Hanford Site Air Operating Permit Application

Date Published
May 1995.

United States
Department of Energy

P.O. Box 550
Richland, Washington 99352

MASTER

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GLOSSARY

AAQS	ambient air quality standards
AEI	air emission inventory
ALARA	as low as reasonably achievable
BACT	best available control technology
BARCT	best available radionuclide control technology
BART	best available radionuclide technology
BCCAA	Benton County Clean Air Authority
BFDHD	Benton-Franklin District Health Department
BMP	best management practice
BTU	British thermal unit
CAA	<i>Clean Air Act of 1977</i>
CAS	Chemical Abstract Service
CFC	chlorofluorocarbons
CFR	Code of Federal Regulations
DOE-HQ	U.S. Department of Energy-Headquarters
DOH	Washington State Department of Health
DST	Double-Shell Tank System
Ecology	Washington State Department of Ecology
EFSEC	Energy Facility Site Evaluation Council
EPA	U.S. Environmental Protection Agency
ERC	Environmental Remediation Contractor
FCAA	Federal Clean Air Act
FR	Federal Register
gpd	gallons per day
HAP	hazardous air pollutant
HLAN	Hanford Local Area Network
IEU	insignificant emission units
LAER	lowest achievable emission rate
MEI	maximally exposed individual
MOA	memorandum-of-agreement
MOU	memorandum-of-understanding
mrem	millirem

MVAC	motor vehicle air conditioning
NESHAPs	Nation Emission Standards for Hazardous Air Pollutants
NOC	notice of construction
NSR	new source review
PL	Public Law
PNL	Pacific Northwest Laboratory
POC	point of contact
ppm	parts per million
PSD	prevention of significant deterioration
PTRAEU	portable and temporary radionuclide airborne emission unit
PUREX	plutonium-uranium extraction
RACT	reasonably available control technology
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
RL	U.S. Department of Energy, Richland Operations Office
SEC	section
SEPA	<i>State Environmental Policy Act of 1971</i>
SIC	standard industrial classification
SIP	State Implementation Plan
SST	single-shell tank
TAPs	toxic air pollutants
T-BACT	best available control technology for toxics
TBD	to be determined
TEDE	total effective dose equivalent
T-RACT	reasonably available control technology for toxics
TRIGA	Test Reactor and Isotope Production, General Atomics
Tri-Party Agreement	Hanford Federal Facility Agreement and Consent Order
TSD	treatment, storage, and/or disposal
USACE	U.S. Army Corps of Engineers
UST	underground storage tank
VOC	volatile organic compounds
WAC	Washington Administrative Code
WHC	Westinghouse Hanford Company
%	percent

DEFINITIONS

Area Sources - Small [non-major (less than 10 tons per year of a hazardous air pollutant)] air emission sources usually of similar characteristics. They may be separated spatially. An example is underground storage tanks containing petroleum products on the Hanford Site.

Diffuse and Fugitive Emissions - See fugitive emissions. The Hanford Site often defines fugitive emissions of radionuclides as non-point source discharges from an enclosure or building that do not pass through a stack, vent or other point source. Diffuse emissions have been defined on the Hanford Site as emissions from surface contamination areas that may include cribs, ponds, or disposal sites.

Discharge Point - As defined in the Air Operating Permit Application Instructions, the point a regulated air pollutant enters the environment. By Ecology definition, a discharge point is understood to be a point source that emits pollutants from more than one emission point. See Emission Point.

Emission Units - Any part or activity of a stationary source that emits or has the potential to emit any regulated air pollutant or pollutant listed under Section 112(b) of the Federal Clean Air Act.

Emission Point - For this application, the point a regulated air pollutant enters the environment via an airborne pathway, including point sources, area sources, and fugitive emissions. The Air Operating Permit Application Instructions define emission point synonymously with source. See Discharge Point and Source.

Fugitive Emissions - These air emissions do not pass through a discrete emission point (vent, stack, chimney, or other functionally equivalent opening) and could not reasonably pass through such an opening [WAC 173-400-030(31)]. Examples include cribs; storage piles; ponds; and windows, doors, and other openings in buildings containing emission units. These air emissions are sometimes referred to as diffuse sources on the Hanford Site. This definition also applies to emissions of radioactive air pollutants.

Generation Point - As defined in Ecology Application instructions, it is the point at which a pollutant is generated. It includes individual pieces of equipment, units, and activities that generate pollutants that are not released directly to the outdoor ambient air. This term is synonymous with source in the Hanford Site Application.

Insignificant emission unit - For regulated air pollutants excluding radionuclides, it is an emission unit that meets the criteria of an insignificant emission unit as described in WAC 173-401-530. For radionuclides, it is those sources that do not have the potential to emit radionuclides in quantities that could cause any member of the public to receive a total effective dose equivalent in excess of 0.1 millirem per year. Insignificant radionuclide emission units are also referred to as minor stacks and vents or undesignated stacks or vents.

Non-point Source - A location at which radioactive air emissions originate from an area, such as contaminated ground above a near-surface waste-disposal unit, whose extent may or may not be well defined [WAC 246-247-030(18)]. See fugitive emissions.

Point Sources - Discrete, well defined location from which radionuclide air emissions originate, such as a stack, vent or other functionally equivalent opening [WAC 246-247-030(20)]. The definition also applies to other sources of non-radioactive regulated pollutants.

Significant emission unit - For regulated air pollutants excluding radionuclides, it is an emission unit that does not meet the criteria of insignificant emission units as described in WAC 173-401-530. For radionuclide emission units, it is those sources that have the potential to emit radionuclides in quantities that could cause any member of the public to receive a total effective dose equivalent in excess of 0.1 millirem per year. Significant radionuclide emission units are also referred to as major stacks and vents or designated stacks or vents.

Source - For this application, the point at which regulated air pollutants are generated. Source includes emission units, area sources, and fugitive emissions. Source is synonymous with emission point as defined in the Air Operating Permit Application Instructions.

Stack - Means any point in a source designed to emit solids, liquids, or gases into the air, including a pipe or duct [WAC 173-400-030(71)].

The following conversion chart is provided to the reader as a tool to aid in conversion.

Into metric units	Out of metric units
1 inch = 2.54 cm	1 cm = 0.39 inch
1 foot = 0.30 meter	1 meter = 3.28 feet
1 yard = 0.91 meter	1 meter = 1.09 yards
1 mile = 1.61 km	1 km = 0.62 mile
1 gallon = 3.78 liter	1 liter = 0.26 gallon
1 pound = 0.45 kg	1 kg = 2.20 pounds
1 ounce = 28.35 g	1 g = 0.035 ounce
1 quart = 0.95 liter	1 liter = 1.06 quarts
1 cup = 0.24 liter	1 liter = 4.23 cups
1 pint = 0.47 liter	1 liter = 2.11 pints
1 fluid ounce = 29.57 ml	1 ml = 0.034 fluid ounce
1 tablespoon = 14.79 ml	1 ml = 0.068 tablespoon
1 teaspoon = 4.93 ml	1 ml = 0.204 teaspoon
1 degree Fahrenheit = 5/9 degree Celsius	1 degree Celsius = 9/5 degree Fahrenheit
1 hour = 60 minutes	1 minute = 60 seconds
1 day = 24 hours	1 week = 7 days
1 year = 365 days	1 decade = 10 years
1 century = 100 years	1 millennium = 1,000 years

Source: *Engineering Unit Conversions*, M. R. Lindeburg, PE., Second Ed., 1990, Professional Publications, Inc., Belmont, California.

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PERMIT APPLICATION ORGANIZATION

Where possible, the Hanford Site Air Operating Permit Application (Application) follows the format defined by the Washington State Department of Ecology (Ecology) Air Quality Operating Permit Application and Instructions (Instructions). Several of the forms requesting plant and process specific information were not used in the Application for the reasons described below.

Much of the facility-specific information contained in Appendices C through J was collected during a comprehensive air emissions inventory (AEI). This information was input to a database for data management and reporting purposes. The AEI Permit Application Reports (UP460) (AEI Reports) are considered equivalent to the Ecology form as allowed by the Instructions, and contain the same information which is to be input to the Ecology forms B-1 through C-4. The Ecology forms, referenced in the Instructions, are placed in the appropriate location in Chapters 1.0 through 4.0 with a reference to the Appendices.

To aid the permit writer, Table 1 lists the required data elements as found in Chapter 173-401 Washington Administrative Code and the Instructions, and the location of the information in the Application that fulfills the required data elements. Information in column one is not in numerical order.

Table 1. Required Data Elements.

REGULATORY WAC 173-401-510(2)	ECOLOGY PERMIT APPLICATION	HANFORD PERMIT APPLICATION
	<u>Chapter I. General Information</u>	<u>Chapter I. General Information</u>
(a) Identifying Information Name, Address, Telephone Numbers	A. Form A-1 or equivalent	A. Form A-1
(b) Description of Processes and Products SIC Codes	B. Facility Description 1. Begin with Facility Description a. Form B-2 identifies Process 1 as plant-wide processes.	B. Facility Description 1. Begin with Facility Description a. Equivalent description of plant-wide processes
(c) Emissions Related Information		b. Pages I-2 through I-4. Hanford Site Description of Processes include waste management/cleanup, technology development, and economic diversification See Appendices C through J
(iv) Fuels, fuel used, raw materials, production rates, and operating schedules, if needed, to determine or regulate emissions	b. General Facility Description (<5 pages) Products, processes, raw materials and fuels used, facility operating schedule (Forms B1-B4)	
(v) Identification and description of all air pollution control equipment and compliance monitoring devices or activities	B-1 Principal Product Name Product Description Quantity UOM SIC Code SIC Description	B-1 Hanford is not producing products in traditional industrial sense. Numerous facilities are involved with R&D, ER, transition to ER, fuel storage, contamination control, analytical labs. Support facilities include maintenance shops, fabrication shops, carpentry shops. See Appendices C through J
(vi) Limitations on source operation affecting emissions or any work practice standard, where applicable, for all regulated pollutants	B-2 Process Information Process Number Process Name SIC Code Process Description	B-2 See Appendices C through J (Source (Process) Listing)
(vii) Other information required by any applicable requirement	B-3 Raw Materials Used by Processes Number of Processes Using Raw Materials Name/Description Quantity UOM	B-3 Hanford is not using raw materials in production modes. Raw material usage is limited to material for D&D, facility maintenance, ER work, SNF storage. See Appendices C through J
	B-4 Fuels Used by Processes Number of Processes Using Fuel Name/Description Quantity UOM	B-4 See appendices C through J - Coal and fuel oil primarily. If identified, reference appendix and page number. Fuels Usage by Source Processes Fuels Usage by Control Devices

Table 1. Required Data Elements.

<u>REGULATORY</u> WAC 173-401-510(2)	<u>ECOLOGY PERMIT APPLICATION</u>	<u>HANFORD PERMIT APPLICATION</u>
	<p>C. Plant Operational Characteristics .</p> <p>1. Emission Points, Controls, Stacks (Form C-1)</p> <p>Process Number Discharge Pt. Number Generation Pt. Number Description Control Equipment Code</p> <p>2. Facility Process Flow Diagram</p> <p>3. Site Map</p> <p>a. Facility Boundaries</p> <p>b. Locations of emission pts, controls, and stacks</p> <p>c. Outline and elevations of buildings</p> <p>d. Access and haul roads</p> <p>e. Locations of raw materials, fuel, and waste piles</p> <p>f. Locations of waste water treatment facilities and evaporation ponds</p>	<p>C. Plant Operational Characteristics</p> <p>1. Emission Points, Controls, Stack numbers Appendices C through J</p> <p>Process No. - Not Applicable Emission Pt. - (Point, Area, Fugitive) = emission unit Source Number Source Type Control Device Listing</p> <p>2. See Appendices C through J</p> <p>3. See Appendices C through J for plant specific drawings</p>

Table 1. Required Data Elements.

<u>REGULATORY</u> WAC 173-401-510(2)	<u>ECOLOGY PERMIT APPLICATION</u>	<u>HANFORD PERMIT APPLICATION</u>
<p>(c) Emissions Related Information</p> <p>(i) all emissions for which source is major & all emissions of regulated pollutants</p> <p>(ii) Identification of all points of emissions described in (c(i)) in enough detail to establish fees and applicable requirements</p> <p>(iii) Emission rates in TPY and in terms consistent with standard reference test method</p> <p>(d) Air Pollution Control Requirements</p> <p>(i) Citation and description of all applicable requirements</p> <p>(ii) Description of, or reference to any applicable test method for determining compliance with each applicable requirement</p> <p>(e) Other specific information that may be necessary</p> <p>(f) An explanation of proposed exemptions from otherwise applicable requirements</p> <p>(k) Inapplicable Requirements</p> <p>(h) Compliance Plan</p> <p>(g) Additional information as determined to be necessary by the permitting authority to define alternative operation scenarios identified by the source [WAC 173-401-650(e) and 173-401-722].</p>	<p><u>Chapter II. Regulatory Requirements</u></p> <p>A. Description of Discharge Point and Emission Points</p> <p>B. Applicable Requirements Complete Form C-2 or equivalent Includes potential and actual emissions, applicable requirements, and compliance</p> <ol style="list-style-type: none"> 1. Requirement Citation 2. Description of Compliance Methods 3. Applicability Demonstration <p>C. Exemptions Use this section for exemptions from otherwise applicable requirements</p> <p>D. Inapplicable Requirements</p> <ol style="list-style-type: none"> 2. Brief Description 3. Applicability Demonstration 4. Permit Shield <p>E. Compliance Plan</p> <ol style="list-style-type: none"> 1. Status 2. Compliance Method 3. Compliance Certification 4. Enhanced Monitoring 5. Compliance Schedule 	<p><u>Chapter II. Regulatory Requirements</u></p> <p>A. Description of Discharge Point and Emission Points See Appendices C through J</p> <p>B. Applicable Requirements See Tables II.B-1, II.B-2, and II.B-3</p> <p>C. Exemptions</p> <p>D. Inapplicable Requirements See Table II.D-1 List of Inapplicable Requirements,</p> <p>E. Compliance Plan See Tables II.B-1, II.B-2, II.B-3, and Section II.E.5 See II.E.4 See Appendix B</p> <p>F. Operational Flexibility</p>

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REGULATORY WAC 173-401-510(2)	<u>ECOLOGY PERMIT APPLICATION</u>	<u>HANFORD PERMIT APPLICATION</u>
(i) Requirements for Compliance Certification	<p><u>Chapter III. Compliance Plan Summary</u></p> <p>A. Statements of Intent</p> <ol style="list-style-type: none"> 1. Source will continue to meet requirements 2. For new requirements that become effective during permit term, source will comply on a timely basis 3. Source will meet the compliance schedules in Chapter II <p><u>Chapter IV. Insignificant Emission Units</u></p> <p>A. List of IEU's</p> <p>B. Determination</p> <p><u>Chapter V. Permit Shield Summary</u></p> <p>A. Provide a List</p> <p>B. General Statement</p> <p>Appendix A - Emission Calculations</p>	<p><u>Chapter III. Compliance Plan Summary</u></p> <p>A. Statements of Intent</p> <ol style="list-style-type: none"> 1. Source will continue to meet requirements 2. For new requirements that become effective during permit term, source will comply on a timely basis 3. Source will meet the compliance schedules in Chapter II <p><u>Chapter IV. Insignificant Emission Units</u></p> <p>A. List of IEU's See Chp. IV & Appendix K</p> <p>B. Determination See Appendix A</p> <p><u>Chapter V. Permit Shield Summary</u></p> <p>A. See Table V.B-1 List of Applicable Requirements</p> <p>B. General Statement</p> <p>Appendix A - Emission Calculations</p>
(c)(viii) Calculations on which the information in (c)(i) through (c)(vii) are based		

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CHAPTER I

GENERAL INFORMATION

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Form A-1: General Information and Certification

AIR OPERATING PERMIT APPLICATIONS

1. Company Name: U.S. Department of Energy Richland Operations Office
2. Plant or Facility Name: Hanford Site
3. Unified Business Identification Number (UBI#): 91-0565159 (Tax Exempt Number)
4. Facility Address: 825 Jadwin Ave.
Richland, WA. 99352 County: Benton
5. Mailing Address: (if applicable) P.O. Box 550
Richland, WA. 99352
6. Owner: U.S. Department of Energy Richland Operations Office
Parent Company: Not Applicable
7. Facility contact who is familiar with the information contained in this application.
Name: James E. Rasmussen
Title: Director, Environmental Assurance, Permits, and Policy Division
Telephone: (509) 376-2247
8. Type of operating permit application: (check all that apply)

☒ Initial permit application	☐ General permit application
☐ Early reductions application	☐ Permit modification application
☐ Renewed permit application	☐ Other (specify):
9. Reason for Application (tonnage of emission per year): > 100 tons/year CO, NO_x, SO₂, PM₁₀
10. Claim of Confidentiality:

Some of the records and information contained in this application are ☐ are not ☒ (check one) unique to the applicant and/or are likely to adversely affect the competitive position of the applicant if released to the public or a competitor. If a claim of confidentiality is made for this application, provide a separate application for general distribution which is devoid of confidential information.

11. Certification:

I certify that I am the responsible official, as defined in WAC 173-401-200(27) for this facility. I further certify as required by WAC 173-401-520, that, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.

John D. Wagoner
Signature of Responsible Official

5/25/95
Date

Manager
Title

John D. Wagoner
Printed Name

CHAPTER I. GENERAL INFORMATION

I.A. IDENTIFYING INFORMATION AND CERTIFICATION

Refer to Page I-1.

I.B. FACILITY DESCRIPTION

The Hanford Site, located in southcentral Washington State, is about 1,450 square kilometers (560 square miles) of semi-arid shrub and grasslands located just north of the confluence of the Snake and Yakima Rivers with the Columbia River. This land, with restricted public access, provides a buffer for the smaller areas historically used for the production of nuclear materials, waste storage, and waste disposal. About 6% of the land area has been disturbed and is actively used. This 6% is divided into the following areas:

- the 100-B/C, 100-D, 100-DR, 100-F, 100-H, 100-K, and 100-N Areas, which lie along the south shore of the Columbia River in the northern portion
- the 200-East and 200-West Areas, which lie in the center near the basalt outcrops of Gable Mountain and Gable Butte
- the 300 Area, near the southern border
- the 400 Area, between the 300 and 200 Areas
- the 1100 Area, a corridor northwest of the city of Richland used for vehicle maintenance and other support activities
- the 3000 Area, for sites used for research and technology development and administrative functions. These sites are not necessarily on the Hanford Site, and can be found adjacent to Richland, Kennewick, and Pasco, the Tri-Cities.

The 600 Area is the designation for land between the operational areas. Areas off the Hanford Site used for research and technology development and administrative functions can be found in Richland, Kennewick, and Pasco, the nearest cities.

The Hanford Site was acquired by the federal government in 1943 and for many years was dedicated primarily to the production of plutonium for national defense and the management of the resulting wastes. With the shutdown of the production facilities in the 1970s and 1980s, missions were diversified to include research and development in the areas of energy, waste management, and environmental restoration.

The current mission for the Hanford Site is:

- waste management/cleanup
- technology development
- economic diversification.

Current waste management activities include managing wastes with high and low levels of radioactivity (from the nuclear materials production activities) in the 200-East and 200-West Areas. Key waste management facilities include the waste storage tanks, Plutonium Uranium Extraction (PUREX) Plant, Plutonium Finishing Plant, Central Waste Complex, Low-Level Burial Grounds, B Plant, T Plant, and 242-A Evaporator. In addition, irradiated nuclear fuel is stored in the 100-K Area in fuel storage basins.

Environmental restoration includes activities to decontaminate and decommission facilities and to cleanup or restore inactive waste sites. The surplus facilities program conducts surveillance and maintenance of such facilities, and has begun to clean up and dispose of more than 100 facilities.

Research and technology development activities are intended to improve the techniques and reduce the costs of waste management, environmental protection, and restoration.

Operations and activities on the Hanford Site are managed by the U.S. Department of Energy, Richland Operations Office (DOE-RL) through contractors and numerous subcontractors.

The principal contractors currently include:

- Westinghouse Hanford Company
- Battelle Memorial Institute
- Hanford Environmental Health Foundation
- Bechtel Hanford Incorporated.

Non-DOE-RL operations and activities include commercial power production by the Washington Public Power Supply System's WNP-2 Reactor (near the 400 Area) and commercial low-level radioactive waste burial at the site leased and licensed by Washington State and operated by US Ecology (near the 200 Areas). Siemens Power Corporation operates a commercial nuclear fuel fabrication facility, and Allied Technology Group Corporation operates a low-level radioactive waste decontamination, supercompaction, and packaging disposal facility near the southern boundary of the Hanford Site.

This air operating permit application for the Hanford Site has been prepared pursuant to Chapter 173-401, Washington Administrative Code, "Operating Permit Regulation". This permit application does not include non-DOE operations and activities mentioned in the previous paragraph.

The air operating permit application for the Hanford Site is organized according to the six operational areas, (i.e., 100 Areas, 200 Areas, 300 Area, etc.) and the sources located within each area. The information on the sources located within each area is compiled as appendices to the permit application. For example, all information required for Sections B, C, and E of the permit application pertaining to the PUREX Plant can be located in Appendix D. Therefore, the reader is referred to the appendices for required information.

Form B-1: Facility SIC Codes and Associated Principal Products

Facility Name:

Confidentiality Claim? Yes No (circle one)

Principal Product Name	Principal Product Description	Maximum Annual Production	UOM*	SIC Code	SIC Description
No products are produced on the Hanford Site that are marketed to the general public. This section is considered not applicable to the Hanford Site	No products are produced on the Hanford Site that are marketed to the general public. This section is considered not applicable to the Hanford Site	Not applicable	Not applicable	SIC Code 9999 is accepted as the SIC Code for all Hanford Site Operations.	

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05/95

Form B-2: Process Information

AIR OPERATING PERMIT APPLICATIONS

Facility Name:

Confidentiality Claim? Yes No (circle one)

Process # _____

[illegible]

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05/95

Form B-3: Raw Materials Used by Processes

Process # _____

Confidentiality Claim? Yes No (circle one)

[illegible]

Form B-4: Fuels Used by Processes
AIR OPERATING PERMIT APPLICATIONS

Facility Name: _____

Confidentiality Claim? Yes No (circle one)

Process # _____

Number of Process Using Fuel	Fuel Name/Description*	Maximum Annual Use	UOM
Refer to Form B-2	Refer to the AEI report guide following Form C-3 of this chapter to identify where the Fuel Name/Description for each emission point is located in the AEI reports in each subappendix (refer to Figure I-3).		

*Indicate if it is a primary, back-up, or emergency fuel.

Form C-1: Plant Operational Characteristics, Emission Point Descriptions

AIR OPERATING PERMIT APPLICATIONS

Facility Name: _____

Process # _____

Process #	Discharge Point #	Emission Point #	Emission Point Description	SCC Code (# Factor Used)	Control Equipment Code	
Refer to Form B-1	The discharge point, as defined by Ecology, is synonymous with emission point as defined in this application (refer to Glossary: Definitions). Refer to the AEI report guide following Form C-3 of this chapter (Figure I-5).	The emission point numbers are identified by the source number in the AEI reports in each subappendix. Refer to the AEI report guide following Form C-3 of this chapter (refer to Figure I-4).		Refer to AEI reports.		

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I.C. PLANT OPERATIONAL CHARACTERISTICS

I.C.1. EMISSION POINTS, CONTROLS, STACKS:

Refer to the AEI Permit Application Reports (UP460) (AIE Report) included in Appendices C through K. The AEI Reports are considered equivalent to Form C-1.

I.C.2. FACILITY PROCESS FLOW DIAGRAM

Refer to Appendices C through K for each emission point.

I.C.3. SITE MAP

Ecology requested the following to be shown on site maps:

- Facility boundaries
- Locations of emission points, controls and stacks
- Outline and elevations of buildings
- Access and haul roads
- Locations of raw material, fuel, and waste piles
- Locations of waste water treatment facilities and evaporation ponds.

Elevations of buildings are not provided on the site map. Input for building elevations was not supported by the AEI database. Consequently, this information was not collected. Also, the data collection process was complete before Ecology's identification of this requirement. The building elevation information can be provided on a case-by-case basis for specific buildings at Ecology's request.

Figure I-1 is a map of the Hanford Site. The map only shows the operational areas within the boundaries of the Hanford Site. Maps showing the above items are included in each subappendix located in Appendices C through K.

I.C.4. POTENTIAL EMISSIONS SUMMARY

Refer to Form C-2 and Form C-3.

RECOTEC

Process

[illegible]

WASHINGTON STATE
DEPARTMENT OF
ECOLOGY

Facility Name:

[illegible]

I.D. AIR EMISSIONS INVENTORY REPORT GUIDE

Form B-2: Process Information

Process names and descriptions are located under the subheading "Source (Process) Listing". Refer to AEI report Example 1, Figure I-2.

Form B-4: Fuels Used by Processes

Fuels Used by Processes are located under the subheading "Fuels Usage by Source Processes". Refer to AEI report Example 2, Figure I-3.

Form C-1: Plant Operational Characteristics, Emission Point Descriptions

Plant Operational Characteristics, Emission Point Descriptions are located under the subheading "Fuels Usage by Source Processes". Refer to AEI report Example 3, Figure I-4.

Coordinate Description

The coordinates of the emission points listed in the AEI reports are based on coordinate system Washington State North American Datum 83-91. Refer to AEI report Example 4, Figure I-6.

Control Code Description

Washington State Department of Ecology provided the following control equipment codes and equipment descriptions for control equipment on the Hanford Site. Refer to AEI report Example 5, Figure I-7.

Code	Description
017	Fabric Filter (Medium Temperature)
048	Activated carbon adsorption
058	Mat or panel filter
063	Gravel bed filter
075	Single cyclone
076	Multiple cyclone without fly ash reinjection
099	Miscellaneous control devices (high-efficiency particulate air filters are included in this category).

Alpha-numeric Code Description

The unique identification numbers assigned to all site AEI sources provides key information concerning location, type of emission point, and facilitates access to information within the AEI computer database. The identification code assigned to each emission point (point or fugitive) includes the operational area code, a category code, a building identifier, and a emission point identification code. For example, if the alpha-numeric code in the AEI reports for a given emission point is 200W H-271AW 001, the "200W" identifies the operational area, or 200 West Area, the H is the Category code "H" identifies the emission point as a Combustion Emission Point, 271AW is the building number, and "001" is the emission point identification code.

The category codes are as follows:

- A - Administrative Emission Point - sanitary sewer vents, stove hoods
- B - Administrative Emission Point - building exhausts (active or passive)
- C - Administrative Emission Point - heating, ventilation, and air conditioning (HVAC)
- D - Administrative Emission Point - steam releases
- E - Combustion Emission Point - internal combustion (engines, turbines)
- F - Combustion Emission Point - external (boilers only)
- G - Gasoline Distribution Area
- H - Combustion Emission Point - external (space heaters, hot water heaters)
- J - Fugitive Emission Area - fugitive sources emitted directly to the ambient air (other than pump seals, valves flanges)
- K - Paint Booth - Painting Operations
- L - Smelter
- M - Welding Booth
- N - General Maintenance
- P - Process Emission Point
- R - Laboratory Emission Point - research
- S - Laboratory Emission Point - process or QA/QC related
- T - Tank or Storage Vessel Emission Point
- U - Unassigned

- V - Fugitive Emission Area - fugitive sources (pump seals, valves, flanges)
- W - Portable, temporary, radionuclide air emission unit
- X - Unassigned
- Y - Unassigned
- Z - Other

Aside from the alpha-numeric code assigned during the AEI, each emission point is assigned a unique regulatory identification number. The following is a cross-reference for the AEI emission point codes and the regulatory identification number. The cross-reference also includes the location of the emission point information in the Application. The Table I.D-1 lists all of the emission points listed in the Application and provides a cross-reference with the regulatory identification numbers where appropriate. The Table I.D-2 provides a cross-reference of the regulatory identification number and the AEI emission point identification numbers in the Application. The following two tables list the stationary source emission units that have been identified on the Hanford Site. These tables do not include temporary, insignificant emission units. For example, welding booths within certain facilities (fabrication shops) have been identified with unique identification numbers. These emission units are included in the tables. Portable welders, however, that are used for a variety of construction, building modification, or maintenance activities have not been identified with unique emission point identification numbers and are not identified in the following tables. Many of these activities and emission units not specifically identified in the Application are associated with facility-wide construction, facility modification, and maintenance activities. These activities and emission units are considered insignificant emission units based on the criteria in WAC 173-401-530. The discussion of insignificant emission units is included in Chapter IV.

Not all of the emission categories reported under the "Facility Emissions" section of the Air Emission Inventory Permit Application Report (UP460), contain emission data. Where no emissions data is presented, no significant emissions of pollutants have been identified for that pollutant category.

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
100K N-1717K 001		C-1, K.3
100K P-105KE 001	105-KE	C-1
100K P-105KE 002	105-KE	C-1
100K P-105KE 003	105-KE	C-1
100K P-105KE 004	105-KE	C-1
100K P-105KW 001	105-KW	C-1
100K P-105KW 002	105-KW	C-1
100K P-105KW 003	105-KW	C-1
100K P-105KW 004	105-KW	C-1
100K R-1706 KE 001	1706 KE	C-1
100K R-1706KEL 001	1706KEL	C-1, K.2
100K R-1706KEL 002		C-1
100K R-1706KER 001	1706 KER	C-1
100N K-1143N 015		K.3
100N K-1517N 021		K.3
100N M-105N 001		K.2
100N M-1515N 020		K.3
100N M-1518N 019		K.3
100N M-1705N 013		K.3
100N N-1143N 014		K.2
100N N-1143N 016		K.3
100N N-1516N 017		K.2
100N N-1517N 018		K.3
100N P-105N 002	105-N-14'DR	C-2
100N P-107N 004	107-N	C-2

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
100N P-116N 005	116-N	C-2
1100 G-1172A 001		K.3
1100 G-1172A 002		K.2
1100 G-1172A 003		K.2
1100 G-1172A 004		K.2
1100 G-1172A 005		K.2
1100 P-1167 001		I-1
200E F-284E 001	11	D-1
200E F-284E 002	11	D-1
200E F-284E 005		D-1
200E G-2713E 001		K.3
200E G-2713E 002		K.2
200E G-2713E 003		K.2
200E H200E002 001		I-1
200E J-284E 003	16	D-1
200E J-284E 004	17	D-1
200E K-200E001 001		I-1
200E K-2715EC 001		K.2
200E M-2244B 001		K.3
200E M-2247B 001		K.3
200E M-242AC 001		K.3
200E M-277A 001		K.3
200E N-2101M 001		K.2
200E N-2101M 002		K.2

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
200E N-2242B 001		K.2
200E N-2242B 002		K.3
200E N-2715EC 003		K.2
200E N-2721EA 001		K.3
200E N-272AW 001		D-4, K.3
200E N-272E 001		K.3
200E N-275E 001		K.2
200E N-275E 002		K.3
200E P-204AR 001	296-A-26	D-4
200E P-241A101 001		D-4, K.2
200E P-241A102 001		D-4, K.2
200E P-241A103 001		D-4, K.2
200E P-241A104 001		D-4, K.2
200E P-241A106 001		D-4, K.2
200E P-241A151 001		D-4
200E P-241A302A 001		D-4
200E P-241A350 001		D-4
200E P-241A401 001		D-4
200E P-241A417 001		D-4
200E P-241AA 001		D-4
200E P-241AB 001		D-4
200E P-241ANA 001		D-4
200E P-241ANB 001		D-4
200E P-241AP 001		D-4

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
200E P-241AR151 001		D-4
200E P-241AWA 001		D-4
200E P-241AWB 001		D-4
200E P-241AX101 001		D-4, K.2
200E P-241AX102 001		D-4, K.2
200E P-241AX103 001		D-4, K.2
200E P-241AX104 001		D-4, K.2
200E P-241AX152 001		D-4
200E P-241AX155 001		D-4
200E P-241AX501 001		D-4
200E P-241AXA 001		D-4
200E P-241AXB 001		D-4
200E P-241AY501 001		D-4
200E P-241AZ152 001		D-4
200E P-241B101 001		D-4, K.2
200E P-241B102 001		D-4, K.2
200E P-241B103 001		D-4, K.2
200E P-241B104 001		D-4, K.2
200E P-241B105 001		D-4, K.2
200E P-241B106 001		D-4, K.2
200E P-241B107 001		D-4, K.2
200E P-241B108 001		D-4, K.2
200E P-241B109 001		D-4, K.2
200E P-241B110 001		D-4, K.2

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
200E P-241B111 001		D-4, K.2
200E P-241B112 001		D-4, K.2
200E P-241B201 001		D-4, K.2
200E P-241B202 001		D-4, K.2
200E P-241B203 001		D-4, K.2
200E P-241B204 001		D-4, K.2
200E P-241BX101 001		D-4, K.2
200E P-241BX102 001		D-4, K.2
200E P-241BX103 001		D-4, K.2
200E P-241BX104 001		D-4, K.2
200E P-241BX105 001		D-4, K.2
200E P-241BX106 001		D-4, K.2
200E P-241BX107 001		D-4, K.2
200E P-241BX108 001		D-4, K.2
200E P-241BX109 001		D-4, K.2
200E P-241BX110 001		D-4, K.2
200E P-241BX111 001		D-4, K.2
200E P-241BX112 001		D-4, K.2
200E P-241BY101 001		D-4, K.2
200E P-241BY102 001		D-4, K.2
200E P-241BY103 001		D-4, K.2
200E P-241BY104 001		D-4, K.2
200E P-241BY105 001		D-4, K.2
200E P-241BY106 001		D-4, K.2

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
200E P-241BY107 001		D-4, K.2
200E P-241BY108 001		D-4, K.2
200E P-241BY109 001		D-4, K.2
200E P-241BY110 001		D-4, K.2
200E P-241BY111 001		D-4, K.2
200E P-241BY112 001		D-4, K.2
200E P-241C101 001		D-4, K.2
200E P-241C102 001		D-4, K.2
200E P-241C103 001		D-4, K.2
200E P-241C104 001		D-4, K.2
200E P-241C107 001		D-4, K.2
200E P-241C108 001		D-4, K.2
200E P-241C109 001		D-4, K.2
200E P-241C110 001		D-4, K.2
200E P-241C111 001		D-4, K.2
200E P-241C112 001		D-4, K.2
200E P-241C201 001		D-4, K.2
200E P-241C202 001		D-4, K.2
200E P-241C203 001		D-4, K.2
200E P-241C204 001		D-4, K.2
200E P-241ER151 001		D-4
200E P-241ER152 001		D-4
200E P-241ER153 001		D-4
200E P-241ER311 001		D-4

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
200E P-242A 001	296-A-21	D-4, K.2
200E P-242A 002	296-A-22	D-4, K.2
200E P-244A 001	296-A-25	D-4
200E P-244AR 001	296-A-12	D-4
200E P-244AR 002	296-A-13	D-4
200E P-244BX 001	296-B-28	D-4
200E P-244CR 001	296-C-05	D-4
200E P-291A001 001	291-A-01	D-3
200E P-291B001 001	291-B-01	D-3
200E P-296A 001		D-4, K.2
200E P-296A001 001	296-A-01	D-3
200E P-296A002 001	296-A-02	D-3
200E P-296A003 001	296-A-03	D-3
200E P-296A006 001	296-A-06	D-3
200E P-296A007 001	296-A-07	D-3
200E P-296A008 001	296-A-08	D-3
200E P-296A010 001	296-A-10	D-3
200E P-296A014 001	296-A-14	D-3
200E P-296A018 001	296-A-18	D-4
200E P-296A019 001	296-A-19	D-4
200E P-296A020 001	296-A-20	D-4
200E P-296A028 001	296-A-28	D-4
200E P-296A030 001	296-A-30	D-4
200E P-296A041 001	296-A-41	D-4
200E P-296A05A 001	296-A-05A	D-3, K.2
200E P-296A05B 001	296-A-05B	D-3, K.2

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
200E P-296AN 001	296-A-29	D-4
200E P-296AP 001	296-A-40	D-4, K.2
200E P-296AW 001	296-A-27	D-4
200E P-296AYAZ 001	296-A-17	D-4
200E P-296B005 001	296-B-05	D-2
200E P-296B010 001	296-B-10	D-2
200E P-296B013 001	296-B-13	D-2
200E P-296B022 001		D-2
200E P-296B023 001		D-2
200E P-296B024 001		D-2
200E P-296B025 001		D-2
200E P-296B026 001		D-2
200E P-296B027 001		D-2
200E P-296P016 001	296-P-16	D-4
200E P-296P026 001	296-P-26	D-4
200E P-296P031 001	296-P-31	D-4
200E P-CORE 001	296-P-32	J-1
200E P-G001 001	296-G-01	D-4
200E P-LERF 001		D-4
200E T-AMUROOFVN 001		D-3
200E V-203A CHEM 001		D-3
200E V-211A CHEM 001		D-3
200W P-296S016 001	296-S-16	E-1
200W P-296S023 001		E-1, K.2
200W F-284W 001	12	E-2

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
200W F-284W 002	12	E-2
200W F-284W 005	21	E-2
200W H-200W007 001		I-1
200W J-284W 003	16	E-2
200W J-284W 004	17	E-2
200W K-200W003 001		I-1
200W K-272S 001		E-7
200W M 272WA		E-7, K.3
200W M-200W005 001		K.3
200W M-200W006 001		K.3
200W M-272W 001		K.3
200W M-277W 001		K.3
200W M-2722W 001		K.3
200W N-200W001 001		K.2
200W N-200W002 001		K.3
200W N-200W004 001		K.3
200W N-231Z 001		E-7
200W N-275W 001		E-7, K.3
200W N-277W 002		E-7
200W N-277W 003		E-7, K.3
200W P 241S101 001		E-7, K.2
200W P 241S102 001		E-7, K.2
200W P 241S103 001		E-7, K.2
200W P 241S104 001		E-7, K.2

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
200W P 241S105 001		E-7, K.2
200W P 241S106 001		E-7, K.2
200W P 241S107 001		E-7, K.2
200W P 241S108 001		E-7, K.2
200W P 241S109 001		E-7, K.2
200W P 241S110 001		E-7, K.2
200W P 241S111 001		E-7, K.2
200W P 241S112 001		E-7, K.2
200W P 241S151 001		E-7
200W P 241S302A 001		E-7
200W P 241SX113 001		E-7, K.2
200W P 241SX115 001		E-7, K.2
200W P 241SYA 001		E-7
200W P 241SYB 001		E-7
200W P 241T101		E-7, K.2
200W P 241T102		E-7, K.2
200W P 241T103		E-7, K.2
200W P 241T104		E-7, K.2
200W P 241T105		E-7, K.2
200W P 241T106		E-7, K.2
200W P 241T107		E-7, K.2
200W P 241T108		E-7, K.2
200W P 241T109		E-7, K.2
200W P 241T110		E-7, K.2

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
200W P 241T111		E-7, K.2
200W P 241T112		E-7, K.2
200W P 241T201		E-7, K.2
200W P 241T202		E-7, K.2
200W P 241T203		E-7, K.2
200W P 241T204		E-7, K.2
200W P 241TX101		E-7, K.2
200W P 241TX102		E-7, K.2
200W P 241TX103		E-7, K.2
200W P 241TX104		E-7, K.2
200W P 241TX105		E-7, K.2
200W P 241TX106		E-7, K.2
200W P 241TX107		E-7, K.2
200W P 241TX108		E-7, K.2
200W P 241TX109		E-7, K.2
200W P 241TX110		E-7, K.2
200W P 241TX111		E-7, K.2
200W P 241TX112		E-7, K.2
200W P 241TX113		E-7, K.2
200W P 241TX114		E-7, K.2
200W P 241TX115		E-7, K.2
200W P 241TX116		E-7, K.2
200W P 241TX117		E-7, K.2
200W P 241TX118		E-7, K.2

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
200W P 241TX152 001		E-7
200W P 241TX154 001		E-7
200W P 241TX302C 001		E-7
200W P 241TY101		E-7, K.2
200W P 241TY102		E-7, K.2
200W P 241TY103		E-7, K.2
200W P 241TY104		E-7, K.2
200W P 241TY105		E-7, K.2
200W P 241TY106		E-7, K.2
200W P 241U101		E-7, K.2
200W P 241U102		E-7, K.2
200W P 241U103		E-7, K.2
200W P 241U104		E-7, K.2
200W P 241U105		E-7, K.2
200W P 241U106		E-7, K.2
200W P 241U107		E-7, K.2
200W P 241U108		E-7, K.2
200W P 241U109		E-7, K.2
200W P 241U110		E-7, K.2
200W P 241U111		E-7, K.2
200W P 241U112		E-7, K.2
200W P 241U151 001		E-7
200W P 241U152 001		E-7
200W P 241U201		E-7, K.2

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
200W P 241U202		E-7, K.2
200W P 241U203		E-7, K.2
200W P 241U204		E-7, K.2
200W P 241U301B 001		E-7
200W P 241UX154 001		E-7
200W P 241UX302A 001		E-7
200W P 244U 001	296-U-11	E-7
200W P 296SX		E-7
200W P 296SY		E-7
200W P-213W 001	296-W-03	E-8
200W P-241S101		K.2
200W P-242S 001	296-S-18	E-7
200W P-242T 001	296-T-17	E-7
200W P-244S 001	296-S-22	E-7
200W P-244TX 001	296-T-18	E-7
200W P-291S001 001	291-S-01	E-4
200W P-291T001 001	291-T-01	E-5
200W P-291U001 001	291-U-01	E-6
200W P-291Z001 001	291-Z-01	E-3, K.2
200W P-296P022 001	296-P-22	E-7
200W P-296P028 001	296-P-28	E-7
200W P-296S002 001	296-S-02	E-4
200W P-296S004 001	296-S-04	E-4
200W P-296S006 001	296-S-06	E-4
200W P-296S016 001	296-S-16	E-1

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
200W P-296S021 001	296-S-21	E-1, K.2
200W P-296S07W 001	296-S-07W	E-4
200W P-296S025 001	296-S-25	E-7
200W P-296SX 001	296-S-15	E-7
200W P-296SY 001	296-P-23	E-7
200W P-296T007 001	296-T-07	E-5
200W P-296T011 001	296-T-11	E-8
200W P-296T012 001	296-T-12	E-8
200W P-296T013 001	296-T-13	E-5
200W P-296Z003 001	296-Z-03	E-3
200W P-296Z005 001	296-Z-05	E-3
200W P-296Z006 001	296-Z-06	E-3
200W P-296Z014 001	296-Z-14	E-3
200W P-296Z015 001		E-3
200W S-222SA 001		E-1, K.2
200W S-296S021 001	296-S-21	E-1, K.2
300 F-384 001	5,6,7	F-1
300 F-384 002	4	F-1
300 F-384 005	19	F-1
300 F-384 006	8	F-1
300 J-384 003	20	F-1
300 J-384 004		F-1
300 K-3709 001		I-1
300 M-305A 001		K.3
300 M-328 003		K.3

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
300 M-338 001		K.3
300 N-305 001		K.3
300 N-328 001		K.2
300 N-328 002		K.2
300 N-3713 001		K.2
300 N-3713 002		K.3
300 N-3717B 001		K.2
300 N-3722 001		K.3
300 N-3722 002		K.2
300 N-3722 003		K.3
300 P-306EULAB	306-ULAB	F-1
300 P-308TRIGA 001	308-TRIGA	F-1
300 P-309PRTR 001	309-PR-TR	F-1
300 P-340BLDG 001	340-B-BLDG	F-1
300 P-340DECON 001	340-DECON	F-1
300 P-340NTEX 001	340-NT-EX	F-1
300 P-377GEL 001	377-GEL	F-1
400 K-4722C 001		I-1
400 N-437 001		G-1
400 N-4704N 001		K.3
400 N-4713B 001		G-1
400 N-4713D 001		G-1
400 N-4722B 001		K.3
400 N-4722B 002		K.2

Table I.D-1. Emission Points Identified in Application

AEI Identification Number	Regulatory ID.	Appendix
400 N-4722C 002		K.3
400 N-4722C 003		K.2
400 P-408A 001		G-1
400 P-408B 000		G-1
400 P-408C 001		G-1
400 P-437MN&ST 001	437-MN&ST	G-1
400 P-FFTFCEBEX 001	FFTF-CB-EX	G-1
400 P-FFTFHTTR 001	FFTF-HT-TR	G-1
400 P-FFTFRESB 001	FFTF-RE-SB	G-1
600 M-6290 001		K.3
600 N-661 001		K.3
600 N-MO222 001		K.2
600 N-MO222 002		K.2
600 N-MO302 001		K.3
600 P-241EW151 001		H-1
600 S-6266-001		H-2, K.2
600 S-6266 002		H-2
600 S-6269 001		H-2
600 Z-6266A 001		H-2

Table I.D-2. Regulatory Identification Numbers.

Regulatory ID.	AEI ID. Number	Appendix
105-KE	100K P-105KE 001	C-1
105-KE	100K P-105KE 002	C-1
105-KE	100K P-105KE 003	C-1
105-KE	100K P-105KE 004	C-1
105-KW	100K P-105KW 001	C-1
105-KW	100K P-105KW 002	C-1
105-KW	100K P-105KW 003	C-1
105-KW	100K P-105KW 004	C-1
105-N-14'DR	100N P-105N 002	C-2
107-N	100N P-107N 004	C-2
116-N	100N P-116N 005	C-2
1706 KE	100K R-1706 KE 001	C-1
1706 KER	100K R-1706KER 001	C-1
1706KEL	100K R-1706KEL 001	C-1, K.2
291-A-01	200E P-291A001 001	D-3
291-B-01	200E P-291B001 001	D-3
291-S-01	200W P-291S001 001	E-4
291-T-01	200W P-291T001 001	E-5
291-U-01	200W P-291U001 001	E-6
291-Z-01	200W P-291Z001 001	E-3, K.2
296-A-01	200E P-296A001 001	D-3
296-A-02	200E P-296A002 001	D-3
296-A-03	200E P-296A003 001	D-3
296-A-05A	200E P-296A05A 001	D-3, K.2
296-A-05B	200E P-296A05B 001	D-3, K.2
296-A-06	200E P-296A006 001	D-3

Table I.D-2. Regulatory Identification Numbers.

Regulatory ID.	AEI ID. Number	Appendix
296-A-07	200E P-296A007 001	D-3
296-A-08	200E P-296A008 001	D-3
296-A-10	200E P-296A010 001	D-3
296-A-12	200E P-244AR 001	D-4
296-A-13	200E P-244AR 002	D-4
296-A-14	200E P-296A014 001	D-3
296-A-17	200E P-296AYAZ 001	D-4
296-A-18	200E P-296A018 001	D-4
296-A-19	200E P-296A019 001	D-4
296-A-20	200E P-296A020 001	D-4
296-A-21	200E P-242A 001	D-4, K.2
296-A-22	200E P-242A 002	D-4, K.2
296-A-25	200E P-244A 001	D-4
296-A-26	200E P-204AR 001	D-4
296-A-27	200E P-296AW 001	D-4
296-A-28	200E P-296A028 001	D-4
296-A-29	200E P-296AN 001	D-4
296-A-30	200E P-296A030 001	D-4
296-A-40	200E P-296AP 001	D-4, K.2
296-A-41	200E P-296A041 001	D-4
296-B-05	200E P-296B005 001	D-2
296-B-10	200E P-296B010 001	D-2
296-B-13	200E P-296B013 001	D-2
296-B-28	200E P-244BX 001	D-4
296-C-05	200E P-244CR 001	D-4
296-G-01	200E P-G001 001	D-4

Table I.D-2. Regulatory Identification Numbers.

Regulatory ID.	AEI ID. Number	Appendix
296-P-16	200E P-296P016 001	D-4
296-P-22	200W P-296P022 001	E-7
296-P-23	200W P-296SY 001	E-7
296-P-26	200E P-296P026 001	D-4
296-P-28	200W P-296P028 001	E-7
296-P-31	200E P-296P031 001	D-4
296-P-32	200E P-CORE 001	J-1
296-S-02	200W P-296S002 001	E-4
296-S-04	200W P-296S004 001	E-4
296-S-06	200W P-296S006 001	E-4
296-S-07W	200W P-296S07W 001	E-4
296-S-15	200W P-296SX 001	E-7
296-S-16	200W P-296S016 001	E-1
296-S-18	200W P-242S 001	E-7
296-S-21	200W P-296S021 001	E-1, K.2
296-S-22	200W P-244S 001	E-7
296-S-25	200W P-296S025 001	E-7
296-T-07	200W P-296T007 001	E-5
296-T-11	200W P-296T011 001	E-8
296-T-12	200W P-296T012 001	E-8
296-T-13	200W P-296T013 001	E-5
296-T-17	200W P-242T 001	E-7
296-T-18	200W P-244TX 001	E-7
296-U-11	200W P 244U 001	E-7
296-W-03	200W P-213W 001	E-8
296-Z-03	200W P-296Z003 001	E-3

Table I.D-2. Regulatory Identification Numbers.

Regulatory ID.	AEI ID. Number	Appendix
296-Z-05	200W P-296Z005 001	E-3
296-Z-06	200W P-296Z006 001	E-3
296-Z-14	200W P-296Z014 001	E-3
306-ULAB	300 P-306EULAB	F-1
308-TRIGA	300 P-308TRIGA 001	F-1
309-PR-TR	300 P-309PRTR 001	F-1
340-B-BLDG	300 P-340BLDG 001	F-1
340-DECON	300 P-340DECON 001	F-1
340-NT-EX	300 P-340NTEX 001	F-1
377-GEL	300 P-377GEL 001	F-1
437-MN&ST	400 P-437MN&ST 001	G-1
5,6,7	300 F-384 001	F-1
FFTF-CB-EX	400 P-FFTFCBEX 001	G-1
FFTF-HT-TR	400 P-FFTFHTTR 001	G-1
FFTF-RE-SB	400 P-FFTFRESB 001	G-1
4	300 F-384 002	F-1
8	300 F-384 006	F-1
11	200E F-284E 001	D-1
11	200E F-284E 002	D-1
12	200W F-284W 001	E-2
12	200W F-284W 002	E-2
16	200E J-284E 003	D-1
16	200W J-284W 003	E-2
17	200E J-284E 004	D-1
17	200W J-284W 004	E-2
19	300 F-384 005	F-1

Table I.D-2. Regulatory Identification Numbers.

Regulatory ID.	AEI ID. Number	Appendix
20	300 J-384 003	F-1
21	200W F-284W 005	E-2

Figure I-1. Hanford Site Map.

7956210

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Nt Abv Grnd(ft)	Nt Abv Struc(ft)
Source (Process) Listing					78	.0325	60	

Em Point	Ep Type	Summary Process Description				Srce Type			
300 J-384 004	AREA	116013	593972	1	50300810	DISPOSAL AND LANDFILL			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area,sq ft	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
					0	70	.0325	60	

Em Point	Srcr Mbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 F-384 001 AS	1	EXTERNAL FUEL COMBUSTION	24	7	52	INTERNATIONAL COAL-FIRED SPREADER STOKER BOILER, DESIGNATED BOILER #3

Em Point	Srcr Mbr	Srcr Type	Mrs Day	Days Week	Wks Year	Summary Process Description
300 F-384 001 AS	2	EXTERNAL FUEL COMBUSTION	24	7	52	INTERNATIONAL COAL-FIRED SPREADER STOKER BOILER, DESIGNATED BOILER #4

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 F-384 001 AS	3	EXTERNAL FUEL COMBUSTION	24	7	52	INTERNATIONAL COAL-FIRED SPREADER STOKER BOILER, DESIGNATED BOILER #5

Report Run Date: 09-DEC-94

Figure I-2. AEI report - Example 1 for Form B-2 information

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 384
FACILITY NAME: 384 Facilities and Structures

300-J-384 004	1 DISPOSAL AND LANDFILL	24	7	52 ASH DISPOSAL PIT NOT UTILIZED IN 1993 DUE TO BOILERS IN STANDBY MODE
Process ---: Description	<div style="border: 1px solid black; padding: 5px; text-align: center;"> Fuel Name/Description and Maximum Annual Use and UOM </div>	Process Rate	Process Uom	Material
Source Raw Ma.				
Em Point				

Fuels Usage by Source Processes

Em Point	Srcr Nbr	Srcr Type	Qty	Uom	Fuel
300 F-384 001	1	EXTERNAL FUEL COMBUSTION	21000000	POUND	COAL BITUMINOUS
	2	EXTERNAL FUEL COMBUSTION	21000000	POUND	COAL BITUMINOUS
	3	EXTERNAL FUEL COMBUSTION	21000000	POUND	COAL BITUMINOUS
300 F-384 002	1	EXTERNAL FUEL COMBUSTION	341875	GALLONS	NO. 6 HEATING OIL
300 F-384 005	1	EXTERNAL FUEL COMBUSTION	991091	GALLONS	NO. 6 HEATING OIL
300 F-384 006	1	EXTERNAL FUEL COMBUSTION	888644	GALLONS	NO. 6 HEATING OIL

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
----------	---------	----------	-----	-----	------

Facility Emissions

Point Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type	Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant
----------	----------	-----------	-----------	--------------------------------------	-------------------------------	-----------

Point Source Emissions - HAP Pollutants

Em. Pt. Potential Em. Pt.

Figure I-3. AEI report - Example 2 for Form B-4 information.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 300 LABS
FACILITY NAME: 300 Laboratories and Associated Structures

Facility Building List

Emission Point and Source Number		Bldg Desc		Point of Contact (POC) (POC) Phone	
		STANDARDS LABORATORY		HINCKLEY, WARD A. 376-3276	

North	East	Src Nbr	Src Code	Src Type
116042	59377B	1		ANALYTICAL LABORATORY

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(f)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITH WEATHER CAP	.83			.54	78	32.5	20	4

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 N-3717B 001	1	ANALYTICAL LABORATORY	2	5	50	VOC EMISSIONS FROM SOLVENTS USED FOR PARTS CLEANING. ACTUAL INSTALLED AND INITIAL OPERATION DATES ARE UNKNOWN (PRE-1980).

Process --->
Description

Source Raw Materials Usage

Em Point	Src Nbr	Src Type	Process Rate	Process Uom	Material

Fuels Usage by Source Processes

Em Point	Src Nbr	Src Type	Qty	Uom	Fuel

Fuels Usage by Devices

Em Point	Ctrl Nbr	Ctrl Type	Qty	Uom	Fuel

Figure I-4. AEI report - Example 3 for Form C-1 information.

Figure I-5. Example of Discharge and Emission Point Definitions.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)

FACILITY ID : PUREX

FACILITY NAME: PUREX Facility and Related Structures

Emission Point Listing

Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type			
200E T-AMU ROOF VN 001	POINT	135648	575085	1	not assigned	TANKS AND VESSELS			
				2	not assigned	TANKS AND VESSELS			
				3	not assigned	TANKS AND VESSELS			
				4	not assigned	TANKS AND VESSELS			
				5	not assigned	TANKS AND VESSELS			
				6	not assigned	TANKS AND VESSELS			
				7	not assigned	TANKS AND VESSELS			
				8	not assigned	TANKS AND VESSELS			
				9	not assigned	TANKS AND VESSELS			
				10	not assigned	TANKS AND VESSELS			
				11	not assigned	TANKS AND VESSELS			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
NONE SPECIFIED		1			79	78	.0325	34	1

Emission Point

Coordinates

Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type			
200E V-203A CHEM 001	FUGITIVE	135758	575107	1	not assigned	TANKS AND VESSELS			
				2	not assigned	TANKS AND VESSELS			
				3	not assigned	TANKS AND VESSELS			
				4	not assigned	TANKS AND VESSELS			
				5	not assigned	TANKS AND VESSELS			
				6	not assigned	TANKS AND VESSELS			
				7	not assigned	TANKS AND VESSELS			
				8	not assigned	TANKS AND VESSELS			
				9	not assigned	TANKS AND VESSELS			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
					0	78	.0325	0	

Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type			
200E V-211A CHEM 001	FUGITIVE	135697	575120	1	not assigned	TANKS AND VESSELS			
				2	not assigned	TANKS AND VESSELS			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
					0	78	.0325	1	

Source (Process) Listing

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-291A001 001	1	PROCESS AND PRODUCTION	24	7	52	DISPERSABLE CONTAMINATION IN PUREX CANYON

Figure I-6. AEI report - Example 4, Emission Point Coordinates.

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AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Hanford Site Air
 Operating Permit Application

Insignificant Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200E P-LERF 001	1	PROCESS AND PRODUCTION	.000047000 1.700000000	.000047000 1.700000000	RUTHENIUM - 106 TRITIUM (HYDROGEN - 003)

Insignificant Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-LERF 001	1	PROCESS AND PRODUCTION	.000000000	.000000000	NITROSDIMETHYLAMINE
Sum			.000000000	.000000000	

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-LERF 001	1	PROCESS AND PRODUCTION	.110000000	.110000000	AMMONIA
Sum			.110000000	.110000000	

Control Device Listing

Em Point	Control Equipment Code
200E P-204AR 001	099
200E P-241A101 001	099
200E P-241A102 001	099
200E P-241A103 001	099
200E P-241A104 001	099
200E P-241A106 001	099
200E P-241AX101 001	099
200E P-241AX102 001	099
200E P-241AX103 001	099
200E P-241AX104 001	099
200E P-241B101 001	099
200E P-241B102 001	099
200E P-241B103 001	099
200E P-241B104 001	099
200E P-241B105 001	099
200E P-241B106 001	099
200E P-241B107 001	099
200E P-241B108 001	099
200E P-241B109 001	099
200E P-241B110 001	099
200E P-241B111 001	099
200E P-241B112 001	099

Control Equipment Code

Figure I-7. AEI report - Example 5, Control Equipment Code.

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CHAPTER II
REGULATORY REQUIREMENTS

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CHAPTER II. REGULATORY REQUIREMENTS

This chapter identifies the applicable requirements for each emission point with emission limitations and other regulatory requirements that apply to airborne emissions of regulated pollutants on the Hanford Site. This chapter is intended to fulfill the requirements of Chapter II of Ecology's Instructions (Instructions). The first part of the chapter is organized as a series of tables that list emission point or process, the applicable requirements, the requirement citation, a brief description of the compliance methods, and the compliance status of the emission point or process. The tables have been designed to follow Form C-2 as much as possible.

For the benefit of the permitting agencies, the Chapter II.B tables are divided into separate tables of radionuclide airborne emission applicable requirements and hazardous air pollutant (HAP) applicable requirements. Tables II.B-1, II.B-2, and II.B-3 are intended to fulfill the requirements of Chapter II, Sections B of the Instructions. The Washington State Department of Health (DOH) regulates the radionuclide airborne emissions from the Hanford Site and the Washington State Department of Ecology (Ecology) regulates the criteria pollutants and HAP emissions. A memorandum of understanding between the two agencies provides the framework for the dual nature of air emission regulation of the Hanford Site. In addition, Region 10 of the U.S. Environmental Protection Agency (EPA) also regulates airborne radionuclide emissions.

II.A. DESCRIPTION OF EMISSION POINT

The description for each emission point is contained in the AEI reports located in each subappendix for each operational area (Appendix C through J). As explained previously, an equivalent method of reporting the same information was used.

II.B. APPLICABLE REQUIREMENTS

II.B.1. Radioactive Airborne Emissions and Notice of Construction Review

The DOH regulates airborne radionuclide emissions on the Hanford Site and has permitted the emissions through permit number FF-01. The FF-01 permit expires in 1997 or when replaced by the Air Operating Permit. Table II.B-1 provides a list of the radionuclide air emission units, demonstration of compliance status with Permit FF-01, and other applicable radionuclide air emission regulations and statutes.

The first part of Table II.B-1 lists the applicable radionuclide emission limitations, the radionuclide emission units on the Hanford Site, and the compliance demonstration methods for the emission units. The second part of the table identifies specific projects and approval conditions specified through the Notice of Construction approval process. This section also provides descriptions of the compliance demonstration methods and the compliance status.

Where Table II.B-1 indicates an emission unit is not in compliance with the measurement requirements, please refer to Chapter II, Section II.E.5 for the Compliance Plan and Appendix B for the Compliance Schedule description.

II.B.2. Nonradioactive Airborne Emissions and Notice of Construction Review

Ecology regulates the nonradionuclide air emissions of regulated pollutants on the Hanford Site. A list of the nonradionuclide regulated pollutants is provided in Chapter V, Table V.A-2.

Table II.B-2 provides regulations and emission limitations of the regulated pollutants to specific emission units. The first part of the table provides the emission unit identification, the emission limits or regulations that apply to the emission unit, the compliance method, and the compliance status. This table was designed to follow the format specified in Form C-2.

The second part of Table II.B-2 provides the list of emission units or projects with applicable requirements imposed through the Notice of Construction approval process. Included are the conditions of approval, allowable limits, the monitoring requirements, and a compliance demonstration.

Where indicated that an emission unit is not in compliance with the applicable requirement, refer to Chapter II, Section II.E.5 for the Compliance Plan and Appendix B for the Compliance Schedule description.

II.B.3. Special Requirements

Table II.B-3 identifies those requirements that fall under the jurisdiction of the local air pollution control authority. These requirements include such regulations as open burning and asbestos control. These items are included for completeness only because the local air pollution authority is not required to issue approval for the Application.

II.C. EXEMPTIONS

The DOE-RL is not requesting any exemptions for the Hanford Site.

II.D. INAPPLICABLE REQUIREMENTS

The DOE-RL has compiled inapplicable requirements in Table II.D-1. The permit shield for inapplicable requirements is as follows:

Permit Shield Request:

The DOE-RL requests that it and its contractors be shielded from enforcement actions where identified rules are not applicable to a source.

II.E. COMPLIANCE PLAN

II.E.1. Status

The status of compliance with applicable requirements is provided in Tables II.B-1, II.B-2, and II.B-3 for source specific requirements.

II.E.2. Compliance Methods

II.E.2.1 Insignificant Emission Units and Activities

The following limits or standards apply to insignificant emission units and activities on the Hanford Site. Compliance with the standards is required, however, no monitoring is required for insignificant emission units. The applicable requirements for radionuclide air emission units is provided in the Emission Point Compliance Demonstration portion of Table II.B-1.

Applicable requirements	Pollutant/	Limit/	Monitoring/ Compliance Method
<u>Non-radiological emission units</u>			
WAC 173-400-040(1)	Opacity	20%	None
WAC 173-400-040(2)	Fallout	BMP	None
WAC 173-400-040(3)	Fugitive emissions	BMP	None

WAC 173-400-040(4)	Odor	BMP	None
WAC 173-400-040(6)	SO ₂	1,000 ppm	None
WAC 173-400-040(8)	Fugitive dust	BMP	None

II.E.2.2 Significant Emission Units and Activities

The following limits or standards apply to emission sources not categorically exempt from inclusion in this Application or identified as insignificant emission units in Chapter IV. The limits also do not apply if an alternative limit or standard for the same pollutant is identified for an emission unit listed in the Notice of Construction Review portions of Tables II.B-1 or Table II.B-2. The applicable requirements for radionuclide air emission units is provided in the Emission Point Compliance Demonstration portion of Table II.B-1.

Applicable requirements	Pollutant/ parameter	Limit/ standard	Monitoring/ Compliance Method	Frequency
<u>Non-radiological emission units</u>				
WAC 173-400-040(1)	Opacity	20%	Visual surveys & excess emission reporting	1/6 months
WAC 173-400-040(2)	Fallout	BMP	Complaint investigation & recordkeeping	
WAC 173-400-040(3)	Fugitive emissions	BMP	Visual survey, complaint investigation & recordkeeping	
WAC 173-400-040(4)	Odor	BMP	Complaint investigation & recordkeeping	

Opacity Monitoring

Opacity monitoring for emission units will consist of a combination of visual surveys and excess emission reporting. Excess emission reporting will be according to the procedures previously established with Ecology.

BMP

Best management practices (BMP) to control fugitive particulate emissions and fugitive dust include operational control programs such as wetting disturbed soil areas using water trucks, water wagons, or sprinkler systems to reduce fugitive dust and fugitive emissions.

SO₂

This emission standard applies to all Hanford Site emission units. Not all Hanford Site emission units are tested for SO₂ for the following reasons. It is assumed that the emission points on the Hanford Site with the greatest potential to emit SO₂ are the combustion sources. Source tests are performed periodically at the Hanford Site steam generating facilities. The 200 Area coal-fired boilers are tested biannually and the results of the last test are presented in the Emission Point Compliance Review section of Table II.B-2 and demonstrate that these emission points are well below the 1,000 ppm standard. The 200 Area package boiler, emission point 200W F-284W 005, test requirements are also identified in the Notice of Construction Review section of Table II.B-2.

The oil-fired boilers in the 300 area are the largest combustion units in terms of No. 6 fuel oil usage. It is also assumed that No. 6 fuel oil represents the fuel with the highest sulfur content burned on the Hanford Site. The SO₂ emissions from 300 F-384 005 were measured during a recent source test conducted on February 25 - 26, 1995 with written results of the tests received on about May 3, 1995. This test of the 300 Area boiler demonstrated that the SO₂ emissions from emission point 300 F-384 005 was 1,060 ppm, slightly higher than the 1,000 ppm limit. The results are reported in the Emission Point Compliance Review section of Table II.B-2. The compliance schedule milestone is presented in Appendix B. Based on the above assumptions and testing results described above, DOE/RL believes other Hanford Site combustion sources and emission units not burning No. 6 fuel oil, e.g. internal combustion engines, are in compliance with the 1,000 ppm SO₂ limit.

Frequency

The frequency of Method 9 visual emission surveys shall be once every six months (1/6 months). The survey will be performed during normal operating conditions. This emission survey will document that the facility complies with the opacity standard during normal operations.

The limits or standards and the corresponding monitoring or compliance methods listed in this section apply to the following emission units unless an alternative limit is identified in Table II.B-1 or Table II.B-2. Historic reviews of the coal and oil-fired boilers have revealed that these units are grandfathered from the New Source Performance Standards. It has also been

determined that there have been no past modifications to the boilers that would have required Prevention of Significant Deterioration review or permitting.

<u>Emission Unit</u>	<u>Emission Unit</u>
200E F-284E 001	300 F-384 001
200E F-284E 002	300 F-384 002
200E H-200E002 001	300 F-384 005
200E K-200E001 001	300 F-384 006
200W F-284W 001	300 K-3709 001
200W F-284W 002	400 K-4722C 001
200W H-200W007 001	1100 P-1167 001
200W K-200W003 001	
100D F-525 001	400 E-1500 002 (DG-2)
200W E-947 001	400 E-1500 001 (DG-1)
200E E-670 001	400 E-425 001 (G-3)
200E E-500 001	300 E-1000 001
200E E-600 001	300 E-1450 001
200E E-565 001	300 E-900 003
200E E-565 002	300 E-900 002
300 E-900 001	

II.E.3. Compliance Certification and Reporting Requirements

II.E.3.1. Semiannual report

The semiannual report will contain the results of required and enhanced monitoring. The report will contain the monitoring results in curies from the radionuclide emission units designated as major stacks according to the most current quarterly report required by the compliance plan schedule (Appendix B).

The semiannual report also will include the semiannual requirement to report of portable and temporary radionuclide airborne emission unit (PTRAEU) usage. This report will also include monitoring results from enhanced monitoring programs when these programs become applicable to Hanford Site nonradionuclide major emission units. This report will also contain a compliance certification. For the period January 1 through June 30, the compliance certification will be provided by August 30.

II.E.3.2. Annual Report

The annual report will consist of the annual Radionuclide Air Emission Report required by 40 CFR 61 Subpart H and WAC 246-247. The report also will consist of the Hanford Site

annual report of emissions from the boilers, including the annual source test results for the 200 West Backup Boiler. The report also will consist of the second semi-annual PTRAEU report of usage. The annual report also will contain the second semi-annual compliance certification. For the period July 1 through December 31, the compliance certification will be provided by June 30 to coincide with other required reporting requirements.

II.E.4. Enhanced Monitoring

The enhanced monitoring rule is not final at the time of Application preparation. When finalized, this rule will apply to major sources of hazardous air pollutant emissions. Those emission units that are affected by the enhanced monitoring rule will be reviewed at that time to determine compliance status with the requirements and the feasibility of applying the provisions to the units. The DOE-RL will comply with the requirements or terminate operation of the emission units within the timeframe allowed by the regulation, or develop and agree upon a compliance plan.

The emission units that might be impacted by the enhanced monitoring rule, when finalized, are as follows. (This list is not inclusive. Pending the final enhanced monitoring rules, this list might change.)

Emission point	Pollutant	Emission point	Pollutant
200E F-284E 001	Carbon monoxide NOx SO ₂	300W F-384E 002	Carbon monoxide NOx SO ₂
200E F-284E 002	Carbon monoxide NOx SO ₂	300W F-384E 005	Carbon monoxide NOx SO ₂
200W F-284E 001	Carbon monoxide NOx SO ₂	300W F-384E 006	Carbon monoxide NOx SO ₂
200W F-284E 002	Carbon monoxide NOx SO ₂		
200E H200E002 001	Carbon monoxide	200W H-200W007 001	Carbon monoxide

II.E.5. Compliance Plan and Schedule

The following is the compliance plan for the Hanford Site. The compliance schedule is located in Appendix B.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 10
AND
WASHINGTON STATE DEPARTMENT OF ECOLOGY
AND
WASHINGTON DEPARTMENT OF HEALTH

In the Matter of:	)	
	)	FEDERAL FACILITY
U.S. DEPARTMENT OF ENERGY	)	COMPLIANCE PLAN
Richland Operations Office	)	FOR WASHINGTON STATE
Richland, Washington	)	AIR OPERATING PERMIT

I. Introduction

1. The United States Environmental Protection Agency (EPA), Washington State Department of Ecology (Ecology), Washington State Department of Health (DOH) and the U.S. Department of Energy, (DOE) Richland Operations Office (RL) are the parties to this Federal Facility Compliance Plan (Compliance Plan), entered into pursuant to Executive Order 12088, October 13, 1978, (43 Federal Register 47707) and the Clean Air Act (CAA), as amended, 42 United States Code (U.S.C.) 7401 et seq., and Revised Code of Washington (RCW) 70.94 et seq. The Office of Management and Budget and the Department of Justice will be notified of this Compliance Plan consistent with their respective duties under Executive Order 12088 to assure compliance at federal facilities with the environmental laws.
2. This Compliance Plan is entered into by the parties to bring the Hanford Site into compliance with the CAA, as amended, 42 U.S.C. 7401 et seq., and RCW 70.94 et seq., and their implementing regulations at 40 Code of Federal Regulations (CFR) Part 70, State Operating Permit Programs, and WAC 173-401, Operating Permit Regulations. The terms of this Compliance Plan shall apply to and be binding upon EPA, Ecology, DOH and DOE.
3. DOE shall notify its current agents, employees, and contractors, and any subsequent operating contractors, owners, operators, management, and lessees, who have responsibility for meeting operating permit requirements, of the existence of this compliance plan. DOE shall take all appropriate measures to ensure that its contractors

performing work under this compliance plan act in a manner consistent with the terms of this Compliance Plan and the CAA and its implementing regulations. Except as stated, this Compliance Plan does not relieve DOE of any legal obligations under the CAA.

4. The duty of DOE to operate its facilities in compliance with the CAA is prescribed in Section 118 of the CAA, 42 U.S.C. 7418 and section 161 of RCW 70.94. Executive Order 12088 was issued to ensure federal compliance with applicable pollution control standards. This Compliance Plan is the "plan" as described in Section 1-601 of Executive Order 12088 to achieve and maintain compliance at the Hanford Site with applicable requirements under the CAA, as amended, its implementing regulations, and Executive Order 12088.
5. DOE agrees that EPA, Ecology and DOH have authority to enter its facilities on the Hanford Site, to bring enforcement actions, and to respond to emergency situations regarding matters covered by this Compliance Plan. DOE specifically reserves the right to contest any determinations, allegations, findings of fact, and conclusions of law in any proceeding other than actions brought by EPA, Ecology and DOH to enter or enforce this Compliance Plan or to respond to emergency situations regarding matters covered by this Compliance Plan. Nothing in this plan shall prevent any person from using for any purpose independent evidence that verifies the statement of facts contained herein.

II. Definitions

6. Except as provided below or otherwise explicitly stated herein, the definitions provided in the CAA and its implementing regulations shall control the meaning of the terms used in this Compliance Plan.
7. Compliance Plan shall mean this document and shall include all appendices to this document referred to herein. All such appendices shall be appended to and made an enforceable part of this Compliance Plan.
8. Days shall mean calendar days, unless business days are specified. Any submittal or written statement of dispute that under the terms of this Compliance Plan would be due on a Saturday, Sunday, or holiday shall be due the following business day.
9. DOE shall mean the U.S. Department of Energy, including its Richland Operations Office.
10. DOH shall mean the Washington Department of Health and its authorized representatives.

11. Ecology shall mean the Washington State Department of Ecology and its authorized representatives.
12. EPA shall mean the United States Environmental Protection Agency, Region 10 and its authorized representatives.
13. Parties shall mean EPA, Ecology, DOH and DOE.

III. Statement of Facts and Conclusions of Law

14. DOE is a department, agency or instrumentality of the executive branch of the federal government and must comply with the requirements of the CAA, as amended, 42 U.S.C. 7401 et seq. and RCW 70. 94 et seq., and their implementing regulations.
15. The Hanford Site is located in southeastern Washington State and is situated approximately 200 miles northeast of Portland, Oregon; 170 miles southeast of Seattle, Washington; and 120 miles southwest of Spokane, Washington. The site encompasses approximately 560 square miles.
16. The Hanford Site was acquired by the federal government in 1943 for construction and operation of facilities to produce plutonium for the atomic weapons program during and following World War II. Programs at the Hanford Site involve research and development, renewable energy technologies, waste disposal and cleanup of contamination from past practices.
17. The Hanford Site is owned and operated by the United States and was part of the DOE nuclear weapons complex.
18. DOE is an "owner or operator" of a "major source" covered by the air operating permit regulations as those terms are defined at 40 CFR Part 70 and WAC 173-401.
19. On July 21, 1992, EPA promulgated the State Operating Permit Program Regulations--40 CFR Part 70. On December 9, 1994, EPA delegated authority to implement the operating air permit program to Washington State. Under the Air Operating Permit rules and in addition to other requirements, major sources must certify compliance with all applicable CAA regulations. For items not in compliance major sources must schedule corrective actions.
20. WAC 173-401-615 refers to monitoring and related recordkeeping and reporting of major source emissions. These monitoring requirements become effective upon issuance of the air operating permit.

IV. Compliance Plan Schedule

21. The Compliance Plan Schedule for the Hanford Site is intended to bring the Hanford Site into compliance as expeditiously as practical, pursuant to Section 1-601 of Executive Order 12088, and as set forth in the Compliance Schedule.
- h The DOE and EPA have entered into a separate agreement to bring the Hanford Site into compliance with the CAA, as amended, 42 U.S.C. 7401, et seq., and its implementing regulations at 40 CFR 61, National Emission Standards for Hazardous Air Pollutants (NESHAP). The terms of the NESHAP Agreement continue to apply to and to bind the DOE and EPA.
22. The Compliance Plan provides a schedule for DOE to review specified air emission sources to validate that those sources are compliant with all applicable regulations. For applicable requirements with which a source is in compliance, the sources will continue to meet such requirements barring force majeure, funding cuts, accident events, etcetera. The Compliance Plan establishes a schedule for DOE to come into compliance with all applicable regulations where non-compliances have been identified and validated. DOE will come into compliance with newly promulgated regulations in a timely manner.
23. The Air Operating Permit Application provides the current list of those emission sources required to be registered under WAC 173-400-100 for the Hanford Site. Inclusion of an air emission source in the Air Operating Permit Application is equivalent to separate registration notification.
24. Prior failure to file miscellaneous reports or notifications for unknown minor modifications are not considered continuing violations of applicable requirements. The Compliance Plan addresses corrective actions designed to assure future compliance with all applicable notification and reporting requirements.

V. Reporting

25. DOE shall submit certified semi-annual progress reports to EPA, Ecology and DOH, as appropriate, beginning 180 days after the effective date of this compliance plan, that describe the progress made during the previous 6 months towards meeting the requirements of this compliance plan. The reports shall be submitted by the 10th day of each month following the last day of the last month of the reporting period until compliance with the requirements contained in the Compliance Schedule has been achieved. The reports shall also indicate compliance or noncompliance with the schedule.

VI. Notification

26. All communications between DOE, EPA, Ecology and DOH and all documents, progress reports, approvals, and other correspondence concerning the activities

performed pursuant to the terms and conditions of this Compliance Plan shall be directed through the representatives listed below.

For EPA: (Name, title, address)

For Ecology: (Name, title, address)

For DOH: Susan May,
Department of Health
Radiation Protection Division
Airdustrial Park, Bldg. 5
P. O. Box 47827
Olympia, WA 98504-7827

For DOE: Paul Krupin, Acting Air Permitting Specialist
U.S. Department of Energy
Richland Operations Office
P.O. Box 550
Richland, Washington 99352

VII. Extensions

27. Any request for an extension of a deadline for 30 days or more shall be made in writing and received by EPA, Ecology or DOH at least 30 days prior to the deadline. EPA, Ecology or DOH will render its decision within 21 days of receipt of the extension request. Any request for an extension of a deadline for less than 30 days shall be made, either orally or in writing, at least seven days prior to the deadline. EPA, Ecology or DOH will respond to the request, either orally or in writing, prior to the due date. If EPA, Ecology or DOH respond orally they shall confirm their approval in writing. No more than one extension based on an oral request shall be given for each deadline. Any request for an extension shall be provided to the parties in accordance with Section VI (Notification). The request shall specify:
- a. The deadline that is sought to be extended.
 - b. The length of the extension sought.
 - c. The justification for the extension, and
 - d. Any subsequent deadlines and/or related schedule(s) that would be affected if the extension was or was not granted.
28. Good cause may exist for an extension when sought in regard to:
- a. An event of force majeure (an unexpected or unforeseeable event or circumstance which is beyond the control of DOE and which could not have been overcome by the due diligence of DOE). If DOE requests an extension of a deadline set forth in this Compliance Plan under this paragraph, DOE shall bear the burden of proof that the delay was caused by an event of force majeure.

1. As soon as DOE becomes aware of an event of force majeure which may necessitate extending a deadline or deadlines, DOE shall notify within 3 business days the EPA, Ecology and DOH representative identified in paragraph 26 in writing. Such notification shall describe the cause and duration of the anticipated delay, the measures taken or to be taken to mitigate the anticipated delay, and the schedule for implementation of mitigation measures.
 2. If EPA, Ecology or DOH determine that an event of force majeure necessitates extension of a deadline or deadlines, EPA, Ecology and DOH shall modify the associated deadline(s), as necessary, to conform with the delay.
 3. If EPA, Ecology and DOH determine that the delay or anticipated delay has not been or will not be caused by a force majeure event, the existing deadline(s) shall remain in force. EPA, Ecology and DOH shall notify DOE of their determination in writing.
 4. In the event that DOE disagrees with any determinations made by EPA, Ecology or DOH pursuant to this Section, DOE may utilize the Dispute Resolution section (Section IX) of this Compliance Plan to resolve such dispute.
- b. A delay caused by the good faith invocation of dispute resolution or the initiation of administrative or judicial action.
 - c. A delay caused, or which is likely to be caused, by the grant of an extension in regard to another schedule.
 - d. A delay caused by additional work agreed to by the parties, and
 - e. Any other event or series of events mutually agreed to by the parties as constituting good cause.
29. Absent agreement of the parties with respect to the existence of good cause, the parties may seek and obtain a determination through the dispute resolution process whether or not good cause for an extension exists. DOE may invoke dispute resolution within 14 days of EPA's, Ecology's or DOH's decision on the extension request. If DOE fails to invoke dispute resolution within the 14 day period, DOE is deemed to accept EPA's, Ecology's or DOH's nonconcurrence and the existing schedule.
 30. If EPA, Ecology or DOH determine that the requested extension is warranted, the parties shall extend the affected schedule accordingly. If EPA, Ecology, or DOH determines that all or part of the requested extension is not warranted, the schedule shall

not be extended except as set forth in paragraph 26 of this section or in accordance with a determination resulting from the dispute resolution process.

31. When a timely request for an extension is made, EPA, Ecology and DOH shall refrain from requesting judicial enforcement against DOE or any of its contractors of the affected schedule until a decision is reached on whether the requested extension will be approved. Following the grant of an extension, judicial enforcement may be sought only to compel compliance with the schedule as most recently extended.
32. For extension requests by EPA, Ecology or DOH, if DOE does not deny or invoke dispute resolution within 14 days after written notice of the requested extension, the extension shall be deemed approved.

VIII. Modification, Assignment and Termination of Compliance Plan

33. This Compliance Plan may be modified only by agreement of the parties. All modifications shall be in writing and shall be effective when signed by all parties, or, in the case of an oral approval of an extension request, upon oral approval of the extension.
34. Except as otherwise set forth herein, this Compliance Plan shall terminate upon completion of the activities referenced in Section IV (Compliance Schedule).
35. This Compliance Plan may be terminated at any time upon mutual agreement of the parties.
36. Except as otherwise set forth in this Compliance Plan, the parties agree, subject to relevant considerations, including the facts, circumstances, and status of DOE's compliance with this Compliance Plan, to meet and negotiate in good faith the amendment of this Compliance Plan.
37. DOE warrants that it has exercised good faith and due diligence in identifying and providing information regarding major source air emissions at the Hanford Site. In the event that, despite the exercise of due diligence, previously unknown facts and conditions are discovered which demonstrate a material noncompliance with the air emission standards that has not previously been reported or known to EPA, Ecology or DOH, DOE shall notify EPA, Ecology or DOH, as appropriate, orally within 48 hours, and the parties agree to meet within 14 days to negotiate in good faith any modification of this Compliance Plan if needed to incorporate such facts and conditions. Any such modification agreed to under this section shall be governed by the provisions of this Compliance Plan.
38. Upon delegation of authority for 40 Code of Federal Regulation (CFR) 61 from EPA to the Washington State Department of Health (DOH), EPA's rights and responsibilities

under this Compliance Plan are assigned to Ecology and DOH. No formal written record of the assignment to DOH shall be required from either EPA or DOE; the assignment shall be effected by the general delegation of program authority. Ecology and DOH shall provide to EPA and DOE written acceptance of the assignment within 30 days of delegation.

IX. Dispute Resolution

39. Except as specifically set forth elsewhere in this Compliance Plan, if a dispute arises among the parties to this Compliance Plan, the procedures of this section (IX. Dispute Resolution) shall apply.
40. If a dispute arises, the disputing party/parties shall engage the other parties of interest in informal dispute resolution. Such interaction shall be between the appropriate EPA, Ecology, DOH and DOE representatives identified in Section VI (Notification) or their immediate supervisor for no more than 30 days. During this informal dispute resolution period, EPA, Ecology or DOH and DOE shall meet with each other and as many times as necessary to discuss and attempt resolution of the dispute.
41. Within 30 days (as identified in paragraph 40) after any action which leads to or generates a dispute, the disputing party shall submit to the other party/parties of interest a written statement of dispute setting forth the nature of the dispute, the work affected by the dispute, the disputing party's position with respect to the dispute and the information which the disputing party is relying upon to support its position.
42. If the dispute is not resolved informally between the interested parties, the disputing party shall forward the written statement of dispute to the Dispute Resolution Committee (DRC) for resolution. The written statement of dispute shall set forth the nature of the dispute, the disputing party's position, with respect to the dispute, the information the disputing party is relying on to support its position, and a description of the steps taken to try to resolve the dispute. Upon submission of a dispute to the DRC, the other party/parties of interest shall, within 14 days, submit a written statement formally establishing its/their position on the dispute.
43. The DRC shall serve as a forum for disputes that have not been resolved informally. The DRC shall be composed of one representative and one alternate representative from EPA, Ecology, DOH and DOE. The individuals designated to the DRC Committee shall be employed at the policy level or delegated authority to participate on the DRC for the purposes of dispute resolution.

EPA's representative shall be the _____(title).

Ecology's representative shall be the _____(title).

DOH's representative shall be the _____(title).

DOE's representative shall be the _____(title).

If any delegation of this responsibility is made by a designated DRC representative, notification of such delegation shall be supplied to the other parties. The DRC Committee shall elect a Dispute Chairperson for each dispute.

44. Following elevation of a dispute to the DRC, the DRC shall have 21 days to unanimously resolve the dispute and issue a written position. If the DRC is unable to unanimously resolve the dispute within this 21-day period, the DRC Dispute Chairperson shall issue a written position on the dispute by the 28th day following submittal. Within 14 days after receipt of the DRC Dispute Chairperson's written position, The disputing party may submit a written notice of dispute to the Senior Executive Committee (SEC) for resolution. In the event that the dispute is not escalated to the SEC within the designated 14-day period, disputing party shall be deemed to have agreed with the DRC position with respect to the dispute.
45. The SEC shall serve as the forum for resolution of disputes for which no resolutions have been achieved in the DRC. The SEC shall be composed of a representative from EPA, Ecology, DOH and DOE.

EPA's SEC representative shall be the Administrator of EPA for Region 10.

Ecology's SEC representative shall be the Director of Ecology.

DOH's SEC representative shall be the Director of DOH.

DOE's SEC representative shall be the Richland Field Operations Manager.

The SEC representatives shall meet, confer, and make their best efforts to resolve the dispute and issue a written decision. If unanimous resolution of the dispute is not reached within 21 days, the Ecology Director shall issue a written position on the dispute within 14 days following the 21-day resolution process. Upon request and prior to resolution of the dispute the Ecology Director may meet with DOE and other interested parties to discuss the matter, but any such meeting will not automatically extend the deadline by which the director must make a decision. Time for issuing a final decision may be extended upon notice to the other parties. If the dispute involves a decision where EPA or DOH serve as the lead agency, the Ecology Director will consult with the Administrator of EPA Region 10 or the Director of the DOH before

issuing a final decision. In the case of DOE, all parties agree that this final decision or determination shall be deemed to have been decided as an adjudicative proceeding and that DOE may challenge Ecology's final decision or determination as provided by and subject to the standards contained in Chapter 34.05 RCW. If DOE objects to the decision or determination, DOE may file an appeal, at DOE's discretion in either the Pollution Control Hearings Board (PCHB) or in the courts. If DOE elects to file an appeal from the decision directly in the courts, Ecology agrees it will not raise an argument that initial jurisdiction of the matter should be with the PCHB.

46. DOE may, within 14 days of the receipt of the SEC written position, issue a written notice elevating the dispute to the Administrator of EPA, Ecology or DOH for resolution in accordance with all applicable laws and procedures. If DOE does not elevate the dispute to the Administrator of EPA, Ecology or DOH within the timeframe designated, DOE shall be deemed to have agreed with the SEC written position with respect to the dispute.
47. Upon escalation of a dispute to the Administrators pursuant to this section, the Administrators will review and resolve the dispute within 21 days. Upon request, and prior to resolving the dispute, the EPA, Ecology or DOH Administrators shall meet and confer with the Secretary of Energy to discuss the issue(s) under dispute. Upon resolution, the EPA, Ecology or DOH Administrator shall provide DOE with a written final decision setting forth resolution of the dispute.
48. The pendency of any dispute under this Section shall not affect the parties' timely performance of their respective responsibilities pursuant to this Compliance Plan, except that the time period for completion of work affected by such dispute(s) shall be extended for a period of time not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the work required by this Compliance Plan which are not affected by the dispute shall continue and be completed in accordance with the applicable schedule. The determination of elements of work, submittal, or actions affected by the dispute shall be determined by EPA, Ecology, DOH and DOE pending final resolution of the dispute.
49. When dispute resolution is in progress, work affected by the dispute will be immediately discontinued if the EPA, Ecology or DOH DRC representatives request, in writing, that work related to the dispute be stopped because, in EPA's, Ecology's or DOH's opinion, such work is inadequate or defective, and such inadequacy or defect is likely to yield an adverse effect on human health or the environment. To the extent possible, EPA, Ecology or DOH shall give the DOE DRC representative prior notification that a stop-work request is forthcoming. After stopping work, if DOE believes that the stop-work request is inappropriate or may have potential significant adverse impacts, DOE may meet with the EPA, Ecology and DOH DRC representatives to discuss the stop-work request. Following this meeting, and further consideration of the issues, the EPA, Ecology or DOH DRC representative will issue, in writing, a final

decision with respect to the stop-work request. The final written decision to stop work may be immediately subjected to formal dispute resolution. Such dispute resolution may be brought directly to either the DRC or the SEC, at the discretion of DOE.

50. Within 30 days following the resolution of a dispute pursuant to the procedures specified in this section, DOE shall incorporate the resolution and final determination into the appropriate plan, schedule, or procedures and proceed to implement this Compliance Plan according to the amended plan, schedule, or procedures.
51. Resolution of a dispute pursuant to this section of the Compliance Plan shall be in accordance with all applicable laws, regulations, and requirements and constitutes a final resolution of any dispute arising under this Compliance Plan. The parties shall abide by all terms and conditions of any final resolution of dispute obtained pursuant to this section of the Compliance Plan. Such resolution shall contain a finding as to whether or not the invocation of this section was made in good faith.

X. Funding

52. DOE shall take all necessary steps to obtain timely funding in order to fully meet its obligations under this Compliance Plan. This shall be accomplished in the following manner:
 - A. In its annual budget request, DOE shall include estimated funding levels required to achieve full compliance with this agreement.
 - B. In the process of formulating its annual budget request, DOE may be subject to target funding guidance directed by the Office of Management and Budget (OMB). When DOE's target budget case differs from its full compliance funding case, the Parties agree to attempt to reach agreement regarding workscope, priorities, schedules/milestones, and Activity Data Sheet (ADS) funding levels required to accomplish the purpose of the Compliance Plan, provided satisfactory progress has been made in controlling costs in accordance with the cost efficiency initiatives. These discussions shall be conducted before DOE-RL submits its annual budget request and supporting ADSs to DOE Headquarters (DOE-HQ) under signature of the DOE-RL manager.
 - C. DOE-RL will submit its budget request with detailed ADSs, identifying both target and compliance funding levels, to DOE-HQ and identify any unresolved issues raised by Ecology and EPA. If these issues are not subsequently resolved prior to DOE's submission of its budget request to OMB, DOE-HQ will also identify these issues and the funding required for compliance to OMB.
 - D. In determining the workscope, priorities, and schedules, the Parties shall consider the values expressed by the Hanford stakeholders.

E. The Parties recognize that successful implementation of this Compliance Plan is dependent upon the prudent use of resources, and that resource requirements and constraints should be considered during the work planning, budget formulation, and budget execution process. To ensure the development of responsible budget requests, consistent with the requirements of this Compliance Plan and applicable federal/state statutes, the Parties will work cooperatively and in good faith.

53. The purpose of this paragraph is to establish a mechanism that will help assure adequate progress toward meeting the requirements of this Compliance Plan. It provides for communication and consultation on work scope, priorities, schedules/milestones, and cost/funding matters. It further provides a means for performance measurement and for early identification of problems which could jeopardize compliance with the schedules and milestones of the Compliance Plan.

A. Within two weeks after DOE Headquarters (DOE-HQ) issuance of Environmental Management planning and/or budget guidance, including target level funding guidance, to the Richland Operations Office (DOE-RL), DOE-RL shall provide a copy of it to DOH, Ecology and EPA along with a preliminary assessment of its impacts. DOE-RL shall also provide a copy of its initial contractor budget guidance to DOH, Ecology and EPA within two weeks after issuance.

B. DOH, EPA and Ecology agree not to release confidential budget information to any other entities prior to submission by the President of his budget request to Congress, unless authorized by DOE or required to do so by court order. DOE shall seek to intervene in any proceeding brought to compel or enjoin the release of this information. If allowed to intervene, DOE shall assert its interest in, and the legal basis for, maintaining the confidentiality of this information.

C. As soon as possible after DOE-HQ issuance of its initial planning guidance but no later than two weeks prior to DOE-RL's submission of its budget request and supporting Activity Data Sheets to DOE-HQ, DOH, Ecology and EPA shall be given: 1) a management level briefing at the ADS level on the budget request, including workscope, priorities, schedules/milestones, and five year target and compliance cost/funding projections. DOE-RL shall, to the extent it deems appropriate, revise its budget request and ADSs, including workscope, to address or resolve DOH, Ecology and EPA comments prior to transmittal to DOE-HQ. DOE-RL shall notify DOE-HQ in its budget request of any comments not fully resolved to the satisfaction of all Parties, and shall identify full compliance funding levels.

D. Within 30 days after the President's submission of the budget to Congress, DOE-RL shall brief DOH, Ecology and EPA on the President's budget request at the ADS level detail. At this briefing, DOE-RL shall notify DOH, Ecology and EPA of any differences between the target and compliance case workscope and cost/funding levels submitted in accordance with subparagraph C. above, and the actual workscope and funding levels included in the President's budget request to Congress. DOE-RL shall also provide DOH, Ecology and EPA its assessment of the impacts such differences may have on DOE's ability to meet milestones or satisfy other requirements of this Agreement.

E. DOE shall notify and discuss with DOH, Ecology, and EPA, prior to transmittal to OMB, any budget amendment, supplemental appropriation request or reprogramming request and any corresponding impacts upon the workscope and schedules, and DOE's ability to meet milestones or other requirements of this Agreement with and without the amendment, supplemental appropriation or reprogramming request.

F. Within 30 days after congressional budget appropriation, DOE-RL shall brief DOH, Ecology and EPA on the budget appropriation and subsequent funding allocations for the new fiscal year at ADS level detail. If there is a delay in congressional appropriation after the start of the fiscal year, DOE-RL shall inform DOH, Ecology, and EPA of any congressional continuing resolution action, and the potential impacts, if any, on progress to achieve milestones and other requirements of the Compliance Plan. DOH, Ecology and EPA will be given timely opportunity to review and comment on these budget appropriation and funding allocation actions, and to make recommendations for reallocation of available funds.

G. If the Congressional budget appropriation differs from the funding levels required to comply with any milestones or other requirements of the Compliance Plan, DOE-RL shall take whatever action is appropriate under the Compliance Plan. The Parties shall attempt to reach agreement on adjustments in workscope or milestones consistent with the Congressional appropriation which will minimize impacts on the requirements of this Compliance Plan. If agreement cannot be reached, DOH, Ecology, and EPA reserve the right to take appropriate action as provided for in this Compliance Plan.

H. DOH, Ecology and EPA project managers shall meet periodically throughout the budget execution year to discuss the status of projects to be funded for the current fiscal year, and events that have affected, or may affect milestones or activity within such milestones.

I. In order to ensure continuing, effective and timely interface between DOE, DOH, Ecology and EPA regarding work scope planning/scheduling, budget/funding, current year performance status, milestone tracking, and notification of problem areas, DOE shall, unless otherwise agreed to, provide the following, or their equivalent, to DOH, Ecology and EPA:

1. Annual Multi-Year Program Plans, including ADS level funding projections, as soon as possible after their development;

2. Annual Fiscal Year Work Plans, including ADS level funding profiles, as soon as possible after start of each fiscal year;

3. The monthly Approved Funding Plan (AFP), at ADS level detail, within two weeks following the start of each month;

4. Monthly Site Management System reports shall be provided to DOH, Ecology and EPA to identify: any anticipated delays in meeting time schedules, the reason(s) for such delay and actions taken to prevent or mitigate the delay, and any potential problems that may result in a departure from the requirements and time schedules. In accomplishing this, the SMS reports shall, as a minimum, include for each program: monthly and cumulative budget, actual monthly and cumulative costs, performance

measurement information including explanations of cost/schedule variances, progress in achievement of milestones, and notification of problems and program/project delays. The appropriate contractor program managers shall sign the monthly Site Management Systems report. The signature block shall contain the statement: "The information contained within this report is complete and accurate to the best of my knowledge." At the monthly milestone review meetings, the appropriate DOE program manager will provide DOE's assessment of milestone progress and the extent to which DOE agrees or disagrees with the preceding month's SMS report. The assessment will be documented in meeting minutes signed by the three parties. With regard to these assessments, signature of the minutes by DOH, Ecology and EPA shall indicate only that the assessment information was provided by DOE. The monthly Site Assessment System report shall also be placed in the Public Information Repositories as identified in Section 2.0 of the Action Plan.

5. Upon request, DOH, Ecology and EPA shall be provided access to available information below the ADS level of detail.

J. During the budget execution year, DOE-RL shall notify DOH, Ecology and EPA of any proposed action to internally reallocate funding at ADS levels, if such an action significantly affects workscope and schedules.

K. Within 30 days following the completion of DOE's annual midyear management review (approximately April-May of each year), DOE-RL shall brief Ecology and EPA on any decisions that significantly affect milestones under this Compliance Plan.

L. As soon as possible following the end of each federal fiscal year, DOE-RL shall provide DOH, Ecology and EPA the fiscal year-end SMS report, and a summary briefing on the amount of funds that have been obligated and spent during the fiscal year ended and the work that has been performed. This summary shall include, at ADS level detail, actual versus planned expenditures for the fiscal year end; a summary of carryover amounts including those available for expenditures in the following budget execution year; and summaries/information explaining the extent of work planned versus work completed or performed during the year.

M. The parties agree to inform and involve the public and stakeholders at key stages of budget formulation and execution consistent with the Interim Report of the Federal Facilities Environmental Restoration Dialogue Committee.

N. The participation by DOH, Ecology and EPA in DOE's planning and budget formulation and execution process shall not affect DOE's authority over its budget and funding level submission.

XI. Other Applicable Laws

54. All actions required to be taken pursuant to this Compliance Plan shall be undertaken in accordance with the requirements of all applicable local, state, and federal laws and regulations. DOE shall obtain or cause its representatives to obtain all permits and approvals necessary under such laws and regulations.

XII. Other Claims

55. Except as specifically provided for in this Compliance Plan, nothing in this Compliance Plan shall constitute or be construed as a release from any other claim, cause of action or demand in law or equity against any person, firm, partnership, or corporation for any liability it may have arising out of or relating in any way to the release of any pollutants or contaminants from the Facility.

