>:

$$CO_2e = 262439 \text{ metric tons/yr} \times 1$$

$$CO_2e = 262439 \text{ metric tons/yr}$$

For CH<sub>4</sub>:

$$CO_2e = 8.8582 \text{ metric tons/yr} \times 21$$

$$CO_2e = 186.0221 \text{ metric tons/yr}$$

For N<sub>2</sub>O:

$$CO_2e = 1.7762 \text{ metric tons/yr} \times 310$$

$$CO_2e = 550.6194 \text{ metric tons/yr}$$

Where:

CO<sub>2</sub>e = Carbon dioxide equivalent, metric tons/year.

GHG<sub>i</sub> = Mass emissions of each greenhouse gas listed in Table A-1 of this subpart, metric tons/year.

GWP<sub>i</sub> = Global warming potential for each greenhouse gas from Table A-1 of 40 CFR 98 Subpart A.

### B.3.2 MUNICIPAL SOLID WASTE LANDFILL CALCULATIONS

Below are example calculations for Equations HH-3, HH-1, HH-5 and A-1.

Step 1: Use Equation HH-3 to find the average weight per year placed in the MSW Landfill.

Equation HH-3

$$W_x = \frac{LFC}{(YrData - YrOpen + 1)}$$

$$W_x = \frac{596000 \text{ (metric tons)}}{(1996 - 1973 + 1)}$$

$$W_x = 24833.33 \text{ metric tons waste/year}$$

Where:

W<sub>x</sub> = Quantity of waste placed in the landfill in year x (metric tons, wet basis)

LFC = Landfill capacity (metric tons).

YrData = Year in which the landfill last received waste

YrOpen = Year in which the landfill first received waste

Step 2: Use Equation HH-1 to calculate the CH<sub>4</sub> generated for each waste category for each year. Assumed an average density of 1000 kg/m<sup>3</sup> for liquid and 1 metric ton/m<sup>3</sup> for solid wastes.

Equation HH-1

$$CO_2e = \sum_{i=1}^n GHG_i \times GWP_i$$

Example for Office Waste disposed in 1973:

$$G_{CH_4} = \sum_{x=S}^{T-1} \left\{ 270.39 \text{ (metric tons waste)} \times 1 \times 0.4 \left( \frac{\text{metric tons C}}{\text{metric tons waste}} \right) \times 0.5 \times 0.5 \times \frac{16}{12} \right. \\ \left. \times (0.00929) \right\}$$

$$G_{CH_4} = 0.3349 \text{ metric tons } CH_4$$

Where:

$G_{CH_4}$  = Modeled CH<sub>4</sub> generation rate in reporting year T (metric tons CH<sub>4</sub>)

x = year in which waste was disposed (1973)

S = start year of calculations (1973)

T = reporting year in which emissions are calculated (assumed as 2010)

$W_x$  = Quantity of waste disposed in the landfill in year x calculated using Equation HH-3 of 40 CFR 98. (wet weight)

MCF = CH<sub>4</sub> correction factor (fraction). Used default value = 1

DOC = Degradable organic carbon. Used default value from Table HH-1 for paper = 0.4 (metric tons C/metric ton waste).

DOC<sub>F</sub> = Fraction of DOC dissimilated (fraction). Used default value = 0.5

F = Fraction by volume of CH<sub>4</sub> in landfill gas. Used default value from = 0.5

k – Rate constant from Table HH-1. Used default value for paper = 0.04

Step 3: Adjust CH<sub>4</sub> generated for oxidation based on the cover of the landfill using Equation HH-5.

Equation HH-5

$$MG = G_{CH_4} \times (1 - OX)$$

$$MG = 0.3349 \text{ (metric tons } CH_4) \times (1 - 0.1)$$

$$MG = 0.30141 \text{ (metric tons } CH_4)$$

Where:

MG = CH<sub>4</sub> generation, adjusted for oxidation, from the landfill reporting year (metric tons CH<sub>4</sub>)

G<sub>CH<sub>4</sub></sub> = Modeled CH<sub>4</sub> generation rate in reporting year from Equation HH-1 (metric tons CH<sub>4</sub>)

OX = Oxidation fraction. Used default value of 0.1 (10%)

Step 4: The resulting calculated annual emissions of CH<sub>4</sub> for each year and waste type were combined for total emissions of CH<sub>4</sub>. To determine the amount of GHG emissions from CH<sub>4</sub> (expressed as CO<sub>2</sub>e) of all the CH<sub>4</sub>, Equation A-1 from 40 CFR 98, Subpart A was used as follows:

Equation A-1

$$CO_2e = \sum_{i=1}^n GHG_i \times GWP_i$$

$$CO_2e = 811.19 \text{ metric tons} \times 21$$

$$CO_2e = 15331.44 \text{ metric tons}$$

Where:

CO<sub>2</sub>e = Carbon dioxide equivalent, metric tons/year.

GHG<sub>i</sub> = Mass emissions of each greenhouse gas listed in Table A-1 of this subpart, metric tons/year.

GWP<sub>i</sub> = Global warming potential for each greenhouse gas from Table A-1 of 40 CFR 98 Subpart A.

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