XIII. Access/Data/Document Availability

56. EPA, Ecology or DOH will be permitted to enter all areas of Hanford which emit pollutants, or which contain information referred to in this section. EPA, Ecology or DOH will be permitted to inspect records, logs, and other documents relevant to implementation of this Compliance Plan; verify compliance by DOE with this Compliance Plan; review the progress of DOE, its contractors, and lessees in carrying out the activities under this Compliance Plan; conduct tests which EPA, Ecology or DOH deem necessary; and verify data submitted to EPA, Ecology or DOH by DOE. DOE shall honor all requests for access to the Hanford Site made by EPA, Ecology or DOH, so long as the provisions of this section are fulfilled. When on site, EPA, Ecology or DOH shall comply with Occupational Safety and Health Administration (OSHA) rules, where applicable, and DOE site health and safety requirements. EPA, Ecology or DOH access shall be subject to the applicable requirements of the Atomic Energy Act (AEA), 42 U.S.C. 2011 et seq., and Executive Orders concerning the access to, and/or handling of unclassified controlled nuclear information, restricted data, and national security information.
57. DOE has provided to EPA, Ecology and DOH a protocol regarding health, safety, and security requirements at the Hanford Site and all appropriate application forms. The protocol includes a list of all necessary training courses, including agenda, to meet the requirements of the protocol. DOE shall provide notice to EPA, Ecology or DOH via certified mail, of any changes in that protocol at least 60 days before those changes become effective. Should DOE fail to provide Ecology or DOH with the required notice of change in protocol, DOE shall not deny EPA, Ecology or DOH access to the site so long as EPA, Ecology or DOH complies with the protocol in place immediately prior to those changes.
58. Information, records, or other documents produced under the terms of this Compliance Plan shall be available to the public except: (a) those identified to EPA, Ecology or DOH by DOE as classified, or unclassified but controlled, within the meaning of and in accordance with the AEA, (b) those that could otherwise be withheld pursuant to the Freedom of Information Act or the Privacy Act, unless expressly authorized for release by the originating agency, (c) those still considered to be in draft or unfinished form, (d) those containing attorney

work-product or attorney-client privileged material, or (e) those subject to business confidentiality claims. Documents or information so identified shall be handled in accordance with applicable regulations. No document marked draft may be made available to the public without prior written approval of the generating party. Unless otherwise restricted by Subsections (a), (b) and (d), if the document is draft final (pending public review) or final and no confidentiality claim under Subsection (e) accompanies information which is submitted to any party, then the information may be made available to the public without further notice to the originating party. EPA, Ecology or DOH reserve its right to seek or otherwise obtain access to such information or facilities in accordance with applicable law.

XIV. Civil Enforcement Actions and Reservation of Rights

59. Based on the facts and circumstances known to EPA, Ecology or DOH as of the effective date of this Compliance Plan, and as set forth in this Compliance Plan, EPA, Ecology and DOH hereby agree not to initiate any civil administrative enforcement action against DOE or any of its contractors, or to refer a civil judicial enforcement action against DOE or any of its contractors to the Department of Justice, for the air emission deficiencies at Hanford that are the subject of this Compliance Plan for so long as DOE is in compliance with the requirements of this Compliance Plan.
60. However, in the event that DOE is delayed in fulfilling its obligations as set forth in this Compliance Plan as a result of insufficient availability of funding, and the parties are unable to agree to an extension of schedules as provided for in Section VII (Extensions), the covenant set forth in paragraph 59 shall terminate in accordance with paragraph 67.
61. The Air Operating Permit Application provides the complete list of those emission sources required to be registered under WAC 173-400-100 for the Hanford Site. Inclusion of an air emission source in the Air Operating Permit Application is equivalent to separate registration notification.
62. Prior failure to file previous minor notifications or reports is not considered a violation of the Air Operating Permit. Included in the Compliance Plan Schedule is a corrective action which will assure that pertinent air management systems and procedures will be assessed and corrected so that failure to file such notices will not occur in the future without the collaboration of EPA, Ecology or DOH.
63. Further, nothing herein shall preclude any actions by EPA, Ecology or DOH to enforce the terms of this Compliance Plan, or to address or bring any legal or equitable claim for (1) any pre-existing, current or future violations or conditions at the facility not specifically covered by this Compliance Plan, or (2) any emergency condition or imminent hazard that may exist or arise at the facility.

64. This covenant does not apply to any matters not covered by this Compliance Plan.

XV. Severability

65. If any provision or authority of this Compliance Plan or the application of this Compliance Plan to any party or circumstance is held by a judicial or administrative authority to be invalid, the application of such provisions to other parties or circumstances and the remainder of the Compliance Plan shall remain in force and shall not be affected thereby.

XVII. Sanctions

66. In the event that DOE fails to bring the facility into full compliance with the regulatory requirements as specified in this Compliance Plan within the time periods indicated herein, subject to the Funding, Modification, Extensions, Dispute Resolution Sections or the terms and conditions of this Compliance Plan, EPA, Ecology and DOH reserve the right to pursue any remedies that it may have pursuant to Federal law.
67. In the event that DOE fails to comply with the schedules set forth herein, subject to the Funding, Modification, Extensions Dispute Resolution Sections or the terms and conditions of this Compliance Plan, the parties agree that EPA, Ecology and DOH shall have the right to terminate this Compliance Plan by written notice to the parties.

XVIII. Termination and Satisfaction

68. Upon completion of the actions required under Section IV (Compliance Plan Schedule), DOE will submit a final progress report to EPA, Ecology and DOH that describes activities occurring subsequent to the last semi-annual progress report and will certify completion of DOE's obligations under this Compliance Plan. Compliance must be demonstrated by testing and reporting rather than the mere completion of construction of pollution abatement/monitoring facilities.
69. After review of the report and certification, EPA, Ecology and DOH shall issue a written certification of completion to DOE or indicate why DOE has not met the requirements. In the event that EPA, Ecology or DOH dispute that DOE's obligations under this Compliance Plan have been completed, then EPA, Ecology or DOH shall state with particularity the reasons therefore in writing to DOE. Such a statement disputing completion shall be subject to the provisions of Section IX (Dispute Resolution).
70. If EPA, Ecology or DOH fails to certify completion within 90 days of DOE's submittal, then DOE may seek such a certification through the dispute resolution process.

71. Upon the demonstration of compliance by DOE, there will be a continuing obligation to comply with all applicable requirements of the CAA, as amended, and its implementing regulations.

XIX. Effective Date

72. The effective date of this Compliance Plan shall be the date on which this plan is submitted to Ecology.

II.F. Operational Flexibility

II.F.1 Reasonably Anticipated Operating Scenarios

WAC 173-401-650(1) allows the facility to identify reasonably anticipated operating scenarios. Alternative operating scenarios that are included in the Permit can be implemented without a permit revision. These alternative operating scenarios must comply with all applicable requirements listed below and any terms or conditions of the Permit. In addition, the activities listed below in this section will be reviewed for new source review applicability. NOC's will be prepared for those activities requiring such. Any term or condition of the NOC approval that is a specific requirement of the NOC approval may require a Permit modification. Required Permit modifications will be obtained according to the procedures identified in II.F.3.

Applicable requirements.

WAC 173-400-040	General Standards for Maximum Emissions
WAC 173-401	Air Operating Permit
WAC 173-460	Toxic Air Pollutants
WAC 246-247	

40 CFR 61 Subpart H NESHAPs for Radionuclides from DOE Facilities

Terms and conditions required by WAC 173-401-650 to be included in the permit include requiring each facility with permitted alternative operating scenarios to record in a log at the facility the operating scenario it is operating under. The permit shield shall be extended to all terms and conditions of the Permit applied to alternative operating scenarios identified in the Permit.

The following list is a compilation of reasonably anticipated operating scenarios.

II.F.1.1 Environmental Restoration (ER)

The cleanup of past-practice units will be conducted under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or the Resource Conservation and Recovery Act (RCRA) process. CERCLA activities are not included in this Application (CERCLA). CERCLA has been identified as an inapplicable requirement in Table II.D-1, page II.D-1.5. The planned activities that are not conducted under CERCLA authority are listed in the following section and may be considered alternative operating scenarios when air operating permit applicable requirements are involved. The ER program is divided into the following activities:

- Closure of treatment, storage, and disposal (TSD) units (closure of inactive waste sites as defined in the Hanford Facility RCRA permit)
- Investigation and remediation of CERCLA Operable Units
- Decontamination & Decommissioning (D&D) activities for certain buildings

- Surveillance and Maintenance activities for certain buildings Technology Demonstrations
- New cleanup disposal facilities (e.g. Environmental Restoration Disposal Facility) a CERCLA unit

Alternative Operating Scenarios

1) RCRA TSD unit closure.

Activities included as part of Environmental Restoration at the Hanford site, are closure of Treatment Storage and Disposal Facilities. As closure activities are pursued, emission estimates shall be documented with appropriate NOC applications as necessary. NOC approval conditions may require an Air Operating Permit Application Modification to incorporate the conditions into the Permit as well.

Interim stabilization of the B Ponds is also being conducted or planned. As closure activities are pursued, emission estimates shall be documented with appropriate NOC applications as necessary. NOC approval conditions may require an Air Operating Permit Application Modification to incorporate the conditions into the Permit as well. This operable unit contains five RCRA past practice units and five RCRA TSD waste management units. Interim stabilization (backfilling) activities are being performed for the 216-B-3 Main Pond and the 216-B-3-3 Ditch under a decommissioning work plan approved by Ecology. A closure plan has been submitted to EPA and Ecology.

There are no measurable airborne emissions at these inactive waste sites. As closure activities are pursued, emission estimates shall be documented with appropriate NOC applications as necessary. NOC approval conditions may require an Air Operating Permit Application Modification to incorporate the conditions into the Permit as well.

2) Decontamination and Decommissioning Activities

D&D activities are planned or being conducted at certain facilities. Several decontamination methods have been proposed for the upcoming D&D activities. Methods include but may not be limited to sandblasting, shot-peening, carbon dioxide pelletization, and chemical dissolution. As closure activities are pursued, emission estimates shall be documented with appropriate NOC applications as necessary. NOC approval conditions may require an Air Operating Permit Application Modification to incorporate the conditions into the Permit as well.

D&D of the following facilities is currently underway as of January 1995: 189-D Mechanical Development Laboratory, 185-D Development Laboratory, 190-D Main Process Pump House, 190-DA Annex Facility, 195-D High Tower, 1250 Shipping and Receiving Warehouse, 1252 Shipping and Receiving Warehouse. D&D of the following facilities is planned to be completed by the year 2000: 1240 Fabrication Facility, 1241 Plate Shop Facility, 1734N Gas Bottle Dock Storage Building, 105NC Hydrogen Mitigation Building, 104N Facilities

Auxiliary Shop, 1112N Temporary Badgehouse, 183-C Filter Plant, 183-H Solar Evaporation Basins, and three square miles (area from Vernita Bridge to 100B/C).

3) Surveillance and Maintenance Activities

Periodic surveillance and routine maintenance are being performed at waste units and facilities that are inactive and awaiting D&D. These inactive facilities and buildings have no measurable airborne emissions at this time. However, as these facilities are scheduled for D&D an emissions estimate will be conducted for each emission unit and activity. The results of the estimates will be used to determine whether a NOC application is required for the proposed activity. Again, previously unidentified NOC approval conditions will be incorporated into the Permit.

II.F.1.2. PFP

The normal operating scenarios at PFP are described in the process descriptions in Appendix E.3. The reasonably anticipated alternative operating scenarios are described below.

Alternative Operating Scenarios

- 1) Direct denitration of plutonium nitrate solutions using a vertical calciner producing about 20 Kg. of NO₂ per day. A caustic scrubber will remove the majority of the NO₂ prior to release to the atmosphere.
- 2) Increase the number of sludge stabilization furnaces used for solid sludge stabilization from 2 to up to 13 furnaces or install a semicontinuous furnace design with a similar capacity to the 13 sludge stabilization furnaces.
- 3) Install a pyrolysis furnace for stabilizing "polycubes" (polystyrene impregnated with plutonium), which would result in emissions of styrene and its combustion products.
- 4) Restart of glovebox HC-60 hydrolysis, which hydrolyzes organic-contaminated plutonium residues using boiling sodium hydroxide solution.
- 5) Nitric acid washing of contaminated surfaces in the 236-Z Canyon and possibly other areas. This process produces nitric acid fumes and NO_x. This has historically been a routine PFP activity.
- 6) Operation of a solution concentrator in 236-Z if large scale washing is conducted.

II.F.1.3 Powerhouses

The normal operating conditions at the powerhouses are described in Appendices D-1, E-2, and F-2. The reasonably alternative operating scenarios are described below.

Alternative Operating Scenario

- 1) Portable package boilers to provide replacement steam or backup steam during outages or peak demand periods may be operated at numerous locations in the 200 and 300 areas. These package boilers may use diesel fuel, fuel oil, propane, or natural gases as the fuel. If the proposed package boilers operate on diesel fuel or fuel oil, they will be similar in design and operating characteristics to the package boiler identified as emission point 284W F-284W 005 in Appendix E-2. The applicable requirements will be the same as those described in Table II.B-2, for the 200 West Area package boiler.

II.F.1.4 Rotary Mode Core Sampling Operations (RMCS)

The normal operating conditions for the RMCS operations is described in Appendix J-1 and includes one rotary mode core sampling unit. The following describe alternative operating scenarios for Tank Farm RMCS purposes.

Alternative Operating Scenarios

- 1) The Rotary Mode Core Sampler described in Appendix J-1 is identified as emission point number 200 P-CORE 001. There are currently plans to procure two additional RMCS sampling units. These units will be similar in design and function to the unit described in Appendix J-1. The emission unit numbers will be identified as 200 P-CORE 002 and 200 P-CORE 003. The applicable requirements will be identical to the requirements described in Table II.B-1, page II.B-1.24 and Table II.B-2, pages II.B-2.34 through II.B-2.37.

II.F.1.5 Tank Farms

The normal operating conditions at 200 East and 200 West Area Tank Farms are described in Appendices D-4 and E-7 respectively. The following are alternative operating scenarios for Tank Farms.

Alternative Operating Scenarios

- 1) This scenario involves the removal of the mixer pump in Tank 241-SY-101. The pollutants of concern that will be emitted during this activity are radionuclides. The potential offsite dose resulting from this activity is estimated to be 2.0 E-06 mrem/yr to the maximally exposed individual.
- 2) This scenario involves removing equipment from waste tanks using a flexible receiver assembly. The pollutants of concern are radionuclides and the potential offsite dose from equipment removal using the receiver assembly is 0.083 mrem/yr/tank.

II.F.1.6 Solid Waste Management Facilities

The normal operating scenarios at the Solid Waste Management Facilities are described in Appendix E.8. The reasonably anticipated alternative operating scenarios are described below.

Alternative Operating Scenarios

- 1) Perform waste verification activities at any waste management unit. These activities include the opening of waste containers, collecting samples for analysis, and performing in-situ field screening on the wastes.

This activity may involve temporary use of an enclosure, such as a green house or permacon. Depending on the radiological hazards present in the waste, HEPA filtration may be provided on the air venting system of the enclosure.

- 2) Perform waste sorting and repackaging at any waste management unit. This will involve opening waste containers, sorting the contents, and repackaging into new or original containers.

This activity may involve temporary use of an enclosure, such as a green house or permacon. Depending on the radiological hazards present in the waste, HEPA filtration may be provided on the air venting system of the enclosure.

- 3) Perform limited waste treatment, such as neutralization, solidification and adsorption, at any waste management unit.

This activity may involve temporary use of an enclosure, such as a green house or permacon. Depending on the radiological hazards present in the waste, HEPA filtration may be provided on the air venting system of the enclosure.

II.F.2 Emissions Trading [WAC 173-401-650(2)]

WAC 173-401-650(2) allows emissions trading within the facility if the Application includes a request that the Permit include terms and conditions for emissions trading. Any emission trading approved under the authority of this section will apply to emission trades on the Hanford Site only. Emissions trading implies that a facility such as the Hanford Site challenges a site-wide emissions limit or has an emission caps imposed. The 10mrem/yr radionuclide standard is the only site-wide emissions limit identified in this application. The Hanford Site is several orders of magnitude below the limit, so emissions trading of radionuclide emissions does not seem to provide a significant benefit at this time.

The DOE-RL has not identified the necessity for emissions trades at the time of preparation of this Application and is not requesting permission for specific emission trades. However, as

new regulations are developed to fully implement the Clean Air Act Amendments of 1990, the ability to trade emissions on the Hanford Site as allowed by the terms and conditions of the Permit may prove to be an important operational flexibility tool. Therefore, the DOE-RL requests that the Hanford Site Air Operating Permit include the terms and conditions to allow emissions trading as identified in WAC 173-401-650(2) without requiring a permit modification.

II.F.3 Permit Modifications [WAC 173-401-725]

At the time of preparation of the Application, the Environmental Protection Agency (EPA) was revising the 40 CFR 70 regulations pertaining to permit modifications. After 40 CFR 70 is revised, it is assumed that Ecology will revise WAC 173-401 to be consistent with 40 CFR 70. Because the rules governing permit modifications are in transition, it is difficult to predict the effect the rules changes will have on the permit modification process and operational flexibility. As much as possible, NOC applications or other air permitting activities will be conducted concurrently with the Air Operating Permit Modification in order to minimize the time and costs associated with air permitting. Emission units that begin operating or are modified after Permit issuance and determined to be insignificant emission units as described in WAC 173-401 will not be listed in the Permit, eliminating the need for permit modifications for insignificant emission units. As described in II.E.2.1, at least once during the permit term all insignificant emission units will be re-evaluated to confirm that the emission units continue to meet the criteria to be designated as an insignificant emission unit.

Table IIB-1: Regulations and Regulated Emissions
Air Operating Permit Applications

Facility Name: Hanford Site, Radioactive Emissions

Discharge Point #	Emissions			Applicable Requirements			Compliance			Attachment #
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference	
							In	Out		
Hanford Site Permit #FF-01	The collective emissions from all registered sources from all areas on the reservation shall meet the emission requirements of Chapter 173-480-040		See emission point compliance demonstration section of this table	✓	WAC 246-247	10 mrem/yr	✓		See emission point compliance demonstration section of this table	
	Operations shall be consistent with 40 CFR 61, the Washington Clean Air Act (RCW 70.94) and WAC 246-247			✓	WAC 246-247		✓			
	Site inspections must be allowed following DOE security access requirements to verify these conditions.			✓	WAC 246-247		✓			
					40 CFR Part 61					

Hanford Site Air
Operating Permit Application

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Discharge Point #	Hanford Site Permit #FF-01		Access requirements to all emissions points shall be clarified by January 1, 1994.		The department shall be notified of any source location changes.	
	Emissions		Annual Potential Emissions			
	Actual Emissions or Regulated Parameter		State Only	✓	WAC 246-247	
	Requirement Identification (WAC or Order Citation)		Allowable Limit	✓		
	Compliance		In	✓		
Compliance		Out				
Describe Method of Test and Give Reference		Attachment #				

Emission Point Compliance Demonstration

Plant/Facility	Emission Points	Source Type (see Appendix)	Status (see Appendix)	Actual Dose (mrem/yr)	Allowable Limit (mrem/yr)	Compliant		Measurement Requirements (Citation)	Compliance Method	Compliance Measurement	
						In	Out			In	Out
Hanford Site		P		6.30 E-03 ²							
Hanford Site		F		4.90 E-02 ¹							
				5.33 E-02 ²	10	✓		See below			
Major (Designated) Stacks											
PPF (Z Plant)	200W P-291Z001 001	P	R	1.09 E-03				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
B Plant	200E P-291B001 001	P	R	9.41 E-05				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous	✓	
PUREX	200E P-291A001 001	P	R	1.06 E-03				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous	✓	
	200E P-296A001 001	P	R	6.76 E-06				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
TWRS	200E P-296AYAZ 001	P	R	1.0 E-05				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
	200E P-244A 001	P	R	8.0 E-09				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
	200E P-296AW 001	P	R	4.0 E-08				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
	200E P-296AN 001	P	R	4.0 E-09				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
	200E P-244BX 001	P	R	7.0 E-09				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
	200E P-244CR 001	P	R	3.0 E-07				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
	200E P-296P016 001	P	R	5.0 E-07				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
	296-P-17	P	R	Not Operating				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓

Emission Point Compliance Demonstration

Plant/Facility	Emission Points	Source Type (F=Fuel, P=Process)	Status (R=Regulated, U=Unregulated)	Actual Dose (mrem/yr)	Allowable Limit (mrem/yr)	Compliant		Measurement Requirements (Citation)	Compliance Method	Compliant Measurement	
						In	Out			In	Out
	200E P-296SY 001	P	R	3.0 E-08				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
	EP-296-P-26	P	U	1.0 E-05				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
	EP-296-P-28	P	U	3.0 E-08				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
	200W P-296SX 001	P	R	2.0 E-09				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
	200W 244S 001	P	R	8.0 E-08				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
	200W 244TX 001	P	R	2.0 E-08				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
	EP-296-S-25	P	R	3.0 E-08				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous	✓	
	EP-296-P-32	P	R	3.3 E-12				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous	✓	
	EP-296-U-11	P	R	Not Available				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous	✓	
	200E P-242A 002	P	R	Not Available				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous	✓	
	200E P-296AP 001	P	R	2.0 E-09				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous		✓
300 Area	300 P-340NTEX 001	P	R	3.67 E-06				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous	✓	
	EP-324-01-S	P	R	6.0 E-04				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous	✓	
	EP-325-01-S	P	R	4.0 E-09				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous	✓	
	EP-327-01-S	P	R	3.0 E-05				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous	✓	

Plant/Facility	Emission Points	Source Type	Status	Actual Dose (mrem/yr)	Allowable Limit (mrem/yr)	Compliant		Measurement Requirement (Citation)	Compliance Method	Compliant Measurement	
						In	Out			In	Out
	EP-327-02-V	P		4.0 E-05				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous	✓	
	EP-3720-01-S	P		3.0 E-05				40CFR 61.93(b)(4) & WAC 246-247-075(2)	Continuous	✓	
Minor (Non-designated) Stacks											
T Plant	200W P-291T001 001	P						40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic	✓	
	200W P-296T013 001	P						40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic	✓	
	200W P-296T007 001	P						40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic	✓	
PFP (Z Plant)	200W P-296Z003 001	P						40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic	✓	
	200E P-296Z005 001	P						40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic	✓	
	200W P-296Z006 001	P						40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic	✓	
	200W P-296Z014 001	P						40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic	✓	
	200W P-296Z015 001	P						40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic	✓	
B Plant	200E P-296B005 001	P						40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic	✓	
	200E P-296B010 001	P						40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic	✓	
	200E P-296B013 001	P						40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic	✓	
	200E P-296B012 001	P						40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic	✓	

Emission Point Compliance Demonstration

Emission Point Compliance Demonstration

Plant/Facility	Emission Points	Source Type (P=Point S=Stack)	Status (R=Regulated E=Unregulated)	Actual Dose (mrem/yr)	Allowable Limit (mrem/yr)	Compliant		Measurement Requirements (Citation)	Compliance Method	Compliant Measurement	
						In	Out			In	Out
	200E P-296B022 001	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-296B023 001	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-296B024 001	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-296B025 001	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-296B026 001	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-296B027 001	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
PUREX	200E P-296A002 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-296A003 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-296A006 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-296A007 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-296A008 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-296A010 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-296A014 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-296A05A 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-296A05B 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	

Emission Point Compliance Demonstration

Plant/Facility	Emission Points	Source Type (Particulate, VOCs, etc.)	Status (Registered, Not Registered, De-Registered)	Actual Dose (mrem/yr)	Allowable Limit (mrem/yr)	Compliant		Measurement Requirements (Citation)	Compliance Method	Compliant Measurement	
						In	Out			In	Out
S and U Plants	200W P-291S001 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200W P-291U001 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200W P-296S002 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200W P-296S004 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200W P-296S006 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200W P-296S07W 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
100 K	100K P-105KE 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	100K P-105KE 002	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	100K P-105KE 003	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	100K P-105KE 004	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	100K P-105KW 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	100K P-105KW 002	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	100K P-105KW 003	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	100K P-105KW 004	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	100K R-1706KE 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	

Emission Point Compliance Demonstration

Plant/Facility	Emission Points	Source Type (a) Point (b) Fugitive	Status (a) Registered (b) Unregistered	Actual Dose (mrem/yr)	Allowable Limit (mrem/yr)	Compliant		Measurement Requirements (Citation)	Compliance Method	Compliant Measurement	
						In	Out			In	Out
	100K R-1706KEL 001	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)			
	100K R-1706KER 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	100K R-1706KER 002	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
100 N	100N P-105N 002	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	100N P-105N 003	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	100N P-107N 004	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	100N P-116N 005	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
200 East TWRS	200E P-244AR 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-244AR 002	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	296-A-20	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-242A 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200E P-204AR 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	296-A-28	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	296-A-30	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	296-A-41	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	

Emission Point Compliance Demonstration

Plant/Facility	Emission Points	Source Type Category	Status	Actual Dose (mrem/yr)	Allowable Limit (mrem/yr)	Compliant		Measurement Requirements (Citation)	Compliance Method	Compliant Measurement	
						In	Out			In	Out
	EP-296-A-18	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-296-A-19	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-296-G-01	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	296-P-31	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
200 West TWRS	296-P-22	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200W P-242S 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200W P-242T 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
Solid Waste Manag. Facilities	200W P-213W 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200W WRAP 001	P						40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
TRUSAF	200W P-296-T011 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200W P-296-T012 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
222 S Labs	200W S-296S021 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200W S-222SA 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	200W S-296S016 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	296-S-23	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	

Emission Point Compliance Demonstration

Plant/Facility	Emission Points	Source Type <small>As Point or Fugitive</small>	Status <small>R=Regulated U=Unregulated</small>	Actual Dose <small>(mrem/yr)</small>	Allowable Limit <small>(mrem/yr)</small>	Compliant		Measurement Requirements <small>(Citation)</small>	Compliance Method	Compliant Measurement	
						In	Out			In	Out
300 Area	300 P-308TRIGA 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	300 P-309PRTR 001	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	300 P-309RTFEX	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	300 P-340BBLDG 001	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	300 P-340DECON 001	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	300 P-377GEL 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	300 P-306EULAB	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-3745-01-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-3746-01-V	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-303-C-01-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-306W-01-V	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-306W-02-V	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-306W-03-V	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-306W-04-V	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-314-01-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	

Emission Point Compliance Demonstration

Plant/Facility	Emission Points	Source Type (as defined in 40 CFR 61.93)	Status (as defined in 40 CFR 61.93)	Actual Dose (mrem/yr)	Allowable Limit (mrem/yr)	Compliance		Measurement Requirements (Citation)	Compliance Method	Compliance Measurement	
						In	Out			In	Out
	EP-318-01-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-320-01-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-320-02-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-320-03-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-320-04-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-323-01-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-326-01-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-329-01-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-331-01-V	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-331A-01-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-331A-02-V	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-331H-01-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-3708-01-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-3720-02-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-3720-03-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	

Emission Point Compliance Demonstration

Plant/Facility	Emission Points	Source Type (Section 1.1.1)	Status (Paragraph 1.1.2)	Actual Dose (mrem/yr)	Allowable Limit (mrem/yr)	Compliant		Requirement (Citation)	Compliance Method	Compliance Measurement	
						In	Out			In	Out
	EP-3730-01-S	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
400 Area	400 P-437M&ST 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	400 P-437 002	P	U					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	400 P-FFTFCEBX 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	400 P-FFTFHTR 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	400 P-FFTFRESB 001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
600 Area	600 S-6266-001	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	600 S-6266-002	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	
	EP-6652H-01-V	P	R					40CFR 61.93(b)(4)(i) & WAC 246-247-075(3)	Periodic Confirmatory	✓	

Emission Point Compliance Demonstration

Plant/Facility	Emission Points	Source Type	Status	Actual Dose (mrem/yr)	Allowable Limit (mrem/yr)	Compliant		Measurement Requirements (Citation)	Compliance Method	In		Out
						Compliant	In			Out		
											Fugitive Emissions ⁵	

1. Refer to Appendix B.
2. DOE, 1993. The 1993 major stack doses represent about 85 % of the total point source dose shown above.
3. Ventilation operating, permitted activity has not commenced.
4. Source currently not operating.
5. A discussion of fugitive emissions is provided in Section IV.B.6.

Notice of Construction Review

Discharge Point #	Emissions			Applicable Requirements			Compliance			Attachment #
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference	
							In	Out		
100 Areas										
105KE1	Must be consistent with information presented in the Notice of Construction application DOE/RL #DOE/RL-94-13 (DOH), and DOE/RL-94-14 (EPA), Rev. 0. (Application described proposed activity to encapsulate irradiated fuel elements, cleaning and crushing empty canisters, and sludge packaging.)			✓	WAC 246-247					
	Am-241	1.4E-05 Ci/yr		✓	WAC 246-247	1.4E-05 Ci/yr	✓			WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)
	Co-60	1.1E-05 Ci/yr		✓	WAC 246-247	1.1E-05 Ci/yr	✓			WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)
	Cs-137	4.8E-04 Ci/yr		✓	WAC 246-247	4.8E-04 Ci/yr	✓			WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)
	Pu-238	5.2E-06 Ci/yr		✓	WAC 246-247	5.2E-06 Ci/yr	✓			WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)

Discharge Point #	Pollutants or Regulatory Requirement	Emissions		Applicable Requirements	Compliance	Attachment #	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Reference	Pu-239/240	Pu-241	Ru-106	Sr-90	seismic upgrades project must follow conditions and procedures established for the 105-KE Encapsulation Activity permit from DOH	
											In	Out							
									✓	WAC 246-247	3.1E-05 Ci/yr	✓	WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)						
									✓	WAC 246-247	4.0 E-05 Ci/yr	✓	WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)						
									✓	WAC 246-247	2.4E-05 Ci/yr	✓	WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)						
									✓	WAC 246-247	5.6E-04 Ci/yr	✓	WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)						
									✓	WAC 246-247									

Attachment #	Compliance		Discharge Point #	105KE (cont'd)
	Describe Method or Test and Give Reference			
	Compliance	In	Allowable Limit	NDA?
		Out		
			Applicable Requirements	
			Requirement Identification (WAC or Order Citation)	WAC 246-247
			State Only	✓
			Actual Emissions or Regulated Parameter	
			Annual Potential Emissions	
			Pollutants or Regulatory Requirement	During encapsulation activities, a minimum of one of the ion exchange systems and the particulate filtration system must be in operation, as described in Section 3 of the NOC. In addition, any activity that re-suspends the sediment will also require one of these ion exchange systems to operate. No underwater encapsulation or other activities that re-suspend the sediment during ouages of the ion exchange systems will occur.

II.B-1.17

Discharge Point #		Attachment #		Compliance	
Pollutants or Regulatory Requirement		Describe Method or Test and Give Reference		Compliance	
Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance
		✓	WAC 246-247	NDA	
Only those activities described in the NOC are approved, with two additions; leak detection activities may proceed, plus installation of the suction header and associated equipment described in the draft Engineering Change Notice No. 160489. Leak detection work causing significant sludge resuspension will be subject to the water concentration action levels set by DOH					
Empty canisters will not be removed from the basin concurrent with encapsulation activities involving fuel or sediment		✓	WAC 246-247	NDA	
Canisters (or other equipment) can be removed from the water only when the radionuclide concentration in the water is below the lower action level.		✓	WAC 246-247	NDA	
Above water work involving any radionuclide source term must be collocated adjacent to alpha and beta Continuous Air Monitors (CAM)		✓	WAC 246-247	NDA	

Discharge Point #	Emissions		Applicable Requirements		Attachment #
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only Requirement Identification (WAC or Order Citation)	
105KE (cont'd)	<p>A "greenhouse" must be erected adjacent to any above water work involving radionuclides. Contaminated material must be immediately bagged in plastic or moved into the greenhouse or returned to the water. This greenhouse must be actively ventilated through HEPA filtration when any loose or smearable contamination is present inside. If CAAs alarm at set points any contamination material above the water must be immediately placed in the greenhouse or returned to the water.</p> <p>The DOH will establish airborne radionuclide emission limits for all encapsulation activities, with input from Westinghouse health physicists, prior to commencement of encapsulation of fuel or sludge. The point of compliance will be the fixed head samplers at the building exhaust points.</p>			✓	WAC 246-247
	Compliance	Compliance	Allowable Limit		NDA
	Describe Method or Test and Give Reference				

Discharge Point #	105KE (cont'd)									
	Emissions					Applicable Requirements				
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference	Attachment #
							In	Out		
	The Sludge encapsulation procedure must be provided to the DOH before encapsulation commences. Pre-encapsulation activities may proceed			✓	WAC 246-247	NDA				
	Power must be provided for an ambient air sampler for the DOH at a location designated by the department's Environmental Radiation Section. (contact Al Danielson at 545-2209).			✓	WAC 246-247	✓				
	The DOH must be notified of encapsulation start-up. The DOH also request periodic updates of preparatory work.			✓	WAC 246-247	NDA ²				
	higher action level for Cs-137 is the level at which all underwater encapsulation activities must cease until both ion exchange systems lower the Cs-137 concentration in water below the lower action level			✓	WAC 246-247	3.0 E-02 uCi/ml	NDA			

Hanford Site Air
Operating Permit Application

DOE/RL-95-07, Rev. 0
05/95

Discharge Point #	Pollutants or Regulatory Requirement	Emissions		Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference	Attachment #
		Annual Potential Emissions	Annual Potential Emissions					In	Out		
105KE (cont'd)	The DOH will establish a lower action level of Cs-137 concentration in the water. This level appears appropriate for the operation of both ion exchange systems, based on the data provided to the department.				✓	WAC 246-247	1.5 E-02 uCi/ml	NDA			
	The DOH will establish a lower action level of Cs-137 concentration in the water. This level appears appropriate for the operation of both ion exchange systems, based on the data provided to the department.				✓	WAC 246-247		✓			
	Describe the possibility of piping around the ion exchange columns to operate the associated cartridge filters separate from the ion exchange columns										

Discharge Point #		183-H Solar Evaporation Basins (cont'd)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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Discharge Point #	Emissions			Applicable Requirements			Compliance			Attachment #
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference	
Environmental Analytical Laboratory (100N Area) ⁸	Must be consistent with information presented in the Notice of Construction application DOE/RL #DOE/RL-95-22 (DOH). ⁶ (Application described proposed activity for the Environmental Analytical Laboratory (EAL), located within 100-N Area of the Hanford Site.)	5.26 E-04 mrem/yr		✓	WAC 246-247	5.26 E-04 mrem/yr	NDA		WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)	
					40 CFR 61					
	Samples will be taken periodically during operations to verify the limits are not exceeded.			✓	WAC 246-247		NDA			
	Reports of record keeping will be submitted to Department of Health at least annually.			✓	WAC 246-247		NDA			
	The Environmental Analytical Laboratory trailers are not considered portable. These trailers are considered stationary and are to be used only at the 100-N location.			✓	WAC 246-247		NDA			

Discharge Point #	Emissions		Pollutants or Regulatory Requirement	Attachment #				
	Annual Potential Emissions	Actual Emissions or Regulated Parameter		State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit		
100N P-116N 005	Must be consistent with information presented in the Notice of Construction application DOE/RL #DOE/RL-94-14 (DOH), #DOE/RL-94-15 (EPA), (Application described proposed activity to stabilize the 105N Basin for cleanout).	0.0002 mrem/yr	✓	WAC 246-247	0.0002 mrem/yr	NDA	WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)	Attachment #
	Applicable Requirements			40 CFR Part 61				

Discharge Point #	Emissions		Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference	Attachment #
	Applicable Requirements								Compliance	In Out		
200W P-2965016/204-AR	Must be consistent with information presented in the Notice of Construction application DOE/RL #91-EAB-239. (Application described transfers of radioactively contaminated liquid effluent from the 219-S facility at the 222-S Complex to the 204-AR Waste Unloading Facility located in 200 East Area.)					✓	WAC 246-247	0.04 mrem/yr	✓		WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)	
	Any temporary or routine activity involving radioactive air emissions must be approved and logged, indicating the date of release, source term, source type (liquid, solid, gaseous), abatement control equipment and monitoring.					✓	WAC 246-247		✓			
	Quarterly logs must be kept for these transfers and forwarded to the DOH in conjunction with the logs for portable, temporary and other categorically approved sources.					✓	WAC 246-247		✓			

Discharge Point #	Pollutants or Regulatory Requirement	Emissions		Applicable Requirements	Attachment #
		Annual Potential Emissions	Actual Emissions or Regulated Parameter		
200W P-296S016/204-AR (cont'd)	prior to operation, inspection required		✓	WAC 246-247	✓
200E P-LERF 001	Must be consistent with information presented in the Notice of Construction application DOE/RL #9001137, dated March 14, 1990. (Application described proposed activity to construct four covered, 6.5 million-gallon retention basins to receive and store liquid effluents from the 242-A Evaporator and PUREX.)	2.2 E-05 mrem/yr	✓	WAC 246-247	2.2 E-05 mrem/yr NDA
200E P-2960A18/200E P-2960A19	Must be consistent with information presented in the Notice of Construction application DOE/RL #94-RPS-149. (Application described proposed activity to modify the existing ventilation system the 241-AZ Tank Farms.)	0.001 mrem/yr	✓	WAC 246-247	0.001 mrem/yr NDA?
				40 CFR 61, Subpart H	200E 296-A-018, A-019 WAC 246-247-075(2) 40 CFR 61.93(b)(4) 200E 296-P-26 WAC 246-247-075(3) 40 CFR 61.93(b)(1)

Discharge Point #	Emissions			Applicable Requirements			Compliance		Attachment #	
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance			Describe Method or Test and Give Reference
							In	Out		
200E P-2025E ETF 001 (cont'd)	The ventilation off-gas (VOG) system will have HEPA filtration and carbon absorber control technologies. Control technologies necessitated by DOE Order and other authorities must be assured.			✓	WAC 246-247		NDA			
	The department has determined that this facility, per the Notice of Construction (NOC), exceeds 0.1 mrem/year potential to emit (without control devices) CEDE to the MEI. Therefore, the facility must conform to the EPA NESHAPs (40 CFR 61, Subpart H) and its referenced requirements.			✓	WAC 246-247		NDA			

Discharge Point #	Emissions		Applicable Requirements		Attachment #	
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit
						Compliance
200E P-2025E ETF 001 (cont'd)	Operation of the facility is contingent upon department inspection at the completion of construction and the facility. Any corrective actions necessary to assure compliance with regulation and permit conditions must be assured before operation is allowed.			✓	WAC 246-247	NDA
	Emissions rates, either in curies/year or mrem/year shall not exceed values proposed in the referenced NOC, on an annual basis, by radionuclide or in total.			✓	WAC 246-247	NDA
	Stack monitoring is required for particulates, and gases (H-3, Ru-106 and I-129)*.			✓	WAC 246-247	NDA

Discharge Point #	Emissions			Applicable Requirements			Compliance			Attachment #
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance	In	Out	
200W P-296-Z014 001	Must be consistent with information presented in the Notice of Construction application DOE/RL #94-RPS-130, and revision DOE/RL #95-PCA-140. (Application described proposed activity to be performed at 232-Z Building to remove residual plutonium for minimization of radiation dose in the event of a design basis earthquake and worker exposure during routine surveillance and routine maintenance.)	1.20E-05 mrem/yr		✓	WAC 246-247	1.20E-05 mrem/yr		✓		WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)
					40 CFR 61, Subpart H					
200W P-296-Z015 001	Must be consistent with information presented in the Notice of Construction application DOE/RL #92-RPB-128. (Application described proposed activity to construct a waste treatment facility designed to control and/or remove radionuclides from discharge to the soil column.)	8.0 E-05 mrem/yr		✓	WAC 246-247	8.0 E-05 mrem/yr		✓		WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)
					40 CFR 61, Subpart H					

Discharge Point #	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Attachment #
							In	Out	
200E P-241C103 001	Must be consistent with information presented in the Notice of Construction application WHC #9454215D. (Application described proposed activity to remove organic waste from Tank 241-C-103. The three functions of the activity are broken into removal, aqueous/organic separation, and storage.	1.32 E-08 mrem/yr	✓	✓	WAC 246-247	1.32 E-08 mrem/yr	NDA		WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)
200E P-296P016 001	Must be consistent with information presented in the Notice of Construction application DOE/RL #94-RPS-125 (EPA). (Application described proposed activity to construct a waste retrieval sludging system to remove the sludge from Tank 241-C-106 and transport the material to the 241-AY-102 double shell tank via a new, temporary, line.)	1.31 E-04 mrem/yr		✓	WAC 246-247	1.31 E-04 mrem/yr	NDA ⁹		WAC 246-247-075(2) 40 CFR 61.93(b)(4)

Discharge Point #	Emissions			Applicable Requirements			Compliance			Attachment #
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference	
							In	Out		
200W P-244U 001	Must be consistent with information presented in the Notice of Construction application WHC #9456060D. (Application described proposed activity to restore for operational use the 244-U Double Contained Receiver Tank to support interim stabilization activities associated with the 241-U Single-Shell Tank Farm.)	Annual Dose = 2.32 E-05 mrem/yr		✓	WAC 246-247	Annual Dose = 2.32 E-05 mrem/yr	NDA		Measurement system complies with 40 CFR 61 Subpart H and will consist of a near isokinetic sampling probe in accordance with the American National Standards Institute N13.1 with an air particulate record sampler. A continuous air monitor (beta radiation) will be installed for process information. The primary effluent flow rate will be monitored by continuous measurement instrumentation certified in accordance with Title 40 CFR 52, Appendix E.	
200W P-296SO7W 001	Must be consistent with information presented in the Notice of Construction application DOE/RL #DOE/RL-94-1074. (Application described proposed activity to decommission the 233-S Complex.)	Potential to emit = 7.87 E-04 mrem/yr		✓	WAC 246-247 40 CFR 61, Subpart H	abated offsite dose not to exceed 5.94 E-06	NDA		WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)	

Discharge Point #	Emissions			Applicable Requirements			Compliance		Attachment #	
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance			Describe Method or Test and Give Reference
							In	Out		
200W P-296S07W 001 (cont'd)	must start construction within 18 months of issuance of permit			✓	WAC 246-247		NDA			
200W WRAP1 001'	Must be consistent with information presented in the Notice of Construction application DOE/RL #DOE/RL-93-15 (DOH), DOE/RL-93-16, (EPA). (Application described proposed activity to construct the Waste Receiving and Processing (WRAP) Module 1 facility includes: examining, assaying, characterizing, treating, and repackaging solid radioactive and mixed waste to enable permanent disposal of the wastes in accordance with all applicable regulations.)	1.34 E-03 mrem/yr		✓	WAC 246-247	1.34-E-03 mrem/yr	NDA		Stack monitoring and sampling system was designed in accordance with 40 CFR 61 Subpart H and American National Standards Institute N13.1. Stack is monitored with an isokinetic stack emission monitoring system (ISEMS). The ISEMS is a self-contained, microprocessor-based, radiation detection system used to monitor for particulates in air. The monitoring system provides for both continuous and periodic confirmatory sampling.	
					40 CFR Part 61					

Discharge Point #	Pollutants or Regulatory Requirement	Emissions		300 Area	300 Z-TEDF	Environmental Sciences Laboratory										
		Annual Potential Emissions	Actual Emissions or Regulated Parameter													
	Compliance	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance	In Out	Describe Method or Test and Give Reference	Attachment #	No monitoring required	Must be consistent with information presented in the Notice of Construction application DOE/RL #93-RPB-001. (Application described proposed activity to construct a waste water treatment facility which includes Iron co-precipitation, clarification and filtration, Thiol functional group ion exchange, and UV/peroxide oxidation.)	Must be consistent with information presented in the Notice of Construction application submitted to DOH. (Application described proposed activity to construct laboratory to provide a dedicated interdisciplinary center for environmental and molecular science research in the United States.					
												WAC 246-247	WAC 246-247	0.084 mreem/yr	NDA	WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)
		✓	✓													
			</													

Discharge Point #		Emissions		Applicable Requirements		Compliance		Attachment #			
Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance	In		Out		
Misc.											
Portable/ Temporary Radionuclide Airborne Emissions Units (PTRAEUs)	Must be consistent with information presented in the Notice of Construction application WHC#9358377D. (Application RL to use three types of PTRAEUs described proposed activity to allow use for expedited response actions, and field situations requiring expedited response.)				40 CFR 61, Subpart H	NDA					
										✓	WAC 246-247
										✓	WAC 246-247
										✓	WAC 246-247
										✓	WAC 246-247
										✓	WAC 246-247
						NDA	WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)				
						NDA	WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)				
						NDA	WAC 246-247-075(3) 40 CFR 61.93(b)(4)(i)				

II.B-1.39

Discharge Point #	Emissions			Applicable Requirements			Compliance		Attachment #	
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance			Describe Method or Test and Give Reference
							In	Out		
600 S-6266 001	Must be consistent with information presented in the Notice of Construction application WHC #9052150. (Application described proposed activity to construct a new analytical laboratory with the capacity and sample analyses to support the large number of chemical and radiological analyses to be conducted on environmental media as required by the RCRA, CERCLA, TSCA, CAA, CWA, and the Safe Drinking Water Act.)	1.27 E-14 mrem/yr		✓	WAC 246-247	1.27 E-14 mrem/yr	✓			
					40 CFR 61 Subpart H					

1. Approval for the 105KE Encapsulation Activity has been suspended per DOH letter #AIR 94-605, Mr. A. W. Conklin, DOH, to Mr. S. H. Wisness, RL, dated June 7, 1994. However, the suspension does not affect other previously approved activities anticipated to occur in the 105KE Basin.

2. NDA = no data available. Project began in January 1995. Updated information will be provided to DOH.

3. Although the regulatory requirement states "During encapsulation activities...", this requirement applies to the other activities anticipated to occur in the 105KE Basin. This is aside from the fact that the 105KE Encapsulation Activity has been suspended. Refer to endnote 1.

4. Regulatory requirement applies to other anticipated activities in the 105KE Basin.

5.105KE Encapsulation Activity suspended. Refer to endnote 1.

6.The notice of construction was sent to both the State of Washington, Department of Health and the U.S. Environmental Protection Agency, Region X.

7.Project construction is in progress. Upon startup, compliance with requirements will be assessed.

8.The State of Washington, Department of Health has been requested to change continuous stack monitoring to periodic confirmatory measurements.

9.Project construction has not begun. Upon startup, compliance with requirements will be assessed.

Table IIB-2: Regulations and Regulated Emissions
AIR OPERATING PERMIT APPLICATIONS

Facility Name: Hanford Site, Non-Radioactive Emissions, Registered Emission Units
Emission Point Compliance Review

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
200E F-284E 001	Opacity				WAC 173-400-040(1)	20%	✓		EPA Method 9 ¹
	SO ₂		88.1		WAC 173-400-040(6)	1000 ppm	✓		EPA Method 8
	Particulate Matter		0.03 gr/dscf		WAC 173-400-050(1)	0.2 gr/dscf	✓		EPA Method 5
	Registration				WAC 173-400-100(dd)		✓		
	Excess Emission Notification				WAC 173-400-107		✓		
	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		✓		
200E F-284E 002	Opacity				WAC 173-400-040(1)	20%	✓		EPA Method 9 ¹
	SO ₂		88.1		WAC 173-400-040(6)	1000 ppm	✓		EPA Method 8
	Particulate Matter		0.03 gr/dscf		WAC 173-400-050(1)	0.2 gr/dscf	✓		EPA Method 5
	Registration				WAC 173-400-100(dd)		✓		
	Excess Emission Notification				WAC 173-400-107		✓		

II.B-2.2

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
300 F-384 001 ²	Opacity				WAC 173-400-040(1)	20%	NDA		EPA Method 9 ¹
	SO ₂		NDA ³		WAC 173-400-040(6)	1000 ppm	NDA		EPA Method 8
	Particulate Matter		NDA		WAC 173-400-050(1)	0.2 gr/dscf	NDA		EPA Method 5
	Registration				WAC 173-400-100(dd)		NDA		
	Excess Emission Notification				WAC 173-400-107		NDA		
	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		NDA		
300 F-384 002	Opacity				WAC 173-400-040(1)	20%	✓		EPA Method 9 ¹
	SO ₂		1060 ppm ⁴		WAC 173-400-040(6)	1000 ppm		✓ ⁵	EPA Method 8
	Particulate Matter		0.08 gr/dscf ⁴		WAC 173-400-050(1)	0.2 gr/dscf	✓		EPA Method 5
	Registration				WAC 173-400-100(dd)		✓		
	Excess Emission Notification				WAC 173-400-107		✓		
	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		✓		

Discharge Point #	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Compliance
							In	Out	
300 F-384 005	Opacity				WAC 173-400-040(1)	20%	✓		EPA Method 9 ¹
	SO ₂		1060 ppm		WAC 173-400-040(6)	1000 ppm		✓	EPA Method 8
	Particulate Matter		0.08 gr/dscf		WAC 173-400-050(1)	0.2 gr/dscf	✓		EPA Method 5
	Registration				WAC 173-400-100(dd)		✓		
	Excess Emission Notification				WAC 173-400-107		✓		
	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		✓		
	Opacity				WAC 173-400-040(1)	20%	✓		EPA Method 9 ¹
300 F-384 006	SO ₂		1060 ppm ¹		WAC 173-400-040(6)	1000 ppm		✓	EPA Method 8
	Particulate Matter		0.08 gr/dscf ¹		WAC 173-400-050(1)	0.2 gr/dscf	✓		EPA Method 5
	Registration				WAC 173-400-100(dd)		✓		
	Excess Emission Notification				WAC 173-400-107		✓		
	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		✓		
	Opacity				WAC 173-400-040(1)	20%	✓		EPA Method 9 ¹
	SO ₂		1060 ppm ¹		WAC 173-400-040(6)	1000 ppm		✓	EPA Method 8
Internal Combustion Engines: 500 Horsepower or Greater	Particulate Matter		0.08 gr/dscf ¹		WAC 173-400-050(1)	0.2 gr/dscf	✓		EPA Method 5
	Registration				WAC 173-400-100(dd)		✓		
	Excess Emission Notification				WAC 173-400-107		✓		
	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		✓		
	Opacity				WAC 173-400-040(1)	20%	✓		EPA Method 9 ¹
	SO ₂		1060 ppm ¹		WAC 173-400-040(6)	1000 ppm		✓	EPA Method 8
	Particulate Matter		0.08 gr/dscf ¹		WAC 173-400-050(1)	0.2 gr/dscf	✓		EPA Method 5
100D E-525 001	Opacity				WAC 173-400-040(1)	20%	NDA ¹		EPA Method 9 ¹
	SO ₂				NDA	1000 ppm	NDA ¹		

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
100D E-525 001 (cont.)	Registration				WAC 173-400-100(dd)		✓		
	Excess Emission Notification				WAC 173-400-107		NDA		
	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		NDA		
	Opacity				WAC 173-400-040(1)	20%	NDA ¹		EPA Method 9 ¹
200W E-947 001	SO ₂		NDA		WAC 173-400-040(6)	1000 ppm	NDA ¹		
	Registration				WAC 173-400-100(dd)		✓		
	Excess Emission Notification				WAC 173-400-107		NDA		
	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		NDA		
200E E-500 001	Opacity				WAC 173-400-040(1)	20%	NDA ¹		EPA Method 9 ¹
	SO ₂		NDA		WAC 173-400-040(6)	1000 ppm	NDA ¹		
	Registration				WAC 173-400-100(dd)		✓		
	Excess Emission Notification				WAC 173-400-107		NDA		
	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		NDA		

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Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
200E E-670 001	Opacity				WAC 173-400-040(1)	20%	NDA ¹		EPA Method 9 ¹
	SO ₂		NDA		WAC 173-400-040(6)	1000 ppm	NDA ¹		
	Registration				WAC 173-400-100(dd)		√ ⁶		
	Excess Emission Notification				WAC 173-400-107		NDA		
	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		NDA		
200E E-600 001	Opacity				WAC 173-400-040(1)	20%	NDA ¹		EPA Method 9 ¹
	SO ₂		NDA		WAC 173-400-040(6)	1000 ppm	NDA ¹		
	Registration				WAC 173-400-100(dd)		√ ⁶		
	Excess Emission Notification				WAC 173-400-107		NDA		
	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		NDA		
200E E-565 001	Opacity				WAC 173-400-040(1)	20%	NDA ¹		EPA Method 9 ¹
	SO ₂		NDA		WAC 173-400-040(6)	1000 ppm	NDA ¹		
	Registration				WAC 173-400-100(dd)		√ ⁶		
	Excess Emission Notification				WAC 173-400-107		NDA		

Discharge Point #	Emissions			Applicable Requirements	Compliance	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
	In	Out												
200E E-565	Reporting, Monitoring, and Recordkeeping					NDA				WAC 173-400-105				
200E E-565 001 (cont.)	Opacity					NDA¹	20%			WAC 173-400-040(1)				EPA Method 9¹
	SO₂					NDA¹	1000 ppm			WAC 173-400-040(6)				
	Registration					✓				WAC 173-400-100(dd)				
	Excess Emission Notification					NDA				WAC 173-400-107				
	Reporting, Monitoring, and Recordkeeping					NDA				WAC 173-400-105				
300 E-900 001	Opacity					NDA¹	20%			WAC 173-400-040(1)				EPA Method 9¹
	SO₂					NDA¹	1000 ppm			WAC 173-400-040(6)				
	Registration					✓				WAC 173-400-100(dd)				
	Excess Emission Notification					NDA				WAC 173-400-107				
	Reporting, Monitoring, and Recordkeeping					NDA				WAC 173-400-105				
300 E-900 002	Opacity					NDA¹	20%			WAC 173-400-040(1)				EPA Method 9¹
	SO₂					NDA¹	1000 ppm			WAC 173-400-040(6)				
	Registration					✓				WAC 173-400-100(dd)				
	Excess Emission Notification					NDA¹				WAC 173-400-107				
	Reporting, Monitoring, and Recordkeeping					NDA¹				WAC 173-400-105				

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
300 E-900 002 (cont.)	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		NDA		
	Opacity				WAC 173-400-040(1)	20%	NDA ¹		EPA Method 9 ¹
	SO ₂		NDA		WAC 173-400-040(6)	1000 ppm	NDA ¹		
	Registration				WAC 173-400-100(dd)		✓ ⁶		
	Excess Emission Notification				WAC 173-400-107		NDA		
300 E-1450 001	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		NDA		
	Opacity				WAC 173-400-040(1)	20%	NDA ¹		EPA Method 9 ¹
	SO ₂		NDA		WAC 173-400-040(6)	1000 ppm	NDA ¹		
	Registration				WAC 173-400-100(dd)		✓ ⁶		
	Excess Emission Notification				WAC 173-400-107		NDA		
300 E-1000 001	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		NDA		
	Opacity				WAC 173-400-040(1)	20%	NDA ¹		EPA Method 9 ¹
	SO ₂		NDA		WAC 173-400-040(6)	1000 ppm	NDA ¹		
	Registration				WAC 173-400-100(dd)		✓ ⁶		
	Excess Emission Notification				WAC 173-400-107		NDA		

Discharge Point #	Emissions			Applicable Requirements		Compliance	
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance	Describe Method or Test and Give Reference
300 E-1000 001 (cont.)	Excess Emission Notification			WAC 173-400-107		NDA	
	Reporting, Monitoring, and Recordkeeping			WAC 173-400-105		NDA	
400 E-4250 001 (G-3)	Opacity			WAC 173-400-040(1)	20%	NDA ¹	EPA Method 9 ¹
	SO ₂		NDA	WAC 173-400-040(6)	1000 ppm	NDA ¹	
	Registration			WAC 173-400-100(dd)		√ ⁶	
	Excess Emission Notification			WAC 173-400-107		NDA	
400 E-1500 001 (DG-1)	Reporting, Monitoring, and Recordkeeping			WAC 173-400-105		NDA	
	Opacity			WAC 173-400-040(1)	20%	NDA ¹	EPA Method 9 ¹
	SO ₂		NDA	WAC 173-400-040(6)	1000 ppm	NDA ¹	
	Registration			WAC 173-400-100(dd)		√ ⁶	
	Excess Emission Notification			WAC 173-400-107		NDA	
	Reporting, Monitoring, and Recordkeeping			WAC 173-400-105		NDA	

Discharge Point #	Emissions			Applicable Requirements			Compliance	
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance	Describe Method or Test and Give Reference
400 E-1500 002 (DG-2)	Opacity				WAC 173-400-040(1)	20%	NDA ¹	EPA Method 9 ¹
	SO ₂		NDA		WAC 173-400-040(6)	1000 ppm	NDA ¹	
	Registration				WAC 173-400-100(dd)		✓	
	Excess Emission Notification				WAC 173-400-107		NDA	
	Reporting, Monitoring, and Recordkeeping				WAC 173-400-105		NDA	
Notice of Construction Review								
200 East								
200E P- 2960P26/ 200E P- 2960A18/ 200E P- 2960A19 ⁷	Must be consistent with information presented in the Notice of Construction application DOE/RL#94-RPS-148. (Application described proposed activity to upgrade ventilation systems for the AY and AZ tank farms.)			✓	WAC 173-460		NDA	
(ventilation upgrades)	Ammonia			✓	WAC 173-460	0.05 lb/hr	NDA	EPA Reference Methods
	Volatile Organic Compounds			✓	WAC 173-460	0.001 lb/hr	NDA	EPA Reference Methods

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
200E P-2960P26/ 200E P-2960A18/ 200E P-2960A19 (ventilation upgrades) (cont'd)	Energy shall demonstrate initial compliance for ammonia and VOC through source tests conducted not later than 180 days after start-up of the new emission control systems. Ecology shall be invited to participate in these test activities at least one week before the tests.			✓	WAC 173-460		NDA		
	A test plan will be submitted for Ecology's approval at least 30 days prior to testing.			✓	WAC 173-460		NDA		
	Opacity			✓	WAC 173-460	5 percent	NDA		EPA Method 9 of 40 CFR part 60, Appendix A as of July 1, 1991
	Operating and maintenance manuals for all equipment that has the potential to affect emissions to the atmosphere shall be developed and followed. Copies of the manuals shall be available to Ecology			✓	WAC 173-460		NDA		

Discharge Point #	Emissions			Applicable Requirements			Compliance			
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference	
							In	Out		
200E P-2960P26/ 200E P-2960A18/ 200E P-2960A19 (ventilation upgrades) (cont'd)	Energy shall notify Ecology in writing at least 30 days before operational start-up of these proposed air emission control systems.			✓	WAC 173-460		NDA			
200E P-2025E ETF 001 ⁷	Must be consistent with information presented in the Notice of Construction application <u>DOE/RL #DOE/RL-92-69</u> . (Application described proposed activity to construct a new industrial waste water treatment facility with an integrated system designed to treat a combination of effluent streams by removing organic, inorganic, and radioactive contaminants.)			✓	WAC 173-460		NDA			

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
200E P-2025E ETF 001 (cont.)	VOC			✓	WAC 173-460	emissions from stream number G6 shall not exceed 0.50 gram per minute; emissions of the G6 stream shall also not exceed 0.55 gram per cubic meter at standard conditions.	NDA		Compliance shall be determined by computing the arithmetic mean of three one-hour periods using EPA Reference Method 25A or Method 18 as described in 40 CFR Part 60 dated July 1, 1992
	Opacity			✓	WAC 173-460	shall not exceed 5 percent	NDA		EPA Reference Method 9 as described in 40 CFR Part 60, Appendix A, dated July 1, 1992.

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
200E P-2025E ETF 001 (cont.)	Within 180 days of start-up of the facility, Energy shall conduct performance tests for VOC at the location of G6. Based on the initial results of the performance tests, the department may require Energy to conduct a periodic performance test for these pollutants. Testing must be performed by an independent testing firm, and results must be reported to the department within 60 days after the test completion. Testing shall occur only after the department approves the plan. Energy shall notify the department at least 7 days before each test date.			✓	WAC 173-460		NDA		
	Energy shall submit a test plan for the department's approval at least 45 days before the testing.			✓	WAC 173-460		NDA		

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
200E P-0205E ETF 001 (cont'd)	Energy shall develop and comply with an operation and maintenance manual for all equipment that has the potential to affect emissions to the atmosphere. Copies of the manual shall be available to the department. Energy shall also develop and follow an operation and maintenance plan to implement procedures and control methods described in the NOC application as T-BACT prior to start-up of any new or modified emission units or process equipment, in accordance with WAC 173-460-040(8) dated June 18, 1991. Prior to implementation, Energy shall submit the plan to the department for approval. Submittals made to satisfy similar conditions of other permits issued by the department may be used to satisfy this condition.			✓	WAC 173-460		NDA		

Discharge Point #	200E P-0205E ETF 001 (cont'd)	Energy shall notify the department in writing at least 45 days before start up of any emission unit subject to this approval which could cause release of any air pollutants to the atmosphere.	NOx	Increases in potential emissions of any regulated pollutant regulated under the Clean Air Act resulting from operations (excluding NOx)	Emissions					Applicable Requirements								
					Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)		Allowable Limit	Compliance	In	Out				
Compliance	Describe Method or Test and Give Reference			EPA Method 7 to determine NOx concentration		PURSX Plant NOx Absorber Exit - Concentration: 2.0 volume percent, dry basis 1,160 kg/day Main Stack 2,250 kg/day Mass Emission Rate: 424 metric tons/yr	✓		✓	EPA Methods 1 and 2 to measure total gas flow								
						40 CFR Part 52.21				40 CFR Part 52.21	250 tons/yr	✓						

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State-Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
PSD X80-14 Deactivation of PUREX (cont'd)	Compliance with emission limitations shall be demonstrated by source tests and a program of emission monitoring: Compliance testing shall be conducted within 60 days after reaching maximum production, no later than 180 days after start up, to determine NOx concentration.				40 CFR Part 52.21		✓		
	Continuous stack monitors for NOx and gas flow rate shall be installed and operated. NOx monitors must meet performance specification requirements of 40 CFR Part 60, Appendix B, Specification Test 2.				40 CFR Part 52.21		✓		
	Monitoring records shall be made available to EPA for inspection upon request, and the records shall be maintained for a period of two (2) years.				40 CFR Part 52.21		✓		
	Excess emission reports shall be made to EPA on a quarterly basis.				40 CFR Part 52.21		✓		

Discharge Point #	Pollutants or Regulatory Requirement	Emissions		Applicable Requirements			Compliance		Describe Method or Test and Give Reference
		Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance	Out	
							In	Out	
PSD X80-14 Deactivation of PUREX (cont'd)	EPA and Benton County Air Pollution Control Authority shall be notified of the commencement of construction and the start up date within thirty (30) days of the date of their occurrence.				40 CFR Part 52.21		✓		
	Access to the source by EPA or State Regulatory personnel will be permitted upon request for the purpose of compliance assurance inspections.				40 CFR Part 52.21		✓		

Discharge Point #	Emissions		Applicable Requirements			Compliance		
						Compliance		Describe Method or Test and Give Reference
						In	Out	
200 West								
200W S296-021 001	<p>Pollutants or Regulatory Requirement</p> <p>Must be consistent with information presented in the Notice of Construction application DOE/RL #91-RPB-028. (Application described proposed activity for an environmental hot cell expansion at the 222-S Laboratory. Expansion would provide a 7 compartment hot cell to support increased demand for analytical services.)</p>	<p>Annual Potential Emissions</p>	<p>Actual Emissions or Regulated Parameter</p>	<p>State Only</p> <p>✓</p>	<p>Requirement Identification (WAC or Order Citation)</p> <p>WAC 173-460</p>		✓	
	<p>Any toxic air release must be below detection limits</p>			✓	WAC 173-460		✓	
	<p>Must conduct actual tests on the existing units to prove xylene, toluene, and ethanol air emissions are all below their detection limits by December 1, 1992.</p>			✓	WAC 173-460		✓	

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
200W F-284W.005 (Package Backup Boiler) ⁹	Must be consistent with information presented in the Notice of Construction application DOE/RL #DOE/RL-93-85. (Application described proposed activity to install a package backup boiler in the 200 West Area of the Hanford Site. The package backup boiler will provide backup services to the 200 East Area Power Plant. The 200 West Power Plant will be permanently shut down.)			✓	WAC 173-400		NDA		
	The boiler shall operate no more than 1,440 hours per year and the boiler shall only burn No. 2 fuel oil with sulfur content no more than 0.05 weight percent.			✓	WAC 173-400		NDA		

Discharge Point #	200W F- 284W-005 (Package Backup Boiler) (cont'd)	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Applicable Requirements	Compliance		Compliance or Test and Give Reference
								In	Out	
	NOx				✓	WAC 173-400	emissions from the boiler stack shall not exceed 0.1 lb/MMBtu and 6.5 pounds per hour on an average.	NDA		EPA Method 7A of 40 CFR Part 60, Appendix A as of July 1, 1991 or an equivalent method approved by Ecology.
					✓	WAC 173-400	emissions from the boiler stack shall not exceed 23 ppmv at 7% oxygen and 3.4 lb/hr on an average.			EPA Method 6 of 40 CFR Part 60, Appendix A as of July 1, 1991 or an equivalent method approved by Ecology.
					✓	WAC 173-400	emissions from the boiler stack shall not exceed 0.02 gr/DSCF and 2.6 lb/hr on an average.			
					✓	WAC 173-400	emissions from the boiler stack shall not exceed 0.02 gr/DSCF and 2.6 lb/hr on an average.			
	SO2							NDA		
	PM-10							NDA		

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
200W F-284W 005 (Package Backup Boiler) (cont'd)	Energy shall demonstrate initial compliance for NOx through source tests conducted not later than 180 days after start-up of the boiler. EPA Reference Methods shall be followed for testing.			✓	WAC 173-400		NDA		
	A test plan will be submitted for Ecology's approval at least 30 days prior to the testing.			✓	WAC 173-400		NDA		
	Sampling port and platform shall be provided for the boiler, after the final pollution control device. The port shall meet the requirements of 40 CFR, Part 60, Appendix A Method 1. Other arrangements may be acceptable if approved in advance by Ecology prior to installation. Adequate permanent and safe access to the test ports shall be provided.			✓	WAC 173-400		NDA		

Discharge Point #	Emissions			Applicable Requirements			Compliance	
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance	
							In	Out
200W F-284W .005 (Package Backup Boiler) (cont'd)	For each occurrence of monitored emissions in excess of any condition limits, Energy shall report to Ecology the following: • The date and time of the occurrence • The magnitude and duration excess • The cause of the exceedance • Corrective actions taken or planned			✓	WAC 173-400		NDA	
	Operating and maintenance manuals for all equipment that has the potential to affect emissions to the atmosphere shall be developed and followed. Copies of the manuals shall be available to Ecology. Emissions that result from a failure to follow the requirements of the manuals, excluding emissions specified in Condition above, may be considered proof that the equipment was not properly operated and maintained.			✓	WAC 173-400		NDA	

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
200W F-284W 005 (Package Backup Boiler) (cont'd)	Opacity			✓	WAC 173-400	from the boiler stack shall not exceed 5 percent	NDA		EPA Method 9 of 40 CFR Part 60, Appendix A as of July 1, 1991.
	CO			✓	WAC 173-400	emissions shall not exceed 200 ppmv at 7% oxygen and 12.3 lb/hr on an hourly average.	NDA		
	VOC			✓	WAC 173-400	emissions shall not exceed 20 ppmv at 7% oxygen and 0.5 lb/hr on an hourly average.	NDA		
	Good combustion practices shall be determined as BACT for CO and VOC emission control.			✓	WAC 173-400		NDA		

Discharge Point #	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Applicable Requirements		Compliance	Describe Method or Test and Give Reference	200W F-284W 005 (Package Boiler Backup)	Energy shall notify Ecology in writing at least 30 days before operational start-up of this emission unit.	Energy shall conduct sources testing for air pollutants NOx, SO2, PM-10, CO, and VOC sampling shall be performed each year. All testing and when the boiler is operating at 90% or greater of its capacity. Energy shall notify Ecology at least 7 days before each test date. Testing results must be reported to Ecology within 60 days after the test completion
					Requirement Identification (WAC or Order Citation)	Allowable Limit	In	Out			
				✓	WAC 173-400		✓				
				✓	WAC 173-400						
									NDA		

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
200W P- WRAP1 001 (cont'd)	After start-up of the facility, Energy shall conduct performance tests for particulates. Energy also shall conduct stack emission tests for VOC. After these tests, the department may require Energy to conduct an annual test(s) for those pollutants. Energy and the department shall meet before the testing occurs to discuss test protocol. Testing shall occur only after the department approves the plan. Energy shall notify the department at least 7 days before each date			✓	WAC 173-460		NDA		
	Opacity			✓	WAC 173-460	shall not exceed 5 percent	NDA		EPA Reference Method 9 as described in 40 CFR Part 60, Appendix A, dated July 1, 1992.
	Energy shall submit a test plan for department's approval at least 45 days before the testing.			✓	WAC 173-460		NDA		

Discharge Point #	200W-P- WRAP1 001 (cont'd)	Emissions			Applicable Requirements		Compliance				
		Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance	In	Out	Describe Method or Test and Give Reference
		Testing results must be reported to the department within 60 days after the test completion. If the department finds that the plan was not followed, the department may conclude that the data of the testing results is invalid.			✓	WAC 173-460		NDA			
		Sampling port and platform must be provided for the stack. An adequate and safe access to the test ports must be provided. Other arrangements may be acceptable if approved by the department before installation.			✓	WAC 173-460		NDA			
		Energy shall notify the department in writing at least 45 days before operational start-up of any emission unit subject to this approval which could cause release of any air pollutants to the atmosphere			✓	WAC 173-460		NDA			

Discharge Point #	Pollutants or Regulatory Requirement	Emissions			Applicable Requirements			Compliance		
		Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance	Describe Method or Test and Give Reference		
							In	Out		
300 Area										
Environmental and Molecular Sciences Laboratory (EMSL)	Must be consistent with information presented in the Notice of Construction application submitted to Ecology on August 8, 1994. (Application described proposed activity to construct a laboratory to provide a dedicated interdisciplinary center for environmental and molecular science research in the United States.			✓	WAC 173-460		NDA			
	ammonia (sum of 5 chemical stacks)			✓	WAC 173-460	0.01 lb/hr	NDA			
	VOC (sum of 5 chemical stacks)			✓	WAC 173-460	0.24 lb/hr	NDA			
	DOE-RL shall demonstrate initial compliance for ammonia and VOC through source tests conducted no later than 180 days after start up of the laboratory.			✓	WAC 173-460		NDA		EPA Reference Methods	

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
Environmental and Molecular Sciences Laboratory (EMSL) (cont'd)	A test plan will be submitted for Ecology's approval at least 30 days prior to testing.			✓	WAC 173-460		NDA		
	Ecology shall be invited to participate in the test activities at least one week before the tests. If the concentration is too low to detect, compliance through mass balance will be accepted.			✓	WAC 173-460		NDA		
	DOE-RL shall use good combustion practice for boilers operation by optimizing excess air variations to ensure that gas-fired boilers operate at 15 percent excess air or 3 percent excess oxygen in the flue gas. Per Ecology's request, DOE-RL shall demonstrate the effectiveness of GCP to Ecology during normal operation of the boilers.			✓	WAC 73-460		NDA		

Discharge Point #	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Compliance
							In	Out	
Environmental and Molecular Sciences Laboratory (EMS/L) (cont'd)	Opacity (5 chemical sacks)			✓	WAC 173-460	10 percent	NDA		Washington State Source Test Method 9B.
	Opacity (6th sack with HEPA filters air emission controls)			✓	WAC 173-460	5 percent	NDA		Washington State Source Test Method 9B.
	Opacity (sacks for 5 boilers)			✓	WAC 173-460	5 percent	NDA		Washington State Source Test Method 9B.
	Operating and maintenance manuals for all equipment that has the potential to affect emissions to the atmosphere shall be developed and followed. Copies of the manuals shall be made available to Ecology.			✓	WAC 173-460		NDA		

II.B-2.32

Discharge Point #	Pollutants or Regulatory Requirement	Emissions	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference	Compliance
								In	Out		
200 P-CORE 001	Misc. Items										
		Must be consistent with information presented in the Notice of Construction application DOE/RL #DOE/RL-93-41. (Application described a rotary mode core-sampling system to sample waste tanks containing hardened wastes.)			✓	WAC 173-460		✓			
		Opacity (applies to Diesel Generator)			✓		5 percent	✓		EPA Reference Method 9 as described in 40 CFR Part 60, Appendix A, dated July 1, 1992.	
		The stack height of the exhauster shall be at least 15 ft with inside diameter of 4 inches.			✓			✓			
		Results of opacity measurement of the tank shall be provided to the department. Any excess of five percent opacity limit shall be reported to the department.			✓			✓			

Discharge Point #	Emissions			Applicable Requirements			Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		Describe Method or Test and Give Reference
							In	Out	
200 P-CORE 001 (cont'd)	Energy shall conduct a vapor composition analysis for each tank to be core-sampled. If the results of this analysis conclude that the concentration of any pollutant exceeds the maximum concentration of that pollutant listed in the NOC application, Energy shall contact the department within a week of receiving the results of the analysis and that tank shall not be rotary mode core-sampled.			✓	WAC 173-460		✓		
	Energy shall provide the department the method for calculating TOC limits for approval prior to initiating core-sampling activities in the first tank.			✓	WAC 173-460		✓		
	The operation of sampling activity shall be stopped if the gaseous flow in the HEPA filters has more than 80 percent relative humidity at anytime.			✓	WAC 173-460		✓		

Discharge Point #	Emissions			Applicable Requirements		Compliance		
	Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance	Describe Method or Test and Give Reference
200 P-CORE 001 (cont'd)	Energy shall develop and comply with an operation and maintenance manual for all equipment that has the potential to affect emissions to the atmosphere. Copies of the manual shall be available to the department. Energy shall also develop and follow an operation and maintenance plan to implement procedures and control methods described in the NOC application as T-BACT prior to start-up of any new or modified emission units or process equipment, in accordance with WAC 173-469-040(8) dated June 18, 1991. Prior to implementation, Energy shall submit the plan to the department for approval.			✓	WAC 173-460		<div>In</div> <div>Out</div> <div>✓</div>	

Discharge Point #	Emissions		Applicable Requirements			Compliance		Describe Method of Test and Give Reference
Pollutants or Regulatory Requirement	Annual Potential Emissions	Actual Emissions or Regulated Parameter	State Only	Requirement Identification (WAC or Order Citation)	Allowable Limit	Compliance		
						In	Out	
200 P.CORE 001 (cont'd)	Operation and maintenance of equipment that has the potential to affect emissions to the atmosphere must be conducted in compliance with all emission data submitted as part of the NOC application unless otherwise approved by the department.		✓	WAC 173-460		✓		
	A standard commercially available diesel generator shall be used to provide power to the system. It will be a new generator acquired from a manufacturer licensed to meet nationally applicable emission limitations for such generators and be fueled, maintained, and operated with in accordance with manufacturer recommendations. Operation in excess of 6,000 hours per year shall be reported to the department.		✓	WAC 173-460		✓		

1. For further information refer to Section II.E.2.2.

2. This emission unit is not currently in use.

3.NDA = No Data Available

4.The reported result is from the 1995 source test of emission unit 300 F-384 005.

5.For information on the Compliance Plan and Schedule refer to Chapter II.E.5. and Appendix B, respectively.

6.Refer to Section II.E.5, subsection XIV., paragraph 61.

7.Project construction is in progress. Upon startup, compliance with requirements will be assessed.

8.Continuous stack monitoring for NOx operates only during NOx generating processes (e.g., denitration activities). Refer to Appendix B for milestone associated with clarification of continuous NOx monitoring requirements during deactivation activities.

9.Project has not begun startup activities. Upon startup, compliance with requirements will be assessed.

Table II.B-3. Special Requirements.

Citation	Requirement	Compliance		
		Compliance		Describe Method or Test and Give Reference
		In	Out	
40 CFR 61, Subpart M, Asbestos	National emission standard for demolition and renovation of facilities involving regulated asbestos-containing material (RACM) above or below (i.e., large or small demolition) the following levels: 1) 80 linear meters on pipes, 2) 15 square meters on facility components, or 3) 1 cubic meter of facility components where the length or area could not be measured previously.	✓		<ol style="list-style-type: none"> Facilities planned for demolition will be inspected to calculate the total estimated RACM. Notification is provided to the Benton County Clean Air Authority at least 10 working days in advance of activity. An update, as required, is also provided when the amount of asbestos affected changes by 20 percent. The requirements and restrictions for removal, handling, encapsulation of asbestos from facilities undergoing demolition will be followed in accordance with established procedures for asbestos emission control. At least one onsite demolition supervisor and/or foreman assigned to RACM activities will be fully trained in accordance with the 40 CFR 61.145 requirements. Refresher training will occur every two years.
	1. Applicability of facilities being demolished, large or small notification requirements.			
	2. Notification requirements.	✓		
	3. Removal and handling of asbestos for demolition activities.	✓		
Benton County Clean Air Authority, Regulation 1, Article 8, Asbestos	4. Training of personnel.	✓		<ol style="list-style-type: none"> Notification is provided to the Benton County Clean Air Authority at least 10 working days in advance of activity. An update, as required, is also provided when the amount of asbestos affected changes by 20 percent. Advance notification and fee payment, as applicable, will be made to the BCCAA in accordance with the requirements of Regulation 1, Article 8 and Article 10, and the memorandum of agreement between DOE-RL and the BCCAA. Facilities planned for demolition will be inspected to calculate the total estimated RACM.
	National emission standard for asbestos adopted by reference as part of the Benton County Clean Air Authority (BCCAA) regulations.	✓		
	1. Adoption of federal notification requirements under 40 CFR 61, Subpart M, by reference.			
	2. Additional requirements of the BCCAA and fee schedule described in Regulation 1, Article 10.	✓		
	3. Unexpected discovery of asbestos.	✓		

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Table II.B-3. Special Requirements.

Citation	Requirement	Compliance		
		Compliance		Describe Method or Test and Give Reference
		In	Out	
Benton County Clean Air Authority, Regulation 1, Article 8, Asbestos	Memorandum of agreement between DOE-RL and Benton County Clean Air Authority on removal and encapsulation of asbestos materials.	✓		<div>1. Asbestos containing waste will be disposed of at the Hanford Site Central Landfill or other appropriate asbestos disposal facility in accordance with 40 CFR 61.150 requirements, WAC 173-303, as applicable, and the memorandum of agreement signed by DOE-RL and the BCCAA.</div> <div>2. Annual notifications will be made to the BCCAA in accordance with the requirements set forth in the memorandum of agreement between DOE-RL and the BCCAA. Case-by-case notifications for other asbestos projects will be provided to the BCCAA as required.</div> <div>3. Payment of fees shall be billed to the DOE-RL contractor, as appropriate, for notifications filled with the BCCAA. The appropriate DOE-RL contractor will provide payment of billed fees for asbestos activities to the BCCAA within 15 working days receipt of a valid invoice bill from the BCCAA.</div>
	1. Disposal of regulated asbestos-containing material (RACM).			
	2. Notification requirements.	✓		
	3. Payment of fees.	✓		
WAC 173-425, Open Burning	Prohibited materials.	✓		<div>1. Prohibited materials listed under RCW 70.94.775 and WAC 173-425-040 will not be burned at the Hanford Site.</div> <div>2. No outdoor fires will be ignited on days declared an air pollution episode by Ecology or on days of impaired air quality as declared by Ecology/BCCAA. Existing fires will not be given new fuel and allowed to burn down, with no visible smoke, within three hours of a declaration of impaired air quality.</div> <div>3. Burn permits for the Hanford Site are issued by the BCCAA. Burn permit conditions are stated therein.</div>
	Curtailment during episodes or impaired air quality.	✓		
	Open burning permit requirements.	✓		
Benton County Clean Air Authority (BCCAA), open burning requirements. WAC 173-425 is adopted by reference as part of Regulation 1, Article 5.	Observe "burn" or "no-burn" designations made by the BCCAA.	✓		<div>1. The Hanford Fire Department oversees all planned burning activities on site. Burn day designations are observed and Special Burning Permits are applied for through the BCCAA, as applicable, to support Hanford Site activities.</div> <div>2. BCCAA burn requirements and restrictions are followed on the Hanford Site. The Hanford Fire Department properly controls open burning to ensure compliance. (Note: also WAC 173-425)</div>
	Follow BCCAA burn requirements and restrictions.	✓		
	Requests for Special Burning Permit, as applicable.	✓		

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Table II.B-3. Special Requirements.

Citation	Requirement	Compliance		
		Compliance		Describe Method or Test and Give Reference
		In	Out	
WAC 173-491, Emission Standards and Controls for Sources Emitting Gasoline Vapors	Gasoline dispensing facilities shall register annually with Ecology or the local air authority within 60 days receipt of the registration form. A \$100.00 fee shall accompany the registration for gasoline dispensing facilities.	✓		<ol style="list-style-type: none"> 1. The Hanford Site fuel tanks are registered with Ecology and fees for the gasoline dispensing facility category applicable will be paid to Ecology. 2. The DOE-RL maintains records of gasoline throughput on the Hanford Site. 3. Hanford Site fuel tanks qualify for and currently meet the Stage I requirements. New gasoline storage tanks installed on the Hanford Site and over 10,000 gallons capacity will comply with the Stage I requirements.
	Gasoline dispensing facilities shall maintain total annual gasoline throughput records for the most recent two calendar years.	✓		
	Gasoline dispensing facilities with an annual gasoline throughput greater than 360,000 gallons and all new gasoline dispensing facilities with a total storage capacity greater than 10,000 gallons will comply with the Stage I requirements.	✓		
40 CFR 82, Subpart B, Servicing Motor Vehicle Air Conditioners	Persons performing service on a motor vehicle involving refrigerant in the motor vehicle air conditioner.	✓		<ol style="list-style-type: none"> 1. The DOE-RL uses recovery/recycling equipment certified by the Underwriters' Laboratory or determined by the EPA to be substantially identical to certified equipment. MVAC recovery/recycling equipment certification forms submitted to EPA Region 10 via DOE-RL in 1993. 2. Technicians are properly certified as part of the hiring practice. 3. Refrigerant currently is not sent offsite for reclamation. Persons performing MVAC refrigerant service, maintenance, or repair must complete log sheets. A certified technician fills out log sheet that includes: date of refrigerant recycling, vehicle number, type of refrigerant, amount of refrigerant recycled, amount of new refrigerant added, and the employee's name. (Note: Ecology agrees the MVAC log system satisfies the recordkeeping requirements under WAC 173-303-506.
	Refrigerant recycling equipment must be certified by the Administrator or an independent standards testing organization approved by the Administrator.			
	Technicians servicing MVAC units must be certified through an EPA approved certification program.	✓		
	Recordkeeping requirements for MVAC refrigerants.	✓		

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Table II.B-3. Special Requirements.

Citation	Requirement	Compliance		
		Compliance		Describe Method or Test and Give Reference
		In	Out	
40 CFR 82, Subpart D, Federal Procurement	Federal departments, agencies, and instrumentalities to maximize procurement of safe alternatives pursuant to the policies and requirements of the CAA Title VI.	✓		1. Provisions of offsite contracts are specified in accordance with the federal acquisition regulations and the DOE acquisition regulations. 2. Ozone-depleting substances are purchased by certified technicians or a purchaser representing and/or employing at least one certified technician. Class I or Class II substances are substituted with safe alternatives to the maximum extent possible. No purchases of a Class II substance are made for prohibited uses at the Hanford Site. Reporting requirements have been met with a certification by the GSA that the Federal Acquisition Regulation has been amended.
	Procurement of contracted services.			
	Procurement of refrigerants.	✓		
40 CFR 82, Subpart E, Labeling of Products Using Ozone-Depleting Substances	Warning labels and markings on containers containing certain ozone-depleting substances and refrigerant recovery/recycling equipment.	✓		1. Ozone-depleting substance containers are not currently shipped offsite; however, a labeling program currently is being evaluated. 2. Applicable equipment labeled in accordance with the requirements of Subpart E.
	Container labeling	✓		
	Recovery/Recycle equipment labeling	✓		

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Table II.B-3. Special Requirements.

Citation	Requirement	Compliance		
		Compliance		Describe Method or Test and Give Reference
		In	Out	
40 CFR 82, Subpart F, Recycling and Emissions Reduction	Reduce emissions of Class I and Class II ozone-depleting substances to the lowest achievable during the service, maintenance, repair, and disposal of appliances.	✓		<ol style="list-style-type: none"> Two types of training currently are conducted on the Hanford Site: general employee awareness training and technician certification (via and EPA-approved certification program operated by Martin Marietta Energy Systems at Oak Ridge National Laboratory's K-25 facility in Oak Ridge, Tennessee. All technicians maintaining, servicing, or repairing appliances will receive appropriate training.) Recordkeeping requirements include, but are not limited to, the names and addresses of all individuals who have taken the certification tests, the scores of all tests administered, and the date/location of the tests administered. All certified technicians will have available the wallet-sized identification card issued by the certifying program. All recovery and recycling equipment contains a label stating it is certified and showing the organization that tested and certified it. All records required by 40 CFR 82.166 will be kept for a minimum of 3 years. <ul style="list-style-type: none"> Records of certification maintained on the Hanford Site (Item 2). Service records are maintained: (amount/date of refrigerant added to systems containing 50 or more pounds charge). Reclaimers report to EPA within 30 days of the end of the calendar year the mass of refrigerant reclaimed and mass waste products. Disposers of small appliances, MVACs, and MVAC-like appliances maintain copies of signed statements that refrigerant has been evacuated from the system.
	Training and certification of technicians.			
	Recordkeeping requirements for technician certifications.			
	Refrigerant recycling equipment must be certified.			
	Reporting and recordkeeping requirements 40 CFR 82.166.			

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Table II.D-1. Air Operating Permit Inapplicable Requirements.

Requirement	Pollutant(s)	Applicability			Comments
		Federal	Federal/ State	State Only	
WAC 173-405 Kraft Pulping Mills			Inapplicable		This activity does not occur on the Hanford Site.
WAC 173-410 Sulfite Pulping Mills			Inapplicable		This activity does not occur on the Hanford Site.
WAC 173-415 Primary Aluminum Plants			Inapplicable		This activity does not occur on the Hanford Site.
WAC 173-420 Conformity of Transportation Activities to Air Quality Implementation Plans				Inapplicable	
WAC 173-422 Motor Vehicle Emission Inspection			Inapplicable		The Hanford Site is not located in a noncompliance area or emission contributing area requiring a vehicle emission inspection program.
WAC 173-430 Burning of Field and Forage and Turf Grasses Grown for Seed			Inapplicable		This activity does not occur on the Hanford Site.
WAC 173-433 Solid Fuel Burning Devices			Inapplicable		Applies to heating units less than 1 million BTU/hr and space heating devices. The Hanford Site does not use solid fuel burning devices for space heating.
WAC 173-435 Emergency Episode Plan			Inapplicable		Director may request plan. State-Only Requirement -070(1).

II.D-1.1

Table II.D-1. Air Operating Permit Inapplicable Requirements.

Requirement	Pollutant(s)	Applicability			Comments
		Federal	Federal/ State	State Only	
WAC 173-440 Sensitive Areas			Inapplicable		WAC 173-440-040(3) Designates 1 mile corridor along Columbia River. Although the area along the Columbia River is a sensitive area, no more restrictive standards for sources in the listed categories apply to the Hanford Site.
WAC 173-470 Ambient Air Quality Standards for Particulate Matter			Inapplicable		Applies to non-attainment areas; Benton and Franklin Counties are in attainment of the AAQS.
WAC 173-490 Emission Standards and Controls for Sources Emitting Volatile Organic Compounds			Inapplicable		Supplements WAC 173-400. The Hanford Site is not located in a designated ozone non-attainment area.
WAC 463-39 General Regulations for Air Pollution Sources			Inapplicable		The Hanford Site is not subject to the EFSEC permitting authority.
40 CFR 52.2479-52.2498		Inapplicable			These sections apply to the SIP and not sources of air pollution.
Preconstruction permits issued under Title I Part D Plan Req's. for Nonattainment Areas			Inapplicable		The Hanford site and surrounding areas are in attainment of AAQS's.
Section 111 (NSPS) standards or requirements, including Sec. 111(d)	SO2 NOx PM10	Inapplicable			Applicable if triggered by construction of new sources or modification of existing steam generating units meeting the applicability criteria of 40 CFR 61.

Table II.D-1. Air Operating Permit Inapplicable Requirements.

Requirement	Pollutant(s)	Applicability			Comments
		Federal	Federal/ State	State Only	
Title IV Acid Rain Control	SO2 NOx		Inapplicable		Steam generators on the Hanford Site are not included in Phase I of Title IV program.
Standards or requirements governing solid waste incineration under Sec. 129 of the FCAA		Inapplicable			This activity does not occur on the Hanford Site.
Consumer and commercial products, under Sec. 183(e) of FCAA		Inapplicable			Federal Ozone Measures (Release of VOCs) - Regulated entities defined as manufacturers, processors, wholesale distributors, or importers of consumer or commercial products for sale or distribution in interstate commerce. The Hanford Site is not involved in these activities.
Standards or requirements governing tank vessels, under Sec. 183(f) of FCAA		Inapplicable			46 USC §2101 vessel that carries oil or hazardous materials in bulk as cargo operating on the navigable waters of the U.S. The Hanford Site is not involved in these activities.
Outer continental shelves, under Sec. 328 of FCAA		Inapplicable			
Permits issued by local air pollution control auth. and local orders or reg's.			Inapplicable		Refer to Table V-4 for special cases involving local air pollution control agency jurisdiction.
Chapter 80.50 RCW	EFSEC		Inapplicable		The Hanford Site is not subject to EFSEC permitting authority.

II.D-1.3

Table II.D-1. Air Operating Permit Inapplicable Requirements.

Requirement	Pollutant(s)	Applicability			Comments
		Federal	Federal/ State	State Only	
WAC 173-434 Solid Waste Incineration			Inapplicable		No solid waste incineration facilities of the size threshold identified in the regulation operate on the Hanford Site. State-Only Requirements -110, 120, 130(2).
WAC 173-450 Establishing Requirements for Receipt of Financial Aid				Inapplicable	State procedural requirement.
WAC 173-495 Weather Modification				Inapplicable	This activity does not occur on the Hanford Site.
WAC 173-474 Ambient Air Quality Standards for Sulfur Oxides				Inapplicable	No monitoring or compliance requirements apply to the Hanford Site.
WAC 173-475 Ambient Air Quality Standards for Carbon Monoxide, Ozone, and Nitrogen Dioxide				Inapplicable	No monitoring or compliance requirements apply to the Hanford Site.
WAC 173-481 Ambient Air Quality and Environmental Standards for Fluorides				Inapplicable	No monitoring or compliance requirements apply to the Hanford Site.
Chapter 43.37 RCW Weather Modification				Inapplicable	This activity does not occur on the Hanford Site.
WAC 173-492 Motor Fuel Specifications for Oxygenated Gasoline				Inapplicable	The Hanford Site is not located in the control areas requiring oxygenated gasoline use.

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Table II.D-1. Air Operating Permit Inapplicable Requirements.

Requirement	Pollutant(s)	Applicability			Comments
		Federal	Federal/ State	State Only	
WAC 173-400-060 Emission Stds. for general process units	Part. Matter		Inapplicable		No facilities meeting the definition of general process units [WAC 173-400-030(32)] operate on the Hanford Site.
WAC 173-400-070 Emission Stds. for certain source categories	Part. Matter	Inapplicable*			*State Only Requirements (7)std. for acid mist from sulfuric acid plants. No emission units in the source categories are operated on the Hanford Site.
WAC 173-400-081 Startup and Shutdown		Inapplicable			Applicable if RACT, BACT, LAER, or BART standards provide special allowances during startup and shutdown.
WAC 173-400-105(5) Records, Monitoring, and Reporting	Opacity		Inapplicable		This section is not applicable to Hanford Site fossil fuel-fired steam generators based on heat input ratings of units.
WAC 173-400-112 Requirements for new sources in nonattainment areas		Inapplicable			The Hanford Site is not located in any nonattainment areas.
WAC 173-400-141 Prevention of Significant Deterioration				Inapplicable	Applicable if triggered through source construction or modification meeting definition.
WAC 173-400-171 Public Involvement				Inapplicable	Ecology procedural requirement.
WAC 173-400-180 Variance				Inapplicable	Ecology procedural requirement.
WAC 173-400-190 Requirements for Nonattainment Areas				Inapplicable	The Hanford Site is not located in any nonattainment area.

II.D-1.5

Table II.D-1. Air Operating Permit Inapplicable Requirements.

Requirement	Pollutant(s)	Applicability			Comments
		Federal	Federal/ State	State Only	
WAC 173-400-210 Emission Requirements of Prior Decisions				Inapplicable	The Hanford Site air pollution jurisdiction has been reserved by Ecology, except open-burning and asbestos abatement.
WAC 173-400-220 Requirements for Board Members				Inapplicable	Ecology procedural requirement.
WAC 173-400-260 Conflict of Interest				Inapplicable	Ecology procedural requirement.
Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980		Inapplicable			Permitting is not a substantive requirement, Title V permits are not applicable to CERCLA activities.
Resource Conservation and Recovery Act (RCRA) of 1976, 40 CFR 264 & 265 Subparts AA, BB, and CC		Inapplicable			These regulations are promulgated under RCRA authority.

CHAPTER III
COMPLIANCE PLAN SUMMARY

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CHAPTER III. COMPLIANCE PLAN SUMMARY

III.A. STATEMENTS OF INTENT

III.A.1. Current Compliance.

For sources currently in compliance with all applicable requirements, DOE-RL shall ensure the sources continue such compliance.

III.A.2. Future Compliance.

For applicable requirements that become effective during the permit term, DOE-RL shall ensure the source will meet such requirements on a timely basis.

III.A.3. Noncompliance.

For sources not in compliance with all applicable requirements, DOE-RL shall ensure compliance with the Compliance Schedule (located in Appendix B) as developed under the Compliance Plan (Chapter II).

CHAPTER IV
INSIGNIFICANT EMISSIONS UNITS

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CHAPTER IV

INSIGNIFICANT EMISSION UNITS

IV.A. LIST OF INSIGNIFICANT EMISSION UNITS

The list of stationary insignificant emission units (IEUs) is located in Appendix K. This list is considered equivalent to Ecology's Form C-3.

IV.B. DETERMINATION

IV.B.1. Introduction

The Air Operating Permit regulations contain several criteria for identifying insignificant emission units or activities for purposes of the air operating permit program (WAC 173-401-530). The Hanford Site has evaluated its sources of regulated pollutants against the criteria of four of the methods allowed by the regulations. When a source or emission unit has been determined to be insignificant based on one of the criteria, the applicable requirements applied to those sources are reduced. For example, categorically exempt sources are not required to be listed in the Application. Other insignificant emission units must be listed in the Application, but the level of detail that must be provided is greatly reduced compared to the information required for significant sources.

Other requirements that do not apply to insignificant emission units include:

- 1) No testing, monitoring, reporting, or recordkeeping requirements will be required by the air operating permit [WAC-173-401-530-(2)(c)].
- 2) The annual compliance certification required by WAC 173-401-630(5) will not apply to insignificant emission units [WAC 173-401-530(2)(d)].

The following discussion fulfills the requirement to identify insignificant emission units and the methodologies used to determine their insignificance in adequate detail so that Ecology can evaluate the emission units to verify insignificance. The narrative descriptions of the methodologies are provided below. Specific emission units and other required information are listed in Appendix K.

IV.B.2. Categorically exempt emission units (WAC 173-401-532)

Hanford Site property descriptions and, in many cases, facility inspections were used to determine the applicability of this category to particular facilities or activities. These emission units are not listed in the Application in accordance with Ecology instructions and regulations.

Categorically exempt insignificant emission units may include, but are not limited to, the following types of emission units on the Hanford Site.

- 1) Mobile transport tanks on vehicles, except for those containing asphalt [WAC 173-401-532(2)].
- 2) Lubricating oil storage tanks [WAC 173-401-532(3)].
- 3) Storage tanks, reservoirs, and pumping and handling equipment of any size, limited to... hydraulic fluid... using appropriate lids and covers where there are no objectionable odor or airborne particulate [WAC 173-401-532(6)].
- 4) Pressurized storage of oxygen, nitrogen, carbon dioxide, air, or inert gases [WAC 173-401-532(5)].
- 5) Vehicle exhaust from auto maintenance and repair shops [WAC 173-401-532(7)].
- 6) Vents from continuous emissions monitors and other analyzers [WAC 173-401-532(8)].
- 7) Vents from rooms, buildings, and enclosures that contain permitted emissions units or activities from which local ventilation, controls and separate exhaust are provided [WAC 173-401-532(9)].
- 8) Internal combustion engines for propelling or powering a vehicle [WAC 173-401-532(10)].
- 9) Metal or glass heat-treating, in absence of molten materials, oils, or VOCs [WAC 173-401-532(17)].
- 10) Drop hammers or hydraulic presses for forging or metalworking [WAC 173-401-532(18)].
- 11) Plastic and resin curing equipment, excluding FRP [WAC 173-401-532(23)].
- 12) Plastic pipe welding [WAC 173-401-532(29)].
- 13) Extrusion equipment, metals, minerals, plastics, grain, or wood [WAC 173-401-532(121)].
- 14) Plant upkeep, including routine housekeeping, preparation for and painting of structures and equipment, retarring roofs, applying insulation, to buildings in accordance with applicable environmental and health and safety requirements and paving or stripping parking lots [WAC 173-401-532(33)].
- 15) Cleaning and sweeping of streets and paved surfaces [WAC 173-401-532(35)].
- 16) Steam cleaning operations [WAC 173-401-532(39)].
- 17) Lawn and landscaping activities [WAC 173-401-532(43)].
- 18) General vehicle maintenance, including vehicle exhaust from repair facilities [WAC 173-401-532(45)].
- 19) Comfort air conditioning or air cooling systems, not used to remove air contaminants from specific equipment [WAC 173-401-532(46)].
- 20) Natural and forced air vents and stacks for bathroom/toilet activities [WAC 173-401-532(48)].
- 21) Office activities [WAC 173-401-532(49)].
- 22) Fuel and exhaust emissions from vehicles in parking lots [WAC 173-401-532(54)].
- 23) Oxonation equipment [WAC 173-401-532(58)].
- 24) 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 [WAC 173-401-532(70)]
- 25) Sample gathering, preparation, and management [WAC 173-401-532(73)].
 - 26) Repair and maintenance activities, not involving installation of an emission unit and not increasing potential emissions of a regulated pollutant [WAC 173-401-532(74)].
 - 27) Steam vents and safety relief valves [WAC 173-401-532(87)].
 - 28) Air compressors, pneumatically operated equipment, systems and hand tools [WAC 173-401-532(88)].
 - 29) Steam leaks [WAC 173-401-532(89)].
 - 30) Process water and white water storage tanks [WAC 173-401-532(94)].
 - 31) Pond dredging [WAC 173-401-532(116)].
 - 32) NonPCB oil filled circuit breakers, oil-filled transformers, and other equipment that is analogous to, but not considered to be a tank [WAC 173-401-532(118)].
 - 33) Electric or steam-heated drying ovens and autoclaves [WAC 173-401-532(119)]
 - 34) Water cooling towers processing exclusively noncontact cooling water [WAC 173-401-532(121)].

IV.B.3. Units and activities defined as insignificant based on size or production rate (WAC 173-401-533)

There are several types of emission units and activities that have been determined to be insignificant based on size or production rate. The individual emission units are listed in Appendix K. The types of emission units and the methodologies used to determine that the units are insignificant are discussed below.

I .B.3.1. Physical and analytical laboratories [WAC-173-401-533(3)(c)]

IV.B.3.1.1. Introduction

The regulation allows that physical and analytical laboratories may be insignificant based on size or production rate. However, the regulation does not define the criteria for determining that the laboratory is insignificant except to state that the determination will be made on a case-by-case basis. The methodology used to determine whether laboratories were insignificant based on size or production rate is described below.

WAC 173-401-530(1)(c), states that the emission unit or activity is insignificant if it is listed in WAC 173-401-533 and its size or production rate based on maximum rated capacity is below the level specified therein. WAC 173-401-533(3)(c) states that chemical or physical analytical laboratory operations may be determined to be insignificant on a case-by-case basis.

During discussions with Ecology staff, it had been indicated that the determination of insignificance on the basis of size or production rate for laboratories, including research and development laboratories, would be partly based on meeting the threshold values listed in WAC 173-401-530(4). The following discussion summarizes the methodology used to assess regulated pollutant emissions and provides a comparison of these emissions to the threshold

values listed in WAC 173-401-530 (4).

IV.B.3.1.2 Pacific Northwest Laboratory Operated Laboratories

IV.B.3.1.2.1 Methods and Assumptions

The PNL facilities at the Hanford Site are predominantly chemical and physical analytical laboratories used to conduct research and development. The laboratories and their supporting offices, storage and utility areas, shops, etc., are contained in several buildings, primarily located in the 300 Area. Table K.1a in Appendix K lists PNL managed facilities on the contiguous Hanford site. The listing is derived from the PNL facilities database and identifies building number, name, usage code and description, and building size. The table lists the total recent inventory of threshold chemicals in each building derived from the PNL Chemical Information System (CMS). The CMS is the laboratory central database used to track the current inventory of chemicals in the laboratory. This system tracks chemical containers from their introduction into the laboratory through Purchasing to the containers ultimate disposal as managed by PNL Waste Management. The CMS is maintained at an individual room/laboratory level inventory. Standard queries are available, and data files or hard copy printouts of inventories are readily accessible. The chemicals and chemical groups listed in WAC 173-401-530 were queried in the CMS, and the resulting inventories were the basis for the analysis provided herein.

The largest sources of chemical emissions are assumed to be from the use of chemicals in chemical analytical laboratories; consequently, comparison of PNL emissions to the chemical emission thresholds (other than carbon monoxide, nitrogen and sulfur oxides, PM₁₀, and ozone depleting substance) is based on estimates of the releases at maximum rated capacity of the chemicals in the CMS inventory. The primary sources of CO, NO_x and SO_x are combustion sources using fossil fuels; therefore comparison to the thresholds for these emissions was based on identifying the largest combustion sources. These sources are comprised of installed facility heaters, boilers or engines. Compliance with the threshold limits for CO, NO_x, and SO_x was determined by estimating maximum rated capacity emissions for the sources identified in preventative maintenance records and during facility walkthroughs.

The VOC emissions estimate for Pacific Northwest Laboratories (PNL) was determined by reviewing the entire PNL inventory of liquids and gases in inventory. The review identified those liquids and gases that are volatile based on the scientifically accepted definition of VOC having a low solubility in water and a vapor pressure at 20 degrees centigrade of greater than one millimeter of mercury. Using this definition, the chemicals listed in Table K.1b were evaluated based on solubility and vapor pressure data. Compounds that met one or both of the criteria were defined as VOC.

Those chemicals defined as VOC were evaluated to determine which might participate in atmospheric photochemical reactions. Those compounds specifically identified as non-reactive in WAC 173-400, and those compounds that have similar chemical stability, were removed

from the list. The remaining list identifies those chemicals defined as VOC and were included in the PNL estimate of VOC emissions.

This methodology is conservative in that if there was uncertainty as to volatility or photo reactivity the compound was considered to be both volatile and photo-reactive. Therefore, the current PNL VOC list will be subject to deletions as new data are obtained on the physicochemical properties of organic chemicals. The list may also expand as new compounds become part of the inventory with new research and development studies.

The primary sources of PM_{10} are expected to be shops used to construct research apparatus and maintain laboratory facilities. Compliance with the PM_{10} threshold was determined by identifying sources that would not be categorically exempt or insignificant based on size or production rate, estimating their emissions at maximum rated capacity and comparing them to the threshold.

Maximum-rated capacity chemical emissions (other than carbon monoxide, nitrogen and sulfur oxides, and PM_{10}) were estimated for all PNL-managed buildings using chemical inventories in the CMS. Maximum-rated capacity of the laboratory operations and their emissions was estimated by assuming the chemical sources, primarily laboratories, could be operated at four times their current capacity, and for 24 hours per day rather than the actual nominal 8 hours per day. The annualized emission rates were determined by assuming that 100 percent of the chemical inventory was released to the air, as opposed to being distributed among air, liquid and solid waste streams.

The maximum-rated capacity for combustion sources would be based on the maximum number of hours the sources would operate for their designed use. As explained later, this analysis was not needed, as all sources are exempt. The maximum rated capacity for shops was based on the assumption that the shops could be operated at four times their current capacity and for 24 hours per day rather than the actual nominal 8 hours per day.

Walkthroughs of buildings and/or rooms listed as shops or physical laboratories were performed to identify categorically-exempt emission units (WAC 173-401-532), insignificant emission units based on size or production rates (WAC 173-401-533), and potentially significant emission units. These walk-through, inquiries, and inspections provided a sufficiently complete assessment to determine the sources were insignificant emission units. Maximum-rated capacity emission estimates were made for potentially significant emission units and compared with the threshold limits (WAC 173-401-530). All estimates were based on the most conservative usage estimates provided during the inquiries/inspections.

IV.B.3.1.2.2. Results

Chemical Analytical Laboratories

To perform the analysis for compliance with the threshold limits, an emission unit was

defined as the individual room/laboratory in the facility. If it could initially be shown that for the entire building emission of any constituent was below the threshold value, no further room/laboratory analysis was performed. With this definition, the chemical emissions threshold determination was done in two steps. In the first step the total building emissions at maximum-rated capacity were compared to the threshold levels. This step assumed that 100 percent of the chemical inventory was used in one year and was released to air.

Table K.1b in Appendix K lists those buildings and those specific chemicals for which the total building emissions at maximum rated capacity exceeded the threshold levels under this conservative assumption. The buildings and chemicals that exceeded the threshold were further evaluated to determine if the total emissions from any individual room, operating at maximum rated capacity, exceeded the thresholds assuming that $1.0 \text{ E-}03$ of the liquids and $1.0 \text{ E-}06$ of the solids in inventory were released to air in a year. The $1.0 \text{ E-}03$ and $1.0 \text{ E-}06$ factors are taken from the analysis methodology used for radiological emission as outlined in 40 CFR 61. This method would give conservative values in lieu of evaluation done with individual vapor pressures and temperature analysis, and is far easier and reproducible in calculation. The results of this analysis are shown in Appendix K - Table K.1c. This analysis indicates that all building or rooms are insignificant emission units based on size or production rate with the possible exception of the 326 Building, Room 26-A. The analysis indicates a possible excess of fluorides. The indication of an excess was investigated to determine if a threshold was truly exceeded, or whether it was a result of the conservatism in the analysis approach. It was determined that the excess fluoride was sulfur hexafluoride (SF_6) gas. The SF_6 is used in the operation of an electron microscope. The actual use rate is less than 2 pounds per year rather than the inventory of 39 pounds as was conservatively assumed in the initial analysis. The maximum-rated capacity release rate would be less than 0.012 tons per year ($2/2000 \times 12$), more than an order of magnitude less than the fluorides threshold of 0.15 tons per year.

Physical Analytical Laboratories and Shops

The PNL facility database identified space allocated to shops and laboratories. Primary shop activities are small-scale fabrication of assemblies used in laboratory research or for maintenance of the laboratories. Major physical laboratory activities identified include waste simulation studies in quarter-scale, double-shell tank mock ups (336 building); waste melter research (324 building); and depleted uranium metal working (306 W building).

Facility walkthroughs were performed to identify emission sources that would not be categorically exempt or insignificant based on size or production rate. Information obtained during the facility walkthroughs is presented below. The only significant PM_{10} source identified was the shop in the 350 building where wood cutting and sandblasting occur.

Using factors obtained from the U.S. Environmental Protection Agency Office of Air Quality Planning and Standards (OAQPS) database, the wood cutting emissions were estimated to be 43 pounds of PM_{10} . This assumes all of the wood used is rendered to sawdust, and no emission controls are used. The emissions from sandblasting were estimated to be 1 pound

of PM_{10} . The total maximum-rated capacity for this facility is estimated at 528 lbs/year $[(43+1) \times 12 = 528]$. The regulatory limit is 0.75 tons (1500 pounds) emitted annually. The emission rate of PM_{10} at maximum-rated capacity is well below the threshold limit.

The following buildings, listed in the Pacific Northwest Laboratory (PNL) property database, have shop space in the facility. Scoping inquiries and inspections of the facility to determine the disposition of the shop space were performed, and the facilities' potentially significant emission sources evaluated. Categorical exclusions under WAC 173-401-530, -532, and -533 are discussed for each facility.

350 Building (9556 square feet of shop space; 9556 total square feet in the facility.)

The 350 building houses the general shop that supports all 300 Area PNL activities. It contains both a large metal-working area, including milling and fabrication equipment, and a sheet-metal shop. A small portion of the area is welding shop space. Some sandblasting of metal is done, using less than 2 tons of garnet sand annually. This building also contains a wood shop, where burial boxes that are used in the disposal of solid radioactive waste are assembled. Annual wood usage in all fabrications done in this shop are estimated at less than 120 tons. A small percentage of this amount would be released as sawdust (PM_{10}).

Equipment in the wood shop is connected to a dust collection system which further reduces dust emissions. Estimates made using the factors available from the U.S. Environmental Protection Agency Office of Air Quality Planning and Standards (OAQPS) database gives approximately 43 pounds of PM_{10} emitted annually assuming the entire amount of wood is rendered to sawdust. Based on the criteria found in sections 22, 24, and 25 of WAC 173-401-532 the facility is categorically exempt from the permit submission. Metal work is done primarily indoors. The facility has a dedicated ventilation system that exhausts the facility. Less than 300 pounds per year of welding rod is used, which is well below the limit established in WAC 173-401-533(i), excluding the welding done in the facility based on size or production rate. With less than 0.75 tons of PM_{10} , the facility has insignificant emissions.

306W Building (5303 square feet of shop space; 22339 square feet of building space)

This facility primarily machines depleted uranium billets. The facility contains most major pieces of metal shop equipment. There are several small electrically heated furnaces. The shop currently operates at a reduced level (no full scale machining operations), but is occupied Monday to Friday on a normal 8 hour day. The shop handles less than two tons of material per year. Based on WAC 173-401-532 (17)(18)(20)(22)(24) and (25) the facility is categorically exempt from the permit submission. All work is done indoors. The facility has a dedicated ventilation system that exhausts through HEPA filtration.

325 Building (4251 square feet of shop space; 41587 square feet of building space)

This building contains a general metal shop and a small bench area for electronic test equipment and work. Small parts and assemblies in support of general facility maintenance and some research applications are produced. The shop contains several pieces of equipment for general metal work. The amount of welding done in this area uses less than 50 pounds of rod each year.

Based on WAC 173-401-532 (55) the facility is categorically exempt from the permit

submission. All work is done indoors. The facility has a dedicated ventilation system that exhausts the area. Less than 100 pounds per year of welding rod is used, which is well below the limit established in WAC 173-401-533 (i), excluding the welding done in the facility based on size or production rate.

324 Building (4123 square feet of shop space; 32,136 square feet of building space)
This building contains a general metal shop where small parts and assemblies in support of general facility maintenance and some research applications are produced. The shop contains several pieces of general metal working equipment. The amount of welding done in this area uses less than 100 pounds of rod each year. Based on the criteria found in WAC 173-401-532 (55) the facility is categorically exempt from the permit submission. Work is done primarily indoors, with some welding activity done outside. The facility has a dedicated ventilation system that exhausts the area. Less than 100 pounds per year of welding rod are used, which is well below the WAC 173-401-533 (i) limit, excluding the welding done in the facility based on size or production rate.

622F Building (2660 square feet of shop space; 2660 square feet of building space)
This building has three rooms that contain two small machine shop operations, and one room containing a small work bench used for electrical equipment testing. The machine shop equipment is used primarily for machining of small parts in support of research projects. This shop is used on a frequent, but not full- time basis. Based on WAC 173-401-532 (55), the facility is categorically exempt from the permit submission. All work is done indoors. No welding is done in the area.

3731A Building (2484 square feet of shop space; 2484 square feet of building space)
This was formerly a graphite machining area, but is shut down. The facility is used for storage of the machining equipment.

327 Building (1424 square feet of shop space; 10,337 square feet of building space)
The building contains a general metal shop where small parts and assemblies in support of general facility maintenance and some research applications are produced. The shop contains several pieces of general metal working equipment. No welding is done in this area. The air from this space is cycled through the facility HEPA filter system. Based on WAC 173-401-532 (55) the facility is categorically exempt from the permit submission. All work is done indoors. No welding is done in the area.

3718A Trailer 4 (1310 square feet of shop space; 2025 square feet of building space)
This space is an Instrument shop. The work done in this area is bench-type electronics tuning and repair, with no machining or production type work.

329 Building (1268 square feet of shop space; 13,817 square feet of building space)
This space contains a general metal shop where small parts and assemblies in support of general facility maintenance and some research applications are produced. The shop contains several pieces of general metal working equipment. No welding is done in this area. Based on WAC 173-401-532 (55) the facility is categorically exempt from the permit submission.

All work is done indoors.

331 Building (935 square feet of shop space; 44,478 square feet of building space)

The 331 building includes two spaces, one is a craft shop where a fitter, a millwright, and an electrician share an area for storage of equipment and general work; the other area is an Instrument shop, where small electrical equipment is calibrated and repaired. Activities performed in these areas are bench-type work, electronic tuning and repair, with no machining or production-type work.

350A Building (915 square feet of shop space; 915 square feet of building space)

This building contains a paint shop with a walk-in-size paint booth. The ventilation system for the building operates at a slight negative pressure (approximately 0.5 inches water gauge) that draws outside air into the booth, and filters the discharge side. All air in the booth is filtered through a paper filter media which traps paint overspray. This building is used almost daily, for small jobs that can be easily moved in and out of the booth. On average, less than 2 gallons of paint a day is used, which is below the limit established in WAC 173-401-533 (q) and is excluded, based on size or production rate.

305B Building (896 square feet of shop space. 7012 square feet of building space)

This facility is a permitted Treatment, Storage, and Disposal facility. The shop space in this facility has been dedicated to waste storage space. No shop activities occur in this facility.

6652C Building (770 square feet of shop space; 1430 square feet of building space)

This facility is shut down. All equipment is being removed.

326 Building (727 square feet of shop space; 22,552 square feet of building space)

This shop space has been converted to laboratory and office space. No shop activities occur in this building.

622R Building (707 square feet of shop space; 3667 square feet of building space)

This shop area is used as a general craft area; its primary function is as an electrical equipment test area used by an instrument technician. No milling, machining, or welding is done in this shop area.

320 Building (592 square feet of shop space; 11,963 square feet of building space)

This shop area contains a metal lathe and a drill press, used primarily by research staff to machine small parts in support of research projects. This shop is used on a very infrequent basis. Based on WAC 173-401-532 (55) criteria, the activities in this shop area are categorically exempt from the permit submission. All work is done indoors.

306W Trailer 5 (364 square feet mislabeled as shop space; 364 square feet of building space)

This space is office space in an office trailer and was mislabeled as shop space.

3720 Building (352 square feet of shop space; 13,110 square feet of building space)

This space is used as a material storage area. There are no shop activities at this facility.

3718A Building (352 square feet of shop space; 352 square feet of building space)
This space is used as a material storage area. There are no shop activities at this facility.

3745B Building (274 square feet of shop space; 3167 square feet of building space)
There is a small metal working area in this building that supports some small material/parts manufacturing needs particular to the work being done in the building. Based on the criteria found in WAC 173-401-532 (55) the facility is categorically exempt from the permit submission. All work is done indoors.

318 Building (209 square feet of shop space; 14,498 square of building space)
The shop space in this facility is an electronics shop. The work in this area is bench-type work, with no machining or production-type work.

337 Building (178 square feet of shop space)
This space is occupied by the buildings computer support personnel and is an electronics repair shop. The work in this area is bench-type work, with no machining or production-type work.

IV.B.3.2. Industrial water chlorination facilities of not greater than 20 million gallons per day capacity [WAC 173-401-533(2)(p)]

Water filtration plants that chlorinate water are identified in the list below. These facilities are insignificant emissions units based on a comparison to the size or production rate threshold.

Facility	Capacity (gpd)
315 Filter Plant	5,040,000
283E Filter Plant	2,160,000
283W Filter Plant	2,160,000
183N Filter Plant	500,000
183KE Filter Plant	30,000

IV.B.3.3. Internal combustion engines greater than 100 horsepower and less than 500 horsepower

The issue of stationary internal combustion (IC) engines is not well defined in the regulations. Guidance from ecology on how to treat internal combustion engines less than 500 horsepower (HP) for this Application has indicated that providing numbers of units on-site would be appropriate. The number of units is listed below.

<u>Stationary IC Engines</u>	<u>No. of units (estimated)</u>
>100 HP but <500 HP	200-250

These units are believed to be insignificant emission units based on size and hours of usage. Most of these units are emergency or backup generators and operate on a very limited basis. Except in emergencies or to provide backup or temporary power, the units are run intermittently for brief periods for maintenance or test purposes. These test periods generally do not exceed 4 hours per week. Some of these units may be used to provide temporary power and may operate for extended periods at temporary locations. For example, the 185 horsepower diesel powered IC engine at 183 KE in the 100 K Area runs continuously during warm weather to provide adequate water circulation for fish rearing activities

IV.B.3.4 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. [WAC 173-401-533(2)(d)]

There are numerous VOC storage tanks on the Hanford Site containing VOC's less than 10,000 gallons capacity and considered insignificant emission units. Many of these tanks store diesel fuel for the internal combustion engines identified in Table II.B-2 and in Section IV.B.3.3 above. These tanks have not been listed individually in this Application.

IV.B.3.5 Operation, loading, and unloading storage of butane, propane, or liquified petroleum (LPG), storage tank, vessel capacity under 40,000 gallons [WAC 173-401-533(2)(e)]

There are propane storage tanks on the Hanford Site less than 40,000 gallons capacity. These tanks are used for space heating and as a supply for smaller, portable propane tanks used in construction and maintenance activities. These tanks have not been listed individually in this Application.

IV.B.3.6 Space heaters and hot water heaters using natural gas, propane, or kerosene and generating less than five million BTU/hr. [WAC 173-401-533(2)(r)]

There are numerous facilities on the Hanford Site that use space heaters and hot water heaters using propane and generating less than five million BTU/hr. These units have not been listed individually in this Application.

IV.B.3.7. Cold Degreasers

The insignificant emission unit regulations do not address this type of activity, however, guidance from Ecology has indicated that these units are considered insignificant emission units. There are about 50 cold degreasing units identified on the Hanford Site. These units are used primarily for parts washing in maintenance activities.

IV.B.4. Emission units with actual emissions less than emission thresholds (WAC 173-401-530)

The actual emissions of numerous facilities were compared to the emission thresholds of the regulated pollutants identified in WAC 173-401-530 and WAC 173-401-531. The actual emissions for these emission units were estimated using calculational procedures. The emission units that have been determine to be insignificant based on the comparison to the threshold values are listed in Appendix K - Table K.2.

The table lists the emission unit, the pollutants, the CAS Number of the pollutant, the emission threshold, and the actual emissions. Table K.2 is intended to provide the information required by Form C-4 of the Ecology application instructions. Table C-4 was not used because of the large number of Hanford Site insignificant emission units, requiring a labor intensive effort to enter the information into the Ecology form. Table K-2 is equivalent to Form C-4, as allowed by the Ecology application instructions. The Ecology application instructions also require that the applicant provide a description of the methods used to determine actual emissions, including the calculations, assumptions, and input parameters used when emissions are estimated. The calculations used to estimate the actual emissions are described in Appendix A.

IV.B.5. Fugitive emission sources [WAC 173-401-530(1)(d)]

Emission units that have been identified on the Hanford Site that are insignificant because they are fugitive sources of regulated air pollutants are identified in Appendix K - Table K.3. The emission units listed in Table K.3 have also been assessed against the emission thresholds listed in WAC 173-401-530(4) and are insignificant based on estimated actual emissions as well.

Facility-wide processes

There are numerous activities on the Hanford Site that may generate fugitive air emissions. These activities are often associated with construction or facility modification and maintenance activities. Specific locations cannot be listed for the activities and emission units described below since these activities involve all areas and all facilities of the Hanford Site. At times the activities listed below may require operation of one or more point sources of regulated air pollutants in conjunction with the activities listed below. For example, a large construction project may require a concrete plant and an asphalt plant to supply materials for the construction and paving activities. These batch plants may not meet the criteria of an insignificant emission unit. These projects will be evaluated on a case-by-case basis to determine all applicable requirements associated with large construction projects.

Functions associated with new construction and facility modification and maintenance activities may include but are not limited to the following:

Site Preparation

- Vegetation clearing.
- Land leveling, including preparing areas for foundations.
- Excavation
- Dredging
- Dust suppression

Roofing

- Carpentry
- Concreting
- Coating
- Demolition
- Equipment and area cleaning
- Miscellaneous roofing activities

Concreting and Paving

- Construction of foundations, walls, floors, 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 installation, e.g. walls, floors, ceilings, counters, and cabinets
- Installation of floor coverings

Electrical Work

- Interior lighting and power
- Exterior lighting and power
- Installation of temporary interior and exterior lighting
- Miscellaneous lighting and power

Plumbing

- Pipe threading
- Welding, brazing, soldering, or cutting torch activities
- Acid etching
- Application of protective coatings
- Equipment and area cleaning

Metal working activities

- May include cutting, grinding, finishing, welding, drilling, machining, and other activities

Heavy equipment usage

- Scrapers
- Bulldozers
- Dump trucks
- Front end loaders
- Trackhoes
- Backhoes
- Graders
- Cranes
- Pavers
- Water trucks
- Water wagons
- Rollers
- Rock crushers and pug mills
- Cement trucks
- Other heavy equipment as needed

Agricultural and landscaping activities

- Site preparation
- Revegetation activities
- Application of agricultural and landscaping chemicals
- Application of surface coatings, e.g. rock, gravel, and plastics

Miscellaneous construction activities

- Installation of miscellaneous systems or equipment
- Installation and use of portable sanitation facilities
- Equipment and area cleaning

Abatement activities

- Lead abatement
- PCB equipment management and abatement
- Radiological contamination abatement
- Chemical contamination abatement
- Asbestos abatement (See Table II.B-3).

Demolition activities

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 of activities. Certain activities conducted in exhausted greenhouses may also be permitted under the portable and temporary radionuclide air emission unit notice of construction (NOC) approved by the Washington State Department of Health. The conditions associated with this NOC approval are described in Table II.B-1.

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 and cutting activities.

Certain of the above activities may generate fugitive emissions which are only subject to the General Standards for Maximum Emissions (WAC 173-400-040) and therefore may be considered insignificant emission units according to WAC 173-401-530(1)(d).

IV.B.6 DIFFUSE AND FUGITIVE EMISSION SOURCES [40 CFR 61 Subpart H]

In accordance with the conditions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) Federal Facility Compliance Agreement (FFCA) signed on February 7, 1994, this Application contains the results of an assessment of diffuse and fugitive (fugitive) radionuclide emission dose from the Hanford Site (see Appendix B, Milestone Number A-10-1). The report, *Diffuse and Fugitive Emission Dose Assessment on the Hanford Site* (Davis et al. 1995) is included as a reference to this Application. A brief summary of the report follows.

Fugitive emission sources of radionuclide airborne emissions on the Hanford Site include cribs, ponds, ditches, trenches, retention basins, diversion boxes, valve pits, french drains and reverse or injection wells, tanks, burial grounds, decontamination and decommissioning activities, and radioactively contaminated surface areas (Davis et al. 1995). The following table is taken from the Davis et al. (1995) report.

Types of Fugitive Emissions	Total Number of Sites
Cribs*	29
Ponds	23
Ditches	96
Trenches*	17
Retention Basins	87
Diversion Boxes	11
Valve Pits	4
Reverse Wells	44
French Drains	151
Tanks	42
Burial Grounds	623
Total	119

*Cribs and trenches that are located in a contiguous complex, such as those within the BC Cribs and Trenches Area, were recorded as one site, rather than as individual sources.

Other potential sources of fugitive emissions not specifically identified in the table above are building penetrations such as access doors in facilities containing radioactively contaminated areas or surface contamination areas (DOE 1994). Another source of fugitive emissions includes maintenance activities performed at waste tanks in the 200 East and 200 West area. These activities are briefly described in Appendices D-4 and E-7, respectively.

The extent of the Hanford Site surface contamination is described below (Davis et al. 1995).

Hanford Site Area	Surface Contamination, ^a hectares
100 Areas	65
200 Area	129
600 Area	1,063 ^b
300 Area (north)	18
Total	1,275

^a Includes areas posted as Surface Contaminated Areas or Radiologically Controlled Areas.

^b Includes BC Radiologically Controlled Area (RCA) south of the 200 East Area. Survey data of the BC RCA indicates this area may be significantly larger than currently characterized.

As reported in Table II.B-1, the dose to the maximally exposed individual from all fugitive sources was calculated to be 4.9 E-02 mrem for calendar year 1993. This is below the 0.1 mrem/year dose limit requiring continuous emissions monitoring. Consequently, the operational environmental monitoring program in conjunction with the radiological surveys of surface contamination areas constitute periodic confirmatory measurements of fugitive

radionuclide emissions from the Hanford Site.

Additionally, the radionuclide emissions from the single-shell tanks and double-shell waste tanks in the 200 Area have been estimated and reported in Appendices D and E. These emission estimates contribute to the body of data that confirms the radionuclide emissions from all sources remain well below the 10 mrem/yr. dose limit to the maximally exposed individual from all sources.

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CHAPTER V
PERMIT SHIELD SUMMARY

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CHAPTER V. PERMIT SHIELD SUMMARY

V.A. APPLICABLE REQUIREMENTS

The applicable requirements for which the DOE-RL requests a permit shield are located in Table V.A-1. Additionally, included as Table V.A-2, is a list of current and potential regulated pollutants. This list may change as a result of regulatory and Hanford Site process changes.

V.B. PERMIT SHIELD REQUEST

The DOE-RL requests that it and its contractors be shielded from enforcement actions alleging operation of an air emission source without a permit upon submittal of the Hanford Site Air Operating Permit Application. The DOE-RL also requests that a permit shield provision be incorporated within the air operating permit for all applicable and inapplicable requirements specified within the application and/or any appropriate modification of the application and/or permit. If granted, DOE-RL anticipates language similar to the following would be incorporated to the permit: Compliance with the permit conditions and compliance schedule contained within the permit is deemed compliance with any applicable air operating permit requirement, provided that such applicable requirements are included and are specifically identified in the permit upon its issuance.

Finally, DOE-RL requests that Ecology extend the permit shield to the permit application and/or permit for the inapplicable requirements specified within the air operating permit application. If granted, DOE-RL anticipates language similar to the following would be incorporated into the permit: Neither the permittee nor its contractors are required to comply with the inapplicable requirements specifically included and identified within the air operating permit application and/or any appropriate modification of the application or permit.

Table V.A-1. Applicable Requirements.

Requirement	Pollutant(s)	Applicability			Comments	Source Specific Information
		Federal	Federal/State	State		
WAC 173-401 Operating Permit Regulations				Applicable		
WAC 173-402 Civil Sanctions Under Washington Clean Air Act			Applicable			
WAC 173-425 Open Burning			Applicable			Table II.B-3
Preconstruction permits issued under Title I Part C (PSD)	Criteria	Applicable			The Hanford Site has PSD permit PSD-X80-14 regulating NOx emissions from PUREX and UO3 facilities.	Table II.B-2
Section 112 (HAP) including Sec. 112(r)(7)	Radionuclides	Applicable			40 CFR 61 Subpart H National Emission Standards for Emissions of Radionuclides other than radon from DOE facilities	Table II.B-1
	Asbestos	Applicable			40 CFR 61 Subpart M National Emission Standards for Asbestos	Table II.B-3
Sec. 504(b) or Sec. 114(a)(3) of FCAA Monitoring and Analysis and Enhanced Monitoring.		Applicable				
Stratospheric ozone protection under Title VI of FCAA	ODS	Applicable				Table IIB-2
Chapter 70.94 RCW and rules adopted thereunder	Radionuclides			Applicable	State-Only Requirements - 1993 Amendments	

Table V.A-1. Applicable Requirements.

Requirement	Pollutant(s)	Applicability			Comments	Source Specific Information
		Federal	Federal/State	State		
Chapter 70.98 RCW and rules adopted thereunder	Radionuclides			Applicable		
WAC 173-421 Motor Vehicle Emission Control Systems				Applicable		
WAC 173-460 Controls for New Sources of Toxic Air Pollutants	TAPs			Applicable	Applicable if source is constructed or modified causing increase in toxic air pollutants.	Table II.B-1
WAC 173-480 Ambient Air Quality Standards and Emission Limits for Radionuclides	Radionuclides			Applicable	Gives Washington State Department of Health authority to operate WAC 246-247 Radiation Protection Program	
WAC 246-247 Radiation Protection - Air Emissions	Radionuclides			Applicable		
WAC 173-491 Emission Standards and Controls for Sources Emitting Gasoline Vapors	VOC			Applicable	Stage 1 requirement for gasoline dispensing facilities in eastern Washington counties.	Table II.B-3

Table V.A-1. Applicable Requirements.

Requirement	Pollutant(s)	Applicability			Comments	Source Specific Information
		Federal	Federal/State	State		
WAC 173-400-040 General Standards for Maximum Emissions	Opacity SO2 Fugitive Emission Fugitive Dust Fallout Odors		Applicable*		<p>* State-Only Requirements</p> <p>(1)(c) When two or more sources are connected to a common stack, Ecology may specify other soot blowing or grate cleaning allowable time limits</p> <p>(1)(d) alternate opacity limit per RCW 70.94.331(2)(c)</p> <p>(2) Fallout</p> <p>(4) Odors</p> <p>(6) second para. -exception to 1,000 ppm SO2 limit if compliance is not feasible and NAAQs will not be violated</p>	Table II.B-2
WAC 173-400-050 Emission Standards for combustion and incineration unit	Part. Matter		Applicable*		*State-Only Requirements alternative correction factor	
WAC 173-400-075 Emission Standards for sources emitting hazardous air pollutants	Radionuclides Asbestos		Applicable			
WAC 173-400-091 Voluntary Limits on emissions	Criteria HAPS		Applicable			
WAC 173-400-100 Registration	Radionuclides Criteria		Applicable			Table II.B-1 and II.B-2

Table V.A-1. Applicable Requirements.

Requirement	Pollutant(s)	Applicability			Comments	Source Specific Information
		Federal	Federal/State	State		
WAC 173-400-105 Records, Monitoring, and Recordkeeping	Criteria HAP		Applicable		Except WAC 173-400-105(5).	Table II.B-2
WAC 173-400-107 Excess emissions			Applicable			Table II.B-2
WAC 173-400-110 New Source Review (NSR)	Criteria TAPs		Applicable			Table II.B-1 and II.B-2
WAC 173-400-113 Requirements for new sources in attainment or unclassifiable area	Criteria		Applicable			
WAC 173-400-114 Requirements for replacement or substantial alteration of emission control technology at an existing stationary source			Applicable			
WAC 173-400-115 Standards of performance for new sources				Applicable		
WAC 173-400-120 Bubble Rules				Applicable		
WAC 173-400-131 Issuance of emission reduction credits				Applicable		

Table V.A-1. Applicable Requirements.

Requirement	Pollutant(s)	Applicability			Comments	Source Specific Information
		Federal	Federal/State	State		
WAC 173-400-136 Use of emission reduction credits				Applicable		
WAC 173-400-161 Compliance Schedules				Applicable		Appendix B
WAC 173-400-200 Creditable Stack Height and Dispersion Techniques				Applicable		
WAC 173-400-205 Adjustment for Atmospheric Conditions				Applicable		
WAC 173-400-230 Regulatory Actions				Applicable		
WAC 173-400-240 Criminal Penalties				Applicable		
WAC 173-400-250 Appeals				Applicable		

Table V.A-2. Regulated Pollutants.

Pollutants	Pollutant code	CAS number	Criteria	Sec 112(r)	WAC 173-460	Sec 112(b)
1,1,2-Trichloro-1,2,2-trifluoroethane	610	76-13-1			X	
1,3-Butadiene	383	106-99-0		X	X	X
2-Butoxy ethanol	394	111-76-2			X	
2-Hexanone	15	591-78-6			X	
2-Methylpropene	910	115-11-7		X		
2,2,4-Trimethylpentane	1340	540-84-1			X	X
Acetic acid	501	64-19-7			X	
Acetone	504	67-64-1			X	
Acetonitrile	506	75-5-8			X	X
Ammonia	475	7664-41-7		X	X	
Antimony	487	7440-36-0			X	X
Arsenic	489	7440-38-2			X	X
Benzene	446	71-43-2			X	X
Beryllium	411	7440-41-7			X	X
Bromine	434	7726-95-6		X	X	
Butyl acetate	398	123-86-4			X	
Butyl alcohol, tert-	1670	75-65-0			X	
Cadmium	1485	7440-43-9			X	X

Table V.A-2. Regulated Pollutants.

Pollutants	Pollutant code	CAS number	Criteria	Sec 112(r)	WAC 173-460	Sec 112(b)
Carbon monoxide	1665	630-8-0	X			
Carbon tetrachloride	368	56-23-5			X	X
Chlorine	318	7782-50-5		X	X	X
Chromium	258	7440-47-3			X	X
Cobalt	1387	7440-48-4			X	X
Copper	269	7740-50-8			X	
Cyclohexane	230	110-82-7			X	
Cyclohexanone	1649	108-94-1			X	
Dibutyl phthalate	1498	87-74-2			X	X
Ethyl alcohol	82	64-17-5			X	
Ethyl benzene	1634	100-41-4			X	X
Ethyl butyl ketone	--	106-35-4			X	
Ethylene glycol	95	107-21-1			X	X
Formaldehyde	108	50-0-0		X	X	X
Heptane	1631	142-82-5			X	
Hexane, n-hexane	12	110-54-3			X	X
Hydrochloric acid	1233	7647-1-0		X		
Hydrogen cyanide	25	74-90-8		X	X	X

Table V.A-2. Regulated Pollutants.

Pollutants	Pollutant code	CAS number	Criteria	Sec 112(r)	WAC 173-460	Sec 112(b)
Hydrogen sulfide	1797	7783-6-4		X	X	
Isobutane	908	75-28-5		X		
Isopropyl alcohol	1005	67-63-0			X	
Lead	1014	7439-92-1	X		X	X
Mercury	970	7439-97-6			X	X
Methane	973	74-82-8		X		
Methyl alcohol	1738	67-56-1			X	
Methyl chloride	343	74-87-3		X	X	X
Methyl ether or dimethyl ether	923	115-10-6		X		
Methyl ethyl ketone (2-butanone)	924	78-93-3			X	X
Methyl isobutyl ketone	1396	108-10-1			X	X
Methyl n-amyl ketone, 2-heptanone	926	110-43-0			X	
Methyl tert-butyl ether	1739	1634-4-4			X	X
Methylene chloride	890	75-9-2				X
N-butyl alcohol	388	71-36-3			X	
N ₂ O	1288	10024-97-2	X			
Nickel	870	7440-2-0				X
Nitrobenzene	882	98-95-3		X	X	X

Table V.A-2. Regulated Pollutants.

Pollutants	Pollutant code	CAS number	Criteria	Sec 112(r)	WAC 173-460	Sec 112(b)
Nitrosodimethylamine	837	62-75-9			X	X
Nonane	844	111-84-2			X	
NOX	1208	---	X	X		
Octane	849	111-65-9			X	
Ozone			X			
Pentane	818	109-66-0		X	X	
Phosphoric acid	789	7664-38-2			X	
Particulate matter < 10 μ m	1207	---	X	X		
POM	755	---				X
Propane	720	74-98-6		X		
Pyridine	737	110-86-1			X	
Radionuclides						X
Selenium	686	7782-49-2			X	X
SO ₂	660	7746-9-5	X	X		
SO ₃	662	7746-11-9		X		
Sulfuric acid	663	7664-93-9		X	X	
Tetrahydrofuran	620	109-99-9			X	
Toluene	641	108-88-3			X	X

Table V.A-2. Regulated Pollutants.

Pollutants	Pollutant code	CAS number	Criteria	Sec 112(r)	WAC 173-460	Sec 112(b)
Trichloroethylene	601	79-1-6			X	X
Volatile organic compound	533	---	X			
Xylene	552	1330-20-7			X	X
Yttrium	556	7440-65-5			X	

VI. REFERENCES

DOE-RL, 1993, *Radionuclide Air Emission Report for the Hanford Site Calendar Year 1993*, DOE/RL-94-51, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

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PNL, 1993 *Hanford Site Environmental Report for Calendar Year 1993*, PNL-9823, Pacific Northwest Laboratory, Richland, Washington.

WAC 173-401, *Operating Permit Regulation*.

WHC, 1994a, *Hanford Site Radionuclide National Emission Standards for Hazardous Air Pollutants Registered Stack Source Assessment*, WHC-SD-EN-RPT-007, Rev. 0, Westinghouse Hanford Company, Richland, Washington.

WHC, 1994b, *Hanford Site Radionuclide National Emission Standards for Hazardous Air Pollutants Unregistered Stack (Powered Exhaust) Source Assessment*, WHC-SD-EN-RPT-25, Rev. 0, Westinghouse Hanford Company, Richland, Washington.

WHC, 1995, *Diffuse and Fugitive Emission Dose Assessment on the Hanford Site*, WHC-EP-0840, Westinghouse Hanford Company, Richland, Washington.

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APPENDICES

- A. CALCULATIONS
- B. COMPLIANCE PLAN SCHEDULE
- C. 100 AREAS
- D. 200 EAST AREA
- E. 200 WEST AREA
- F. 300 AREA
- G. 400 AREA
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- I. MAINTENANCE
- J. MISCELLANEOUS ITEMS
- K. INSIGNIFICANT EMISSIONS UNITS

APPENDIX A

CALCULATIONS

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This appendix either documents or references representative emission calculation methodologies for each classification of emission point as listed in the air emission inventory report. The classifications are briefly discussed below.

- All registered radionuclide stack emissions are referenced to the Hanford Site Radionuclide National Emission Standards for Hazardous Air Pollutants Registered Stack Source Assessment (WHC 1994a) and the Radionuclide Air Emission Report for the Hanford Site Calendar Year 1993 (DOE-RL 1993) and the Hanford Site Radionuclide National Emission Standards for Hazardous Air Pollutants Unregistered Stack Source Assessment (WHC 1994b).
- Diffuse and fugitive radionuclide emission calculations from tank farm single-shell tanks and tank farm transfer equipment are provided. (1)
- Nonradiological emission calculations from both actively and passively ventilated single-shell and double-shell tanks are provided. (2)
- The remaining nonradiological emission categories are grouped by source type. Examples are underground petroleum storage tanks, carpentry shops, machine shops, laboratories, etc. A representative calculation is provided for each of these source types. (3)

- (1) Diffuse and fugitive radionuclide emission calculations from tank farm single-shell tanks and tank farm transfer equipment are provided.

RAD EMISSIONS - ACTIVELY VENTILATED SSTs, DSTs, AND DCRTs

CALC. METHOD DATA:					
Radionuclide inventory estimate of component (i) from Davis 1994	=	Ci			
40CFR61 release factor	=	0.001	yr^-1		
number of HEPA filters	=	n			
overall HEPA filter efficiency	=	%			
CALC. METHOD DETAILS					
emissions for each radionuclide component (Ci/yr) =					
eq#1 = uncontrolled emissions (potential to emit) for each radionuclide (Ci/yr) = [rad inventory (Ci)]*[release factor (yr^-1)]					
eq#2 = decontamination factor (DF) for n HEPA filters in series = [1/(1-efficiency(%)*.01)]^n					
eq#3 = actual emissions (estimated) for each radionuclide (Ci/yr) = [uncontrolled emissions (Ci/yr)]/[DF]					
Stack 296-A-12	# HEPA filters	Filter eff. (%)			
244-AR Vault	2	99.95			
	decontamination factor =		4000000		
Radionuclide	Symbol	Inventory (Ci)	App. D Factor	Potential to Emit (Ci/yr)	Actual Emissions (Ci/yr)
Carbon 14	14-C	5.5700e-04	1e-03	5.570e-07	1.393e-13
Cobalt 60	60-Co	3.1500e-01	1e-03	3.150e-04	7.875e-11
Selenium 79	79-Se	0.0000	1e-03	0.000	0.000
Strontium 89/90	89/90-Sr	1.1600e+03	1e-03	1.160e+00	2.900e-07
Yttrium 90	90-Y	1.1600e+03	1e-03	1.160e+00	2.900e-07
Technetium 99	99-Tc	1.2900e+01	1e-03	1.290e-02	3.225e-09
Ruthenium/Rhodium 106	106-Ru/Rh	0.0000	1e+00	0.000	0.000
Antimony 125	125-Sb	0.0000	1e-03	0.000	0.000
Iodine 129	129-I	2.7900e-04	1e+00	2.790e-04	6.975e-11
Cesium 134	134-Cs	3.0200e+00	1e-03	3.020e-03	7.550e-10
Cesium 137	137-Cs	9.5400e+02	1e-03	9.540e-01	2.385e-07
Cerium 143	143-Ce	0.0000	1e-03	0.000	0.000
Promethium 147	147-Pm	0.0000	1e-03	0.000	0.000
Europium 154	154-Eu	3.8100e+00	1e-03	3.810e-03	9.525e-10
Natural Uranium	Nat-U	3.6800e-04	1e-03	3.680e-07	9.200e-14
Neptunium 237	237-Np	4.5900e-04	1e-03	4.590e-07	1.148e-13
Plutonium 238	238-Pu	3.1200e-02	1e-03	3.120e-05	7.800e-12
Plutonium 239/240	239/240-Pu	1.4300e-01	1e-03	1.430e-04	3.575e-11
Plutonium 241	241-Pu	5.5500e-01	1e-03	5.550e-04	1.388e-10
Americium 241	241-Am	1.6000e+02	1e-03	1.600e-01	4.000e-08
Californium 242/244	242/244-Cm	1.0400e-02	1e-03	1.040e-05	2.600e-12

RAD EMISSIONS - PASSIVELY VENTILATED SINGLE SHELL TANKS

Hanford Site Air
Operating Permit Application

DOE/RL-95-07, Rev. 0
05/95

APP A-4

CALC. METHOD DATA: Concentration of component (i) from Ellingson, 1982 = uCi/ml SST exhaust rate with air purge = 1.86 ft3/min SST exhaust rate w/o air purge = 0.86 ft3/min Tank Headspace = 168000 ft3 number of HEPA filters = 1 n overall HEPA filter efficiency = 99.95 %						
CALC. METHOD DETAILS emissions for each radionuclide component (Ci/yr) = eq#1 = volume eluted for SSTs without air purge (ft3/day) = {[tank headspace volume (ft3)]*[29.9(in Hg)/29.79(in Hg)]-[headspace (ft3)]}*[2 elutions/day] eq#2 = volume eluted for SSTs with air purge (ft3/day) = [volume eluted without air purge(ft3/day)] + [volume due to air purge (1440 ft3/day)] eq#3 = uncontrolled emissions (potential to emit) for each radionuclide (Ci/yr) = [volume eluted (ft3/day)]*[365 (days/yr)]*[air space conc. (uCi/ml)]*[1 Ci/1E6 uCi]*[28,320 ml/ft3]= [volume eluted (ft3/day)]*[air space conc. (uCi/ml)]*[10.3368(days-Ci-ml)/(yr-uCi-ft3)] eq#4 = decontamination factor (DF) for n HEPA filters in series = [1/(1-efficiency(%)*.01)]^n eq#5 = actual emissions (estimated) for each radionuclide (Ci/yr) = [uncontrolled emissions (Ci/yr)]/[DF]						
241-A-101		headspace (ft3) 168000	max pressure (in Hg) 29.9	min pressure (in Hg) 29.79	breaths/day 2	# of HEPA filters 1
		HEPA eff. (%) 99.95	air purge (ft3/day) 0	decontamination factor = 2000 air flowrate (ft3/day)= 1241		
Radionuclide	Concentration (uCi/mL)					potential to emit (Ci/yr)
Cesium 137	6.80e-10					8.7e-06
Strontium 90	1.80e-08					2.3e-04
Plutonium 239	1.40e-12					1.8e-08
Americium 241	2.80e-12					3.6e-08
						actual emissions (Ci/yr)
						4.4e-09
						1.2e-07
						9.0e-12
						1.8e-11

RAD EMISSIONS - CATCH TANKS, VALVE VAULTS, DIVERSION BOXES

Hanford Site Air
Operating Permit Application

DOE/RL-95-07, Rev. 0
05/95

APP A-5

CALC. METHOD #1 DATA: surface contamination (i) = dpm/100cm2 surface area = cm2 40CFR 61 release factor = 0.001 yr ⁻¹ Ci/dpm = 4.51e-13 Ci/dpm												
CALC. METHOD #2 DATA: vault volume = ft3 initial pressure = 29.9 in Hg final pressure = 29.79 in Hg air concentration = uCi/ml												
CALC. METHOD #1 DETAILS emissions for each radionuclide (Ci/yr) = [surface contamination (i) (dpm/cm2)]*[area (cm2)]*[release factor (yr-1)]*[4.5E-13 (Ci/dpm)]												
CALC. METHOD #2 DETAILS emissions for each radionuclide (Ci/yr) = eq#1 = volume eluted for the vault (ft3/day) = {[vault volume (ft3)]*[29.9(in Hg)/29.79(in Hg)]-[vault volume]}*[2 elutions/day] eq#2 = emissions for each radionuclide (Ci/yr) = [volume eluted (ft3/day)]*[365 (days/yr)]*[air space conc. (uCi/ml)]*[1 Ci/1E6 uCi]*[28,320 ml/ft3]												
Westinghouse Hanford Company				P241AWA001 241-AW-A Valve Pit								
Source ID #	Radionuclide	CAS Number	Gas, Liquid, or Solid	Uncontrolled Emissions			Controlled Emissions					
				Maximum (Ci/yr)	Actual (Ci/yr)		Maximum (Ci/yr)	Actual (Ci/yr)				
001	Strontium 89/90	-	S	2.84e-10	2.84e-10		2.84e-10	2.84e-10				
001	Yttrium 90	10098-91-6	S	2.84e-10	2.84e-10		2.84e-10	2.84e-10				
001	Americium 241	14596-10-2	S	5.68e-12	5.68e-12		5.68e-12	5.68e-12				
Estimation of Surface Contamination Within Transfer Facilities												
	Facility Dimensions						Am-241 Surface Contaminat ion (Ci)	Sr-90 Surface Contaminati on (Ci)	Y-90 Surface Contaminat ion (Ci)	Am-241 Emissio ns (Ci/yr)	Sr-90 Emissio ns (Ci/yr)	Y-90 Emission s (Ci/yr)
Source	Length (ft)	Width (ft)	Height (ft)	Diameter (ft)	Surface Area (ft2)							
241-AW-A Valve Pit	14.0	12.0	6.6	N/A	678		5.68e-06	2.84e-04	2.84e-04	5.68e-12	2.84e-10	2.84e-10

NON-RADIOLOGICAL AIR EMISSION ESTIMATES

1.0 Introduction

Non-radiological (non-rad) emissions have been estimated for the major components in the 200 East and 200 West Tank Farms: single shell tanks, double shell tanks, and evaporators. Non-radiological emissions have not been estimated for the components in the waste retrieval operations which contain small inventories and/or are used infrequently. Non-radiological emissions from these minor components - valve pits, diversion boxes, DCRTs, transfer boxes, and diverter stations - are expected to be insignificant.

2.0 Approach

Ideally, non-rad emissions would be estimated using measured concentrations of air pollutants at the emission point and measured exhaust rates. Unfortunately, vapor characterization data which are available for the tank farm vessels in the 200 East and 200 West areas are extremely limited. Some liquid and solids sampling data are available, but due to the complex and heterogeneous nature of the waste and the infrequent sampling there is a high degree of uncertainty associated with emissions estimates based on these concentration data. Therefore, emission estimates for all tanks are based on the small set of measured headspace concentrations, rather than extrapolation of liquid and/or solids data. A set of extremely conservative, worst case assumptions has been used to estimate non-rad emissions for all tanks.

The tank for which there is the most vapor characterization data is C-103. This tank is expected to represent the worst case for organic emissions, and was selected as the first tank for vapor characterization under the Tank Vapor Issue Resolution Program (Huckaby, 1994a). For the air emission inventory, emissions from this tank were estimated initially. It was assumed, as a worst-case condition, that organic vapor concentrations in other passively vented tanks would be equal to those in C-103, unless other vapor characterization data were available. This is an extremely conservative assumption, as only 4 or 5 other tanks on site may have organic concentrations of the same order of magnitude (Huckaby, 1994b).

The C-103 data were adapted to provide emission estimates for actively vented tanks, again unless data specific to a tank were available. The methodology used for the various emissions' estimates is described below.

3.0 Emissions Estimates for Passively Vented Tanks --

3.1 Identification of Pollutants

A listing of all the chemicals which were included in the characterization for C-103 appears in Table 1. This table identifies which constituents are toxic air pollutants (TAPs) per Washington State code WAC 173-460, hazardous air pollutants (HAPs) per the Clean Air Act, or criteria pollutants per 40 CFR Part 50. If a constituent fit into one or more of these categories, then it was included in the emissions estimates for C-103.

3.2 Selection of Headspace Concentrations

Table 2 presents the data for each of the air pollutants, as presented in the C-103 characterization report (Huckaby, 1994a). The last column identifies the value which was selected to be representative of C-103 concentrations for the air emissions inventory. If the mean of all samples was reported, then it was applied. If the overall mean was not reported, the maximum of the mean values was selected. For cases in which either the pollutant was below the detection limit in all samples, or there was no significant difference between the samples and the blanks, the parameter was not included in emission estimates.

3.3 Calculation of Gas Flowrate

The majority of the single shell tanks have no active exhaust system. Emissions will occur from passively vented tanks in response to 'changes in the barometric pressure. When the barometric pressure drops, gas will flow out of the tank until the tank pressure has equilibrated with the ambient pressure. In order to estimate emissions from the passively vented tanks, the flowrate at which the gas will exit the tank was estimated. The calculations are based on an analysis from the report "Single Shell Tank Breather Filter Test Frequency" (Kriskovich, 1994).

Assumptions:

- The maximum' barometric pressure drop which is expected to occur over several hours at the Hanford Site is 0.11 inches of Hg (Kriskovich, 1994)
- The pressure drop occurs twice during a 24-hour period (Tranbarger, 1990).
- Tank headspace follows the Ideal Gas Law
- Temperature changes are neglected
- Base atmospheric pressure = 1 atm = 29.9 in. Hg
- Tank headspace = 168,000 ft³ (Kriskovich, 1994). This is the maximum headspace volume for storage tanks in the 200 East and 200 West area (104-AX).

Following the Ideal Gas Law ($PV=nRT$), for constant temperature and moles of gas:

$$(1) \quad P_1 * V_1 = P_2 * V_2 \quad \text{Therefore: } V_2 = V_1 * P_1 / P_2$$

$$P_2 = 29.9 \text{ in. Hg} - 0.11 \text{ in. Hg} = 29.79 \text{ in. Hg}$$

$$V_2 = V_1 * 29.9 / 29.79 = 1.037 * V_1$$

$$V_1 = 168,000 \text{ ft}^3$$

$$V_2 = 1.0037 * 168,000 \text{ ft}^3 = 168,620 \text{ ft}^3$$

$$V_2 - V_1 = 168,620 - 168,000 = 620 \text{ ft}^3$$

Assuming a pressure drop twice a day:

$$\text{Flowrate} = 620 \text{ ft}^3 / 12 \text{ hr} = 51.7 \text{ ft}^3 / \text{hr} \text{ (1 hr/60 mm)} = 0.86 \text{ cfm}$$

To be conservative in our estimate, one value of tank breathing rate is being applied to all tanks. In actuality, the breathing rate will be proportional to the tank vapor space, which is tank-specific. The tank with the greatest headspace has been used in the calculation, along with a high estimate of the diurnal barometric pressure drop, so the resulting flowrate is expected to overestimate actual breathing rates.

A second mechanism for exhaust from passively vented tanks is the air purge which is used on automated tank inventory level measurement. Single shell tanks have one of three types of level indication: manual tape, intrusion mode, or CASS (Crummel, 1990). The latter two methods have an air purge which is introduced into the tank headspace with a flowrate of approximately 50 cubic feet per hour (Huber, 1994). For tanks which have this air purge, a flowrate of 60 cfh = 1.0 cfm was added to the barometric pressure exhaust rate to obtain a total passively vented exhaust rate of 1.86 elm. Table 3 lists each passively vented tank, the type of level measurement, and whether or not it has the 1 elm air purge (sorted by tank and by air purge).

3.4 Calculation of Emissions

Calculations for all emissions were performed using Excel spreadsheet calculations. The formulas and sample calculations are provided on Calculation Sheet #1, and summarized

The concentrations of components in the C-103 report were in units of ppmv. These concentrations were derived accounting for 42.2 mg/l of water in the headspace, which

converts to 6 percent by volume, so water was included in the molecular weight of air. To convert percent by volume to percent by mass, the molecular weight of headspace and each component were used. Emissions were calculated using the equation:

$$(2) \quad E = Q * c * F$$

where E = emission rate, lb/hr
Q = tank breathing rate, cfm
c = component concentration, weight %
F = units conversion factor

Emission rates were then converted to units of lb/hour.

Assumptions made for the C-103 emissions estimates (and emissions from all other storage tanks) include:

- All components follow the Ideal Gas Law.
- All emissions are vapor phase constituents. Any particles which are present in the headspace are expected to have rad emissions associated with them. Therefore, particle emissions have been included in the inventory estimates for radiological components.
- There is no removal of vapor mass in the HEPA filters; controlled emissions are equal to uncontrolled emissions (See note below).
- Actual emissions are equal to maximum rate emissions. Data are not available for actual emissions versus a "design rate" for storage tanks. Instead, the estimates generated using extremely conservative assumptions have been applied to the design and actual emission categories.
- Emissions are constant for all three years, except when yearly data are available (ammonia in some actively vented tanks).

Note: Storage tank C-103 has a carbon adsorption filter installed on the exhaust. However, credit has not been taken for any removal of organics for several reasons. The exhaust is not sampled, so the removal efficiency and breakthrough point are not known. Not claiming removal leaves more flexibility for future operations.

Table 4 shows the completed emission estimates for C-103.

3.5 Emission Estimates for Other Passively Vented Tanks

Assumptions:

- As noted above, data for headspace concentrations and emissions estimates is extremely limited. Therefore, emissions of organic constituents from all passively vented tanks were assumed to be equal to the C-103 emissions, as a worst-case condition, unless data specific to a storage tank were available.
- For inorganic emission rates, C-103 may not represent the worst-case scenario. For inorganic constituents, the highest reported concentration or total mass emission rate for any passively vented tank was applied as the default for all tanks which do not have measured vapor phase concentrations.
- All passively vented tanks were assumed to have a breathing rate of 0.86 cfm or 1.86 elm, depending on whether level indication instrumentation has an air purge.

Vapor phase concentration data which was available for passively vented tanks other than C-103 are described below by contaminant type:

Organics

Headspace concentration data were available for six other passively vented tanks: BY-104, BY-105, BY-106, TX-118, C-108, and C-111.

BY-104, BY-105, and BY-106: 13 organic compounds which are HAPs or TAPs were detected (Jenkins 1994a, 1994b, and 1994c). The concentrations were not compared with background concentrations.

For TX- 118, C- 108, and C- 111, samples were analyzed for the 42 compounds specified by EPA Method TO-14 (Rasmussen, 1994). Results for these three tanks were:

TX-118: Concentrations were significantly above background for eight compounds which are TAPs or HAPs; Freon-11, benzene, toluene, carbon tetrachloride, methyl chloride, acetonitrile, THF, and 3-heptanone. (Compounds present at concentrations greater than 5 ppbv.)

C-108: No compounds were present above ambient concentrations.

C-111: No compounds were present above ambient concentrations.

Ammonia

Ammonia was measured in the headspace of BY-I04, BY-I05, and BY-I06 (Ligotke 1994a, 1994b, and 1994c). Concentrations were 248 ppmv, 43 ppmv, and 74 ppmv, respectively. The only other ammonia concentration data which was available for the passively vented tanks was a spreadsheet reporting monitoring of emissions with Drager tubes during 1993 and 1994 (Hewlitt, 1994). The highest ammonia concentration in tank emissions was 260 ppm.

The ammonia concentration in C-103 of 304 ppmv, is the highest of the reported concentrations, so the C-103 value was applied as the default value for tanks without measured concentrations.

Carbon Monoxide

The CO concentration for C-103 was 26.7 ppmv. Concentrations of CO were available for seven other tanks: BY-I04, BY-I05, BY-I06, C-104, TX-118, C-108, and C-111 [Rasmussen 1994a, 1994b, and 1994c]. Reported CO concentrations in all of these tanks are less than 3 ppmv, so the C-103 concentration was applied to all passively vented tanks for which CO was not measured.

NO and NO₂

In addition to C-103 data, the nitrogen components were measured for the three BY tanks 104, 105, and 106 (Jenkins 1994a, 1994b, and 1994c). Nitric oxide (NO) was 0.30 ppmv or below in the BY tanks, so the C-103 concentration of 26.7 ppmv was used as the default value. Nitrogen dioxide (NO₂) was not detected in any of the passively vented tanks.

HCN

No HCN was detected in the C-103 headspace, or in the Industrial Hygiene Drager tube monitoring. Per Jim Huckaby, HCN has not been detected in the headspace of any Hartford tanks, that he is aware of (Huckaby, 1994b). It was not included in emissions estimates.

4.0 Emission Estimates for Actively Vented Tanks

4.1 Approach

Emission data for actively vented (AV) tanks is even more limited than for the passively vented tanks. The only available vapor sampling data for organic emissions from actively vented tanks consist of total nonmethane organic carbon (TNMOC) concentrations in C-

105 and C-106 (Huckaby, 1994b). No organic speciation data were located. Emission estimates for organic compounds were therefore derived from the C-103 headspace data.

The assumption that concentrations in the tank headspace are equal to those in C-103 is not appropriate for actively vented (AV) tanks. The air changeover rate is at least two orders of magnitude higher than that in the passively vented tanks, and concentrations of organics in the AV tanks are expected to be several orders of magnitude lower than in the C-103 headspace. Organics which are no longer being generated would have likely volatilized over time as the waste has aged. Additionally, any of the tanks contain waste with a low solids content, or a surface crust which will slow volatilization rates for organics which are still being generated.

Under these conditions, the rate limiting step in the transport of organic emissions from the waste to the tank vent stacks in the actively vented tanks is most likely the transport of the volatile species to the surface of the waste. Except for a few tanks in which boiling provides some mixing, there is no advective mechanism for contaminant transport. For these reasons, it has been assumed that the flux of organic contaminants from the actively vented tanks is equal to the flux of contaminants from C-103. The estimates of emissions from the AV tanks based on constant flux are expected to still be conservative, since C-103 has a much higher organic waste content than the AV tanks.

Using the assumption of equal flux, the flux of contaminants was used to calculate headspace concentrations; the methodology is explained below.

4.2 Equal Flux Methodology

The flux of a contaminant is equal to the mass emission rate per unit surface area. It was confirmed that all of the actively vented storage tanks have a diameter of 75 feet, so the assumption of equal flux simplifies to one of equal emission rates:

$$(3) \quad E_1 = E_2 = Q_2 * c_2$$

where E_1 = emission rate of component from C-103, mass/time
 E_2 = emission rate of component from AV tank, mass/time
 Q_2 = exhaust flowrate for a single AV tank, volume/time
 c_2 = concentration of component in AV tank headspace, mass/volume

For each organic component, the emission rate for the AV tank was set equal to the C103 emission rate. Using the tank exhaust flowrate, Equation 3 was solved for concentration. The total emissions for a tank farm emission stack are equal to the emissions per tank multiplied by the number of tanks in the tank farm. Equations and sample calculations are shown on Calculation Sheet

Assumptions for these calculations are:

- All tanks which vent to a common emission point have equal headspace concentrations
- All tanks which vent to a common emission point have equal exhaust rates
- Exhaust rates selected are the higher of a) the mean value of measured exhaust flowrates for each emission point (Crummel, 1994c) or b) the design exhaust flowrate (Crummel, 1994a). The flowrates for each actively exhausted emission point are shown in Table 5.

Organics

As discussed above, there were no available organic speciation data for actively vented tanks. The equal flux methodology was applied using C-103 emission rates.

Ammonia

There were two sources of data for ammonia emissions from the AV tanks. The first is a set of annual ammonia emissions, in pounds, for four of the tank farm stacks for the years 1990 through 1993 (Crummel, 1994b). The second source was a collection of measured ammonia concentration and exhaust flowrates from tank SY-101 (Concentration and flowrate were measured for three months during the summer of 1993; the mean values were applied) (Wilkins, 1994). The ammonia concentrations, exhaust flowrates, and ammonia emission rates are shown in Table 6. Emissions from SY-101 are the highest, so this emission rate was applied to all AV stacks for which no ammonia data are available. Ammonia headspace concentrations were calculated using the same formulas and assumptions used for organic emission estimates. See Calculation Sheet

Carbon Monoxide

Carbon monoxide (CO) has been measured in two actively vented tanks; C-105 and C-106 (Rasmussen, 1994b). Exhaust rates were measured concurrently. The flux for each tank was calculated using equation 2. The tank with the higher flux rate is C-106, so this flux rate was applied to all other AV tanks.

NO and NO₂

The only concentrations available were for C-103; the flux from C-103 was applied to the actively vented tanks.

HCN

No HCN was detected in the C-103 headspace, or in the Industrial Hygiene Drager tube monitoring. Per Jim Huckaby, HCN has not been detected in the headspace of tanks that he is aware of (Huckaby, 1994b). It was not included in emissions estimates.

5.0 Emission Estimates for Evaporators

P-242-A-002 (Process ventilation)

Emissions are based on data from the document "Facility Effluent Monitoring Plan for 242-A Evaporator Facility" (FEMP). In this document, values are provided for emissions from the vessel ventilation stack during normal operations. Five components are identified: acetone, 1-butanol, 2-hexanone, methylisobutyl ketone (MIBK), and ammonia. For the first four chemicals, the document contains emissions data for 24 hours of operation. These values were multiplied by 365 to give the maximum emission rate for 1994, when the evaporator was operating.

Ammonia data were presented in the same document as an annual total mass. The highest annual mass was selected, and assumed to represent the actual emissions during 1994.

Actual emissions were calculated from the design rate emissions. The design rate emissions were multiplied by the ratio of the 1994 throughput (5.5 MM gallons) to the throughput at full-time, 100 % of design, operation (73.6 MM gallons) to obtain actual emission rates.

Data are not available for emissions during 1992 and 1993, when the vessel was not operating. It has been assumed that the process emissions in 1992 and 1993 were equal to zero.

P-242-A-001 (Building ventilation)

There are no nonradiological data available for emissions from the building stack. However, in the FEMP, data are presented for radiological (rad) emission components. Therefore, the nonrad emissions were based on the relative rad emissions from the process and the building. The total rad emissions for the building ventilation were divided by the total rad emissions for the process ventilation to give a building to process ratio. The nonrad emissions for the process stack were multiplied by this ratio to estimate nonrad emissions from the building during 1994.

During 1992 and 1993 the evaporator did not operate and it was assumed that there were no non-radiological emissions.

P-242-S-001

This evaporator is not in service emissions.

P-242-T-001

This evaporator is not in service emissions. It was assumed that there were no non-radiological
It was assumed that there were no non-radiological

Table 1. Chemicals Analyzed in C-103 Headspace.

Chemical (1)	HAP(2)	TAP (3)	Criteria Pollutant (4)
Inorganics			
Water			
Ammonia		B	
Hydrogen			
Nitrous Oxide (N ₂ O)			
Carbon Monoxide (CO)			Y
Nitrogen Dioxide (NO ₂)			Y
Nitric Oxide (NO)		B	Y
Sulfur Oxides			Y
Hydrogen Cyanide	Y	B	
Organics			
Benzene	Y	A	
Toluene	Y	B	
Butanal			
n-Butanol			
1,3-Butadiene	Y	A	
1,1-DCE (vinylidene chloride)	Y	B	
Methylene Chloride	Y	A	
Acetone (propanone)		B	
2-Pentanone		B	
2-Hexanone		B	
2-Heptanone		B	
2-Octanone			
Acetonitrile	Y	B	
Propanenitrile			
Butanenitrile			
Hexanenitrile			
Heptanenitrile			
Octanenitrile			
Nonanenitrile			
Methane			
n-Hexane	Y	B	
n-Heptane		B	
n-Octane		B	
n-Nonane		B	
n-Decane			
n-Undecane			
n-Dodecane			
n-Tridecane			
n-Tetradecane			
Total Semivol NPH			
DBBP (dibutylbutyl)			
Tributylphosphate		B	
Notes:			
1 From Hucksby, June 1994			
2 HAP = EPA hazardous air pollutant under Section 112 of Clean Air Act			
3 TAP = Washington State toxic air pollutant under WAC 173-460			
A = Class A TAP (carcinogens)			
B = Class B TAP			
4 40 CFR Part 50			

Table 2. C-103 Headspace Chemical Concentrations

	Means	Means	all	Deviation		Applied
Chemical	ppmv	ppmv	ppmv	ppmv	Comments	ppmv
Inorganics						
Ammonia	296	310	304	11		304
Carbon Monoxide (CO)	22.3	28.6	26.7	2.3		26.7
Sulfur Oxides			<0.04		Not detected	Not
Nitric Oxide			<0.02		No signif. diff. between	Not
HCN	1.33	1.63	1.5	0.3		1.5
			<0.04		No signif. diff. between	Not
Organics						
Benzene	<0.01	0.33				
Toluene	0.02	0.057				0.33
1,3-Butadiene	<0.02	0.06				0.057
1,1-DCE (vinylidene						0.06
Methylene Chloride	<0.02	1.62			Not detected	Not
Acetone (propanone)	8.8	19.4			Attributed to use as a cleaning	Not
2-Pentanone	1.09	1.09	1.09	0.64		19.4
2-Hexanone	0.51	0.59				1.09
2-Heptanone	0.56	0.56	0.56	0.1		0.59
Acetonitrile	9.1	13.2				0.56
n-Hexane	0.71	0.8				13.2
n-Heptane	0.66	0.66	0.66	0.14		0.8
n-Octane	0.33	0.33	0.33	0.09		0.66
n-Nonane	0.28	0.28	0.28	0.08		0.33
Tributylphosphate	0.508	0.508	0.508	0.054		0.28
						0.508
From Huckaby, June 1994						
HAP = EPA hazardous air pollutant under Section 112 of Clean Water Act						
TAP = Washington State toxic air pollutant under WAC 173-460						
A = Class A TAP (carcinogens)						
B = Class B TAP						
Chemicals which exhibited no significant difference between concentrations in the samples and those in the blanks were not						
When available, the overall mean of samples was applied. When this was not available, the maximum of the reported means was						
Methylene chloride concentrations were attributed to contamination by the use of MC as a cleaning solvent in the sampling						

Table 3. Level Indication of Single Shell Tanks

Tank Name	Level Indication	Air Purge
241-A-101	Manual Tape	N
241-A-102	Intrusion Mode	Y
241-A-103	Intrusion Mode	Y
241-A-104	Manual Tape	N
241-A-105	Manual Tape	N
241-A-106	Intrusion Mode	Y
241-AX-101	Intrusion Mode	Y
241-AX-102	Manual Tape	N
241-AX-103	CASS	Y
241-AX-104	Manual Tape	N
241-B-101	Intrusion Mode	Y
241-B-102	CASS	Y
241-B-103	Intrusion Mode	Y
241-B-104	Manual Tape	N
241-B-105	Manual Tape	N
241-B-106	CASS	Y
241-B-107	Manual Tape	N
241-B-108	Intrusion Mode	Y
241-B-109	Manual Tape	N
241-B-110	Manual Tape	N
241-B-111	Intrusion Mode	Y
241-B-112	CASS	Y
241-B-201	Manual Tape	N
241-B-202	Manual Tape	N
241-B-203	Manual Tape	N
241-B-204	Manual Tape	N
241-BX-101	Manual Tape	N
241-BX-102	Manual Tape	N
241-BX-103	CASS	Y
241-BX-104	CASS	Y
241-BX-105	Intrusion Mode	Y
241-BX-106	Manual Tape	N
241-BX-107	CASS	Y
241-BX-108	Manual Tape	N
241-BX-109	CASS	Y
241-BX-110	Manual Tape	N
241-BX-111	Manual Tape	N
241-BX-112	CASS	Y
241-BY-101	Manual Tape	N
241-BY-102	Manual Tape	N
241-BY-103	Manual Tape	N
241-BY-104	Manual Tape	N
241-BY-105	Manual Tape	N
241-BY-106	Manual Tape	N

Table 3. Level Indication of Single Shell Tanks

Tank Name	Level Indication	Air Purge
241-BY-107	Manual Tape	N
241-BY-108	Manual Tape	N
241-BY-109	CASS	Y
241-BY-110	Manual Tape	N
241-BY-111	Manual Tape	N
241-BY-112	Manual Tape	N
241-C-101	Manual Tape	N
241-C-102	Intrusion Mode	Y
241-C-103	CASS	N
241-C-104	CASS	Y
241-C-105	CASS	Y
241-C-106	CASS	Y
241-C-107	CASS	Y
241-C-108	Manual Tape	N
241-C-109	Manual Tape	N
241-C-110	Manual Tape	N
241-C-111	Manual Tape	N
241-C-112	Manual Tape	N
241-C-201	Manual Tape	N
241-C-202	Manual Tape	N
241-C-203	Manual Tape	N
241-C-204	Manual Tape	N
241-S-101	Intrusion Mode	Y
241-S-102	CASS	Y
241-S-103	CASS	N
241-S-104	CASS	N
241-S-105	Intrusion Mode	Y
241-S-106	CASS	N
241-S-107	CASS	N
241-S-108	Intrusion Mode	Y
241-S-109	Intrusion Mode	Y
241-S-110	Intrusion Mode	Y
241-S-111	CASS	N
241-S-112	Intrusion Mode	N
241-SX-101	Intrusion Mode	Y
241-SX-102	Intrusion Mode	Y
241-SX-103	CASS	Y
241-SX-104	Intrusion Mode	Y
241-SX-105	Intrusion Mode	Y
241-SX-106	CASS	Y
241-SX-107	Manual Tape	N

Table 3. Level Indication of Single Shell Tanks

Tank	Level	Air
Name	Indication	Purge
241-SX-108	Manual Tape	N
241-SX-109	Manual Tape	N
241-SX-110	Manual Tape	N
241-SX-111	Manual Tape	N
241-SX-112	Manual Tape	N
241-SX-113	Manual Tape	N
241-SX-114	Manual Tape	N
241-SX-115	Manual Tape	N
241-T-101	CASS	Y
241-T-102	CASS	N
241-T-103	CASS	Y
241-T-104	Manual Tape	N
241-T-105	Intrusion Mode	Y
241-T-106	Intrusion Mode	Y
241-T-107	CASS	N
241-T-108	Manual Tape	N
241-T-109	Intrusion Mode	N
241-T-110	Intrusion Mode	Y
241-T-111	CASS	Y
241-T-112	CASS	Y
241-T-201	Manual Tape	N
241-T-202	Manual Tape	N
241-T-203	Manual Tape	N
241-T-204	Manual Tape	N
241-TX-101	CASS	Y
241-TX-102	Manual Tape	N
241-TX-103	Intrusion Mode	Y
241-TX-104	CASS	Y
241-TX-105	Manual Tape	N
241-TX-106	Manual Tape	N
241-TX-107	CASS	Y
241-TX-108	Intrusion Mode	Y
241-TX-109	Intrusion Mode	Y
241-TX-110	Manual Tape	N
241-TX-111	Manual Tape	N
241-TX-112	Manual Tape	N
241-TX-113	Manual Tape	N
241-TX-114	Manual Tape	N
241-TX-115	Manual Tape	N

Table 3. Level Indication of Single Shell Tanks

Tank	Level	Air
Name	Indication	Purge
241-TX-116	Manual Tape	N
241-TX-117	Manual Tape	N
241-TX-118	Intrusion Mode	Y
241-TY-101	Intrusion Mode	Y
241-TY-102	CASS	Y
241-TY-103	Intrusion Mode	Y
241-TY-104	CASS	Y
241-TY-105	Manual Tape	N
241-TY-106	Manual Tape	N
241-U-101	Manual Tape	N
241-U-102	Intrusion Mode	Y
241-U-103	CASS	N
241-U-104	Manual Tape	N
241-U-105	CASS	N
241-U-106	CASS	N
241-U-107	CASS	N
241-U-108	Intrusion Mode	Y
241-U-109	CASS	N
241-U-110	Intrusion Mode	Y
241-U-111	Intrusion Mode	Y
241-U-112	Manual Tape	N
241-U-201	Manual Tape	N
241-U-202	Manual Tape	N
241-U-203	Manual Tape	N
241-U-204	Manual Tape	N

Table 4. Emissions Spreadsheet for C-103

Westinghouse Hanford Company

Emission point ID no. P241-C-103-001

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Emissions for CY 199__

Chemical composition of emission stream for Non-Radiological Pollutants

Source ID Number	CAS Number	Component	Concentr. (weight %)	Concentr. (volume %)	Gas, Liquid, or Solid	Uncontrolled Emission Rate							
						Max. Design		Actual Emissions		Max. Design		Actual Emissions	
						(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)	(lbs/hr)	(ton/yr)
Inorganics													
1	7664-41-7	Ammonia	1.83E-02	3.04E-02	Gas	1.50E-03	6.57E-03	1.50E-03	6.57E-03	1.50E-03	6.57E-03	1.50E-03	6.57E-03
1	630-08-0	Carbon Monoxide	2.65E-03	2.67E-03	Gas	2.17E-04	9.50E-04	2.17E-04	9.50E-04	2.17E-04	9.50E-04	2.17E-04	9.50E-04
1	10102-43	Nitric Oxide	1.60E-04	1.50E-04	Gas	1.31E-05	5.72E-05	1.31E-05	5.72E-05	1.31E-05	5.72E-05	1.31E-05	5.72E-05
Organics													
1	106-99-0	1,3-Butadiene	1.15E-05	6.00E-06	Gas	9.42E-07	4.13E-06	9.42E-07	4.13E-06	9.42E-07	4.13E-06	9.42E-07	4.13E-06
1	110-43-0	2-Heptanone	2.27E-04	5.60E-05	Gas	1.86E-05	8.13E-05	1.86E-05	8.13E-05	1.86E-05	8.13E-05	1.86E-05	8.13E-05
1	591-78-6	2-Hexanone	2.10E-04	5.90E-05	Gas	1.72E-05	7.51E-05	1.72E-05	7.51E-05	1.72E-05	7.51E-05	1.72E-05	7.51E-05
1	107-87-9	2-Pentanone	3.33E-04	1.09E-04	Gas	2.72E-05	1.19E-04	2.72E-05	1.19E-04	2.72E-05	1.19E-04	2.72E-05	1.19E-04
1	67-64-1	Acetone	4.00E-03	1.94E-03	Gas	3.27E-04	1.43E-03	3.27E-04	1.43E-03	3.27E-04	1.43E-03	3.27E-04	1.43E-03
1	75-05-8	Acetonitrile	1.92E-03	1.32E-03	Gas	1.57E-06	6.89E-04	1.57E-04	6.86E-04	1.57E-04	6.86E-04	1.57E-04	6.86E-04
1	71-43-2	Benzene	9.14E-03	3.30E-05	Gas	7.48E-06	3.28E-05	7.48E-06	3.28E-05	7.48E-06	3.28E-05	7.48E-06	3.28E-05
1	142-82-5	n-Heptane	2.35E-04	6.60E-05	Gas	1.92E-05	8.40E-05	1.92E-05	8.40E-05	1.92E-05	8.40E-05	1.92E-05	8.40E-05
1	100-54-3	n-Hexane	2.45E-04	8.00E-05	Gas	2.00E-05	8.76E-05	2.00E-05	8.76E-05	2.00E-05	8.76E-05	2.00E-05	8.76E-05
1	111-84-2	n-Nonane	1.27E-04	2.80E-05	Gas	1.04E-05	4.57E-05	1.04E-05	4.57E-05	1.04E-05	4.57E-05	1.04E-05	4.57E-05
1	111-65-9	n-Octane	1.34E-04	3.30E-05	Gas	1.09E-05	4.79E-05	1.09E-05	4.79E-05	1.09E-05	4.79E-05	1.09E-05	4.79E-05
1	108-88-3	Toluene	1.86E-05	5.70E-06	Gas	1.52E-06	6.67E-06	1.52E-06	6.67E-06	1.52E-06	6.67E-06	1.52E-06	6.67E-06
1	126-73-8	Triethylphosphate	4.80E-04	5.08E-05	Gas	3.93E-05	1.72E-04	3.93E-05	1.72E-04	3.93E-05	1.72E-04	3.93E-05	1.72E-04

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Table 5. Flowrate Data for Actively Vented Storage Tanks

Agency	Emission	Description	Vessels	Rate (a)	Measured Rate (b)			Rate
					Average	95% CL	Upper	
Point ID	Source ID			CFM	CFM	CFM		Estimate
Tanks: Double Shell								
296-P-23	P-296-SY-001	Primary stack for SY tank farm	241-SY-101	700 (200°F)	867	1076		867
"			241-SY-102					
"			241-SY-103					
296-A-17	P-296-AVAZ-001	Primary stack for AY and AZ tank farm	241-AY-101	4000	3260	3838		4000
"		Two fans; run 1 at a time	241-AY-102					
"			241-AZ-101					
"			241-AZ-102					
296-A-27	P-296-AW-001	Stack for AW tank farm	241-AW-101	1000 (70°F)	1041	1289		1041
"		2 fans; use 2 fan at a time	241-AW-102					
"			241-AW-103					
"			241-AW-104					
"			241-AW-105					
"			241-AW-106					
296-A-29	P-296-AN-001	Stack for AN tank farm	241-AN-101	600 SCFM	773	893		773
"		2 fans; use 2 fan at a time	241-AN-102	at 70°F				
"			241-AN-103					
"			241-AN-104					
"			241-AN-105					
"			241-AN-106					
"			241-AN-107					
296-A-40	P-296-AP-001	Stack for AP tank farm	241-AP-101	1170 SCFM	951	1268		1170
"		Run 1 fan at a time.	241-AP-102	at 70°F				
"			241-AP-103					
"			241-AP-104					
"			241-AP-105					
"			241-AP-106					
"			241-AP-107					
"			241-AP-108					
Tanks: Single Shell								
296-S-15	P-296-S-015-001	Exhauster stack for SX tank farm	241-SX-101	6100	4212	6527		6100
"		Assume for now these are on active vent	241-SX-102					
"		Efficiency document says design	241-SX-103					
"		changed from 11,325 to 6100.	241-SX-104					
"		Run 1 at a time.	241-SX-105					
"			241-SX-106					
"			241-SX-107					
"			241-SX-108					
"			241-SX-109					
"			241-SX-110					

Table 5. Flowrate Data for Actively Vented Storage Tanks

Agency	Emission	Emission	Design	Measured Rate (b)			Rate
				Rate (a)	Average	95% CL	Used for
Point ID	Source ID	Description	Vessels	CFM	CFM	CFM	Estimates
Tanks Double Shell							
*			241-SX-111				
*			241-SX-112				
*			241-SX-114				
296-P-17	P-296-P-017-001	Portable exhauster used this tank only	241-A-105	7000 (70°F)	1127	2234	7000
296-P-16	P-296-P-016-001	Portable exhauster for C-105/106	241-C-105	7000 (70°F)	3243	3993	7000

Table 6. Ammonia Emissions for Actively Vented Tanks

Data for totalized ammonia emissions from a stack for 3 years was supplied by Gary Crummel.							
Data for emissions from SY-101 is from Nancy Wilkins. For this tank, they monitor ammonia concentration and flowrate.							
Flowrate is higher of the design flowrate or the mean actual flowrate from Gary Crummel.							
	Number	Total			Annual	Total	Total
	of	Ammonia			Total	Rate	Rate
	Tanks	Annually	Flowrate	Conc.	per Tank	per Tank	per Tank
		(lbs)	(scfm)	(ppmv)	(lbs)	(lbs/hr)	(tons/yr)
AN Stack							
	1991	2791	773	156			
	1992	2791	773	156			
	1993	7	2791	773	156	399	0.046
AP Stack							
	1991	769	1170	28			
	1992	792	1170	29			
	1993	8	707	1170	26	88	0.010
AW Stack							
	1991	891	1041	37			
	1992	1172	1041	49			
	1993	6	558	1041	23	93	0.011
SY Stack							
	1991	1768	867	88			
	1992	1768	867	88			
	1993	3	1837	867	92	612	
Tank SY-101							
	1993 avg.	1	641	550	50	641	0.073
Default values							

1/2

Calculation of Estimated Emissions from Tank C-103

- * concentrations reported in ppmv
- * converting this to % by volume:

$$(x \text{ ppmv}) \left(\frac{100\%}{10^6 \text{ ppm}} \right) = (x \text{ ppmv}) (10^{-4}) \quad \text{\% volume of component (i)}$$

- * conversion of component % volume to % mass of component (i)

- Need to calculate the mole weight of Tank C-103 headspace gas
 - neglect vapor constituent contribution to headspace mole-wt.
 - assume 38°C (100°F) temperature, then water vapor content = 42.2 mg/l
 - assume mole wt. of dry air = 28.8 g/g-mol
 - assume ideal gas law applies
- then the volume % of water vapor in the headspace =

$$(100\%) \left(\frac{42.2 \text{ mg H}_2\text{O}}{1 \text{ m}^3 \text{ H}_2\text{O}} \right) \left(\frac{1 \text{ mmol}}{18 \text{ mg}} \right) \left(\frac{0.08206 \text{ L-atm}}{\text{mmole } ^\circ\text{K}} \right) (311^\circ\text{K}) \left(\frac{1}{1000 \text{ ml}} \right) = 6\%$$

- then the mole wt. of headspace is:

$$= .06(18 \text{ g/mol}) + .94(28.8 \text{ g/mol})$$

$$= 28.2 \text{ g/mol}$$

- assume volume % = mole %
- % mass of component (i) =

$$\left(\frac{x \text{ moles } i}{100 \text{ moles HS}} \right) \left(\frac{\text{MW}_i \text{ g}}{\text{g-mol}_i} \right) \left(\frac{1 \text{ mole HS}}{28.2 \text{ g}} \right) = \frac{(x_i \% \text{ volume}) (\text{MW}_i)}{28.2 \text{ g}} \quad \leftarrow$$

* Calculation of emissions

- Tank breathing rate = $Q \text{ ft}^3/\text{min}$ @ 68°F
- concentration of component i in tank in wt% = C_i
- emission rate = $Q * C_i = E_i$
 where E_i = emission rate of component i in lb/hr

Calculation of estimated emissions from
Tank C-103

2/2

$$E_i = \left(Q \frac{\text{SFt}^3}{\text{min}} \right) \left(\frac{x \text{ SFt}^3}{100 \text{ SFt}^3 \text{ HS}} \right) \left(\frac{\text{mol} \cdot \text{OK}}{0.08206 \text{ L} \cdot \text{atm}} \right) \left(\frac{1 \text{ atm}}{T \text{ OK}} \right) \left(\frac{28.32 \text{ g}}{\text{Ft}^3} \right) \left(\frac{60 \text{ min}}{\text{hr}} \right) \times$$

$$\left(\text{MW}_i \frac{\text{g}}{\text{mol}} \right) \left(\frac{1 \text{ lb}}{453.6 \text{ g}} \right)$$

$$= Q \times (\text{Vol \% of } i) (\text{MW}_i) (.456) / (T, ^\circ\text{K})$$

$$= \text{Emission rate in lb/hr}$$

$$\Rightarrow \text{Emission rate in ton/yr} = (\text{Emission rate lb/hr}) \left(\frac{8760 \text{ hr}}{\text{yr}} \right) \left(\frac{\text{ton}}{2000 \text{ lb}} \right)$$

Concentrations of non-rad

pollutants in actively vented Tanks

1/1

$$E_2 = E_1 = Q_2 \times C_2$$

$$T = 68^\circ\text{F}$$

$$E_1 = E_2 = \text{Emission rate, lb/hr}$$

$$Q_2 = \text{exhaust flowrate per Tank, cfm}$$

$$C_2 = \frac{E_1}{Q_2}$$

C_2 = concentration of chemical in headspace, volume %

$$C_2 = (E_1 \text{ lb/hr}) \left(\frac{\text{hr}}{60 \text{ min}} \right) \left(\frac{453.6 \text{ g}}{\text{lb}} \right) \left(\frac{\text{mol}}{\text{MW}} \right) \left(\frac{24.2 \text{ L}}{\text{mol}} \right) \left(\frac{\text{ft}^3}{28.32 \text{ L}} \right) (100\%)$$

$$= \left(\frac{E_1 \text{ lb/hr}}{Q_2 \text{ ft}^3/\text{min}} \right) \left(\frac{640.7}{\text{MW}_i} \right), \text{ C is in volume \%}$$

For Sy-101,

1,3-butadiene C-103 emission rate = 4.35×10^{-7} lb/hr

$$Q = 560 \text{ cfm} \div 3 = 187 \quad (3 \text{ Tanks exhausted})$$

$$C_2 = \frac{(4.35 \times 10^{-7} \text{ lb/hr}) (640.7)}{(187 \text{ ft}^3/\text{min}) (54.1 \text{ g/mol})}$$

$$= 2.76 \times 10^{-8} \% \text{ by volume}$$

For % mass: $C(\% \text{ volume}) = C(\% \text{ moles})$ for ideal gas

$$C, \% \text{ mass} = \left(\frac{\text{X moles } i}{100 \text{ moles HS}} \right) \left(\frac{\text{mol HS}}{\text{MW HS}} \right) (\text{MW}_i \text{ g/mol}) (100\%)$$

* assumed MW of headspace (HS) = 28.8 g/mol

$$\% \text{ mass} = \frac{(\% \text{ volume}) (28.8 \text{ g/mol})}{(\text{MW}_i \text{ g/mol})}$$

$$\text{For 1,3-butadiene, } \% \text{ mass} = \frac{(2.76 \times 10^{-8} (54.1))}{28.8} = 5.19 \times 10^{-8} \% \text{ mass}$$

Total 1,3-butadiene emissions for SY tank farm =

$$3 \times (4.35 \times 10^{-7} \text{ lb/hr}) = 1.31 \times 10^{-6} \text{ lb/hr} \leftarrow$$

Ammonia Emissions from actively vented Tanks

* convert SY-101 emissions to lb/yr ammonia =

SY-101 data: 40 ft³/day at a flowrate of 550 CFM

$$\left(40 \frac{\text{ft}^3}{\text{day}}\right) \left(\frac{\text{mol}}{24.2}\right) \left(\frac{17\text{g}}{\text{mol}}\right) \left(\frac{28.3\text{L}}{\text{ft}^3}\right) \left(\frac{\text{lb}}{453.6\text{g}}\right) \left(\frac{365\text{day}}{\text{yr}}\right) = 645 \text{ lb/yr}$$

This is the emission rate per tank.

* Calculate ton/yr NH₃ emissions for each tank

$$\left(645 \frac{\text{lb}}{\text{yr}}\right) \left(\frac{\text{ton}}{2000 \text{ lb}}\right) = .32 \text{ ton/yr}$$

This is the default emission rate for tanks without NH₃ emission estimates

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- (3) The remaining nonradiological emission categories are grouped by source type. Examples are underground petroleum storage tanks, carpentry shops, machine shops, laboratories, etc. A representative calculation is provided for each of these source types.

EXAMPLE CALCULATIONS FOR CATEGORY F: COMBUSTION EMISSION POINT
EXTERNAL (BOILERS ONLY)

The example calculations presented in this section are for the 284E, 284W and 384 Powerhouses. A portion of the spreadsheet used to calculate estimated emissions is attached, showing the calculations for Boiler #2 at the 384 Powerhouse, which is designated as emission unit 300 F-384-002. Example calculations for sulfur dioxide and lead are shown below.

Assumptions

Emission estimates are based on actual 1994 fuel usage, using emission factors from AP-42, or alternatively, from EPA-450/2-88-006a. Potential emissions are based on operating at the maximum hourly rate, for 24 hours per day, 365 days per year, with one exception. The potential emissions from the package boiler at the 284W Powerhouse, emission unit 200W F-284W 005, are based on 1440 permitted operating hours.

At the 284E Powerhouse, the emission units 200E F-284E 001 and 002 represent two separate stacks, which operate independently, depending on which baghouse modules are in use, and which of the five coal-fired boilers are in use. The potential emissions are based on operating all five boilers at the maximum hourly rate. Actual emissions are based on total fuel usage, regardless of which boilers were used. The total emissions are assumed to be split evenly between the two stacks.

The same holds true for the 284W Powerhouse, with its two stacks and four boilers, emission units 200W F-284W 001 and 002.

At the 384 Powerhouse, the three #6 residual oil-fired boilers have separate stacks, and are separate emission units, 300 F-384 002, 005, and 006. The three inactive coal-fired boilers have a common stack.

Emissions are based on no controls in place, with the exception of particulates from coal combustion; both actual and potential particulate emissions are based on a removal efficiency of 99.8% for the baghouses.

Example calculations for emission unit 300 F-384-002.

1994 Fuel Usage = 679.24 kgal; % Sulfur = S = 1.75; Heat content = 153,000 BTU/gal

Emission Factor_{SO2} = 157 * S lb/kgal

Emission Factor_{Pb} = 194 lb/10¹² BTU

Emissions_{SO2} = (Annual Fuel Usage)*(Emission Factor)

= (679.24 kgal/yr)*(157*1.75 lb/kgal)/2000 lb/ton

= 93.31 ton/yr

$$\text{Emissions}_{\text{pb}} = (\text{Annual Fuel Usage}) * (\text{Emission Factor})$$

$$= \frac{(679.24 \text{ kgal/yr}) * (194 \text{ lb}/10^{12} \text{ BTU}) * (1000 \text{ gal/kgal}) * (153,000 \text{ BTU/gal})}{(2000 \text{ lb/ton}) * (1.0\text{E}+12 \text{ BTU}/10^{12} \text{ BTU})}$$

$$= 0.01 \text{ ton/yr}$$

A	A	B	C	D	E	F	G	H	I	J	K	L
2	Facility	Fuel Type	Heat Content	Sulfur Content	Ash Content							
3			(BTU/gal)	(wt %)	(wt %)							
4	300 Area											
5	Powerhouse	#6 Residual Fuel Oil	153000	1.75	0							
6												
7						Actual Annual	Daily Ave	Hourly Ave	Hourly Max	Annual Max	Max Heat Input	Max Steam Output
8	Emission Point	Facility #	AEL Description	Source Number	SCC Code	Fuel Use (gal)	Fuel Use (gal)	Fuel Use (gal)	Fuel Use (gal)	Fuel Use (kgal)	(MMBTU)	(Pounds Steam)
9												
10	No. 04	Boiler #2	F384002	1	10200401	679240.8	1860.9	77.5	915	8015	140	100000
11	No. 08	Boiler #6	F384006	1	10200401	418095.5	1145.5	47.7	730	6395	110	80000
12	No. 19	Package Boiler	F384005	1	10200401	889477.4	2436.9	101.5	550	4818	84	60000
13												
14		#6 Fuel Oil	Total Steam	#2 Boiler		#6 Boiler		Package Boiler		#2 Boiler	#6 Boiler	#Package Boiler
15	MONTH 1994	Consumption (gal)	Generated (lb)	Steam Generated	% of Steam	Steam Generated	% of Steam	Steam Generated	% of Steam	Fuel Usage (gal)	Fuel Usage (gal)	Fuel Usage (gal)
16	Jan	429347.33	45203900	22071600	48.83%	8985986	19.88%	14146314	31.29%	209636	85349	134362
17	Feb	280207.48	39778398	18817200	47.31%	3267000	8.21%	17694198	44.48%	132552	23013	124642
18	Mar	219580.00	25243748	999600	3.96%	6866000	27.20%	17378148	68.84%	8695	59723	151162
19	Apr	157435.96	19966828	402000	2.01%	4885000	24.47%	14679828	73.52%	3170	38518	115749
20	May	111832.42	9474264	735600	7.76%	4875000	51.46%	3863664	40.78%	8683	57544	45606
21	Jun	40207.36	2962578	1185600	40.02%	0	0.00%	1776978	59.98%	16091	0	24117
22	Jul	64916.73	3411816	782400	22.93%	27000	0.79%	2602416	76.28%	14887	514	49516
23	Aug	68192.80	945200	661200	69.95%	284000	30.05%	0	0.00%	47703	20490	0
24	Sep	58422.90	22924400	1952400	8.52%	20972000	91.48%	0	0.00%	4976	53447	0
25	Oct	97193.20	8348714	4798800	57.48%	266000	3.19%	3283914	39.33%	55866	3097	38230
26	Nov	211120.66	23529780	17908800	76.11%	9000	0.04%	5611980	23.85%	160686	81	50353
27	Dec	248356.80	30194994	1981200	6.56%	9279000	30.73%	18934794	62.71%	16296	76321	155741
28												
29	Total	1986813.64	231984620	72296400		59715986		99972234		679241	418095	889477
30												
31		Total 300 Area	Total 300 Area	#2 Boiler	#2 Boiler %	#6 Boiler	#6 Boiler %	Package Boiler	Pkg Blr %	#2 Boiler	#6 Boiler	Package Boiler
32	Quarterly Totals	Fuel Consumed	Steam Generated	Steam Generated	Seasonal use	Steam Generated	Seasonal use	Steam Generated	Seasonal use	Fuel Consumed	Fuel Consumed	Fuel Consumed
33												
34	1 QTR	929134.81	110226046	41888400	57.94%	19118986	32.02%	49218660	49.23%	350884	168086	410166
35	2 QTR	309475.74	32403670	2323200	3.21%	9760000	16.34%	20320470	20.33%	27943	96061	185471
36	3 QTR	191532.43	27281416	3396000	4.70%	21283000	35.64%	2602416	2.60%	67566	74451	49516
37	4 QTR	556670.66	62073488	24688800	34.15%	9554000	16.00%	27830688	27.84%	232848	79498	244324
38												
39												
40												

B	A	B	C	D	E	F	G	H	I	J	K	L
2	Facility											
3												
4	300 Area											
5	Powerhouse											
6								Actual	Potential			
7	Emission Point	Pollutants (AED)	AP 42 Factor (lb/kgal)	Fuel Oil Use (gal/yr)	Fuel Oil Use (kgal/yr)	Reference Equation Used	Emissions (lb/yr)	Emissions (ton/yr)	Emissions (ton/yr)	EQUATIONS USED	DESCRIPTION	FORMULA
8												
9	No. 04	Carbon Monoxide *	5.000	679241	679.24	1	3396.20	1.70	20.0	1	carbon monoxide: 5 lb/kgal (Table 1.3-2)	5
10	(F384002)	Copper **	0.043	679241	679.24	2	28.89	0.01	0.2	2	copper: 278 lb/10^12 BTU (Page 4-161)	0.042534
11	(source 1)	Methane	1.000	679241	679.24	3	679.24	0.34	4.0	3	methane: 1 lb/kgal (Table 1.3-4)	1
12	Boiler #2	NOX *	55.000	679241	679.24	4	37358.24	18.68	220.4	4	NOx: 55 lb/kgal (Table 1.3-2)	55
13		Nitrous Oxide	0.110	679241	679.24	5	74.72	0.04	0.4	5	N2O: 0.11 lb/kgal (Table 1.3-9)	0.11
14		Non-Methane TOC *	0.280	679241	679.24	6	190.19	0.10	1.1	6	NMTOC: 0.28 lb/kgal (Table 1.3-4)	0.28
15		Sulfur Dioxide *	274.750	679241	679.24	7	186621.41	93.31	1101.1	7	SO2: 157 S lb/kgal (Table 1.3-2)	274.75
16		Sulfur Trioxide	3.500	679241	679.24	8	2377.34	1.19	14.0	8	SO3: 2 S lb/kgal (Table 1.3-2)	3.5
17		TOC	1.280	679241	679.24	9	869.43	0.43	5.1	9	TOC: 1.28 lb/kgal (Table 1.3-4)	1.28
18		Total PM	19.303	679241	679.24	10	13111.05	6.56	77.4	10	Total PM: 9.19 (S) + 3.22 lb/kgal (Table 1.3-2)	19.3025
19		PM10 *	16.778	679241	679.24	11	11396.17	5.70	67.2	11	PM10: 7.17(1.12 (S) + 0.38) lb/kgal (Table 1.3-6)	16.7778
20		Vanadium **	0.463	679241	679.24	12	314.16	0.16	1.9	12	vanadium: 1300 pg/l (Page 4-163)	0.4625206
21		Antimony	0.007	679241	679.24	13	4.78	0.00	0.0	13	Sb: 24-46 lb/10^12 BTU (Table 1.3-11)	0.007038
22		Arsenic	0.017	679241	679.24	14	11.85	0.01	0.1	14	As: 19-114 lb/10^12 BTU (Table 1.3-11)	0.017442
23		Beryllium	0.001	679241	679.24	15	0.44	0.00	0.0	15	Be: 4.2 lb/10^12 BTU (Table 1.3-11)	0.0006426
24		Cadmium	0.032	679241	679.24	16	21.93	0.01	0.1	16	Cd: 16-211 lb/10^12 BTU (Table 1.3-11)	0.032283
25		Chromium	0.020	679241	679.24	17	13.30	0.01	0.1	17	Cr: 21-128 lb/10^12 BTU (Table 1.3-11)	0.019584
26		Cobalt	0.019	679241	679.24	18	12.57	0.01	0.1	18	Co: 77-121 lb/10^12 BTU (Table 1.3-11)	0.018513
27		Formaldehyde	0.062	679241	679.24	19	42.09	0.02	0.2	19	HCOH: 161-405 lb/10^12 BTU (Table 1.3-9)	0.061965
28		Lead *	0.030	679241	679.24	20	20.16	0.01	0.1	20	Pb: 28-194 lb/10^12 BTU (Table 1.3-9)	0.029682
29		Manganese	0.011	679241	679.24	21	7.69	0.00	0.0	21	Mn: 23-74 lb/10^12 BTU (Table 1.3-11)	0.011322
30		Mercury	0.005	679241	679.24	22	3.33	0.00	0.0	22	Hg: 1.4-32 lb/10^12 BTU (Table 1.3-11)	0.004896
31		Nickel	0.356	679241	679.24	23	242.14	0.12	1.4	23	Ni: 837-2330 lb/10^12 BTU (Table 1.3-11)	0.35649
32		POM	8.400	679241	679.24	24	5705.62	2.85	33.7	24	POM: 7.8-8.4 lb/kgal (Table 1.3-9)	8.4
33		Selenium	0.006	679241	679.24	25	3.95	0.00	0.0	25	Se: 38 lb/10^12 BTU (Table 1.3-11)	0.005814
34												
35		Total Criteria Pollutants						119.83	1414.07			
36												
37		* Criteria Pollutants										
38		** AP-42 Factor Not										
39		Available; if factor listed,										
40		from EPA-450/2-88-006a										

The example calculations above and used in the spreadsheet are equivalent for the emission units listed below:

200E F-284E 001
200E F-284E 002
200E F-284E 005

200W F-284W 001
200W F-284W 002
200W F-284W 005

300 F-384 001
300 F-384 002
300 F-384 005
300 F-384 006

EXAMPLE OF CALCULATIONS FOR CATEGORY G: GASOLINE DISTRIBUTION AREA
(GASOLINE COMPONENT)

Example of generalized calculation using emission point #G2713E001 for the gasoline component.

First, the total tank loss emission factor (pounds per 1,000 gallons of throughput) and the refueling loss emission factor were calculated.

$$LOSS_{fill} = 11.5 \frac{lb}{1000gal}$$

$$LOSS_{breathing} = 1.0 \frac{lb}{1000gal}$$

$$Annual\ throughput = 152,187\ gal$$

EF = Emission Factor

$$EF_{tank} = LOSS_{fill} + LOSS_{breathing}$$

$$EF_{tank} = 11.5 \frac{lb}{1000gal} + 1.0 \frac{lb}{1000gal} = 12.5 \frac{lb}{1000gal}$$

$$LOSS_{displacement} = 11.0 \frac{lb}{1000gal}$$

$$LOSS_{spillage} = 0.7 \frac{lb}{1000gal}$$

$$EF_{refueling} = LOSS_{displacement} + LOSS_{spillage}$$

$$EF_{refueling} = 11.0 \frac{lb}{1000gal} + 0.7 \frac{lb}{1000gal} = 11.7 \frac{lb}{1000gal}$$

Next, the emission factors were used to calculate the total VOC emissions by multiplying by the annual throughput in the tank.

$$Annual\ Emissions_{voc} = \frac{Annual\ throughput * EF_{tank}}{2000 \frac{lb}{ton}}$$

$$Annual\ Emissions_{voc}(tank) = \frac{152187\ gal * 12.5 \frac{lb}{1000gal}}{2000 \frac{lb}{ton}} = 0.951\ ton$$

$$Annual\ Emissions_{voc}(refueling) = \frac{Annual\ throughput * EF_{refueling}}{2000 \frac{lb}{ton}}$$

$$Annual\ Emissions_{voc}(refueling) = \frac{152187\ gal * 11.7 \frac{lb}{1000gal}}{2000 \frac{lb}{ton}} = 0.890\ ton$$

$$AnnualEmissions_{voc}(total) = Emissions_{voc}(tank) + Emissions_{voc}(refueling)$$

$$AnnualEmissions_{voc}(total) = 0.951 ton + 0.890 ton = 1.841 ton$$

The constituent weight emissions were determined by applying the weight fraction associated with each component in the vapor phase.

Constituent	Weight Fraction
Benzene	0.1
ethylbenzene	0.0028
hexane	0.009
methyltertbutyl ether	0.0288
toluene	0.0103
2,2,4-trimethylpentane	0.0037
xylene	0.0044

WF = Weight Fraction

$$WF_{sum1} = WF_{benzene} + WF_{toluene} + WF_{ethylbenzene} + WF_{hexane} + WF_{xylene}$$

$$WF_{sum1} = 0.01 + 0.0103 + 0.0028 + 0.009 + 0.0044 = 0.037$$

$$WF_{sum2} = WF_{methyltertbutylether} + WF_{2,2,4-trimethylpentane}$$

$$WF_{sum2} = 0.0288 + 0.0037 = 0.033$$

$$WF_{VOC\ other} = 1 - WF_{sum1} - WF_{sum2}$$

$$WF_{VOC\ other} = 1 - 0.037 - 0.033 = 0.931$$

The weight fraction of each constituent was multiplied by the total VOC emissions. For example:

$$Total\ annual\ emissions_{benzene} = WF_{benzene} * Annual\ Emission_{total\ voc}$$

$$Annual\ Total\ Emissions_{benzene} = 0.01 * 1.841\ ton = 0.018\ ton$$

Constituent	Weight Fraction	total Annual VOC emissions (ton)	Constituent Annual Emissions (ton)
Benzene	0.1	1.841	1.8E-02
ethylbenzene	0.0028	1.841	5.516E-03
hexane	0.009	1.841	1.7E-02
methyltertbutyl ether	0.0288	1.841	5.3E-02
toluene	0.0103	1.841	1.9E-02
2,2,4-trimethylpentane	0.0037	1.841	6.813E-03
xylene	0.0044	1.841	8.102E-03
Other VOC	0.931	1.841	1.714

EXAMPLE OF CALCULATIONS FOR CATEGORY G: GASOLINE DISTRIBUTION AREA
(DIESEL COMPONENT)

Example of generalized calculation using emission point #G2713E001 for the diesel component.

First, the total tank loss emission factor (pounds per 1,000 gallons of throughput) and the refueling loss emission factor were calculated.

$$Loss_{fill} = 0.03 \frac{lb}{1000gal}$$

$$Loss_{breathing} = 0.0 \frac{lb}{1000gal}$$

$$Annual\ throughput = 202,794gal$$

EF = Emission Factor

$$EF_{tank} = Loss_{fill} + Loss_{breathing}$$

$$EF_{tank} = 0.03 \frac{lb}{1000gal} + 0.0 \frac{lb}{1000gal} = 0.03 \frac{lb}{1000gal}$$

$$Loss_{displacement} = 0.3 \frac{lb}{1000gal}$$

$$LOSS_{spillage} = 0.7 \frac{lb}{1000gal}$$

$$EF_{refueling} = LOSS_{displacement} + LOSS_{spillage}$$

$$EF_{refueling} = 0.03 \frac{lb}{1000gal} + 0.7 \frac{lb}{1000gal} = 0.730 \frac{lb}{1000gal}$$

Next, the emission factors were used to calculate the total VOC emissions by multiplying by the annual throughput in the tank.

$$Annual\ Emissions_{voc} = \frac{Annual\ throughput * EF_{tank}}{2000 \frac{lb}{ton}}$$

$$Annual\ Emissions_{voc}(tank) = \frac{202794gal * 0.03 \frac{lb}{1000gal}}{2000 \frac{lb}{ton}} = 0.003\ ton$$

$$Annual\ Emissions_{voc}(refueling) = \frac{Annual\ throughput * EF_{refueling}}{2000 \frac{lb}{ton}}$$

$$Annual\ Emissions_{voc}(refueling) = \frac{202794gal * 0.730 \frac{lb}{1000gal}}{2000 \frac{lb}{ton}} = 0.074\ ton$$

$$AnnualEmissions_{VOC}(total) = Emissions_{VOC}(tank) + Emissions_{VOC}(refueling)$$

$$AnnualEmissions_{VOC}(total) = 0.003 ton + 0.074 ton = 0.077 ton$$

The constituent weight emissions were determined by applying the weight fraction associated with each component in the vapor phase.

Constituent	Weight Fraction
Benzene	0.1
hexane	0.009
toluene	0.0103

WF = Weight Fraction

$$WF_{VOC\ other} = 1 - WF_{benzene} - WF_{toluene} - WF_{hexane}$$

$$WF_{VOC\ other} = 1 - 0.01 - 0.0103 - 0.009 = 0.971$$

The weight fraction of each constituent was multiplied by the total VOC emissions. For example:

$$Total\ annual\ emissions_{benzene} = WF_{benzene} * Annual\ Emission_{total\ VOC}$$

$$Annual\ Total\ Emissions_{benzene} = 0.01 * 0.077 ton = 7.70E-04 ton$$

Constituent	Weight Fraction	total Annual VOC emissions (ton)	Constituent Annual Emissions (ton)
Benzene	0.1	0.077	7.70E-04
hexane	0.009	0.077	6.94-04
toluene	0.0103	0.077	7.94E-04
Other VOC	0.971	0.077	0.075

The example calculation is equivalent for the emission units listed below:

1100 G-1172A 001
1100 G-1172A 002
1100 G-1172A 003
1100 G-1172A 004
1100 G-1172A 005

200E G-2713E 001
200E G-2713E 002
200E G-2713E 003

EXAMPLE CALCULATION FOR CATEGORY H: COMBUSTION EMISSION POINT

Example of generalized calculation using emission unit #H200W007(200 West Burn Pit) for the burn of Russian Thistle (tumbleweed). The volume of tumbleweed burned per year is approximately 250 yd³ per foot, and the maximum potential is 500 yd³ per yr.

$$Volume_{actual}=250 \frac{yd^3}{yr}$$

$$Volume_{potential}=500 \frac{yd^3}{yr}$$

The following emissions are produced from burning tumbleweed:

$$Particulate=22 \frac{lb}{ton}$$

$$Carbon\ Monoxide=309 \frac{lb}{ton}$$

$$NonMethane\ VOC=1.5 \frac{lb}{ton}$$

The assumed specific gravity of tumbleweed is assumed to be that similar to hay.

$$SpG_{tumbleweed}=0.32$$

Based on the given specific gravity of tumbleweed, the density of tumbleweed is calculated as follow

$$\rho_{tumbleweed}=SpG_{tumbleweed} \frac{g}{ml} * \frac{1lb}{454g} * 28317 \frac{ml}{ft^3} = 19.959 \frac{lb}{ft^3}$$

The time for the actual burning of tumbleweed is 1 hour per day, 1 day per week, 50 weeks per year.

$$Time_{actual}=50hr$$

The estimated amount of tumbleweed to burn each year is as follows:

$$Actual=Volume_{actual}*\frac{ft^3}{0.03704yd^3}*\rho_{tumbleweed}$$

$$Actual=250\frac{yd^3}{yr}*\frac{ft^3}{0.03704yd^3}*19.959\frac{lb}{ft^3}=134713\frac{lb}{yr}$$

$$Actual=(\frac{134713\ lb}{yr})(\frac{1ton}{2000lbs})=67.36\frac{ton}{yr}$$

$$Potential=Volume_{potential}*\frac{ft^3}{0.03704yd^3}*\rho_{tumbleweed}$$

$$Potential=500\frac{yd^3}{yr}*\frac{ft^3}{0.03704yd^3}*19.959\frac{lb}{ft^3}=2.69E+05\frac{lb}{yr}$$

$$Potential=2.69E+05\frac{lb}{yr}*\frac{1ton}{2000lbs}=134.7\frac{ton}{yr}$$

Using particulates as an example, the actual estimated emissions are as follows:

$$Emissions_{particulate}=Actual*Particulate$$

$$Emissions_{particulate} = 67.36 \frac{ton}{yr} * 22 \frac{lb}{ton} * \frac{1 ton}{2000 lb} = 0.741 \frac{ton}{yr}$$

$$Emissions_{particulate \ rate} = \frac{Emissions_{particulate}}{50 \frac{hr}{yr}}$$

$$Emissions_{particulate \ rate} = \frac{0.741 \frac{ton}{yr}}{50 \frac{hr}{yr}} \left(\frac{2000 lbs}{1 ton} \right) = 29.6 \frac{lbs}{hr}$$

Constituent	Emissions from Burning Tumbleweeds (lb/ton)	Amount of Tumbleweeds burned annually (ton/yr)	Estimated Emission Rate (ton/yr)	Estimated Emission Rate (lb/hr)*
Particulate	22	67.36	0.741	29.6
Carbon Monoxide	309	67.36	10.4	416.3
Non Methane VOC	1.5	67.36	0.051	2.02

* Based on 1 hour per day, 1 day per week, 50 weeks per year.

Using particulates as an example, the potential estimated emissions are as follows:

$$Emissions_{particulate} = Potential * Particulate$$

$$Emissions_{particulate} = 134.7 \frac{ton}{yr} * 22 \frac{lb}{ton} * \frac{1 ton}{2000 lb} = 1.48 \frac{ton}{yr}$$

$$Emissions_{particulate\ rate} = \frac{Emissions_{particulate}}{50 \frac{hr}{yr}}$$

$$Emissions_{particulate\ rate} = \frac{1.48 \frac{ton}{yr}}{50 \frac{hr}{yr}} \left(\frac{2000 lbs}{1 ton} \right) = 59.2 \frac{lbs}{hr}$$

Constituent	Emissions from Burning Tumbleweeds (lb/ton)	Amount of Tumbleweeds burned annually (ton/yr)	<u>Estimated Emission Rate (ton/yr)</u>	<u>Estimated Emission Rate (lb/hr)*</u>
Particulate	22	134.7	1.48	59.20
Carbon Monoxide	309	134.7	20.81	832.5
Non Methane VOC	1.5	134.7	0.101	4.041

* Based on 1 hour per day, 1 day per week, 50 weeks per year.

The example calculation is equivalent for the emission units listed below:

200E H-200E002 001
200W H-200W007 001

EXAMPLE CALCULATIONS FOR CATEGORY J: FUGITIVE EMISSION AREA

Example Calculations for the Coal Pile Fugitive Emissions

The example calculations presented in this section are for the coal piles at the 284E, 284W and 384 Powerhouses. A portion of the spreadsheet used to calculate estimated emissions for particulates is attached, showing the inventory and the calculations for fugitive emissions at the 284E Powerhouse coal pile, which is designated as emission unit 200E J-284E-002.

Assumptions

Fugitive emission estimates for particulates are based on actual 1994 coal inventory and movement, using methodology found in supplement C of AP-42, sections 11.2.3 and 11.2.7. Actual emissions are based on the average inventory of the coal pile. Potential emissions are based on the maximum inventory during the year.

At the 284E Powerhouse, the coal pile was modeled as having a rectangular base, a flat top, and sides with a 45 degree slope. A linear relationship was developed between the volume and the surface area of the pile. Using a nominal density of 800 kg/m³ for bituminous coal, the surface area of the pile was calculated from the storage inventory for tons of coal. The same approach was used for the coal pile at the 284W Powerhouse. At the 384 Powerhouse, the coal pile was modeled as having two conical piles with a slope of 45 degrees.

Metrology data was obtained from the 600 Area weather station, calculating the peak wind in meters/second at a reference height of 10 meters, and the equivalent friction velocity and erosion potential on a daily basis. Emissions produced when the threshold friction velocity of 1.12 meters/second was exceeded were totaled to estimate fugitive emissions from coal storage. Fugitive emissions from coal movement were also estimated based on loading/unloading operations from rail cars, and transfer operations from the storage pile to the coal bunkers.

200E Area Coal Pile

E	A	B	C	D	E	F	G	H	I	J
1	200E Area Coalpile		Field	Field	Received	Received	Bunkers	Bunkers	Bunkers	
2		Date	Prev. ME In	ME Inv	To Field	To Bunkers	Prev. ME In	ME Inv	From Field	Consumed
3		01/26/94	16425.59	16023.74	2465.55	890.90	482.00	384.00	2867.40	3856.30
4		02/23/94	16023.74	20028.92	5528.78	1073.36	384.00	620.00	1523.60	2360.96
5		03/23/95	20028.92	22336.90	4359.38	137.78	620.00	712.00	2051.40	2097.18
6		04/27/94	22336.90	21030.35	164.65	93.90	712.00	490.00	1471.20	1787.10
7		05/24/94	21030.35	19903.15	415.50	137.40	490.00	538.00	1542.70	1632.10
8		06/21/94	19903.15	22652.30	3370.25	44.65	538.00	548.00	621.10	655.75
9		08/22/94	22652.30	28110.55	5458.25	0.00	548.00	548.00	0.00	0.00
10		09/20/94	28110.55	29960.65	1850.10	0.00	548.00	548.00	0.00	0.00
11		11/29/94	29960.65	37306.70	7346.05	0.00	548.00	548.00	0.00	0.00
12		01/03/95	37306.70	39314.55	2007.85	0.00	548.00	548.00	0.00	0.00
13		01/24/95	39314.55	38268.40	178.45	641.90	548.00	368.00	1224.60	2046.50
14										
15	Totals		23377.89		32966.36	2377.99			10077.40	12389.39
16	Transfer to West	01/03/95		-1305.00						
17	Transfer from 300	11/29/94		2993.25						12389.00
18	Transfer from 300	01/03/95		1592.80						
19										
20	Average Inventory			22504.24						
21	Maximum Inventory			40299.95						
22										
23	Avg Volume (m^3)			25573.00						
24	Max Volume (m^3)			45795.40						
25										
26	Avg Surf Area (m^2)			4394.26						
27	Max Surf Area (m^2)			6480.07						
28										
29	Load/unload Coal				38857.41					
30	Transfer to Bunker					12455.39				

C	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
1	Assumptions	200E Area														
2	Uncrusted	Coal Pile														
3	Particle Size	Multiplier	1													
4	Threshold	Friction Vel.	1.12	m/s												
5																
6	Height of															
7	Anemometer			50 feet				Emissions								
8	us/ur	%		15.24 meters				1994 (tons)	PM	PM10						
9	0.2	31						Storage								
10	0.6	51						Actual	1.05	0.53						
11	0.9	15						Potential	1.55	0.78						
12	1.1	3						Movement								
13								Actual	0.15	0.07						
14	Area of pile				Maximum											
15	Average Inventory		22504.24	tons	Length	273 ft		Total	1.20	0.60						
16	Maximum Inventor		40299.95	tons	Width	161 ft										
17	Avg Surface Area		4,394	sq meters	Height	40 ft										
18	Max Surface Area		6,480	sq meters												
19																
20		Peak Wind		Equivalent												
21				Friction				Erosion								
22		Fastest mile	Fastest mile,	Velocity,				Potential								
23		u*	u*(10m)	u* (m/s)				(g/m2)								
24	Date	(m/s)	(m/s)	us/ur = 0.2	us/ur = 0.6	us/ur = 0.9	us/ur = 1.1	us/ur = 0.2	us/ur = 0.6	us/ur = 0.9	us/ur = 1.1	us/ur = 0.2	us/ur = 0.6	us/ur = 0.9	us/ur = 1.1	Total
25	01-Jan-94	4.917	4.66	0.09	0.28	0.42	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	02-Jan-94	6.705	6.35	0.13	0.38	0.57	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	03-Jan-94	6.258	5.93	0.12	0.36	0.53	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28	04-Jan-94	17.880	16.94	0.34	1.02	1.52	1.86	0.00	0.00	19.62	50.65	0.00	0.00	0.01	0.01	0.03
29	05-Jan-94	12.069	11.44	0.23	0.69	1.03	1.26	0.00	0.00	0.00	4.55	0.00	0.00	0.00	0.00	0.00
30	06-Jan-94	10.281	9.74	0.19	0.58	0.88	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	07-Jan-94	5.364	5.08	0.10	0.30	0.46	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32	08-Jan-94	6.258	5.93	0.12	0.36	0.53	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33	09-Jan-94	8.493	8.05	0.16	0.48	0.72	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34	10-Jan-94	5.364	5.08	0.10	0.30	0.46	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35	11-Jan-94	8.046	7.62	0.15	0.46	0.69	0.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	12-Jan-94	10.728	10.16	0.20	0.61	0.91	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37	13-Jan-94	4.470	4.24	0.08	0.25	0.38	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38	14-Jan-94	5.364	5.08	0.10	0.30	0.46	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39	15-Jan-94	10.728	10.16	0.20	0.61	0.91	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	16-Jan-94	9.834	9.32	0.19	0.56	0.84	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41	17-Jan-94	4.917	4.66	0.09	0.28	0.42	0.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42	18-Jan-94	3.576	3.39	0.07	0.20	0.30	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43	19-Jan-94	6.258	5.93	0.12	0.36	0.53	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44	20-Jan-94	7.152	6.78	0.14	0.41	0.61	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45	21-Jan-94	4.470	4.24	0.08	0.25	0.38	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46	22-Jan-94	7.599	7.20	0.14	0.43	0.65	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47	23-Jan-94	7.152	6.78	0.14	0.41	0.61	0.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48	24-Jan-94	8.940	8.47	0.17	0.51	0.76	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49	25-Jan-94	4.023	3.81	0.08	0.23	0.34	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50	26-Jan-94	3.576	3.39	0.07	0.20	0.30	0.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51	27-Jan-94	4.023	3.81	0.08	0.23	0.34	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52	28-Jan-94	4.470	4.24	0.08	0.25	0.38	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53	29-Jan-94	5.364	5.08	0.10	0.30	0.46	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54	30-Jan-94	5.364	5.08	0.10	0.30	0.46	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55	31-Jan-94	4.023	3.81	0.08	0.23	0.34	0.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

EXAMPLE CALCULATIONS FOR CATEGORY K: PAINT BOOTHS

The following example describes the methodology for calculating emissions related to solvent use in the paint shops. Emissions from paint cleanup activities are from the solvents Mineral Spirits and Methyl Ethyl Ketone. The calculations assume that all the solvents are evaporated to the atmosphere. Annual usage of the solvents is 4 55-gallon drums of Methyl Ethyl Ketone and 2 55-gallon drums of Mineral Spirits per year. The following example is for the 200 East Area Paint Shop.

$$Rate_{\text{methyl ethyl ketone}} = 4 * (55 \frac{\text{gal}}{\text{yr}}) = 220 \frac{\text{gal}}{\text{yr}}$$

$$Rate_{\text{mineral spirits}} = 2 * (55 \frac{\text{gal}}{\text{yr}}) = 110 \frac{\text{gal}}{\text{yr}}$$

The density of Methyl Ethyl Ketone and Mineral Spirits is 6.72 and 6.62 pounds per gallon respectively. The annual usage in pounds per year is equal to the rate multiplied by the density for each material.

$$\rho_{\text{methyl ethyl ketone}} = 6.72 \frac{\text{lb}}{\text{gal}}$$

$$\rho_{\text{mineral spirits}} = 6.62 \frac{\text{lb}}{\text{gal}}$$

$$\text{Annual Usage} = Rate_{\text{methyl ethyl ketone}} * \rho_{\text{methyl ethyl ketone}}$$

$$\text{Annual Usage}_{\text{methyl ethyl ketone}} = 220 \frac{\text{gal}}{\text{yr}} * 6.72 \frac{\text{lb}}{\text{gal}} = 1478.4 \frac{\text{lb}}{\text{yr}}$$

$$\text{Annual Usage}_{\text{methyl ethyl ketone}} = 1478.4 \frac{\text{lb}}{\text{yr}} * \frac{1 \text{ ton}}{2000 \text{ lbs}} = 0.739 \frac{\text{ton}}{\text{yr}}$$

$$\text{Annual Usage}_{\text{mineral spirits}} = Rate_{\text{mineral spirits}} * \rho_{\text{mineral spirits}}$$

$$Annual\ Usage_{mineral\ spirits} = 110 \frac{gal}{yr} * 6.62 \frac{lb}{gal} = 728.2 \frac{lb}{yr}$$

$$Annual\ Usage_{mineral\ spirits} = 728.2 \frac{lb}{yr} * \frac{1 ton}{2000 lbs} = 0.364 \frac{ton}{yr}$$

The actual emissions on an annual basis are the same as the maximum emissions. The actual release per hour is calculated based on releases occurring 4 hours per day, 5 days per week, 50 weeks per year, or 1000 hours per year.

$$Emissions_{methyl\ ethyl\ ketone} = \frac{Annual\ Usage}{1000 \frac{hr}{yr}}$$

$$Emissions_{methyl\ ethyl\ ketone} = \frac{1478.4 \frac{lb}{yr}}{1000 \frac{hr}{yr}} = 1.478 \frac{lb}{hr}$$

$$Emissions_{mineral\ spirits} = \frac{Annual\ Usage}{1000 \frac{hr}{yr}}$$

$$Emissions_{mineral\ spirits} = \frac{728.2 \frac{lb}{yr}}{1000 \frac{hr}{yr}} = 0.728 \frac{lb}{hr}$$

The example calculation is equivalent for the emission units listed below:

100N K-1143 015
100N K-1517N 021

200E K-200E001 001

200W K-272S 001
200W K-200W003 001
200W K-2715EC 001

300 K-3709 001

400 K-4722C 001

EXAMPLE CALCULATIONS FOR CATEGORY M: WELDING BOOTH

The following example describes the methodology for calculating emissions related to metal work. Emissions from metalworking activities is primarily in the form of particulates produced by abrasive cutting and grinding. The following example is for the 242AC Pipefitters Shop.

Methodology

- 1) Assume the concentration of particulate matter (PM) generated from the activity is equal to the Threshold Limit Value (TLV) for particulates not otherwise classified (PNOC). The TLV for PNOC is 10 micrograms per cubic meter.
- 2) Estimate the total building volume for the applicable building.
- 3) Estimate the building volume of the area where metalworking is performed.
- 4) Determine the percent of building exhaust volume containing metalworking emissions by ratio of metalworking building volume to total building volume.
- 5) Apply the metalworking volume percentage to the total building exhaust rate which is based on the total number of building exhaust units and the size of the exhaust units.
- 6) Multiply the total metalworking area exhaust rate by the PNOC TLV to determine mass emissions of particulate matter.

Example calculation:

$$\text{Concentration of Particulate Matter } (C_{PM}) = 10 \frac{\mu g}{m^3}$$

The total estimated building volume:

$$\text{Volume}(\text{total building}) = 24000 \text{ ft}^3$$

The building volume of the area where metalworking is performed:

$$\text{Volume}(\text{working area}) = 24000 \text{ ft}^3$$

The percent of building exhaust volume containing metalworking emissions:

$$\text{Ratio}(\text{Area}) = \frac{\text{Volume}(\text{total building})}{\text{Volume}(\text{working area})} = \frac{24000 \text{ ft}^3}{24000 \text{ ft}^3} = 1$$

The building exhaust rate was determined by multiplying the total number of building exhausters by the average building exhauster flowrate. The following calculations give the potential to emit assum continuous operation.

$$\text{Number of Exhausters} = 1$$

$$\text{Flowrate of exhauster} = 91900 \frac{\text{ft}^3}{\text{hr}}$$

$$\text{Total Flowrate} = (\text{number of exhausters}) (\text{Flowrate of exhausters})$$

$$\text{Total Flowrate} = (1) (91900 \frac{\text{ft}^3}{\text{hr}})$$

$$\text{Flowrate}(\text{metalworking}) = \text{Ratio}(\text{Area}) * \text{Flowrate}(\text{total}) = (1) (91900 \frac{\text{ft}^3}{\text{hr}})$$

$$\text{Flowrate}(\text{metalworking activities}) = 91900 \frac{\text{ft}^3}{\text{hr}}$$

$$\text{Emissions}(\text{metalworking}) = C_{PM} * \text{Flowrate}(\text{metalworking activities})$$

$$\text{Emissions} = (10 \frac{\mu\text{g}}{\text{m}^3}) (91900 \frac{\text{ft}^3}{\text{hr}}) (\frac{0.028 \text{ m}^3}{\text{ft}^3}) (\frac{\text{g}}{1.0 * 10^6 \mu\text{g}}) (\frac{0.00220 \text{ lbs}}{\text{g}})$$

$$Emissions = 5.74E-05 \frac{lb}{hr}$$

$$Emissions = (5.74E-05 \frac{lb}{hr}) (\frac{1 ton}{2000 lbs}) (\frac{24 hrs}{day}) (\frac{365 days}{yr}) = 2.51E-04 \frac{ton}{yr}$$

Actual operations for the generation of particulates is 2 hours per day, 5 days per week, and 50 weeks per year, or 500 hours per year. There are 8760 hours in a year.

Time (actual operations) = 500 hrs

Time (annual) = 8760 hrs

$$Ratio = \frac{Time(actual)}{Time(annual)} = \frac{500 hr}{8760 hr} = 0.057$$

Although the hourly emission rate estimate would not change during actual operation, the annual quantity emitted would change. The annual emissions were multiplied by the time ratio.

$$Emissions(actual) = Emissions(metalworking) (TimeRatio)$$

$$Emissions(actual) = 2.51E-04 \frac{ton}{yr} * 0.57 = 1.44E-05 \frac{ton}{yr}$$

The emission calculations presented above are equivalent for the emission points listed below. The calculations for these emission points can be provided upon request.

<u>Emission Point</u>	<u>Emission Point</u>	<u>Emission Point</u>
100N M-105N 001	200E M-2244B 001	600 M-6290 001
100N M-151N 020	200E M-2247B 001	
100N M-1518N 019	200E M-242AC 001	
100N M-1705N 103	200E M-272E 001	
200W M-200W005 001	300 M-305A 001	
200W M-200W006 001	300 M-328 003	
200W M-272W 001	300 M-338 001	
200W M-272WA 001		
200W M-277W 001	400 M-4704N 001	
200W M-275W 001		
200W M-2722W 001		

EXAMPLE CALCULATION FOR CATEGORY N: MAINTENANCE

The following example calculation is for actual and potential emissions associated with sandblast operations. The primary emissions will consist of particulate from the breakdown of the blasting media. Approximately 5-10% of the blast media (Idaho Garnet) will breakdown and become particulate emissions during operations. The example calculation is for the 200W Carpenter Shop. Sandblast is done approximately 12 hours/week, 50 weeks/year, and the annual quantity of blast media used is approximately 45 ton/year.

$$Quantity = 45 \frac{\text{ton}}{\text{yr}}$$

$$Breakdown_{\text{blast media}} = 0.1$$

$$Emissions_{\text{actual}} = Quantity * Breakdown_{\text{blast media}}$$

$$Emissions_{\text{actual}} = 45 \frac{\text{ton}}{\text{yr}} * 0.1 = 4.5 \frac{\text{ton}}{\text{yr}}$$

$$Time_{\text{actual}} = 12 \frac{\text{hrs}}{\text{week}} * 50 \frac{\text{weeks}}{\text{yr}} = 600 \frac{\text{hrs}}{\text{yr}}$$

$$Time_{\text{maximum}} = 24 \frac{\text{hrs}}{\text{day}} * 365 \frac{\text{days}}{\text{yr}} = 8760 \frac{\text{hrs}}{\text{yr}}$$

$$Emissions_{\text{actual hourly}} = \frac{Emissions_{\text{actual}}}{Time_{\text{actual}}}$$

$$Emissions_{actual\ hourly} = \frac{4.5 \frac{ton}{yr}}{600 \frac{hr}{yr}} = 0.0075 \frac{ton}{hr}$$

$$Emissions_{actual\ hourly} = 0.0075 \frac{ton}{yr} * 2000 \frac{lbs}{ton} = 15 \frac{lbs}{hr}$$

$$Emissions_{potential} = \frac{Time_{maximum}}{Time_{actual}} * Emissions_{actual}$$

$$Emissions_{potential} = \frac{8760 \frac{hr}{yr}}{600 \frac{hr}{yr}} * 4.5 \frac{ton}{yr} = 65.7 \frac{ton}{yr}$$

This example calculation is equivalent for the emission units listed below:

100N N-1516N 017

200E N-2242B 001

200E N-275E 001

200W N-2715EC 003

200W N-200W001 001

200W N-277W 002

300 N-328 001

300 N-328 002

300 N-3713 001

300 N-3722 002

400 N-4722B 001

400 N-4722C 003

EXAMPLE CALCULATION FOR
CATEGORY P: PROCESS EMISSION POINT

The calculations presented in section 2 of this appendix demonstrate examples of Category P.

EXAMPLE CALCULATION FOR
CATEGORY R: LABORATORY EMISSION POINT

Example calculation using emission unit 1706 KEL for the hexane component based on calendar year 1994.

$$Rate = 1.72E+05 \frac{ml}{yr}$$

$$\rho = 0.65937 \frac{g}{ml}$$

$$Carbon_{effectiveness} = 0.99$$

DF = Decontamination Factor

$$DF = \frac{1}{1 - Carbon_{effectiveness}}$$

$$DF = \frac{1}{1 - 0.99} = 100$$

The actual emissions, controlled and uncontrolled, are based on 8 hours per day, 5 days per week, and 50 weeks per year operation.

$$Emissions_{uncontrolled} = Rate * \rho * \frac{1lb}{454g}$$

$$Emissions_{uncontrolled} = 1.72E+05 \frac{ml}{yr} * 0.65937 \frac{g}{ml} * \frac{1lb}{454g} = 250 \frac{lb}{yr}$$

$$Emissions_{uncontrolled} = 250 \frac{lb}{yr} * \frac{1ton}{2000lbs} = 0.125 \frac{ton}{yr}$$

$$Emissions_{controlled} = \frac{Emissions_{uncontrolled}}{DF} = \frac{0.125 \frac{ton}{yr}}{100} = 1.25E-03 \frac{ton}{yr}$$

$$Emissions_{uncontrolled} = \frac{Emissions_{uncontrolled}}{250 \frac{day}{yr} * 8 \frac{hr}{day}}$$

$$Emissions_{uncontrolled} = \frac{.250 \frac{lbs}{yr}}{250 \frac{day}{yr} * 8 \frac{hr}{day}} = 0.125 \frac{lbs}{hr}$$

The potential emissions are based on 24 hours per day, 365 days per year of operation.

$$Emissions_{uncontrolled}(potential) = Rate * p * 1 \frac{lb}{454g} * \frac{24 \frac{hr}{day} * 365 \frac{day}{yr}}{8 \frac{hr}{day} * 250 \frac{day}{yr}}$$

$$Emissions_{uncontrolled} = 1.72E+05 \frac{ml}{yr} * 0.65937 \frac{g}{ml} * \frac{1lb}{454g} * \frac{24 \frac{hr}{day} * 365 \frac{day}{yr}}{8 \frac{hr}{day} * 250 \frac{day}{yr}}$$

$$Emissions_{uncontrolled}(potential) = 0.125 \frac{lb}{hr}$$

$$Emissions_{uncontrolled}(potential) = 0.125 \frac{lb}{hr} * \frac{1ton}{2000lbs} = 0.547 \frac{ton}{year}$$

$$Emissions_{controlled}(potential) = \frac{Emissions_{uncontrolled}(potential)}{DF}$$

$$Emissions_{controlled}(potential) = \frac{0.125 \frac{lb}{hr}}{100} = 1.25E-03 \frac{lb}{hr}$$

$$Emissions_{controlled}(potential) = 1.25E-03 \frac{lb}{hr} * \frac{ton}{2000lbs} * 8760 \frac{hrs}{yr} = 5.47E-03 \frac{ton}{yr}$$

The example calculation is equivalent for the emission units listed below:

100K R-1706KEL 001

EXAMPLE CALCULATIONS FOR CATEGORY S: LABORATORIES
(PROCESS OR QA/QC RELATED)

The example calculations presented in this section are for the WSCF Laboratory using the component hexane as an example.

Assumptions

Emission estimates are based upon actual chemical usage in the labs as provided by Westinghouse

Estimates assume 100% chemical loss to the atmosphere.

Emission estimates are equivalent for 1992, 1993, and 1994 with the exception of xylene and toluene

Compounds which have minimal vapor pressures such as nitric acid, hydrogen peroxide, phosphoric acid, potassium hydroxide, and other similar compounds were not included in the emission calculations. It is unlikely that emission of these chemicals would occur due to the amount and nature of their use in laboratories.

For ammonium compounds, it was assumed that 100 percent of the emissions are ammonia.

Pounds per hour (lb/hr) estimates are based on 8 hours per day, 5 days per week, 50 weeks per year.

It is assumed that actual lb/hr emissions are potential lb/hr emissions are equivalent.

Potential tons per year and pounds per year are based on 24 hours per day, 365 days per year.

No controls are present for non-radiological pollutants.

Actual Emissions

Pounds per hour (lb/hr) estimates are based on 8 hours per day, 5 days per week, 50 weeks per year.

$$\text{Pounds Per Year} \left(\frac{\text{lb}}{\text{yr}} \right) = \text{Usage Rate} \left(\frac{\text{mL}}{\text{yr}} \right) * \text{Density} \left(\frac{\text{g}}{\text{mL}} \right) * \left(\frac{1 \text{ lb}}{454 \text{ g}} \right)$$

Using hexane as an example:

$$\text{Pounds Per Year} = 32,000 \frac{\text{mL}}{\text{year}} * 0.66 \frac{\text{g}}{\text{mL}} * \frac{1 \text{ lb}}{454 \text{ g}} = 46.52 \frac{\text{lb}}{\text{yr}} (\text{Hexane})$$

$$\text{Tons Per Year (Hexane)} = \text{Emissions} \left(\frac{\text{lb}}{\text{yr}} \right) * \left(\frac{1 \text{ ton}}{2000 \text{ lb}} \right)$$

$$\text{Tons Per Year} = (46.52 \frac{\text{lbs}}{\text{yr}}) * \left(\frac{1 \text{ ton}}{2000 \text{ lbs}} \right) = 0.023 \left(\frac{\text{tons}}{\text{yr}} \right) (\text{hexane})$$

Potential Emissions

Potential tons per year and pounds per year are based on 24 hours per day, 365 days per year.

$$\text{Pounds Per Hour} \left(\frac{\text{lbs}}{\text{hr}} \right) = \text{Actual Pounds Per Hour} \left(\frac{\text{lb}}{\text{hr}} \right)$$

$$\text{Pounds Per Year} \left(\frac{\text{lb}}{\text{yr}} \right) = \text{Pounds Per Hour} \left(\frac{\text{lb}}{\text{hr}} \right) * 8760 \left(\frac{\text{hrs}}{\text{yr}} \right)$$

$$\text{Pounds Per Year} \left(\frac{\text{lbs}}{\text{yr}} \right) = (0.23 \frac{\text{lbs}}{\text{hr}}) * (8760 \frac{\text{hr}}{\text{yr}}) = 203.8 \left(\frac{\text{lbs}}{\text{yr}} \right) (\text{hexane})$$

$$\text{Tons Per Year} \left(\frac{\text{ton}}{\text{yr}} \right) = \text{Potential Emissions} \left(\frac{\text{lbs}}{\text{yr}} \right) * \left(\frac{1 \text{ ton}}{2000 \text{ lbs}} \right)$$

$$\text{Tons Per Year} = (203.8 \frac{\text{lbs}}{\text{yr}}) * \left(\frac{1 \text{ ton}}{2000 \text{ lbs}} \right) = 0.102 \frac{\text{ton}}{\text{yr}} (\text{hexane})$$

The above calculations were performed for each of the components listed in the table below:

Chemical	Usage Rate (mL/yr)	Density	Actual Emissions			Potential Emissions		
			lb/yr	lb/hr	ton/yr	lb/yr	lb/hr	ton/yr
Hydrochloric Acid	191490	1.27	5.36E+02	2.68E-01	2.68E-01	2.35E+03	2.68E-01	1.17E+00
Ethyl Alcohol	144730	0.79	2.52E+02	1.26E-01	1.26E-01	1.10E+03	1.26E-01	5.52E-01
Methylene Chloride (Dichloromethane)	74000	1.34	2.18E+02	1.09E-01	1.09E-01	9.57E+02	1.09E-01	4.78E-01
Methyl Chloride (Chloromethane)	45000	0.92	9.12E+01	4.56E-02	4.56E-02	3.99E+02	4.56E-02	2.00E-01
Isopropanol (Isopropyl Alcohol)	8000	0.79	1.39E+01	6.96E-03	6.96E-03	2.04E+02	6.96E-03	3.05E-02
Acetic Acid	10000	1.05	2.31E+01	1.16E-02	1.16E-02	6.10E+01	1.16E-02	5.06E-02
Toluene	1000	0.87	1.92E+00	9.58E-04	9.58E-04	8.39E+00	9.58E-04	4.20E-03
Sulfuric Acid	7000	1.83	2.82E+01	1.41E-02	1.41E-02	1.24E+02	1.41E-02	6.18E-02
Isooctane (2,2,4- Trimethylpentane)	8000	0.69	1.22E+01	6.08E-03	6.08E-03	5.33E+01	6.08E-03	2.66E-02
Trichloroethylene	8000	1.46	2.57E+01	1.29E-02	1.29E-02	1.13E+02	1.29E-02	5.63E-02
Xylene	4000	0.87	7.67E+00	3.83E-03	3.83E-03	3.36E+01	3.83E-03	1.68E-02
Bromine	60	3.12	4.12E-01	2.06E-04	2.06E-04	2.06E-04	2.06E-04	9.03E-04
Mercury	250	13.55	7.46E+00	3.73E-03	3.73E-03	3.27E+01	3.73E-03	1.63E-02

The following sources are also laboratories. The emissions calculations for these laboratories were calculated equivalent to those presented above. The calculations can be provided upon request.

200W S-222SA 001
200W S-296S021 001
600 S-6266 001

APPENDIX B

COMPLIANCE PLAN SCHEDULE

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COMPLIANCE PLAN SCHEDULE

Milestone Number	Description of Corrective Action	Target Date
A-10-01	Assess and correct the various air management systems and procedures to ensure all notices and reports are submitted to the appropriate air agencies in a timely manner.	12/29/95
A-20-01	NESHAP Federal Facility Compliance Agreement (incorporated by reference, as signed February 7, 1994)	As Agreed
A-20-02	PUREX will assess and discuss with Ecology and EPA continuous NOx monitoring requirements during deactivation	08/01/95
A-20-03	A schedule for re-assessing the SO ₂ emissions from the 300 Area boilers, emission points 300 F-384 002, 300 F-384 005, and 300 F-384 006 and to schedule the actions necessary to bring the emission units into compliance will be developed.	08/01/95
A-30-xx	TBD	
A-40-xx	TBD	
A-50-xx	TBD	

APPENDIX C

100 AREAS

APPENDIX C

CONTENTS

C-1 100K

C-2 100N

APPENDIX C-1

100K

Chapter I. General Information

I-B.1. Facility Description

The 100K Basins were constructed in the early 1950's to store irradiated fuel from nuclear reactor operations. The K Basins consist of two irradiated fuel storage basins, 105KE and 105KW, that adjoined the 105KE and 105KW reactor buildings. Other than the fuel storage basins, the reactor buildings are deactivated. Other significant K Basin structures consist of the 1717K maintenance shop and the 1706KE development laboratory.

The 105KE and 105KW Basins presently contain 2,324 short tons of irradiated fuel. The fuel currently is stored under water in two reinforced concrete basins. Each basin is 125 feet long and 67 feet wide. Fuel canisters are stored in racks in the basins and water levels are maintained at a minimum of 10 feet above the canisters to cool the fuel and provide radiation shielding for personnel. The water in each basin is recirculated through a closed water cooling system. In addition, filters and ion exchange systems maintain water clarity and remove radionuclides.

The 105 KW Basin presently contains zirconium clad irradiated fuel with enrichment up to and above 0.95 percent Uranium²³⁵. In the late 1970's, the 105KW Basin was emptied, decontaminated, and the basin walls coated with an epoxy. The 105KW Basin was placed back into operation in 1981 and all fuel stored within the basin has been encapsulated in canisters to prevent the spread of contamination from exposed degrading fuel. The 105KE Basin presently stores fuel in open containers with an operational fuel enrichment limit for the receipt and handling of irradiated fuel of less than or equal to 0.95 percent Uranium²³⁵.

The fuel storage basins exhaust unfiltered air from four roof exhausters. Emissions are limited to radionuclides. The 1706KE laboratory exhausts HEPA-filtered air from contaminated areas. One hazardous air pollutant has been identified in one of the 1706KE exhaust streams. The 1717K maintenance shop does not have an exhaust collection system, and small quantities of volatile organic compounds are used as a part of routine maintenance operations and are released as fugitive emissions.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principal products - There are no products produced.
- Process information - There are two process activities at the 100K Basins.

- A cooling system for the water in the basins. The cooling system removes heat from the basin water and discharges the excess heat to the atmosphere by the use of an air cooled chiller.
- The ion exchange system provides ion removal that includes ionic radionuclides. There is no regeneration; therefore, spent ion exchange resin is disposed as radioactive waste.
- Raw materials used by processes - There are no raw materials used at the 100K Basins.
- Fuels used by processes - There are no fuels used at the 100K Basins.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on pages 1 through 3 of the AEI report output. The control information is found on page 8 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on pages 1 through 3 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 100K
FACILITY NAME: 100K Facility and Related Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
105KE	146760	569237	REACTOR FACILITY	GANT, RICHARD G.	373-3781	JOE M. ESCAMILLO	376-4557
105KW	146482	568695	REACTOR FACILITY	GANT, RICHARD G.	373-3781	JOE M. ESCAMILLO	376-4557
1706KE	146666	569194	WATER STUDIES SEMIWORKS FACILITY	MACFARLAN, PAUL J.	373-1589	JOE M. ESCAMILLO	376-4557
1706KEL	146654	569175	DEVELOPMENT LABORATORY	MACFARLAN, PAUL J.	373-1589	JOE M. ESCAMILLO	376-4557
1706KER	146673	569160	WATER STUDIES RECIRCULATION BUILDING	MACFARLAN, PAUL J.	373-1589	JOE M. ESCAMILLO	376-4557
1717K	146521	569031	MAINTENANCE TRANSPORTATION SHOP BUILDING	DEBBAN, BRUCE L.	373-2168	JOE M. ESCAMILLO	376-4557

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
100K N-1717K 001	FUGITIVE	146501	569007	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	16	1	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
100K P-105KE 001	POINT	146722	569150	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP			3.33	3.33	11.09	78	25.8	42	2	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
100K P-105KE 002	POINT	146728	569149	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP			2.833	2.833	8.03	78	19.3	42	2	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
100K P-105KE 003	POINT	146735	569170	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP			2.833	2.833	8.03	78	17.1	17	2	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
100K P-105KE 004	POINT	146742	569187	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP			3.33	3.33	11.09	78	21	17	2	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 100K
FACILITY NAME: 100K Facility and Related Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
100K P-105KW 001	POINT	146430	568600	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP			3.33	3.33	11.09	78	24.4	42	2	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
100K P-105KW 002	POINT	146440	568602	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP			2.833	2.833	8.03	78	21.1	42	2	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
100K P-105KW 003	POINT	146468	568620	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP			2.833	2.833	8.03	78	8.8	17	2	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
100K P-105KW 004	POINT	146467	568640	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP			2.833	2.833	8.03	78	14.2	17	2	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
100K R-1706KE 001	POINT	146641	569167	1	not assigned	ANALYTICAL LABORATORY				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1.5			1.77	78	113	35	10	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
100K R-1706KEL 001	POINT	146630	569156	1	not assigned	ANALYTICAL LABORATORY				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP		2.83			6.29	78	23.9	27	7	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 100K
 FACILITY NAME: 100K Facility and Related Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
100K R-1706KER 001	POINT	146655	569132	1	not assigned	ANALYTICAL LABORATORY				
	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
	VERTICAL WITHOUT WEATHER CAP	1.25			1.23	78	27.2	10	-8	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
100K R-1706KER 002	POINT	146673	569142	1	not assigned	ANALYTICAL LABORATORY				
	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
	HORIZONTAL	1.17			1.08	78	29.7	4	-34	

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100K N-1717K 001	1	PROCESS AND PRODUCTION	8	5	50	VOC EMISSIONS FROM MAINTENANCE OPERATIONS

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100K P-105KE 001	1	PROCESS AND PRODUCTION	24	7	52	EXHAUST VENT FOR 105KE SPENT FUEL STORAGE BASIN - HIGH BAY EXHAUST (RV6)

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100K P-105KE 002	1	PROCESS AND PRODUCTION	24	7	52	EXHAUST VENT FOR 105KE SPENT FUEL PIT BASIN - HIGH BAY EXHAUST (RV7)

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100K P-105KE 003	1	PROCESS AND PRODUCTION	24	7	52	EXHAUST VENT FOR 105KE SPENT FUEL STORAGE BASIN - LOW BAY EXHAUST(RV10).

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100K P-105KE 004	1	PROCESS AND PRODUCTION	24	7	52	EXHAUST VENT FOR 105KE SPENT FUEL STORAGE BASIN - LOW BAY EXHAUST (RV11).

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100K P-105KW 001	1	PROCESS AND PRODUCTION	24	7	52	EXHAUST VENT FOR 105KW SPENT FUEL STORAGE BASIN - HIGH BAY EXHAUST (RV6)

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 100K
 FACILITY NAME: 100K Facility and Related Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100K P-105KW 002	1	PROCESS AND PRODUCTION	24	7	52	EXHAUST VENT FOR 105KW SPENT FUEL STORAGE BASIN - HIGH BAY EXHAUST (RV7)
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100K P-105KW 003	1	PROCESS AND PRODUCTION	24	7	52	EXHAUST VENT FOR 105KW SPENT FUEL STORAGE BASIN AREA - LOW BAY EXHAUST (RV10)
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100K P-105KW 004	1	PROCESS AND PRODUCTION	24	7	52	EXHAUST VENT FOR 105KW SPENT FUEL STORAGE BASIN - LOW BAY EXHAUST (RV11).
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100K R-1706KE 001	1	ANALYTICAL LABORATORY	24	7	52	EXHAUST STACK FOR 1706KE LAB, WITH HEPA FILTERS, FLOW AND RADIONUCLIDE MONITORING
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100K R-1706KEL 001	1	ANALYTICAL LABORATORY	24	7	52	1706 KEL EXHAUST (ABOUT 1964) EXHAUST FOR WASTE WATER TREATMENT PILOT PLANT & RCRA/CERCLA FACILITY IN 1706 KEL. ACTUAL DATE INSTALLED UNKNOWN.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100K R-1706KER 001	1	ANALYTICAL LABORATORY	24	7	52	1706KER (-27') LEVEL EXHAUST FROM 1706KE LABORATORY.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100K R-1706KER 002	1	ANALYTICAL LABORATORY	24	7	52	NORTH CORRIDOR, -27' LEVEL, 1706KE

Source Raw Materials Usage

Em Point	Srce Nbr	Srce Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Srce Nbr	Srce Type	Qty	Uom	Fuel
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AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 100K
 FACILITY NAME: 100K Facility and Related Structures

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
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Point Source Criteria Pollutants - Type: VOC

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
100K R-1706KEL 001	1	ANALYTICAL LABORATORY	.750000000	.170000000	N-HEXANE
Sum			.750000000	.170000000	

Point Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant
100K P-105KE 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-334	Refer to DOE/RL-94-51 Table 2-1	
100K P-105KE 002	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-334	Refer to DOE/RL-94-51 Table 2-1	
100K P-105KE 003	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-334	Refer to DOE/RL-94-51 Table 2-1	
100K P-105KE 004	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-334	Refer to DOE/RL-94-51 Table 2-1	
100K P-105KW 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-335	Refer to DOE/RL-94-51 Table 2-1	
100K P-105KW 002	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-335	Refer to DOE/RL-94-51 Table 2-1	
100K P-105KW 003	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-335	Refer to DOE/RL-94-51 Table 2-1	
100K P-105KW 004	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-335	Refer to DOE/RL-94-51 Table 2-1	

AIR EMISSIONS INVENTORY REPORT
FACILITY NAME: 100K Facility and Related Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
100K R-1706KE 001	1	ANALYTICAL LABORATORY	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-336	Refer to DOE/RL-94-51 Table 2-1	
100K R-1706KEL 001	1	ANALYTICAL LABORATORY	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-55	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-55	
100K R-1706KER 001	1	ANALYTICAL LABORATORY	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-337	Refer to DOE/RL-94-51 Table 2-1	
100K R-1706KER 002	1	ANALYTICAL LABORATORY	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-337	Refer to DOE/RL-94-51 Table 2-1	

Point Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
100K R-1706KEL 001	1	ANALYTICAL LABORATORY	.750000000	.170000000	N-HEXANE
Sum			.750000000	.170000000	

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Fugitive Source Criteria Pollutants - Type: VOC

Fugitive Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
100K N-1717K 001	1	PROCESS AND PRODUCTION	.300000000 .120000000 .300000000 .290000000 .004700000	.017000000 .006900000 .017000000 .017000000 .000270000	1,2-BUTYLENE OXIDE BUTYL ALCOHOL, TERT- DIMETHOXYMETHANE ISOPROPYL ALCOHOL METHYL ALCOHOL
Sum			1.014700000	.058170000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 100K
 FACILITY NAME: 100K Facility and Related Structures

Fugitive Source Emissions - Radiological Pollutants

Em Point	Src	Nbr	Src	Type	Pollutant	Em. Pt. to Emit (Ci/yr)	Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Fugitive Source Emissions - HAP Pollutants

Em Point	Src	Nbr	Src	Type	Pollutant	Em. Pt. to Emit (tons/yr)	Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
100K N-1717K 001			1	PROCESS AND PRODUCTION		5.600000000	.320000000		1,1,1-TRICHLOROETHANE
						.300000000	.017000000		1,2-BUTYLENE OXIDE
						.004700000	.000270000		METHYL ALCOHOL
						.210000000	.012000000		METHYLENE CHLORIDE
Sum						6.114700000	.349270000		

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Src	Nbr	Src	Type	Pollutant	Em. Pt. to Emit (tons/yr)	Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum									

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src	Nbr	Src	Type	Pollutant	Em. Pt. to Emit (Ci/yr)	Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Insignificant Source Emissions - HAP Pollutants

Em Point	Src	Nbr	Src	Type	Pollutant	Em. Pt. to Emit (tons/yr)	Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
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Insignificant Source Emissions - HAP Pollutants

Em Point	Src	Nbr	Src	Type	Pollutant	Em. Pt. to Emit (tons/yr)	Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
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Sum

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 100K
 FACILITY NAME: 100K Facility and Related Structures

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum						

Control Device Listing

Em Point	Control Equipment Code
100K R-1706KE 001	099
100K R-1706KEL 001	048
100K R-1706KEL 001	099
100K R-1706KER 001	099
100K R-1706KER 002	099

Monitors Listing

FACILITY: 100 K Facility

EMISSION POINTS: 100K P-105KE 001, 002, 003, & 004

K.A. Giese
1/30/1995

FACILITY: 100 N Facility

EMISSION POINTS: 100K P-105KW 001, 002, 003, & 004

K.A. Giese
1/30/1995

FACILITY:	100 K Facility
EMISSION POINT:	100K R-1706KE 001

FACILITY:

100 K Facility

EMISSION POINT:

100K R-1706KEL 001

K.A. Giese

1/14/1995

FACILITY:

100 K Facility

EMISSION POINT:

100K R-1706KER 001

K.A. Glese

1/14/1995

FACILITY:

100 K Facility

EMISSION POINT:

100K R-1706KER 002

K.A. Giese

1/14/1995

FACILITY: 100 K Facility

EMISSION POINT: 100K N-1717K 001

100 KE/KW Emission Points

APPENDIX C-2

100N

Chapter I. General Information

I-B.1. Facility Description

The N Reactor began operation in December 1963. The N Reactor was designed to produce special nuclear materials (SNM) and byproduct steam for electrical power generation. The 100-N Area reactor complex consists of 126 buildings for reactor operations, maintenance, support facilities, and an office complex. The 105-N Reactor Building contains the nuclear reactor itself, a pressurized water reactor (PWR), which was fueled with slightly enriched uranium and designed to operate at 1,825 pounds per square inch and 600 °F. The N Reactor produced approximately 4,000 megawatts of thermal power. The reactor process generated large quantities of heat that were removed by the primary coolant loop to the 109-N Heat Exchanger Building. This building transferred the heat from the primary loop to the secondary loop via steam generators. The secondary loop coolant, when it exited the steam generator, was in the form of steam and was carried to the Washington Public Power Supply System turbine generator building where the turbines were driven by the steam to produce electricity.

The N Reactor, by nature of its process, used large quantities of water for cooling purposes in the production of SNM and electricity. To support the large water usage, N Reactor used the 183-N Water Filtration Plant and the 163-N Demineralization Plant, which filtered and demineralized the water needed for operation.

During startup, the 184-N Plant Service Power House provided the initial plant steam necessary to start the plant before the steam generators provided plant steam. This power house was crucial to the N Reactor startup.

The 107-N Basin Recirculation Building filtered and demineralized the water from the N Basin Fuel Storage Facility, removing radionuclides from the water and reducing personnel radiation exposure. The N Basin stored the irradiated fuel from the reactor until the fuel was ready for transfer to the 200 Areas for chemical reprocessing.

The N Reactor and auxiliary facilities were operated until 1987 when DOE ordered N Reactor placed in a standby configuration. In 1991, DOE ordered the preservation activities to cease and identified steps to place N Reactor in a condition requiring only minimal surveillance and maintenance until final decontamination and decommissioning.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principle products - There are no products produced.
- Process information - There are no process activities.
- Raw materials used by processes - There are no raw materials used at 100N.
- Fuels used by processes - There are fuels used at 100N.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on pages 1 and 2 of the AEI report output. The control information is found on page 8 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on pages 1 and 2 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 100N
FACILITY NAME: 100N Facility and Related Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
105N	149572	571309	REACTOR FACILITY	TREVINO, REBIN A.	373-1663	ROGER D. FREEBERG	376-7167
107N	149587	571117	RECIRCULATION COOLING BUILDING	BLANKENSHIP, DORMAN	373-5456	ROGER D. FREEBERG	376-7167
116N	149698	571224	MAIN STACK AT 100N	TREVINO, RUBIN A.	373-1663	ROGER D. FREEBERG	376-7167

Emission Point Listing

Em Point	Ep Type	North	East	Srcce Nbr	Scc Code	Srcce Type					
100N M-105N 001	FUGITIVE	149537	571267	1	not assigned	PROCESS AND PRODUCTION					
				2	not assigned	WELDING/CUTTING/BRAZING					
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)		
					0	78	.0325	10	-8		

Em Point	Ep Type	North	East	Srcce Nbr	Scc Code	Srcce Type					
100N P-105N 002	POINT	149508	571242	1	not assigned	PROCESS AND PRODUCTION					
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)		
VERTICAL WITHOUT WEATHER CAP			1.5	1.5	2.25	70	47	35	-36		

Em Point	Ep Type	North	East	Srcce Nbr	Scc Code	Srcce Type					
100N P-107N 004	POINT	149575	571109	1	not assigned	PROCESS AND PRODUCTION					
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)		
HORIZONTAL			2	2	4	70	2.4	34	11		

Em Point	Ep Type	North	East	Srcce Nbr	Scc Code	Srcce Type					
100N P-116N 005	POINT	149698	571224	1	not assigned	PROCESS AND PRODUCTION					
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)		
VERTICAL WITHOUT WEATHER CAP		17			226.98	0	2.7	201	201		

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (04460)

FACILITY ID: 100N
FACILITY NAME: 100N Facility and Related Structures

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100N M-105N 001	1	PROCESS AND PRODUCTION	8	5	52	PIPEFITTING AND METALWORKING OPERATIONS
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100N M-105N 001	2	WELDING/CUTTING/BRAZING	8	5	52	WELDING OPERATIONS
ACTIVITY = WELDING, CUTTING & BRAZING. PROCESS = BRAZING, OXY-ACETYLENE, OSY-ACETYLENE CUTTING, PLASMA ARC CUTTING, GAS TUNGSTEN ARC WELDING, & SHIELDED METAL ARC WELDING. BASE METAL TYPE = ALUMINUM, CARBON STEEL, NICKEL BASED & STAINLESS STEEL. TYPE OF FLUX REMOVAL = BRUSHING & GRINDING.						
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100N P-105N 002	1	PROCESS AND PRODUCTION	24	7	52	ROOMS 305/306 14-FT STACK. DECONTAMINATION/SEGREGATION OF RADIOACTIVE MATERIALS AND WASTES. NO VOLATILE EMISSIONS.
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100N P-107N 004	1	PROCESS AND PRODUCTION	24	7	52	107-N BASIN RECIRCULATION AREA STACK. STACK IS IN USE.
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
100N P-116N 005	1	PROCESS AND PRODUCTION	24	7	52	116-N AIR STACK. THE STACK IS IN USE.

Source Raw Materials Usage

Em Point	Srcr Nbr	Srcr Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Srcr Nbr	Srcr Type	Qty	Uom	Fuel
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Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
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AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 100N
 FACILITY NAME: 100N Facility and Related Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant
100N P-116N 005	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-331	Refer to DOE/RL-94-51 Table 2-1	

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
Sum					

Point Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
Sum					

Fugitive Source Criteria Pollutants - Type: PM10

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
100N M-105N 001	1	PROCESS AND PRODUCTION	.050000000	.010000000	PARTICULATE MATTER (10 MICRONS OR LESS)
Sum			.050000000	.010000000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)

FACILITY ID : 100N

FACILITY NAME: 100N Facility and Related Structures

Fugitive Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Fugitive Source Emissions - HAP Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
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Sum

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
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Sum

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
100N P-105N 002	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-48	Refer to DOE/RL-94-51 Table 2-1	

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
100N P-107N 004	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-54	Refer to DOE/RL-94-51 Table 2-1	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 100N
 FACILITY NAME: 100N Facility and Related Structures

Insignificant Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Control Device Listing

Em Point	Control Equipment Code

100N P-105N 002	099
100N P-107N 004	099
100N P-116N 005	099

FACILITY:	100 N AREA
EMISSION POINT:	100N P-116N 005

FACILITY:	100N Area
EMISSION POINT:	100N-P-105N-002

FACILITY:

100 N AREA

EMISSION POINT:

100N P-107N 004

100N Area

WHCHTSWNFM12-0411NEMISS

APPENDIX D

200 EAST AREA

APPENDIX D

CONTENTS

- D-1 284E POWERHOUSE
- D-2 B PLANT
- D-3 PUREX FACILITY
- D-4 200 EAST AREA TANK FARMS
- D-5 200 AREA EFFLUENT TREATMENT FACILITY

APPENDIX D-1

284E POWERHOUSE

Chapter I. General Information

I-B.1. Facility Description

The 284E Powerhouse is located in the 200 East Area. The 284E Powerhouse has five coal-fired boilers in operation. All of the boilers are used exclusively to generate steam. Steam generated is used in nearby process facilities for heating and process operations. The total rated capacity of the five boilers is 310,000 pounds per hour of steam. An inoperable oil-fired package boiler is also present at the 284E Powerhouse.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principal products - The only product is 250 - 350 pounds per square inch gauge steam for heating and process operations.
- Process information - Treated boiler feed water is prepared. Sanitary water is dechlorinate using sodium sulfite before entering sodium zeolite softener ion exchange units to remove presence of calcium and magnesium salts. Feed water chemistry control is performed using <4% potassium hydroxide to prevent scaling and sedimentation. Sodium sulfite is used to scavenge oxygen. Amine is added to each boiler steam outlet line for condensate corrosion control.
- Raw materials used by processes - There are no raw materials used at the 284E Powerhouse.
- Fuels used by processes - All of the boilers use bituminous coal.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on pages 1 and 2 of the AEI report output. The control information is found on page 7 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on pages 1 and 2 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 284E
 FACILITY NAME: 284E Facilities and Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
284E	135674	573933	POWER HOUSE AND STEAM PLANT	TRUE, GREGORY R.	373-9038	DAVID G. MURILLO	373-9179

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type		
200E F-284E 001	POINT	135652	573940	1	10200204	EXTERNAL FUEL COMBUSTION		
				2	10200204	EXTERNAL FUEL COMBUSTION		
				3	10200204	EXTERNAL FUEL COMBUSTION		
				4	10200204	EXTERNAL FUEL COMBUSTION		
				5	10200204	EXTERNAL FUEL COMBUSTION		
				6	not assigned	SOURCE EMISSIONS ROLL-UP		
Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITHOUT WEATHER CAP	9			63.62	210	15	250	177

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type		
200E F-284E 002	POINT	135629	573940	1	10200204	EXTERNAL FUEL COMBUSTION		
				2	10200204	EXTERNAL FUEL COMBUSTION		
				3	10200204	EXTERNAL FUEL COMBUSTION		
				4	10200204	EXTERNAL FUEL COMBUSTION		
				5	10200204	EXTERNAL FUEL COMBUSTION		
				6	not assigned	SOURCE EMISSIONS ROLL-UP		
Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITHOUT WEATHER CAP	9			63.62	210	15	250	177

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type		
200E F-284E 005	POINT	135670	573943	1	10200501	EXTERNAL FUEL COMBUSTION		
Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITH WEATHER CAP		4	4	16	900	.0325	40	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type		
200E J-284E 003	FUGITIVE	135528	574005	2	39000289	CRUSHING, HANDLING, AND STORAGE		
Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
				0	78	.0325	40	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)

FACILITY ID : 284E

FACILITY NAME: 284E Facilities and Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E J-284E 004	FUGITIVE	135661	574034	1	50306810	DISPOSAL AND LANDFILL				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	0		

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E F-284E 001	1	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY, COAL-FIRED, SPREADER STOKER BOILER.
200E F-284E 001	2	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY COAL-FIRED SPREADER STOKER BOILER.
200E F-284E 001	3	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY COAL-FIRED SPREADER STOKER BOILER.
200E F-284E 001	4	EXTERNAL FUEL COMBUSTION	24	7	52	RILEY COAL-FIRED SPREADER STOKER BOILER.
200E F-284E 001	5	EXTERNAL FUEL COMBUSTION	24	7	52	RILEY COAL-FIRED SPREADER STOKER BOILER.
200E F-284E 001	6	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT F-284E-001
200E F-284E 002	1	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY COAL-FIRED SPREADER STOKER BOILER.
200E F-284E 002	2	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY COAL-FIRED SPREADER STOKER BOILER.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)

FACILITY ID : 284E

FACILITY NAME: 284E Facilities and Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E F-284E 002	3	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY COAL-FIRED, SPREADER STOKER BOILER.
200E F-284E 002	4	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY COAL-FIRED SPREADER STOKER BOILER.
200E F-284E 002	5	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY COAL-FIRED SPREADER STOKER BOILER.
200E F-284E 002	6	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT F-284E-002
200E F-284E 005	1	EXTERNAL FUEL COMBUSTION				TRANE, NO. 2 OIL-FIRED PACKAGE BOILER, INOPERABLE
200E J-284E 003	2	CRUSHING, HANDLING, AND STORAGE	24	7	52	COAL CRUSHER, FREQUENTLY INOPERABLE. ALSO COAL STORAGE.
200E J-284E 004	1	DISPOSAL AND LANDFILL	24	7	52	ASH DISPOSAL PIT

Source Raw Materials Usage

Em Point	Srce Nbr	Srce Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Srce Nbr	Srce Type	Qty	Uom	Fuel
200E F-284E 001	1	EXTERNAL FUEL COMBUSTION	6000000	POUND	COAL BITUMINOUS

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 284E
FACILITY NAME: 284E Facilities and Structures

Fuels Usage by Source Processes

Em Point	Src	Nbr	Src Type	Qty	Uom	Fuel
200E F-284E 001	2		EXTERNAL FUEL COMBUSTION	0	POUND	COAL BITUMINOUS
	3		EXTERNAL FUEL COMBUSTION	6000000	POUND	COAL BITUMINOUS
	4		EXTERNAL FUEL COMBUSTION	7500000	POUND	COAL BITUMINOUS
	5		EXTERNAL FUEL COMBUSTION	7000000	POUND	COAL BITUMINOUS
200E F-284E 002	1		EXTERNAL FUEL COMBUSTION	6000000	POUND	COAL BITUMINOUS
	2		EXTERNAL FUEL COMBUSTION	0	POUND	COAL BITUMINOUS
	3		EXTERNAL FUEL COMBUSTION	6000000	POUND	COAL BITUMINOUS
	4		EXTERNAL FUEL COMBUSTION	7500000	POUND	COAL BITUMINOUS
	5		EXTERNAL FUEL COMBUSTION	7000000	POUND	COAL BITUMINOUS
200E F-284E 005	1		EXTERNAL FUEL COMBUSTION	0	GALLONS	NO. 2 DIESEL #2 FUEL OIL

Fuels Usage by Control Devices

Em Point	Ctl	Nbr	Ctl Type	Qty	Uom	Fuel
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Point Source Criteria Pollutants - Type: CO

Em Point	Src	Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E F-284E 001	6		SOURCE EMISSIONS ROLL-UP		328.500000000	15.485000000	CARBON MONOXIDE
200E F-284E 002	6		SOURCE EMISSIONS ROLL-UP		328.500000000	15.485000000	CARBON MONOXIDE
Sum					657.000000000	30.970000000	

Point Source Criteria Pollutants - Type: LEAD

Em Point	Src	Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E F-284E 001	6		SOURCE EMISSIONS ROLL-UP		.850000000	.040000000	LEAD
200E F-284E 002	6		SOURCE EMISSIONS ROLL-UP		.850000000	.040000000	LEAD
Sum					1.700000000	.080000000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 284E
FACILITY NAME: 284E Facilities and Structures

Point Source Criteria Pollutants - Type: NOX

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E F-284E 001	6	SOURCE EMISSIONS ROLL-UP	900.000000000	42.430000000	NITROGEN OXIDES
200E F-284E 002	6	SOURCE EMISSIONS ROLL-UP	900.000000000	42.430000000	NITROGEN OXIDES
Sum			1800.000000000	84.860000000	

Point Source Criteria Pollutants - Type: PM

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E F-284E 001	6	SOURCE EMISSIONS ROLL-UP	8.650000000	.410000000	TOTAL PARTICULATE MATTER
200E F-284E 002	6	SOURCE EMISSIONS ROLL-UP	8.650000000	.410000000	TOTAL PARTICULATE MATTER
Sum			17.300000000	.820000000	

Point Source Criteria Pollutants - Type: PM10

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E F-284E 001	6	SOURCE EMISSIONS ROLL-UP	1.750000000	.080000000	PARTICULATE MATTER (10 MICRONS OR LESS)
200E F-284E 002	6	SOURCE EMISSIONS ROLL-UP	1.750000000	.080000000	PARTICULATE MATTER (10 MICRONS OR LESS)
Sum			3.500000000	.160000000	

Point Source Criteria Pollutants - Type: SOX

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E F-284E 001	6	SOURCE EMISSIONS ROLL-UP	1310.500000000	62.000000000	SULFUR DIOXIDE
200E F-284E 002	6	SOURCE EMISSIONS ROLL-UP	1310.500000000	62.000000000	SULFUR DIOXIDE
Sum			2621.000000000	124.000000000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID.: 284E
FACILITY NAME: 284E Facilities and Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E F-284E 001	6	SOURCE EMISSIONS ROLL-UP	.350000000 3.300000000	.015000000 .155000000	FORMALDEHYDE NON-METHANE VOLATILE ORGANICS
200E F-284E 002	6	SOURCE EMISSIONS ROLL-UP	.350000000 3.300000000	.015000000 .155000000	FORMALDEHYDE NON-METHANE VOLATILE ORGANICS
Sum			7.300000000	.340000000	

Point Source Emissions - Radiological Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Point Source Emissions - HAP Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E F-284E 001	6	SOURCE EMISSIONS ROLL-UP	.900000000 .100000000 .050000000 2.600000000 .350000000 .850000000 3.600000000 .050000000 2.150000000 .350000000	.040000000 .005000000 .005000000 .125000000 .015000000 .040000000 .170000000 .001500000 .100000000 .015000000	ARSENIC BERYLLIUM CADMIUM CHROMIUM FORMALDEHYDE LEAD MANGANESE MERCURY NICKEL SELENIUM
200E F-284E 002	6	SOURCE EMISSIONS ROLL-UP	.900000000 .100000000 .050000000 2.600000000 .350000000 .850000000 3.600000000 .050000000 2.150000000 .350000000	.040000000 .005000000 .005000000 .125000000 .015000000 .040000000 .170000000 .001500000 .100000000 .015000000	ARSENIC BERYLLIUM CADMIUM CHROMIUM FORMALDEHYDE LEAD MANGANESE MERCURY NICKEL SELENIUM
Sum			22.000000000	1.033000000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 284E
 FACILITY NAME: 284E Facilities and Structures

Point Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E F-284E 001	6	SOURCE EMISSIONS ROLL-UP	1.650000000 3.950000000 5.900000000 .200000000	.075000000 .185000000 .280000000 .010000000	COPPER METHANE NITROUS OXIDE VANADIUM
200E F-284E 002	6	SOURCE EMISSIONS ROLL-UP	1.650000000 3.950000000 5.900000000 .200000000	.075000000 .185000000 .280000000 .010000000	COPPER METHANE NITROUS OXIDE VANADIUM
Sum			23.400000000	1.100000000	

Fugitive Source Criteria Pollutants - Type: PM

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E J-284E 003	2	CRUSHING, HANDLING, AND STORAGE	2.000000000	2.000000000	TOTAL PARTICULATE MATTER
Sum			2.000000000	2.000000000	

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant

Fugitive Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 284E
 FACILITY NAME: 284E Facilities and Structures

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Insignificant Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
-----	-----	-----	-----	-----	-----
Sum					

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
-----	-----	-----	-----	-----	-----
Sum					

Control Device Listing

Em Point	Control Equipment Code
-----	-----
200E F-284E 001	016
200E F-284E 002	016

FACILITY:

284E Powerhouse

EMISSION POINT:

200E J-284E 003

Area Source Emission Point

Coal Delivery, Crushing,
and Storage Operations

FACILITY:

284E Powerhouse

EMISSION POINT:

200E J-284E 004

Boiler Furnace Operations

Area Source Emission Point

Ash

FACILITY:

284 East Area Powerhouse

EMISSION POINT:

200E F-284E 001 and 002

APPENDIX D-2

B PLANT/WASTE ENCAPSULATION AND STORAGE FACILITY

Chapter I. General Information

I-B.1. Facility Description

The B Plant was constructed between 1943-45 and originally was designed to process spent nuclear fuels in support of the Manhattan Project. The B Plant was modified from 1961-1967 for the separation of strontium and cesium from the fissile product waste stream following plutonium and uranium recovery from irradiated reactor fuels in a plutonium-uranium extraction process (PUREX). In 1974, the Waste Encapsulation and Storage Facility (WESF) was put into operation. The individual strontium and cesium solutions were transferred to WESF for conversion to solid compounds, the solid compounds were encapsulated, and the encapsulated compounds were stored in pool cells. This effort continued until 1985.

There are currently no production activities at B Plant/WESF. However, B Plant/WESF remains operational providing surveillance operations to ensure safe storage and management of the WESF cesium and strontium capsules, and of the other radiological inventory at B Plant/WESF. These operations include generation of demineralized water, treatment and storage of low-level radioactive waste, treatment and storage of organic solvent waste, waste transfers within and outside of B Plant/WESF, decontamination of equipment and facilities, various maintenance activities within the canyon and process cells in B Plant/WESF, and storage and transfer of dangerous chemicals inside and outside B Plant/WESF. The B Plant/WESF complex will continue these operations in a safe, cost-effective manner until final decontamination and decommissioning activities commence.

The B Plant/WESF is located in the 200 East Area of the Hanford Site. It is comprised of three main buildings: the 221-B Processing Building, the 271-B Service and Office Building, and 225-B the WESF Building. These are located on the site map in Section I.C.3. The B Plant/WESF complex is operated 24 hours a day.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principal products - There are no products produced at B Plant.
- Process information
 - These are treatment and storage of hazardous and radioactive waste and demineralized water production.

- Treatment and storage of low-level waste - The low-level waste is mixed with sodium hydroxide and sodium nitrate to meet storage criteria requirements at the Double-Shell Tank System.
 - Demineralized water production - Deionized water is produced for use by a continuous deionization system. The process produces a concentrated ionic waste solution and deionized water.
 - Treatment and storage of organic solvent waste. Treatment consists of radionuclide removal using caustic strikes.
- Raw materials used by processes - There are no raw materials consumed at B Plant.
 - Fuels used by processes - There are no fuels used in the processes at B Plant.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on pages 1 and 2 of the AEI report output. The control information is found on page 8 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on pages 1 and 2 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : B-Plant
FACILITY NAME: B-Plant Facility and Associated Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
291B001	136382	573571	B-PLANT MAIN STACK	RIDGE, TINA M.	372-3560	RON A. KROPP	372-0309
296B005	136444	573466	221-BB EXHAUST STACK	RIDGE, TINA M.	372-3560	RON A. KROPP	372-0309
296B010	136433	573361	WASTE ENCAPSULATION AND STORAGE FACILITY STACK	RIDGE, TINA M.	372-3560	RON A. KROPP	372-0309
296B013	136381	573358	221-BF EXHAUST STACK	RIDGE, TINA M.	372-3560	RON A. KROPP	372-0309
296B022	136469	573594	B-PLANT GALLERY EXHAUSTER	RIDGE, TINA M.	372-3560	RON A. KROPP	372-0309
296B023	136469	573559	B-PLANT GALLERY EXHAUSTER	RIDGE, TINA M.	372-3560	RON A. KROPP	372-0309
296B024	136484	573478	B-PLANT GALLERY EXHAUSTER	RIDGE, TINA M.	372-3560	RON A. KROPP	372-0309
296B025	136469	573457	B-PLANT GALLERY EXHAUSTER	RIDGE, TINA M.	372-3560	RON A. KROPP	372-0309
296B026	136469	573424	B-PLANT GALLERY EXHAUSTER	RIDGE, TINA M.	372-3560	RON A. KROPP	372-0309
296B027	136469	573402	B-PLANT GALLERY EXHAUSTER	RIDGE, TINA M.	372-3560	RON A. KROPP	372-0309

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
200E P-291B001 001	POINT	136382	573571	1	not assigned	TANKS AND VESSELS									
				2	not assigned	PROCESS AND PRODUCTION									
				3	not assigned	PROCESS AND PRODUCTION									
				4	not assigned	PROCESS AND PRODUCTION									
				5	not assigned	SOURCE EMISSIONS ROLL-UP									
							VERTICAL WITHOUT WEATHER CAP	5			19.63	68	23.7	190	190

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
200E P-296B005 001	POINT	136444	573466	1	not assigned	TANKS AND VESSELS									
				2	not assigned	TANKS AND VESSELS									
				3	not assigned	PROCESS AND PRODUCTION									
				4	not assigned	PROCESS AND PRODUCTION									
				5	not assigned	SOURCE EMISSIONS ROLL-UP									
							VERTICAL WITHOUT WEATHER CAP	1.3			1.33	68	15	16	16

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
200E P-296B010 001	POINT	136433	573361	1	not assigned	PROCESS AND PRODUCTION									
							VERTICAL WITHOUT WEATHER CAP	3.5			9.62	68	33.4	70	70

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : B-Plant
FACILITY NAME: B-Plant Facility and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200E P-296B013 001	POINT	136381	573358	1	not assigned	TANKS AND VESSELS				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	PROCESS AND PRODUCTION				
				4	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		.5			.2	68	59	13.1	13.1	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200E P-296B022 001	POINT	136469	573594	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED			1.6	2.4	3.84	80	.26	3.75	0	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200E P-296B023 001	POINT	136469	573559	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED			2.13	3	6.39	80	.29	5.8	0	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200E P-296B024 001	POINT	136484	573478	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED			2.13	3	6.39	80	.29	6	0	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200E P-296B025 001	POINT	136469	573457	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED			1.6	2.4	3.84	80	.26	4.4	0	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200E P-296B026 001	POINT	136469	573424	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED		1.6			2.01	80	2.4	4.4		

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : B-Plant
FACILITY NAME: B-Plant Facility and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296B027 001	POINT	136469	573402	.1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED			2.13	3	6.39	80	.29	5.8	0	

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-291B001 001	1	TANKS AND VESSELS	24	7	52	B-PLANT CANYON TANKS AND VESSELS

B-PLANT TANKS AND VESSELS CONSIST OF THE FOLLOWING MAJOR GROUPS:

1. LOW LEVEL WASTE (LLW) SYSTEM CONSISTS OF MULTIPLE TANKS. THE LLW IS CHEMICALLY ADJUSTED WITH NaNO₂ AND NaOH TO MEET TANK FARM CRITERIA.
2. ORGANIC PHASE AND AQUEOUS PHASE SYSTEM IS MADE UP OF MULTIPLE TANKS. THE ORGANIC PHASE, CONSISTS OF SALTS OF Di-2ethylhexyl phosphoric acid (HDEHP), NORMAL PARAFIN HYDROCARBON (NPH), AND Tributyl Phosphate (TBP). THE AQUEOUS PHASE CONSISTS MAINLY OF WATER.
3. MULTIPLE TANKS WERE USED TO STORE AND TRANSFER THE NEUTRALIZED CURRENT ACID WASTE (NCAW) INVENTORY. THE NCAW WASTE WAS TRANSFERRED TO DOUBLE-SHELL TANK SYSTEM IN MAY 1993.
4. THERE ARE MULTIPLE OTHER TANKS LOCATED IN THE CANYON.
5. THE LLW CONCENTRATOR IN CELL 23 IS USED TO TREAT LLW WHEN REQUIRED.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-291B001 001	2	PROCESS AND PRODUCTION	24	7	52	THE CANYON STORES VARIOUS RADIOACTIVE MATERIAL AND EQUIPMENT THAT CONTRIBUTE TO RADIOACTIVE EMISSIONS. PROCESS CELLS ALSO CONTRIBUTE TO THE RADIOACTIVE EMISSIONS.

PROCESSES THAT CONTRIBUTE TO RADIOACTIVE EMISSIONS INCLUDE THE TREATMENT AND STORAGE OF LOW LEVEL WASTE, ORGANIC PHASE WASTE, AND VARIOUS ACTIVITIES CONDUCTED WITHIN THE CANYON AND PROCESS CELLS.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-291B001 001	3	PROCESS AND PRODUCTION	24	7	52	THE 224-B BUILDING CONTAINS EMPTY TANKS THAT CONTRIBUTE TO THE 291B001 RADIOACTIVE EMISSIONS. THE 224-B BUILDING IS PASSIVELY VENTILATED AND IS TIED INTO THE 221-B WIND TUNNEL SYSTEM VIA A 24-IN. DIAMETER INTERCONNECTION.

ACTIVITIES THAT CONTRIBUTE TO THE 291B001 RADIOACTIVE EMISSIONS INCLUDE WASTE TRANSFERS, DECONTAMINATION OF EQUIPMENT AND FACILITIES, AND VARIOUS OTHER MAINTENANCE ACTIVITIES WITHIN THE CANYON AND PROCESS CELLS.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : B-Plant
FACILITY NAME: B-Plant Facility and Associated Structures

Source (Process) Listing

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-291B001 001	4	PROCESS AND PRODUCTION	24	7	52	THE 212B BUILDING CONTAINS A PROCESS CELL THAT CONTRIBUTES TO THE 291B001 RADIOACTIVE STACK EMISSIONS.

THE MAIN CANYON AND CELLS OF THE 221-B BUILDING ARE EXHAUSTED VIA THE 291B001 STACK. THIS AIRFLOW SYSTEM REMOVES PROCESS-GENERATED HEAT AND CONTROLS THE PATH OF THE RELEASE OF CONTAMINATED AIR FROM THE CANYON AND THE ADJACENT 212-B CASK STATION.

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-291B001 001	5	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-291B001-001.

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B005 001	1	TANKS AND VESSELS	24	7	52	BCP WEIR TANK PROCESS CONDENSATE EN ROUTE TO 221-BF. THIS TANK IS INACTIVE.

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B005 001	2	TANKS AND VESSELS	24	7	52	BCS WEIR TANK STEAM CONDENSATE EN ROUTE TO 216-B-55 CRIB OR 216-B-64 BASIN. THIS TANK IS ISOLATED FROM THE BCS TANK AT THE DIVERTER PIT. THIS TANK IS INACTIVE.

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B005 001	3	PROCESS AND PRODUCTION	24	7	52	RESIDUAL RADIONUCLIDE CONTAMINATION IN THE WEIR TANK VAULT.

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B005 001	4	PROCESS AND PRODUCTION	24	7	52	NORMAL FACILITY OPERATIONS

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B005 001	5	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296B005-001

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : B-Plant
 FACILITY NAME: B-Plant Facility and Associated Structures

Source (Process) Listing

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B010 001	1	PROCESS AND PRODUCTION	24	7	52	CESIUM CAPSULES ARE STORED UNDERWATER IN STORAGE POOLS.

The 296-B-10 stack is an atmospheric discharge stack that handles exhaust of the HVAC systems (K-1, K-3 and K-4) of the 225-B (WESF) Building. The ventilation system of WESF is designed to provide airflow patterns so that air movement throughout the building is from areas of lesser radioactivity to areas of greater radioactivity. All potentially contaminated areas are maintained at a negative pressure with respect to the atmosphere so that air flows into the building at all times. The air is not recirculated.

The K-1 system provides ventilation for the high-risk operating and service areas with contaminated air being filtered through the K-1 filter building. The K-3 HVAC system provides ventilation for the highly contaminated process cells and the canyon area. The K-4 HVAC system provides ventilation for the capsule storage pool area, and the air is filtered through the K-1 filter building.

Processes that contribute to radioactive emissions include generating low-level waste, waste transfers, decontamination of equipment and facilities, and various other activities within the canyon, gallery, and process cells inside WESF.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B013 001	1	TANKS AND VESSELS	24	7	52	RADIONUCLIDE EMISSION FROM B-PLANT PROCESS CONDENSATE STORED IN TANK IN BUILDING 221BF

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B013 001	2	TANKS AND VESSELS	24	7	52	RADIONUCLIDE EMISSION FROM B-PLANT PROCESS CONDENSATE STORED IN TANK IN BUILDING 221BF

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B013 001	3	PROCESS AND PRODUCTION	24	7	52	SMEAR CONTAMINATION INSIDE BUILDING

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B013 001	4	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296B013-001

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B022 001	1	PROCESS AND PRODUCTION	24	7	52	B-PLANT GALLERY EXHAUSTER

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B023 001	1	PROCESS AND PRODUCTION	24	7	52	B-PLANT GALLERY EXHAUSTER

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B024 001	1	PROCESS AND PRODUCTION	24	7	52	B-PLANT GALLERY EXHAUSTER

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : B-Plant
FACILITY NAME: B-Plant Facility and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B025 001	1	PROCESS AND PRODUCTION	24	7	52	B-PLANT GALLERY EXHAUSTER
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B026 001	1	PROCESS AND PRODUCTION	24	7	52	B-PLANT GALLERY EXHAUSTER
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296B027 001	1	PROCESS AND PRODUCTION	24	7	52	B-PLANT GALLERY EXHAUSTER

Source Raw Materials Usage

Em Point	Srce Nbr	Srce Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Srce Nbr	Srce Type	Qty	Uom	Fuel
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Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
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Point Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual(Ci/yr)	Pollutant
200E P-291B001 001	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-33	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
	4	TANKS AND VESSELS			
	7	TANKS AND VESSELS			
	8	PROCESS AND PRODUCTION			
200E P-296B005 001	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-34	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
	3	PROCESS AND PRODUCTION			
200E P-296B010 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-35	Refer to DOE/RL-94-51 Table 2-1	
200E P-296B013 001	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-36	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
	3	PROCESS AND PRODUCTION			

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : B-Plant
 FACILITY NAME: B-Plant Facility and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Src	Nbr	Src	Type	Em. Pt. to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
Sum							

Point Source Emissions - Uncategorized Pollutants

Em Point	Src	Nbr	Src	Type	Em. Pt. to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
Sum							

Fugitive Source Emissions - Radiological Pollutants

Em Point	Src	Nbr	Src	Type	Em. Pt. to Emit (Ci/yr)	Em. Pt. Ct'l Actual (Ci/yr)	Pollutant

Fugitive Source Emissions - HAP Pollutants

Em Point	Src	Nbr	Src	Type	Em. Pt. to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
Sum							

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Src	Nbr	Src	Type	Em. Pt. to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
Sum							

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : B-Plant
 FACILITY NAME: B-Plant Facility and Associated Structures

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual(Ci/yr)	Pollutant

Insignificant Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Control Device Listing

Em Point	Control Equipment Code
200E P-2918001 001	099
200E P-2918001 001	063
200E P-2968005 001	099
200E P-2968010 001	099
200E P-2968013 001	099
200E P-2968022 001	099
200E P-2968023 001	099
200E P-2968024 001	099
200E P-2968025 001	099
200E P-2968026 001	099
200E P-2968027 001	099

FACILITY:

B Plant

EMISSION POINT:

200E P-291B001 001

FACILITY:

B Plant

EMISSION POINT:

200E P-296B005 001

FACILITY:

B Plant

EMISSION POINT: 200E P-296B010 001 & P-296B012 001

FACILITY:

B Plant

EMISSION POINT:

200E P-296B013 001

K.A. Giese

4/19/1995

FACILITY:

B Plant

EMISSION POINT:

See Table

Gallery Exhausters

200E P-296B022

200E P-296B023

200E P-296B024

200E P-296B025

200E P-296B026

200E P-296B027

Building 221B Operating, Pipe,
and Electrical Galleries

Pre-filter

HEPA Filter

Fan

Emission
Point

Sample Port/
Monitor

K.A. Giese

4/19/1995

B-Plant & Waste Encapsulation Storage Facility (WESF) Emission Points

50 0 50 100 Meters

APPENDIX D-3

PUREX FACILITY

Chapter I. General Information

I-B.1. Facility Description

The Plutonium Uranium Extraction (PUREX) Facility began operations in 1955 to separate and recover usable actinides from fission products in spent nuclear fuel. The process entailed dissolving irradiated nuclear reactor fuel with acid solutions and then extracting the actinides from the resulting aqueous solutions through application of liquid-liquid solvent extraction technology.

The PUREX Facility used 11 stacks for the numerous process operations. Of the 11 PUREX stacks, only 10 stacks discharge at any one time as stacks 296-A-5A and 296-A-5B alternate weekly. There are four ventilation systems associated with the 11 stacks.

Currently, there are no production activities at the PUREX Facility; operations ceased in 1990. The PUREX Facility now is transitioning to a shutdown mode to place the PUREX Facility in a safe and environmentally secure configuration. In doing so, the PUREX Facility will concentrate on the removal, reduction, and stabilization of the radioactive and chemical materials remaining at the facility, and the shutdown of the utilities and effluents. The PUREX Facility will also consolidate the four ventilation systems into one by cascading air from one ventilation system to another. This will reduce the volume of air discharged and the number of stack monitoring stations needed during the long surveillance period following the completion of PUREX Facility deactivation. Final discharge of air will be through the main stack.

The PUREX Facility is located in the 200 East Area. The main building, 202-A, is a heavily shielded, reinforced-concrete structure known as a canyon building. This building contains the main equipment used in the PUREX process. Auxiliary PUREX equipment is located either outdoors or in one of several supporting buildings. PUREX is operated 24 hours a day.

I-B.2 Products, Raw Materials, Fuels, Processes

- Principal products - There are no products produced at PUREX.
- Process information - There are two operations at PUREX.
 - There is an operation to concentrate liquid waste on an as-needed basis. The function of the concentrator is to reduce the liquid volume of waste that is generated by shutdown activities at PUREX.

- There is an operation to flush all canyon and supporting tank farm process tanks and vessels. This flushing operation is designed to reduce chemical and radiological residues in the tanks and vessels. The removed chemical and radionuclide species mostly will be dissolved in the water solution.
- Raw materials used by processes - There are no raw materials used at the PUREX Facility.
- Fuels used by processes - There are no fuels used in the processes at the PUREX Facility.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on pages 1 through 3 of the AEI report output. The control information is found on page 18 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on pages 1 through 3 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PUREX
FACILITY NAME: PUREX Facility and Related Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
203A CHEM	135758	575107	PUREX, 203A TANK FARMS TANKS	WIEGAND, DOTTIE L.	373-5279	R.X. (RICK) GONZALEZ	373-9922
211A CHEM	135697	575120	PUREX, 211A TANK FARM TANKS	WIEGAND, DOTTIE L.	373-5279	R.X. (RICK) GONZALEZ	373-9922
291A001	135564	575224	PUREX MAIN BUILDING EXHAUST (BUILDING 202-A)	WIEGAND, DOTTIE L.	373-5279	R.X. (RICK) GONZALEZ	373-9922
296A001	135667	574973	PRODUCT REMOVAL ROOM EXHAUST (LOCATED NEAR NW CORNER 202-A, PUREX)	WIEGAND, DOTTIE L.	373-5279	R.X. (RICK) GONZALEZ	373-9922
296A002	135621	574971	STACK EXHAUSTS SAMPLER HOODS FROM WEST END OF PUREX SAMPLE GALLERY (BLDG 202-A)	WIEGAND, DOTTIE L.	373-5279	R.X. (RICK) GONZALEZ	373-9922
296A003	135645	575243	EAST SAMPLE GALLERY HOOD EXHAUST FOR PUREX (BUILDING 202-A, NE CORNER)	WIEGAND, DOTTIE L.	373-5279	R.X. (RICK) GONZALEZ	373-9922
296A006	135641	575241	PUREX EAST SAMPLE GALLERY AND U CELL EXHAUST	WIEGAND, DOTTIE L.	373-5279	R.X. (RICK) GONZALEZ	373-9922
296A007	135658	575281	PUREX WEST SAMPLE GALLERY AND R CELL EXHAUST	WIEGAND, DOTTIE L.	376-5279	R.X. (RICK) GONZALEZ	373-9922
296A008	135674	574961	PUREX PIPE & OPERATING GALLERY AND WHITE ROOM EXHAUST	WIEGAND, DOTTIE L.	373-5279	R.X. (RICK) GONZALEZ	373-9922
296A010	134986	575288	PUREX TUNNEL NO. 2 EXHAUST	WIEGAND, DOTTIE L.	373-5279	R.X. (RICK) GONZALEZ	373-9922
296A014	135593	575146	BACKUP FACILITY EXHAUST FOR BUILDING 293-A	WIEGAND, DOTTIE L.	373-5279	R.X. (RICK) GONZALEZ	373-9922
296A05A	135641	575170	PUREX WEST LABORATORY EXHAUST STACK (BUILDING 202-A)	WIEGAND, DOTTIE L.	373-5279	R.X. (RICK) GONZALEZ	373-9922
296A05B	135641	575170	PUREX EAST LABORATORY EXHAUST STACK (BUILDING 202-A)	WIEGAND, DOTTIE L.	373-5279	R.X. (RICK) GONZALEZ	373-9922
AMU ROOF VN	135648	575085	PUREX EMISSION POINT, AMU ROOF VENT	WIEGAND, DOTTIE L.	373-5279	R.X. (RICK) GONZALEZ	373-9922

Emission Point Listing

Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type				
200E P-291A001 001	POINT	135564	575224	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		7			38.48	68	36.8	200	200	
Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type				
200E P-296A001 001	POINT	135667	574973	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	D&D/DEMOLITION				
				3	not assigned	TANKS AND VESSELS				
				4	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1.8			2.54	77	28.1	74	10	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PUREX
FACILITY NAME: PUREX Facility and Related Structures

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200E P-296A002 001	POINT	135621	574971	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	PROCESS AND PRODUCTION				
				3	not assigned	D&D/DEMOLITION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1.3			1.33	77	42.7	78	10	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200E P-296A003 001	POINT	135645	575243	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	D&D/DEMOLITION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1.3			1.33	77	42.7	74	10	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200E P-296A006 001	POINT	135641	575241	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	D&D/DEMOLITION				
				4	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		2.8			6.16	77	37.9	74	10	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200E P-296A007 001	POINT	135658	575281	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	D&D/DEMOLITION				
				3	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		3.3			8.55	77	35	78	10	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200E P-296A008 001	POINT	135674	574961	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	D&D/DEMOLITION				
				3	not assigned	TANKS AND VESSELS				
				4	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		3.3			8.55	77	17.5	34	34	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PUREX
FACILITY NAME: PUREX Facility and Related Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296A010 001	POINT	134986	575288	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		2			3.14	68	18.8	20	20	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296A014 001	POINT	135593	575146	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		2			3.14	68	26.5	24.5	10	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296A05A 001	POINT	135641	575170	1	not assigned	ANALYTICAL LABORATORY				
				2	not assigned	ANALYTICAL LABORATORY				
				3	not assigned	ANALYTICAL LABORATORY				
				4	not assigned	ANALYTICAL LABORATORY				
				5	not assigned	ANALYTICAL LABORATORY				
				6	not assigned	ANALYTICAL LABORATORY				
				7	not assigned	PROCESS AND PRODUCTION				
				8	not assigned	PROCESS AND PRODUCTION				
				9	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		3			7.07	77	103.7	89	25	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296A05B 001	POINT	135641	575170	1	not assigned	ANALYTICAL LABORATORY				
				2	not assigned	ANALYTICAL LABORATORY				
				3	not assigned	ANALYTICAL LABORATORY				
				4	not assigned	ANALYTICAL LABORATORY				
				5	not assigned	ANALYTICAL LABORATORY				
				6	not assigned	ANALYTICAL LABORATORY				
				7	not assigned	PROCESS AND PRODUCTION				
				8	not assigned	PROCESS AND PRODUCTION				
				9	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		3.5			9.62	77	76.2	89	25	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PUREX
FACILITY NAME: PUREX Facility and Related Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E T-AMU ROOF VN 001	POINT	135648	575085	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED		1			.79	78	.0325	60	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E V-203A CHEM 001	FUGITIVE	135758	575107	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	0		

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E V-211A CHEM 001	FUGITIVE	135697	575120	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	0		

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-291A001 001	1	PROCESS AND PRODUCTION	24	7	52	DISPERSABLE CONTAMINATION IN PUREX CANYON

USING THE FSAR & EPA FACTORS, THE PREDICTED INVENTORY OF SOLID & LIQUID CONTAMINATION CAN BE CALCULATED. THESE ARE:

FSAR FACTORS	EPA FACTORS
PREDICTED INVENTORY (Ci)	PREDICTED INVENTORY (Ci)
SOLID: 8.25E+13	4.12E+10
LIQUID: 8.25E+10	4.12E+07

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-291A001 001	2	TANKS AND VESSELS	24	7	52	MULTIPLE CANYON TANKS AND VESSELS USED TO SUPPORT PUREX OPERATIONS.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-291A001 001	3	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-291A001-001

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PUREX
FACILITY NAME: PUREX Facility and Related Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A001 001	1	PROCESS AND PRODUCTION	24	7	52	N-CELL CONTAINS VARIOUS INACTIVE GLOVEBOXES THAT HAVE 14000 GRAMS OF RESIDUAL PLUTONIUM OXIDE
200E P-296A001 001	2	D&D/DEMOLITION	24	7	52	IN 1997 THE PUREX FACILITY WILL BE TURNED OVER TO D&D
200E P-296A001 001	3	TANKS AND VESSELS	24	7	52	MULTIPLE TANKS AND VESSELS IN N-CELL USED TO SUPPORT PUREX OPERATIONS
200E P-296A001 001	4	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296A001-001
200E P-296A002 001	1	PROCESS AND PRODUCTION	24	7	52	RESIDUAL CONTAMINATION OR INADVERTENT LEAKAGE ASSOCIATED WITH REMOTE SAMPLERS.
200E P-296A002 001	2	PROCESS AND PRODUCTION	8	4	52	WASTE COMPACTOR
200E P-296A002 001	3	D&D/DEMOLITION				IN 1997 THE PUREX FACILITY WILL BE TURNED OVER TO D&D.
200E P-296A003 001	1	PROCESS AND PRODUCTION	24	7	52	RESIDUAL CONTAMINATION OR INADVERTENT LEAKAGE ASSOCIATED WITH REMOTE SAMPLERS
200E P-296A003 001	2	D&D/DEMOLITION				IN 1977 PUREX FACILITY WILL BE TURNED OVER TO D&D
200E P-296A006 001	1	PROCESS AND PRODUCTION	24	7	52	THE SAMPLE GALLERY AND U-CELL CONTAIN TRACES OF CONTAMINATION THAT CONTRIBUTE TO THE RADIONUCLIDE EMISSIONS FOR 296-A-6.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PUREX
FACILITY NAME: PUREX Facility and Related Structures

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A006 001	2	TANKS AND VESSELS	24	7	52	MULTIPLE TANKS AND VESSELS USED TO SUPPORT PUREX OPERATIONS.
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A006 001	3	D&D/DEMOLITION	24	7	52	IN 1998 THE PUREX FACILITY WILL BE TURNED OVER TO D&D.
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A006 001	4	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296A006-001
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A007 001	1	PROCESS AND PRODUCTION	24	7	52	TRACE CONTAMINANTS IN R CELL AND THE SAMPLE GALLERY
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A007 001	2	D&D/DEMOLITION	24	7	52	IN 1997 THE PUREX FACILITY WILL BE TURNED OVER TO D&D.
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A007 001	3	TANKS AND VESSELS				MULTIPLE TANKS AND VESSELS USED TO SUPPORT PUREX OPERATIONS
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A008 001	1	PROCESS AND PRODUCTION	24	7	52	PIPE AND OPERATING (P&O) GALLERY AND WHITE ROOM
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A008 001	2	D&D/DEMOLITION	24	7	52	IN 1997 THE PUREX FACILITY WILL BE TURNED OVER TO D&D.
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A008 001	3	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296A08-001
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A008 001	4	TANKS AND VESSELS				MULTIPLE TANKS AND VESSELS USED TO SUPPORT PUREX OPERATIONS

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PUREX
FACILITY NAME: PUREX Facility and Related Structures

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A010 001	1	PROCESS AND PRODUCTION	24	7	52	RAILROAD CARS CARRYING FAILED, RADIOACTIVE, OR NONSERVICEABLE EQUIPMENT

STORAGE OF THE EQUIPMENT ALLOWS THE RADIOACTIVITY TO DECAY TO LESS DANGEROUS LEVELS. DURING 1992, 17 OF THE 40 STORAGE SPACES WERE IN USE. NO EQUIPMENT WAS PLACED IN THE TUNNEL DURING 1992. DURING 1993, 17 OF THE 40 STORAGE SPACES WERE IN USE. NO EQUIPMENT WAS PLACED IN THE TUNNEL DURING 1993. ON APRIL 8, 1994, POSITION 18 (OF 40) WAS FILLED WITH AN ACID ABSORBER. IT IS EXPECTED THAT FAILED EQUIPMENT FROM THE PUREX CANYON WILL BE PLACED IN THE TUNNEL IN FUTURE YEARS.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A014 001	1	PROCESS AND PRODUCTION	24	7	52	DISPERSIBLE CONTAMINATION IN 293-A

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05A 001	1	ANALYTICAL LABORATORY	24	7	52	LAB 1: 8 ARMPORT AND 2 OPENFACED HOODS ARE THE PRIMARY SOURCE. THE ICP ANALYZER VENTS THROUGH A SEPARATE HEPA. 2 PROCEDURES ARE CARRIED OUT IN THIS LAB.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05A 001	2	ANALYTICAL LABORATORY	24	7	52	LAB 2: 7 ARMPORT AND 1 OPENFACED HOODS EXHAUST FROM 4 PROCEDURES THAT ARE CARRIED OUT IN LAB 2.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05A 001	3	ANALYTICAL LABORATORY	24	7	52	LAB 3: 7 ARMPORT AND 1 OPENFACED HOOD EXHAUSTS THE 17 PROCEDURES THAT ARE CARRIED OUT IN THIS LAB.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05A 001	4	ANALYTICAL LABORATORY	24	7	52	LAB 4: 2 ARMPORT AND 4 OPENFACED HOODS EXHAUSTS THE 3 PROCEDURES THAT ARE CARRIED OUT IN THIS LAB.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05A 001	5	ANALYTICAL LABORATORY	24	7	52	LAB 6: FIVE SAMPLEHOODS EXHAUST 3 PROCEDURES THAT OCCUR IN THIS LAB.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05A 001	6	ANALYTICAL LABORATORY	24	7	52	LAB 5 AND 5 HOODS FROM LAB 6. 3 PROCEDURES ARE CARRIED OUT IN THIS LAB. FIVE ARMPORT AND ONE OPENFACED HOOD IN ADDITION TO THE 5 HOODS FROM LAB 6 GO THROUGH THE SAME HEPA LAB 5 HAS 6 HOODS.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PUREX
FACILITY NAME: PUREX Facility and Related Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05A 001	7	PROCESS AND PRODUCTION	24	7	52	DECON ROOM: 4 ARMPORT AND 3 OPENFACED HOODS EXHAUST FROM THE DECONTAMINATION ROOM - SAMPLE RECEIVING IS VENTILLATED INTO

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05A 001	8	PROCESS AND PRODUCTION	24	7	52	TWO SAMPLE STORAGE CABINETS AND THE HOT WASTE ROOM EXHAUST. NO HOT WASTES HAVE BEEN STORED. SAMPLE STORAGE INVENTORY IS CHANGING.

APPROXIMATELY 5000 SAMPLES PER YEAR GO INTO THE SAMPLE STORAGE ROOM. THE HOT WASTE STORAGE ROOM CONTAINED A MUCH SMALLER VOLUME OF SAMPLES (<200) ANNUALLY. THE VOLUMES ARE:

HOT WASTE STORAGE 10L
LABORATORY SAMPLES 500L

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05A 001	9	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296A05A-001

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05B 001	1	ANALYTICAL LABORATORY	24	7	52	LAB 1: 8 ARMPORT AND 2 OPENFACED HOODS ARE THE PRIMARY SOURCE. THE ICP ANALYZER VENTS THROUGH A SEPARATE HEPA. 2 PROCEDURES ARE CARRIED OUT IN THIS LAB.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05B 001	2	ANALYTICAL LABORATORY	24	7	52	LAB 2: 7 ARMPORT AND 1 OPENFACED HOODS EXHAUST FROM 4 PROCEDURES THAT ARE CARRIED OUT IN LAB 2.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05B 001	3	ANALYTICAL LABORATORY	24	7	52	LAB 3: 7 ARMPORT AND 1 OPENFACED HOOD EXHAUSTS THE 17 PROCEDURES THAT ARE CARRIED OUT IN THIS LAB.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05B 001	4	ANALYTICAL LABORATORY	24	7	52	LAB 4: 2 ARMPORT AND 4 OPENFACED HOODS EXHAUST THE 3 PROCEDURES THAT ARE CARRIED OUT IN THIS LAB.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05B 001	5	ANALYTICAL LABORATORY	24	7	52	LAB 6: FIVE SAMPLEHOODS EXHAUST 3 PROCEDURES THAT OCCUR IN THIS LAB.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
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FACILITY NAME: PUREX Facility and Related Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05B 001	6	ANALYTICAL LABORATORY	24	7	52	LAB 5 AND 5 HOODS FROM LAB 6: 3 PROCEDURES ARE CARRIED OUT IN THIS LAB. FIVE ARMPORT AND ONE OPENFACED HOOD IN ADDITION TO THE 5 HOODS FROM LAB 6 GO THROUGH THE SAME HEPA. LAB 5 HAS 6 HOODS.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05B 001	7	PROCESS AND PRODUCTION	24	7	52	DECON ROOM: 4 ARMPORT AND 3 OPENFACED HOODS EXHAUST FROM THE DECONTAMINATION ROOM. SAMPLE RECEIVING IS VENTILLATED INTO THIS ROOM. DECONTAMINATION PROCESSES OCCUR IN THIS ROOM.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05B 001	8	PROCESS AND PRODUCTION	24	7	52	TWO SAMPLE STORAGE CABINETS AND THE HOT WASTE ROOM EXHAUST. NO HOT WASTES HAVE BEEN STORED. SAMPLE STORAGE INVENTORY IS CHANGING.

APPROXIMATELY 5000 SAMPLES PER YEAR GO INTO THE SAMPLE STORAGE ROOM. THE HOT WASTE STORAGE ROOM CONTAINED A MUCH SMALLER VOLUME OF SAMPLES (<200) ANNUALLY. THE VOLUMES ARE:

HOT WASTE STORAGE	10L
LABORATORY SAMPLES	500L

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A05B 001	9	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296A05B-001

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E T-AMU ROOF VN 001	1	TANKS AND VESSELS	24	7	52	MULTIPLE AQUEOUS MAKE-UP TANKS USED TO SUPPORT PUREX OPERATIONS.

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E V-203A CHEM 001	1	TANKS AND VESSELS				MULTIPLE TANKS AND VESSELS USED TO SUPPORT PUREX

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E V-211A CHEM 001	1	TANKS AND VESSELS				MULTIPLE TANKS AND VESSELS USED TO SUPPORT PUREX

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : PUREX
 FACILITY NAME: PUREX Facility and Related Structures

Source Raw Materials Usage

Em Point	Srce Nbr	Srce Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Srce Nbr	Srce Type	Qty	Uom	Fuel
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Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
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Point Source Criteria Pollutants - Type: H2S04

Em Point	Srce Nbr	Srce Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E P-296A05A 001		9	SOURCE EMISSIONS ROLL-UP	.000085330	.000085334	SULFURIC ACID
200E P-296A05B 001		9	SOURCE EMISSIONS ROLL-UP	.000085330	.000085333	SULFURIC ACID
Sum				.000170660	.000170667	

Point Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E P-296A05A 001		9	SOURCE EMISSIONS ROLL-UP	.000866000	.000866000	ACETIC ACID
				.004346000	.004346000	ETHYL ALCOHOL
				.003417000	.003417070	XYLENE
200E P-296A05B 001		9	SOURCE EMISSIONS ROLL-UP	.000866600	.000866629	ACETIC ACID
				.004346000	.004346000	ETHYL ALCOHOL
				.003417000	.003417000	XYLENE
Sum				.017258600	.017258699	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PUREX
FACILITY NAME: PUREX Facility and Related Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200E P-291A001 001	1 2 3	PROCESS AND PRODUCTION TANKS AND VESSELS SOURCE EMISSION ROLLUP	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-7	Refer to DOE/RL-94-51 Table 2-1	
200E P-296A001 001	1 2 3 4	PROCESS AND PRODUCTION D&D/DEMOLITION TANKS & VESSELS SOURCE EMISSION ROLLUP	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-20	Refer to DOE/RL-94-51 Table 2-1	
200E P-296A002 001	1 2 3	PROCESS AND PRODUCTION PROCESS AND PRODUCTION D&D DEMOLITION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-21	Refer to DOE/RL-94-51 Table 2-1	
200E P-296A003 001	1 2	PROCESS AND PRODUCTION D&D DEMOLITION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-22	Refer to DOE/RL-94-51 Table 2-1	
200E P-296A006 001	1 2 3 4	PROCESS AND PRODUCTION TANKS AND VESSELS D&D DEMOLITION SOURCE EMISSION ROLLUP	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-26	Refer to DOE/RL-94-51 Table 2-1	
200E P-296A007 001	1 2 3	PROCESS AND PRODUCTION D&D/DEMOLITION SOURCE EMISSION ROLLUP	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-27	Refer to DOE/RL-94-51 Table 2-1	
200E P-296A008 001	1 2 3 4	PROCESS AND PRODUCTION D&D/DEMOLITION TANKS AND VESSELS SOURCE EMISSION ROLLUP	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-28	Refer to DOE/RL-94-51 Table 2-1	
200E P-296A010 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-29	Refer to DOE/RL-94-51 Table 2-1	

Point Source Emissions - Radiological Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200E P-296A014 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-30	Refer to DOE/RL-94-51 Table 2-1	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)

FACILITY ID : PUREX

FACILITY NAME: PUREX Facility and Related Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200E P-296A05A 001	1	ANALYTICAL LABORATORY	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-23 and A-25	Refer to DOE/RL-94-51 Table 2-1	
	2	ANALYTICAL LABORATORY			
	3	ANALYTICAL LABORATORY			
	4	ANALYTICAL LABORATORY			
	5	ANALYTICAL LABORATORY			
	6	ANALYTICAL LABORATORY			
	7	PROCESS AND PRODUCTION			
	8	PROCESS AND PRODUCTION			
200E P-296A05B 001	1	ANALYTICAL LABORATORY	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-24 and A-25	Refer to DOE/RL-94-51 Table 2-1	
	2	ANALYTICAL LABORATORY			
	3	ANALYTICAL LABORATORY			
	4	ANALYTICAL LABORATORY			
	5	ANALYTICAL LABORATORY			
	6	ANALYTICAL LABORATORY			
	7	PROCESS AND PRODUCTION			
	8	PROCESS AND PRODUCTION			

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-296A05A 001	9	SOURCE EMISSIONS ROLL-UP	.000006023	.000006023	HYDROCHLORIC ACID (HYDROGEN CHLORIDE)
			.003417000	.003417070	XYLENE
200E P-296A05B 001	9	SOURCE EMISSIONS ROLL-UP	.000006023	.000006023	HYDROCHLORIC ACID (HYDROGEN CHLORIDE)
			.003417000	.003417000	XYLENE
Sum			.006846046	.006846116	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PUREX
FACILITY NAME: PUREX Facility and Related Structures

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-296A05A 001	9	SOURCE EMISSIONS ROLL-UP	.001611000	.001611000	ALUMINUM NITRATE
			.000000188	.000000188	AMMONIA
			.000115800	.000115800	AMMONIUM HYDROXIDE
			.000110100	.000110100	AMMONIUM MOLYBDATE
			.000114700	.000114660	BARIUM CHLORIDE
			.000004826	.000004826	BORIC ACID
			.000017800	.000017797	FERRIC NITRATE
			.000770900	.000770900	HYDROXYLAMINE HCL
			.032480000	.032475500	NITRIC ACID
			.000033060	.000033056	NITRIC ACID AMMONIUM SALT
			.010610000	.010605700	NORMAL PARAFFINIC HYDROCARBONS
			.062980000	.062983000	PHOSPHORIC ACID
			.004286000	.004286480	PHOSPHORIC ACID, TRIBUTYL ESTER
			.000111000	.000111000	SODIUM BICARBONATE (1:1)
			.001311000	.001310800	SODIUM CARBONATE
			.000036345	.000036345	SODIUM FLUORIDE
			.000349100	.000349100	SODIUM HYDROXIDE
			.000470200	.000470190	SODIUM NITRITE
			.000033040	.000033040	SODIUM OXALATE
			.000039640	.000039643	SULFANILIC ACID
			.002089000	.002088900	SULMANIC ACID
			.000427900	.000427860	TTA (THENOYLTRIFLUOROACETONE)
			.001239000	.001238900	VANADYL SULFATE
			.000600400	.000600352	ZINC CHLORIDE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PUREX
FACILITY NAME: PUREX Facility and Related Structures

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-296A05B 001	9	SOURCE EMISSIONS ROLL-UP	.001611000	.001611240	ALUMINUM NITRATE
			.000000188	.000000188	AMMONIA
			.000115800	.000115800	AMMONIUM HYDROXIDE
			.000110100	.000110132	AMMONIUM MOLYBDATE
			.000114700	.000114669	BARIUM CHLORIDE
			.000004826	.000004826	BORIC ACID
			.000017800	.000017797	FERRIC NITRATE
			.000770900	.000770900	HYDROXYLAMINE HCL
			.032480000	.032475500	NITRIC ACID
			.000033060	.000033056	NITRIC ACID AMMONIUM SALT
			.010610000	.010605700	NORMAL PARAFFINIC HYDROCARBONS
			.062980000	.062980000	PHOSPHORIC ACID
			.004286000	.004286000	PHOSPHORIC ACID, TRIBUTYL ESTER
			.000111000	.000111026	SODIUM BICARBONATE (1:1)
			.001311000	.001310860	SODIUM CARBONATE
			.000036345	.000036345	SODIUM FLUORIDE
			.000349100	.000349118	SODIUM HYDROXIDE
			.000470200	.000470195	SODIUM NITRITE
			.000033040	.000033040	SODIUM OXALATE
			.000039640	.000039640	SULFANILIC ACID
			.002089000	.002088900	SULMANIC ACID
			.000427900	.000427860	TTA (THENOYLTRIFLUOROACETONE)
			.001239000	.001238900	VANADYL SULFATE
			.000600400	.000600352	ZINC CHLORIDE
Sum			.239681997	.239667180	

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Fugitive Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : PUREX
 FACILITY NAME: PUREX Facility and Related Structures

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	SrcE Nbr	SrcE Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum						

Insignificant Source Emissions - Radiological Pollutants

Em Point	SrcE Nbr	SrcE Type	Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant

Insignificant Source Emissions - HAP Pollutants

Em Point	SrcE Nbr	SrcE Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum						

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	SrcE Nbr	SrcE Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum						

Control Device Listing

Em Point	Control Equipment Code

200E P-291A001 001	058, 099
200E P-296A001 001	058, 099
200E P-296A002 001	099
200E P-296A003 001	099
200E P-296A006 001	058, 099
200E P-296A007 001	058, 099
200E P-296A008 001	058, 099
200E P-296A010 001	099
200E P-296A014 001	099
200E P-296A05A 001	099
200E P-296A05B 001	099

FACILITY:	PUREX
EMISSION POINT:	200E P291A001 001

FACILITY:

UREX

EMISSION POINT:

200E P-296A001 001

FACILITY:

PUREX

EMISSION POINT:

200E P-296A002 001

FACILITY:

PUREx

EMISSION POINT:

200E P-296A003 001

FACILITY:

PUREX

EMISSION POINT:

200E P-296A006 001

FACILITY: PUREX

EMISSION POINT: 200E P-29EA007 001

FACILITY:

PUREX

EMISSION POINT:

200E P-296A008 001

FACILITY:	PUREX
EMISSION POINT:	200E P-296A014 001

FACILITY: _____ **PURE:** _____

EMISSION POINT: 200E P-296A05A 001 and 200E P-296A05B 001

FACILITY:

PUREX

EMISSION POINT:

200E P-203A CHEM 001

Area Emission Point

203A Chemical Storage Tanks

FACILITY:	PUREX
EMISSION POINT:	200E P-211A CHEM 001

FACILITY:

PUREX

EMISSION POINT:

200E P-AMU-ROOF-VENT

K.A. Giese

4/29/1995

FACILITY:	PUREX
EMISSION POINT:	200E P-296A010 001

PUREX Emission Points

150 0 150 300 Meters

APPENDIX D-4

200 EAST AREA TANK FARMS

Chapter I. General Information

I-B.1. Facility Description

The single and double-shell tank farms initially were used for the storage and transfer of chemical and radiological wastes that were generated on the Hanford Site. These reprocessing plants performed chemical separations for the reprocessing of nuclear materials as well as radioactive waste storage and disposal. Operations at these plants, with the exception of shutdown and maintenance activities, has ceased. Shutdown and maintenance activities generate wastes that are transferred to the 200 East Area Tank Farms.

Currently, waste generated at the 100, 300, and 400 Areas is transported in railroad tank cars to the 204-AR Waste Unloading Station. There are two types of tanks in the 200 East Area tank farms, double-shell tanks (DSTs) and single-shell tanks (SSTs). There also are support operations associated with the 200 East Area Tank Farms such as receiving tanks and an evaporator.

The DST System treats and stores mixed waste before final treatment and disposal. The DST System includes double-contained receiver tanks (DCRTs) and ancillary equipment. The DSTs consist of 1-million gallon tanks designed for long-term storage (up to 50 years) of mixed waste. There are five DST Farms located in the 200 East Area with a total of 25 tanks. Liquid waste generated in the 200 Areas generally is transferred through underground pipelines and routed via DCRTs. The DCRTs serve various functions including receiver tanks for SST or DST waste, lift stations, and vent stations. The exhaust fans on the tank ventilation systems in the DCRTs keep a negative air pressure, which is monitored, inside the primary tank. The exhausted air passes through a heater, prefilter, HEPA filters, and is monitored for radiation. No offsite waste is accepted for storage in the DST System. The DSTs use separate ventilation systems for the primary tank and annulus ventilation. The primary tank ventilation system provides a negative pressure to prevent the escape of untreated dangerous and/or radioactive particulates to the atmosphere, removes heat generated by the tank contents, and removes water vapor to prevent tank corrosion. Additional tank space is used to support the environmental restoration and remediation mission (e.g., closure of single-shell tanks).

There are six SST Farms with a total of 66 tanks within the 200 East Area. Past-practice units are associated with the SSTs. The SST volumes vary from 55,000 to 1 million gallons. Addition of new waste to the SSTs was discontinued in November 1980. The SSTs currently are being interim stabilized and isolated. Interim stabilization involves the removal of supernate and interstitial liquid from the SSTs to minimize the spread of contamination if the tanks begin to leak. Interim isolation of a SST involves physical modifications to preclude

the inadvertent addition of liquid to the tank. Forced ventilation provides cooling for some tanks containing materials which, through radioactive decay, generate heat that could exceed the established concrete temperature limits. Single-stage HEPA filters allow atmospheric breathing for tanks that do not require cooling. The SSTs contain mostly inorganic waste.

In addition to the SST and DST waste tank system emission points described in this appendix, there are numerous other sources from the SST and DST emission points that are potential sources of emissions. These points include access risers, pump pits, and diversion boxes on each waste tank. These points are normally covered or closed to control emissions from the waste tanks. Routine maintenance and operation activities performed periodically at each waste tank requires the cover blocks or other tank closures to be opened temporarily to allow access to the instrumentation and equipment located within each waste tank. These periods may allow unfiltered air exchanges between the waste tank vapor space or surface contamination areas with the environment. These emissions are considered fugitive emissions and constitute a portion of the radionuclide fugitive emissions from the Hanford Site described in Section IV.B.6.

There are other emission points associated with tank farm operations. These are the 209E Criticality Laboratory building; the Grout facility, which is currently inactive; the Liquid Effluent Retention Facility (LERF), which is used to store liquid wastes prior to treatment, and the 242-A Evaporator treatment unit.

The 242-A Evaporator treatment unit concentrates the DST waste by removal of water and volatile and semivolatile organics through evaporation. The concentrated slurry is returned to the DST System and the process condensate is transferred for storage to LERF. Eventually the process condensate will be transferred to the 200 Area Effluent Treatment Facility.

The 200 East Area tank farms are operated for 24 hours per day, 365 days per year.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principle products - There are no products produced at the 200 East Tank Farms.
- Process information - There is one process-related activity at the 200 East Tank Farms: an evaporation process.

The 242-A Evaporator unit concentrates DST waste by removal of water and volatile and semivolatile organics through evaporation. The concentrated slurry is returned to the DST System and the process condensate is transferred for storage to the Liquid Effluent Retention Facility. Eventually the process condensate will be transferred to the 200 Area Effluent Treatment Facility once this unit commences operation.

I-B.2. Products, Raw Materials, Fuels, Processes

- Fuels used by processes - There are no fuels used at the 200 East Area Tank Farms.
- Raw materials used by processes - There are no raw materials used at the 200 East Area Tank Farms.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on pages 4 through 21 of the AEI report output. The control information is found on page 92 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on pages 4 through 21 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
204AR	136000	575219	WASTE UNLOADING FACILITY	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241A101	136043	575322	241-A TANK FARM TANK, 1,000,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241A102	136043	575353	241-A TANK FARM TANK, 1,000,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241A103	136043	575384	241-A TANK FARM TANK, 1,000,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241A104	136074	575322	241-A TANK FARM TANK, 1,000,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241A106	136074	575384	241-A TANK FARM TANK, 1,000,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241A151	135546	575147	DIVERSION BOX, PART OF 200E DOUBLE SHELL TANK WASTE TRANSFER SYSTEM	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241A302A	135595	575189	CATCH TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241A350	136065	575394	DRAINAGE LIFT STATION	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241A401	136115	575420	TANK FARM CONDENSER HOUSE	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241A417	136117	575417	CONDENSATE CATCH TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AA	136025	575336	241-A TANK FARM VALVE PIT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AB	136025	575343	241-A TANK FARM VALVE PIT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241ANA	136412	575362	241-AN TANK FARM VALVE PIT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241ANB	136408	575362	241-AN TANK FARM VALVE PIT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AP	135822	575518	241-AP TANK FARM VALVE PIT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AR151	136088	575261	UNDERGROUND DIVERSION BOX THAT DRAINS TO THE 244AR VAULT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AWA	135878	575351	241-AW TANK FARM VALVE PIT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AWB	135875	575359	241-AW TANK FARM VALVE PIT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AX101	136204	575422	241-AX TANK FARM TANK, 1,000,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AX102	136173	575422	241-AX TANK FARM TANK, 1,000,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AX103	136204	575395	241-AX TANK FARM TANK, 1,000,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AX104	136173	575395	241-AX TANK FARM TANK, 1,000,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AX152	136189	575365	DIVERTER STATION	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AX155	136214	575352	UNDERGROUND DRAIN TO CATCH TANK AX-152	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AX501	136112	575412	VALVE PIT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AXA	136199	575370	241-AX TANK FARM VALVE PIT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AXB	136194	575370	VALVE PIT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AY501	136214	575353	VALVE PIT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241AZ152	136278	575370	CONCRETE DIVERTER STATION	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B101	137268	573872	241-B TANK FARM TANK, 530,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B102	137298	573872	241-B TANK FARM TANK, 530,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B103	137329	573872	241-B TANK FARM TANK, 530,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B104	137268	573841	241-B TANK FARM TANK, 530,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B105	137298	573841	241-B TANK FARM TANK, 530,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B106	137329	573841	241-B TANK FARM TANK, 530,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Facility Building List							
Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
241B107	137268	573811	241-B TANK FARM TANK, 530,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B108	137298	573811	241-E TANK FARM TANK, 530,000 GAL SINGLE SHELL UNDERGROUND TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B109	137329	573811	241-B TANK FARM TANK, 530,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B110	137268	573780	241-B TANK FARM TANK, 530,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B111	137298	573780	241-B TANK FARM TANK, 530,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B112	137329	573780	241-B TANK FARM TANK, 530,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B201	137359	573818	241-B TANK FARM TANK, 55,000 GAL SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B202	137359	573803	241-B TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B203	137359	573788	241-B TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241B204	137359	573773	241-B TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BX101	137317	573659	241-BX TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BX102	137347	573659	241-BX TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BX103	137378	573659	241-BX TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BX104	137317	573629	241-BX TANK FARM TANK, SINGLE SHELL UNDERGROUND STORAGE TANK, 530,000 GALLON	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BX105	137347	573629	241-BX TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BX106	137378	573629	241-BX TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BX107	137317	573598	241-BX TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BX108	137347	573598	241-BX TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BX109	137378	573598	241-BX TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BX110	137317	573568	241-BX TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BX111	137347	573568	241-BX TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BX112	137378	573568	241-BX TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BY101	137469	575660	241-BY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BY102	137500	573660	241-BY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BY103	137531	573660	241-BY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BY104	137469	573629	241-BY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BY105	137500	573629	241-BY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BY106	137531	573629	241-BY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Facility Building List							
Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
241BY107	137469	573597	241-BY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BY108	137500	573597	241-BY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BY109	137531	573597	241-BY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BY110	137469	573567	241-BY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BY111	137500	573567	241-BY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241BY112	137531	573567	241-BY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241C101	136504	575162	241-C TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241C102	136526	575183	241-C TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241C103	136547	575204	241-C TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241C107	136547	575118	241-C TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241C108	136569	575140	241-C TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241C109	136590	575162	241-C TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241C110	136569	575097	241-C TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241C111	136590	575118	241-C TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241C112	136612	575140	241-C TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241C201	136607	575188	241-C TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241C202	136617	577177	241-C TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241C203	136628	575166	241-C TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241C204	136639	575155	241-C TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241ER151	136261	573220	DIVERSION BOX	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241ER152	136444	573496	DIVERSION BOX, PART OF THE 200E DOUBLE SHELL TANK WASTE TRANSFER SYSTEM	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241ER153	136289	575091	DIVERSION BOX, PART OF THE 200E DOUBLE SHELL TANK WASTE TRANSFER SYSTEM	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241ER311	136260	573219	CATCH TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
242A	136004	575402	EVAPORATOR	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
244A	136270	575103	WASTE VAULT AND INSTRUMENT HOUSE	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
244AR	136080	575265	SLUDGE VAULT STORAGE AND PROCESSING	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
244BX	137355	573690	SALT WELL SYSTEM VAULT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
244CR	136455	575156	UNDERGROUND STORAGE VAULT, PART OF SALT WELL WASTE TRANSFER SYSTEM	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
272AW	135899	575466	TANK FARM OPERATIONS SUPPORT FACILITY	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296A	136074	575353	PORTABLE EXHAUSTER FOR TANKS 241-A-104/105/106	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296A018	136220	575307	101-AY TANK ANNULUS EXHAUSTER	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296A019	136145	575317	102-AY TANK ANNULUS EXHAUSTER	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296A020	136279	575393	101/102-AZ TANK ANNULUS EXHAUSTER	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
296A028	135841	575383	241-AW TANK ANNULUS EXHAUSTER FOR TANKS 101/102/103/104/105/106 AW	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296A030	136430	575395	241-AN TANK ANNULUS EXHAUSTER FOR TANKS 101/102/103/104/105/106/107 AN	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296A041	135815	575597	241-AP TANK ANNULUS EXHAUSTER	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296AN	136432	575396	241-AN TANK FARM PRIMARY VENTILATION STACK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296AP	135817	575602	241-AP TANK FARM PRIMARY VENTILATION STACK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296AW	135842	575383	241-AW TANK FARM PRIMARY VENTILATION STACK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296AYAZ	136150	575389	241-AY/AZ TANK FARM PRIMARY VENTILATION STACK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296G001	135979	575900	GROUT STACK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296P016	136561	575162	STACK, PORTABLE EXHAUSTER FOR TANKS 241-C-104/105/106	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296P026	136115	575386	AY/AZ TANK BACKUP EXHAUSTER	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296P031	136337	574446	209-E CRITICAL MASS LABORATORY BUILDING STACK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
LERF	137196	575374	LIQUID EFFLUENT RETENTION FACILITY	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E N-272AW 001	FUGITIVE	135885	575454	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	WELDING/CUTTING/BRAZING				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	15	-1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-204AR 001	POINT	136000	575219	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1.13			1	78	31.2	27	7	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241A101 001	POINT	136043	575322	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	156	.014	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241A102 001	POINT	136043	575353	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	90	.031	3	3	
200E P-241A103 001	POINT	136043	575384	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	116	.031	3	3	
200E P-241A104 001	POINT	136074	575322	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	192	.014	3	3	
200E P-241A106 001	POINT	136074	575384	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	136	.031	3	3	
200E P-241A151 001	FUGITIVE	135546	575147	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
200E P-241A302A 001	FUGITIVE	135595	575189	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241A350 001	FUGITIVE	136065	575394	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241A401 001	FUGITIVE	136115	575420	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241A417 001	FUGITIVE	136117	575417	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AA 001	FUGITIVE	136025	575336	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AB 001	FUGITIVE	136025	575343	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241ANA 001	FUGITIVE	136412	575362	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241ANB 001	FUGITIVE	136408	575362	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AP 001	FUGITIVE	135822	575518	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241ARI51 001	FUGITIVE	136088	575261	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AWA 001	FUGITIVE	135878	575351	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AWB 001	FUGITIVE	135875	575359	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AX101 001	POINT	136204	575422	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	139	.031	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
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Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AX102 001	POINT	136173	575422	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	74	.014	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AX103 001	POINT	136204	575395	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	113	.031	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AX104 001	POINT	136173	575395	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	95	.014	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AX152 001	FUGITIVE	136189	575365	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AX155 001	FUGITIVE	136214	575352	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AX501 001	FUGITIVE	136112	575412	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AXA 001	FUGITIVE	136199	575370	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AXB 001	FUGITIVE	136194	575370	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AY501 001	FUGITIVE	136214	575353	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241AZ152 001	FUGITIVE	136278	575370	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241B101 001	POINT	137268	573872	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	109	.031	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241B102 001	POINT	137298	573872	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	63	.36	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
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FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type				
200E P-241B103 001	POINT	137329	573872	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	62	.36	3	3	
Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type				
200E P-241B104 001	POINT	137268	573841	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		1			.79	66	.018	3	3	
Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type				
200E P-241B105 001	POINT	137298	573841	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	66	.17	3	3	
Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type				
200E P-241B106 001	POINT	137329	573841	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	63	.36	3	3	
Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type				
200E P-241B107 001	POINT	137268	573811	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	61	.014	3	3	
Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type				
200E P-241B108 001	POINT	137298	573811	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	63	.36	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241B109 001	POINT	137329	573811	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	62	.17	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241B110 001	POINT	137268	573780	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	66	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241B111 001	POINT	137298	573780	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	86	.36	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241B112 001	POINT	137329	573780	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	64	.36	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241B201 001	POINT	137359	573818	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	60	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241B202 001	POINT	137359	573803	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	60	.17	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241B203 001	POINT	137359	573788	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	60	.17	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241B204 001	POINT	137359	573773	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	60	.17	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BX101 001	POINT	137317	573659	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	70	.014	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BX102 001	POINT	137347	573659	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	64	.014	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BX103 001	POINT	137347	573659	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		1			.79	64	.039	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BX104 001	POINT	137317	573629	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	77	.36	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type				
200E P-241BX105 001	POINT	137347	573629	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	63	.36	3	3	
200E P-241BX106 001	POINT	137378	573629	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	63	.17	3	3	
200E P-241BX107 001	POINT	137317	573598	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		1			.79	69	.039	3	3	
200E P-241BX108 001	POINT	137347	573598	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	64	.014	3	3	
200E P-241BX109 001	POINT	137378	573598	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	77	.36	3	3	
200E P-241BX110 001	POINT	137317	573598	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
			1	1	1	71	.014	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BX111 001	POINT	137347	573568	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	67	.17	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BX112 001	POINT	137378	573568	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	64	.36	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BY101 001	POINT	137469	575660	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	75	.17	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BY102 001	POINT	137500	573660	1	not assigned	TANKS AND VESSELS				
Stack Onfiguration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	71	.014	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BY103 001	POINT	137531	573660	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	81	.014	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BY104 001	POINT	137469	573629	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	120	.17	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BY105 001	POINT	137500	573629	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	117	.0325	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BY106 001	POINT	137531	573629	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	128	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BY107 001	POINT	137469	573597	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	94	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BY108 001	POINT	137500	573597	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	109	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BY109 001	POINT	137531	573597	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		1			.79	66	.039	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BY110 001	POINT	137469	573567	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		1			.79	118	.018	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BY111 001	POINT	137500	573567	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	86	.17	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241BY112 001	POINT	137531	573567	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	85	.17	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241C101 001	POINT	136504	575162	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	87	.014	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241C102 001	POINT	136526	575183	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	94	.031	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241C103 001	POINT	136547	575204	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		1			.79	86	.039	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241C107 001	POINT	136547	575118	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	125	.031	3	3	

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Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241C108 001	POINT	136569	575140	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	73	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241C109 001	POINT	136590	575162	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	76	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241C110 001	POINT	136569	575097	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	66	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241C111 001	POINT	136590	575118	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	72	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241C112 001	POINT	136612	575140	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	78	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241C201 001	POINT	136607	575188	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	59	.014	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241C202 001	POINT	136617	577177	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	61	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241C203 001	POINT	136628	575166	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	60	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241C204 001	POINT	136639	575155	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	78	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241ER151 001	FUGITIVE	136261	573220	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241ER152 001	FUGITIVE	136444	573496	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241ER153 001	FUGITIVE	136289	575091	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1		

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Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-241ER311 001	FUGITIVE	136260	573219	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-242A 001	POINT	135996	575374	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	PROCESS AND PRODUCTION				
				3	not assigned	PROCESS AND PRODUCTION				
				4	not assigned	PROCESS AND PRODUCTION				
				5	not assigned	PROCESS AND PRODUCTION				
				6	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		3.5			9.62	117	37.8	22	-39.5	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-242A 002	POINT	135984	575385	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	PROCESS AND PRODUCTION				
				3	not assigned	PROCESS AND PRODUCTION				
				4	not assigned	PROCESS AND PRODUCTION				
				5	not assigned	PROCESS AND PRODUCTION				
				6	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		.62			.3	120	23.8	62	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-244A 001	POINT	136270	575103	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP		.333			.09	78	27.7	11		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-244AR 001	POINT	136101	575240	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		.67			.35	78	45.2	150	75	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-244AR 002	POINT	136090	575220	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		3			7.07	78	16.4	61	21	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-244BX 001	POINT	137355	573690	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP		.5			.2	78	20.8	11	11	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-244CR 001	POINT	136455	575156	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP		1.5			1.77	78	39.5	50		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296A 001	POINT	136074	575353	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1.33			1.39	151	90	10	10	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296A018 001	POINT	136220	575307	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED		1.25			1.23	68	17.6	12.5		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296A019 001	POINT	136145	575317	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED		1.25			1.23	68	16.4	12.9		

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type			
200E P-296A020 001	POINT	136279	575393	1	not assigned	TANKS AND VESSELS			
				2	not assigned	TANKS AND VESSELS			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
NONE SPECIFIED		2			3.14	68	14.1	15.67	

Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type			
200E P-296A028 001	POINT	135841	575383	1	not assigned	TANKS AND VESSELS			
				2	not assigned	TANKS AND VESSELS			
				3	not assigned	TANKS AND VESSELS			
				4	not assigned	TANKS AND VESSELS			
				5	not assigned	TANKS AND VESSELS			
				6	not assigned	TANKS AND VESSELS			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
NONE SPECIFIED		2			3.14	68	59	23	

Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type			
200E P-296A030 001	POINT	136430	575395	1	not assigned	TANKS AND VESSELS			
				2	not assigned	TANKS AND VESSELS			
				3	not assigned	TANKS AND VESSELS			
				4	not assigned	TANKS AND VESSELS			
				5	not assigned	TANKS AND VESSELS			
				6	not assigned	TANKS AND VESSELS			
				7	not assigned	TANKS AND VESSELS			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
NONE SPECIFIED		2			3.14	68	88.6	23	

Em Point	Ep Type	North	East	Src# Nbr	Scc Code	Src# Type			
200E P-296A041 001	POINT	135815	575597	1	not assigned	TANKS AND VESSELS			
				2	not assigned	TANKS AND VESSELS			
				3	not assigned	TANKS AND VESSELS			
				4	not assigned	TANKS AND VESSELS			
				5	not assigned	TANKS AND VESSELS			
				6	not assigned	TANKS AND VESSELS			
				7	not assigned	TANKS AND VESSELS			
				8	not assigned	TANKS AND VESSELS			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
NONE SPECIFIED		2.3			4.15	68	144.9	29.2	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296AN 001	POINT	136432	575396	1	not assigned	TANKS AND VESSELS				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	TANKS AND VESSELS				
				4	not assigned	TANKS AND VESSELS				
				5	not assigned	TANKS AND VESSELS				
				6	not assigned	TANKS AND VESSELS				
				7	not assigned	TANKS AND VESSELS				
				8	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		.83			.54	110	18.2	14.92		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296AP 001	POINT	135817	575602	1	not assigned	TANKS AND VESSELS				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	TANKS AND VESSELS				
				4	not assigned	TANKS AND VESSELS				
				5	not assigned	TANKS AND VESSELS				
				6	not assigned	TANKS AND VESSELS				
				7	not assigned	TANKS AND VESSELS				
				8	not assigned	TANKS AND VESSELS				
				9	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		.83			.54	110	35.8	13.33		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296AW 001	POINT	135842	575383	1	not assigned	TANKS AND VESSELS				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	TANKS AND VESSELS				
				4	not assigned	TANKS AND VESSELS				
				5	not assigned	TANKS AND VESSELS				
				6	not assigned	TANKS AND VESSELS				
				7	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		.83			.54	110	30.3	15.75		

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296AYAZ 001	POINT	136150	575389	1	not assigned	TANKS AND VESSELS				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	TANKS AND VESSELS				
				4	not assigned	TANKS AND VESSELS				
				5	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1.5			1.77	110	31.91	50		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296G001 001	POINT	135979	575900	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED		.87			.59	78	32.5	25		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296P016 001	POINT	136561	575162	1	not assigned	TANKS AND VESSELS				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP		1.3			1.33	110	32.15	10	10	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296P026 001	POINT	136115	575386	1	not assigned	TANKS AND VESSELS				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	TANKS AND VESSELS				
				4	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED		1.3			1.33	68	88.6	10		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200E P-296P031 001	POINT	136337	574446	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED		2			3.14	78	32.5	32	10	

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type	200E P-LERF 001	POINT	137196	575374	1	not assigned	PROCESS AND PRODUCTION	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	HT Adv Grnd(ft)	HT Adv Struc(ft)
														VERTICAL WITHOUT WEATHER CAP	.25			.05	77	32.5	5	

Source (Process) Listing

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E N-2722AW 001	1	PROCESS AND PRODUCTION	8	5	50	VOC EMISSIONS FROM FABRICATION AND MAINTENANCE OPERATIONS. ACTUAL INSTALLED AND INITIAL OPERATION DATES ARE UNKNOWN (PRE-1990).
200E N-2722AW 001	2	WELDING/CUTTING/BRAZING	2	5	50	PARTICULATE EMISSIONS FROM WELDING OPERATIONS. ACTUAL INSTALLED AND INITIAL OPERATION DATES ARE UNKNOWN (PRE-1990).
200E P-204AR 001	1	PROCESS AND PRODUCTION	24	7	52	204-AR UNLOADING FACILITY
200E P-204AR 001	1	PROCESS AND PRODUCTION	24	7	52	THE 204 AR UNLOADING FACILITY ALLOWS PUMP-OUT OF RAIL CARS TO DESIGNATED 200 EAST TANK FARMS. THE UNLOADING FACILITY CANYON CONTAINS TRANSFER PUMPS, PROCESS PIPING, REMOTELY OPERATED VALVES, AND THE FACILITY IS A REINFORCED CONCRETE STRUCTURE 25' HIGH, 65' LONG, 40' WIDE. THE FACILITY ALLOWS PUMP-OUT OF TANK CARS, CHEMICAL ADJUSTMENT, SAMPLING, AND SLUCING OF TANK CARS TO REMOVE SLUDGE BUILDUPS DURING OR AFTER PUMP-OUT.
200E P-241A101 001	1	TANKS AND VESSELS	24	7	52	241-A-101, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200E P-241A102 001	1	TANKS AND VESSELS	24	7	52	241-A-102, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241A103 001	1	TANKS AND VESSELS	24	7	52	241-A-103, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241A104 001	1	TANKS AND VESSELS	24	7	52	241-A-104, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241A106 001	1	TANKS AND VESSELS	24	7	52	241-A-106, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241A151 001	1	PROCESS AND PRODUCTION	24	7	52	241-A-151 DIVERSION BOX

THE 241-A-151 DIVERSION BOX HAS INSIDE DIMENSIONS OF 54 FEET IN LENGTH, 7 1/2 FEET IN WIDTH, AND 10 FEET DEEP. THE BOX DRAINS TO THE A-302A CATCH TANK.
 TYPICAL WASTE TRANSFERRED VIA 241-A-151 CONSISTS OF PUREX COMPLEXED AND DECLADDING WASTES.

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241A302A 001	1	PROCESS AND PRODUCTION	24	7	52	241-A-302A CATCH TANK

THE 241-A-302A CATCH TANK RECEIVES FLUSH WATER AND LEAKS FROM THE 241-A-151 DIVERSION BOX. THE CATCH TANK CONSISTS OF A HORIZONTAL CYLINDRICAL CARBON STEEL VESSEL, A STEAM JET BOX RESTING ON THE TANK, AND A PUMP PIT ABOVE THE TANK. THE TANK IS 9.5 FEET IN DIAMETER AND 40 FEET LONG.

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241A350 001	1	PROCESS AND PRODUCTION	24	7	52	241-A-350 DRAINAGE LIFT STATION

THE REINFORCED CONCRETE PUMP PIT IS 9' x 9' x 11' (LxWxD) INCLUDING THE COVER BLOCK (750 GAL. CAP.). THE PIT HAS 1' THICK WALLS AND A 20" THICK FLOOR, EXCEPT FOR THE SUMP AREA WHERE THE FLOOR IS 28" THICK. THE COVER BLOCK IS 18" THICK. NINE FEET BELOW THE PIT FLOOR IS AN 8' O.D., 8' DEEP CAISSON LINER TO THE CATCH TANK. THE INTERIOR CARBON STEEL CATCH TANK IS 4'6" O.D., 6'11" DEEP. THE LEGS OF THE TANK ARE EMBEDDED IN 12" OF CONCRETE, AND THE TANK IS FLUSH WITH THE CONCRETE FLOOR.
 THREE INCH DRAIN LINES 300, 307, 311, AND 317 CONNECT WITH NOZZLES IN THE PIT, EMPTYING INTO THE CATCH TANK. AN EXISTING 3" STAINLESS STEEL DRAIN SLOPES INTO THE CATCH TANK. H-2-70333 H-2-70538 H-2-70318.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241A401 001	1	PROCESS AND PRODUCTION	24	7	52	241-A-401 DIVERTER CAISSON

A-401 DIVERTER CAISSON IS A 5' DIAMETER, GALVANIZED, CORRUGATED, 14 GAGE CULVERT PIPE WITH A 14 GAGE, GALVANIZED STEEL, OCTAGON SHAPED COVER PLATE. THE PIT IS APPROXIMATELY 6 TO 8" ABOVE GRADE. THE UNDERSIDE OF THE COVER, AND 1 TO 2' DOWN ON THE INSIDE SURFACE OF THE PIPE WALL, ARE INSULATED WITH 3" OF FOAMED PLASTIC SHEETS. THE PIPE IS 17' TO 18' DEEP AND RESTS ON 1' THICK CONCRETE BRICKS. THE 4 TO 6" THICK CONCRETE FLOOR SLOPES TOWARD A SUMP WHERE THE LEAK DETECTOR IS LOCATED.
 THE CONCRETE FLOOR AND PIPING WERE PAINTED PER SPEC. B-180-C1.
 ALL PENETRATIONS TO THE CORRUGATED STEEL WERE SEALED WITH PERMATEX "FORM-A-GASKET" NO 2, H 2-73842.

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241A417 001	1	PROCESS AND PRODUCTION	24	7	52	241-A-417 CONDENSATE CATCH TANK

A-417 IS A CYLINDRICAL VESSEL ENCLOSED IN A CONCRETE VAULT. THE VAULT FLOOR IS 6" THICK CONCRETE, AND THE WALLS AND ROOF ARE 10" THICK. AN ALL WELD STEEL LINER, 24'6" IN DIAMETER, EXTENDS TO WITHIN 5" OF THE VAULT ROOF. THERE IS NO SPACE BETWEEN THE LINER AND THE CONCRETE WALLS AND FLOOR. LINER DETAILS COULD NOT BE FOUND. THERE ARE TWO OVERFLOW LINES TO THE LINER 9" FROM THE TOP TO PREVENT OVERFLOW OF THE CATCH TANK. ABOVE THE CATCH TANK ARE TWO RECTANGULAR PITS, A PUMP PIT AND VALVE PIT. THE PUMP PIT IS 16' x 8' x 14'6". AND THE VALVE PIT IS 5'4" x 8' x 14'6". THESE PITS ARE CAPPED BY TWO LAYERS OF 15" THICK CONCRETE COVER BLOCKS (30" TOTAL). THE WALLS TO EACH PIT ARE 1'6" THICK. BOTH PITS FLOORS SLOPE TO DRAINS THAT EMPTY INTO THE CATCH TANK BELOW. THESE DRAINS ARE 3" - M5 PIPES, AND THEY ARE NOT LISTED ON THE PIPE SURVEY. SIX RISERS PENETRATE THE CATCH TANK OUTSIDE THE PUMP PIT AND VALVE PIT; ONLY TWO RISERS ARE USED. ONE RISER IS FOR THE VENTILATION SYSTEM AND EXTENDS TO ABOVEGROUND HOUSING, AND THE OTHER IN ENCASED IS A CAISSON AND PROVIDES ACCESS TO THE TANK FOR SAMPLING.
 LINER PENETRATIONS ARE WELDED TO THE LINER, H 2-(56800, 57302), SD-HS-SAR-010 REV 3.

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AA 001	1	PROCESS AND PRODUCTION	24	7	52	241 A-A VALVE PIT

A-A VALVE PIT IS A CONCRETE RECTANGULAR BOX WITH DIMENSIONS OF 12' X 10' X 4'9" (LxWxD) LOCATED UNDERGROUND. WASTE TRANSPORTED THROUGH THE A-A VALVE PIT INCLUDES RADIOACTIVE MIXED WASTE SOLUTIONS FROM PROCESSING AND DECONTAMINATION OPERATIONS AND B PLANT COMPLEXED AND NONCOMPLEXED WASTE.

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AB 001	1	PROCESS AND PRODUCTION	24	7	52	241-A-B VALVE PIT

A-B VALVE PIT IS A CONCRETE RECTANGULAR BOX WITH INSIDE DIMENSIONS OF 12' x 10' x 4'9" (LxWxD), AND IS LOCATED UNDERGROUND. A-B VALVE PIT TRANSPORTS MIXED WASTE SOLUTIONS FROM PROCESSING AND DECONTAMINATION OPERATIONS IN ADDITION TO B PLANT COMPLEXED AND NON-COMPLEXED WASTE.

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241ANA 001	1	PROCESS AND PRODUCTION	24	7	52	241-AN-A VALVE PIT

THE 241 AN-A VALVE PIT IS 14' x 14' x 6'8" (LxWxD) AND IS LOCATED UNDERGROUND. THE VALVE PIT DRAINS TO 102-AN. GENERALLY, THE WASTES TRANSPORTED VIA THE 241 AN-A VALVE PIT ARE COMPLEX CONCENTRATE AND DOUBLE SHELL SLURRY.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241ANB 001	1	PROCESS AND PRODUCTION	24	7	52	241-AN-B VALVE PIT

THE 241-AN-B VALVE PIT IS 14' x 14' x 6'8" (LxWxD) AND IS LOCATED UNDERGROUND. THE PIT DRAINS TO TANK 102-AN. WASTES TRANSPORTED THROUGH THE PIT ARE COMPLEX CONCENTRATE AND DOUBLE SHELL SLURRY.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AP 001	1	PROCESS AND PRODUCTION	24	7	52	241-AP VALVE PIT

THE CONCRETE VALVE PIT IS 61' x 16' x 8' (LxWxD). WASTES TRANSPORTED VIA THE 241-AP VALVE PIT ARE FROM TANKS 102-AP AND 104-AP PHOSPHATE SULPHATE WASTES, AND TANKS 105-AP AND 106-AP DOUBLE SHELL SLURRY FEED AND NON-COMPLEXED WASTE.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AR151 001	1	PROCESS AND PRODUCTION	24	7	52	241-AR-151 DIVERSION BOX

THE UNDERGROUND DIVERSION BOX IS 7' x 5' x 10' (LxWxD) AND MADE OF CONCRETE. THE BOX DRAINS TO THE 244-AR VAULT. THE DIVERSION BOX TRANSPORTS MIXED WASTE SOLUTIONS FROM PROCESSING AND DECONTAMINATION OPERATIONS.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AWA 001	1	PROCESS AND PRODUCTION	24	7	52	241-AW-A VALVE PIT

THE AW-A VALVE PIT IS 14' x 12' x 6'7" (LxWxD) LOCATED UNDERGROUND. THE PIT IS MADE OF CONCRETE. THE WASTES TYPICALLY TRANSPORTED VIA THE AW-A VALVE PIT IS COMPLEX CONCENTRATE AND DOUBLE SHELL SLURRY FROM AW FARM.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AWB 001	1	PROCESS AND PRODUCTION	24	7	52	241-AW-B VALVE PIT

THE 241-AW-B VALVE LOCATED UNDERGROUND IS A 14' x 12' x 6'7" (LxWxD) CONCRETE PIT. WASTES TRANSPORTED VIA THE 241-AW-B VALVE PIT INCLUDES COMPLEX CONCENTRATE AND DOUBLE SHELL SLURRY TO/FROM AW FARM.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AX101 001	1	TANKS AND VESSELS	24	7	52	241-AX-101, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AX102 001	1	TANKS AND VESSELS	24	7	52	241-AX-102, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AX103 001	1	TANKS AND VESSELS	24	7	52	241-AX-103, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AX104 001	1	TANKS AND VESSELS	24	7	52	241-AX-104. 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AX152 001	1	PROCESS AND PRODUCTION	24	7	52	241-AX-152 DIVERTER STATION

THE 241-AX-152 DIVERTER STATION CONSISTS OF A PUMP PIT, A CELL CONTAINING TWO DIVERTER TANKS, AND A VAULT CONTAINING THE CATCH TANK. THE PUMP PIT AND DIVERTER CELL ARE SITUATED ABOVE THE CATCH TANK VAULT. DIMENSIONS OF THE DIVERTER STATION ARE 25' x 9' x 29'2" (LxWxD). THE DIVERTER STATION IS COMPLETELY UNDERGROUND. THE 241-AX-152 DIVERTER STATION TRANSPORTS MIXED WASTE SOLUTIONS FROM PROCESSING AND DECONTAMINATION OPERATIONS IN ADDITION TO B PLANT COMPLEXED AND NON-COMPLEXED WASTE, AND NCAM.

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AX155 001	1	PROCESS AND PRODUCTION	24	7	52	241-AX-155 DIVERSION BOX

AX-155 INSIDE DIMENSIONS ARE 6' x 9' x 12' (LxWxD). AX-155 DRAINS TO CATCH TANK AX-152, AND IS LOCATED UNDERGROUND. AX-155 TRANSPORTS WASTE FROM PROCESSING AND DECONTAMINATION OPERATIONS.

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AX501 001	1	PROCESS AND PRODUCTION	24	7	52	241-AX-501 VALVE PIT

OVERALL DIMENSIONS ARE 5'8" x 8'4" x 6'10". THE PIT IS CAPPED BY 2'10" COVER BLOCKS. THE WALLS ARE 1'6" THICK, AND THE FLOOR SLAB IS 8' THICK. THE FLOOR SLOPES TOWARD A CENTER DRAIN. THE INSIDE WAS PAINTED PER HWS-8237. PENETRATIONS ARE WELDED TO KICKOFF PLATES ON THE INSIDE OF THE PIT. THESE PLATES ARE 1/4" TO 3/4" SST. H 2-44607.

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AXA 001	1	PROCESS AND PRODUCTION	24	7	52	241 AX-A VALVE PIT

VALVE PIT INSIDE DIMENSIONS ARE 10' x 12' x 1 1/2' (LxWxD). THE FLOOR SLOPES TOWARD A DRAIN THAT EMPTIES INTO THE AX VALVE PIT SEAL POT WHICH OVERFLOWS INTO AY-102. THE VALVE PIT IS UNDERGROUND. THE VALVE PIT TRANSPORTS MIXED WASTE SOLUTIONS FROM PROCESSING AND DECONTAMINATION OPERATIONS IN ADDITION TO B PLANT COMPLEXED AND NON-COMPLEXED WASTE.

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AXB 001	1	PROCESS AND PRODUCTION	24	7	52	THIS VALVE PIT IS PART OF THE 200E DOUBLE SHELL TANK WASTE TRANSFER SYSTEM

241-AX-B VALVE PIT INSIDE DIMENSIONS ARE 10' x 12' x 1 1/2' (LxWxD). THE VALVE PIT DRAINS TO THE AX VALVE PIT SEAL POT WHICH OVERFLOWS INTO AY-102. THE VALVE PIT TRANSPORTS MIXED WASTE SOLUTIONS FROM PROCESSING AND DECONTAMINATION OPERATIONS IN ADDITION TO B PLANT COMPLEXED AND NON-COMPLEXED WASTE. THE 241-AX-B VALVE PIT IS LOCATED UNDERGROUND.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AY501 001	1	PROCESS AND PRODUCTION	24	7	52	241-AY-501 VALVE PIT

OVERALL DIMENSIONS ARE 17'6" x 7'3" x 12'6". THE CONCRETE PIT IS CAPPED BY A 2'10" THICK COVER BLOCK. THE PIT WALLS ARE 1'6" THICK AND TAPER TO 1' WHERE THE COVER BLOCK FITS OVER THE PIT.
 PIT PENETRATIONS ARE WELDED TO FLANGES ON THE INSIDE OF THE PIT.
 THE INSIDE SURFACES, INCLUDING THE COVER BLOCK, WERE ORIGINALLY COATED WITH 3 COATS OF AMERCOAT #33. H 2-(64316, 64322). DOC. SD-HS-SAR-010 REV 3

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241AZ152 001	1	PROCESS AND PRODUCTION	24	7	52	241-AZ-152 DIVERTER BOX

THE 241-AZ-152 DIVERTER BOX IS 18' x 11' x 6 1/2' (LxWxD), AND IS MADE OF CONCRETE. THE DIVERTER BOX IS USED FOR TRANSFERRING NCAW. THE DIVERTER BOX IS LOCATED UNDERGROUND.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B101 001	1	TANKS AND VESSELS	24	7	52	241-B-101, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B102 001	1	TANKS AND VESSELS	24	7	52	241-B-102, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B103 001	1	TANKS AND VESSELS	24	7	52	241-B-103, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B104 001	1	TANKS AND VESSELS	24	7	52	241-B-104, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B105 001	1	TANKS AND VESSELS	24	7	52	241-B-105, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B106 001	1	TANKS AND VESSELS	24	7	52	241-B-106, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B107 001	1	TANKS AND VESSELS	24	7	52	241-B-107, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B108 001	1	TANKS AND VESSELS	24	7	52	241-B-108, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B109 001	1	TANKS AND VESSELS	24	7	52	241-B-109, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B110 001	1	TANKS AND VESSELS	24	7	52	241-B-110, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B111 001	1	TANKS AND VESSELS	24	7	52	241-B-111, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B112 001	1	TANKS AND VESSELS	24	7	52	241-B-112, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B201 001	1	TANKS AND VESSELS	24	7	52	241-B-201, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B202 001	1	TANKS AND VESSELS	24	7	52	241-B-202, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B203 001	1	TANKS AND VESSELS	24	7	52	241-B-203, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241B204 001	1	TANKS AND VESSELS	24	7	52	241-B-204, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BX101 001	1	TANKS AND VESSELS	24	7	52	241-BX-101, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BX102 001	1	TANKS AND VESSELS	24	7	52	241-BX-102, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BX103 001	1	TANKS AND VESSELS	24	7	52	241-BX-103, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BX104 001	1	TANKS AND VESSELS	24	7	52	241-BX-104, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BX105 001	1	TANKS AND VESSELS	24	7	52	241-BX-105, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BX106 001	1	TANKS AND VESSELS	24	7	52	241-BX-106, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BX107 001	1	TANKS AND VESSELS	24	7	52	241-BX-107, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BX108 001	1	TANKS AND VESSELS	24	7	52	241-BX-108, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BX109 001	1	TANKS AND VESSELS	24	7	52	241-BX-109, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BX110 001	1	TANKS AND VESSELS	24	7	52	241-BX-110, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BX111 001	1	TANKS AND VESSELS	24	7	52	241-BX-111, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BX112 001	1	TANKS AND VESSELS	24	7	52	241-BX-112, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BY101 001	1	TANKS AND VESSELS	24	7	52	241-BY-101, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BY102 001	1	TANKS AND VESSELS	24	7	52	241-BY-102, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BY103 001	1	TANKS AND VESSELS	24	7	52	241-BY-103, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BY104 001	1	TANKS AND VESSELS	24	7	52	241-BY-104, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BY105 001	1	TANKS AND VESSELS	24	7	52	241-BY-105, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BY106 001	1	TANKS AND VESSELS	24	7	52	241-BY-106, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BY107 001	1	TANKS AND VESSELS	24	7	52	241-BY-107, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BY108 001	1	TANKS AND VESSELS	24	7	52	241-BY-108, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BY109 001	1	TANKS AND VESSELS	24	7	52	241-BY-109, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BY110 001	1	TANKS AND VESSELS	24	7	52	241-BY-110, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BY111 001	1	TANKS AND VESSELS	24	7	52	241-BY-111, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241BY112 001	1	TANKS AND VESSELS	24	7	52	241-BY-112, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241C101 001	1	TANKS AND VESSELS	24	7	52	241-C-101, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241C102 001	1	TANKS AND VESSELS	24	7	52	241-C-102, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241C103 001	1	TANKS AND VESSELS	24	7	52	241-C-103, 530,000 GALLON SINGLE-SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241C107 001	1	TANKS AND VESSELS	24	7	52	241-C-107, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241C108 001	1	TANKS AND VESSELS	24	7	52	241-C-108, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241C109 001	1	TANKS AND VESSELS	24	7	52	241-C-109, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241C110 001	1	TANKS AND VESSELS	24	7	52	241-C-110, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241C111 001	1	TANKS AND VESSELS	24	7	52	241-C-111, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241C112 001	1	TANKS AND VESSELS	24	7	52	241-C-112, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241C201 001	1	TANKS AND VESSELS	24	7	52	241-C-201, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241C202 001	1	TANKS AND VESSELS	24	7	52	241-C-202, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241C203 001	1	TANKS AND VESSELS	24	7	52	241-C-203, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241C204 001	1	TANKS AND VESSELS	24	7	52	241-C-204, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241ER151 001	1	PROCESS AND PRODUCTION	24	7	52	241-ER-151 DIVERSION BOX

THE DIVERSION BOX IS AN UNDERGROUND REINFORCED CONCRETE STRUCTURE WITH OVERALL DIMENSIONS OF 43' x 10' x 17' (LxWxD). THE BOX DRAINS TO CATCH TANK 241-ER-311. THE BOX HAS A LEAK DETECTOR THAT ALARMS IN 242-A. POSSIBLE WASTES INCLUDE FLUSH WATER MIXED WITH WASTE FROM SY FARM, B PLANT, AND B FARM.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241ER152 001	1	PROCESS AND PRODUCTION	24	7	52	241-ER-152 DIVERSION BOX

THE DIVERSION BOX IS A REINFORCED CONCRETE STRUCTURE WITH DIMENSIONS OF 12' x 12' x 15' (LxWxD). THE BOX DRAINS TO 241-ER-311. A LEAK DETECTOR ON THE FLOOR OF THE BOX ALARMS TO 242-A. WASTE TRANSFERRED THROUGH THE BOX INCLUDES FLUSH WATER MIXED WITH WASTES FROM SY FARM, B PLANT, AND B FARM.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241ER153 001	1	PROCESS AND PRODUCTION	24	7	52	241-ER-153 DIVERSION BOX

THE DIVERSION BOX IS REINFORCED CONCRETE WITH DIMENSIONS OF 15' x 15' x 12' (LxWxD). THE BOX DRAINS TO LIFT STATION A-350. A LEAK DETECTOR IS MOUNTED ON THE FLOOR IN THE SUMP. WASTE SOURCES INCLUDE FLUSH WATER AND LEAKS FROM SY FARM, B PLANT, B FARM, AND C FARM.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-241ER311 001	1	PROCESS AND PRODUCTION	24	7	52	241-ER-311 CATCH TANK

THE 241-ER-311 CATCH TANK CONSISTS OF A HORIZONTAL CYLINDRICAL CARBON STEEL VESSEL, A STEAM JET BOX RESTING ON THE TANK, AND A PUMP PIT ABOVE THE TANK. THE CATCH TANK SERVES 241-ER-151 AND 241-ER-152 DIVERSION BOXES. THE TANK HAS A 9.5 FOOT DIAMETER AND IS 40 FEET LONG.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-242A 001	1	PROCESS AND PRODUCTION	24	7	52	PUMP ROOM OF THE 242-A EVAPORATOR BUILDING

THE 242-A EVAPORATOR IS A CONTINUOUS PROCESS THAT IS PERIODICALLY OPERATED. TYPICAL STREAM FLOW RATES ARE
 90 TO 140 gpm FEED
 20 TO 60 gpm CONDENSATE COLLECTION
 43 TO 90 gpm SLURRY DISCHARGE
 (SOURCE 242-A FEMP MARCH 1993, P. 1-8)
 THE MAXIMUM CAPACITY OF THE SEPARATOR IS 35,600 GAL. THE EVAPORATOR DOES NOT COMBUST ANY FOSSIL FUELS. IT USES PLANT-SUPPLIED STEAM.
 BEGAN OPERATIONS IN APRIL 1994 WITH A 2 MONTH CAMPAIGN PROCESSING 2.5 MILLION GALLONS. PLAN TO RUN A SECOND CAMPAIGN STARTING IN SEPTEMBER 1994 TO
 PROCESS 3 MILLION GALLONS.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-242A 001	2	PROCESS AND PRODUCTION	24	7	52	EVAPORATOR ROOM OF THE 242-A EVAPORATOR BUILDING

THE 242-A EVAPORATOR IS A CONTINUOUS PROCESS THAT IS PERIODICALLY OPERATED. TYPICAL STREAM FLOW RATES ARE:
 90 TO 140 gpm FEED
 20 TO 60 gpm CONDENSATE COLLECTION
 43 TO 90 gpm SLURRY DISCHARGE
 (SOURCE 242-A FEMP MARCH 1993, P. 1-8)
 THE MAXIMUM CAPACITY OF THE SEPARATOR IS 35,600 GAL. THE EVAPORATOR DOES NOT COMBUST ANY FOSSIL FUELS IT USES PLANT-SUPPLIED STEAM.
 BEGAN OPERATIONS IN APRIL 1994 WITH A 2 MONTH CAMPAIGN PROCESSING 2.5 MILLION GALLONS. PLAN TO RUN A SECOND CAMPAIGN STARTING IN SEPTEMBER 1994 TO
 PROCESS 3 MILLION GALLONS.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-242A 001	3	PROCESS AND PRODUCTION	24	7	52	CONDENSER ROOM OF THE 242-A EVAPORATOR BUILDING

THE 242-A EVAPORATOR IS A CONTINUOUS PROCESS THAT IS PERIODICALLY OPERATED. TYPICAL STREAM FLOW RATES ARE
 90 TO 140 gpm FEED
 20 TO 60 gpm CONDENSATE COLLECTION
 43 TO 90 gpm SLURRY DISCHARGE
 (SOURCE 242-A FEMP MARCH 1993, P. 1-8)
 THE MAXIMUM CAPACITY OF THE SEPARATOR IS 35,600 GAL. THE EVAPORATOR DOES NOT COMBUST ANY FOSSIL FUELS. IT USES PLANT-SUPPLIED STEAM.
 BEGAN OPERATIONS IN APRIL 1994 WITH A 2 MONTH CAMPAIGN PROCESSING 2.5 MILLION GALLONS. PLAN TO RUN A SECOND CAMPAIGN STARTING IN SEPTEMBER 1994 TO
 PROCESS 3 MILLION GALLONS.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-242A 001	4	PROCESS AND PRODUCTION	24	7	52	LOADOUT/HOT STORAGE AREAS OF THE 242-A EVAPORATOR BUILDING

THE 242-A EVAPORATOR IS A CONTINUOUS PROCESS THAT IS PERIODICALLY OPERATED. TYPICAL STREAM FLOW RATES ARE
 90 TO 140 gpm FEED
 20 TO 60 gpm CONDENSATE COLLECTION
 43 TO 90 gpm SLURRY DISCHARGE
 (SOURCE 242-A FEMP MARCH 1993, P. 1-8)
 THE MAXIMUM CAPACITY OF THE SEPARATOR IS 35,600 GAL. THE EVAPORATOR DOES NOT COMBUST ANY FOSSIL FUELS. IT USES PLANT-SUPPLIED STEAM.
 BEGAN OPERATIONS IN APRIL 1994 WITH A 2 MONTH CAMPAIGN PROCESSING 2.5 MILLION GALLONS. PLAN TO RUN A SECOND CAMPAIGN STARTING IN SEPTEMBER 1994 TO
 PROCESS 3 MILLION GALLONS.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-242A 001	5	PROCESS AND PRODUCTION	24	7	52	LOADING DOCKS OF THE 242-A EVAPORATOR BUILDING

THE 242-A EVAPORATOR IS A CONTINUOUS PROCESS THAT IS PERIODICALLY OPERATED. TYPICAL STREAM FLOW RATES ARE
 90 TO 140 gpm FEED
 20 TO 60 gpm CONDENSATE COLLECTION
 43 TO 90 gpm SLURRY DISCHARGE
 (SOURCE 242-A FEMP MARCH 1993, P. 1-8)
 THE MAXIMUM CAPACITY OF THE SEPARATOR IS 35,600 GAL. THE EVAPORATOR DOES NOT COMBUST ANY FOSSIL FUELS. IT USES PLANT-SUPPLIED STEAM.
 BEGAN OPERATIONS IN APRIL 1994 WITH A 2 MONTH CAMPAIGN PROCESSING 2.5 MILLION GALLONS. PLAN TO RUN A SECOND CAMPAIGN STARTING IN SEPTEMBER 1994 TO
 PROCESS 3 MILLION GALLONS.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-242A 001	6	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-242A-001

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-242A 002	1	PROCESS AND PRODUCTION	24	7	52	VACUUM CONDENSER OF THE 242-A EVAPORATOR PROCESS

THE 242-A EVAPORATOR IS A CONTINUOUS PROCESS THAT IS PERIODICALLY OPERATED. TYPICAL STREAM FLOW RATES ARE
 90 TO 140 gpm FEED
 20 TO 60 gpm CONDENSATE COLLECTION
 43 TO 90 gpm SLURRY DISCHARGE
 (SOURCE: 242-A FEMP MARCH 1993, P 1-8)
 THE MAXIMUM CAPACITY OF THE SEPARATOR IS 35,600 GAL. THE EVAPORATOR DOES NOT COMBUST ANY FOSSIL FUELS. IT USES PLANT-SUPPLIED STEAM.
 BEGAN OPERATIONS IN APRIL 1994 WITH A 2 MONTH CAMPAIGN PROCESSING 2.5 MILLION GALLONS. PLAN TO RUN A SECOND CAMPAIGN STARTING IN SEPTEMBER 1994 TO
 PROCESS 3 MILLION GALLONS.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-242A 002	2	PROCESS AND PRODUCTION	24	7	52	PROCESS CONDENSATE TANK OF THE 242-A EVAPORATOR PROCESS

THE 242-A EVAPROATOR IS A CONTINUOUS PROCESS THAT IS PERIODICALLY OPERATED. TYPICAL STREAM FLOW RATES ARE
 90 - 140 GPM FEED
 20 - 60 GPM CONDENSATE COLLECTION
 43 - 90 GPM SLURRY DISCHARGE
 (SOURCE: 242-A FEMP MARCH 1993, P. 2-8)
 THE MAXIMUM CAPACITY OF THE SEPARATOR IS 35,6000 GAL.
 THE EVAPORATOR DOES NOT COMBUST ANY FOSSIL FUELS. IT USES PLANT-SUPPLIED STEAM.
 BEGAN OPERATIONS IN APRIL 1994 WITH A 2 MONTH CAMPAIGN PROCESSING 2.5 MILLION GALLONS. PLAN TO RUN A SECOND CAMPAIGN STARTING IN SEPTEMBER 1994 TO
 PROCESS 3 MILLION GALLONS.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-242A 002	3	PROCESS AND PRODUCTION	24	7	52	AFTER-CONDENSER DRAIN OF THE 242-A EVAPORATOR PROCESS

THE 242-A EVAPORATOR IS A CONTINUOUS PROCESS THAT IS PERIODICALLY OPERATED. TYPICAL STREAM FLOW RATES ARE
 90 - 140 GPM FEED
 20 - 60 GPM CONDENSATE COLLECTION
 43 - 90 GPM SLURRY DISCHARGE
 (SOURCE: 242-A FEMP MARCH 1993, P. 2-8)
 THE MAXIMUM CAPACITY OF THE SEPARATOR IS 35,6000 GAL.
 THE EVAPORATOR DOES NOT COMBUST ANY FOSSIL FUELS. IT USES PLANT-SUPPLIED STEAM.
 BEGAN OPERATIONS IN APRIL 1994 WITH A 2 MONTH CAMPAIGN PROCESSING 2.5 MILLION GALLONS. PLAN TO RUN A SECOND CAMPAIGN STARTING IN SEPTEMBER 1994 TO PROCESS 3 MILLION GALLONS.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-242A 002	4	PROCESS AND PRODUCTION	24	7	52	CONDENSATE COLLECTION VESSEL OF THE 242-A EVAPORATOR PROCESS

THE 242-A EVAPORATOR IS A CONTINUOUS PROCESS THAT IS PERIODICALLY OPERATED. TYPICAL STREAM FLOW RATES ARE
 90 - 140 GPM FEED
 20 - 60 GPM CONDENSATE COLLECTION
 43 - 90 GPM SLURRY DISCHARGE
 (SOURCE: 242-A FEMP MARCH 1993, P. 2-8)
 THE MAXIMUM CAPACITY OF THE SEPARATOR IS 35,6000 GAL.
 THE EVAPORATOR DOES NOT COMBUST ANY FOSSIL FUELS. IT USES PLANT-SUPPLIED STEAM.
 BEGAN OPERATIONS IN APRIL 1994 WITH A 2 MONTH CAMPAIGN PROCESSING 2.5 MILLION GALLONS. PLAN TO RUN A SECOND CAMPAIGN STARTING IN SEPTEMBER 1994 TO PROCESS 3 MILLION GALLONS.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-242A 002	5	PROCESS AND PRODUCTION	24	7	52	SAMPLING PUMP EXHAUST FROM ROOM AIR SAMPLING FOR THE AMU ROOM, CHANGE ROOM, CONTROL ROOM, CONDENSER ROOM, EVAPORATOR ROOM, PUMP ROOM LOADOUT/NOT STORAGE, LOADING ROOM, AND ION EXCHANGE COLUMN ROOM

THE 242-A EVAPROATOR IS A CONTINUOUS PROCESS THAT IS PERIODICALLY OPERATED. TYPICAL STREAM FLOW RATES ARE
 90 - 140 GPM FEED
 20 - 60 GPM CONDENSATE COLLECTION
 43 - 90 GPM SLURRY DISCHARGE
 (SOURCE: 242-A FEMP MARCH 1993, P. 2-8)
 THE MAXIMUM CAPACITY OF THE SEPARATOR IS 35,6000 GAL.
 THE EVAPORATOR DOES NOT COMBUST ANY FOSSIL FUELS. IT USES PLANT-SUPPLIED STEAM.
 BEGAN OPERATIONS IN APRIL 1994 WITH A 2 MONTH CAMPAIGN PROCESSING 2.5 MILLION GALLONS. PLAN TO RUN A SECOND CAMPAIGN STARTING IN SEPTEMBER 1994 TO PROCESS 3 MILLION GALLONS.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-242A 002	6	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-242A-002

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-244A 001	1	PROCESS AND PRODUCTION	24	7	52	244-A LIFT STATION (DCRT)

THE 244-A DCRT IS A SHORT TERM WASTE STORAGE FACILITY USED FOR INTERIM STORAGE OF LIQUID WASTES AND AS A VALVE PIT FOR WASTE TRANSFER OPERATIONS. IT IS AN UNDERGROUND CONCRETE STRUCTURE WITH A TANK VAULT, PUMP PIT, AND FILTER PIT. SALT WELL AND MISCELLANEOUS WEST AREA PLANT WASTES ARE ROUTED TO 200 EAST THROUGH THE 244-A DCRT.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-244AR 001	1	PROCESS AND PRODUCTION	24	7	52	244-AR VAULT VESSEL EXHAUST

244 AR VAULT IS CURRENTLY USED FOR INTERIM STORAGE IN TRANSFER OF PUREX WASTE TO AND FROM B PLANT. THE VAULT CONTAINS (2) 50,000 GALLON STAINLESS STEEL TANKS WHICH ARE 20 FEET IN DIAMETER AND (2) 5,000 GALLON STAINLESS STEEL TANKS WHICH ARE 9.5 FEET IN DIAMETER. CHEMICAL MAKE-UP FACILITIES ARE ALSO AVAILABLE.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-244AR 002	1	PROCESS AND PRODUCTION	24	7	52	244-AR CANYON AND CELL EXHAUST

THE 244-AR CANYON AND CELLS ARE UTILIZED IN SUPPORT OF THE 244-AR VAULT. THE CANYON BUILDING IS A REINFORCED CONCRETE STRUCTURE WHICH MEASURES 94' X 18' X 36' (LxWxD). THREE PROCESS CELLS AND A FAILED EQUIPMENT STORAGE CELL ARE LOCATED BELOW THE CANYON DECK LEVEL.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-244BX 001	1	PROCESS AND PRODUCTION	24	7	52	244-BX DOUBLE-CONTAINED RECEIVER TANK

THE 244-BX SALT WELL SYSTEM IS A RECTANGULAR VAULT FABRICATED OF REINFORCED CONCRETE CONSISTING OF THREE SECTIONS: A TANK VAULT, A PUMP PIT, AND FILTER PIT. THE TANK VAULT DIMENSIONS ARE 16' X 44' X 16' (LxWxD). THE VAULT CONTAINS A 25,000 GALLON TANK. 244-BX RECEIVES NON-COMPLEX SALTWELL WASTES FROM B, BX, AND BY TANK FARMS.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-244CR 001	1	PROCESS AND PRODUCTION	24	7	52	244-CR VAULT

244 CR VAULT IS AN UNDERGROUND STORAGE VAULT WHICH HOUSES TWO 40,000 GALLON TANKS. SALT WELL WASTE IS COLLECTED FROM C FARM AND TRANSFERRED TO 244 CR VAULT AND THEN TO A DESIGNATED DOUBLE SHELL TANK.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A 001	1	TANKS AND VESSELS	24	7	52	241-A-105, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

NO PROCESS DESCRIPTION

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A018 001	1	TANKS AND VESSELS	24	7	52	101-AY UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A019 001	1	TANKS AND VESSELS	24	7	52	102-AY UNDERGROUND STORAGE TANK.
Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A020 001	1	TANKS AND VESSELS	24	7	52	101-AZ UNDERGROUND STORAGE TANK
Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A020 001	2	TANKS AND VESSELS	24	7	52	102-AZ UNDERGROUND STORAGE TANK
Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A028 001	1	TANKS AND VESSELS	24	7	52	101-AW UNDERGROUND STORAGE TANK.
Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A028 001	2	TANKS AND VESSELS	24	7	52	102-AW UNDERGROUND STORAGE TANK.
Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A028 001	3	TANKS AND VESSELS	24	7	52	103-AW UNDERGROUND STORAGE TANK.
Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A028 001	4	TANKS AND VESSELS	24	7	52	104-AW UNDERGROUND STORAGE TANK.
Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A028 001	5	TANKS AND VESSELS	24	7	52	105-AW UNDERGROUND STORAGE TANK.
Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A028 001	6	TANKS AND VESSELS	24	7	52	106-AW UNDERGROUND STORAGE TANK.
Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A030 001	1	TANKS AND VESSELS	24	7	52	101-AN UNDERGROUND STORAGE TANK
Em Point	Srcce Nbr	Srcce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A030 001	2	TANKS AND VESSELS	24	7	52	102-AN UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A030 001	3	TANKS AND VESSELS	24	7	52	103-AN UNDERGROUND STORAGE TANK
200E P-296A030 001	4	TANKS AND VESSELS	24	7	52	104-AN UNDERGROUND STORAGE TANK
200E P-296A030 001	5	TANKS AND VESSELS	24	7	52	105-AN UNDERGROUND STORAGE TANK
200E P-296A030 001	6	TANKS AND VESSELS	24	7	52	106-AN UNDERGROUND STORAGE TANK
200E P-296A030 001	7	TANKS AND VESSELS	24	7	52	107-AN UNDERGROUND STORAGE TANK
200E P-296A041 001	1	TANKS AND VESSELS	24	7	52	101-AP UNDERGROUND STORAGE TANK.
200E P-296A041 001	2	TANKS AND VESSELS	24	7	52	102-AP UNDERGROUND STORAGE TANK.
200E P-296A041 001	3	TANKS AND VESSELS	24	7	52	103-AP UNDERGROUND STORAGE TANK.
200E P-296A041 001	4	TANKS AND VESSELS	24	7	52	104-AP UNDERGROUND STORAGE TANK.
200E P-296A041 001	5	TANKS AND VESSELS	24	7	52	105-AP UNDERGROUND STORAGE TANK.
200E P-296A041 001	6	TANKS AND VESSELS	24	7	52	106-AP UNDERGROUND STORAGE TANK.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296A041 001	7	TANKS AND VESSELS	24	7	52	107-AP UNDERGROUND STORAGE TANK.
200E P-296A041 001	8	TANKS AND VESSELS	24	7	52	108-AP UNDERGROUND STORAGE TANK.
200E P-296AN 001	1	TANKS AND VESSELS	24	7	52	TANK 241-AN-101 CONTAINS DILUTE NON-COMPLEXED (DN) WASTE.
200E P-296AN 001	2	TANKS AND VESSELS	24	7	52	TANK 241-AN-102 CONTAINS SLUDGE AND COMPLEXANT CONCENTRATE (CC) WASTE.
200E P-296AN 001	3	TANKS AND VESSELS	24	7	52	TANK 241-AN-103 CONTAINS DOUBLE-SHELL SLURRY (SL) WASTE.
200E P-296AN 001	4	TANKS AND VESSELS	24	7	52	TANK 241-AN-104 CONTAINS DOUBLE-SHELL SLURRY FEED (SF) WASTE.
200E P-296AN 001	5	TANKS AND VESSELS	24	7	52	TANK 241-AN-105 CONTAINS DOUBLE-SHELL SLURRY FEED (SF) WASTE.
200E P-296AN 001	6	TANKS AND VESSELS	24	7	52	TANK 241-AN-106 CONTAINS CONCENTRATED PHOSPHATE WASTE (CP).
200E P-296AN 001	7	TANKS AND VESSELS	24	7	52	TANK 241-AN-107 CONTAINS SLUDGE AND COMPLEXANT CONCENTRATE (CC) WASTE.
200E P-296AN 001	8	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296AN-001

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296AP 001	1	TANKS AND VESSELS	24	7	52	TANK 241-AN-101 CONTAINS DILUTE NON-COMPLEXED (DN) WASTE.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296AP 001	2	TANKS AND VESSELS	24	7	52	TANK 241-AN-102 CONTAINS DILUTE NON-COMPLEXED (DN) WASTE.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296AP 001	3	TANKS AND VESSELS	24	7	52	TANK 241-AN-103 CONTAINS DILUTE NON-COMPLEXED (DN) WASTE.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296AP 001	4	TANKS AND VESSELS	24	7	52	TANK 241-AP-104 CONTAINS DILUTE NON-COMPLEXED (DN) WASTE.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296AP 001	5	TANKS AND VESSELS	24	7	52	TANK 241-AP-105 CONTAINS DILUTE NON-COMPLEXED (DN) WASTE.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296AP 001	6	TANKS AND VESSELS	24	7	52	TANK 241-AP-106 CONTAINS DILUTE NON-COMPLEXED (DN) WASTE.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296AP 001	7	TANKS AND VESSELS	24	7	52	TANK 241-AN-107 CONTAINS DILUTE NON-COMPLEXED (DN) WASTE.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296AP 001	8	TANKS AND VESSELS	24	7	52	TANK 241-AN-108 CONTAINS DILUTE NON-COMPLEXED (DN) WASTE.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296AP 001	9	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296AP-001
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296AW 001	1	TANKS AND VESSELS	24	7	52	TANK 241-AW-101 CONTAINS SLUDGE AND DOUBLE-SHELL SLURRY FEED (SF) WASTE.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296AW 001	2	TANKS AND VESSELS	24	7	52	TANK 241-AW-102 CONTAINS DILUTE NON-COMPLEXED (DN) WASTE.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296AW 001	3	TANKS AND VESSELS	24	7	52	TANK 241-AW-103 CONTAINS PUREX NEUTRALIZED CLADDING REMOVAL WASTE SLUDGE AND DILUTE NON-COMPLEXED WASTE.
200E P-296AW 001	4	TANKS AND VESSELS	24	7	52	TANK 241-AW-104 CONTAINS SLUDGE AND DILUTE NON-COMPLEXED (DN) WASTE.
200E P-296AW 001	5	TANKS AND VESSELS	24	7	52	TANK 241-AW-105 CONTAINS PUREX NCRW (NEUTRALIZED CLADDING REMOVAL WASTE) SLUDGE (PD) AND DILUTE NON-COMPLEXED (DN) WASTE.
200E P-296AW 001	6	TANKS AND VESSELS	24	7	52	TANK 241-AW-106 CONTAINS SLUDGE, DOUBLE-SHELL SLURRY (SL), AND DILUTE NON-COMPLEXED (DN) WASTE.
200E P-296AW 001	7	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296AW-001
200E P-296AYAZ 001	1	TANKS AND VESSELS	24	7	52	TANK 241-AY-101 CONTAINS SLUDGE AND DILUTE COMPLEXED (DC) WASTE
200E P-296AYAZ 001	2	TANKS AND VESSELS	24	7	52	TANK 241-AY-102 CONTAINS SLUDGE AND DILUTE COMPLEXED (DC) WASTE
200E P-296AYAZ 001	3	TANKS AND VESSELS	24	7	52	TANK 241-AZ-101 CONTAINS SLUDGE, NEUTRALIZED CURRENT ACID WASTE (AW), AND DILUTE NON-COMPLEXED WASTE
200E P-296AYAZ 001	4	TANKS AND VESSELS	24	7	52	TANK 241-AZ-102 CONTAINS SLUDGE, NEUTRALIZED CURRENT ACID WASTE (AW), AND DILUTE NON-COMPLEXED (DN) WASTE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296AYAZ 001	5	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296AYAZ-001

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296G001 001	1	PROCESS AND PRODUCTION				NO LONGER OPERATING

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296P016 001	1	TANKS AND VESSELS	24	7	52	241-C-105, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

THE ENTIRE BANK (OF 2 FILTERS) IS TESTED AS A SINGLE UNIT, WHICH MUST PASS THE 99.95% CRITERIA.

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296P016 001	2	TANKS AND VESSELS	24	7	52	241-C-106, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296P016 001	3	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296P016-001

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296P026 001	1	TANKS AND VESSELS	24	7	52	101-AZ UNDERGROUND STORAGE TANK.

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296P026 001	2	TANKS AND VESSELS	24	7	52	102-AZ UNDERGROUND STORAGE TANK.

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296P026 001	3	TANKS AND VESSELS	24	7	52	101-AZ UNDERGROUND STORAGE TANK.

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296P026 001	4	TANKS AND VESSELS	24	7	52	102-AZ UNDERGROUND STORAGE TANK.

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-296P031 001	1	PROCESS AND PRODUCTION	24	7	52	PLANS ARE TO USE THE CRITICAL ASSEMBLY ROOM AND THE MIX ROOM TO ASSAY, SAMPLE, AND REPACKAGE LOW-LEVEL RADIOACTIVE SOLID WASTE CONTAINERS.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-LERF 001	1	PROCESS AND PRODUCTION	24	7	52	LIQUID EFFLUENT RETENTION FACILITY

THE LIQUID EFFLUENT RETENTION FACILITY (LERF) CONSISTS OF THREE IDENTICAL 24.6 ML (6.5 Mgal) SURFACE IMPOUNDMENTS (RETENTION BASINS). THESE BASINS ARE LOCATED ON A 157,956-M SQUARED (39-ACRE) SITE IN THE 200 AREA ON THE HANFORD SITE. THIS LOCATION IS APPROXIMATELY 1.2 km (0.75 mi) NORTH OF THE 242-A EVAPORATOR.

THE BASINS ARE CONSTRUCTED WITH PRIMARY AND SECONDARY COMPOSITE LINERS, A LEACHATE COLLECTION AND REMOVAL SYSTEM BETWEEN THE LINERS, AND A FLOATING COVER. IN ADDITION, THE LERF INCLUDES PIPING AND PUMPING SYSTEMS, UTILITIES, AND A BASIN OPERATIONS STRUCTURE.

EACH BASIN IS CONSTRUCTED WITH A PRIMARY AND SECONDARY LINER. THE UPPER (OR PRIMARY) LINER HAS A 1.52-mm (60-mil) HIGH-DENSITY POLYETHYLENE (HDPE) GEOMEMBRANE LAID DIRECTLY OVER AN IMPERMEABLE MANUFACTURED GEOTEXTILE/BENTONITE SANDWICH LAYER. THE LOWER (OR SECONDARY) LINER IS ESSENTIALLY ANOTHER HDPE LINER LAID ON 91.4 cm (36 in.) OF SOIL/BENTONITE (106.7 cm [42 in.] ON THE SIDES OF THE BASIN). THE SOIL/BENTONITE LAYER ACTS AS A BARRIER TO LEAK MIGRATION.

ANY LIQUID THAT MIGHT FIND ITS WAY THROUGH OR UNDER THE PRIMARY LINER IS REMOVED BY THE LEACHATE COLLECTION SYSTEM, WHICH IS LOCATED BETWEEN THE PRIMARY AND SECONDARY LINERS. A 30.48-cm (12-in.) LAYER OF DRAINAGE GRAVEL (LAID ON THE BOTTOM OF THE BASIN) AND A SYNTHETIC DRAINAGE NET (LAID ON THE SIDES OF THE BASIN) PROVIDE A FLOW PATH FOR ANY LEACHATE. BOTH ARE LAID ON A THIN POLYPROPYLENE GEOTEXTILE LAYER THAT COVERS THE SECONDARY LINER. THE SECONDARY LINER IS SLOPED TO A SUMP AT ONE CORNER OF THE BASIN WHERE A LEACHATE REMOVAL RISER CONTAINING A DEDICATED PUMP IS LOCATED. THE PUMP OPERATES WHENEVER THE LIQUID LEVEL IN THE SUMP REACHES 25.4 cm (10 in.), AND CONTINUES TO OPERATE UNTIL THE SUMP LIQUID LEVEL REACHES 5.1 cm (2 in.). THE LEACHATE IS PUMPED BACK INTO THE BASIN.

A FLOATING GEOMEMBRANE COVER OF 1.52-mm (40-mil) LOW-DENSITY POLYETHYLENE (LDPE) IS STRETCHED OVER EACH BASIN ABOVE THE PRIMARY LINER. THE COVER MATERIAL IS RESISTANT TO ULTRAVIOLET RADIATION. ACTIVATED CARBON BREATHER FILTERS ARE PROVIDED TO VENTILATE THE BASIN. THESE FILTERS ARE LOCATED IN ONE OF THE CORNERS OF EACH BASIN. THE COVERS AND LINERS ARE SECURED BY BATTEN STRIPS WITH ANCHOR BOLTS IMBEDDED IN CONCRETE FOOTINGS AT THE PERIMETER OF EACH BASIN. A MECHANICAL TENSIONING SYSTEM SUSPENDS THE COVER OVER THE BASIN AND ALLOWS THE COVER TO FLOAT ON THE EFFLUENT SURFACE.

Source Raw Materials Usage

Em Point	Srce Nbr	Srce Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Srce Nbr	Srce Type	Qty	Uom	Fuel
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Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
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Point Source Criteria Pollutants - Type: CO

Em Point	Srce Nbr	Srce Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E P-241A101 001	1	TANKS AND VESSELS		.000439000	.000439000	CARBON MONOXIDE
200E P-241A102 001	1	TANKS AND VESSELS		.000950000	.000950000	CARBON MONOXIDE
200E P-241A103 001	1	TANKS AND VESSELS		.000950000	.000950000	CARBON MONOXIDE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: CO

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-241A104 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241A106 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241AX101 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241AX102 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241AX103 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241AX104 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241B101 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241B102 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241B103 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241B104 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241B105 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241B106 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241B107 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241B108 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241B109 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241B110 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241B111 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241B112 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241B201 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241B202 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241B203 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241B204 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BX101 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BX102 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BX103 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241BX104 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: CO

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-241BX105 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241BX106 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BX107 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241BX108 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BX109 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241BX110 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BX111 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BX112 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241BY101 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BY102 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BY103 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BY105 001	1	TANKS AND VESSELS	.000008230	.000008230	CARBON MONOXIDE
200E P-241BY107 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BY108 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BY109 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241BY110 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BY111 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241BY112 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241C101 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241C102 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241C103 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241C107 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200E P-241C109 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241C110 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241C112 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241C201 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: CO

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E P-241C202 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241C203 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-241C204 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200E P-296A 001	1	TANKS AND VESSELS	.017200000	.017200000	CARBON MONOXIDE
200E P-296AN 001	8	SOURCE EMISSIONS ROLL-UP	.120000000	.120000000	CARBON MONOXIDE
200E P-296AP 001	9	SOURCE EMISSIONS ROLL-UP	.138000000	.138000000	CARBON MONOXIDE
200E P-296AW 001	7	SOURCE EMISSIONS ROLL-UP	.103000000	.103000000	CARBON MONOXIDE
200E P-296AYAZ 001	5	SOURCE EMISSIONS ROLL-UP	.068800000	.068800000	CARBON MONOXIDE
200E P-296P016 001	3	SOURCE EMISSIONS ROLL-UP	.025520000	.025520000	CARBON MONOXIDE
Sum			.508793230	.508748230	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: NOX

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-241A101 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241A102 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241A103 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241A104 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241A106 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241AX101 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241AX102 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241AX103 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241AX104 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241B101 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241B102 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241B103 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241B104 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241B105 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241B106 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241B107 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241B108 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241B109 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241B110 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241B111 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241B112 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241B201 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241B202 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241B203 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241B204 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241BX101 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: NOX

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-241BX102 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241BX103 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241BX104 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241BX105 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241BX106 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241BX107 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241BX108 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241BX109 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241BX110 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241BX111 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241BX112 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241BY101 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241BY102 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241BY103 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241BY104 001	1	TANKS AND VESSELS	.000005290	.000005290	NITROGEN OXIDE {NO}
200E P-241BY105 001	1	TANKS AND VESSELS	.000001410	.000001410	NITROGEN OXIDE {NO}
200E P-241BY106 001	1	TANKS AND VESSELS	.000001760	.000001760	NITROGEN OXIDE {NO}
200E P-241BY107 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241BY108 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241BY109 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241BY110 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241BY111 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241BY112 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241C101 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241C102 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241C103 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: NOX

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E P-241C107 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-241C108 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241C109 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241C110 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241C111 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241C112 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241C201 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241C202 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241C203 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-241C204 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200E P-296A 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200E P-296AN 001	8	SOURCE EMISSIONS ROLL-UP	.000400000	.000400000	NITROGEN OXIDE {NO}
200E P-296AP 001	9	SOURCE EMISSIONS ROLL-UP	.000458000	.000458000	NITROGEN OXIDE {NO}
200E P-296AW 001	7	SOURCE EMISSIONS ROLL-UP	.000343000	.000343000	NITROGEN OXIDE {NO}
200E P-296AYAZ 001	5	SOURCE EMISSIONS ROLL-UP	.000229000	.000229000	NITROGEN OXIDE {NO}
200E P-296P016 001	3	SOURCE EMISSIONS ROLL-UP	.000114000	.000114000	NITROGEN OXIDE {NO}
Sum			.003844860	.003844860	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-241A101 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000030800	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000030800	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241A102 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000066670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000066670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241A103 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000066670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000066670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241A104 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000030800	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000030800	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-241A106 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241AX101 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241AX102 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000015100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241AX103 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct] Actual (tons/yr)	Pollutant
200E P-241AX104 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001190 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241B101 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241B102 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241B103 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct] Actual (tons/yr)	Pollutant
200E P-241B104 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241B105 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241B106 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241B107 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-241B108 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241B109 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241B110 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241B111 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-241B112 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000075100	.000075100	2-HEXANONE
			.000119000	.000119000	2-PENTANONE
			.001430000	.001430000	ACETONE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000084000	.000084000	HEPTANE
			.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000087600	.000087600	N-HEXANE
			.000045700	.000045700	NONANE
			.000047900	.000047900	OCTANE
			.000006670	.000006670	TOLUENE
200E P-241B201 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000034700	.000034700	2-HEXANONE
			.000055100	.000055100	2-PENTANONE
			.000662000	.000662000	ACETONE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000038900	.000038900	HEPTANE
			.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000040500	.000040500	N-HEXANE
			.000021100	.000021100	NONANE
			.000022100	.000022100	OCTANE
			.000003080	.000003080	TOLUENE
200E P-241B202 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000034700	.000034700	2-HEXANONE
			.000055100	.000055100	2-PENTANONE
			.000662000	.000662000	ACETONE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000038900	.000038900	HEPTANE
			.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000040500	.000040500	N-HEXANE
			.000021100	.000021100	NONANE
			.000022100	.000022100	OCTANE
			.000003080	.000003080	TOLUENE
200E P-241B203 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000034700	.000034700	2-HEXANONE
			.000055100	.000055100	2-PENTANONE
			.000662000	.000662000	ACETONE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000038900	.000038900	HEPTANE
			.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000040500	.000040500	N-HEXANE
			.000021100	.000021100	NONANE
			.000022100	.000022100	OCTANE
			.000003080	.000003080	TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-241B204 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241BX101 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241BX102 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241BX103 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-241BX104 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000075100	.000075100	2-HEXANONE
			.000119000	.000119000	2-PENTANONE
			.001430000	.001430000	ACETONE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000084000	.000084000	HEPTANE
			.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000087600	.000087600	N-HEXANE
			.000045700	.000045700	NONANE
			.000047900	.000047900	OCTANE
			.000006670	.000006670	TOLUENE
200E P-241BX105 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000075100	.000075100	2-HEXANONE
			.000119000	.000119000	2-PENTANONE
			.001430000	.001430000	ACETONE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000084000	.000084000	HEPTANE
			.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000087600	.000087600	N-HEXANE
			.000045700	.000045700	NONANE
			.000047900	.000047900	OCTANE
			.000006670	.000006670	TOLUENE
200E P-241BX106 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000034700	.000034700	2-HEXANONE
			.000055100	.000055100	2-PENTANONE
			.000662000	.000662000	ACETONE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000038900	.000038900	HEPTANE
			.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000040500	.000040500	N-HEXANE
			.000021100	.000021100	NONANE
			.000022100	.000022100	OCTANE
			.000003080	.000003080	TOLUENE
200E P-241BX107 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000075100	.000075100	2-HEXANONE
			.000119000	.000119000	2-PENTANONE
			.001430000	.001430000	ACETONE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000084000	.000084000	HEPTANE
			.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000087600	.000087600	N-HEXANE
			.000045700	.000045700	NONANE
			.000047900	.000047900	OCTANE
			.000006670	.000006670	TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E P-241BX108 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241BX109 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241BX110 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241BX111 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-241BX112 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000075100	.000075100	2-HEXANONE
			.000119000	.000119000	2-PENTANONE
			.001430000	.001430000	ACETONE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000084000	.000084000	HEPTANE
			.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000087600	.000087600	N-HEXANE
			.000045700	.000045700	NONANE
			.000047900	.000047900	OCTANE
			.000006670	.000006670	TOLUENE
200E P-241BY101 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000034700	.000034700	2-HEXANONE
			.000055100	.000055100	2-PENTANONE
			.000662000	.000662000	ACETONE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000038900	.000038900	HEPTANE
			.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000040500	.000040500	N-HEXANE
			.000021100	.000021100	NONANE
			.000022100	.000022100	OCTANE
			.000003080	.000003080	TOLUENE
200E P-241BY102 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000034700	.000034700	2-HEXANONE
			.000055100	.000055100	2-PENTANONE
			.000662000	.000662000	ACETONE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000038900	.000038900	HEPTANE
			.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000040500	.000040500	N-HEXANE
			.000021100	.000021100	NONANE
			.000022100	.000022100	OCTANE
			.000003080	.000003080	TOLUENE
200E P-241BY103 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000034700	.000034700	2-HEXANONE
			.000055100	.000055100	2-PENTANONE
			.000662000	.000662000	ACETONE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000038900	.000038900	HEPTANE
			.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000040500	.000040500	N-HEXANE
			.000021100	.000021100	NONANE
			.000022100	.000022100	OCTANE
			.000003080	.000003080	TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-241BY104 001	1	TANKS AND VESSELS	.000003830	.000003830	2-HEXANONE
			.000008100	.000008100	2-PENTANONE
			.000041000	.000041000	ACETONE
			.000007970	.000007970	ACETONITRILE
			.000001930	.000001930	BENZENE
			.000007070	.000007070	HEPTANE
			.000003220	.000003220	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000016200	.000016200	N-HEXANE
			.000002110	.000002110	NONANE
			.000003960	.000003960	OCTANE
			.000002220	.000002220	TOLUENE
200E P-241BY105 001	1	TANKS AND VESSELS	.000000318	.000000318	2-HEXANONE
			.000000607	.000000607	2-PENTANONE
			.000008540	.000008540	ACETONE
			.000001960	.000001960	ACETONITRILE
			.000000317	.000000317	BENZENE
			.000002300	.000002300	HEPTANE
			.000000295	.000000295	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000004360	.000004360	N-HEXANE
			.000000452	.000000452	NONANE
			.000001010	.000001010	OCTANE
			.000000465	.000000465	TOLUENE
200E P-241BY106 001	1	TANKS AND VESSELS	.000000247	.000000247	2-HEXANONE
			.000000557	.000000557	2-PENTANONE
			.000012600	.000012600	ACETONE
			.000002900	.000002900	ACETONITRILE
			.000000335	.000000335	BENZENE
			.000001830	.000001830	HEPTANE
			.000000215	.000000215	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000004310	.000004310	N-HEXANE
			.000000347	.000000347	NONANE
			.000000805	.000000805	OCTANE
			.000000449	.000000449	TOLUENE
200E P-241BY107 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000034700	.000034700	2-HEXANONE
			.000055100	.000055100	2-PENTANONE
			.000662000	.000662000	ACETONE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000038900	.000038900	HEPTANE
			.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000040500	.000040500	N-HEXANE
			.000021100	.000021100	NONANE
			.000022100	.000022100	OCTANE
			.00003080	.00003080	TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct] Actual (tons/yr)	Pollutant
200E P-241BY108 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241BY109 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241BY110 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241BY111 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-241BY112 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241C101 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241C102 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241C103 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-241C107 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241C109 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241C110 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241C112 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct] Actual (tons/yr)	Pollutant
200E P-241C201 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241C202 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241C203 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-241C204 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct) Actual (tons/yr)	Pollutant
200E P-242A 001	6	SOURCE EMISSIONS ROLL-UP	.000001200 .000333000 .000022700 .002500000	.000000090 .000025000 .000001700 .000188000	2-HEXANONE ACETONE METHYL ISOBUTYL KETONE N-BUTYL ALCOHOL
200E P-242A 002	6	SOURCE EMISSIONS ROLL-UP	.000382000 .106000000 .007230000 .797000000	.000028700 .007950000 .000542000 .059800000	2-HEXANONE ACETONE METHYL ISOBUTYL KETONE N-BUTYL ALCOHOL
200E P-296A 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .047900000 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-296AN 001	8	SOURCE EMISSIONS ROLL-UP	.000028900 .000526000 .000835000 .010000000 .004830000 .000229000 .000588000 .000569000 .000613000 .000320000 .000335000 .000046700	.000028900 .000526000 .000835000 .010000000 .004830000 .000229000 .000588000 .000569000 .000613000 .000320000 .000335000 .000046700	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-296AP 001	9	SOURCE EMISSIONS ROLL-UP	.000033000 .000601000 .000954000 .011500000 .005520000 .000262000 .000672000 .000650000 .000701000 .000365000 .000383000 .000053400	.000033000 .000601000 .000954000 .011500000 .005520000 .000262000 .000672000 .000650000 .000701000 .000365000 .000383000 .000053400	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-296AW 001	7	SOURCE EMISSIONS ROLL-UP	.000024800 .000451000 .000716000 .008590000 .004140000 .000197000 .000504000 .000488000 .000526000 .000274000 .000287000 .000040000	.000024800 .000451000 .000716000 .008590000 .004140000 .000197000 .000504000 .000488000 .000526000 .000274000 .000287000 .000040000	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-296AYAZ 001	5	SOURCE EMISSIONS ROLL-UP	.000016500 .000301000 .000477000 .005730000 .002760000 .000131000 .000336000 .000325000 .000351000 .000183000 .000192000 .000026700	.000016500 .000301000 .000477000 .005730000 .002760000 .000131000 .000336000 .000325000 .000351000 .000183000 .000192000 .000026700	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200E P-296P016 001	3	SOURCE EMISSIONS ROLL-UP	.000008250 .000150000 .000239000 .002860000 .001380000 .000065500 .000168000 .000163000 .000175000 .000091300 .000095800 .000013300	.000008250 .000150000 .000239000 .002860000 .001380000 .000065500 .000168000 .000163000 .000175000 .000091300 .000095800 .000013300	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
Sum			1.140516729	.247690499	

Point Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200E P-204AR 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-82	Refer to DOE/RL-94-51 Table 2-1	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200E P-241A101 001	1	TANKS AND VESSELS	.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241A102 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241A103 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241A104 001	1	TANKS AND VESSELS	.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241A106 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000006 .000000000 .000000170	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241AX101 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241AX102 001	1	TANKS AND VESSELS	.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241AX103 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241AX104 001	1	TANKS AND VESSELS	.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B101 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B102 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200E P-241B103 001	1	TANKS AND VESSELS		.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B104 001	1	TANKS AND VESSELS		.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B105 001	1	TANKS AND VESSELS		.000000000 .000000330 .000000000 .000000110	.000000000 .000000000 .000000000 .000000000	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B106 001	1	TANKS AND VESSELS		.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B107 001	1	TANKS AND VESSELS		.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B108 001	1	TANKS AND VESSELS		.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B109 001	1	TANKS AND VESSELS		.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B110 001	1	TANKS AND VESSELS		.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B111 001	1	TANKS AND VESSELS		.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B112 001	1	TANKS AND VESSELS		.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B201 001	1	TANKS AND VESSELS		.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct'l Actual (Ci/yr)	Pollutant
200E P-241B202 001	1	TANKS AND VESSELS		.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B203 001	1	TANKS AND VESSELS		.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241B204 001	1	TANKS AND VESSELS		.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241BX101 001	1	TANKS AND VESSELS		.000026000 .000000650	.000000013 .000000000	CESIUM - 137 STRONTIUM - 090
200E P-241BX102 001	1	TANKS AND VESSELS		.000026000 .000000650	.000000013 .000000000	CESIUM - 137 STRONTIUM - 090
200E P-241BX103 001	1	TANKS AND VESSELS		.000055000 .000001400	.000000028 .000000001	CESIUM - 137 STRONTIUM - 090
200E P-241BX104 001	1	TANKS AND VESSELS		.000055000 .000001400	.000000028 .000000001	CESIUM - 137 STRONTIUM - 090
200E P-241BX105 001	1	TANKS AND VESSELS		.000055000 .000001400	.000000028 .000000001	CESIUM - 137 STRONTIUM - 090
200E P-241BX106 001	1	TANKS AND VESSELS		.000026000 .000000650	.000000013 .000000000	CESIUM - 137 STRONTIUM - 090
200E P-241BX107 001	1	TANKS AND VESSELS		.000055000 .000001400	.000000028 .000000001	CESIUM - 137 STRONTIUM - 090
200E P-241BX108 001	1	TANKS AND VESSELS		.000026000 .000000650	.000000013 .000000000	CESIUM - 137 STRONTIUM - 090
200E P-241BX109 001	1	TANKS AND VESSELS		.000055000 .000001400	.000000028 .000000001	CESIUM - 137 STRONTIUM - 090
200E P-241BX110 001	1	TANKS AND VESSELS		.000000370 .000000009	.000000000 .000000000	CESIUM - 137 STRONTIUM - 090
200E P-241BX111 001	1	TANKS AND VESSELS		.000026000 .000000650	.000000013 .000000000	CESIUM - 137 STRONTIUM - 090
200E P-241BX112 001	1	TANKS AND VESSELS		.000055000 .000001400	.000000028 .000000001	CESIUM - 137 STRONTIUM - 090
200E P-241BY101 001	1	TANKS AND VESSELS		.000003300 .000000001 .000003800	.000000002 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200E P-241BY102 001	1	TANKS AND VESSELS	.000003300 .000000001 .000003800	.000000002 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241BY103 001	1	TANKS AND VESSELS	.000003300 .000000001 .000003800	.000000002 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241BY104 001	1	TANKS AND VESSELS	.000003300 .000000001 .000003800	.000000002 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241BY105 001	1	TANKS AND VESSELS	.000003300 .000000001 .000003800	.000000002 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241BY106 001	1	TANKS AND VESSELS	.000003300 .000000001 .000003800	.000000002 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241BY107 001	1	TANKS AND VESSELS	.000003300 .000000001 .000003800	.000000002 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241BY108 001	1	TANKS AND VESSELS	.000003300 .000000001 .000003800	.000000002 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241BY109 001	1	TANKS AND VESSELS	.000007200 .000000002 .000008300	.000000004 .000000000 .000000004	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241BY110 001	1	TANKS AND VESSELS	.000003300 .000000001 .000003800	.000000002 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241BY111 001	1	TANKS AND VESSELS	.000003300 .000000001 .000003800	.000000002 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241BY112 001	1	TANKS AND VESSELS	.000003300 .000000001 .000003800	.000000002 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241C101 001	1	TANKS AND VESSELS	.000000008 .000000290 .000000096 .000002900	.000000000 .000000000 .000000000 .000000002	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241C102 001	1	TANKS AND VESSELS	.000000018 .000000640 .000000210 .000006400	.000000000 .000000000 .000000000 .000000003	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090

AIR EMISSIONS INVENTORY PLRMI1 APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. Potential to Emf (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200E P-241C103 001	1	TANKS AND VESSELS		.000000018 .0000000640 .000000210 .000006400	.000000000 .000000000 .000000000 .000000002	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241C107 001	1	TANKS AND VESSELS		.000000018 .0000000640 .000000210 .000006400	.000000000 .000000000 .000000000 .000000003	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241C108 001	1	TANKS AND VESSELS		.000000000 .000000110 .000000015 .000008600	.000000000 .000000000 .000000000 .000000004	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241C109 001	1	TANKS AND VESSELS		.000000008 .0000000290 .000000096 .000002900	.000000000 .000000000 .000000000 .000000002	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241C110 001	1	TANKS AND VESSELS		.000000008 .0000000290 .000000096 .000002900	.000000000 .000000000 .000000000 .000000002	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241C111 001	1	TANKS AND VESSELS		.000000000 .000000000 .000000003 .000000000	.000000000 .000000000 .000000000 .000000000	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241C112 001	1	TANKS AND VESSELS		.000000008 .0000000290 .000000096 .000002900	.000000000 .000000000 .000000000 .000000002	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241C201 001	1	TANKS AND VESSELS		.000000008 .0000000290 .000000096 .000002900	.000000000 .000000000 .000000000 .000000002	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241C202 001	1	TANKS AND VESSELS		.000000008 .0000000290 .000000096 .000002900	.000000000 .000000000 .000000000 .000000002	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241C203 001	1	TANKS AND VESSELS		.000000008 .0000000290 .000000096 .000002900	.000000000 .000000000 .000000000 .000000002	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200E P-241C204 001	1	TANKS AND VESSELS		.000000008 .0000000290 .000000096 .000002900	.000000000 .000000000 .000000000 .000000002	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200E P-242A 001	1	PROCESS AND PRODUCTION	Refer to	Refer to	
	2	PROCESS AND PRODUCTION	WHC-SD-EN-RPT-007	DOE/RL-94-51	
	3	PROCESS AND PRODUCTION	Rev. 0 Page A-73	Table 2-1	
	4	PROCESS AND PRODUCTION			
	5	PROCESS AND PRODUCTION			
200E P-242A 002	1	PROCESS AND PRODUCTION	Refer to	Refer to	
	2	PROCESS AND PRODUCTION	WHC-SD-EN-RPT-007	DOE/RL-94-51	
	3	PROCESS AND PRODUCTION	Rev. 0 Page A-75	Table 2-1	
	4	PROCESS AND PRODUCTION			
	5	PROCESS AND PRODUCTION			
200E P-244A 001	1	PROCESS AND PRODUCTION	Refer to	Refer to	
			WHC-SD-EN-RPT-007	DOE/RL-94-51	
			Rev. 0 Page A-78	Table 2-1	
200E P-244AR 001	1	PROCESS AND PRODUCTION	Refer to	Refer to	
			WHC-SD-EN-RPT-007	DOE/RL-94-51	
			Rev. 0 Page A-58	Table 2-1	
200E P-244AR 002	1	PROCESS AND PRODUCTION	Refer to	Refer to	
			WHC-SD-EN-RPT-007	DOE/RL-94-51	
			Rev. 0 Page A-62	Table 2-1	
200E P-244BX 001	1	PROCESS AND PRODUCTION	Refer to	Refer to	
			WHC-SD-EN-RPT-007	DOE/RL-94-51	
			Rev. 0 Page A-97	Table 2-1	
200E P-244CR 001	1	PROCESS AND PRODUCTION	Refer to	Refer to	
			WHC-SD-EN-RPT-007	DOE/RL-94-51	
			Rev. 0 Page A-104	Table 2-1	
200E P-296A 001	1	TANKS AND VESSELS	Refer to	Refer to	
			WHC-SD-EN-RPT-007	DOE/RL-94-51	
			Rev. 0 Page A-111	Table 2-1	
200E P-296AN 001	1	TANKS AND VESSELS	Refer to	Refer to	
	2	TANKS AND VESSELS	WHC-SD-EN-RPT-007	DOE/RL-94-51	
	3	TANKS AND VESSELS	Rev. 0 Page A-88	Table 2-1	
	4	TANKS AND VESSELS			
	5	TANKS AND VESSELS			
	6	TANKS AND VESSELS			
	7	TANKS AND VESSELS			
200E P-296A41	1	TANKS AND VESSELS	Refer to	Refer to	
	2	TANKS AND VESSELS	WHC-SD-EN-RPT-007	DOE/RL-94-51	
	3	TANKS AND VESSELS	Rev. 0 Page A-95	Table 2-1	
	4	TANKS AND VESSELS			
	5	TANKS AND VESSELS			
	6	TANKS AND VESSELS			
	7	TANKS AND VESSELS			

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200E P-296AP 001	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-92	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
	3	TANKS AND VESSELS			
	4	TANKS AND VESSELS			
	5	TANKS AND VESSELS			
	6	TANKS AND VESSELS			
	7	TANKS AND VESSELS			
	8	TANKS AND VESSELS			
200E P-296A030	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-90	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
	3	TANKS AND VESSELS			
	4	TANKS AND VESSELS			
	5	TANKS AND VESSELS			
	6	TANKS AND VESSELS			
	7	TANKS AND VESSELS			
	8	TANKS AND VESSELS			
200E P-296A020	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-71	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
200E P-296A018	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-67	Refer to DOE/RL-94-51 Table 2-1	
200E P-296A019	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-69	Refer to DOE/RL-94-51 Table 2-1	
200E P-296AW 001	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-84	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
	3	TANKS AND VESSELS			
	4	TANKS AND VESSELS			
	5	TANKS AND VESSELS			
	6	TANKS AND VESSELS			
200E P-296A028	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-86	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
	3	TANKS AND VESSELS			
	4	TANKS AND VESSELS			
	5	TANKS AND VESSELS			
	6	TANKS AND VESSELS			
200E P-296AYAZ 001	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-64	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
	3	TANKS AND VESSELS			
	4	TANKS AND VESSELS			
200E P-296P026 001	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-117	Refer to DOE/RL-94-51 Table 2-1. Note: these emissions are equivalent, but not additive to the 296-A-17 stack.	
	2	TANKS AND VESSELS			
	3	TANKS AND VESSELS			
	4	TANKS AND VESSELS			

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

200E P-296P031	1 TANKS AND VESSELS	Refer to	Refer to
	2 TANKS AND VESSELS	WHC-SD-EN-RPT-007	DOE/RL-94-51
	3 TANKS AND VESSELS	Rev. 0 Page A-125	Table 2-1
200E P-296P016 001	1 TANKS AND VESSELS	Refer to	Refer to
	2 TANKS AND VESSELS	WHC-SD-EN-RPT-007	DOE/RL-94-51
		Rev. 0 Page A-108	Table 2-1

Point Source Emissions - HAP Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-241A101 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000040500	.000040500	N-HEXANE
			.000003080	.000003080	TOLUENE

Point Source Emissions - HAP Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-241A102 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000087600	.000087600	N-HEXANE
			.000006670	.000006670	TOLUENE
200E P-241A103 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000087600	.000087600	N-HEXANE
			.000006670	.000006670	TOLUENE
200E P-241A104 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000040500	.000040500	N-HEXANE
			.000003080	.000003080	TOLUENE
200E P-241A106 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000087600	.000087600	N-HEXANE
			.000006670	.000006670	TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

200E P-241AX101 001	1 TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241AX102 001	1 TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241AX103 001	1 TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241AX104 001	1 TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001190 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241B101 001	1 TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-241B102 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241B103 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

200E P-241B104 001	1 TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1.3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241B105 001	1 TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1.3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241B106 001	1 TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1.3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241B107 001	1 TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1.3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241B108 001	1 TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1.3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241B109 001	1 TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1.3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241B110 001	1 TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1.3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srcce Nbr	Srcce Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-241B111 001	1	TANKS AND VESSELS		.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241B112 001	1	TANKS AND VESSELS		.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241B201 001	1	TANKS AND VESSELS		.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241B202 001	1	TANKS AND VESSELS		.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241B203 001	1	TANKS AND VESSELS		.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241B204 001	1	TANKS AND VESSELS		.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BX101 001	1	TANKS AND VESSELS		.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BX102 001	1	TANKS AND VESSELS		.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BX103 001	1	TANKS AND VESSELS		.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E P-241BX104 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BX105 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BX106 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BX107 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BX108 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BX109 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BX110 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BX111 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BX112 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-241BY101 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BY102 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BY103 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BY104 001	1	TANKS AND VESSELS	.000007970 .000001930 .000000090 .000016200 .000002220	.000007970 .000001930 .000000090 .000016200 .000002220	ACETONITRILE BENZENE METHYLENE CHLORIDE N-HEXANE TOLUENE
200E P-241BY105 001	1	TANKS AND VESSELS	.000001960 .000000317 .000000259 .000004360 .000000465	.000001960 .000000317 .000000259 .000004360 .000000465	ACETONITRILE BENZENE METHYLENE CHLORIDE N-HEXANE TOLUENE
200E P-241BY106 001	1	TANKS AND VESSELS	.000002900 .000000335 .000000023 .000004310 .000000449	.000002900 .000000335 .000000023 .000004310 .000000449	ACETONITRILE BENZENE METHYLENE CHLORIDE N-HEXANE TOLUENE
200E P-241BY107 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BY108 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BY109 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-241BY110 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BY111 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241BY112 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241C101 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241C102 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241C103 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241C107 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241C109 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241C110 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E P-241C112 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241C201 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241C202 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241C203 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-241C204 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-242A 001	6	SOURCE EMISSIONS ROLL-UP	.000022700	.000001700	METHYL ISOBUTYL KETONE
200E P-242A 002	6	SOURCE EMISSIONS ROLL-UP	.007230000	.000542000	METHYL ISOBUTYL KETONE
200E P-296A 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-296AN 001	8	SOURCE EMISSIONS ROLL-UP	.000028900 .004830000 .000229000 .000613000 .000046700	.000028900 .004830000 .000229000 .000613000 .000046700	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-296AP 001	9	SOURCE EMISSIONS ROLL-UP	.000033000 .005520000 .000262000 .000701000 .000053400	.000033000 .005520000 .000262000 .000701000 .000053400	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-296AW 001	7	SOURCE EMISSIONS ROLL-UP	.000024800 .004140000 .000197000 .000526000 .000040000	.000024800 .004140000 .000197000 .000526000 .000040000	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-296AYAZ 001	5	SOURCE EMISSIONS ROLL-UP	.000016500 .002760000 .000131000 .000351000 .000026700	.000016500 .002760000 .000131000 .000351000 .000026700	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200E P-296P016 001	3	SOURCE EMISSIONS ROLL-UP	.000008250 .001380000 .000065500 .000175000 .000013300	.000008250 .001380000 .000065500 .000175000 .000013300	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
Sum			.061618788	.054909068	

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-241A101 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241A102 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241A103 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241A104 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241A106 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241AX101 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241AX102 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241AX103 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241AX104 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-241B101 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B102 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B103 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B104 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B105 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B106 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B107 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B108 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B109 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B110 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B111 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B112 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B201 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B202 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B203 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241B204 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BX101 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BX102 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-241BX103 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BX104 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BX105 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BX106 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BX107 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BX108 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BX109 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BX110 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BX111 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BX112 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BY101 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BY102 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BY103 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BY104 001	1	TANKS AND VESSELS	.002480000 .000000128	.002480000 .000000128	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BY105 001	1	TANKS AND VESSELS	.000430000 .000000027	.000430000 .000000027	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BY106 001	1	TANKS AND VESSELS	.000739000 .000000007	.000739000 .000000007	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BY107 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BY108 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200E P-241BY109 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BY110 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BY111 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241BY112 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241C101 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241C102 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241C103 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241C107 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241C108 001	1	TANKS AND VESSELS	.003040000	.003040000	AMMONIA
200E P-241C109 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241C110 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241C111 001	1	TANKS AND VESSELS	.003040000	.003040000	AMMONIA
200E P-241C112 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241C201 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241C202 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241C203 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-241C204 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-242A 001	6	SOURCE EMISSIONS ROLL-UP	.000314000	.000023500	AMMONIA
200E P-242A 002	6	SOURCE EMISSIONS ROLL-UP	.099900000	.007490000	AMMONIA

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-296A 001	1	TANKS AND VESSELS	.321000000 .000172000	.321000000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-296AN 001	8	SOURCE EMISSIONS ROLL-UP	1.390000000 .001200000	1.390000000 .001200000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-296AP 001	9	SOURCE EMISSIONS ROLL-UP	.352000000 .001380000	.352000000 .001380000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-296AW 001	7	SOURCE EMISSIONS ROLL-UP	.282000000 .001030000	.282000000 .001030000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-296AYAZ 001	5	SOURCE EMISSIONS ROLL-UP	1.280000000 .000688000	1.280000000 .000688000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200E P-296P016 001	3	SOURCE EMISSIONS ROLL-UP	.642000000 .000344000	.642000000 .000344000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
Sum			4.639263661	4.546563161	

Fugitive Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E N-272AW 001	1	PROCESS AND PRODUCTION	.009550000 .031100000 .010000000 .012600000 .000329000 .002080000 .009400000 .031100000 .000263000 .025100000 .002080000 .002080000 .010700000 .008960000 .000526000 .004150000 .002080000 .011000000 .010800000 .017800000	.002180000 .007100000 .002290000 .002880000 .000075000 .000474000 .002150000 .007100000 .000060000 .005720000 .000474000 .000474000 .002430000 .002040000 .000120000 .000948000 .000474000 .002520000 .002480000 .004080000	2-(2-BUTOXYETHOXY) ETHANOL 2-(2-METHOXYETHOXY) ETHANOL 2-BUTOXY ETHANOL ACETONE BUTYL ACETATE CYCLOHEXANE CYCLOHEXANONE DIBUTYL PHTHALATE ETHYLBENZENE ETHYLENE GLYCOL ISOBUTANE METHYL ETHER (DIMETHYL ETHER) METHYL ETHYL KETONE (2-BUTONE) METHYL ISOBUTYL KETONE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE PROPANE TETRAHYDROFURAN TOLUENE XYLENE
Sum			.201698000	.046069000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Fugitive Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200E P-241A151 001	1	PROCESS AND PRODUCTION	.000000000 .000000002 .000000002	.000000000 .000000001 .000000001	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241A302A 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000001 .000000001	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241A350 001	1	PROCESS AND PRODUCTION	.000000000 .000000000 .000000000	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241A401 001	1	PROCESS AND PRODUCTION	.000000000 .000000000 .000000000	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241A417 001	1	PROCESS AND PRODUCTION	.000000000 .000000002 .000000002	.000000000 .000000002 .000000002	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241AA 001	1	PROCESS AND PRODUCTION	.000000000 .000000000 .000000000	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241AB 001	1	PROCESS AND PRODUCTION	.000000000 .000000000 .000000000	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241ANA 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241ANB 001	1	PROCESS AND PRODUCTION	.000000000 .000000000 .000000000	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241AP 001	1	PROCESS AND PRODUCTION	.000000000 .000000003 .000000003	.000000000 .000000001 .000000001	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241AR151 001	1	PROCESS AND PRODUCTION	.000000000 .000000000 .000000000	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241AWA 001	1	PROCESS AND PRODUCTION	.000000000 .000000000 .000000000	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241AWB 001	1	PROCESS AND PRODUCTION	.001330000 .177000000	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200E P-241AX152 001	1	PROCESS AND PRODUCTION	.000058400 .001990000 .000001160 3.700000000 .000696000 .000992000 .000000098 .000000105 .000001000 .000004720 .015800000 .051600000 .000000752	.000000020 .001990000 .000000000 .001230000 .000000232 .000992000 .000000000 .000000000 .000000000 .000000002 .000005280 .000017200 .000000000	AMERICIUM - 241 CARBON - 014 CESIUM - 134 CESIUM - 137 COBALT 60 IODINE - 129 NEPTUNIUM - 237 PLUTONIUM - 238 PLUTONIUM - 239/240 PLUTONIUM - 241 STRONTIUM 89.90 TECHNETIUM - 099 URANIUM - 238
200E P-241AX155 001	1	PROCESS AND PRODUCTION	.000000000 .000000000 .000000000	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241AX501 001	1	PROCESS AND PRODUCTION	.000000000 .000000000 .000000000	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241AXA 001	1	PROCESS AND PRODUCTION	.000000000 .000000000 .000000000	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241AXB 001	1	PROCESS AND PRODUCTION	.000000000 .000000000 .000000000	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241AY501 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241AZ152 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241ER151 001	1	PROCESS AND PRODUCTION	.000000000 .000000003 .000000003	.000000000 .000000001 .000000001	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241ER152 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241ER153 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090
200E P-241ER311 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000001 .000000001	AMERICIUM - 241 STRONTIUM 89.90 YTTRIUM - 090

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200E TANK
FACILITY NAME: 200E Tank Farm and Associated Structures

Fugitive Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E N-272AW 001	1	PROCESS AND PRODUCTION	.009550000 .031100000 .010000000 .031100000 .000263000 .025100000 .010700000 .008960000 .004150000 .010800000 .017800000	.002180000 .007100000 .002290000 .007100000 .000060000 .005720000 .002430000 .002040000 .000948000 .002480000 .004080000	2-(2-BUTOXYETHOXY) ETHANOL 2-(2-METHOXYETHOXY) ETHANOL 2-BUTOXY ETHANOL DIBUTYL PHTHALATE ETHYLBENZENE ETHYLENE GLYCOL METHYL ETHYL KETONE (2-BUTONE) METHYL ISOBUTYL KETONE N-HEXANE TOLUENE XYLENE
Sum			.159523000	.036428000	

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E N-272AW 001	1	PROCESS AND PRODUCTION	.010000000 .031100000 .018800000 .011100000 .001520000 .000788000	.002290000 .007100000 .004280000 .002540000 .000347000 .000180000	2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE ESTER ALCOHOL (REPORTED AS CAS 25264-77-4) LIGROINE OR VM&P NAPHTHA, OR PETROLEUM NAPHTHA PHOSPHORIC ACID POLYVINYL CHLORIDE LATEX VM&P NAPHTHA
200E P-241AX152 001	1	PROCESS AND PRODUCTION	286.000000000 600.000000000	286.000000000 600.000000000	EUROPIUM YTTRIUM
Sum			886.073308000	886.016737000	

Insignificant Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-LERF 001	1	PROCESS AND PRODUCTION	.000012000 .000030000 .000000000	.000012000 .000030000 .000000000	ISOPROPYL ALCOHOL N-BUTYL ALCOHOL NITROSODIMETHYLAMINE
Sum			.000042000	.000042000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200E TANK
 FACILITY NAME: 200E Tank Farm and Associated Structures

Insignificant Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant
200E P-LERF 001	1	PROCESS AND PRODUCTION	.000047000 1.700000000	.000047000 1.700000000	RUTHENIUM - 106 TRITIUM (HYDROGEN - 003)

Insignificant Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E P-LERF 001	1	PROCESS AND PRODUCTION	.000000000	.000000000	NITROSODIMETHYLAMINE
Sum			.000000000	.000000000	

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E P-LERF 001	1	PROCESS AND PRODUCTION	.110000000	.110000000	AMMONIA
Sum			.110000000	.110000000	

Control Device Listing

Em Point	Control Equipment Code
200E P-204AR 001	099
200E P-241A101 001	099
200E P-241A102 001	099
200E P-241A103 001	099
200E P-241A104 001	099
200E P-241A106 001	099
200E P-241AX101 001	099
200E P-241AX102 001	099
200E P-241AX103 001	099
200E P-241AX104 001	099
200E P-241B101 001	099
200E P-241B102 001	099
200E P-241B103 001	099
200E P-241B104 001	099
200E P-241B105 001	099
200E P-241B106 001	099
200E P-241B107 001	099
200E P-241B108 001	099
200E P-241B109 001	099
200E P-241B110 001	099
200E P-241B111 001	099

Control Device Listing

Em Point	Control	Equipment Code
200E P-241B112 001	099	
200E P-241B201 001	099	
200E P-241B202 001	099	
200E P-241B203 001	099	
200E P-241B204 001	099	
200E P-241B101 001	099	
200E P-241B102 001	099	
200E P-241B103 001	099	
200E P-241B104 001	099	
200E P-241B105 001	099	
200E P-241B106 001	099	
200E P-241B107 001	099	
200E P-241B108 001	099	
200E P-241B109 001	099	
200E P-241B110 001	099	
200E P-241B111 001	099	
200E P-241B112 001	099	
200E P-241B101 001	099	
200E P-241B102 001	099	
200E P-241B103 001	099	
200E P-241B104 001	099	
200E P-241B105 001	099	
200E P-241B106 001	099	
200E P-241B107 001	099	
200E P-241B108 001	099	
200E P-241B109 001	099	
200E P-241B110 001	099	
200E P-241B111 001	099	
200E P-241B112 001	099	
200E P-241C101 001	099	
200E P-241C102 001	099	
200E P-241C103 001	048	
200E P-241C103 001	099	
200E P-241C107 001	099	
200E P-241C108 001	099	
200E P-241C109 001	099	
200E P-241C110 001	099	
200E P-241C111 001	099	
200E P-241C112 001	099	
200E P-241C201 001	099	
200E P-241C202 001	099	
200E P-241C203 001	099	
200E P-241C204 001	099	
200E P-242A 001	099	
200E P-242A 002	099	
200E P-244A 001	099	
200E P-244AR 001	099	
200E P-244AR 002	099	
200E P-244BX 001	099	
200E P-244CR 001	099	
200E P-296A 001	099	
200E P-296A018 001	099	
200E P-296A019 001	099	

Control Device Listing

Em Point	Control	Equipment Code
200E P-296A020 001	099	
200E P-296A020 001	099	
200E P-296A028 001	099	
200E P-296A028 001	099	
200E P-296A030 001	099	
200E P-296A041 001	099	
200E P-296A041 001	099	
200E P-296AN 001	099	
200E P-296AP 001	099	
200E P-296AM 001	099	
200E P-296AYAZ 001	099	
200E P-296P016 001	099	
200E P-296P026 001	099	
200E P-296P031 001	099	
200E P-LERF 001	048	

FACILITY:	200 East Area Tank Farms
EMISSION POINT:	200E P-204AR 001

FACILITY:

200 East Area Tank Farms

EMISSION POINT:

200E P-242A 001

FACILITY: 200 East Area Tank Farms

EMISSION POINT: 200E P-242A 002

FACILITY: 200 East Area Tank Farms

EMISSION POINT: 200E P-244AR Q01

FACILITY: 200 East Area Tank Farms

EMISSION POINT: 200E P-244AR 002

K.A. Glese
5/03/95

FACILITY:

200 East Area Tank Farms

EMISSION POINT:

200E P-244BX 001

FACILITY: 200 East Area Tank Farms

EMISSION POINT: 200E P-244CR 001

FACILITY:	200 East Area Tank Farms
EMISSION POINT:	200E N-272AW 001

FACILITY: 200 East Area Tank Farms

EMISSION POINT: 200E P-296G01 001

FACILITY:

200E Area Tank Farms

EMISSION POINT:

200E P-296P016 001

FACILITY: 200 East Area Tank Farms

EMISSION POINT: 200E P-296P031 001

K.A. Glese
5/03/95

FACILITY: 200 East Area Tank Farms

EMISSION POINT: 200E P-244A 001

FACILITY:

200 East Area Tank Farms

EMISSION POINT:

See Table

Emission Points for Catch Tanks

200E P-241A302A 001
200E P-241A350 001
200E P-241ER311 001
200E P-241A417 001

Catch Tank

FACILITY: 200 East Area Tank Farms

EMISSION POINT: See Table

Emission Points for Valve Pits

200E P-241AA 001
200E P-241AB 001
200E P-241ANA 001
200E P-241ANB 001
200E P-241AP 001
200E P-241AR151 001
200E P-241AWA 001
200E P-241AWB 001
200E P-241AXA 001
200E P-241AXB 001

Valve Pit

K.A. Glese

3/8/1995

FACILITY:

200 East Area Tank Farms

EMISSION POINT:

200E P-LERF 001

K.A. Glese

4/23/1995

FACILITY:

200E Area Tank Farms

EMISSION POINT:

200E P-296P026 001

FACILITY: 200 East Area Tank Farms

EMISSION POINT: 200E P-296A 001

FACILITY:

200E Area Tank Farms

EMISSION POINT:

200E P-296A018 001

K. A. Giese
5/03/95

FACILITY: 200E Area Tank Farms

EMISSION POINT: 200E P-296A019 001

FACILITY:

200E Area Tank Farms

EMISSION POINT:

200E P-296A028 001

K. A. Giese
5/03/95

FACILITY:

200E Area Tank Farms

EMISSION POINT:

200E P-296A041 001

FACILITY:

200E Area Tank Farms

EMISSION POINT:

200E P-296AN 001

FACILITY:

200E Area Tank Farms

EMISSION POINT:

200E P-296AP 001

FACILITY:

200E Area Tank Farms

EMISSION POINT:

200E P-296AW 001

FACILITY:

200E Area Tank Farms

EMISSION POINT:

200E P-296 AYZ 001

FACILITY:

200 East Area Tank Farms

EMISSION POINT:

SEE INSET TABLE

200 East Area Single-Shell Tanks That Are Passively Vented

200E P-241A101 001	200E P-241B201 001	200E P-241BY106 001
200E P-241A102 001	200E P-241B202 001	200E P-241BY107 001
200E P-241A103 001	200E P-241B203 001	200E P-241BY108 001
200E P-241A104 001	200E P-241B204 001	200E P-241BY109 001
200E P-241A106 001	200E P-241BX101 001	200E P-241BY110 001
200E P-241AX101 001	200E P-241BX102 001	200E P-241BY111 001
200E P-241AX102 001	200E P-241BX103 001	200E P-241BY112 001
200E P-241AX103 001	200E P-241BX104 001	200E P-241C101 001
200E P-241AX104 001	200E P-241BX105 001	200E P-241C102 001
200E P-241B101 001	200E P-241BX106 001	200E P-241C103 001
200E P-241B102 001	200E P-241BX107 001	200E P-241C107 001
200E P-241B103 001	200E P-241BX108 001	200E P-241C108 001
200E P-241B104 001	200E P-241BX109 001	200E P-241C109 001
200E P-241B105 001	200E P-241BX110 001	200E P-241C110 001
200E P-241B106 001	200E P-241BX111 001	200E P-241C111 001
200E P-241B107 001	200E P-241BX112 001	200E P-241C112 001
200E P-241B108 001	200E P-241BY101 001	200E P-241C201 001
200E P-241B109 001	200E P-241BY102 001	200E P-241C202 001
200E P-241B110 001	200E P-241BY103 001	200E P-241C203 001
200E P-241B111 001	200E P-241BY104 001	200E P-241C204 001
200E P-241B112 001	200E P-241BY105 001

FACILITY:

200E Area Tank Farms

EMISSION POINT:

200E P-296A020 001

FACILITY: 200 East Area Tank Farms

EMISSION POINT: See Table

Emission Points for Diversion Boxes

200E P-241A151 001
200E P-241A401 001
200E P-241AX152 001
200E P-241ER152 001
200E P-241ER153 001
200E P-241AX155 001
200E P-241AX501 001
200E P-241AY501 001
200E P-241AZ152 001
200E P-241ER151 001
200E P-241AP151 001

Diversion Box

FACILITY: 200 East Area Tank Farms

EMISSION POINT: 200E P-204AR 001

209E Criticality Laboratory Emission Point

Emission Point
200E P-296P031
N136337 E574446

200 East Grout Facility Emission Point

Emission Point
200E P-296G001
N135797 E575900

25 0 25 50 Meters

241A Tank Farm Emission Points

Emission Point
200E P-296A 001
N136074 E575373

Emission Point
200E P-241A104 001
N136074 E575322

Emission Point
200E P-241A101 001
N136043 E575322

Emission Point
200E P-241AA 001
N136025 E575336

Emission Point
200E P-241A106 001
N136074 E575384

Emission Point
200E P-241A350 001
N136065 E575394

Emission Point
200E P-241A103 001
N136043 E575384

Emission Point
200E P-241A102 001
N136043 E575353

Emission Point
200E P-241AB 001
N136025 E575343

Emission Point
200E P-242A 001
N135996 E575374

Emission Point
200E P-242A 002
N135984 E575385

20 0 20 40 Meters

241AN/AZ Tank Farm Emission Points

241AP Tank Farm Emission Points

30 0 30 60 Meters

WHCHTSNFM3-95/APTFEMIS

241AW Tank Farm Emission Points

20 0 20 40 Meters

241B Tank Farm Emission Points

40 0 40 80 Meters

WHCHTSNFM3-95BTFEMISS

241BX Tank Farm Emission Points

30 0 30 60 Meters

241BY Tank Farm Emission Points

25 0 25 50 Meters

241C Tank Farm Emission Points

Emission Point
200E P-241C112 001
N136612 E575140

Emission Point
200E P-241C111 001
N136590 E575118

Emission Point
200E P-241C110 001
N136569 E575097

Emission Point
200E P-241C108 001
N136569 E575140

Emission Point
200E P-241C107 001
N136547 E575118

Emission Point
200E P-241C104 001
N136526 E575140

Emission Point
200E P-241C204 001
N136639 E575155

Emission Point
200E P-241C203 001
N136628 E575166

Emission Point
200E P-241C202 002
N136617 E575177

Emission Point
200E P-241C201 001
N136607 E575188

Emission Point
200E P-241C109 001
N136590 E575162

Emission Point
200E P-296P016 001
N136561 E575162

Emission Point
200E P-241C103 001
N136547 E575204

Emission Point
200E P-241C102 001
N136526 E575183

Emission Point
200E P-241C101 001
N136504 E575162

Emission Point
200E P-244CR 001
N136455 E575156

40 0 40 80 Meters

200 East Area Tank Farms Emission Points

(Outside of Tank Farm Fence Boundaries)

WHCHTSNFM3-852ETFEMIS

APPENDIX D-5

200 AREA EFFLUENT TREATMENT FACILITY

Chapter I. General Information

I-B.1. Facility Description

The 200 Area Effluent Treatment Facility (ETF) provides treatment for Hanford Site waste water generated in the 200 Areas by removing organic, inorganic, and radioactive contaminants. Once in operation, the 200 Area ETF will treat the effluent stream discharged from the 242-A Evaporator, a waste concentrator for a large volume of Hanford Site liquid waste forms stored in underground storage tanks. It is anticipated that the 200 Area ETF will treat other waste waters generated on the Hanford Site.

The 200 Area ETF is 13,400 square meters (44,000 square feet). The facility includes an engineered steel building that will house waste water treatment equipment. Some of the support systems include a vessel vent system, process piping and tanks, an integrated monitoring and control system, utility system, chemical makeup and distribution system, and a secondary waste packaging system.

The main unit operation in conjunction with on-line monitoring and sampling, ensure that treated waste waters are acceptable for discharge to the soil column in the 200 West Area. The main unit operation combines processes remove or destroy the heavy metals, organics and radionuclides that are identified as requiring treatment.

The 200 Area ETF is located in the 200 East Area. The main building, 2025E, houses the main unit operation. The 200 Area ETF is operated 24 hours per day.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principal Products - There are no products produced at the 200 Area ETF
- Process Information - There is a main unit operation
 - The main unit operation is a single treatment train with feed storage, suspended solids removal (rough, to 2 um), ultraviolet/oxidation with hydrogen peroxide, pH adjustment, suspended solids removal (fine, to 0.5 um), degasification (carbon dioxide removal), two stages of reverse osmosis (RO), mixed-bed ion-exchange polishing, final pH adjustment.

- Raw materials used by processes - There are no raw materials used at the 200 Area ETF.
- Fuels used by processes - There are no fuels used in the processes at the 200 Area ETF.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information are found on page 1 of the AEI report output. The control information is found on page 1 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information are found on page 1 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : ETF
 FACILITY NAME: 200 EAST AREA EFFLUENT TREATMENT FACILITY

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
2025E ETF	137604	575847	242-A EVAPORATOR/PUREX PLANT PROCESS EFFLUENT TREATMENT FACILITY (2025E ETE)	FLYCKT, DON L.	372-3142	CASEY O. RUUD	373-3478

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Src Code	Src Type	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
200E P-2025E ETF 001	POINT	137604	575847	1	not assigned	PROCESS AND PRODUCTION	NONE SPECIFIED	6			28.27	85	34.15	50	10

Source (Process) Listing

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-2025E ETF 001	1	PROCESS AND PRODUCTION	24	7	52	THE 2025 ETF WILL TREAT 1 INDUSTRIAL WASTEWATER STREAM BY REMOVING ORGANIC, INORGANIC AND RADIOACTIVE CONTAMINANTS. THE 1 WASTE STREAM IS THE 242-A EVAPORATOR PROCESS CONDENSATE.

Source Raw Materials Usage

Em Point	Src Nbr	Src Type	Process Rate	Process Uom	Material

Fuels Usage by Source Processes

Em Point	Src Nbr	Src Type	Qty	Uom	Fuel

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : ETF
 FACILITY NAME: 200 EAST AREA EFFLUENT TREATMENT FACILITY

Point Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant

Point Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant

Fugitive Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : ETF
 FACILITY NAME: 200 EAST AREA EFFLUENT TREATMENT FACILITY

Insignificant Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant

Insignificant Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Insignificant Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum

Control Device Listing

Em Point	Control Equipment Code
-----	-----
200E P-2025E ETF 001	099

FACILITY:Effluent Treatment Facility

EMISSION POINT:200E P-2025E ETF 001

200 Area Effluent Treatment Facility Emission Points

12th Street

Canton Avenue

Emission Point
200E P-2025E ETF 001
N137604 E575847

Liquid Effluent Retention Facility

125 0 125 250 Meters

WHCHTSNFM5-852EETFEMS

APPENDIX E

200 WEST AREA

APPENDIX E

CONTENTS

- E-1 222-S LABORATORY COMPLEX
- E-2 284W POWERHOUSE
- E-3 PLUTONIUM FINISHING PLANT
- E-4 S PLANT
- E-5 T PLANT
- E-6 U PLANT
- E-7 200 WEST AREA TANK FARMS
- E-8 SOLID WASTE MANAGEMENT FACILITIES
- E-9 WASTE RECEIVING AND PROCESSING FACILITY

APPENDIX E-1

222-S LABORATORY COMPLEX

Chapter I. General Information

I-B.1. Facility Description

The 222-S Laboratory Complex, in the southeast corner of the 200 West Area, consists of the 222-S Laboratory, the 222-SA Standards Laboratory, and several ancillary facilities. The main facility of the complex is the 222-S Laboratory, which provides analytical chemistry and radiological services in support of clean up activities on the Hanford site.

Currently, 222-S Laboratory activities are to characterize the waste stored in single shell and double shell tanks that are located on the Hanford site. A 4,000 square foot addition was added to the east end of the 222-S Laboratory building in 1994. This addition houses a seven compartment hot cell and increases the area of the facility to approximately 39,000 square feet. These seven hot cells will be used for receiving, extruding and preparing high level radioactive core samples, mainly from single-shell and double-shell waste characterization activities.

The 222-SA Laboratory is a modular building located southeast of the 222-S Laboratory. Part of this laboratory prepares nonradioactive standards for other laboratories on the Hanford site. The other section of the laboratory is used for cold (nonradioactive) process development work and standards preparation.

The 219-S Waste Handling Facility has three storage tanks (Tanks 101, 102 & 103) in which liquid waste from 222-S can be received, stored temporarily, and neutralized. The radioactive waste from this facility is transferred to the Hanford site Tank Farms. A 700-gallon sodium-hydroxide supply tank is also located in this facility to assist in the neutralization of the waste. The 219-S Facility is equipped with a sampling gallery which allows samples to be drawn from Tank 102 and 103 for analysis.

222-S Laboratory Complex is operated for 24 hours per day, and 365 days per year.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principle products - There are no products at the 222-S Laboratory Complex
- Process information - Outside of typical laboratory activities which are listed on page 2 of the AEI report, there is one process activity at the 222-S Laboratory Complex, water purification:

Water is purified for laboratory use by demineralization.

- Raw materials used by processes - There are no raw materials used at the 222-S Laboratory Complex.
- Fuels used by processes - There are no fuels used at the 222-S Laboratory Complex

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on page 1 of the AEI report output. The control information is found on page 5 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on page 1 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W LABS
FACILITY NAME: 200 W Laboratories and Associated Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
222SA	133857	567527	STANDARDS/PROCESS DEV LABORATORY	HALL, MICHAEL J.	373-5719	STEVE VEITENHEIMER	373-9725
296S016	133923	567469	STACK VENTING 219-S BUILDING	HALL, MICHAEL J.	373-5719	STEVE VEITENHEIMER	373-9725
296S021	133907	567475	MAIN EXHAUST STACK FOR BUILDING 222-S	HALL, MICHAEL J.	373-5719	STEVE VEITENHEIMER	373-9725
296S023	133928	567477	219-S WASTE HANDLING FACILITY, SAMPLE GALLERY WASTE SAMPLING HOOD	HALL, MICHAEL J.	373-5719	STEVE VEITENHEIMER	373-9725

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-296S016 001	POINT	133923	567469	1	not assigned	TANKS AND VESSELS				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		.333			.09	78	32.5	9	-3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W S-222SA 001	POINT	133833	567529	1	not assigned	ANALYTICAL LABORATORY				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		2.5			4.91	78	31.79	16	4	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W S-296S021 001	POINT	133874	567463	1	not assigned	ANALYTICAL LABORATORY				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP			6.5	6.5	42.25	78	24.2	37	7	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W S-296S023 001	POINT	133928	567477	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
		1			.79	78	23.34	18	6	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W LABS
FACILITY NAME: 200 W Laboratories and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S016 001	1	TANKS AND VESSELS	24	7	52	219-S WASTE HANDLING FACILITY TANK 101

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S016 001	2	TANKS AND VESSELS	24	7	52	219-S WASTE HANDLING FACILITY TANK 102

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S016 001	3	TANKS AND VESSELS	24	7	52	219-S WASTE HANDLING FACILITY TANK 103

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W S-222SA 001	1	ANALYTICAL LABORATORY	8	5	50	NON-RADIONUCLIDE CHEMICAL ANALYSIS LABORATORY

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W S-296S021 001	1	ANALYTICAL LABORATORY	24	7	52	PROCESS AND ANALYTICAL SUPPORT LABORATORY

PROCEDURES AND ANALYSES PERFORMED INCLUDE: GAS CHROMATOGRAPHY, MASS SPECTROSCOPY, INDUCTIVELY COUPLED PLASMA SPECTROSCOPY, ION CHROMATOGRAPHY, THERMO GRAVIMETRIC ANALYSIS, ATOMIC ABSORPTION SPECTROSCOPY, ION SPECIFIC ELECTRODE, FLUORIMETRY TOTAL ORGANIC CARBON, pH, TOTAL INORGANIC CARBON ANALYSIS, MULTIPLE RADIONUCLIDE ANALYSIS, GAMMA ENERGY, ALPHA ENERGY ANALYSIS, TOTAL BETA COUNTING AND LIQUID SCINTILLATION COUNTING.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W S-296S023 001	1	PROCESS AND PRODUCTION	1	1	12	219-S WASTE HANDLING FACILITY, SAMPLE GALLERY HOOD

Source Raw Materials Usage

Em Point	Srce Nbr	Srce Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Srce Nbr	Srce Type	Qty	Uom	Fuel
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AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W LABS
 FACILITY NAME: 200 W Laboratories and Associated Structures

Fuels Usage by Control Devices

Em Point	Ct1 Nbr	Ct1 Type	Qty	Uom	Fuel
<hr/>					

Point Source Criteria Pollutants - Type: H2S04

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W S-296S021 001	1	ANALYTICAL LABORATORY	.062000000	.014000000	SULFURIC ACID

Point Source Criteria Pollutants - Type: H2S04

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W S-296S023 001	1	PROCESS AND PRODUCTION	.000084000	.000084000	SULFURIC ACID
Sum			.062084000	.014084000	

Point Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W S-296S021 001	1	ANALYTICAL LABORATORY	.027000000	.006100000	2,2,4-TRIMETHYLPENTANE
			.051000000	.012000000	ACETIC ACID
			.550000000	.130000000	ETHYL ALCOHOL
			.031000000	.007000000	ISOPROPYL ALCOHOL
			.200000000	.046000000	METHYL CHLORIDE
			.100000000	.023000000	N-HEXANE
			.004200000	.000960000	TOLUENE
			.056000000	.013000000	TRICHLOROETHYLENE
			.017000000	.003800000	XYLENE
200W S-296S023 001	1	PROCESS AND PRODUCTION	.000072000	.000072000	ACETIC ACID
			.000780000	.000780000	ETHYL ALCOHOL
			.000042000	.000042000	ISOPROPYL ALCOHOL
Sum			1.037094000	.242754000	

AIR EMISSIONS DATA FROM THE AIR ACT OF 1970
 FACILITY NAME 200 Laboratories and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200W P-296S016 001	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-245	Refer to DOE/RL-94-51 Table 2-1	
200W S-296S021 001	1	ANALYTICAL LABORATORY	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-202	Refer to DOE/RL-94-51 Table 2-1	
200W S-296S023 001	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-19	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-19	

Point Source Emissions - HAP Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W S-296S021 001	1	ANALYTICAL LABORATORY	.027000000 1.200000000 .016000000 .200000000 .480000000 .100000000 .004200000 .056000000 .017000000	.006100000 .033300000 .000000014 .046000000 .110000000 .023000000 .000960000 .013000000 .003800000	2,2,4-TRIMETHYLPENTANE HYDROCHLORIC ACID (HYDROGEN CHLORIDE) MERCURY METHYL CHLORIDE METHYLENE CHLORIDE N-HEXANE TOLUENE TRICHLOROETHYLENE XYLENE
200W S-296S023 001	1	PROCESS AND PRODUCTION	.000200000 .000000000	.000200000 .000000000	HYDROCHLORIC ACID (HYDROGEN CHLORIDE) MERCURY
Sum			2.100400000	.236360014	

Point Source Emissions - Uncategorized Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W S-296S021 001	1	ANALYTICAL LABORATORY	.000900000	.000210000	BROMINE
200W S-296S023 001	1	PROCESS AND PRODUCTION	.000001260	.000001260	BROMINE
Sum			.000901260	.000211260	

Fugitive Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W LABS
 FACILITY NAME: 200 W Laboratories and Associated Structures

Fugitive Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Insignificant Source Criteria Pollutants - Type: H2SO4

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W S-222SA 001	1	ANALYTICAL LABORATORY	.240000000	.054000000	SULFURIC ACID
Sum			.240000000	.054000000	

Insignificant Source Criteria Pollutants - Type: VOC

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W S-222SA 001	1	ANALYTICAL LABORATORY	.026000000	.005900000	ACETONE
			.009600000	.002200000	BIS(2-ETHYLHEXYL)PHOSPHATE
			.007600000	.001700000	ISOPROPYL ALCOHOL
			.062000000	.014000000	KEROSENE
			.270000000	.063000000	METHYL ALCOHOL
			.007700000	.001800000	METHYL ISOBUTYL KETONE
			.003900000	.000890000	N-BUTYL ALCOHOL
			.023000000	.005300000	NITROBENZENE
			.009500000	.002200000	PYRIDINE
			.017000000	.003900000	TETRAPROPYLAMMONIUM HYDROXIDE
			.004200000	.000960000	TOLUENE
			.017000000	.003800000	XYLENE
Sum			.457500000	.105650000	

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W LABS
FACILITY NAME: 200 W Laboratories and Associated Structures

Insignificant Source Emissions - HAP Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W S-222SA 001	1	ANALYTICAL LABORATORY	.092000000	.021000000	HYDROCHLORIC ACID (HYDROGEN CHLORIDE)
			.270000000	.063000000	METHYL ALCOHOL
			.007700000	.001800000	METHYL ISOBUTYL KETONE
			.091000000	.021000000	METHYLENE CHLORIDE
			.023000000	.005300000	NITROBENZENE
			.004200000	.000960000	TOLUENE
			.017000000	.003800000	XYLENE
Sum			.504900000	.116860000	

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W S-222SA 001	1	ANALYTICAL LABORATORY	.300000000	.069000000	AMMONIUM HYDROXIDE
			.015000000	.003500000	PETROLEUM BENZIN
			.100000000	.023000000	PHOSPHORIC ACID, TRIBUTYL ESTER
Sum			.415000000	.095500000	

Control Device Listing

Em Point	Control Equipment Code
200W P-296S016 001	099
200W S-296S021 001	099

FACILITY:

222-S Laboratory Complex

EMISSION POINT:

200W P-296 S016 001

FACILITY:	222-S Laboratory Complex
EMISSION POINT:	200W S-222 SA

FACILITY: 222-S Laboratory Complex

EMISSION POINT: 200W S-296 S021 001

FACILITY:

222-S Laboratory Complex

EMISSION POINT:

200W S-296 S023 001

222-S Laboratory Emission Points

25 0 25 50 Meters

APPENDIX E-2

284W POWERHOUSE

Chapter I. General Information

I-B.1. Facility Description

The 284W Powerhouse is located in the 200 West Area. The 284W Powerhouse has five boilers in operation. Four of the boilers use bituminous coal, and the fifth boiler is a back-up package boiler that operates on diesel fuel. The package boiler did not operate in 1994, although startup testing commenced in the fourth quarter of 1994. All of the boilers are used to generate steam exclusively. Steam generated is used in nearby process facilities for heating and process operations. The total rated capacity of the four coal-fired boilers is 280,000 pounds per hour and the diesel-fired boiler is 50,000 pounds per hour of steam, respectively.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principal products - The only product is 250 to 350 pounds per square inch gauge steam for heating and process operations.
- Process information - Treated boiler feed water is prepared. Sanitary water is dechlorinate using sodium sulfite before entering sodium zeolite softeners ion exchange units to remove the presence of calcium and magnesium salts. Feed water chemistry control is performed using <4% potassium hydroxide to prevent scaling and sedimentation. Sodium sulfite is used to scavenge oxygen. Amine is added to each boiler steam outlet line for condensate corrosion control.
- Raw materials used by processes - There are no raw materials used at the 284W Powerhouse.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on pages 1 and 2 of the AEI report output. The control information is found on page 7 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on pages 1 and 2 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)

FACILITY ID : 284W
FACILITY NAME: 284W Facilities and Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
284W	135991	567688	POWER HOUSE STEAM PLANT	TRUE, GREGORY R.	373-9038	DAVID G. MURILLO	373-9179

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type
200W F-284W 001	POINT	135963	567662	1	10200204	EXTERNAL FUEL COMBUSTION
				2	10200204	EXTERNAL FUEL COMBUSTION
				3	10200204	EXTERNAL FUEL COMBUSTION
				4	10200204	EXTERNAL FUEL COMBUSTION
				5	not assigned	SOURCE EMISSIONS ROLL-UP

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITHOUT WEATHER CAP	9			63.62	210	15	250	180

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type
200W F-284W 002	POINT	135963	567641	1	10200204	EXTERNAL FUEL COMBUSTION
				2	10200204	EXTERNAL FUEL COMBUSTION
				3	10200204	EXTERNAL FUEL COMBUSTION
				4	10200204	EXTERNAL FUEL COMBUSTION
				5	not assigned	SOURCE EMISSIONS ROLL-UP

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITHOUT WEATHER CAP	9			63.62	210	15	250	180

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type
200W F-284W 005	POINT	135975	567682	1	10200401	EXTERNAL FUEL COMBUSTION

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITHOUT WEATHER CAP		5	3.25	16.25	500	16	24	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type
200W J-284W 003	FUGITIVE	135973	567588	1	39000289	CRUSHING, HANDLING, AND STORAGE

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
				0	78	.0325	20	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 284W
FACILITY NAME: 284W Facilities and Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W J-284W 004	FUGITIVE	135850	567574	1	50300810	DISPOSAL AND LANDFILL				
Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)		
				0	78	.0325	0			

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W F-284W 001	1	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY, WATER-TUBE, STOKER-FIRED, STERLING-TYPE, DUMPING GRATE COAL BOILER.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W F-284W 001	2	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY, WATER-TUBE, STOKER-FIRED, STERLING-TYPE, DUMPING GRATE COAL BOILER.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W F-284W 001	3	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY, WATER-TUBE, STOKER-FIRED, STERLING-TYPE, DUMPING GRATE COAL BOILER.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W F-284W 001	4	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY, WATER-TUBE, STOKER-FIRED, STERLING TYPE, DUMP GRATE COAL BOILER.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W F-284W 001	5	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT F-284W-001
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W F-284W 002	1	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY, WATER-TUBE, STOKER-FIRED, STERLING TYPE, DUMPING GRATE COAL BOILER.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W F-284W 002	2	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY, WATER-TUBE, STOKER-FIRED, STERLING TYPE, DUMPING GRATE COAL BOILER.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)

FACILITY ID : 284W

FACILITY NAME: 284W Facilities and Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W F-284W 002	3	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY, WATER-TUBE, STOKER-FIRED, STERLING-TYPE, DUMPING GRATE COAL BOILER.
200W F-284W 002	4	EXTERNAL FUEL COMBUSTION	24	7	52	ERIE CITY, WATER-TUBE, STOKER-FIRED, STERLING-TYPE, DUMP GRATE COAL BOILER.
200W F-284W 002	5	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT F-284W-002
200W F-284W 005	1	EXTERNAL FUEL COMBUSTION	3.96	7	52	PACKAGE BOILER, NO. 2 FUEL OIL
200W J-284W 003	1	CRUSHING, HANDLING, AND STORAGE	24	7	52	BITUMINOUS COAL STORAGE AREA
200W J-284W 004	1	DISPOSAL AND LANDFILL	24	7	52	ASH DISPOSAL PIT

Source Raw Materials Usage

Em Point	Srce Nbr	Srce Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Srce Nbr	Srce Type	Qty	Uom	Fuel
200W F-284W 001	1	EXTERNAL FUEL COMBUSTION	6500000	POUND	COAL BITUMINOUS
	2	EXTERNAL FUEL COMBUSTION	1650000	POUND	COAL BITUMINOUS
	3	EXTERNAL FUEL COMBUSTION	12500000	POUND	COAL BITUMINOUS
	4	EXTERNAL FUEL COMBUSTION	4950000	POUND	COAL BITUMINOUS

AIR EMISSIONS INVENTORY REPORT
FACILITY NAME 284w Facilities and Structures

Fuels Usage by Source Processes

Em Point	Srcr Nbr	Srcr Type	Qty	Uom	Fuel
200W F-284W 002	1	EXTERNAL FUEL COMBUSTION	6500000	POUND	COAL BITUMINOUS
	2	EXTERNAL FUEL COMBUSTION	1650000	POUND	COAL BITUMINOUS
	3	EXTERNAL FUEL COMBUSTION	12500000	POUND	COAL BITUMINOUS
	4	EXTERNAL FUEL COMBUSTION	4950000	POUND	COAL BITUMINOUS
200W F-284W 005	1	EXTERNAL FUEL COMBUSTION	0	GALLONS	NO. 2 DIESEL #2 FUEL OIL

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
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Point Source Criteria Pollutants - Type: CO

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200W F-284W 001	5	SOURCE EMISSIONS ROLL-UP	262.800000000	43.350000000	CARBON MONOXIDE
200W F-284W 002	5	SOURCE EMISSIONS ROLL-UP	262.800000000	43.350000000	CARBON MONOXIDE
200W F-284W 005	1	EXTERNAL FUEL COMBUSTION	1.500000000	.000000000	CARBON MONOXIDE
Sum			527.100000000	86.700000000	

Point Source Criteria Pollutants - Type: LEAD

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200W F-284W 001	5	SOURCE EMISSIONS ROLL-UP	.650000000	.110000000	LEAD
200W F-284W 002	5	SOURCE EMISSIONS ROLL-UP	.650000000	.110000000	LEAD
200W F-284W 005	1	EXTERNAL FUEL COMBUSTION	.000400000	.000000000	LEAD
Sum			1.300400000	.220000000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)

FACILITY ID : 284W
FACILITY NAME: 284W Facilities and Structures

Point Source Criteria Pollutants - Type: NOX

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W F-284W 001	5	SOURCE EMISSIONS ROLL-UP	720.00000000	118.85000000	NITROGEN OXIDES
200W F-284W 002	5	SOURCE EMISSIONS ROLL-UP	720.00000000	118.85000000	NITROGEN OXIDES
200W F-284W 005	1	EXTERNAL FUEL COMBUSTION	5.90000000	.00000000	NITROGEN OXIDES
Sum			1445.90000000	237.70000000	

Point Source Criteria Pollutants - Type: PM

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W F-284W 001	5	SOURCE EMISSIONS ROLL-UP	6.95000000	1.14500000	TOTAL PARTICULATE MATTER
200W F-284W 002	5	SOURCE EMISSIONS ROLL-UP	6.95000000	1.14500000	TOTAL PARTICULATE MATTER
200W F-284W 005	1	EXTERNAL FUEL COMBUSTION	.60000000	.00000000	TOTAL PARTICULATE MATTER
Sum			14.50000000	2.29000000	

Point Source Criteria Pollutants - Type: PM10

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W F-284W 001	5	SOURCE EMISSIONS ROLL-UP	1.40000000	.23000000	PARTICULATE MATTER (10 MICRONS OR LESS)
200W F-284W 002	5	SOURCE EMISSIONS ROLL-UP	1.40000000	.23000000	PARTICULATE MATTER (10 MICRONS OR LESS)
200W F-284W 005	1	EXTERNAL FUEL COMBUSTION	.30000000	.00000000	PARTICULATE MATTER (10 MICRONS OR LESS)
Sum			3.10000000	.46000000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 284W
FACILITY NAME: 284W Facilities and Structures

Point Source Criteria Pollutants - Type: SOX

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W F-284W 001		5 SOURCE EMISSIONS ROLL-UP	1048.500000000	173.000000000	SULFUR DIOXIDE
200W F-284W 002		5 SOURCE EMISSIONS ROLL-UP	1048.500000000	173.000000000	SULFUR DIOXIDE
200W F-284W 005		1 EXTERNAL FUEL COMBUSTION	2.100000000	.000000000	SULFUR DIOXIDE
Sum			2099.100000000	346.000000000	

Point Source Criteria Pollutants - Type: VOC

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W F-284W 001		5 SOURCE EMISSIONS ROLL-UP	.300000000 2.650000000	.050000000 .435000000	FORMALDEHYDE NON-METHANE VOLATILE ORGANICS
200W F-284W 002		5 SOURCE EMISSIONS ROLL-UP	.300000000 2.650000000	.050000000 .435000000	FORMALDEHYDE NON-METHANE VOLATILE ORGANICS
200W F-284W 005		1 EXTERNAL FUEL COMBUSTION	.020000000 .060000000 6.500000000	.000000000 .000000000 .000000000	FORMALDEHYDE NON-METHANE VOLATILE ORGANICS POLYCYCLIC ORGANIC MATTER
Sum			12.480000000	.970000000	

Point Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Point Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W F-284W 001		5 SOURCE EMISSIONS ROLL-UP	.700000000 .100000000 .050000000 2.100000000 .300000000 .650000000 2.900000000 .020000000 1.700000000 .250000000	.120000000 .015000000 .010000000 .345000000 .050000000 .110000000 .475000000 .005000000 .285000000 .045000000	ARSENIC BERYLLIUM CADMIUM CHROMIUM FORMALDEHYDE LEAD MANGANESE MERCURY NICKEL SELENIUM

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 284W
 FACILITY NAME: 284W Facilities and Structures

Point Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W F-284W 002	5	SOURCE EMISSIONS ROLL-UP	.700000000 .100000000 .050000000 2.100000000 .300000000 .650000000 2.900000000 .020000000 1.700000000 .250000000	.120000000 .015000000 .010000000 .345000000 .050000000 .110000000 .475000000 .005000000 .285000000 .045000000	ARSENIC BERYLLIUM CADMIUM CHROMIUM FORMALDEHYDE LEAD MANGANESE MERCURY NICKEL SELENIUM
200W F-284W 005	1	EXTERNAL FUEL COMBUSTION	.000200000 .000100000 .000500000 .002000000 .020000000 .000400000 .000600000 .000100000 .000700000 6.500000000 .001000000	.000000000 .000000000 .000000000 .000000000 .000000000 .000000000 .000000000 .000000000 .000000000 .000000000 .000000000	ARSENIC BERYLLIUM CADMIUM CHROMIUM FORMALDEHYDE LEAD MANGANESE MERCURY NICKEL POLYCYCLIC ORGANIC MATTER SELENIUM
Sum			24.065600000	2.920000000	

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W F-284W 001	5	SOURCE EMISSIONS ROLL-UP	1.300000000 3.150000000 4.750000000 .200000000	.215000000 .520000000 .780000000 .030000000	COPPER METHANE NITROUS OXIDE VANADIUM
200W F-284W 002	5	SOURCE EMISSIONS ROLL-UP	1.300000000 3.150000000 4.750000000 .200000000	.215000000 .520000000 .780000000 .030000000	COPPER METHANE NITROUS OXIDE VANADIUM
200W F-284W 005	1	EXTERNAL FUEL COMBUSTION	.010000000 .020000000 .030000000 .003000000	.000000000 .000000000 .000000000 .000000000	COPPER METHANE NITROUS OXIDE VANADIUM
Sum			18.863000000	3.090000000	

Fugitive Source Criteria Pollutants - Type: PM

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 284W
 FACILITY NAME: 284W Facilities and Structures

Fugitive Source Criteria Pollutants - Type: PM

Em Point	Src	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W J-284W 003	1		CRUSHING, HANDLING, AND STORAGE	1.600000000	1.600000000	TOTAL PARTICULATE MATTER
Sum				1.600000000	1.600000000	

Fugitive Source Emissions - Radiological Pollutants

Em Point	Src	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Fugitive Source Emissions - HAP Pollutants

Em Point	Src	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum						

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Src	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum						

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Insignificant Source Emissions - HAP Pollutants

Em Point	Src	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum						

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 284W
 FACILITY NAME: 284W Facilities and Structures

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant

Sum						

Control Device Listing

Em Point	Control Equipment Code
-----	-----
200W F-284W 001	016
200W F-284W 002	016

FACILITY:

284 West Powerhouse

EMISSION POINT:

200W J-284W 005

K.A. Giese

1/25/1995

FACILITY:

284 West Powerhouse

EMISSION POINT:

200W J-284W 004

FACILITY:

284 West Powerhouse

EMISSION POINT:

200W J-284W 003

Area Source Emission Point

Coal Delivery, Crushing,
and Storage Operations

K.A. Glese

1/25/1995

FACILITY:

284 West Powerhouse

EMISSION POINT:

200W F-284W 001 and 002

284W Powerhouse Area

Emission Point
200W J-284W 003
N135973 E567588

284W
Building Corner
N135968 E567617

Emission Point
200W J-284W 004
N135850 E567574

Emission Point
200W F-284W 001
N135963 E567641

Emission Point
200W F-284W 002
N135963 E567662

Emission Point
200W F-284W 005
N135975 E567682

284W
Building Corner
N135968 E567676

25 0 25 50. Meters

APPENDIX E-3

PLUTONIUM FINISHING PLANT

Chapter I. General Information

I-B.1. Facility Description

The Plutonium Finishing Plant (PFP) Complex consists of facilities as described in section I-B.2, plus several small support structures, constructed from 1949 to 1994. The PFP operations were designed for the recovery and chemical conversion of plutonium to a form suitable for weapons production.

Operations to purify plutonium nitrate and to convert the plutonium nitrate to metallic plutonium ceased by 1990. Current operations are low-level wastewater treatment; low-level waste, transuranic waste, hazardous waste, and radioactive mixed waste handling, packaging, and shipping; waste transfer to tank farms; SNM storage, stabilization, and management; and shipping and transfer of plutonium products and miscellaneous solid scrap materials. Future operations will include waste treatment, and decontamination and decommissioning operations.

The PFP is located in the 200 West Area. The PFP is located on the site map in Section I.C.3. The PFP is operated 24 hours a day, 365 days a year.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principal products - There are no products produced at PFP.
- Process information - The current process operations at PFP are as follows:
 - Building 234-5Z operations - Past operations converted plutonium nitrate solution to plutonium metal. Current operations include sludge stabilization activities in Glovebox HC-21C, downloading and testing of corrosive Pu bearing liquid in the PPSL, laboratory operations at the Analytical Laboratory, surveillance activities of unstable Pu bearing material stored in process gloveboxes in the Remote Mechanical C Line, RCRA and non-RCRA solid waste handling operations, the LLWTF operation, and the HVAC system operation. Additional plutonium stabilization activities and facility cleanout activities are planned or are ongoing.
 - Building 243-Z - the Low-Level Waste Treatment Facility (LLWTF) receives and treats low-activity waste water from various parts of the PFP. The waste water stream is treated for organics, metal ions, and radionuclides passing through a series of filter trains consisting of granular activated carbon, bone char, and ion exchange resins. The purpose of the LLWTF is to produce water suitable for

Effluent Disposal Facility.

- Building 236-Z operations - Past operations in 236-Z building recovered and purify plutonium bearing scrap materials and sludges into plutonium nitrate. The current operations in 236-Z building include surveillance activities of stored unstable Pu scrap materials in process gloveboxes and cleanout activities of some process gloveboxes.
 - Building 232-Z operations - The past operation in this building was incineration of Pu bearing waste. Currently, Pu removal in the ventilation duct and process gloveboxes and deactivation activities are ongoing in this building.
 - Building 242-Z operations - The past operation in this building was the recovery of plutonium and americium in the low level liquid waste stream. Currently, this building is locked out and awaiting final decontamination.
 - Building 2736-Z operations - SNM storage and surveillance activities are ongoing in this building.
 - Building 2736-ZB operations - All SNM product handling operations pertaining to shipments, receipts, and storage of SNM are done in this building.
 - Building 241-Z - a Waste Treatment Facility that receives liquid wastes generated at PFP. The liquid wastes are then transferred to tank farms.
- Raw materials used by processes - There are no raw materials used at PFP.
 - Fuels used by processes - There are no fuels used in the processes at PFP.

I-C.1. Emission Points, Controls, Stacks

The emission point listing and stack information is found on pages 1 and 2, and the control device listing is found on page 7 of the AEI report output.

I-C.2. Facility Process Flow Diagram

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point listing and stack information is found on pages 1 and 2, and the control device listing is found on page 7 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PFP
FACILITY NAME: Plutonium Finishing Plant(PFP) and Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
291Z001	135564	566488	STACK FOR BLDGS. 234-5Z, 236-Z, & 242-Z	MCBRIDE, DON J.	373-5698	DAVE W. TEMPLETON	373-2966
296Z003	135526	566501	STACK FOR BLDGS. 241-Z, 241-ZA, & 241-ZB	MCBRIDE, DON J.	373-5698	DAVE W. TEMPLETON	373-2966
296Z005	135607	566434	2736-ZB STACK	MCBRIDE, DON J.	373-5698	DAVE W. TEMPLETON	373-2966
296Z006	135633	566431	STACK FOR BLDGS. 2736-ZA & 2736-Z	MCBRIDE, DON J.	373-5698	DAVE W. TEMPLETON	373-2966
296Z014	135561	566455	232-Z STACK	MCBRIDE, DON J.	373-5698	DAVE W. TEMPLETON	373-2966
296Z015	135586	566510	243-Z STACK	MCBRIDE, DON J.	373-5698	DAVE W. TEMPLETON	373-2966

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type
200W P-291Z001 001	POINT	135564	566488	1	not assigned	ANALYTICAL LABORATORY
				2	not assigned	ANALYTICAL LABORATORY
				3	not assigned	PROCESS AND PRODUCTION
				4	not assigned	D&D/DEMOLITION
				5	not assigned	D&D/DEMOLITION
				6	not assigned	D&D/DEMOLITION
				7	not assigned	SOURCE EMISSIONS ROLL-UP
				8	not assigned	ANALYTICAL LABORATORY

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
	13.5			143.14	68	33.8	200	200

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type
200W P-296Z003 001	POINT	135526	566501	1	not assigned	TANKS AND VESSELS
				2	not assigned	PROCESS AND PRODUCTION
				3	not assigned	SOURCE EMISSIONS ROLL-UP

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITHOUT WEATHER CAP	1.2			1.13	120	44.2	25	25

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type
200W P-296Z005 001	POINT	135607	566434	1	not assigned	PROCESS AND PRODUCTION
				2	not assigned	PROCESS AND PRODUCTION
				3	not assigned	PROCESS AND PRODUCTION
				4	not assigned	SOURCE EMISSIONS ROLL-UP

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITHOUT WEATHER CAP	2.8			6.16	68	36.5	27.9	15

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PFP
FACILITY NAME: Plutonium Finishing Plant(PFP) and Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type
200W P-296Z006 001	POINT	135633	566431	1	not assigned	PROCESS AND PRODUCTION
Stack Configuration						
VERTICAL WITHOUT WEATHER CAP			3	1.83	5.49	68 36.4 14.67 2.5

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type
200W P-296Z014 001	POINT	135561	566455	1	not assigned	D&D/DEMOLITION
Stack Configuration						
VERTICAL WITHOUT WEATHER CAP		1			.79	68 27.3 21 21

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type
200W P-296Z015 001	POINT	135586	566510	1	not assigned	PROCESS AND PRODUCTION
Stack Configuration						
VERTICAL WITHOUT WEATHER CAP		1			.79	68 34 42 26

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-291Z001 001	1	ANALYTICAL LABORATORY	24	7	52	Z-PLANT ANALYTICAL LABORATORY
200W P-291Z001 001	2	ANALYTICAL LABORATORY	24	7	52	BACKSIDE DEVELOPMENT LAB
200W P-291Z001 001	3	PROCESS AND PRODUCTION	24	7	52	ZONE 4 GLOVEBOXES AND VENT HOODS
200W P-291Z001 001	4	D&D/DEMOLITION	24	7	52	D&D OF THE 242-Z BUILDING (ASSUMED RUN ALL YEAR/WORST CASE)

DURING THE LIFESPAN OF THIS PERMIT, 242-Z WILL UNDERGO D&D - CONTRACTOR UNKNOWN NOW. METHODS HAVE NOT YET BEEN DETERMINED.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : PFP
FACILITY NAME: Plutonium Finishing Plant(PFP) and Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-291Z001 001	5	D&D/DEMOLITION	24	7	52	D&D OF THE 234-5Z BUILDING

DURING THE LIFESPAN OF THIS PERMIT, 234-5Z WILL UNDERGO D&D - CONTRACTOR UNKNOWN NOW. METHODS HAVE NOT YET BEEN DETERMINED.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-291Z001 001	6	D&D/DEMOLITION	24	7	52	D&D OF THE 236 BUILDING

DURING THE LIFESPAN OF THIS PERMIT, 236-Z WILL UNDERGO D&D - CONTRACTOR UNKNOWN NOW. METHODS HAVE NOT YET BEEN DETERMINED.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-291Z001 001	7	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-291Z001-001

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-291Z001 001	8	ANALYTICAL LABORATORY	24	7	52	THIS IS A STANDARDS LABORATORY

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296Z003 001	1	TANKS AND VESSELS	24	7	52	THE 241-Z WASTE TREATMENT FACILITY WHICH INCLUDES TANKS D-4, 5, 6, 7, 8 AND THE RESPECTIVE TANK SUMPS, TANK D-9, GLOVEBOX IN 241-ZA, AND ALL ASSOCIATED PIPING AND VENTILATION DUCTWORK.

THIS FACILITY IS USED TO HANDLE, TREAT, TEMPORILY STORE, AND TRANSFER AQUEOUS RADIOACTIVE WASTES FROM 236-Z AND 234-5Z. WASTES ARE TREATED WITH SODIUM HYDROXIDE OR POTASSIUM HYDROXIDE. SODIUM NITRITE AND FERRIC NITRATE ARE ADDED PRIOR TO WASTE TRANSFER TO UST.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296Z003 001	2	PROCESS AND PRODUCTION	24	7	52	RADIONUCLIDE SMEARABLE CONTAMINATION WITHIN TANK VESSELS, SUMPS, BUILDING.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296Z003 001	3	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296Z003-001

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296Z005 001	1	PROCESS AND PRODUCTION	24	7	52	STORAGE AND STAGING AREA, NON-DESTRUCTIVE ASSESSMENT FACILITY, REPACKAGING FACILITY, BLDG. 2736-ZB

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : PFP
 FACILITY NAME: Plutonium Finishing Plant(PFP) and Structures

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296Z005 001	4	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296Z005-001

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296Z006 001	1	PROCESS AND PRODUCTION	24	7	52	PLUTONIUM STORAGE VAULTS, STORED IN CUBICLES OR ON SHELVES.

BUILDING 2736-Z CONSISTS OF 4 ROOMS FOR THE STORAGE OF SPECIAL NUCLEAR MATERIAL (SNM). EACH ROOM IS APPROXIMATELY 28'X28'. ROOMS 1, 3 & 4 CONTAIN 68 CUBICLES EACH & ROOM 2 HAS STEEL SHELVES & OPEN FLOOR STORAGE. ROOM 1 CUBICLES HAVE A MAXIMUM OF 28 STORAGE RINGS PER CUBICLE. ROOMS 3 & 4 HAVE A MAXIMUM OF 28 STORAGE RINGS PER CUBICLE. ROOM 2 CONTAINS SHELVED SPACE FOR 700 ITEMS OF SNM, WITH ROOM FOR AN ADDITIONAL 296 SPACES FOR LARD CAN STORAGE.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296Z014 001	1	D&D/DEMOLITION	24	7	52	D & D OF BUILDING 232-Z

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296Z015 001	1	PROCESS AND PRODUCTION	24	7	52	THE 243-Z LOW LEVEL WASTE WATER FACILITY TREATS LIQUID EFFLUENT FROM 234-5Z, 236-Z, AND 291-Z, WHICH MAY POTENTIALLY CONTAIN LOW ACTIVITY RADIONUCLIDE CONTAMINATION.

THE FACILITY IS DESIGNED TO REMOVE ORGANIC, METAL, AND RADIONUCLIDE CONTAMINATION FROM THE WATER USING TRAINS OF 55 GALLON DRUMS CONTAINING FILTER MEDIA. THE FILTER MEDIA IS GRANULAR ACTIVATED CARBON, BONE ASH AND ION EXCHANGE RESIN. THE STACK EFFLUENT RESULTS FROM VENTILATION OF THE DRUM TURNING STATION AND FILTER DRUM ROOM.

Source Raw Materials Usage

Em Point	Srcr Nbr	Srcr Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Srcr Nbr	Srcr Type	Qty	Uom	Fuel
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Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
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Point Source Criteria Pollutants - Type: H2SO4

Em Point	Srcr Nbr	Srcr Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
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AIR EMISSIONS (NORM) REPORT
 FACILITY NAME Plutonium Finishing Plant (PFP) and Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
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Point Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200W P-291Z001 001	1	ANALYTICAL LABORATORY	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-284	Refer to DOE/RL-94-51 Table 2-1	
	2	ANALYTICAL LABORATORY			
	3	PROCESS AND PRODUCTION			
	4	D&D/DEMOLITION			
	5	D&D/DEMOLITION			
	6	D&D/DEMOLITION			
200W P-296Z003 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-285	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
200W P-296Z005 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-286	Refer to DOE/RL-94-51 Table 2-1	
	2	PROCESS AND PRODUCTION			
	3	PROCESS AND PRODUCTION			

Point Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200W P-296Z006 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-287	Refer to DOE/RL-94-51 Table 2-1	
200W P-296Z014 001	1	D&D/DEMOLITION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-288	Refer to DOE/RL-94-51 Table 2-1	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : PFP
 FACILITY NAME: Plutonium Finishing Plant(PFP) and Structures

Point Source Emissions - HAP Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Point Source Emissions - Uncategorized Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Fugitive Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant

Fugitive Source Emissions - HAP Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : PFP
 FACILITY NAME: Plutonium Finishing Plant(PFP) and Structures

Insignificant Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Control Device Listing

Em Point	Control Equipment Code
-----	-----
200W P-291Z001 001	099
200W P-296Z003 001	099
200W P-296Z005 001	099
200W P-296Z006 001	099
200W P-296Z014 001	099

FACILITY:

Plutonium Finishing Plant

EMISSION POINT:

200W P-291Z001 001

Multiple banks in three stages

* The most stringent case of two HEPA filters is for glove boxes and process cell operations with special case systems having three or more HEPA filters. Process areas occupied by personnel have only one stage of HEPA filtration.

FACILITY: Plutonium Finishing Plant

EMISSION POINT: 200W-P-296Z003 001

FACILITY: Plutonium Finishing Plant

EMISSION POINT: 200W P-296Z005 001

*There are several banks of 2-stage HEPA filters in parallel, which are fed from a single stage of HEPA filtration, for a total of 3 stages of HEPA filtration.

FACILITY:

EMISSION POINT:

200W P-296Z006 001

FACILITY: Plutonium Finishing Plant

EMISSION POINT: 200W P-296Z014 001

FACILITY: Plutonium Finishing Plant

EMISSION POINT: 200W P-296Z015 001

Plutonium Finishing Plant Emission Points

30 0 30 60 Meters

WHCHTSNFM12-94\5Z2EMIS

APPENDIX E-4

S PLANT

Chapter I. General Information

I-B.1. Facility Description

The S Plant [REDOX (reduction-oxidation)] is located in the 200 West Area. The S Plant was constructed from 1950 to 1952 and became the first large-scale, continuous flow, solvent extraction process plant built in the United States for the recovery of plutonium from irradiated uranium fuel. The process, which replaced the batch precipitation methods, was designed to separate uranium, plutonium, and neptunium as individual product streams from the fission products associated with irradiated fuel. This separation was accomplished by controlling the relative distribution of the activated components between aluminum nitrate-salted aqueous solutions and an immiscible organic extractant, hexone (methyl isobutyl ketone).

The canyon portion of S Plant contains equipment for handling radioactive materials such as fuel dissolution, feed preparation, solvent distillation, and waste concentration and neutralization. The silo area, located at the west end of the canyon, houses the solvent extraction columns and aqueous makeup vessels.

All process activities at REDOX ceased in 1967. Presently, the canyon is used as a radioactive confinement area for the original equipment used in the REDOX process. The S Plant is scheduled for decommissioning in 2016.

233-S Facility

The 233-S Plutonium Concentration Facility, adjacent to and directly north of the REDOX canyon building, was built in 1954-1955 and placed into operation March 1955. During the initial process, a dilute plutonium nitrate solution was transferred from the 202-S Building to the 233-S Facility. Within the 233-S Facility, the plutonium solution was concentrated and loaded into product removal cans for transportation to other facilities for further reprocessing.

All process activities at 233-S Facility ceased in 1967. Presently, the 233-S Facility serves no purpose and is currently in the initial stages of decommissioning.

I-B.2. Products, Raw Materials, Fuels, Processes

There are no products, raw materials, fuels, or processes at S Plant or the 233-S Facility.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on pages 1 and 2 of the AEI report output.

I-C.2. Facility Process Flow Diagram

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on pages 1 and 2 of the AEI report output.

AIR EMISSIONS INVENTORY
FACILITY NAME: Surplus Facilities

Facility Building List

Bldg Id	North	East	Bldg Desc	Point of Contact (POC)	(POC) Phone
291S001	134039	567546	202-S MAIN STACK	Egge, Robert G.	373-1914
296S002	134992	567413	202-S (REDOX) N&S SAMPLE GALLERY EXHAUST STACK	Egge, Robert G.	373-1914
296S004	134966	567460	202-S (REDOX) DECONTAMINATION ROOM EXHAUST STACK	Egge, Robert G.	373-1914
296S006	134985	567343	202-S REDOX SILO STACK	Egge, Robert G.	373-1914
296S07W	135020	567356	233-S PLUTONIUM CONCENTRATION FACILITY STACK	Egge, Robert G.	373-1914

Emission Point Listing

Em Point	Ep Type	North	East	Srcr Nbr	Scc Code	Srcr Type				
200W P-291S001 001	POINT	135029	567536	1		PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		3.75			11.04	68	30.3	200		
Em Point	Ep Type	North	East	Srcr Nbr	Scc Code	Srcr Type				
200W P-296S002 001	POINT	134992	567403	1 2		PROCESS AND PRODUCTION PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1.2			1.13	68	9.3	45	5	
Em Point	Ep Type	North	East	Srcr Nbr	Scc Code	Srcr Type				
200W P-296S004 001	POINT	134988	567314	1		PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1.2			1.13	68	28.7	64	4	
Em Point	Ep Type	North	East	Srcr Nbr	Scc Code	Srcr Type				
200W P-296S006 001	POINT	135888	567890	1		PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		2.25			3.98	68	8.6	128.5	11.5	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : S PLANT
FACILITY NAME: Surplus Facilities

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200W P-296S07W 001	POINT	135020	567356	1		PROCESS AND PRODUCTION				
				2		TANKS AND VESSELS				
				3		TANKS AND VESSELS				
				4		TANKS AND VESSELS				
				5		TANKS AND VESSELS				
				6		TANKS AND VESSELS				
				7		TANKS AND VESSELS				
				8		TANKS AND VESSELS				
				9		TANKS AND VESSELS				
				10		TANKS AND VESSELS				
				11		TANKS AND VESSELS				
				12		TANKS AND VESSELS				
				13		TANKS AND VESSELS				
				14		D&D/DEMOLITION				
Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)		
VERTICAL WITHOUT WEATHER CAP	2			3.14	68	48.4	25	12		

Source (Process) Listing

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-291S001 001	1	PROCESS AND PRODUCTION	24	7	52	SOURCE OF CONTAMINATION COMES FROM TRACES OF RADIOACTIVITY CONTAINED IN THE 202-S CANYON

Process --->
Description

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S002 001	1	PROCESS AND PRODUCTION	24	7	52	RESIDUAL CONTAMINATION IN PR CAGE (LOADOUT HOOD)

Process --->
Description

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S002 001	2	PROCESS AND PRODUCTION	24	7	52	RESIDUAL CONTAMINATION IN SAMPLE HOODS IN NORTH AND SOUTH SAMPLE GALLERIES

Process --->
Description

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : S PLANT
 FACILITY NAME: Surplus Facilities

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S004 001	1	PROCESS AND PRODUCTION	24	7	52	CONTAMINATION IN THE REGULATED SHOP AND THE DECON ROOM IN 202-S

Process --->
Description

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S006 001	1	PROCESS AND PRODUCTION	24	7	52	VENTILATES THE CLEAN (UNCONTAMINATED) SILO AREA

Process --->
Description

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S07W 001	1	PROCESS AND PRODUCTION	24	7	52	SCHEDULED FOR D&D

Process --->
Description

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S07W 001	2	TANKS AND VESSELS	24	7	52	SCHEDULED FOR D&D

Process --->
Description

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S07W 001	3	TANKS AND VESSELS	24	7	52	SCHEDULED FOR D&D

Process --->
Description

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S07W 001	4	TANKS AND VESSELS	24	7	52	SCHEDULED FOR D&D

Process --->
Description

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S07W 001	5	TANKS AND VESSELS	24	7	52	SCHEDULED FOR D&D

Process --->
Description

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : S PLANT
 FACILITY NAME: Surplus Facilities

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S07W 001	6	TANKS AND VESSELS	24	7	52	SCHEDULED FOR D&D

Process --->
Description

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S07W 001	7	TANKS AND VESSELS	24	7	52	SCHEDULED FOR D&D

Process --->
Description

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S07W 001	8	TANKS AND VESSELS	24	7	52	SCHEDULED FOR D&D

Process --->
Description

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S07W 001	9	TANKS AND VESSELS	24	7	52	SCHEDULED FOR D&D

Process --->
Description

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S07W 001	10	TANKS AND VESSELS	24	7	52	SCHEDULED FOR D&D

Process --->
Description

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S07W 001	11	TANKS AND VESSELS	24	7	52	SCHEDULED FOR D&D

Process --->
Description

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S07W 001	12	TANKS AND VESSELS	24	7	52	SCHEDULED FOR D&D

Process --->
Description

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : S PLANT
 FACILITY NAME: Surplus Facilities

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S07W 001	13	TANKS AND VESSELS	24	7	52	SCHEDULED FOR D&D

Process --->
Description

Source Raw Materials Usage

Em Point	Srcr Nbr	Srcr Type	Process Rate	Process Uom	Material
----------	----------	-----------	--------------	-------------	----------

Fuels Usage by Source Processes

Em Point	Srcr Nbr	Srcr Type	Qty	Uom	Fuel
----------	----------	-----------	-----	-----	------

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
----------	---------	----------	-----	-----	------

Facility Emissions

Point Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual(Ci/yr)	Pollutant
200W P-291S001 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-292	Refer to DOE/RL-94-51 Table 2-1	
200W P-296S002 001	1 2	PROCESS AND PRODUCTION PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-293	Refer to DOE/RL-94-51 Table 2-1	
200W P-296S004 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-294	Refer to DOE/RL-94-51 Table 2-1	
200W P-296S006 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-295	Refer to DOE/RL-94-51 Table 2-1	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : S PLANT
FACILITY NAME: Surplus Facilities

Point Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual(Ci/yr)	Pollutant
200W P-296S07W 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-296	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
	3	TANKS AND VESSELS			
	4	TANKS AND VESSELS			
	5	TANKS AND VESSELS			
	6	TANKS AND VESSELS			
	7	TANKS AND VESSELS			
	8	TANKS AND VESSELS			
	9	TANKS AND VESSELS			
	10	TANKS AND VESSELS			
	11	TANKS AND VESSELS			
	12	TANKS AND VESSELS			
	13	TANKS AND VESSELS			

Point Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual Yr	Pollutant
Sum					

Point Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Fugitive Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type	Em. Pt. Potential to Emit (ci/yr)	Em. Pt. Ct1 Actual (ci/yr)	Pollutant
----------	----------	-----------	--------------------------------------	-------------------------------	-----------

Fugitive Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : S PLANT
 FACILITY NAME: Surplus Facilities

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type	Em. Pt. Potential to Emit (ci/yr)	Em. Pt. Ct1 Actual (ci/yr)	Pollutant
-----	-----	-----	-----	-----	-----

Insignificant Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
-----	-----	-----	-----	-----	-----

Sum

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
-----	-----	-----	-----	-----	-----

Sum

Control Device Listing

Em Point	Control Equipment Code
200W P-291S001 001	063
200W P-296S002 001	099
200W P-296S002 001	099
200W P-296S002 001	099
200W P-296S004 001	099
200W P-296S07W 001	099
200W P-296S07W 001	099

FACILITY:

S-Plant

EMISSION POINT:

200W P-291S001 001

FACILITY:

S-Plant

EMISSION POINT:

200W P-296S002 001

K.A. Giese
1/14/1995

FACILITY:

S-Plant

EMISSION POINT:

200W P-296S004 001

K.A. Giese
1/14/1995

FACILITY:

S-Plant

EMISSION POINT:

200W P-296S006 001

FACILITY:

S-Plant

200W P-296S07E 001

EMISSION POINT: 200W P-296S07W 001

S-Plant Emission Points

202S
Building Corner
N133990 E567311

Emission Point
200W P-296S006 001
N133985 E567343

Emission Point
200W P-296S07W 001
N134020 E567356

233S
Building Corner
N134015 E567355

202S
Building Corner
N133998 E567399

291S
Building Corner
N134034 E567533

Emission Point
200W P-291S001 001
N134039 E567546

Emission Point
200W P-296S002 001
N133992 E567413

Emission Point
200W P-296S004 001
N134966 E567460

30 0 30 60 Meters

WHCHTSNFM1-951202SEMIS

APPENDIX E-5

T PLANT

Chapter I. General Information

I-B.1. Facility Description

The T Plant Complex was constructed in the mid 1940's to extract plutonium and uranium from spent reactor fuel using the bismuth phosphate process. The T Plant Complex performed this function until deactivation in 1956. In 1957, T Plant Complex became a beta-gamma decontamination and support complex for containment experiments. Currently, operations at T Plant Complex include equipment storage and decontamination, liquid waste tank car certification, and waste processing. The operations primarily occur in the 221-T and 2706-T Buildings.

The T Plant Complex consists of a number of buildings in the 200 West Area. The T Plant Complex is located on the site maps in Section I.C.3. The T Plant Complex is operated for 24 hours a day, 365 days a year.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principal products - There are no products produced at T Plant.
- Process information - The current processes are discussed in the following:
 - 221-T building operations - Provides storage and decontamination services for highly contaminated equipment. The decontamination processes include chemical spray, abrasive, immersion, and hand cleaning.
 - 2706-T building operations - Provides decontamination of equipment with low levels of contamination and waste repackaging of containerized low level and mixed waste. The decontamination processes include abrasive, steam, and hand cleaning. The waste repackaging service entails verifying, sampling, repackaging, and shipping.
- Raw materials used by processes - There are no raw materials used at the T Plant Complex.
- Fuels used by processes - There are no fuels used in the processes at the T Plant Complex.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on pages 1 and 2 of the AEI report output. The control information is found on pages 5 and 6 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on pages 1 and 2 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : T-Plant
 FACILITY NAME: T-Plant Facility and Associated Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
291T001	136867	567676	T-PLANT MAIN STACK	SMITH, COLLIN L.	372-2933	KEVIN D. BASSELL	373-0463
296T007	136911	567513	STACK FOR 2706T	SMITH, COLLIN L.	372-2933	KEVIN D. BASSELL	373-0463
296T013	136901	567605	T-PLANT AUXILLARY STACK	SMITH, COLLIN L.	372-2933	KEVIN D. BASSELL	373-0463

Emission Point Listing

Em Point	Ep Type	North	East	Srcce Nbr	Scc Code	Srcce Type			
200W P-291T001 001	POINT	136867	567676	1	not assigned	PROCESS AND PRODUCTION			
				2	not assigned	PROCESS AND PRODUCTION			
				3	not assigned	SOURCE EMISSIONS ROLL-UP			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITHOUT WEATHER CAP		5			19.63	78	30.6	200	200

Em Point	Ep Type	North	East	Srcce Nbr	Scc Code	Srcce Type			
200W P-296T007 001	POINT	136911	567513	1	not assigned	PROCESS AND PRODUCTION			
				2	not assigned	PROCESS AND PRODUCTION			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITHOUT WEATHER CAP		2.3			4.15	78	42.9	25	25

Em Point	Ep Type	North	East	Srcce Nbr	Scc Code	Srcce Type			
200W P-296T013 001	POINT	136901	567605	1	not assigned	PROCESS AND PRODUCTION			
				2	not assigned	PROCESS AND PRODUCTION			
				3	not assigned	SOURCE EMISSIONS ROLL-UP			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITHOUT WEATHER CAP			2	2	4	78	150	90	15

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : T-Plant
FACILITY NAME: T-Plant Facility and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-291T001 001	1	PROCESS AND PRODUCTION	24	7	52	CANYON CELLS CONTAIN CONTAMINATED EQUIPMENT AND MATERIALS
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-291T001 001	2	PROCESS AND PRODUCTION	24	7	52	DECONTAMINATION OF EQUIPMENT
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-291T001 001	3	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-291T001-001
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296T007 001	1	PROCESS AND PRODUCTION	8	5	52	THIS FACILITY REPACKAGES LOW-LEVEL WASTE DRUMS.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296T007 001	2	PROCESS AND PRODUCTION	8	5	52	DECONTAMINATION OF EQUIPMENT
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296T013 001	1	PROCESS AND PRODUCTION	24	7	52	CANYON CELLS STORE CONTAMINATED EQUIPMENT AND MATERIALS.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296T013 001	2	PROCESS AND PRODUCTION	24	7	52	DECONTAMINATION OF EQUIPMENT
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296T013 001	3	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296T013-001

Source Raw Materials Usage

Em Point	Srce Nbr	Srce Type	Process Rate	Process Uom	Material
-----	-----	-----	-----	-----	-----

Fuels Usage by Source Processes

Em Point	Srce Nbr	Srce Type	Qty	Uom	Fuel
-----	-----	-----	-----	-----	-----

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
-----	-----	-----	-----	-----	-----

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : T-Plant
FACILITY NAME: T-Plant Facility and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual(Ci/yr)	Pollutant
200W P-291T001 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-247	Refer to DOE/RL-94-51 Table 2-1	
	2	PROCESS AND PRODUCTION			
200W P-296T007 001	2	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-21	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-21	
200W P-296T013 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-248	Refer to DOE/RL-94-51 Table 2-1	
	2	PROCESS AND PRODUCTION			

Point Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum						

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum						

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual(Ci/yr)	Pollutant
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Fugitive Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum						

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : T-Plant
 FACILITY NAME: T-Plant Facility and Associated Structures

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
Sum						

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type	Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant
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Insignificant Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
Sum						

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
Sum						

Control Device Listing

Em Point	Control Equipment Code
200W P-291T001 001	017, 099
200W P-296T007 001	017, 099
200W P-296T013 001	017, 099

FACILITY:

T-Plant

EMISSION POINT:

200W P-291T001 001

FACILITY: _____

EMISSION POINT: 200W P-296T007 001

FACILITY:

T Plant

EMISSION POINT:

200W P-296T013 001

T-Plant Emission Points

2706T
Building Corner
N136928 E567527
Emission Point
200W P-296T007 001
N136911 E567513

2706T
Building Corner
N136898 E567530

221T
Building Corner
N136963 E567635

221T
Building Corner
N136951 E567652

Emission Point
200W P-296T013 001
N136901 E567605

292T
Building Corner
N136870 E567664

291T Stack
Building Corner
N136871 E567675

Emission Point
200W P-291T001 001
N136867 E567676

292T
Building Corner
N136857 E567669

50 0 50 100 Meters

WHCHTSNFM1-95ITEMISS

APPENDIX E-6

U PLANT

Chapter I. General Information

I-B.1. Facility Description

The U Plant is located in the 200 West Area. The reinforced concrete canyon building (221-U) originally was constructed from 1944-1945 as an integral part of the U Plant fuel separation facility, but was never used for that purpose. From 1950 through 1952, U Plant was extensively modified for a uranium metal recovery program. Modification included all new cell process equipment in the canyon building.

From 1952 through 1958, the 221-U canyon building recovered uranium from high-level underground storage tank waste that contained liquid from the bismuth phosphate process (B Plant). The process involved solvent extraction using tributyl phosphate for the separation and decontamination of the uranium.

All process activities at U Plant ceased in 1964. Presently, the canyon is used as a radioactive confinement area for the storage of used process equipment from several processing plants onsite. The U Plant is scheduled for decommissioning in 2024.

I-B.2. Products, Raw Materials, Fuels, Processes

There are no products, raw materials, fuels, or processes at U Plant.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on page 1 of the AEI report output.

I-C.2. Facility Process Flow Diagram

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on page 1 of the AEI report output.

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AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : U PLANT
 FACILITY NAME: Surplus Facilities

Facility Building List

Bldg Id	North	East	Bldg Desc	Point of Contact (POC)	(POC) Phone
291U001	135170	567653	221-U MAIN STACK	Egge, Robert G.	373-1914

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Src Code	Src Type
200W P-291U001 001	POINT	135170	567653	1		PROCESS AND PRODUCTION

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITHOUT WEATHER CAP	3.75			11.04	68	28	200	

Source (Process) Listing

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-291U001 001	1	PROCESS AND PRODUCTION	24	7	52	221-U CANYON EXHAUST

Process ----> U-PLANT SERVES AS A STORAGE FACILITY FOR CONTAMINATED EQUIPMENT FROM AROUND THE HANFORD SITE. FINAL D & D IS SCHEDULED TO BEGIN IN 2023.
 Description

Source Raw Materials Usage

Em Point	Src Nbr	Src Type	Process Rate	Process Uom	Material
----------	---------	----------	--------------	-------------	----------

Fuels Usage by Source Processes

Em Point	Src Nbr	Src Type	Qty	Uom	Fuel
----------	---------	----------	-----	-----	------

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
----------	---------	----------	-----	-----	------

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : U PLANT
 FACILITY NAME: Surplus Facilities

Facility Emissions

Point Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual(Ci/yr)	Pollutant
200W P-291U001-001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A- 297	Refer to DOE/RL-94-51 Table 2-1	

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual Yr	Pollutant
Sum					

Point Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type	Em. Pt. Potential to Emit (ci/yr)	Em. Pt. Ct1 Actual (ci/yr)	Pollutant
----------	----------	-----------	--------------------------------------	-------------------------------	-----------

Fugitive Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type	Em. Pt. Potential to Emit (ci/yr)	Em. Pt. Ctl Actual (ci/yr)	Pollutant
----------	---------	----------	--------------------------------------	-------------------------------	-----------

Insignificant Source Emissions - HAP Pollutants

Em Point	Src Nbr	Src Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
----------	---------	----------	--	---------------------------------	-----------

Sum

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Src Nbr	Src Type	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
----------	---------	----------	--	---------------------------------	-----------

Sum

Control Device Listing

Em Point	Control Equipment Code
200W P-291U001 001	063

Monitors Listing

Em Point	Mon Nbr	Mfr Name	Make	Model	Serial Num	Continuous	Line Loss %	Calib Freq/Yr
200W P-291U001 001	RRK1	EBERLI	CAM			Y		1
Src Nbr	Minimum Sensitivity	Maximum Sensitivity	Sensitivity UOM	Pollutant				
1				GAMMA RADIATION GROSS BETA				

FACILITY:

U-Plant

EMISSION POINT:

200W P-291U001 Q01

221U
Building Corner
N135258 E567645

291U
Building Corner
N135186 E567689

Emission Point
200W P-291U001 001
N135170 E567653

292U
Building Corner
N135159 E567655

U-Plant Emission Points

30 0 30 60 Meters

WHC:HTSNFM1-95UEMISS

APPENDIX E-7

200 WEST AREA TANK FARMS

Chapter I. General Information

I-B.1. Facility Description

The tank farms initially were used for the transfer and storage of chemical and radiological wastes that were generated on the Hanford Site. Reprocessing plants performed chemical separations for the reprocessing of nuclear materials as well as radioactive waste storage and disposal. Operations at these plants, with the exception of shutdown and maintenance activities, have ceased. These shutdown and maintenance activities generate wastes that are transferred to the 200 West Area Tank Farms.

There are two types of tanks in the 200 West Area tank farms, DSTs and SSTs. There also are support operations associated with the 200 West Area Tank Farms such as receiving tanks.

The DST System treats and stores mixed waste before final treatment and disposal. The DST System consists of DCRTs and ancillary equipment. The DSTs consist of 1-million gallon tanks designed for long-term storage (up to 50 years) of mixed waste. There is one DST Farm located in the 200 West Area with a total of three tanks. Liquid waste generated in the 200 Areas generally is transferred through underground pipelines and routed via DCRTs. The DCRTs serve various functions including receiver tanks for SST or DST waste, lift stations, and vent stations. The exhaust fans on the tank ventilation systems in the DCRTs keep a negative air pressure, which is monitored, inside the primary tank. The exhausted air passes through a heater, prefilter, HEPA filters, and is monitored for radiation. No offsite waste is accepted for storage in the DST System. The DSTs use separate ventilation systems for the primary tank and annulus ventilation. The primary tank ventilation system provides a negative pressure in the tanks to prevent the escape of untreated dangerous and/or radioactive particulates to the atmosphere, removes heat generated by the tank contents, and removes water vapor to prevent tank corrosion. Additional tank space is used to support the environmental restoration and remediation mission (e.g., closure of SSTs).

There are six SST Farms with a total of 83 tanks within the 200 West Area. Past-practice units are associated with the SSTs. The SST volumes vary from 55,000 to 1 million gallons. Addition of new waste to the SSTs was discontinued in November 1980. The SSTs currently are being interim stabilized and isolated. Interim stabilization involves the removal of supernate and interstitial liquid from the SSTs to minimize the spread of contamination if the tanks begin to leak. Interim isolation of a SST involves physical modifications to preclude the inadvertent addition of liquid to the tank. Forced ventilation provides cooling for some tanks containing materials which, through radioactive decay, generate heat that could exceed

the established concrete temperature limits. Single-stage HEPA filters allow atmospheric breathing for tanks that do not require cooling. The SSTs contain mostly inorganic waste.

In addition to the SST and DST waste tank system emission points described in this appendix, there are numerous other sources from the SST and DST emission points that are potential sources of emissions. These points include access risers, pump pits, and diversion boxes on each waste tank. These points are normally covered or closed to control emissions from the waste tanks. Routine maintenance and operation activities performed periodically at each waste tank requires the cover blocks or other tank closures to be opened temporarily to allow access to the instrumentation and equipment located within each waste tank. These periods may allow unfiltered air exchanges between the waste tank vapor space or surface contamination areas with the environment. These emissions are considered fugitive emissions and constitute a portion of the radionuclide fugitive emissions from the Hanford Site described in Section IV.B.6.

The 200 West Area tank farms are operated for 24 hours a day, 365 days a year.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principle products - There are no products produced at the 200 West Tank Farms.
- Process information - There are no process-related activities at the 200 West Tank Farms.
- Raw materials used by processes - There are no raw materials used at the 200 West Area Tank Farms.
- Fuels used by processes - There are no fuels used at the 200 West Area Tank Farms.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on pages 4 through 19 of the AEI report output. The control information is found on page 78 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on pages 4 through 19 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
241S101	134503	566835	241-S TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241S102	134503	566804	241-S TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241S103	134503	566773	241-S TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241S104	134472	566835	241-S TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241S105	134472	566804	241-S TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241S106	134472	566773	241-S TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241S107	134441	566835	241-S TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241S108	134441	566804	241-S TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241S109	134441	566773	241-S TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241S110	134410	566835	241-S TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241S111	134410	566804	241-S TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241S112	134410	566773	241-S TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241S151	134320	566901	241-SX TANK FARM DIVERSION BOX	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241S304	134336	566923	CATCH TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241SX113	134173	566836	241-SX TANK FARM TANK, 1 MILLION GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241SX115	134173	566774	241-SX TANK FARM TANK, 1 MILLION GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241SYA	134524	566864	241-SY TANK FARM VALVE PIT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241SYB	134524	566864	241-SY TANK FARM VALVE PIT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T101	136765	566838	241-T TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T102	136765	566807	241-T TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T103	135765	566777	241-T TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T104	136734	566838	241-T TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T105	136734	566807	241-T TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND TANK FARM TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T106	136734	566777	241-T TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T107	136704	566838	241-T TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T108	136704	566807	241-T TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T109	136704	566777	241-T TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T110	136673	566838	241-T TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T111	136673	566807	241-T TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
241T112	136673	566777	241-T TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T201	136711	566747	241-T TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T202	136696	566747	241-T TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T203	136681	566747	241-T TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241T204	136665	566747	241-T TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX101	136156	566805	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX102	136156	566774	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX103	136156	566743	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX104	136156	566712	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX105	136187	566805	241-TX TANK FARM TANK, 75,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX106	136187	566774	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX107	136187	566743	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX108	136187	566712	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX109	136218	566805	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX110	136218	566774	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX111	136218	566743	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX112	136218	566712	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX113	136249	566805	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX114	136249	566774	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX115	136249	566743	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX116	136280	566805	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX117	136280	566774	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX118	136280	566743	241-TX TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX152	136106	567090	DIVERSION BOX	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TY154	136848	567585	DIVERSION BOX, PART OF 200W DOUBLE SHELL TANK WASTE TRANSFER SYSTEM	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TX302C	136820	567587	CATCH TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TY101	136447	566773	241-TY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TY102	136447	566742	241-TY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TY103	136415	566773	241-TY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
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 FACILITY NAME: 200W Tank Farm and Associated Structures

Facility Building List							
Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
241TY104	136415	566742	241-TY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TY105	136384	566773	241-TY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241TY106	136384	566742	241-TY TANK FARM TANK, 750,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U101	135104	566842	241-U TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U102	135104	566812	241-U TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U103	135104	566781	241-U TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U104	135073	566842	241-U TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U105	135073	566812	241-U TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U106	135073	566781	241-U TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U107	135043	566842	241-U TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U108	135043	566812	241-U TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U109	135043	566781	241-U TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U110	135012	566842	241-U TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U111	135012	566812	241-U TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U112	135012	566781	241-U TANK FARM TANK, 530,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U151	134991	566922	241-U TANK FARM DIVERSION BOX	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U152	134985	566918	241-U TANK FARM DIVERSION BOX	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U201	135050	566752	241-U TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U202	135035	566752	241-U TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U203	135020	566752	241-U TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U204	135005	566752	241-U TANK FARM TANK, 55,000 GAL. SINGLE SHELL UNDERGROUND STORAGE TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241U301B	85000	600000	CATCH TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241UX154	135225	567629	DIVERSION BOX, 200W DOUBLE SHELL TANK WASTE TRANSFER SYSTEM	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
241UX302A	134977	566780	CATCH TANK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
242S	134603	566792	EVAPORATOR FACILITY	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
242T	136317	566842	WASTE DISPOSAL EVAPORATOR BUILDING	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
244S	134415	566915	DCRT SHORT TERM WASTE STORAGE FACILITY	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
244TX	136352	566823	SALT WELL RECEIVER VAULT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
244U	134991	566865	SALT WELL RECEIVER VAULT	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
272S	134571	566710	MAINTENANCE SHOP	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
272WA	135816	565918	TANK FARM SUPPORT FACILITY	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296P022	134525	566870	241-SY TANK ANNULUS EXHAUSTER	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296P028	134543	566878	241-SY BACKUP TANK EXHAUSTER	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296S025	134543	566887	SY TANK FARM EXHAUSTER	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296SX	134754	566182	241-SX-101/102/103/104/105/106/107/108/109/110/111/112/114	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
296SY	134527	566864	241-SY TANK FARM PRIMARY VENTILATION STACK	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478
296U011	134995	566865	244-U DOUBLE CONTAINMENT RECEIVER TANK (DCRT) EXHAUSTER	LEE, JOHN L.	373-9372	CASEY O. RUUD	373-3478

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type
200W K-272S 001	FUGITIVE	134561	566698	1 not assigned 2 not assigned		PAINTING AND PRINTING ABRASIVE CLEANING

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
				0	78	.0325	16	1

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type
200W M-272WA 001	FUGITIVE	135816	565918	1 not assigned 2 not assigned		PROCESS AND PRODUCTION WELDING/CUTTING/BRAZING

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
				0	78	.0325	14	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type
200W N-231Z 001	FUGITIVE	135840	566506	1 not assigned		PROCESS AND PRODUCTION

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
				0	78	.0325	16	1

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type
200W P-241S101 001	POINT	134503	566835	1 not assigned		TANKS AND VESSELS

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
HORIZONTAL OR DOWNWARD	.33			.09	117	.36	3	3

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type
200W P-241S102 001	POINT	134503	566804	1 not assigned		TANKS AND VESSELS

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
HORIZONTAL OR DOWNWARD	.33			.09	107	.36	3	3

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
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Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241S103 001	POINT	134503	566773	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	86	.36	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241S104 001	POINT	134472	566835	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	106	.36	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241S105 001	POINT	134472	566804	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	76	.36	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241S106 001	POINT	134472	566773	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	80	.36	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241S107 001	POINT	134441	566835	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	109	.36	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241S108 001	POINT	134441	566804	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	87	.36	3	3	

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FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241S109 001	POINT	134441	566773	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	68	.36	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241S110 001	POINT	134410	566835	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	117	.36	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241S111 001	POINT	134410	566804	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	92	.36	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241S112 001	POINT	134410	566773	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	85	.36	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241S151 001	FUGITIVE	134320	566901	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	0	.0325	1	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241S304 001	FUGITIVE	134336	566923	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

AIR EMISSIONS FROM FACILITY AREA A (100400)
 FACILITY ID: 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241SX113 001	POINT	134173	566836	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	75	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241SX115 001	POINT	134173	566774	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	78	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241SYA 001	FUGITIVE	134524	566864	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	0	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241SYB 001	FUGITIVE	134524	566864	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	0	.0325	1	1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241T101 001	POINT	136765	566838	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	69	.031	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241T102 001	POINT	136765	566807	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	78	.031	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241T103 001	POINT	135765	566777	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	61	.031	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241T104 001	POINT	136734	566838	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	62	.014	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241T105 001	POINT	136734	566807	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	78	.031	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241T106 001	POINT	136734	566777	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	60	.031	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241T107 001	POINT	136704	566838	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	67	.031	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241T108 001	POINT	136704	566807	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	57	.014	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241T109 001	POINT	136704	566777	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	78	.031	3	3	
200W P-241T110 001	POINT	136673	566838	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	61	.031	3	3	
200W P-241T111 001	POINT	136673	566807	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	61	.031	3	3	
200W P-241T112 001	POINT	136673	566777	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL			1	1	1	59	.031	3	3	
200W P-241T201 001	POINT	136711	566747	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	60	.014	3	3	
200W P-241T202 001	POINT	136696	566747	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	60	.014	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241T203 001	POINT	136681	566747	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	70	.014	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241T204 001	POINT	136665	566747	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	62	.014	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX101 001	POINT	136156	566805	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	78	.017	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX102 001	POINT	136156	566774	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		1.5			1.77	78	.0079	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX103 001	POINT	136156	566743	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	63	.36	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX104 001	POINT	136156	566712	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	63	.36	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX105 001	POINT	136187	566805	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	78	.17	3	3	
200W P-241TX106 001	POINT	136187	566774	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	69	.17	3	3	
200W P-241TX107 001	POINT	136187	566743	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	63	.36	3	3	
200W P-241TX108 001	POINT	136187	566712	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	65	.36	3	3	
200W P-241TX109 001	POINT	136218	566805	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	79	.36	3	3	
200W P-241TX110 001	POINT	136218	566774	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	78	.17	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX111 001	POINT	136218	566743	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	70	.17	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX112 001	POINT	136218	566712	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	70	.17	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX113 001	POINT	136249	566805	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		1			.79	69	.018	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX114 001	POINT	136249	566774	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	78	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX115 001	POINT	136249	566743	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	69	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX116 001	POINT	136280	566805	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	78	.017	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX117 001	POINT	136280	566774	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	78	.17	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX118 001	POINT	136280	566743	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		.33			.09	76	.36	3	3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX152 001	FUGITIVE	136106	567090	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX154 001	FUGITIVE	136848	576585	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TX302C 001	FUGITIVE	136820	567587	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241TY101 001	POINT	136447	566773	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	64	.031	3	3	

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200W P-241TY102 001	POINT	136447	566742	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	60	.031	3	3	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200W P-241TY103 001	POINT	136415	566773	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	67	.031	3	3	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200W P-241TY104 001	POINT	136415	566742	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		1			.79	64	.031	3	3	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200W P-241TY105 001	POINT	136384	566773	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	78	.014	3	3	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200W P-241TY106 001	POINT	136384	566742	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	63	.014	3	3	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200W P-241U101 001	POINT	135104	566842	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	67	.014	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241U102 001	POINT	135104	566812	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	83	.031	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241U103 001	POINT	135104	566781	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	86	.031	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241U104 001	POINT	135073	566842	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	64	.014	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241U105 001	POINT	135073	566812	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	88	.031	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241U106 001	POINT	135073	566781	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	76	.031	3	3	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241U107 001	POINT	135043	566842	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	77	.031	3	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200W P-241U108 001	POINT	135043	566812	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	90	.031	3	3	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200W P-241U109 001	POINT	135043	566781	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	92	.031	3	3	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200W P-241U110 001	POINT	135012	566842	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	74	.031	3	3	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200W P-241U111 001	POINT	135012	566812	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	97	.031	3	3	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200W P-241U112 001	POINT	135012	566781	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	62	.014	3	3	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
200W P-241U151 001	FUGITIVE	134991	566922	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	0	.0325	1	1	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241U152 001	FUGITIVE	134985	566918	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	
200W P-241U201 001	POINT	135050	566752	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	61	.014	3	3	
200W P-241U202 001	POINT	135035	566752	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	60	.014	3	3	
200W P-241U203 001	POINT	135020	566752	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	60	.014	3	3	
200W P-241U204 001	POINT	135005	566752	1	not assigned	TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD			1	1	1	73	.014	3	3	
200W P-241U301B 001	FUGITIVE	85000	600000	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241UX154 001	FUGITIVE	135225	567629	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-241UX302A 001	FUGITIVE	134977	566780	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	1	1	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-242S 001	POINT	134581	566792	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	PROCESS AND PRODUCTION				
				3	not assigned	PROCESS AND PRODUCTION				
				4	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		3.5			9.62	117	37.8	22	-7.3	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-242T 001	POINT	136317	566810	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	PROCESS AND PRODUCTION				
				3	not assigned	PROCESS AND PRODUCTION				
				4	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1.17			1.08	160	31.2	32	9	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-244S 001	POINT	134415	566915	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP		.5			.2	78	14	11		

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-244TX 001	POINT	136352	566823	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP		.5			.2	78	20.8	11		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-244U 001	POINT	134087	566892	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITH WEATHER CAP		.5			.2	78	14	11		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-296P022 001	POINT	134525	566870	1 2 3	not assigned not assigned not assigned	TANKS AND VESSELS TANKS AND VESSELS TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED		.67			.35	68	13.1	10.2		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-296P028 001	POINT	134543	566878	1 2 3	not assigned not assigned not assigned	TANKS AND VESSELS TANKS AND VESSELS TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED		.67			.35	68	12.5	11		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-296S025 001	POINT	134543	566887	1 2 3	not assigned not assigned not assigned	TANKS AND VESSELS TANKS AND VESSELS TANKS AND VESSELS				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED		.67			.35	68	50.4	18		

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-296SX 001	POINT	134754	566182	1	not assigned	TANKS AND VESSELS				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	TANKS AND VESSELS				
				4	not assigned	TANKS AND VESSELS				
				5	not assigned	TANKS AND VESSELS				
				6	not assigned	TANKS AND VESSELS				
				7	not assigned	TANKS AND VESSELS				
				8	not assigned	TANKS AND VESSELS				
				9	not assigned	TANKS AND VESSELS				
				10	not assigned	TANKS AND VESSELS				
				11	not assigned	TANKS AND VESSELS				
				12	not assigned	TANKS AND VESSELS				
				13	not assigned	TANKS AND VESSELS				
				14	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		3.5			9.62	165	10.6	15	15	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-296SY 001	POINT	134527	566864	1	not assigned	TANKS AND VESSELS				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	TANKS AND VESSELS				
				4	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		.67			.35	110	33.3	11		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-296U011 001	POINT	134995	566865	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED		.5			.2	68	20.8	14		

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W K-272S 001	1	PAINTING AND PRINTING	8	5	50	VOC EMISSIONS FROM PAINTING OPERATIONS. ACTUAL INSTALL AND INITIALED AND INITIAL OPERATION DATES ARE UNKNOWN (PRE-1990).

AIR EMISSIONS FROM SOURCE APPLICATION REPORT (104-0)
 FACILITY ID: 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W K-272S 001	2	ABRASIVE CLEANING	8	1	50	OPEN AREA SAND BLASTING TO REMOVE RUST AND SCALE ACCUMULATION. ACTUAL INSTALLED AND INITIAL OPERATION DATES ARE UNKNOWN (PRE-1990).

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W M-272WA 001	1	PROCESS AND PRODUCTION	8	5	50	VOC EMISSIONS FROM FABRICATION AND MAINTENANCE OPERATIONS. ACTUAL INSTALL AND INITIAL OPERATION DATES ARE UNKNOWN (PRE-1990).

MISCELLANEOUS SOLVENT USAGE FOR MAINTENANCE PURPOSES.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W M-272WA 001	2	WELDING/CUTTING/BRAZING	2	5	50	WELDING OPERATIONS. ACTUAL INSTALL AND INITIAL OPERATION DATES ARE UNKNOWN (PRE-1990).

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W N-231Z 001	1	PROCESS AND PRODUCTION	4	5	52	SATELLITE CARPENTER SHOP. WOODWORKING. (SAWING, DRILLING, SANDING). NO CONTROLS. ACTUAL INSTALLED AND INITIAL OPERATION DATES ARE UNKNOWN (PRE-1980).

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S101 001	1	TANKS AND VESSELS	24	7	52	241-S-101. 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S102 001	1	TANKS AND VESSELS	24	7	52	241-S-102. 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S103 001	1	TANKS AND VESSELS	24	7	52	241-S-103. 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S104 001	1	TANKS AND VESSELS	24	7	52	241-S-104. 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S105 001	1	TANKS AND VESSELS	24	7	52	241-S-105, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S106 001	1	TANKS AND VESSELS	24	7	52	241-S-106, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S107 001	1	TANKS AND VESSELS	24	7	52	241-S-107, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S108 001	1	TANKS AND VESSELS	24	7	52	241-S-108, 750,000 GALLON SINGLE-SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S109 001	1	TANKS AND VESSELS	24	7	52	241-S-109, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S110 001	1	TANKS AND VESSELS	24	7	52	241-S-110, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S111 001	1	TANKS AND VESSELS	24	7	52	241-S-111, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S112 001	1	TANKS AND VESSELS	24	7	52	241-S-112, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S151 001	1	PROCESS AND PRODUCTION	24	7	52	241-S-151 DIVERSION BOX

THE 241-S-151 DIVERSION BOX, LOCATED UNDERGROUND, IS A REINFORCED CONCRETE STRUCTURE 56' x 24' x 17' (LxWxD). THE BOX DRAINS TO CATCH TANK 241-S-302-A. THE DIVERSION BOX TRANSPORTS MIXED WASTE SOLUTIONS FROM PROCESSING AND DECONTAMINATION OPERATIONS.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241S304 001	1	PROCESS AND PRODUCTION	24	7	52	241-S-302A CATCH TANK

THE CATCH TANK SERVES THE 241-S-151 TRANSFER BOX WHICH PROCESSES PROCESS CONDENSATE AND FLUSH WATER. THE CATCH TANK CONSISTS OF A HORIZONTAL CYLINDRICAL CARBON STEEL VESSEL, A STEAM JET BOX RESTING ON THE TANK, AND A PUMP PIT ABOVE THE TANK. THE DIAMETER OF THE TANK IS 8 FEET, 10 7/8 INCHES AND 40 FEET LONG.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241SX113 001	1	TANKS AND VESSELS	24	7	52	241-SX-113, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241SX115 001	1	TANKS AND VESSELS	24	7	52	241-SX-115, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241SYA 001	1	PROCESS AND PRODUCTION	24	7	52	241-SY-A VALVE PIT

THE CONCRETE VALVE PIT IS 14' x 12' x 7'10"; IS MADE OF CONCRETE, AND IS LOCATED UNDERGROUND. WASTES TRANSFERRED VIA 241-SY-A INCLUDES LAB WASTE, COMPLEX CONCENTRATE, AND DOUBLE SHELL SLURRY.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241SYB 001	1	PROCESS AND PRODUCTION	24	7	52	241-SY-B VALVE PIT

THE 241-SY-B VALVE PIT IS A 14' x 12' x 7'10" CONCRETE PIT UTILIZED TO TRANSFER SY TANK FARM LAB WASTE, COMPLEX CONCENTRATE, AND DOUBLE SHELL SLURRY.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241T101 001	1	TANKS AND VESSELS	24	7	52	241-T-101, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241T102 001	1	TANKS AND VESSELS	24	7	52	241-T-102, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241T103 001	1	TANKS AND VESSELS	24	7	52	241-T-103, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241T104 001	1	TANKS AND VESSELS	24	7	52	241-T-104, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241T105 001	1	TANKS AND VESSELS	24	7	52	241-T-105, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241T106 001	1	TANKS AND VESSELS	24	7	52	241-T-106, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241T107 001	1	TANKS AND VESSELS	24	7	52	241-T-107, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241T108 001	1	TANKS AND VESSELS	24	7	52	241-T-108, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241T109 001	1	TANKS AND VESSELS	24	7	52	241-T-109, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241T110 001	1	TANKS AND VESSELS	24	7	52	241-T-110, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241T111 001	1	TANKS AND VESSELS	24	7	52	241-T-111, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241T112 001	1	TANKS AND VESSELS	24	7	52	241-T-112, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241T201 001	1	TANKS AND VESSELS	24	7	52	241-T-201, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241T202 001	1	TANKS AND VESSELS	24	7	52	241-T-201, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241T203 001	1	TANKS AND VESSELS	24	7	52	241-T-203, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241T204 001	1	TANKS AND VESSELS	24	7	52	241-T-204, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241TX101 001	1	TANKS AND VESSELS	24	7	52	241-TX-101, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241TX102 001	1	TANKS AND VESSELS	24	7	52	241-TX-102, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241TX103 001	1	TANKS AND VESSELS	24	7	52	241-TX-103, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241TX104 001	1	TANKS AND VESSELS	24	7	52	241-TX-104, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241TX105 001	1	TANKS AND VESSELS	24	7	52	241-TX-105, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX106 001	1	TANKS AND VESSELS	24	7	52	241-TX-106, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX107 001	1	TANKS AND VESSELS	24	7	52	241-TX-107, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX108 001	1	TANKS AND VESSELS	24	7	52	241-TX-108, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX109 001	1	TANKS AND VESSELS	24	7	52	241-TX-109, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX110 001	1	TANKS AND VESSELS	24	7	52	241-TX-110, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX111 001	1	TANKS AND VESSELS	24	7	52	241-TX-111, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX112 001	1	TANKS AND VESSELS	24	7	52	241-TX-112, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX113 001	1	TANKS AND VESSELS	24	7	52	241-TX-113, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX114 001	1	TANKS AND VESSELS	24	7	52	241-TX-114, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX115 001	1	TANKS AND VESSELS	24	7	52	241-TX-115, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX116 001	1	TANKS AND VESSELS	24	7	52	241-TX-116, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX117 001	1	TANKS AND VESSELS	24	7	52	241-TX-117, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX118 001	1	TANKS AND VESSELS	24	7	52	241-TX-118, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX152 001	1	PROCESS AND PRODUCTION	24	7	52	241-TX-152 DIVERSION BOX

THE 241-TX-152 DIVERSION BOX IS A REINFORCED CONCRETE STRUCTURE WITH OVERALL DIMENSIONS OF ~ 10.5 FEET LONG, 8 FEET WIDE, AND 12 FEET DEEP. THE BOX DRAINS TO CATCH STATION 244-TX AND IS EQUIPPED WITH A LEAK DETECTOR THAT ALARMS AT 244-S. THE UNIT TRANSPORTS RADIOACTIVE WASTE SOLUTIONS FROM PROCESSING AND DECONTAMINATION OPERATIONS.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX154 001	1	PROCESS AND PRODUCTION	24	7	52	241-TX-154 DIVERSION BOX

THE 241-TX-154 DIVERSION BOX IS A REINFORCED CONCRETE STRUCTURE WITH OVERALL DIMENSIONS OF ~ 36' x 10' x 18' (LxWxD). THE BOX DRAINS TO CATCH TANK 241-TX-302 C AND IS LOCATED UNDERGROUND. THE DIVERSION BOX TRANSPORTS RADIOACTIVE WASTE SOLUTIONS FROM PROCESSING AND DECONTAMINATION OPERATIONS.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TX302C 001	1	PROCESS AND PRODUCTION	24	7	52	241-TX-302C CATCH TANK

THE CATCH TANK CONSISTS OF A HORIZONTAL CYLINDRICAL VESSEL MADE OF CARBON STEEL, A STEAM JET BOX RESTING ON THE TANK, AND A PUMP PIT ABOVE THE TANK. THE TANK SERVES DIVERSION BOX 241-TX-154. THE PUMP PIT IS 5'0" I.D. GALVANIZED CORRUGATED METAL PIPE WHICH IS 4'6" DEEP, A 12" SCH. 40 RISER ASTM A53 DESCENDS APPROXIMATELY 23' (TX) FROM THE PUMP PIT TO THE TANK. A 3" PIT FLOOR DRAIN EMPTIES INTO THE RISER. THERE ARE ALSO TWO 4" SCH. 40 STAINLESS STEEL PIPE RISERS AND TWO 4" SCH. 40 BULK STEEL PIPE DRAINS (ALL UNENCASED). BLIND FLANGES ARE SEALED WITH G-X GASKETS ON THE STAINLESS RISERS, AND ALL OF THE TANK PENETRATIONS USE G-X GASKETS. THE TANK ITSELF RESTS ON A SAND BED. IT IS MADE OF 9/16" THICK CARBON STEEL, 8'10 7/8" I.D., AND APPROXIMATELY 40 FT. LONG. A 1" UNENCASED RAW WATER LINE SUPPLIES FLUSH WATER TO THE STEAM JET BOX RESTING ON THE TANK. THE INTERIOR OF THE TANK IS LEFT UNPAINTED, WHILE THE EXTERIOR HAS A COAL TAR ENAMEL PER H-2-833 NOTE 4. H-2-832, 833 H-2-71643

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TY101 001	1	TANKS AND VESSELS	24	7	52	241-TY-101, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TY102 001	1	TANKS AND VESSELS	24	7	52	241-TY-102, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TY103 001	1	TANKS AND VESSELS	24	7	52	241-TY-103, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TY104 001	1	TANKS AND VESSELS	24	7	52	241-TY-104, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TY105 001	1	TANKS AND VESSELS	24	7	52	241-TY-105, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241TY106 001	1	TANKS AND VESSELS	24	7	52	241-TY-106, 750,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241U101 001	1	TANKS AND VESSELS	24	7	52	241-U-101, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241U102 001	1	TANKS AND VESSELS	24	7	52	241-U-102, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241U103 001	1	TANKS AND VESSELS	24	7	52	241-U-103, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241U104 001	1	TANKS AND VESSELS	24	7	52	241-U-104, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241U105 001	1	TANKS AND VESSELS	24	7	52	241-U-105, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241U106 001	1	TANKS AND VESSELS	24	7	52	241-U-106, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241U107 001	1	TANKS AND VESSELS	24	7	52	241-U-107, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241U108 001	1	TANKS AND VESSELS	24	7	52	241-U-108, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241U109 001	1	TANKS AND VESSELS	24	7	52	241-U-109, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241U110 001	1	TANKS AND VESSELS	24	7	52	241-U-110, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241U111 001	1	TANKS AND VESSELS	24	7	52	241-U-111, 530,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-241U112 001	1	TANKS AND VESSELS	24	7	52	241-U-112, 530,000 GALLON SINGLE-SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241U151 001	1	PROCESS AND PRODUCTION	24	7	52	241-U-151 DIVERSION BOX.

THE 241-U-151 DIVERSION BOX IS A REINFORCED CONCRETE STRUCTURE WITH DIMENSIONS OF 20' x 9' x 16'. THE BOX DRAINS TO CATCH TANK 241-U-301. WASTE TRANSPORTED VIA THE 241-U-151 DIVERSION BOX IS MIXED WASTE FROM PROCESSING AND DECONTAMINATION OPERATIONS.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241U152 001	1	PROCESS AND PRODUCTION	24	7	52	241-U-152 DIVERSION BOX

THE 241-U-152 DIVERSION BOX IS A REINFORCED CONCRETE STRUCTURE 28' x 9' x 17' (LxWxD). THE BOX DRAINS TO CATCH TANK 241-U-301. THE BOX IS USED TO TRANSPORT MIXED WASTE SOLUTIONS FROM PROCESSING AND DECONTAMINATION OPERATIONS.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241U201 001	1	TANKS AND VESSELS	24	7	52	241-U-201, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241U202 001	1	TANKS AND VESSELS	24	7	52	241-U-202, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241U203 001	1	TANKS AND VESSELS	24	7	52	241-U-203, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241U204 001	1	TANKS AND VESSELS	24	7	52	241-U-204, 55,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241U301B 001	1	PROCESS AND PRODUCTION	24	7	52	241-U-301B CATCH TANK

241-U-301B CONSISTS OF A CATCH TANK AND A PUMP PIT DIRECTLY ABOVE THE CATCH TANK. THE CATCH TANK IS A 36,000 GALLON UNLINED REINFORCED CONCRETE TANK APPROXIMATELY 6' BELOW GRADE. THE WALL THICKNESS WAS NOT IDENTIFIED, BUT IT APPEARS TO BE APPROXIMATELY 6" ON THE DRAWINGS LISTED BELOW. THE TANK DIAMETER IS 20' AND THE BOTTOM IS FLAT. THE TANK OVERFLOWS THROUGH AN INLET LINE AT 15' 6". THIS OVERFLOW LINE IS THE DRAIN FROM U-151 AND U-152. THE PUMP PIT IS 5' IN DIAMETER, 5' DEEP, AND MADE OF 14 GAGE GALVANIZED CORRUGATED CULVERT PIPE. THE BASE IS 6' THICK CONCRETE. THE BASE IS NOT SHOWN TO BE SLOPING. THERE IS A 3"-M24 FLOOR DRAIN THAT EMPTIES INTO THE 12" RISER. THIS RISER IS LISTED IN THE PIPE SURVEY, H-2-(71643, 71653, 72903) SD-RE-TI-057 0-0.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241UX154 001	1	PROCESS AND PRODUCTION	24	7	52	241-UX-154 DIVERSION BOX

THE 241-UX-154 DIVERSION BOX IS REINFORCED CONCRETE WITH DIMENSIONS OF 48' x 10' x 17' (LxWxD). THE BOX DRAINS TO 241-UX-302-A AND IS EQUIPPED WITH A LEAK DETECTOR THAT ALARMS AT 242-S. THE DIVERSION BOX IS UNDERGROUND. THE BOX TRANSPORTS MIXED WASTE SOLUTIONS FROM PROCESSING AND DECONTAMINATION OPERATIONS.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-241UX302A 001	1	PROCESS AND PRODUCTION	24	7	52	241-UX-302A CATCH TANK

THE CATCH TANK CONSISTS OF A HORIZONTAL CYLINDRICAL VESSEL MADE OF CARBON STEEL. A STEAM JET BOX RESTING ON THE TANK. AND A PUMP PIT ABOVE THE TANK. THE TANK SERVES DIVERSION BOX 241-UX-154.
 THE PUMP PIT IS A 5'0 I.D. GALVANIZED CORRUGATED METAL PIPE WHICH IS 4'6" DEEP. A 12" SCH. 40 RISER ASTM 153 DESCENDS APPROXIMATELY 20' (TX) FROM THE PUMP PIT TO THE TANK. A 3" PIT FLOOR DRAIN EMPTIES INTO THE RISER. THERE ARE ALSO TWO 4" SCH. 40 STAINLESS STEEL PIPE RISERS AND TWO 4" SCH. 40 BULK STEEL PIPE DRAINS (ALL UNENCASED). BLIND FLANGES ARE SEALED WITH G-X GASKETS ON THE STAINLESS RISERS, AND ALL OF THE TANK PENETRATIONS USE G-X GASKETS.
 THE TANK ITSELF RESTS ON A SAND BED. IT IS MADE OF 9/16" THICK CARBON STEEL, 8'10 7/8" I.D., AND APPROXIMATELY 40 FT. LONG. A 1" UNENCASED RAW WATER LINE SUPPLIES FLUSH WATER TO THE STEAM JET BOX RESTING ON THE TANK. THE INTERIOR OF THE TANK IS LEFT UNPAINTED, WHILE THE EXTERIOR HAS A COAL TAR ENAMEL PER H-2-833 NOTE 4. H-2-832, 833 H-2-71643

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-242S 001	1	PROCESS AND PRODUCTION				PUMP ROOM OF THE 242-S EVAPORATOR BUILDING. THIS IS IN A STANDBY/SHUTDOWN MODE.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-242S 001	2	PROCESS AND PRODUCTION				EVAPORATOR ROOM OF THE 242-S EVAPORATOR BUILDING. THIS IS IN A STANDBY/SHUTDOWN MODE.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-242S 001	3	PROCESS AND PRODUCTION				CONDENSER ROOM OF THE 242-S EVAPORATOR BUILDING. THIS IS IN A STANDBY/SHUTDOWN MODE.

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-242S 001	4	SOURCE EMISSIONS ROLL-UP				TOTAL EMISSIONS FOR EMISSION POINT P-242S-001

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-242T 001	1	PROCESS AND PRODUCTION				PUMP ROOM OF THE 242-T EVAPORATOR BUILDING PUT ON STANDBY-SHUTDOWN ON APRIL 15, 1976.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-242T 001	2	PROCESS AND PRODUCTION				EVAPORATOR ROOM OF THE 242-T EVAPORATOR BUILDING PUT ON STANDBY-SHUTDOWN ON APRIL 15, 1976.
200W P-242T 001	3	PROCESS AND PRODUCTION				CONDENSER ROOM OF THE 242-T EVAPORATOR BUILDING PUT ON STANDBY-SHUTDOWN ON APRIL 15, 1976.
200W P-242T 001	4	SOURCE EMISSIONS ROLL-UP				TOTAL EMISSIONS FOR EMISSION POINT P-242T-001
200W P-244S 001	1	PROCESS AND PRODUCTION	24	7	52	244-S CATCH STATION THE 244-S DCRT IS A SHORT TERM WASTE STORAGE FACILITY THAT INCLUDES A DCRT AND RELATED EQUIPMENT. IT IS USED FOR INTERIM STORAGE OF LIQUID WASTES AND AS A VALVE PIT FOR TRANSFER OPERATIONS. WASTES PROCESSED INCLUDES WASTE FROM S AND SX TANK FARMS, T PLANT, U PLANT, AND THE REDOX LAB.
200W P-244TX 001	1	PROCESS AND PRODUCTION	24	7	52	244-TX CATCH STATION THE 244-TX CATCH STATION IS A SHORT TERM WASTE STORAGE FACILITY THAT CONSISTS OF A DCRT AND RELATED EQUIPMENT. IT IS USED FOR INTERIM STORAGE OF LIQUID WASTES AND AS A VALVE PIT FOR WASTE TRANSFER OPERATIONS. WASTE SOLUTIONS ARE FROM PROCESSING AND DECONTAMINATION OPERATIONS.
200W P-244U 001	1	PROCESS AND PRODUCTION	24	7	52	244-U DOUBLE-CONTAINED RECEIVER TANK THE 244 U DCRT IS A SHORT TERM WASTE STORAGE FACILITY THAT CONSISTS OF A DCRT AND RELATED EQUIPMENT. IT IS USED FOR INTERIM STORAGE OF LIQUID WASTES AND AS A VALVE PIT FOR WASTE TRANSFER OPERATIONS. WASTE IS RECEIVED FROM U TANK FARM SALT WELL WASTES.
200W P-296P022 001	1	TANKS AND VESSELS	24	7	52	101-SY UNDERGROUND STORAGE TANK.
200W P-296P022 001	2	TANKS AND VESSELS	24	7	52	102-SY UNDERGROUND STORAGE TANK.
200W P-296P022 001	3	TANKS AND VESSELS	24	7	52	103-SY UNDERGROUND STORAGE TANK.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296P028 001	1	TANKS AND VESSELS	24	7	52	101-SY UNDERGROUND STORAGE TANK.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296P028 001	2	TANKS AND VESSELS	24	7	52	102-SY UNDERGROUND STORAGE TANK.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296P028 001	3	TANKS AND VESSELS	24	7	52	103-SY UNDERGROUND STORAGE TANK.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S025 001	1	TANKS AND VESSELS	24	7	52	101-SY UNDERGROUND STORAGE TANK.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S025 001	2	TANKS AND VESSELS	24	7	52	102-SY UNDERGROUND STORAGE TANK.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296S025 001	3	TANKS AND VESSELS	24	7	52	103-SY UNDERGROUND STORAGE TANK.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296SX 001	1	TANKS AND VESSELS	24	7	52	241-SX-101, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296SX 001	2	TANKS AND VESSELS	24	7	52	241-SX-102, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296SX 001	3	TANKS AND VESSELS	24	7	52	241-SX-103, 1,000,000 GALLON SINGLE-SHELL UNDERGROUND STORAGE TANK
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296SX 001	4	TANKS AND VESSELS	24	7	52	241-SX-104, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296SX 001	5	TANKS AND VESSELS	24	7	52	241-SX-105, 1,000,000 GALLON SINGLE-SHELL UNDERGROUND STORAGE TANK
200W P-296SX 001	6	TANKS AND VESSELS	24	7	52	241-SX-106, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-296SX 001	7	TANKS AND VESSELS	24	7	52	241-SX-107, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-296SX 001	8	TANKS AND VESSELS	24	7	52	241-SX-108, 1,000,000 GALLON SINGLE-SHELL UNDERGROUND STORAGE TANK
200W P-296SX 001	9	TANKS AND VESSELS	24	7	52	241-SX-109, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-296SX 001	10	TANKS AND VESSELS	24	7	52	241-SX-110, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-296SX 001	11	TANKS AND VESSELS	24	7	52	241-SX-111, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-296SX 001	12	TANKS AND VESSELS	24	7	52	241-SX-112, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK
200W P-296SX 001	13	TANKS AND VESSELS	24	7	52	241-SX-114, 1,000,000 GALLON SINGLE SHELL UNDERGROUND STORAGE TANK

AIR EMITTING FACILITY NAME: 200W Tank Farm and Associated Structures
 FACILITY ID: 200W Tank Farm
 FACILITY NAME: 200W Tank Farm and Associated Structures

Source (Process) Listing

Source Raw Materials Usage									
Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description	200W P-296U01 001	200W P-296SY 001	Em Point
	1	PROCESS AND PRODUCTION	24	7	52	244-U DOUBLE CONTAINMENT RECEIVER TANK			
Fuels Usage by Source Processes									
Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description	200W P-296SY 001	200W P-296SY 001	Em Point
	4	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-296SY-001			
Fuels Usage by Control Devices									
Em Point	Qty Uom	Fuel	Em Point	Qty Uom	Fuel	Em Point	Qty Uom	Fuel	Em Point

Source Raw Materials Usage

Em Point	Src# Nbr	Src# Type	Process Rate	Process Uom	Material
Em Point	Src# Nbr	Src# Type	Process Rate	Process Uom	Material

Fuels Usage by Source Processes

Em Point	Src# Nbr	Src# Type	Qty Uom	Fuel
Em Point	Src# Nbr	Src# Type	Qty Uom	Fuel

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty Uom	Fuel
Em Point	Ctl Nbr	Ctl Type	Qty Uom	Fuel

Point Source Criteria Pollutants - Type: CO

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: CO

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241S101 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241S102 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241S103 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241S104 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241S105 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241S106 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241S107 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241S108 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241S109 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241S110 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241S111 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241S112 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241SX113 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241SX115 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241T101 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241T102 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241T103 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241T104 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241T105 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241T106 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241T107 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241T108 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241T109 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241T110 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241T111 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241T112 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: CO

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241T201 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241T202 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241T203 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241T204 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241TX101 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241TX102 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241TX103 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241TX104 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241TX105 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241TX106 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241TX107 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241TX108 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241TX109 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241TX110 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241TX111 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241TX112 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241TX113 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241TX114 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241TX115 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241TX116 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241TX117 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241TX118 001	1	TANKS AND VESSELS	.000103000	.000103000	CARBON MONOXIDE
200W P-241TY101 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241TY102 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241TY103 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241TY104 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: CO

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241TY105 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241TY106 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241U101 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241U102 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241U103 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241U104 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241U105 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241U106 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241U107 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241U108 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241U109 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241U110 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241U111 001	1	TANKS AND VESSELS	.000950000	.000950000	CARBON MONOXIDE
200W P-241U112 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241U201 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241U202 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241U203 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-241U204 001	1	TANKS AND VESSELS	.000439000	.000439000	CARBON MONOXIDE
200W P-296SX 001	14	SOURCE EMISSIONS ROLL-UP	.224000000	.224000000	CARBON MONOXIDE
200W P-296SY 001	4	SOURCE EMISSIONS ROLL-UP	.051600000	.051600000	CARBON MONOXIDE
Sum			.326945000	.326945000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: NOX

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200W P-241S101 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241S102 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241S103 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241S104 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241S105 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241S106 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241S107 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241S108 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241S109 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241S110 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241S111 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241S112 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241SX113 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200W P-241SX115 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200W P-241T101 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241T102 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241T103 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241T104 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200W P-241T105 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241T106 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241T107 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241T108 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200W P-241T109 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241T110 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241T111 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241T112 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: NOX

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241T201 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241T202 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241T203 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241T204 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241TX101 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE (NO)
200W P-241TX102 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241TX103 001	1	TANKS AND VESSELS	.000057200	.000057300	NITROGEN OXIDE (NO)
200W P-241TX104 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE (NO)
200W P-241TX105 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241TX106 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241TX107 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE (NO)
200W P-241TX108 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE (NO)
200W P-241TX109 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE (NO)
200W P-241TX110 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241TX111 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241TX112 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241TX113 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241TX114 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241TX115 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241TX116 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241TX117 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE (NO)
200W P-241TX118 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE (NO)
200W P-241TY101 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE (NO)
200W P-241TY102 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE (NO)
200W P-241TY103 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE (NO)
200W P-241TY104 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE (NO)

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: NOX

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241TY105 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200W P-241TY106 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200W P-241U101 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200W P-241U102 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241U103 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241U104 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200W P-241U105 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241U106 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241U107 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241U108 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241U109 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241U110 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241U111 001	1	TANKS AND VESSELS	.000057200	.000057200	NITROGEN OXIDE {NO}
200W P-241U112 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200W P-241U201 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200W P-241U202 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200W P-241U203 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200W P-241U204 001	1	TANKS AND VESSELS	.000026400	.000026400	NITROGEN OXIDE {NO}
200W P-296SX 001	14	SOURCE EMISSIONS ROLL-UP	.000743000	.000743000	NITROGEN OXIDE {NO}
200W P-296SY 001	4	SOURCE EMISSIONS ROLL-UP	.000172000	.000172000	NITROGEN OXIDE {NO}
Sum			.004056600	.004056700	

AIR EMISSIONS INVENTORY REPORT
 FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200W P-241S101 001	1	TANKS AND VESSELS		.000004130	.000004130	1,3-BUTADIENE
				.000075100	.000075100	2-HEXANONE
				.000119000	.000119000	2-PENTANONE
				.001430000	.001430000	ACETONE
				.000689000	.000689000	ACETONITRILE
				.000032800	.000032800	BENZENE
				.000084000	.000084000	HEPTANE
				.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
				.000087600	.000087600	N-HEXANE
				.000045700	.000045700	NONANE
				.000047900	.000047900	OCTANE
				.000006670	.000006670	TOLUENE
200W P-241S102 001	1	TANKS AND VESSELS		.000004130	.000004130	1,3-BUTADIENE
				.000075100	.000075100	2-HEXANONE
				.000119000	.000119000	2-PENTANONE
				.001430000	.001430000	ACETONE
				.000689000	.000689000	ACETONITRILE
				.000032800	.000032800	BENZENE
				.000084000	.000084000	HEPTANE
				.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
				.000087600	.000087600	N-HEXANE
				.000045700	.000045700	NONANE
				.000047900	.000047900	OCTANE
				.000006670	.000006670	TOLUENE
200W P-241S1Q3 001	1	TANKS AND VESSELS		.000004130	.000004130	1,3-BUTADIENE
				.000075100	.000075100	2-HEXANONE
				.000119000	.000119000	2-PENTANONE
				.001430000	.001430000	ACETONE
				.000689000	.000689000	ACETONITRILE
				.000032800	.000032800	BENZENE
				.000084000	.000084000	HEPTANE
				.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
				.000087600	.000087600	N-HEXANE
				.000045700	.000045700	NONANE
				.000047900	.000047900	OCTANE
				.000006670	.000006670	TOLUENE
200W P-241S104 001	1	TANKS AND VESSELS		.000004130	.000004130	1,3-BUTADIENE
				.000075100	.000075100	2-HEXANONE
				.000119000	.000119000	2-PENTANONE
				.001430000	.001430000	ACETONE
				.000689000	.000689000	ACETONITRILE
				.000032800	.000032800	BENZENE
				.000084000	.000084000	HEPTANE
				.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
				.000087600	.000087600	N-HEXANE
				.000045700	.000045700	NONANE
				.000047900	.000047900	OCTANE
				.000006670	.000006670	TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241S105 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241S106 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241S107 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241S108 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241S109 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241S110 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241S111 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241S112 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200W P-241SX113 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241SX115 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241T101 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241T102 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200W P-241T103 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241T104 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241T105 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241T106 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241T107 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241T108 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241T109 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241T110 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200W P-241T111 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241T112 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241T201 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241T202 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct] Actual (tons/yr)	Pollutant
200W P-241T203 001	1	TANKS AND VESSELS				
				.000001910	.000001910	1,3-BUTADIENE
				.0000034700	.0000034700	2-HEXANONE
				.0000055100	.0000055100	2-PENTANONE
				.0000662000	.0000662000	ACETONE
				.0000319000	.0000319000	ACETONITRILE
				.0000015100	.0000015100	BENZENE
				.0000389000	.0000389000	HEPTANE
				.0000376000	.0000376000	METHYL N-AMYL KETONE (2-HEPTANONE)
				.0000405000	.0000405000	N-HEXANE
				.0000211000	.0000211000	NONANE
				.0000221000	.0000221000	OCTANE
				.0000030800	.0000030800	TOLUENE
200W P-241T204 001	1	TANKS AND VESSELS				
				.000001910	.000001910	1,3-BUTADIENE
				.0000034700	.0000034700	2-HEXANONE
				.0000055100	.0000055100	2-PENTANONE
				.0000662000	.0000662000	ACETONE
				.0000319000	.0000319000	ACETONITRILE
				.0000015100	.0000015100	BENZENE
				.0000389000	.0000389000	HEPTANE
				.0000376000	.0000376000	METHYL N-AMYL KETONE (2-HEPTANONE)
				.0000405000	.0000405000	N-HEXANE
				.0000211000	.0000211000	NONANE
				.0000221000	.0000221000	OCTANE
				.0000030800	.0000030800	TOLUENE
200W P-241TX101 001	1	TANKS AND VESSELS				
				.0000041300	.0000041300	1,3-BUTADIENE
				.0000075100	.0000075100	2-HEXANONE
				.0000119000	.0000119000	2-PENTANONE
				.0014300000	.0014300000	ACETONE
				.0006890000	.0006890000	ACETONITRILE
				.0000328000	.0000328000	BENZENE
				.0000840000	.0000840000	HEPTANE
				.0000813000	.0000813000	METHYL N-AMYL KETONE (2-HEPTANONE)
				.0000876000	.0000876000	N-HEXANE
				.0000457000	.0000457000	NONANE
				.0000479000	.0000479000	OCTANE
				.0000066700	.0000066700	TOLUENE
200W P-241TX102 001	1	TANKS AND VESSELS				
				.000001910	.000001910	1,3-BUTADIENE
				.0000034700	.0000034700	2-HEXANONE
				.0000055100	.0000055100	2-PENTANONE
				.0000662000	.0000662000	ACETONE
				.0000319000	.0000319000	ACETONITRILE
				.0000015100	.0000015100	BENZENE
				.0000389000	.0000389000	HEPTANE
				.0000376000	.0000376000	METHYL N-AMYL KETONE (2-HEPTANONE)
				.0000405000	.0000405000	N-HEXANE
				.0000211000	.0000211000	NONANE
				.0000221000	.0000221000	OCTANE
				.0000030800	.0000030800	TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200W P-241TX103 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241TX104 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241TX105 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241TX106 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241TX107 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241TX108 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241TX109 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241TX110 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Src# Nbr	Src# Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200W P-241TX111 001	1	TANKS AND VESSELS		.000001910	.000001910	1,3-BUTADIENE
				.000034700	.000034700	2-HEXANONE
				.000055100	.000055100	2-PENTANONE
				.000662000	.000662000	ACETONE
				.000319000	.000319000	ACETONITRILE
				.000015100	.000015100	BENZENE
				.000038900	.000038900	HEPTANE
				.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
				.000040500	.000040500	N-HEXANE
				.000021100	.000021100	NONANE
				.000022100	.000022100	OCTANE
				.000003080	.000003080	TOLUENE
200W P-241TX112 001	1	TANKS AND VESSELS		.000001910	.000001910	1,3-BUTADIENE
				.000034700	.000034700	2-HEXANONE
				.000055100	.000055100	2-PENTANONE
				.000662000	.000662000	ACETONE
				.000319000	.000319000	ACETONITRILE
				.000015100	.000015100	BENZENE
				.000038900	.000038900	HEPTANE
				.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
				.000040500	.000040500	N-HEXANE
				.000021100	.000021100	NONANE
				.000022100	.000022100	OCTANE
				.000003080	.000003080	TOLUENE
200W P-241TX113 001	1	TANKS AND VESSELS		.000001910	.000001910	1,3-BUTADIENE
				.000034700	.000034700	2-HEXANONE
				.000055100	.000055100	2-PENTANONE
				.000662000	.000662000	ACETONE
				.000319000	.000319000	ACETONITRILE
				.000015100	.000015100	BENZENE
				.000038900	.000038900	HEPTANE
				.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
				.000040500	.000040500	N-HEXANE
				.000021100	.000021100	NONANE
				.000022100	.000022100	OCTANE
				.000003080	.000003080	TOLUENE
200W P-241TX114 001	1	TANKS AND VESSELS		.000001910	.000001910	1,3-BUTADIENE
				.000034700	.000034700	2-HEXANONE
				.000055100	.000055100	2-PENTANONE
				.000662000	.000662000	ACETONE
				.000319000	.000319000	ACETONITRILE
				.000015100	.000015100	BENZENE
				.000038900	.000038900	HEPTANE
				.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
				.000040500	.000040500	N-HEXANE
				.000021100	.000021100	NONANE
				.000022100	.000022100	OCTANE
				.000003080	.000003080	TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200W P-241TX115 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000034700	.000034700	2-HEXANONE
			.000055100	.000055100	2-PENTANONE
			.000662000	.000662000	ACETONE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000038900	.000038900	HEPTANE
			.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000040500	.000040500	N-HEXANE
			.000021100	.000021100	NONANE
			.000022100	.000022100	OCTANE
			.000003080	.000003080	TOLUENE
200W P-241TX116 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000034700	.000034700	2-HEXANONE
			.000055100	.000055100	2-PENTANONE
			.000662000	.000662000	ACETONE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000038900	.000038900	HEPTANE
			.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000040500	.000040500	N-HEXANE
			.000021100	.000021100	NONANE
			.000022100	.000022100	OCTANE
			.000003080	.000003080	TOLUENE
200W P-241TX117 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000034700	.000034700	2-HEXANONE
			.000055100	.000055100	2-PENTANONE
			.000662000	.000662000	ACETONE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000038900	.000038900	HEPTANE
			.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000040500	.000040500	N-HEXANE
			.000021100	.000021100	NONANE
			.000022100	.000022100	OCTANE
			.000003080	.000003080	TOLUENE
200W P-241TX118 001	1	TANKS AND VESSELS	.000000731	.000000731	ACETONITRILE
			.000000397	.000000397	BENZENE
			.000003910	.000003910	CARBON TETRACHLORIDE
			.000013100	.000013100	ETHYL BUTYL KETONE
			.000000578	.000000578	METHYL CHLORIDE
			.000001010	.000001010	TETRAHYDROFURAN
			.000001170	.000001170	TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241TY101 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000075100	.000075100	2-HEXANONE
			.000119000	.000119000	2-PENTANONE
			.001430000	.001430000	ACETONE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000084000	.000084000	HEPTANE
			.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000087600	.000087600	N-HEXANE
			.000045700	.000045700	NONANE
			.000047900	.000047900	OCTANE
			.000006670	.000006670	TOLUENE
200W P-241TY102 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000075100	.000075100	2-HEXANONE
			.000119000	.000119000	2-PENTANONE
			.001430000	.001430000	ACETONE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000084000	.000084000	HEPTANE
			.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000087600	.000087600	N-HEXANE
			.000045700	.000045700	NONANE
			.000047900	.000047900	OCTANE
			.000006670	.000006670	TOLUENE
200W P-241TY103 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000075100	.000075100	2-HEXANONE
			.000119000	.000119000	2-PENTANONE
			.001430000	.001430000	ACETONE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000084000	.000084000	HEPTANE
			.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000087600	.000087600	N-HEXANE
			.000045700	.000045700	NONANE
			.000047900	.000047900	OCTANE
			.000006670	.000006670	TOLUENE
200W P-241TY104 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000075100	.000075100	2-HEXANONE
			.000119000	.000119000	2-PENTANONE
			.001430000	.001430000	ACETONE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000084000	.000084000	HEPTANE
			.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000087600	.000087600	N-HEXANE
			.000045700	.000045700	NONANE
			.000047900	.000047900	OCTANE
			.000006670	.000006670	TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200W P-241TY105 001	1	TANKS AND VESSELS		.000001910 .000034700 .000055100 .000066200 .000031900 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000066200 .000031900 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241TY106 001	1	TANKS AND VESSELS		.000001910 .000034700 .000055100 .000066200 .000031900 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000066200 .000031900 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241U101 001	1	TANKS AND VESSELS		.000001910 .000034700 .000055100 .000066200 .000031900 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000066200 .000031900 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241U102 001	1	TANKS AND VESSELS		.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241U103 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000075100	.000075100	2-HEXANONE
			.000119000	.000119000	2-PENTANONE
			.001430000	.001430000	ACETONE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000084000	.000084000	HEPTANE
			.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000087600	.000087600	N-HEXANE
			.000045700	.000045700	NONANE
			.000047900	.000047900	OCTANE
			.000006670	.000006670	TOLUENE
200W P-241U104 001	1	TANKS AND VESSELS	.000001910	.000001910	1,3-BUTADIENE
			.000034700	.000034700	2-HEXANONE
			.000055100	.000055100	2-PENTANONE
			.000662000	.000662000	ACETONE
			.000319000	.000319000	ACETONITRILE
			.000015100	.000015100	BENZENE
			.000038900	.000038900	HEPTANE
			.000037600	.000037600	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000040500	.000040500	N-HEXANE
			.000021100	.000021100	NONANE
			.000022100	.000022100	OCTANE
			.000003080	.000003080	TOLUENE
200W P-241U105 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000075100	.000075100	2-HEXANONE
			.000119000	.000119000	2-PENTANONE
			.001430000	.001430000	ACETONE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000084000	.000084000	HEPTANE
			.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000087600	.000087600	N-HEXANE
			.000045700	.000045700	NONANE
			.000047900	.000047900	OCTANE
			.000006670	.000006670	TOLUENE
200W P-241U106 001	1	TANKS AND VESSELS	.000004130	.000004130	1,3-BUTADIENE
			.000075100	.000075100	2-HEXANONE
			.000119000	.000119000	2-PENTANONE
			.001430000	.001430000	ACETONE
			.000689000	.000689000	ACETONITRILE
			.000032800	.000032800	BENZENE
			.000084000	.000084000	HEPTANE
			.000081300	.000081300	METHYL N-AMYL KETONE (2-HEPTANONE)
			.000087600	.000087600	N-HEXANE
			.000045700	.000045700	NONANE
			.000047900	.000047900	OCTANE
			.000006670	.000006670	TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct] Actual (tons/yr)	Pollutant
200W P-241U107 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE
200W P-241U108 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241U109 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241U110 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200W P-241U111 001	1	TANKS AND VESSELS	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	.000004130 .000075100 .000119000 .001430000 .000689000 .000032800 .000084000 .000081300 .000087600 .000045700 .000047900 .000006670	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241U112 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241U201 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241U202 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct] Actual (tons/yr)	Pollutant
200W P-241U203 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-241U204 001	1	TANKS AND VESSELS	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	.000001910 .000034700 .000055100 .000662000 .000319000 .000015100 .000038900 .000037600 .000040500 .000021100 .000022100 .000003080	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-296SX 001	14	SOURCE EMISSIONS ROLL-UP	.000053600 .000977000 .001550000 .018600000 .008960000 .000426000 .001090000 .001060000 .001140000 .000594000 .000623000 .000086700	.000053600 .000977000 .001550000 .018600000 .008960000 .000426000 .001090000 .001060000 .001140000 .000594000 .000623000 .000086700	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE
200W P-296SY 001	4	SOURCE EMISSIONS ROLL-UP	.000012400 .000225000 .000358000 .004300000 .002070000 .000098300 .000252000 .000244000 .000263000 .000137000 .000144000 .000020000	.000012400 .000225000 .000358000 .004300000 .002070000 .000098300 .000252000 .000244000 .000263000 .000137000 .000144000 .000020000	1,3-BUTADIENE 2-HEXANONE 2-PENTANONE ACETONE ACETONITRILE BENZENE HEPTANE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE NONANE OCTANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum			.189052846	.189159946	

Point Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200W P-241S101 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241S102 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241S103 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241S104 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241S105 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241S106 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241S107 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241S108 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200W P-241S109 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000270	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241S110 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241S111 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000004 .000000000 .000000170	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241S112 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241SX113 001	1	TANKS AND VESSELS	.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241SX115 001	1	TANKS AND VESSELS	.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T101 001	1	TANKS AND VESSELS	.000000000 .000014000 .000000003 .000003000	.000000000 .000000007 .000000000 .000000002	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T102 001	1	TANKS AND VESSELS	.000014000 .000000003 .000003000	.000000003 .000000000 .000000001	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T103 001	1	TANKS AND VESSELS	.000014000 .000000003 .000003000	.000000007 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T104 001	1	TANKS AND VESSELS	.000006700 .000000001 .000001400	.000000003 .000000000 .000000001	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T105 001	1	TANKS AND VESSELS	.000014000 .000000003 .000003000	.000000007 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T106 001	1	TANKS AND VESSELS	.000014000 .000000003 .000003000	.000000007 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Cl1 Actual (Ci/yr)	Pollutant
200W P-241T107 001	1	TANKS AND VESSELS	.000014000 .000000003 .000003000	.000000003 .000000000 .000000001	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T108 001	1	TANKS AND VESSELS	.000006700 .000000001 .000001400	.000000003 .000000000 .000000001	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T109 001	1	TANKS AND VESSELS	.000014000 .000000003 .000003000	.000000003 .000000000 .000000001	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T110 001	1	TANKS AND VESSELS	.000014000 .000000003 .000003000	.000000007 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T111 001	1	TANKS AND VESSELS	.000014000 .000000003 .000003000	.000000007 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T112 001	1	TANKS AND VESSELS	.000014000 .000000003 .000003000	.000000007 .000000000 .000000002	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T201 001	1	TANKS AND VESSELS	.000006700 .000000001 .000001400	.000000003 .000000000 .000000001	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T202 001	1	TANKS AND VESSELS	.000006700 .000000001 .000001400	.000000003 .000000000 .000000001	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T203 001	1	TANKS AND VESSELS	.000006700 .000000001 .000001400	.000000003 .000000000 .000000001	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241T204 001	1	TANKS AND VESSELS	.000006700 .000000001 .000001400	.000000003 .000000000 .000000001	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX101 001	1	TANKS AND VESSELS	.000016000 .000000001 .000000024	.000000008 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX102 001	1	TANKS AND VESSELS	.000007300 .000000001 .000000011	.000000004 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX103 001	1	TANKS AND VESSELS	.000016000 .000000001 .000000024	.000000008 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090

AIR EMISSIONS ANALYSIS REPORT
 FACILITY ID: 200W Tank Farm and Associated Structures
 FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant
200W P-241TX104 001	1	TANKS AND VESSELS	.000016000 .000000001 .000000024	.000000008 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX105 001	1	TANKS AND VESSELS	.000007300 .000000001 .000000011	.000000004 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX106 001	1	TANKS AND VESSELS	.000007300 .000000001 .000000011	.000000004 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX107 001	1	TANKS AND VESSELS	.000016000 .000000001 .000000024	.000000008 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX108 001	1	TANKS AND VESSELS	.000016000 .000000001 .000000024	.000000008 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX109 001	1	TANKS AND VESSELS	.000016000 .000000001 .000000024	.000000008 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX110 001	1	TANKS AND VESSELS	.000007300 .000000001 .000000011	.000000004 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX111 001	1	TANKS AND VESSELS	.000007300 .000000001 .000000011	.000000004 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX112 001	1	TANKS AND VESSELS	.000007300 .000000001 .000000011	.000000004 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX113 001	1	TANKS AND VESSELS	.000000260 .000000000 .000000006	.000000000 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX114 001	1	TANKS AND VESSELS	.000007300 .000000001 .000000011	.000000004 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX115 001	1	TANKS AND VESSELS	.000007300 .000000001 .000000011	.000000004 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX116 001	1	TANKS AND VESSELS	.000007300 .000000001 .000000011	.000000004 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200W P-241TX117 001	1	TANKS AND VESSELS	.000007300 .000000001 .000000011	.000000004 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TX118 001	1	TANKS AND VESSELS	.000016000 .000000001 .000000024	.000000008 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TY101 001	1	TANKS AND VESSELS	.000003000 .000000001 .000055000	.000000002 .000000000 .000000028	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TY102 001	1	TANKS AND VESSELS	.000003000 .000000001 .000055000	.000000002 .000000000 .000000028	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TY103 001	1	TANKS AND VESSELS	.000003000 .000000001 .000055000	.000000002 .000000000 .000000028	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TY104 001	1	TANKS AND VESSELS	.000000000 .000000001 .000000530	.000000000 .000000000 .000000000	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TY105 001	1	TANKS AND VESSELS	.000001400 .000000001 .000026000	.000000001 .000000000 .000000013	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241TY106 001	1	TANKS AND VESSELS	.000001400 .000000001 .000026000	.000000001 .000000000 .000000013	CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U101 001	1	TANKS AND VESSELS	.000000036 .000000870 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U102 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U103 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U104 001	1	TANKS AND VESSELS	.000000036 .000000870 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200W P-241U105 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U106 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U107 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U108 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U109 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U110 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U111 001	1	TANKS AND VESSELS	.000000078 .000019000 .000000039 .000500000	.000000000 .000000009 .000000000 .000000250	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U112 001	1	TANKS AND VESSELS	.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U201 001	1	TANKS AND VESSELS	.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U202 001	1	TANKS AND. VESSELS	.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-241U203 001	1	TANKS AND VESSELS	.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200W P-241U204 001	1	TANKS AND VESSELS	.000000036 .000008700 .000000018 .000230000	.000000000 .000000004 .000000000 .000000120	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239 STRONTIUM - 090
200W P-242S 001	1	PROCESS AND PRODUCTION	Refer to	Refer to	
	2	PROCESS AND PRODUCTION	WHC-SD-EN-RPT-007	DOE/RL-94-51	
	3	PROCESS AND PRODUCTION	Rev. 0 Page A-130	Table 2-1	
200W P-242T 001	1	PROCESS AND PRODUCTION	Refer to	Refer to	
	2	PROCESS AND PRODUCTION	WHC-SD-EN-RPT-007	DOE/RL-94-51	
	3	PROCESS AND PRODUCTION	Rev. 0 Page A-137	Table 2-1	
200W P-244S 001	1	PROCESS AND PRODUCTION	Refer to	Refer to	
			WHC-SD-EN-RPT-007	DOE/RL-94-51	
			Rev. 0 Page A-132	Table 2-1	
200W P-244TX 001	1	PROCESS AND PRODUCTION	Refer to	Refer to	
			WHC-SD-EN-RPT-007	DOE/RL-94-51	
			Rev. 0 Page A-139	Table 2-1	

Point Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200W P-244U 001	1	PROCESS AND PRODUCTION	.000000984 .000000014 .012400000 .000001150 54.700000000 .115000000 .749000000 .000025300 .000000093 .001990000 .030200000 .012000000 .009700000 .000439000 34.500000000 .000014600 .001460000 34.500000000	.000000000 .000000000 .000000000 .000000000 .000013680 .000000029 .000000187 .000000000 .000000000 .000000000 .000000008 .000000003 .000000002 .000000000 .000008625 .000000000 .000000000 .000008625	AMERICIUM - 241 CALIFORNIUM - 242/244 CARBON - 014 CERIUM - 143 CESIUM - 137 COBALT 60 EUROPIUM - 154 IODINE - 129 NEPTUNIUM - 237 PLUTONIUM - 238 PLUTONIUM - 239/240 PLUTONIUM - 241 RUTHENIUM/RHODIUM - 106 SELENIUM - 079 STRONTIUM - 090 TECHNETIUM - 099 URANIUM - 238 YTTRIUM - 090

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct Actual (Ci/yr)	Pollutant
200W P-296SX 001	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-127	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
	3	TANKS AND VESSELS			
	4	TANKS AND VESSELS			
	5	TANKS AND VESSELS			
	6	TANKS AND VESSELS			
	7	TANKS AND VESSELS			
	8	TANKS AND VESSELS			
	9	TANKS AND VESSELS			
	10	TANKS AND VESSELS			
	11	TANKS AND VESSELS			
	12	TANKS AND VESSELS			
	13	TANKS AND VESSELS			
200W P-296SY 001	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-115	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
	3	TANKS AND VESSELS			
200W P-296P028	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-115	Refer to DOE/RL-94-51 Table 2-1. Note: Emissions are equivalent, but not additive to the 296-P-23 primary stack, which is emission point 200W P-296SY 001.	
	2	TANKS AND VESSELS			
	3	TANKS AND VESSELS			
200W 296S025	1	TANKS AND VESSELS	NOT YET OPERATIONAL	NOT YET OPERATIONAL	
	2	TANKS AND VESSELS			
	3	TANKS AND VESSELS			
200W 296U011	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-145	NOT YET OPERATIONAL	
200W 296P022	1	TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-113	Refer to DOE/RL-94-51 Table 2-1	
	2	TANKS AND VESSELS			
	3	TANKS AND VESSELS			

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241S101 001	1	TANKS AND VESSELS	.000004130 .000689000	.000004130 .000689000	1,3-BUTADIENE ACETONITRILE

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
	1	TANKS AND VESSELS	.000032800 .000087600 .000006670	.000032800 .000087600 .000006670	BENZENE N-HEXANE TOLUENE
200W P-241S102 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241S103 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241S104 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241S105 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200W P-241S106 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241S107 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241S108 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241S109 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

Point Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200W P-241S110 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS (including Fugitive Appt. Air) & Storage (in lb/day)
 FACILITY ID: 200W Tank Farm and Associated Structures
 FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200W P-241S111 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241S112 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241SX113 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241SX115 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241T101 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241T102 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241T103 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241T104 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. to Emit (tons/yr)	Potential (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200W P-241T105 001	1	TANKS AND VESSELS	1,3-BUTADIENE	.000004130	.000004130	.000004130	1,3-BUTADIENE
			ACETONITRILE	.000689000	.000689000	.000689000	ACETONITRILE
			BENZENE	.000032800	.000032800	.000032800	BENZENE
			N-HEXANE	.000087600	.000087600	.000087600	N-HEXANE
			TOLUENE	.000006670	.000006670	.000006670	TOLUENE
200W P-241T106 001	1	TANKS AND VESSELS	1,3-BUTADIENE	.000004130	.000004130	.000004130	1,3-BUTADIENE
			ACETONITRILE	.000689000	.000689000	.000689000	ACETONITRILE
			BENZENE	.000032800	.000032800	.000032800	BENZENE
			N-HEXANE	.000087600	.000087600	.000087600	N-HEXANE
			TOLUENE	.000006670	.000006670	.000006670	TOLUENE
200W P-241T107 001	1	TANKS AND VESSELS	1,3-BUTADIENE	.000004130	.000004130	.000004130	1,3-BUTADIENE
			ACETONITRILE	.000689000	.000689000	.000689000	ACETONITRILE
			BENZENE	.000032800	.000032800	.000032800	BENZENE
			N-HEXANE	.000087600	.000087600	.000087600	N-HEXANE
			TOLUENE	.000006670	.000006670	.000006670	TOLUENE
200W P-241T108 001	1	TANKS AND VESSELS	1,3-BUTADIENE	.000001910	.000001910	.000001910	1,3-BUTADIENE
			ACETONITRILE	.000319000	.000319000	.000319000	ACETONITRILE
			BENZENE	.000015100	.000015100	.000015100	BENZENE
			N-HEXANE	.000040500	.000040500	.000040500	N-HEXANE
			TOLUENE	.000003080	.000003080	.000003080	TOLUENE
200W P-241T109 001	1	TANKS AND VESSELS	1,3-BUTADIENE	.000004130	.000004130	.000004130	1,3-BUTADIENE
			ACETONITRILE	.000689000	.000689000	.000689000	ACETONITRILE
			BENZENE	.000032800	.000032800	.000032800	BENZENE
			N-HEXANE	.000087600	.000087600	.000087600	N-HEXANE
			TOLUENE	.000006670	.000006670	.000006670	TOLUENE
200W P-241T110 001	1	TANKS AND VESSELS	1,3-BUTADIENE	.000004130	.000004130	.000004130	1,3-BUTADIENE
			ACETONITRILE	.000689000	.000689000	.000689000	ACETONITRILE
			BENZENE	.000032800	.000032800	.000032800	BENZENE
			N-HEXANE	.000087600	.000087600	.000087600	N-HEXANE
			TOLUENE	.000006670	.000006670	.000006670	TOLUENE
200W P-241T111 001	1	TANKS AND VESSELS	1,3-BUTADIENE	.000004130	.000004130	.000004130	1,3-BUTADIENE
			ACETONITRILE	.000689000	.000689000	.000689000	ACETONITRILE
			BENZENE	.000032800	.000032800	.000032800	BENZENE
			N-HEXANE	.000087600	.000087600	.000087600	N-HEXANE
			TOLUENE	.000006670	.000006670	.000006670	TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241T112 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241T201 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241T202 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241T203 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241T204 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct] Actual (tons/yr)	Pollutant
200W P-241TX101 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX102 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX103 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX104 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX105 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX106 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241TX107 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX108 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX109 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX110 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX111 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX112 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX113 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. CtI Actual (tons/yr)	Pollutant
200W P-241TX114 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX115 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX116 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX117 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TX118 001	1	TANKS AND VESSELS	.000000731 .000000397 .0000003910 .000000578 .000001170	.000000731 .000000397 .0000003910 .000000578 .000001170	ACETONITRILE BENZENE CARBON TETRACHLORIDE METHYL CHLORIDE TOLUENE
200W P-241TY101 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TY102 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200W P-241TY103 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TY104 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TY105 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241TY106 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200W P-241U101 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSION INVENTORY LIMIT ALLOCATION REPORT (UP460)
 FACILITY ID: 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
200W P-241U102 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241U103 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241U104 001	1	TANKS AND VESSELS	.000001910 .000319000 .000015100 .000040500 .000003080	.000001910 .000319000 .000015100 .000040500 .000003080	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241U105 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241U106 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241U107 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600	.000004130 .000689000 .000032800 .000087600	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE
200W P-241U108 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-241U109 001	1	TANKS AND VESSELS	.000004130 .000689000 .000032800 .000087600 .000006670	.000004130 .000689000 .000032800 .000087600 .000006670	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Src	Src Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241U110 001	1	1	TANKS AND VESSELS	1,3-BUTADIENE	.000004130	.000004130	1,3-BUTADIENE
				ACETONITRILE	.000689000	.000689000	ACETONITRILE
				BENZENE	.000032800	.000032800	BENZENE
				N-HEXANE	.000087600	.000087600	N-HEXANE
				TOLUENE	.000006670	.000006670	TOLUENE
200W P-241U111 001	1	1	TANKS AND VESSELS	1,3-BUTADIENE	.000004130	.000004130	1,3-BUTADIENE
				ACETONITRILE	.000689000	.000689000	ACETONITRILE
				BENZENE	.000032800	.000032800	BENZENE
				N-HEXANE	.000087600	.000087600	N-HEXANE
				TOLUENE	.000006670	.000006670	TOLUENE
200W P-241U112 001	1	1	TANKS AND VESSELS	1,3-BUTADIENE	.000001910	.000001910	1,3-BUTADIENE
				ACETONITRILE	.000319000	.000319000	ACETONITRILE
				BENZENE	.000015100	.000015100	BENZENE
				N-HEXANE	.000040500	.000040500	N-HEXANE
				TOLUENE	.000003080	.000003080	TOLUENE
200W P-241U201 001	1	1	TANKS AND VESSELS	1,3-BUTADIENE	.000001910	.000001910	1,3-BUTADIENE
				ACETONITRILE	.000319000	.000319000	ACETONITRILE
				BENZENE	.000015100	.000015100	BENZENE
				N-HEXANE	.000040500	.000040500	N-HEXANE
				TOLUENE	.000003080	.000003080	TOLUENE
200W P-241U202 001	1	1	TANKS AND VESSELS	1,3-BUTADIENE	.000001910	.000001910	1,3-BUTADIENE
				ACETONITRILE	.000319000	.000319000	ACETONITRILE
				BENZENE	.000015100	.000015100	BENZENE
				N-HEXANE	.000040500	.000040500	N-HEXANE
				TOLUENE	.000003080	.000003080	TOLUENE
200W P-241U203 001	1	1	TANKS AND VESSELS	1,3-BUTADIENE	.000001910	.000001910	1,3-BUTADIENE
				ACETONITRILE	.000319000	.000319000	ACETONITRILE
				BENZENE	.000015100	.000015100	BENZENE
				N-HEXANE	.000040500	.000040500	N-HEXANE
				TOLUENE	.000003080	.000003080	TOLUENE
200W P-241U204 001	1	1	TANKS AND VESSELS	1,3-BUTADIENE	.000001910	.000001910	1,3-BUTADIENE
				ACETONITRILE	.000319000	.000319000	ACETONITRILE
				BENZENE	.000015100	.000015100	BENZENE
				N-HEXANE	.000040500	.000040500	N-HEXANE
				TOLUENE	.000003080	.000003080	TOLUENE

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200W P-296SX 001	14	SOURCE EMISSIONS ROLL-UP	.000053600 .008960000 .000426000 .001140000 .000086700	.000053600 .008960000 .000426000 .001140000 .000086700	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
200W P-296SY 001	4	SOURCE EMISSIONS ROLL-UP	.000012400 .002070000 .000098300 .000263000 .000020000	.000012400 .002070000 .000098300 .000263000 .000020000	1,3-BUTADIENE ACETONITRILE BENZENE N-HEXANE TOLUENE
Sum			.057386836	.057386836	

Point Source Emissions - Uncategorized Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200W P-241S101 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241S102 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241S103 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241S104 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241S105 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241S106 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241S107 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241S108 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241S109 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241S110 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241S111 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200W P-241S112 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241SX113 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241SX115 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T101 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER

Point Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200W P-241T102 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T103 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T104 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T105 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T106 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T107 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T108 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T109 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T110 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T111 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241T112 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T201 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T202 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T203 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241T204 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX101 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX102 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX103 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241TX104 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX105 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX106 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX107 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX108 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX109 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241TX110 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX111 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX112 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX113 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX114 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX115 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX116 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX117 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TX118 001	1	TANKS AND VESSELS	.006570000 .000048900	.006570000 .000048900	AMMONIA TRICHLOROFLUOROMETHANE
200W P-241TY101 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TY102 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TY103 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER

Point Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241TY104 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241TY105 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W P-241TY106 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U101 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U102 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U103 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U104 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U105 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U106 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U107 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U108 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U109 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U110 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U111 001	1	TANKS AND VESSELS	.006570000 .000172000	.006570000 .000172000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U112 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U201 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U202 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-241U203 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER

Point Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200W P-241U204 001	1	TANKS AND VESSELS	.003040000 .000079500	.003040000 .000079500	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-296SX 001	14	SOURCE EMISSIONS ROLL-UP	4.170000000 .002240000	4.170000000 .002240000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
200W P-296SY 001	4	SOURCE EMISSIONS ROLL-UP	.963000000 .000516000	.963000000 .000516000	AMMONIA PHOSPHORIC ACID, TRIBUTYL ESTER
Sum			5.506142900	5.506142900	

Fugitive Source Criteria Pollutants - Type: PM

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200W K-272S 001	2	ABRASIVE CLEANING	17.520000000	.800000000	TOTAL PARTICULATE MATTER
200W N-231Z 001	1	PROCESS AND PRODUCTION	44.000000000	.750000000	PARTICULATE MATTER (> 10 MICRONS)
Sum			61.520000000	1.550000000	

Fugitive Source Criteria Pollutants - Type: PM10

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200W N-231Z 001	1	PROCESS AND PRODUCTION	18.000000000	.300000000	PARTICULATE MATTER (10 MICRONS OR LESS)
Sum			18.000000000	.300000000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Fugitive Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W K-272S 001	1	PAINTING AND PRINTING	.009550000 .031100000 .010000000 .012600000 .000329000 .002080000 .009400000 .031100000 .000263000 .025100000 .002080000 .002080000 .010700000 .008960000 .000526000 .004150000 .002080000 .011000000 .010800000 .017800000	.002180000 .007100000 .002290000 .002880000 .000075000 .000474000 .002150000 .007100000 .000060000 .005720000 .000474000 .000474000 .002430000 .002040000 .000120000 .000948000 .000474000 .002520000 .002480000 .004080000	2-(2-BUTOXYETHOXY) ETHANOL 2-(2-METHOXYETHOXY) ETHANOL 2-BUTOXY ETHANOL ACETONE BUTYL ACETATE CYCLOHEXANE CYCLOHEXANONE DIBUTYL PHTHALATE ETHYLBENZENE ETHYLENE GLYCOL ISOBUTANE METHYL ETHER (DIMETHYL ETHER) METHYL ETHYL KETONE (2-BUTONE) METHYL ISOBUTYL KETONE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE PROPANE TETRAHYDROFURAN TOLUENE XYLENE
200W M-272WA 001	1	PROCESS AND PRODUCTION	.009550000 .031100000 .010000000 .012600000 .000329000 .002080000 .009400000 .031100000 .000263000 .025100000 .002080000 .002080000 .010700000 .008960000 .000526000 .004150000 .002080000 .011000000 .010800000 .017800000	.002180000 .007100000 .002290000 .002880000 .000075000 .000474000 .002150000 .007100000 .000060000 .005720000 .000474000 .000474000 .002430000 .002040000 .000120000 .000948000 .000474000 .002520000 .002480000 .004080000	2-(2-BUTOXYETHOXY) ETHANOL 2-(2-METHOXYETHOXY) ETHANOL 2-BUTOXY ETHANOL ACETONE BUTYL ACETATE CYCLOHEXANE CYCLOHEXANONE DIBUTYL PHTHALATE ETHYLBENZENE ETHYLENE GLYCOL ISOBUTANE METHYL ETHER (DIMETHYL ETHER) METHYL ETHYL KETONE (2-BUTONE) METHYL ISOBUTYL KETONE METHYL N-AMYL KETONE (2-HEPTANONE) N-HEXANE PROPANE TETRAHYDROFURAN TOLUENE XYLENE
Sum			.393676000	.092138000	

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200W P-241S151 001	1	PROCESS AND PRODUCTION	.000000000 .000000010	.000000000 .000000002	AMERICIUM - 241 STRONTIUM 89,90

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
200W P-241S151 001	1	PROCESS AND PRODUCTION	.000000010	.000000002	YTTRIUM - 090
200W P-241S304 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000001 .000000001	AMERICIUM - 241 STRONTIUM 89,90 YTTRIUM - 090
200W P-241SYA 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89,90 YTTRIUM - 090
200W P-241SYB 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89,90 YTTRIUM - 090
200W P-241TX152 001	1	PROCESS AND PRODUCTION	.000000000 .000000000 .000000000	.000000000 .000000000 .000000000	AMERICIUM - 241 STRONTIUM 89,90 YTTRIUM - 090
200W P-241TX154 001	1	PROCESS AND PRODUCTION	.000000000 .000000003 .000000003	.000000000 .000000001 .000000001	AMERICIUM - 241 STRONTIUM 89,90 YTTRIUM - 090
200W P-241TX302C 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000001 .000000001	AMERICIUM - 241 STRONTIUM 89,90 YTTRIUM - 090
200W P-241U151 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000001 .000000001	AMERICIUM - 241 STRONTIUM 89,90 YTTRIUM - 090
200W P-241U152 001	1	PROCESS AND PRODUCTION	.000000000 .000000002 .000000002	.000000000 .000000001 .000000001	AMERICIUM - 241 STRONTIUM 89,90 YTTRIUM - 090
200W P-241U301B 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000001 .000000001	AMERICIUM - 241 STRONTIUM 89,90 YTTRIUM - 090
200W P-241UX154 001	1	PROCESS AND PRODUCTION	.000000000 .000000003 .000000003	.000000000 .000000001 .000000001	AMERICIUM - 241 STRONTIUM 89,90 YTTRIUM - 090
200W P-241UX302A 001	1	PROCESS AND PRODUCTION	.000000000 .000000001 .000000001	.000000000 .000000001 .000000001	AMERICIUM - 241 STRONTIUM 89,90 YTTRIUM - 090

Fugitive Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W K-272S 001	1	PAINTING AND PRINTING	.009550000 .031100000	.002180000 .007100000	2-(2-BUTOXYETHOXY) ETHANOL 2-(2-METHOXYETHOXY) ETHANOL

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 200W TANK
 FACILITY NAME: 200W Tank Farm and Associated Structures

Fugitive Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W K-272S 001	1	PAINTING AND PRINTING	.010000000 .031100000 .000263000 .025100000 .010700000 .008960000 .004150000 .010800000 .017800000	.002290000 .007100000 .000060000 .005720000 .002430000 .002040000 .000948000 .002480000 .004080000	2-BUTOXY ETHANOL DIBUTYL PHTHALATE ETHYLBENZENE ETHYLENE GLYCOL METHYL ETHYL KETONE (2-BUTONE) METHYL ISOBUTYL KETONE N-HEXANE TOLUENE XYLENE
200W M-272WA 001	1	PROCESS AND PRODUCTION	.009550000 .031100000 .010000000 .031100000 .000263000 .025100000 .010700000 .008960000 .004150000 .001080000 .017800000	.002180000 .007100000 .002290000 .007100000 .000060000 .005720000 .002430000 .002040000 .000948000 .002480000 .004080000	2-(2-BUTOXYETHOXY) ETHANOL 2-(2-METHOXYETHOXY) ETHANOL 2-BUTOXY ETHANOL DIBUTYL PHTHALATE ETHYLBENZENE ETHYLENE GLYCOL METHYL ETHYL KETONE (2-BUTONE) METHYL ISOBUTYL KETONE N-HEXANE TOLUENE XYLENE
Sum			.309326000	.072856000	

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W K-272S 001	1	PAINTING AND PRINTING	.010000000 .031100000 .018800000 .011100000 .001520000 .000788000	.002290000 .007100000 .004280000 .002540000 .000347000 .000180000	2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE ESTER ALCOHOL (REPORTED AS CAS 25264-77-4) LIGROINE OR VM&P NAPHTHA, OR PETROLEUM NAPHTHA PHOSPHORIC ACID POLYVINYL CHLORIDE LATEX VM&P NAPHTHA
200W M-272WA 001	1	PROCESS AND PRODUCTION	.010000000 .031100000 .018800000 .011100000 .001520000 .000788000	.002290000 .007100000 .004280000 .002540000 .000347000 .000180000	2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE ESTER ALCOHOL (REPORTED AS CAS 25264-77-4) LIGROINE OR VM&P NAPHTHA, OR PETROLEUM NAPHTHA PHOSPHORIC ACID POLYVINYL CHLORIDE LATEX VM&P NAPHTHA
Sum			.146616000	.033474000	

Insignificant Source Emissions - Radiological Pollutants

Em Point	Srcce Nbr	Srcce Type	Pollutant	Em. Pt. Potential to Emit (Ct/yr)	Em. Pt. CtI Actual] (Ct/yr)	Pollutant
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Insignificant Source Emissions - HAP Pollutants

Em Point	Srcce Nbr	Srcce Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. CtI Actual] (tons/yr)	Pollutant
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Sum

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Srcce Nbr	Srcce Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. CtI Actual] (tons/yr)	Pollutant
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Sum

Control Device Listing

Em Point	Control Equipment Code
200W P-241S101 001	099
200W P-241S102 001	099
200W P-241S103 001	099
200W P-241S104 001	099
200W P-241S105 001	099
200W P-241S106 001	099
200W P-241S107 001	099
200W P-241S108 001	099
200W P-241S109 001	099
200W P-241S110 001	099
200W P-241S111 001	099
200W P-241S112 001	099
200W P-241S113 001	099
200W P-241S115 001	099
200W P-241T101 001	099
200W P-241T102 001	099
200W P-241T103 001	099
200W P-241T104 001	099
200W P-241T105 001	099
200W P-241T106 001	099
200W P-241T107 001	099
200W P-241T108 001	099
200W P-241T109 001	099
200W P-241T110 001	099
200W P-241T111 001	099
200W P-241T112 001	099

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 200W TANK
FACILITY NAME: 200W Tank Farm and Associated Structures

Control Device Listing

Em Point	Control Equipment Code
200W P-241T201 001	099
200W P-241T202 001	099
200W P-241T203 001	099
200W P-241T204 001	099
200W P-241TX101 001	099
200W P-241TX102 001	099
200W P-241TX103 001	099
200W P-241TX104 001	099
200W P-241TX105 001	099
200W P-241TX106 001	099
200W P-241TX107 001	099
200W P-241TX108 001	099
200W P-241TX109 001	099
200W P-241TX110 001	099
200W P-241TX111 001	099
200W P-241TX112 001	099
200W P-241TX113 001	099
200W P-241TX114 001	099
200W P-241TX115 001	099
200W P-241TX116 001	099
200W P-241TX117 001	099
200W P-241TX118 001	099
200W P-241TY101 001	099
200W P-241TY102 001	099
200W P-241TY103 001	099
200W P-241TY104 001	099
200W P-241TY105 001	099
200W P-241TY106 001	099
200W P-241U101 001	099
200W P-241U102 001	099
200W P-241U103 001	099
200W P-241U104 001	099
200W P-241U105 001	099
200W P-241U106 001	099
200W P-241U107 001	099
200W P-241U108 001	099
200W P-241U109 001	099
200W P-241U110 001	099
200W P-241U111 001	099
200W P-241U112 001	099
200W P-241U201 001	099
200W P-241U202 001	099
200W P-241U203 001	099
200W P-241U204 001	099
200W P-242S 001	099
200W P-242T 001	099
200W P-244S 001	099
200W P-244TX 001	099
200W P-244U 001	099
200W P-296P022 001	099
200W P-296P028 001	099
200W P-296S025 001	099
200W P-296SX 001	099
200W P-296SY 001	099
200W P-296U011 001	099

FACILITY: _____ W. J. Tank Farms

EMISSION POINT: _____ See Table

Emission Points for Catch Tanks
200W P-241UX302A 001
200W P-241S304 001
200W P-241TX302C 001
200W P-241U301B 001
200W P-241UX302A 001
200W P-241S304 001

Catch Tank

FACILITY: 200 West Area Tank Farms

EMISSION POINT: 200W P-296P022 001

FACILITY: 200 West Area Tank Farms

EMISSION POINT: SEE INSET TABLE

200 West Area Single-Shell Tanks That Are Passively Vented

200W P-241S101 001	200W P-241T111 001	200W P-241TY101 001
200W P-241S102 001	200W P-241T112 001	200W P-241TY102 001
200W P-241S103 001	200W P-241T201 001	200W P-241TY103 001
200W P-241S104 001	200W P-241T202 001	200W P-241TY104 001
200W P-241S105 001	200W P-241T203 001	200W P-241TY105 001
200W P-241S106 001	200W P-241T204 001	200W P-241TY106 001
200W P-241S107 001	200W P-241TX101 001	200W P-241U101 001
200W P-241S108 001	200W P-241TX102 001	200W P-241U102 001
200W P-241S109 001	200W P-241TX103 001	200W P-241U103 001
200W P-241S110 001	200W P-241TX104 001	200W P-241U104 001
200W P-241S111 001	200W P-241TX105 001	200W P-241U105 001
200W P-241S112 001	200W P-241TX106 001	200W P-241U106 001
200W P-241SX113 001	200W P-241TX107 001	200W P-241U107 001
200W P-241SX115 001	200W P-241TX108 001	200W P-241U108 001
200W P-241T101 001	200W P-241TX109 001	200W P-241U109 001
200W P-241T102 001	200W P-241TX110 001	200W P-241U110 001
200W P-241T103 001	200W P-241TX111 001	200W P-241U111 001
200W P-241T104 001	200W P-241TX112 001	200W P-241U112 001
200W P-241T105 001	200W P-241TX113 001	200W P-241U201 001
200W P-241T106 001	200W P-241TX114 001	200W P-241U202 001
200W P-241T107 001	200W P-241TX115 001	200W P-241U203 001
200W P-241T108 001	200W P-241TX116 001	200W P-241U204 001
200W P-241T109 001	200W P-241TX117 001	
200W P-241T110 001	200W P-241TX118 001

FACILITY: 200 West Area Tank Farms

EMISSION POINT: 200W P-296SY 001

FACILITY:

200 West Area Tank Farms

EMISSION POINT:

200W P-244S 001

K.A. Giese

5/03/95

FACILITY: _____

EMISSION POINT: 200W P-296P028 001

FACILITY: 200 West Area Tank Farms

EMISSION POINT: See Table

Emission Points for Valve Pits

200W P-241SYA 001

200W P-241SYB 001

Valve Pit

FACILITY: 200 West Area Tank Farms

EMISSION POINT: See Table

Emission Points for Diversion Boxes

200W P-241UX154 001

200W P-241U152 001

200W P-241U151 001

200W P-241TX 154 001

200W P-241TX 152 001

200W P-241S 151 001

Diversion Box

FACILITY: 200 West Area Tank Farms

EMISSION POINT: Support Buildings. See table

Building	Emission Point
272S	200W K-272S 001
272WA	200W M-272WA 001

FACILITY: 200 West Area Tank Farms

EMISSION POINT: 200W P-242S 001

FACILITY:

200 West Area Tank Farms

EMISSION POINT:

200W P-242T 001

FACILITY: 200 West Area Tank Farms

EMISSION POINT: 200W P-296S025 001

K. A. Glese

5/05/95

FACILITY:

EMISSION POINT:

See Table

Emission Points for
double-contained receiver tanks

200W P-244U 001
200W P-244TX 001

FACILITY:

200E Area Tank Farms

EMISSION POINT:

200E P-296A030 001

K.A. Giese

5/05/95

FACILITY:

200 West Area Tank Farms

EMISSION POINT:

200W P-296SX 001

K.A. Giese

5/05/95

FACILITY: 200 West Area Tank Farms

EMISSION POINT: 200W P-244S 001

241S/SX/SY Tank Farms Emission Points

60 0 60 120 Meters

241T Tank Farm Emission Points

Emission Point
200W P-241T103 001
N136765 E566777

Emission Point
200W P-241T106 001
N136734 E566777

Emission Point
200W P-241T109 001
N136704 E566777

Emission Point
200W P-241T201 001
N136711 E566747

Emission Point
200W P-241T202 001
N136696 E566747

Emission Point
200W P-241T203 001
N136681 E566747

Emission Point
200W P-241T112 001
N136673 E566777

Emission Point
200W P-241T204 001
N136665 E566747

Emission Point
200W P-241T102 001
N136765 E566807

Emission Point
200W P-241T101 001
N136765 E566838

Emission Point
200W P-241T105 001
N136734 E566807

Emission Point
200W P-241T104 001
N136734 E566838

Emission Point
200W P-241T108 001
N136704 E566807

Emission Point
200W P-241T107 001
N136704 E566838

Emission Point
200W P-241T110 001
N136673 E566838

Emission Point
200W P-241T111 001
N136673 E566807

50 0 50 100 Meters

WHCHTSNFM1-951TFEMISS

241TX\TY Tank Farms Emission Points

Emission Point
200W P-241TY102 001
N136447 E566742

Emission Point
200W P-241TY104 001
N136415 E566742

Emission Point
200W P-241TY106 001
N136384 E566742

Emission Point
200W P-241TX118 001
N136280 E566743

Emission Point
200W P-241TX115 001
N136249 E566743

Emission Point
200W P-241TX111 001
N136218 E566743

Emission Point
200W P-241TX112 001
N136218 E566712

Emission Point
200W P-241TX108 001
N136187 E566712

Emission Point
200W P-241TX107 001
N136187 E566743

Emission Point
200W P-241TX104 001
N136156 E566712

Emission Point
200W P-241TX103 001
N136156 E566743

Emission Point
200W P-241TX102 001
N136156 E566774

Emission Point
200W P-241TX101 001
N136156 E566805

Emission Point
200W P-241TY101 001
N136447 E566773

Emission Point
200W P-241TY103 001
N136415 E566773

Emission Point
200W P-241TY105 001
N136384 E566773

Emission Point
200W P-244TX 001
N136352 E566823

Emission Point
200W P-242T 001
N136317 E566810

Emission Point
200W P-241TX117 001
N136280 E566774

Emission Point
200W P-241TX116 001
N136280 E566805

Emission Point
200W P-241TX113 001
N136249 E566805

Emission Point
200W P-241TX114 001
N136249 E566774

Emission Point
200W P-241TX109 001
N136218 E566805

Emission Point
200W P-241TX110 001
N136218 E566774

Emission Point
200W P-241TX105 001
N136187 E566805

Emission Point
200W P-241TX106 001
N136187 E566774

75 0 75 150 Meters

WHCHTSNFM1-95\TXTFEMIS

241U Tank Farm Emission Points

Emission Point
200W P-241U102 001
N135104 E566812

Emission Point
200W P-241U103 001
N135104 E566781

Emission Point
200W P-241U106 001
N135073 E566781

Emission Point
200W P-241U109 001
N135043 E566781

Emission Point
200W P-241U201 001
N135050 E566752

Emission Point
200W P-241U202 001
N135035 E566752

Emission Point
200W P-241U203 001
N135020 E566752

Emission Point
200W P-241U112 001
N135012 E566781

Emission Point
200W P-241U204 001
N135005 E566752

Emission Point
200W P-241U111 001
N135012 E566812

Emission Point
200W P-241U302B 001
N134977 E566780

Emission Point
200W P-241U101 001
N135104 E566842

Emission Point
200W P-241U105 001
N135073 E566812

Emission Point
200W P-241U104 001
N135073 E566842

Emission Point
200W P-241U108 001
N135043 E566812

Emission Point
200W P-241U107 001
N135043 E566842

Emission Point
200W P-241U110 001
N135012 E566842

Emission Point
200W P-241U151 001
N134995 E566922

Emission Point
200W P-241U152 001
N134984 E566914

Emission Point
200W P-296U011
N134995 E566865

Emission Point
200W P-244U 001
N134991 E566865

40 0 40 80 Meters

Emission Point
200W P-242T 001
N136317 E566842

Emission Point
200W P-241TX154 001
N136848 E567585

Emission Point
200W P-241TX302C 001
N136820 E567587

Emission Point
200W P-241TX152 001
N136106 E567090

Emission Point
200W P-241TX302C 001
N136089 E567119

Emission Point
200W M-272WA 001
N135816 E565918

Emission Point
600 P-241EW151 001
N135304 E570640

Emission Point
200W P-241UX154 001
N135225 E567629

Emission Point
200W P-241UX302A 001
N135168 E567595

Emission Point
200W P-242S 001
N134603 E566792

200 West Tank Farm Emission Points

(Outside of Tank Farm Fence Boundaries)

500 0 500 1000 Meters

WHC\HITS\NFM\1-95\2WTFEMIS

APPENDIX E-8

SOLID WASTE MANAGEMENT FACILITIES

Chapter I. General Information

I-B.1. Facility Description

The Solid Waste Management (SWM) facilities are located in the 200 Areas of the Hanford Site, and include the Central Waste Complex (CWC), 224-T Transuranic Storage and Assay Facility (TRUSAF), Low Level Burial Grounds, and Building 616. The two facilities that have the potential for airborne emissions are the 213-W Dry Waste Compactor Facility in the CWC and TRUSAF. The Low Level Burial Grounds have been identified as a fugitive source of emissions (refer to Section II.F of Chapter II).

213-W Dry Waste Compactor Facility

213-W Dry Waste Compactor Facility Waste compaction activities have ceased due to inefficiencies of the process. Until recently, the facility was used for waste confirmation and verification. The waste that was handled during the verification activities is low level waste and alpha-bearing non-transuranic waste. Currently, there are no SWM activities occurring in this facility.

TRUSAF

The 224-T TRUSAF provides a centralized storage unit for storage of transuranic waste and transuranic mixed waste and low level mixed waste from various Hanford Facility operations and from other U.S. Department of Energy and U.S. Department of Defense facilities. The transuranic waste will be prepared for transfer to, and disposal at the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico or at another approved disposal site. The 224-T TRUSAF also will store retrieved containers of transuranic mixed waste from the Low-Level Burial Grounds (LLBG). The waste containers are x-rayed to ensure that what can be identified is in general agreement with the shipping documentation.

The SWM facilities are operated for 8 hours a day, 5 days a week, 52 weeks per year.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principle products - There are no products produced
- Process information - There are no process activities
- Raw materials used by processes - There are no raw materials used at the SWM facilities.
- Fuels used by processes - There are no fuels used at the SWM facilities.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on page 1 of the AEI report output. The control information is found on page 5 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on page 1 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : SOLID WASTE MANAGEMENT FACILITIES
 FACILITY NAME: SOLID WASTE MANAGEMENT FACILITIES

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
213W	135835	565900	WASTE COMPACTOR BUILDING	CAMPBELL, SARAH	372-0667	RUDOLPH GUERCIA	376-5494
296T011	136699	567547	224-T (TRUSAF) VENTILATION STACK (THROUGH EAST PART OF PLENUM)	CAMPBELL, SARAH	372-0667	RUDOLPH GUERCIA	376-5494
296T012	136703	567542	224-T (TRUSAF) VENTILATION STACK (THROUGH WEST PART OF PLENUM)	CAMPBELL, SARAH	372-0667	RUDOLPH GUERCIA	376-5494

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-213W 001	POINT	135835	565900	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1.34			1.41	78	24.7	29	12.5	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-296T011 001	POINT	136699	567547	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL		2.67			5.6	78	43.55	43	-14	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W P-296T012 001	POINT	136703	567542	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL OR DOWNWARD		2.67			5.6	78	30.8	24.9	-14	

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-213W 001	1	PROCESS AND PRODUCTION	8	5	52	No activities currently ongoing

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : SOLID WASTE MANAGEMENT FACILITIES
 FACILITY NAME: SOLID WASTE MANAGEMENT FACILITIES

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296T011 001	1	PROCESS AND PRODUCTION	24	7	52	224-T IS CURRENTLY OPERATED AS A TRU WASTE STORAGE FACILITY.

The 224-T Transuranic Waste Storage and Assay Facility (224-T TRUSAF) is located southeast of T-Plant in the 200W Area. The 224-T TRUSAF provides a centralized storage unit for storage of transuranic mixed waste and low level mixed waste from various Hanford Facility operations and from other U.S. Department of Energy and U.S. Department of Defense facilities. The transuranic mixed waste will be prepared for transfer to and disposal at the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico or at another approved disposal site. The 224-T TRUSAF also will store retrieved containers of transuranic mixed waste from the Low-Level Burial Grounds (LLBG). The waste containers are x-rayed to ensure that what can be identified is in general agreement with the shipping documentation.

The 224-T TRUSAF storage unit capacity is approximately 110,000 gallons (416,400 liters) [2,000 55-gallon (208 liter) containers].

The potential transuranic mixed waste and transuranic waste managed could include waste from nonspecific sources, characteristic waste, listed waste, and state-only waste (extremely hazardous, dangerous and polychlorinated biphenyl contaminated waste). The estimated annual quantity of waste is based on gross estimates of mixed waste that could be stored at the 224-T TRUSAF.

There are waste storage modules on all three floors. These open-array storage modules are delineated by markings taped on the floor to prevent inadvertent commingling of waste forms. Incompatible dangerous waste is separated by being placed on different floors or in different rooms on the second floor. Transuranic mixed waste is stored based on both transuranic element content and dangerous waste constituents. All floors are serviced by normal ventilation. All floor drains have been sealed with nonshrinking concrete.

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-296T012 001	1	PROCESS AND PRODUCTION	24	7	52	224-T IS CURRENTLY OPERATED AS A TRU WASTE STORAGE FACILITY

The 224-T Transuranic Waste Storage Facility (224-T TRUSAF) is located southeast of T-Plant in the 200W Area. The 224-T TRUSAF provides a centralized storage unit for storage of transuranic mixed waste and low level mixed waste from various Hanford Facility operations and from other U.S. Department of Energy and U.S. Department of Defense facilities. The transuranic mixed waste will be prepared transfer to and disposal at the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico or at another approved disposal site. The 224-T TRUSAF also will store retrieved containers of transuranic mixed waste from the Low-Level Burial Grounds (LLBG). The waste containers are x-rayed to ensure that what can be identified is in general agreement with the shipping documentation.

The 224-T TRUSAF storage unit capacity is approximately 110,000 gallons (416,400 liters) [2,000 55-gallon (208 liter) containers].

The potential transuranic mixed and transuranic waste managed could include waste from nonspecific sources, characteristic waste, listed waste, and state-only waste (extremely hazardous, danderous and polychlorinated biphenyl contaminated waste). The estimated annual quantity of waste is based on gross estimates of mixed waste that could be stored at the 224-T TRUSAF.

There are waste storage modules on all three floors. These open-array storage modules are delineated by markings taped on the floor to prevent inadvertent commingling of waste forms. Incompatible dangerous waste is separated by being placed on different floors or in different rooms on the second floor. Transuranic mixed waste is stored based on both transuranic element content and dangerous waste constituents. All floors are serviced by normal ventilation. All floor drains have been sealed with nonshrinking concrete.

Source Raw Materials Usage

Em Point	Srce Nbr	Srce Type	Process Rate	Process Uom	Material
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AIR EMISSIONS INFORMATION REPORT (USEPA 40460)
 FACILITY ID: SOLID WASTE MANAGEMENT FACILITIES
 FACILITY NAME: SOLID WASTE MANAGEMENT FACILITIES

Fuels Usage by Source Processes

Em Point	Src Nbr	Src Type	Qty	Uom	Fuel
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Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
----------	---------	----------	-----	-----	------

Point Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant
200W P-213W 001	1	PROCESS AND PRODUCTION		Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-43	Refer to DOE/RL-94-51 Table 2-1	
200W P-296T011 001	1	PROCESS AND PRODUCTION		Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-41	Refer to DOE/RL-94-51 Table 2-1	
200W P-296T012 001	1	PROCESS AND PRODUCTION		Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-42	Refer to DOE/RL-94-51 Table 2-1	

Point Source Emissions - HAP Pollutants

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
Sum						

Point Source Emissions - Uncategorized Pollutants

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
Sum						

Fugitive Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant
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Fugitive Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Insignificant Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
Sum					

Insignificant Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Insignificant Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : SOLID WASTE MANAGEMENT FACILITIES
FACILITY NAME: SOLID WASTE MANAGEMENT FACILITIES

Control Device Listing

Em Point	Control Equipment Code
200W P-213W 001	099
200W P-296T011 001	099
200W P-296T012 001	099

FACILITY:

Solid Waste Management

EMISSION POINT:

200W P-213W 001

K. A. Giese
5/3/1995

FACILITY: Solid Waste Management

EMISSION POINT: 200W P-296T011 001, & 200W P-296T012 001

APPENDIX E-9

WASTE RECEIVING AND PROCESSING FACILITY

Chapter I. General Information

I-B.1. Facility Description

The Waste Receiving and Processing Facility, upon completion of construction, will provide capabilities to examine, assay, characterize, treat, and repackage solid radioactive and mixed waste to enable permanent disposal of the waste in accordance with all applicable regulations. The solid wastes to be handled in the WRAP I facility include a low-level waste (LLW), Transuranic (TRU) waste, TRU mixed waste, and low-level mixed waste (LLMW).

The approximate size of the WRAP I building will be 4,766 square meters (51,300 ft²). The WRAP I facility will be a metal building consisting of pre-insulated, prefinished metal, interlocking roof and wall sandwich panels. Ventilation exhaust points at WRAP I can be divided into two general categories; the exhaust stack, and miscellaneous vents.

The WRAP I facility is located in the 200 West Area. The 200 Area WRAP 1 Facility is operated 9 hours per day, 5 days per week.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principal Products - There are no products produced at the WRAP I facility
- Process Information - There is a single operation at the WRAP I facility
 - The operation of the WRAP I facility is to provide capabilities to examine, assay, characterize, treat, and repackage solid radioactive and mixed waste to enable permanent disposal of the waste in accordance with all applicable regulations.
- Raw materials used by processes - There are no raw materials used at the WRAP I facility
- Fuels used by processes - There are no fuels used in the processes at the WRAP I facility.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information are found on page 1 of the AEI report output. The control information is found on page 1 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information are found on page 1 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : WASTE RECEIVING AND PACKAGING FACILITY
FACILITY NAME: WRAP1

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
WRAP1	136576	565993	WASTE RECEIVING AND PROCESSING FACILITY, MODULE 1	MAYANCSIK, B. A.	372-1342	RUDOLPH GUERCIA	376-5494

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Src Code	Src Type
200W P-WRAP1 001	POINT	136576	565993	1	not assigned	PROCESS AND PRODUCTION

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
NONE SPECIFIED	2.67			5.6	86	273	46.3	16.33

Source (Process) Listing

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W P-WRAP1 001	1	PROCESS AND PRODUCTION	9	5	52	WRAP1 HAS NOT YET BEEN CONSTRUCTED.

The mission of the Waste Receiving and processing Facility module 1 (WRAP1) includes: examining, assaying, characterizing, limited treating, and repackaging of solid radioactive and mixed waste to enable permanent disposal of the waste. WRAP1 will be located in the 200 W area of the Hanford site, south of 23rd Street and west to Dayton Ave. It will be a 4,766 m2 metal building consisting of pre-insulated, pre-finished metal, interlocking roof and wall sandwich pannels.

The solid waste to be handled in the WRAP1 facility include Low-level waste (LLW), Transuranic waste (TRU), TRU mixed wastes, and Low-level mixed waste (LLMW). The facility will only accept Contact Handled (CH) waste which is waste whose external dose rate does not exceed 200mrem/hr. The feed stream will consist of approximately 38,000 retrieved drums containing suspect TRU waste that were placed in storage beginning in 1970 (retrieved waste), and Newly Generated TRU waste, TRU mixed, low level waste, and low level mixed waste. A secondary function of WRAP1 will be to examine and assay newly generated waste boxes as large as 2.5 m long by 1.5 m wide by 1.5 m high. However, the boxed waste will not be opened in the WRAP1 facility.

The incoming drums are only opened in the LLW and TRU gloveboxes that are located in the process area of the facility. The retrieved waste is dumped and sorted in these gloveboxes according to the results of the Non-destructive assay (NDA), and the Non-destructive Examination (NDE). The hazardous waste that is found in the drums is transferred to a LLW Restricted Waste Management (RWM) glovebox or a TRU RWM. The large majority of the hazardous and radioactive air emissions will come primarily from the gloveboxes. Some will come from the process room which houses the gloveboxes. Both of these areas, referred to as Zone I and Zone II, respectively, are exhausted through HEPA filter banks, and discharged through the one and only stack.

Source Raw Materials Usage

Em Point	Src Nbr	Src Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Src Nbr	Src Type	Qty	Uom	Fuel
----------	---------	----------	-----	-----	------

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : WASTE RECEIVING AND PACKAGING FACILITY
 FACILITY NAME: WRAP1

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
<hr/>					

Point Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type	Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant
<hr/>						

Point Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
<hr/>						

Sum

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
<hr/>						

Sum

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type	Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant
<hr/>						

Fugitive Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
<hr/>						

Sum

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : WASTE RECEIVING AND PACKAGING FACILITY
 FACILITY NAME: WRAP1

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Insignificant Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant

Insignificant Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Insignificant Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Control Device Listing

Em Point	Control Equipment Code
-----	-----
200W P-WRAP1 001	099

FACILITY:

Waste Processing and Packaging

EMISSION POINT:

200W P-WRAP1001

HEPA Filter

Fan

APPENDIX F

300 AREA

APPENDIX F

CONTENTS

- F-1 300 AREA
- F-2 384 POWERHOUSE
- F-3 300 AREA RESEARCH AND DEVELOPMENT FACILITIES

APPENDIX F-1

300 AREA

Chapter I. General Information

I-B.1. Facility Description

305/306E/337B Buildings

The 305/306E/337B Buildings house operations which design, fabricate and test prototype equipment for waste cleanup, waste sampling, and other projects associated with the Hanford Site.

The 306E Building at one time supported operation of the Fast Flux Test Facility (FFTF). The 306E-ULAB Stack Exhausts filtered air from past uranium oxide laboratory activities in rooms 158 and 159. The laboratories are currently shut down. One of the ongoing activities in the 306E Building is nondestructive evaluation of materials.

308 Building

The 308 Building is a two-story structure referred to as the 308 Fuels Development Laboratory Building containing approximately 71,000 square feet of floor space within which a variety of technical activities have been performed since construction in 1960. Activities included plutonium fuels research, design, development, fabrication, assembly, inspection, engineering, and quality assurance. The 308 Building was expanded between 1975 and 1979, creating the 308 Annex. The 308 Annex contains test article assembly areas, shipping areas, and the Test Reactor and Isotope Production, General Atomics (TRIGA) reactor Fuel Storage Basin (FSB).

The 308 Building was deactivated and shutdown in March 1994. The 56 gloveboxes and open-faced hoods were cleaned out and stabilized with a nonhazardous acrylic coating to act as a fixative for residual holdup material. The glovebox ventilation/exhaust system was shutdown and physically blanked off, and the exhaust stack was deregistered. The laboratory welding open-faced hood ventilation system also was shutdown and the exhaust stack deregistered. The 308 Building is unoccupied except for periodic surveillances to monitor shutdown conditions.

The 308 Annex ventilation system (308-TRIGA exhaust stack) remains operational as the annex has not been deactivated. The TRIGA reactor located in the 308 Annex has been shut down and defueled. The fuel is being stored in storage racks in the former TRIGA reactor water pool (FSB). The 308 Annex is unoccupied except for periodic surveillances to monitor shutdown conditions. Removal, handling, packaging, and shipping of the TRIGA fuel is expected to occur approximately in the 1996 time frame or beyond after the necessary

environmental assessments are completed and fuel storage casks are available. Deactivation of the 308 Annex will occur after fuel removal, with decommissioning activities to follow. The 308 Annex will be occupied during the fuel removal activity.

309 Building

The mission of the original 309 Building was to provide an operational test reactor to research and develop nuclear fuel technology. This test reactor was known as the Plutonium Recycle Test Reactor (PRTR). In 1962, the Plutonium Recycle Critical Facility (PRCF) was added to support the PRTR operations.

By 1975, the PRTR was deactivated, all of the fuel removed from the building, and the fuel storage basin decontaminated. In the late 1970s, the ground floor of the containment dome was emptied and converted into a fabrication shop. In the mid 1980s, an extensive cleanout effort removed most of the process equipment and vessels from the PRTR areas in the building.

The ground level of the containment dome currently is being used as an assembly shop. There is no further work scheduled for the containment vessel. The remainder of the building is used as general office space.

310 Facility

The 300 Area Treated Effluent Disposal Facility (TEDF) provides treatment for industrial waste waters generated in the 300 Area of the Hanford Site. The 300 Area TEDF recently began operation in December 1994. The 300 Area TEDF treats up to 300 gallons per minute (gpm) of process sewer waste waters from Hanford Site laboratories, along with support and inactive facilities. The laboratories services are particularly critical to the Hanford Site clean-up activities, including tank waste remediation efforts.

The main unit operation in conjunction with on-line monitoring and sampling, is to ensure that treated waste waters are acceptable for discharge to the Columbia River. The main unit operation combines processes to remove or destroy the heavy metals and organics that were identified as requiring treatment.

The 300 Area TEDF is located in the north part of the 300 Area. The main building, 310, houses the main unit operation. Diversion tanks, located adjacent to the 310 Building, provide capacity for extended facility shutdown and/or maintenance. The influent wastewater flowrate changes, but the average is about 110 gpm, which is far below the design flowrate. The 300 Area TEDF can be operated 24 hours per day.

340 Facility

The 340 Facility is a complex of several building which include 340B, 340A, 340 Vault Tanks and 307 Water Basins. A radioactive (mixed) liquid waste system (RLWS) is managed in the 340 Facility. Waste is received via underground piping connecting Laboratory Buildings to the 340 Vault Tanks, or transported to the 340 Facility in containers or tank trucks for addition into the 340 Vault Tanks. There are two underground tanks; one tank is always on-line to receive waste, allowing the other tank to be isolated for transfer. Auxiliary storage is provided by six above ground storage (AGS) tanks located in the 340-A Building.

Railroad tanker car transfers of liquid mixed waste are made approximately every 90 days to the 204-AR Waste Unloading Station in the 200 East Area.

Solid mixed wastes are generated in the 340 Facility during the performance of routine operations, maintenance, and decontamination activities. A majority of the waste is packaged in containers, stored in the 340-B West Building, and transported by truck to the 200 Areas for burial or storage. Also, other 300 Area Facilities send their solid waste to the 340 Facility to be repackaged.

Decontamination activities take place in the 340 Building decontamination area that contains a hood, sink, and sump. The rest of the 340 Building consists of a control room, mechanical equipment room, and truck lock.

377 Building

The 377 Building, a 5,300 square foot structure located in the Northwest portion of the 300 Area, was constructed to allow examination of a failed nuclear steam generator. The 377 Building was used in that capacity from 1983 to 1987. The 377 Building was decontaminated in 1990, and currently serves as a laboratory for physical properties testing of contaminated soil and other samples.

Physical properties testing includes determination of particle size distribution, calcium carbonate content, hydraulic conductivity, specific gravity, moisture content, moisture retention, and retardation factors. Tests, other than those described, may be conducted in the future and will be evaluated on an as-needed basis for effluent monitoring requirements.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principle products - There are no products produced at these 300 Area buildings.

- Process information - There are process activities at the 310, 340 and the 377 buildings:
 - 310 Building - The main unit operation uses iron coprecipitation, gravity filtration, ion exchange, and UV oxidation to treat waste waters.
 - 340 Building - Perform decontamination activities, waste water transfer operations, and low-level waste packaging operations.
 - 377 Building - physical property testing of potentially radioactively contaminated soil samples.
- Raw materials used by processes - There are no raw materials consumed at these 300 Area buildings.
- Fuels used by processes - There are no fuels used in the processes at these 300 Area buildings.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found in the AEI report output. The control information is found on page 7 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found in the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 300 AREA
FACILITY NAME: 300 AREA Facility and Associated Structures

Rev.1 May 24, 1995

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
306E-ULAB	116099	594009	306E BUILDING, ROOMS 158 & 159	PANTHER, DONALD G.	376-4975	SHANNON HERRES	373-0908
308TRIGA	115813	594174	STACK FOR THE REACTOR HALL HOUSING THE TRIGA REACTOR IN BUILDING 308	RASMUSSEN, DAVID E.	376-3288	SHANNON HERRES	373-0908
309PRTR	115672	594161	STACK FOR THE PLUTONIUM RECYCLE TEST REACTOR	UTZ, EDWIN E.	376-0701	SHANNON HERRES	373-0908
340BBLDG	115958	594160	STACK, 340B EAST BUILDING TANK CAR LOADOUT FACILITY	HAGGERTY, KEVIN J.	372-3133	ANNA BEARD	373-0908
340DECON	115939	594165	STACK FOR THE 340 DECONTAMINATION FACILITY	HAGGERTY, KEVIN J.	372-3133	ANNA BEARD	373-0908
340NTEX	115926	594172	BUILDING 340 TANK AND VAULT EXHAUST STACK	HAGGERTY, KEVIN J.	372-3133	ANNA BEARD	373-0908
377	116162	593655	GEOTECHNICAL ENGINEERING LABORATORY	HUNTER, JAMES A.	376-2356	SHANNON HERRES	373-0908
TEDF	117343	593642	300 AREA TREATED EFFLUENT DISPOSAL FACILITY	HALGREN, DALE L.	376-9988	ANNA BEARD	373-0908

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
300 P-308TRIGA 001	POINT	115834	594174	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1			.79	68	50.5	11.3	11.3	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
300 P-309PRTR 001	POINT	115672	594161	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	D&D/DEMOLITION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		5			19.63	70	5.94	100		
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
300 P-340BBLDG 001	POINT	115958	594160	1	not assigned	FUELS/LIQUIDS LOADING RACK				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1.5			1.77	70	16.5	38	10	
Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type				
300 P-340DECON 001	POINT	115939	594165	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
		2.5			4.91	68	25.5	27	3	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 300 AREA
FACILITY NAME: 300 AREA Facility and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
300 P-340NTEX 001	POINT	115926	594172	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	TANKS AND VESSELS				
				4	not assigned	TANKS AND VESSELS				
				5	not assigned	TANKS AND VESSELS				
				6	not assigned	TANKS AND VESSELS				
				7	not assigned	TANKS AND VESSELS				
				8	not assigned	TANKS AND VESSELS				
				9	not assigned	TANKS AND VESSELS				
				10	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		1.6			2.01	68	16.6	18	18	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
300 P-377 001	POINT	116162	593655	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
VERTICAL WITHOUT WEATHER CAP		2.4			4.52	70	31.4	25	25	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
300 R-306E-ULAB 001	POINT	116099	594009	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
NONE SPECIFIED		5			19.63	78	32.2	66	30	

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
300 Z-TEDF 001	FUGITIVE	117343	593642	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	20	0	

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 P-308TRIGA 001	1	PROCESS AND PRODUCTION	24	7	52	FUEL ELEMENTS STORED IN 308

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 300 AREA
FACILITY NAME: 300 AREA Facility and Associated Structures

Rev.1 May 24, 1995

Source (Process) Listing

Em Point	Src# Nbr	Src# Type	Hrs	Day	Days	Week	Wks	Year	Summary Process Description
300 P-309PRTR 001	1	PROCESS AND PRODUCTION	24		7		52		CONTAMINANT SOURCE IS A RESULT OF PLUTONIUM OXIDE CONTAINED IN VARIOUS PROCESS EQUIPMENT.
Em Point	Src# Nbr	Src# Type	Hrs	Day	Days	Week	Wks	Year	Summary Process Description
300 P-309PRTR 001	2	D&D/DEMOLITION	8		5		50		D&D OF THE 309 BUILDING WILL BEGIN IN CY 1995 AND IS EXPECTED TO END BY CY 1998.
Em Point	Src# Nbr	Src# Type	Hrs	Day	Days	Week	Wks	Year	Summary Process Description
300 P-340BBLDG 001	1	LIQUIDS LOADING RACK	24		7		8		RADIOACTIVE LIQUID WASTE TRANSFER TO 20,000 GALLON RAILROAD TANK CAR.
Em Point	Src# Nbr	Src# Type	Hrs	Day	Days	Week	Wks	Year	Summary Process Description
300 P-340DECON 001	1	PROCESS AND PRODUCTION	24		7		52		TRACE CONTAMINATION
Em Point	Src# Nbr	Src# Type	Hrs	Day	Days	Week	Wks	Year	Summary Process Description
300 P-340NTEX 001	1	PROCESS AND PRODUCTION	24		7		52		TRACE CONTAMINATION IN 340 VAULT
Em Point	Src# Nbr	Src# Type	Hrs	Day	Days	Week	Wks	Year	Summary Process Description
300 P-340NTEX 001	2	TANKS AND VESSELS	24		7		52		TANK TK-1 IN 340 VAULT
Em Point	Src# Nbr	Src# Type	Hrs	Day	Days	Week	Wks	Year	Summary Process Description
300 P-340NTEX 001	3	TANKS AND VESSELS	24		7		52		TANK TK-2 IN 340 VAULT
Em Point	Src# Nbr	Src# Type	Hrs	Day	Days	Week	Wks	Year	Summary Process Description
300 P-340NTEX 001	4	TANKS AND VESSELS	24		7		52		TANK AGS-1
Em Point	Src# Nbr	Src# Type	Hrs	Day	Days	Week	Wks	Year	Summary Process Description
300 P-340NTEX 001	5	TANKS AND VESSELS	24		7		52		TANK AGS-2
Em Point	Src# Nbr	Src# Type	Hrs	Day	Days	Week	Wks	Year	Summary Process Description
300 P-340NTEX 001	6	TANKS AND VESSELS	24		7		52		TANK AGS-3
Em Point	Src# Nbr	Src# Type	Hrs	Day	Days	Week	Wks	Year	Summary Process Description
300 P-340NTEX 001	7	TANKS AND VESSELS	24		7		52		TANK AGS-4

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 300 AREA
FACILITY NAME: 300 AREA Facility and Associated Structures

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 P-340NTEX 001	8	TANKS AND VESSELS	24	7	52	TANK AGS-5
300 P-340NTEX 001	9	TANKS AND VESSELS	24	7	52	TANK AGS-6
300 P-340NTEX 001	10	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-340NTEX-001
300 P-377 001	1	PROCESS AND PRODUCTION	24	7	52	GEOTECHNICAL TESTS ON RADIOLOGICALLY IMPACTED SOILS
300 R-306E-ULAB 001	1	PROCESS AND PRODUCTION	24	7	52	THE 306E-ULAB STACK EXHAUSTS FILTERED AIR FROM PAST URANIUM OXIDE LABORATORY ACTIVITIES IN ROOMS 158 AND 159. THE LABORATORIES ARE CURRENTLY SHUT DOWN. EMISSIONS MONITORING CONSISTS OF A RECORD SAMPLER.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 300 AREA
 FACILITY NAME: 300 AREA Facility and Associated Structures

Source (Process) Listing

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 Z-TEDF 001	1	PROCESS AND PRODUCTION				THE 300 AREA TEDF PROVIDES TREATMENT FOR INDUSTRIAL WASTEWATERS GENERATED IN THE 300 AREA. THE TEDF TREATS UP TO 300 GAL/MIN OF PROCESS SEWER WASTEWATERS FROM SITE LABORATORIES, ALONG WITH SUPPORT AND INACTIVE FACILITIES.

The TEDF consists of Best Available Technology for the constituents of concern in the wastewater, including trace quantities of aluminum, copper, cyanide, lead, mercury, and select organics. The main components of the system are:

WASTE COLLECTION SUMP collects flow from the 300 Area and pumps the liquid to the TEDF site. The sump is just north of the 300 Area and is connected to the TEDF by buried pipe.

EQUALIZATION TANK minimizes variations in flow and loading to the plant.

IRON COPRECIPITATION removes insoluble heavy metal precipitates through settling. This process includes chemical additions (Chemical Mix Tank), stirring to increase floc size (Flocculator), and settling (Clairifiers).

GRAVITY FILTERS use dual media (sand/coal) to remove suspended solids.

ION EXCHANGE removes mercury that forms insoluble metal sulfides with a thiol functional group resin.

UV OXIDATION destroys organics, bacteria, sulfides, nitrate, and cyanide by oxidizing them with ultraviolet light and hydroxal molecules (from hydrogen peroxide). Carbon dioxide and water are all that remain from organic reactions taken to completion.

DIVERSION TANKS provide capacity for extended plant shutdown and/or maintenance.

SLUDGE DEWATERING is performed using a sludge thickening tank, polymer addition, and plate and frame filter press. Dewatered sludge is placed in drums or bulk containers for disposal.

CENTRAL CONTROL SYSTEM uses industrial computers and programmable logic controllers to control a majority of operations. The capability for manual operations is built in throughout the facility.

Source Raw Materials Usage

Em Point	Src# Nbr	Src# Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Src# Nbr	Src# Type	Qty	Uom	Fuel
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Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
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AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 300 AREA
FACILITY NAME: 300 AREA Facility and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct# Actual (Ci/yr)	Pollutant
300 P-308TRIGA 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-321	Refer to DOE/RL-94-51 Table 2-1	
300 P-309PRTR 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-41	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-41	
300 P-340BLDG 001	1	FUELS/LIQUIDS LOADING RACK	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-43	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-43	
300 P-340DECON 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-44	Refer to WHC-SD-EN-RPT-025 Rev. 0 Page A-44	
300 P-340NTEX 001	1 2 3 4 5 6 7 8 9	PROCESS AND PRODUCTION TANKS AND VESSELS TANKS AND VESSELS TANKS AND VESSELS TANKS AND VESSELS TANKS AND VESSELS TANKS AND VESSELS TANKS AND VESSELS TANKS AND VESSELS	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-324	Refer to DOE/RL-94-51 Table 2-1	
300 P-377 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-299	Refer to DOE/RL-94-51 Table 2-1	
300 R-306E-ULAB 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-300	Refer to DOE/RL-94-51 Table 2-1	

Point Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct# Actual (tons/yr)	Pollutant
Sum					

Point Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct# Actual (tons/yr)	Pollutant
Sum					

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 300 AREA
 FACILITY NAME: 300 AREA Facility and Associated Structures

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Fugitive Source Emissions - HAP Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
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Sum					

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
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Sum					

Insignificant Source Emissions - Radiological Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
-----	-----	-----	-----	-----	-----

Insignificant Source Emissions - HAP Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
-----	-----	-----	-----	-----	-----
Sum					

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 300 AREA
 FACILITY NAME: 300 AREA Facility and Associated Structures

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Control Device Listing

Em Point	Control Equipment Code
-----	-----
300 P-308TRIGA 001	099
300 P-309PRTR 001	099
300 P-340BBLDG 001	099
300 P-340DECON 001	099
300 P-340NTEX 001	099
300 P-377GEL 001	099
300 P-377 001	099
300 R-306E-ULAB 001	099

FACILITY:

300 Area

EMISSION POINT:

300-P-308TRIGA 001

K.A. Giese
1/14/1995

FACILITY: 300 Area

EMISSION POINT: 300 R-306E-ULAB 001

FACILITY: 309 Facility

EMISSION POINT: 300 P-309PRTR 001

K.A. Glese
1/14/1995

FACILITY:

377 Building

EMISSION POINT:

300 P-377GEL 001

FACILITY:	340 B East Building
EMISSION POINT:	300 P-340BBLDG 001

FACILITY:

340 Building

EMISSION POINT:

300P-340DECON 001

K.A. Glese

11/7/1994

FACILITY:	340 Building ENTEX System
EMISSION POINT:	300P340NTEX 001

FACILITY: 300 Area Treated Effluent Disposal Facility

EMISSION POINT: 300 Z-TEDF 001

Fugitive Emission Point

Building 310-TEDF
Operations

K.A. Giese
4/29/1995

Emission Point
300 P-377 001
N116162 E593655

377
Building Corner
N116146 E593645

Emission Point
300 R-306E-ULAB 001
N116099 E594009

340
Building Corner
N115938 594142

Emission Point
300 P-340BBLDG 001
N115958 E594160

Emission Point
300 P-340DECON
N115939 E594165

Emission Point
300P-340NTEX 001
N115926 E594172

308
Building Corner
N115834 E594149

Emission Point
300 P-308TRIGA 001
N115384 E594174

309
Building Corner
N115672 E594157

Emission Point
300 P-309-PRTR 001
N115672 E594161

300 Area Emission Points

80 0 80 160 Meters

Emission Point
300 Z-TEDF 001
N117343 E593642

Route 4S

300 Area Treated Effluent Disposal Facility

110 0 110 220 Meters

WHCHTSNFM15-953TEDFEMS

APPENDIX F-2

384 POWERHOUSE

Chapter I. General Information

I-B.1. Facility Description

The 384 Powerhouse is located in the 300 Area. The 384 Powerhouse has six boilers capable of operating. Three of the boilers are coal-fired, and the other three boilers are fired with fuel oil. All of the boilers are used to exclusively generate steam. Steam generated is used in nearby process facilities for heating and process operations. The total rated capacity of the six boilers is 360,000 pounds per hour of steam.

The three coal-fired boilers burn bituminous coal. Each of these boilers is rated for 40,000 pounds per hour of 250 pounds per square inch gauge steam. All three coal-fired boilers did not operate in 1994, nor have the boilers operated since 1989.

1st quarter	0 pounds per hour
2nd quarter	0 pounds per hour
3rd quarter	0 pounds per hour
4th quarter	0 pounds per hour

The three oil-fired boilers burn number six fuel oil. The three boilers are rated for 100,000, 80,000, and 60,000 pounds per hour of 300 pounds per square inch gauge steam, respectively. The oil-fired boilers have been in continuous service since 1988. The 1994 average combined steam production rate for these three boilers was:

1st quarter	51,031 pounds per hour
2nd quarter	15,002 pounds per hour
3rd quarter	12,630 pounds per hour
4th quarter	28,738 pounds per hour

I-B.2. Products, Raw Materials, Fuels, Processes

- Principal products - The only product is 250 to 350 pounds per square inch gauge steam for heating and process operations.
- Process information - Treated boiler feed water is prepared at the powerhouse. Sanitary water is dechlorinate using sodium sulfite before entering sodium zeolite softeners ion exchange units to remove presence of calcium and magnesium salts. Feed water chemistry control is performed using <4% potassium hydroxide to prevent scaling and sedimentation. Sodium sulfite is used to scavenge oxygen. Amine is added to each boiler steam outlet line for condensate corrosion control.

- Raw materials used by processes - There are no raw materials used at the 384 Powerhouse.
- Fuels used by processes - Three of the boilers use bituminous coal; three of the boilers use number six fuel oil.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on pages 1 and 2 of the AEI report output. The control information is found on page 7 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on pages 1 and 2 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 384
FACILITY NAME: 384 Facilities and Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
384	116029	593931	POWER HOUSE BUILDING	CAMP, SAMUEL L. JR.	376-4019	DAVID G. MURILLO	373-9179

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type
300 F-384 001	POINT	116028	593882	1	10200204	EXTERNAL FUEL COMBUSTION
				2	10200204	EXTERNAL FUEL COMBUSTION
				3	10200204	EXTERNAL FUEL COMBUSTION
				4	10200204	SOURCE EMISSIONS ROLL-UP

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITHOUT WEATHER CAP	7			38.48	337	42	150	69

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type
300 F-384 002	POINT	116013	593898	1	10200401	EXTERNAL FUEL COMBUSTION

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITH WEATHER CAP	4			12.57	350	490	49	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type
300 F-384 005	POINT	116028	593868	1	10200401	EXTERNAL FUEL COMBUSTION

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITHOUT WEATHER CAP		5	3.25	16.25	500	16	24	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type
300 F-384 006	POINT	116013	593926	1	10200401	EXTERNAL FUEL COMBUSTION

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITH WEATHER CAP	4			12.57	350	488	81	11

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type
300 J-384 003	FUGITIVE	116010	593933	1	39000289	CRUSHING, HANDLING, AND STORAGE

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
				0	78	.0325	60	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 384
FACILITY NAME: 384 Facilities and Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
300 J-384 004	FUGITIVE	115494	594271	1	50300810	DISPOSAL AND LANDFILL				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	60		

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 F-384 001	1	EXTERNAL FUEL COMBUSTION	24	7	52	INTERNATIONAL COAL-FIRED SPREADER STOKER BOILER, DESIGNATED AS BOILER #3
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 F-384 001	2	EXTERNAL FUEL COMBUSTION	24	7	52	INTERNATIONAL COAL-FIRED SPREADER STOKER BOILER, DESIGNATED AS BOILER #4
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 F-384 001	3	EXTERNAL FUEL COMBUSTION	24	7	52	INTERNATIONAL COAL-FIRED SPREADER STOKER BOILER, DESIGNATED AS BOILER #5
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 F-384 001	4	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT F-384-001
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 F-384 002	1	EXTERNAL FUEL COMBUSTION	24	7	52	RILEY COAL-FIRED BOILER CONVERTED TO NO. 6 OIL-FIRED BOILER. FUEL CONSUMPTION FOR 1992: HEAT CONTENT = 153000, ASH CONTENT = .12, SULFUR CONTENT = 1.75, HOURLY AVERAGE = 40. HOURLY AVERAGE FOR 1993 = 38. DESIGNATED AS BOILER #2
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 F-384 005	1	EXTERNAL FUEL COMBUSTION	24	7	52	PACKAGE BOILER. FUEL CONSUMPTION: 1992 HOURLY AVERAGE = 100, 1993 HOURLY AVERAGE = 125. DESIGNATED AS BOILER #1.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 F-384 006	1	EXTERNAL FUEL COMBUSTION	24	7	52	RILEY COAL-FIRED BOILER CONVERTED TO NO. 6 FUEL OIL. FUEL CONSUMPTION: 1992 HOURLY AVERAGE = 92, 1993 HOURLY AVERAGE = 110. DESIGNATED AS BOILER #6

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 384
 FACILITY NAME: 384 Facilities and Structures

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 J-384 003	1	CRUSHING, HANDLING, AND STORAGE	24	7	52	COAL PILE

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 J-384 004	1	DISPOSAL AND LANDFILL	24	7	52	ASH DISPOSAL PIT NOT UTILIZED IN 1993 DUE TO BOILERS IN STANDBY MODE

Source Raw Materials Usage

Em Point	Srcr Nbr	Srcr Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Srcr Nbr	Srcr Type	Qty	Uom	Fuel
300 F-384 001	1	EXTERNAL FUEL COMBUSTION	21000000	POUND	COAL BITUMINOUS
	2	EXTERNAL FUEL COMBUSTION	21000000	POUND	COAL BITUMINOUS
	3	EXTERNAL FUEL COMBUSTION	21000000	POUND	COAL BITUMINOUS
300 F-384 002	1	EXTERNAL FUEL COMBUSTION	341875	GALLONS	NO. 6 HEATING OIL
300 F-384 005	1	EXTERNAL FUEL COMBUSTION	991091	GALLONS	NO. 6 HEATING OIL
300 F-384 006	1	EXTERNAL FUEL COMBUSTION	888644	GALLONS	NO. 6 HEATING OIL

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
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AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 384
FACILITY NAME: 384 Facilities and Structures

Point Source Criteria Pollutants - Type: CO

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
300 F-384 001	4	SOURCE EMISSIONS ROLL-UP	315.300000000	.000000000	CARBON MONOXIDE
300 F-384 002	1	EXTERNAL FUEL COMBUSTION	20.100000000	1.700000000	CARBON MONOXIDE
300 F-384 005	1	EXTERNAL FUEL COMBUSTION	12.010000000	2.220000000	CARBON MONOXIDE
300 F-384 006	1	EXTERNAL FUEL COMBUSTION	16.000000000	1.050000000	CARBON MONOXIDE
Sum			363.410000000	4.970000000	

Point Source Criteria Pollutants - Type: LEAD

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
300 F-384 001	4	SOURCE EMISSIONS ROLL-UP	9.900000000	.000000000	LEAD
300 F-384 002	1	EXTERNAL FUEL COMBUSTION	.120000000	.010000000	LEAD
300 F-384 005	1	EXTERNAL FUEL COMBUSTION	.070000000	.020000000	LEAD
300 F-384 006	1	EXTERNAL FUEL COMBUSTION	.090000000	.006000000	LEAD
Sum			10.180000000	.036000000	

Point Source Criteria Pollutants - Type: NOX

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
300 F-384 001	4	SOURCE EMISSIONS ROLL-UP	864.000000000	.000000000	NITROGEN OXIDES
300 F-384 002	1	EXTERNAL FUEL COMBUSTION	220.000000000	18.680000000	NITROGEN OXIDES
300 F-384 005	1	EXTERNAL FUEL COMBUSTION	133.000000000	24.460000000	NITROGEN OXIDES
300 F-384 006	1	EXTERNAL FUEL COMBUSTION	176.000000000	11.500000000	NITROGEN OXIDES
Sum			1393.000000000	54.640000000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 384
FACILITY NAME: 384 Facilities and Structures

Point Source Criteria Pollutants - Type: PM

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
300 F-384 001	4	SOURCE EMISSIONS ROLL-UP	8.400000000	.000000000	TOTAL PARTICULATE MATTER
300 F-384 002	1	EXTERNAL FUEL COMBUSTION	77.400000000	6.560000000	TOTAL PARTICULATE MATTER
300 F-384 005	1	EXTERNAL FUEL COMBUSTION	46.500000000	8.580000000	TOTAL PARTICULATE MATTER
300 F-384 006	1	EXTERNAL FUEL COMBUSTION	61.700000000	4.040000000	TOTAL PARTICULATE MATTER
Sum			194.000000000	19.180000000	

Point Source Criteria Pollutants - Type: PM10

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
300 F-384 001	4	SOURCE EMISSIONS ROLL-UP	1.800000000	.000000000	PARTICULATE MATTER (10 MICRONS OR LESS)
Sum			1.800000000	.000000000	

Point Source Criteria Pollutants - Type: SOX

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
300 F-384 001	4	SOURCE EMISSIONS ROLL-UP	4194.000000000	.000000000	SULFUR DIOXIDE
300 F-384 002	1	EXTERNAL FUEL COMBUSTION	1101.000000000 14.000000000	93.310000000 1.190000000	SULFUR DIOXIDE SULFUR TRIOXIDE
300 F-384 005	1	EXTERNAL FUEL COMBUSTION	662.000000000 8.430000000	122.000000000 1.560000000	SULFUR DIOXIDE SULFUR TRIOXIDE
300 F-384 006	1	EXTERNAL FUEL COMBUSTION	879.000000000 11.200000000	57.440000000 .730000000	SULFUR DIOXIDE SULFUR TRIOXIDE
Sum			6869.630000000	276.230000000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 384
FACILITY NAME: 384 Facilities and Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
300 F-384 001	4	SOURCE EMISSIONS ROLL-UP	4.200000000 3.300000000	.000000000 .000000000	FORMALDEHYDE NON-METHANE VOLATILE ORGANICS
300 F-384 002	1	EXTERNAL FUEL COMBUSTION	.250000000 1.170000000 33.600000000	.020000000 .100000000 2.850000000	FORMALDEHYDE NON-METHANE VOLATILE ORGANICS POLYCYCLIC ORGANIC MATTER
300 F-384 005	1	EXTERNAL FUEL COMBUSTION	.100000000 .700000000 20.200000000	.030000000 .120000000 3.740000000	FORMALDEHYDE NON-METHANE VOLATILE ORGANICS POLYCYCLIC ORGANIC MATTER
300 F-384 006	1	EXTERNAL FUEL COMBUSTION	.200000000 .900000000 26.900000000	.013000000 .060000000 1.760000000	FORMALDEHYDE NON-METHANE VOLATILE ORGANICS POLYCYCLIC ORGANIC MATTER
Sum			91.520000000	8.693000000	

Point Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Point Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
300 F-384 001	4	SOURCE EMISSIONS ROLL-UP	10.500000000 1.500000000 .900000000 30.300000000 4.200000000 9.900000000 42.000000000 .300000000 24.900000000 3.900000000	.000000000 .000000000 .000000000 .000000000 .000000000 .000000000 .000000000 .000000000 .000000000 .000000000	ARSENIC BERYLLIUM CADMIUM CHROMIUM FORMALDEHYDE LEAD MANGANESE MERCURY NICKEL SELENIUM

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 384
FACILITY NAME: 384 Facilities and Structures

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
300 F-384 002	1	EXTERNAL FUEL COMBUSTION	.030000000 .070000000 .003000000 .130000000 .080000000 .070000000 .250000000 .120000000 .050000000 .020000000 1.430000000 33.600000000 .020000000	.002000000 .006000000 .000200000 .010000000 .007000000 .006000000 .020000000 .010000000 .004000000 .002000000 .120000000 2.850000000 .002000000	ANTIMONY ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT FORMALDEHYDE LEAD MANGANESE MERCURY NICKEL POLYCYCLIC ORGANIC MATTER SELENIUM
300 F-384 005	1	EXTERNAL FUEL COMBUSTION	.020000000 .040000000 .002000000 .080000000 .050000000 .040000000 .100000000 .070000000 .030000000 .010000000 .010000000 .860000000 20.200000000 .010000000	.003000000 .010000000 .000300000 .020000000 .010000000 .010000000 .030000000 .020000000 .010000000 .002000000 .200000000 3.740000000 .003000000	ANTIMONY ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT FORMALDEHYDE LEAD MANGANESE MERCURY NICKEL POLYCYCLIC ORGANIC MATTER SELENIUM
300 F-384 006	1	EXTERNAL FUEL COMBUSTION	.020000000 .060000000 .002000000 .100000000 .060000000 .060000000 .200000000 .090000000 .040000000 .020000000 1.140000000 26.900000000 .020000000	.002000000 .004000000 .000100000 .007000000 .004000000 .004000000 .013000000 .006000000 .002000000 .001000000 .075000000 1.760000000 .001000000	ANTIMONY ARSENIC BERYLLIUM CADMIUM CHROMIUM COBALT FORMALDEHYDE LEAD MANGANESE MERCURY NICKEL POLYCYCLIC ORGANIC MATTER SELENIUM
Sum			214.497000000	8.976600000	

Point Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
300 F-384 001	4	SOURCE EMISSIONS ROLL-UP	18.900000000 3.900000000 5.700000000 2.700000000	.000000000 .000000000 .000000000 .000000000	COPPER METHANE NITROUS OXIDE VANADIUM

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 384
FACILITY NAME: 384 Facilities and Structures

Point Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
300 F-384 002	1	EXTERNAL FUEL COMBUSTION	.170000000 4.000000000 .440000000 5.130000000 1.850000000	.010000000 .340000000 .040000000 .430000000 .160000000	COPPER METHANE NITROUS OXIDE TOTAL ORGANIC CARBON VANADIUM
300 F-384 005	1	EXTERNAL FUEL COMBUSTION	.100000000 2.410000000 .260000000 3.080000000 1.110000000	.020000000 .440000000 .050000000 .570000000 .210000000	COPPER METHANE NITROUS OXIDE TOTAL ORGANIC CARBON VANADIUM
300 F-384 006	1	EXTERNAL FUEL COMBUSTION	.140000000 3.200000000 .350000000 4.100000000 1.480000000	.010000000 .210000000 .020000000 .270000000 .140000000	COPPER METHANE NITROUS OXIDE TOTAL ORGANIC CARBON VANADIUM
Sum			59.020000000	2.920000000	

Fugitive Source Criteria Pollutants - Type: PM

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
300 J-384 003	1	CRUSHING, HANDLING, AND STORAGE	.200000000	.200000000	TOTAL PARTICULATE MATTER
Sum			.200000000	.200000000	

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Fugitive Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 384
 FACILITY NAME: 384 Facilities and Structures

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Insignificant Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant

Insignificant Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Control Device Listing

Em Point	Control Equipment Code
300 F-384 001	016

FACILITY:

384 Powerhouse

EMISSION POINT:

300 F-384 001

FACILITY:

384 Powerhouse

EMISSION POINT:

300 F-384 002

K.A. Glese

1/24/1995

FACILITY:

384 Powerhouse

EMISSION POINT:

300 F-384 005

FACILITY:

384 Powerhouse

EMISSION POINT:

300 F-384 006

K.A. Glese

1/24/1995

FACILITY:

384 Powerhouse

EMISSION POINT:

300 J-384 003

Area Source Emission Point

Coal Delivery, Crushing,
and Storage Operations

K.A. Giese
1/24/1995

FACILITY:

384 Powerhouse

EMISSION POINT:

300J-384 004

Boiler Furnace Operations

Area Source Emission Point

K.A. Glese

1/24/1995

384

Powerhouse Area

Emission Point
300 F-384 001
N116051 E593906

Emission Point
300 F-384 005
N116028 E593868

384
Building Corner
N116028 E593902

384
Building Corner
N116020 E593931

Emission Point
300 J-384 003
N116010 E593933

Emission Point
300 F-384 002
N116013 E593898

Emission Point
300 F-384 006
N116013 E593926

50 0 50 100 Meters

300 Area Ash Pits Emission Points

Emission Point
300 J-384 004
N115949 E594271

300 Area Ash Pit

65 0 65 130 Meters

WHC\H\TS\NFM\12-94\384\ASHEM

APPENDIX F-3

300 AREA RESEARCH AND DEVELOPMENT FACILITIES

Chapter I. General Information

I-B.1.1 324 Facility Description

The Waste Technology Engineering Laboratory (324 Facility) provides office and laboratory space for Pacific Northwest Laboratory (PNL) scientific and engineering staff conducting multi-disciplinary research in the areas of waste characterization and immobilization, waste remediation and cleanup development, biomass research, spent fuel characterization, tritium development, and cesium chloride encapsulation. The 324 Facility was designed with the necessary safety features to allow radioactive and hazardous material use in support of these activities. The 324 Facility is situated directly east of the 308 Building, and west of the 336 Building.

The 324 Facility consists of four levels (a basement and three floors) and has five distinct operating areas: radioactive hot cells with associated operating galleries and radioactive liquid storage tanks in concrete vaults, radiological engineering development laboratories, SNM storage and assay, nonradiological engineering development laboratories, and administrative offices.

PNL conducts melter testing activities with several small- and pilot-scale melter test systems located in the 324 Building to support the design of the low- and high-level waste vitrification processes for the Hanford Site. This testing also supports future operations, processability, permitting, glass quality/waste form qualification, and safety activities for vitrification of low- and high-level waste.

The supporting subsystems, feed preparation and off-gas treatment, are common to all existing melters; consequently, current testing is limited to the exclusive operation of any one system at a time. The largest pilot-scale melter being tested is a high-temperature melter (HTM) having a melt surface area equal to 80% of the anticipated scale of a high-level vitrification plant HTM melter. The HTM operations and associated emissions bound all melter operations and are described below.

The HTM process flow is depicted on the process flow diagram for stack EP-324-02-S. Waste simulant is prepared for melter processing by a feed preparation test system and then transferred to the HTM to process the waste into a glass product. Gases produced by the melter are scrubbed by an off-gas system to remove particulate matter and noxious gases. Scrub and condensate solution from the off-gas system are processed in a recycle system and stored for processing in later melter tests or disposal. Melter feed is made-up and concentrated in a feed preparation tank and then transferred to a melter feed tank. The melter feed is transferred from in a feed loop, which allows a portion of the feed to be

processed by the melter while the rest is recycled back to the feed tank. The HTM vitrifies the waste slurry into glass while the off-gas produced from the process is scrubbed of particulates and noxious gases by a wet scrubber and high efficiency mist eliminator. Condensate from the off-gas is filtered by a solids separator, processed in the recycle treatment system, and stored for reuse in future melter runs or disposal. The melter off-gas is then passed through a high efficiency metal fiber (HEMF) particulate filter and a standard HEPA filter prior to leaving the 324 Building.

The emissions from the melter testing program originate during the formatting process and during melter operation. These include significant emissions of NO_x (NO and NO_2) and trace quantities of other materials that are several orders of magnitude below the WAC 173-401 thresholds. The actual constituents in the off-gas vary depending on minor changes in raw material composition; however, due to the efficiency of the control technology, emissions other than NO_x are insignificant. The current melter testing program involves two large-scale demonstrations per year, which, based on laboratory data, results in the emission of approximately 10,000 pounds of NO_x per year.

I-B.1.2 325 Facility Description

The Applied Chemistry Laboratory (325 Facility) houses radiochemistry research, radioanalytical service, radiochemical process development, and mixed waste treatment activities. The laboratories and specialized facilities enable work ranging from that with nonradioactive materials to work with picogram to kilogram quantities of fissionable materials and up to megacurie quantities of other radionuclides. The special facilities include two-shielded hot cell areas that provide for process development or analytical chemistry work with highly radioactive materials and a waste treatment unit for processing mixed, low-level, and transuranic wastes generated by PNL activities.

The 325 Facility is a rectangular-shaped, welded metal frame structure with insulated metal siding erected on reinforced concrete footings, walls, and slabs. Exterior walls are constructed of insulated 1-1/2 inch fiberglass sandwich metal panels. The flat roof is a metal deck with a built-in gravel surface insulated with 1 inch board. Windows are single pane and covered with storm windows.

The building consists of (1) a central portion containing general purpose laboratories modified for low-level radiochemical work by providing special ventilation and work enclosures; (2) a south (front) wing containing office space, a machine and electrical shop, locker rooms, and a lunch room; (3) east and west wings provided with shielded enclosures with remote manipulators for high-exposure radiochemical work; and (4) a filter addition area that provides a final testable HEPA filtration stage for ventilation exhaust air.

The central portion of the building contains laboratories and offices; the laboratories contain hoods and gloveboxes for working safely with radioactive and hazardous materials. Offices also are located on the second floor and on a mezzanine area between the first floor and the

basement. The basement contains several laboratories, in addition to a portion of the ventilation and waste handling systems. Instrument rooms and the hazardous waste treatment unit have refrigerated air conditioning for temperature and humidity control.

The main heating and ventilation system located on the second floor has four supply fans with heating coils, spray chambers, and filters. Four exhaust fans and a filter room are located in the filter addition annex northwest of the main building. Three fans operate continuously; one is a standby. Pressure barriers for contamination control are achieved by supplying air to offices and corridors, and exhausting it from the laboratories through HEPA filters to a 55-foot-high stack.

Two 50-ton refrigerated air conditioning systems serve special instrumentation rooms located in the northwest corner and north-central portion of the building. Smaller refrigerated air conditioning units serve other special purpose laboratories, as well.

Utility services include steam; hot, cold, process, sanitary, deionized, and distilled water; compressed air; laboratory process vacuum; and contaminated and uncontaminated drains.

I-B.1.3 327 Facility Description

The Post-Irradiation Laboratory (327 Facility) provides office and laboratory space for PNL scientific and engineering staff conducting multi-disciplinary research in the areas of post-irradiated fuels and structural materials. The facility is designed to accommodate the use of radioactive and hazardous materials in the conduct of these activities.

The 327 Facility is a 25,200 square foot single story building with a partial basement and there is 10,000 square feet of laboratory and work areas, 2,100 square feet of offices, and 2,400 square feet of storage areas, along with 10,500 square feet of common areas containing ventilation and auxiliary equipment.

Supply ventilation units are located in the basement, the west end of the canyon in the transfer (truck lock) and storage area, and the northwest storage area of the canyon. The 327 Facility is provided with continuous monitors for air activity, radiation, and criticality. The hot exhaust system takes air from all high-contamination areas such as shielded cells, fume hoods, and dry storage, and filters the air through a roughing filter and two HEPA filters before the effluent air is released.

Stack effluent regulatory monitoring consists of weekly collection of filter samples that are subject to radiological analysis.

I-B.1.4 3720 Facility Description

The Materials Science Laboratory (3720 Facility) provides office and laboratory space for PNL scientific and engineering staff conducting multi-disciplinary research in the areas of

materials characterization and testing and waste management. The facility is designed to accommodate using radioactive and hazardous materials to conduct these activities.

The 3720 Facility was built in 1959 and is located in the northern most region of the 300 Area bounded on the north by the 300 Area fence. The 24,412 square foot building is an all-metal frame construction erected on concrete foundations, footings, and floor slab. The building includes 31 offices (4,188 square feet), 27 laboratories (9,302 square feet), shop space (352 square feet), work and storage space (369 and 308 square feet), respectively, and common space (9,893 square feet). The building also contains a 24 foot x 109 foot basement area at the southwest corner.

A one-story concrete block annex (48 feet 2 inch x 40 foot 2 inch) was added to the north end of the building in 1980; this addition is, essentially, independent of the rest of the building except for electrical service and air conditioning supply. The annex has its own ventilation exhaust system.

The 3720 Facility is completely air conditioned and fully protected from fire by a wet-pipe sprinkler system. Air conditioning units are located on the southeast side and the north end of the building. Air conditioning chillers are located in the basement. All laboratory hoods containing radioactive materials are double HEPA filtered to minimize atmospheric emissions released through three exhaust stacks. The building is divided into three ventilation regions. The main laboratory building is divided into a north and a south region, each served by an exhaust stack (EP-3720-01-S and EP-3720-03-S, respectively). The third region, the annex laboratory, also has an exhaust stack (EP-3720-02-S).

Stack effluent monitoring consists of a biweekly collection of filters that are analyzed for alpha and beta radioactivity.

I-B.1.5 In Situ Vitrification Operations Description

In Situ Vitrification (ISV) is a thermal treatment process that converts contaminated soil into a chemically inert and stable glass and crystalline product. PNL uses mobile pilot-scale and large-scale systems for applying this technology at Hanford waste sites. PNL also operates laboratory bench-scale and engineering-scale systems in the 324 Building for ISV research and development purposes.

The potential ISV process emissions vary depending on the radioactive and chemical contaminants present at the waste site selected for treatment. In general, historical performance of the emission control systems has been exceptional, resulting in insignificant emissions of hazardous materials. Future demonstrations of the ISV process will determine potential emissions and notification requirements applicable to the application of this technology on the Hanford Site.

The general ISV process uses four electrodes which are inserted into the ground to the desired treatment depth. Because soil is not electrically conductive once its moisture is driven off, a conductive mixture of flaked graphite and glass frit is placed among the electrodes to act as a conductive starter path. An electrical current is established in the starter path by applying an electrical potential to the electrodes. The resultant power heats the starter path and surrounding soil up to 2000 °C, well above the typical initial melting temperature of soil (1100 °C to 1400 °C). The graphite starter path is eventually consumed by oxidation, and the current is transferred to the molten soil, which is now electrically conductive. As the molten zone grows, it incorporates nonvolatile hazardous elements, such as heavy metals, and destroys organic compounds by pyrolysis. The pyrolyzed by-products migrate to the surface of the vitrified zone where they burn in the presence of oxygen. A stainless steel hood placed over the area being vitrified directs the gaseous effluent to an off-gas treatment system.

LARGE-SCALE SYSTEM

Multiple stage off-gas treatment equipment processes the gaseous effluent. This is depicted in the emission point diagram labeled EP-ISV-01-V. The off-gas system has two parallel trains. The off-gas system is fitted with a gas cooler, two quench towers, hydrosonic tandem nozzle scrubbers, two heat exchangers, three vane-separated mist eliminators, two scrub solution tanks, two pumps, a condenser, a heater, and high-efficiency particulate air (HEPA) filters. The quenchers remove 90% of the particulate and semi-volatile radionuclides; the scrubbers are designed to remove 90% of particulate greater than 0.5 μm in diameter and condenses the remaining semi-volatile components. The off-gas system is continuously monitored for radionuclides and chemicals at several locations in the process train. The process effluent stack is monitored continuously by a continuous air monitor unit. In addition, the process off-gas system contains environmental monitors that detect No_x , So_x , CO and O_2 .

PILOT-SCALE SYSTEM

The pilot-scale off-gas system is depicted in the emission point diagram labeled EP-ISV-02-V. The off gas passes through a venturi-ejector scrubber and separator, Hydro-Sonic scrubber, separator, condenser, another separator, heater, two stages of HEPA filtration.

Heat is removed from the off gas by a closed loop cooling system that consists of an air/liquid heat exchanger, a coolant storage tank, and a pump. A 50% water/ethylene glycol mix is pumped from the storage tank through the shell side of the condenser and the two scrub solution heat exchangers, then through the air/liquid exchanger, where heat is removed from the coolant.

The venturi-ejector scrubber serves both as a quencher and a high energy scrubber. The second scrubber is a two-stage Hydro-Sonic scrubber (tandem nozzle fan drive). The first

section condenses vapors, removes larger particles, and initiates growth of the finer particles so that they are more easily captured in the second stage. Particulate is captured when the gas is mixed with fine water droplets produced by spraying water into the exhaust of the subsonic nozzle. Large droplets containing the particulate are then removed by a vane separator and drained back into the scrub tank. The unit is designed to remove over 90% of all particulates greater than 0.5- μ m dia when operated at a differential pressure of 127 cm of water. Removal efficiency increases with an increase in pressure differential.

During operation, one filter is used and the other remains as a back-up in case the generating filter becomes loaded. The primary filter can be changed out during operation. The second-stage HEPA filter acts as a back-up if a first-stage filter fails.

I-B.2.1 324 Facility Products, Raw Materials, Fuels, Processes

The 324 Facility primarily supports the research and development (R&D) of radioactive and nonradioactive waste vitrification technologies (i.e., ceramic melters, in situ vitrification [ISV], Hanford Waste Vitrification Program [HWVP] design support), spent nuclear fuel studies, biological waste remediation technologies, and waste mixing and transport studies. All of these programs have the potential to release hazardous and/or radioactive material. The potential for discharge would result primarily from (1) conducting research activities using the hazardous material, (2) storing radionuclides and hazardous chemicals, and (3) waste accumulation and storage.

I-B.2.2 325 Facility Products, Raw Materials, Fuels, Processes

The 325 Facility houses laboratories for organic, inorganic, and radioactive chemistry activities. Also provided are specially shielded, ventilated laboratory space for studies with chemical and mechanical processes that have radiation levels up to 10^6 R/h. The 325 Facility contains a very comprehensive hot-cell capacity with 4-foot-thick walls and 30-ton and 5-ton bridge cranes to perform process and physical chemistry on high-level samples, such as spent fuels. Shielded analytical cells with 18-inch walls and 3-ton hoists for process chemistry and development also exist. Other processes performed are waste formulation and durability, as well as empirical studies that support the fate of waste. Most of the work performed is analytical chemistry to support environmental restoration and waste management.

I-B.2.3 327 Facility Products, Raw Materials, Fuels, Processes

The 327 Facility processes that generate solid, liquid, and gaseous effluent are associated with the conduct of testing and metallurgical examinations for supporting sponsors. Examinations and testing performed by staff located include the following:

- gas collection, precision sectioning, metallography, remote machining, alkaline metal reaction, isotope recovery, medical isotope processing

- specimen/equipment cleaning and decontamination
- irradiated materials preparation and testing
- remote assembly of irradiated components
- radioactive waste management
- shipping and receiving radioactive shipments.

Processes that could potentially result in such discharges include (1) stored radionuclides or chemicals and their usage; (2) liquid waste accumulation and storage; (3) programmatic sample storage; (4) research implementation (e.g., use of gloveboxes and hot cells); and (5) facility operations.

I-B.2.4 3720 Facility Products, Raw Materials, Fuels, Processes

The 3720 Facility processes that generate solid, liquid, and gaseous effluents are associated with conducting basic and applied research for supporting sponsors. Research performed by staff include the following:

- delineating the fundamental processes and mechanisms that influence the behavior of metals and radionuclides of environmental concern in the subsurface environment
- evaluating waste form stability and the ability of various materials (e.g., grout, glasses, cements) to immobilize contaminants of concern
- preparing and testing/analyzing materials and samples.

Processes also were examined as potential contaminant releases. Processes within the 3720 Facility that could potentially result in such discharges include (1) stored chemicals or radionuclides and their usage; (2) experimental material usage; (3) liquid waste accumulation and storage; (4) programmatic sample storage; (5) research implementation (e.g., use of glove and atmospheric boxes); and 6) facility operation. In the operation area, process evaluation was targeted at the air conditioning system; HEPA filter system; compressed gas storage; and pump systems for condensate return, vacuum and air sampling.

Source terms involving radionuclides are, for the most part (laboratory 202 is the exception), contained within the north portion of the main region of the facility (laboratories 245, 501, 507, 506, 603) and involve the use in experimental studies of tracer quantities of radionuclides or environmental samples containing low levels of radionuclides. Glove and atmospheric boxes are selectively used to conduct experiments involving radioactive materials, as well as for storing radioactive materials with limited stability. Fume hoods may be used in a similar fashion. The 3720 Facility contains a materials balance area (in

laboratory 501) for storage of Category 3 SNM isotopes of americium, neptunium, plutonium, and uranium and a laboratory for specialized counting of radioactive samples (laboratory 202). Radioactive liquid and solid wastes are accumulated in satellite storage areas and active inventories maintained.

I-B.2.5 In Situ Vitrification Products, Raw Materials, Fuels, Processes

The ISV process generates a solid product which is a vitrified mass of material that is located beneath the surface of the ground. The effluents from the ISV process are associated with conducting basic and applied research for supporting sponsors. The raw materials used in the ISV process are small quantities of carbon (graphite) and silica (glass frit) to aid in the melting process.

I-C.1.1 324 Facility Emission Points, Controls, Stacks

The 324 Facility ventilation system is designed to ensure safe confinement of airborne radioactive materials under all normal and credible failure modes. The ventilation system is divided into four zones (Zones I, II, III, and IV) using cascading zone pressure levels to maintain proper air flow balance and direction. The system has interlocks, redundancy, failure-to-open control dampers, and back flow prevention dampers to ensure desired zone pressure, and air flow control in the event of partial equipment or power failure.

The Zone I and II exhaust streams are joined downstream of the final (second-stage) filters and exhaust fans, in a common tunnel, and exhaust to the atmosphere via the 150-foot-high stack located outside the northeast corner of the building. Zone I exhausts the high-level radioactive areas such as the radiochemistry and shielded material cells, their accompanying liquid vault tanks, and some gloveboxes and fume hoods. The Zone I exhaust is filtered through at least two testable stages of HEPA filtration and exhausted by three fans (one on standby) out to the atmosphere via the northeast stack.

Zone II exhaust serves potentially contaminated areas in which low-level radioactive materials are handled, such as shielded cell operating galleries, basement laboratories, and the storage vault. All Zone II air is exhausted through at least one testable stage of HEPA filtration. The Zone II system is serviced by two fans running continuously. The Zone II fans discharge to the atmosphere via the northeast stack.

The Zone III exhaust serves normally 'clean' areas such as the Engineering Development Laboratory 102 (EDL-102 is the area north of 101 containing Mods 1-18) and nonradioactive laboratories. All air exhausted from Zone III is filtered through at least one testable stage of HEPA filtration by two continuously-operating fans without any standby fan capability. The Zone III fans discharge directly to the atmosphere through a stack that penetrates the roof.

Zone IV exhaust serves areas that do not contain any radioactive materials such as offices, change rooms, and administration areas. The Zone IV air is discharged to the atmosphere through various powered or convective roof exhausters or is recirculated, depending on the location.

I-C.1.2 325 Facility Emission Points, Controls, Stacks

The 325 Facility exhaust system consists of the air circulating first through the uncontrolled corridors, to the controlled corridors, and finally to the laboratories that have at least one HEPA filter at each glovebox and hood. Two restrooms also are in the controlled area that exhaust to the controlled hallway. The air is exhausted through a bank of HEPA filters before being exhausted through the stack. Two restrooms are located in the uncontrolled hallway adjacent to the controlled area and two additional restrooms are in an uncontrolled area that are exhausted via exhaust fans to the atmosphere. The lunchroom, outer conference room, and nonradiation change rooms are exhausted to a nonfiltered exhaust fan.

Airborne emissions from the 325 Facility are primarily via stacks and vents; minor outleakage under upset conditions is possible via doorways and building leaks.

The airborne particulate sample system incorporates a six-nozzle, isokinetic sampling probe assembly positioned in the approximately 86-foot-high by 8-feet in diameter 325 Facility stack (EP-325-01-S). Annual stack volumetric flow rate determinations indicate the stack has a relatively constant flow rate.

The main ventilation air supply units have back draft dampers and do not constitute a viable exhaust point from the 325 Facility. Air intake vents for vaults housing tanks used to store radioactive liquids are located on the east side of the building. These intake vents all have HEPA filters. Several natural gas and steam vents are present on the roof, but are not considered potential release points.

Access doors are separated from potentially contaminated areas by at least one control zone. Hand and shoe counters are located near exit points from control zones to ensure no migration of radionuclide contamination into uncontrolled areas occur.

Airborne radionuclide emission sampling for particulate radionuclides is performed at the stack, using isokinetic sampling systems compliant with National Emissions Standards for Hazardous Air Pollutants (NESHAP) requirements in 40 CFR 61.

The stack, located on the northwest side of the 325 Facility, discharges ventilation exhaust from hot cells, maintenance shops, and canyon areas at an average exhaust rate of 130,000 cubic feet per minute.

I-C.1.3 327 Facility Emission Points, Controls, Stacks

Almost the entire 327 Facility is in one ventilation zone, within which air balance keeps flow moving from 'clean' to 'dirty' areas and from the atmosphere into the building. Some confinement also is provided by conducting high-inventory operations in hot cells. There are no process offgas systems. All potentially radioactively contaminated air flow passes through at least one stage of HEPA filtration before leaving the building via stack EP-327-01-S, or vent EP-327-02-V.

Airborne radionuclide emission sampling for particulate radionuclides is performed at both EP-327-01-S and EP-327-02-V using isokinetic sampling systems compliant with National Emissions Standards for Hazardous Air Pollutants (NESHAP) requirements in 40 CFR 61.

I-C.1.4 3720 Facility Emission Points, Controls, Stacks

Airborne emissions from the 3720 Facility are via stacks and vents. Compliance emission sampling is performed at the main stack, at exhaust sample point ESP-3720-01-S. Confirmatory sampling is performed at two locations: the north annex stack, shown as ESP-3720-02-S, and the southeast laboratory stack, shown as ESP-3720-03-S.

Annual stack volumetric flow rate determinations show the main exhaust stack to have a relatively constant flow rate.

The 3720 Facility Stack (EP-3720-01-S) is a 30-foot-high by 3.9-foot-diameter stainless steel cylinder located on the north side of the building. Exhaust from laboratories containing open-faced hoods and glove-boxes discharge via the stack. Building pressures are maintained nearly constant relative to ambient levels by use of control dampers in the intake and exhaust ducts, resulting in relatively constant stack flow rates.

The Southeast Stack (EP-3720-03-S) is a 30-foot-high by 2.5-foot-diameter steel cylinder stack located on the east side of the building. The stack exhausts offices and laboratories the south portion of the building. Building ventilation systems effectively isolate the south portion of the building from the main and annex laboratory areas.

The Annex Stack (EP-3720-02-S) is a 17-foot-high by 24-inch-diameter steel cylindrical stack located on the north side of the 3720 Facility, adjacent to the annex laboratory addition. Building ventilation systems effectively isolate the annex addition from the remainder of the building.

FACILITY:

300 Area

EMISSION POINT:

EP-3720-02-S

FACILITY:

300 Area

EMISSION POINT:

EP-327-01S, AND EP-327-02-V

FACILITY:

300 Area

EMISSION POINT:

EP-325-01-S

FACILITY:

300 Area

EMISSION POINT:

EP-324-02-S

FACILITY:

300 Area

EMISSION POINT:

EP-324-01-S

K.A. Giese

3/16/1995

FACILITY:	300 Area
EMISSION POINT:	EP-3720-03-S

FACILITY: 300 Area

EMISSION POINT: EP-3720-01-S

FACILITY:

300 Area

EMISSION POINT:

EP-ISV-01-V

K.A. Giese

5/08/95

FACILITY:	300 Area
EMISSION POINT:	EP-ISV-02-V

Pacific Northwest Laboratories Registered Stack Locations

150 0 150 300 Meters

WHC\H\TS\NFM\3-95\PNLEMISS

In Situ Vitrification Activities on the Hanford Site

7500 0 7500 15000 Meters

WHCHTSNFM5-95UNSIUEM

APPENDIX G

400 AREA

APPENDIX G

CONTENTS

G-1 400 AREA

APPENDIX G-1

400 AREA

Chapter I. General Information

I-B.1. Facility Description

There are two major process areas in the 400 Area, the Fast Flux Test Facility (FFTF) and the Material and Storage Facility (MASF). The FFTF is a 400-megawatt thermal sodium-cooled, fast neutron flux reactor plant designed specifically for irradiation testing of nuclear reactor fuels and materials for liquid metal fast breeder reactors. The operating future of the FFTF has been studied by various political, entrepreneurial, and scientific concerns. On December 15, 1993, the Secretary of the U.S. Department of Energy directed the FFTF be placed in a radiologically and industrially safe shutdown condition.

The MASF is a multipurpose service center that supports the specialized maintenance and storage requirements of the 400 Area facilities. The MASF provides the capability for decontamination, repair, and storage of non-fuel components and hardware for the 400 Area facilities. Work in the MASF includes handling items that are radioactive by neutron activation and items that are contaminated with radioisotopes and/or sodium films. The MASF is operated on a routine basis to meet commitments. Generally, MASF is staffed and operated based on programmatic needs.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principal products - There are no products produced at the 400 Area.
- Process information - The process operations at the 400 Area are listed as follows.
 - The MASF provides the space and equipment for the cleaning, decontamination, storage, and repair of a wide variety of equipment and non-fueled components from the FFTF. This equipment includes reactor grade components, U.S. Department of Transportation-approved shipping casks, sodium-wetted components and contaminated equipment.
 - The process operations at the FFTF are centered around placing and maintaining the FFTF in a radiologically and industrially safe shutdown condition. Major processes to achieve this condition are:
 - reactor defueling
 - unirradiated fuel disposition

- . irradiated fuel washing and dry cask storage.
- . sodium system drain and management of sodium residuals
- . auxiliary systems shutdown
- . bulk sodium conversion to a form suitable for reuse or disposition.
- . Raw materials used by processes - There are no raw materials consumed at the 400 Area.
- . Fuels used by processes - Process heaters are used to supplement the heat necessary to keep the sodium in the reactor core in a molten state. These heaters burn #2 fuel oil.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on pages 1 and 2 of the AEI report output. The control information is found on page 1 of the AEI report output.

I-C.2. Facility Process Flow Diagram

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on pages 1 and 2 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 400 AREA
FACILITY NAME: 400 AREA Facility and Associated Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
408A	123098	587662	MAIN HEAT DUMP, EAST	DAHL, NORMAN R.	376-4788	KEITH A. BENGUIAT	376-8025
408B	123060	587582	MAIN HEAT DUMP, SOUTH	DAHL, NORMAN R.	376-4788	KEITH A. BENGUIAT	376-8025
408C	123110	587548	MAIN HEAT DUMP, WEST	DAHL, NORMAN R.	376-4788	KEITH A. BENGUIAT	376-8025
437	123422	587584	MAINTENANCE AND STORAGE FACILITY (MASF)	DAHL, NORMAN R.	376-4788	KEITH A. BENGUIAT	376-8025
437MN&ST	123378	587536	STACK FOR THE MAINTENANCE AND STORAGE FACILITY (MASF), BUILDING 437	DAHL, NORMAN R.	376-4788	KEITH A. BENGUIAT	376-8025
4713B	123110	587478	FFTF MAINTENANCE SHOP	DAHL, NORMAN R.	376-4788	KEITH A. BENGUIAT	376-8025
4713D	123276	587567	INTERIM MAINTENANCE AND STORAGE FACILITY	DAHL, NORMAN R.	376-4788	KEITH A. BENGUIAT	376-8025
FFTFCEBEX	123151	587612	STACK VENTING GASES FROM THE ARGON PROCESSING SYSTEM, BUILDING 4621E	DAHL, NORMAN R.	376-4788	KEITH A. BENGUIAT	376-8025
FFTFHTTR	123083	587614	STACK FOR THE HEAT TRANSFER SYSTEM SOUTH, BUILDING 491-S	DAHL, NORMAN R.	376-4788	KEITH A. BENGUIAT	376-8025
FFTFRESB	123156	587645	LOWER REACTOR SERVICE BUILDING STACK, BUILDING 4717	DAHL, NORMAN R.	376-4788	KEITH A. BENGUIAT	376-8025

Emission Point Listing

Em Point	Ep Type	North	East	Src# Nbr	Src# Code	Src# Type				
400 N-437 001	FUGITIVE	123422	587584							
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	30	0	
Em Point	Ep Type	North	East	Src# Nbr	Src# Code	Src# Type				
400 N-4713B 001	FUGITIVE	123110	587478							
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	20	0	
Em Point	Ep Type	North	East	Src# Nbr	Src# Code	Src# Type				
400 N-4713D 001	FUGITIVE	123276	587567							
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
					0	78	.0325	30	0	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 400 AREA
FACILITY NAME: 400 AREA Facility and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
400 P-408A 001	POINT	123098	587662	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	PROCESS AND PRODUCTION				
				3	not assigned	PROCESS AND PRODUCTION				
				4	not assigned	PROCESS AND PRODUCTION				
				5	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)		
VERTICAL WITH WEATHER CAP	1			.79	78	32.5	17	-20		
400 P-408B 001	POINT	123060	587582	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	PROCESS AND PRODUCTION				
				3	not assigned	PROCESS AND PRODUCTION				
				4	not assigned	PROCESS AND PRODUCTION				
				5	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)		
VERTICAL WITH WEATHER CAP	1			.79	78	32.5	17	-20		
400 P-408C 001	POINT	123110	587548	1	not assigned	PROCESS AND PRODUCTION				
				2	not assigned	PROCESS AND PRODUCTION				
				3	not assigned	PROCESS AND PRODUCTION				
				4	not assigned	PROCESS AND PRODUCTION				
				5	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)		
VERTICAL WITH WEATHER CAP	1			.79	78	32.5	17	-20		
400 P-437 002	POINT	123378	587536	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)		
NONE SPECIFIED		.33	4	1.32	72	18.75	37	5.5		

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 400 AREA
FACILITY NAME: 400 AREA Facility and Associated Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
400 P-437MN8ST 001	POINT	123378	587536	1	not assigned	TANKS AND VESSELS				
				2	not assigned	TANKS AND VESSELS				
				3	not assigned	PROCESS AND PRODUCTION				
				4	not assigned	PROCESS AND PRODUCTION				
				5	not assigned	PROCESS AND PRODUCTION				
				6	not assigned	PROCESS AND PRODUCTION				
				7	not assigned	SOURCE EMISSIONS ROLL-UP				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL			9	6	54	68	4.9	30		
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
400 P-FFTFCEX 001	POINT	123151	587612	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL			4.5	4.5	20.25	70	19.8	40.5	1.5	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
400 P-FFTFHTTR 001	POINT	123083	587614	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL			2	2	4	68	17.4	20	4	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
400 P-FFTFRESB 001	POINT	123156	587645	1	not assigned	PROCESS AND PRODUCTION				
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
HORIZONTAL			4	4	16	68	13.1	18	18	

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
400 P-408A 001	1	PROCESS AND PRODUCTION	0	0	0	PREHEATER Q-1 IS A 2.1E+6 BTU/HR, THAT IS USED AS A SOURCE OF SPARE PARTS FOR THE OTHER PREHEATERS.
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
400 P-408A 001	2	PROCESS AND PRODUCTION	.03	1	12	PREHEATER Q-2 IS A 2.1E+6 BTU/HR #2 DIESEL OIL POWERED HEATER THAT IS USED AS AN AUXILIARY HEAT SOURCE TO KEEP THE SODIUM HOT.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 400 AREA
FACILITY NAME: 400 AREA Facility and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
400 P-408A 001	3	PROCESS AND PRODUCTION	.03	7	52	PREHEATER Q-3 IS A 2.1E+6 BTU/HR #2 DIESEL OIL POWERED HEATER THAT IS USED AS AN AUXILIARY HEAT SOURCE TO KEEP SODIUM HOT.
400 P-408A 001	4	PROCESS AND PRODUCTION	.03	1	12	PREHEATER Q-4 IS A 2.1E+6 BTU/HR #2 DIESEL OIL POWERED HEATER THAT IS USED AS AN AUXILIARY HEAT SOURCE TO KEEP THE SODIUM HOT.
400 P-408A 001	5	SOURCE EMISSIONS ROLL-UP	.03	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-408A-001
400 P-408B 001	1	PROCESS AND PRODUCTION	.03	7	52	PREHEATER Q5 IS A 2.1E+6 BTU/HR, #2 DIESEL OIL POWERED, HEATER THAT IS USED TO PROVIDE AUXILLARY HEAT TO KEEP THE SODIUM HOT.
400 P-408B 001	2	PROCESS AND PRODUCTION	0	0	0	PREHEATER Q6 IS A 2.1E+6 BTU/HR HEATER THAT IS USED AS A SOURCE OF SPARE PARTS FOR THE OTHER PREHEATERS.
400 P-408B 001	3	PROCESS AND PRODUCTION	.03	7	52	PREHEATER Q7 IS A 2.1E+6 BTU/HR, #2 DIESEL OIL POWERED, HEATER THAT IS USED AS AN AUXILIARY HEAT SOURCE TO KEEP THE SODIUM HOT.
400 P-408B 001	4	PROCESS AND PRODUCTION	.03	1	12	PREHEATER Q8 IS A 2.1E+6 BTU/HR #2 DIESEL OIL POWERED HEATER THAT IS USED AS AN AUXILIARY HEAT SOURCE TO KEEP THE SODIUM HOT.
400 P-408B 001	5	SOURCE EMISSIONS ROLL-UP	.03	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-408B-001
400 P-408C 001	1	PROCESS AND PRODUCTION	0	0	0	PREHEATER Q9 IS A 2.1E+6 BTU/HR THAT IS USED AS A SOURCE OF SPARE PARTS FOR THE OTHER PREHEATERS.

ALFA EMISSIONS INVENTORY REPORT
 FACILITY NAME: 400 Alfa Facility and Associated Structures

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
400 P-408C 001	2	PROCESS AND PRODUCTION	.03	7	52	PREHEATER Q10 IS A 2.1E+6 BTU/HR. #2 DIESEL OIL POWERED. AUXILLARY HEAT SOURCE THAT IS USED TO KEEP THE SODIUM HOT.
400 P-408C 001	3	PROCESS AND PRODUCTION	.03	7	52	PREHEATER Q11 IS A 2.1E+6 BTU/HR #2 DIESEL OIL POWERED HEATER THAT IS USED AS AN AUXILIARY HEAT SOURCE TO KEEP THE SODIUM HOT.
400 P-408C 001	4	PROCESS AND PRODUCTION	.03	1	12	PREHEATER Q12 IS A 2.1E+6 BTU/HR #2 DIESEL OIL POWERED HEATER THAT IS USED AS AN AUXILIARY HEAT SOURCE TO KEEP THE SODIUM HOT.
400 P-408C 001	5	SOURCE EMISSIONS ROLL-UP	.03	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-408C-001
400 P-437 002	1	PROCESS AND PRODUCTION	24	7	52	OFFICES, LUNCHROOMS, EQUIPMENT AREA, HIGH BAY/LOW BAY AREA - NO CONTAMINATION AREAS, ONLY RADIATION AREAS
400 P-437MN&ST 001	1	TANKS AND VESSELS	24	7	52	RADIATION WASTE STORAGE TANK NO. 1. MONITOR ID NUMBER = RE-1-62.
400 P-437MN&ST 001	2	TANKS AND VESSELS	24	7	52	RADIATION WASTE STORAGE TANK NO. 2
400 P-437MN&ST 001	3	PROCESS AND PRODUCTION	24	7	52	RADIATION WASTE TANK PIT
400 P-437MN&ST 001	4	PROCESS AND PRODUCTION	24	7	52	DECONTAMINATION ROOMS I AND II (INTERCONNECTED)

SPRAY CLEANING OCCURS IN DECON AREA I, THEN THE ITEM MOVES TO DECON AREA II WHERE HANDS-ON DECONTAMINATION CAN OCCUR. THERE IS A HOOD FOR HANDS-ON CLEANING AND AN ULTRASONIC CLEANER WHICH RUNS ON ELECTRICITY. THE WASTE GENERATED FROM THIS PROCESS IS STORED IN DOUBLE BAGS IN DECON AREA II, BEFORE COMPACTION. AFTER COMPACTION THE WASTE IS TRANSFERRED TO 55 GALLON DRUMS AND REMOVED. NON-COMPACTIVE WASTE GOES TO A BURIAL BOX. ITEMS FOR DECON INCLUDE SMALL TOOLS, COMPONENTS, AND MISCELLANEOUS EQUIPMENT.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 400 AREA
 FACILITY NAME: 400 AREA Facility and Associated Structures

Source (Process) Listing

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
400 P-437MN&ST 001	5	PROCESS AND PRODUCTION	24	7	52	CASK DECOMMISSIONING AND MAINTENANCE FACILITY (ONE LARGE GLOVE BOX)

T-3 SHIPPING CASKS ARE WASHED DOWN IN CDMF. THE LIQUID WASTE GOES INTO THE RAD WASTE STORAGE TANKS. THERE ARE ONLY 2 CASKS THAT ARE CLEANED YEARLY.

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
400 P-437MN&ST 001	6	PROCESS AND PRODUCTION	24	7	52	LOADOUT FACILITY WHERE LIQUID WASTE IS TRANSFERRED TO RAILCARS AND REMOVED

TANK TRANSFERS OCCUR LESS THAN ONE TIME PER YEAR UNLESS THERE WAS AN EXCEPTION OR AN ACCIDENTAL OVER-FILLING. THIS FACILITY IS ALSO KEPT CLEAN. IN CASE OF A LEAK TRANSFERS ARE IMMEDIATELY STOPPED AND THE SPILL CLEANED.

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
400 P-437MN&ST 001	7	SOURCE EMISSIONS ROLL-UP	24	7	52	TOTAL EMISSIONS FOR EMISSION POINT P-437MN&ST-001

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
400 P-FFTFBEX 001	1	PROCESS AND PRODUCTION	24	7	52	EXHAUSTED ARGON CONTAINS TRACES OF CS-137 FROM STORED SODIUM COOLANT. SITE MONITOR ID NUMBER C350 CONTAINS 2 EQUIPMENT PIECES: SERIAL NUMBER RE96010 WHICH MONITORS GROSS BETA, AND RE96011 WHICH MONITORS NOBLE GASES.

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
400 P-FFTFHTR 001	1	PROCESS AND PRODUCTION	24	7	52	TRACE CONTAMINATION IN 491-S. MONITOR ID NUMBER = 96061.

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
400 P-FFTFRESB 001	1	PROCESS AND PRODUCTION	24	7	52	TRACE CONTAMINATION

Source Raw Materials Usage

Em Point	Src Nbr	Src Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Src Nbr	Src Type	Qty	Uom	Fuel
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AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 400 AREA
FACILITY NAME: 400 AREA Facility and Associated Structures

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
<hr/>					

Point Source Criteria Pollutants - Type: CO

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
400 P-408A 001	5	SOURCE EMISSIONS ROLL-UP	.326170000	.000447000	CARBON MONOXIDE
400 P-408B 001	5	SOURCE EMISSIONS ROLL-UP	.326170000	.000447000	CARBON MONOXIDE
400 P-408C 001	5	SOURCE EMISSIONS ROLL-UP	.326170000	.000447000	CARBON MONOXIDE
Sum			.978510000	.001341000	

Point Source Criteria Pollutants - Type: NOX

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
400 P-408A 001	5	SOURCE EMISSIONS ROLL-UP	1.174213000	.001609000	NITROGEN DIOXIDE {NO2}
400 P-408B 001	5	SOURCE EMISSIONS ROLL-UP	1.174213000	.001609000	NITROGEN DIOXIDE {NO2}
400 P-408C 001	5	SOURCE EMISSIONS ROLL-UP	1.174213000	.001609000	NITROGEN DIOXIDE {NO2}
Sum			3.522639000	.004827000	

Point Source Criteria Pollutants - Type: PM10

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
400 P-408A 001	5	SOURCE EMISSIONS ROLL-UP	.163085000	.000223000	PARTICULATE MATTER (10 MICRONS OR LESS)
400 P-408B 001	5	SOURCE EMISSIONS ROLL-UP	.163085000	.000223000	PARTICULATE MATTER (10 MICRONS OR LESS)
400 P-408C 001	5	SOURCE EMISSIONS ROLL-UP	.163085000	.000223000	PARTICULATE MATTER (10 MICRONS OR LESS)
Sum			.489255000	.000669000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 400 AREA
FACILITY NAME: 400 AREA Facility and Associated Structures

Point Source Criteria Pollutants - Type: SOX

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
400 P-408A 001	5	SOURCE EMISSIONS ROLL-UP	6.484264000 .091328000	.008883000 .000125000	SULFUR DIOXIDE SULFUR TRIOXIDE
400 P-408B 001	5	SOURCE EMISSIONS ROLL-UP	6.484264000 .091328000	.008883000 .000125000	SULFUR DIOXIDE SULFUR TRIOXIDE
400 P-408C 001	5	SOURCE EMISSIONS ROLL-UP	6.484264000 .091328000	.008883000 .000125000	SULFUR DIOXIDE SULFUR TRIOXIDE
Sum			19.726776000	.027024000	

Point Source Criteria Pollutants - Type: VOC

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
400 P-408A 001	5	SOURCE EMISSIONS ROLL-UP	.046512000 .116117000	.000064000 .000159000	NON-METHANE VOLATILE ORGANICS VOLATILE ORGANIC COMPOUND
400 P-408B 001	5	SOURCE EMISSIONS ROLL-UP	.046512000 .116117000	.000064000 .000159000	NON-METHANE VOLATILE ORGANICS VOLATILE ORGANIC COMPOUND
400 P-408C 001	5	SOURCE EMISSIONS ROLL-UP	.046512000 .116117000	.000064000 .000159000	NON-METHANE VOLATILE ORGANICS VOLATILE ORGANIC COMPOUND
Sum			.487887000	.000669000	

Point Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct'l Actual (Ci/yr)	Pollutant
400 P-437MN&ST 001	1 2 3 4 5 6	TANKS AND VESSELS TANKS AND VESSELS PROCESS AND PRODUCTION PROCESS AND PRODUCTION PROCESS AND PRODUCTION PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-329	Refer to DOE/RL-94-51 Table 2-1	
400 P-FFTFBEX 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-326	Refer to DOE/RL-94-51 Table 2-1	
400 P-FFTFHTTR 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-327	Refer to DOE/RL-94-51 Table 2-1	
400 P-FFTFRESB 001	1	PROCESS AND PRODUCTION	Refer to WHC-SD-EN-RPT-007 Rev. 0 Page A-328	Refer to DOE/RL-94-51 Table 2-1	

Point Source Emissions - HAP Pollutants

Em Point	Src	Nbr	Src	Type	Pollutant	Em. Pt. to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum								

Point Source Emissions - Uncategorized Pollutants

Em Point	Src	Nbr	Src	Type	Pollutant	Em. Pt. to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum								

Fugitive Source Emissions - Radiological Pollutants

Em Point	Src	Nbr	Src	Type	Pollutant	Em. Pt. to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Fugitive Source Emissions - HAP Pollutants

Em Point	Src	Nbr	Src	Type	Pollutant	Em. Pt. to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum								

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Src	Nbr	Src	Type	Pollutant	Em. Pt. to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum								

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src	Nbr	Src	Type	Pollutant	Em. Pt. to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
----------	-----	-----	-----	------	-----------	-------------------------------	----------------------------------	-----------

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 400 AREA
 FACILITY NAME: 400 AREA Facility and Associated Structures

Insignificant Source Emissions - HAP Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Insignificant Source Emissions - HAP Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant

Sum					

Control Device Listing

Em Point	Control Equipment Code
400 P-437MN&ST 001	099
400 P-437 002	099

FACILITY:

400 Area

EMISSION POINT:

400 P-437MN&ST 001

K.A. Giese

1/23/1995

FACILITY: 400 Area

EMISSION POINT: 400 P-FFTCBEX 001

FACILITY:	400 Area
EMISSION POINT:	400 P-FFTFHTR 001

FACILITY:	400 Area
EMISSION POINT:	400 P-FFTFRESB 001

FACILITY: _____

Site Area

EMISSION POINT: _____

400 P-437-002

Emission Point
400 P-437MN&ST 001
N123378 E587536

Emission Point
400 N-437 001
N123422 E587584

437
Building Corner
N123377 E587527

437
Building Corner
N123332 E587554

Emission Point
400 P-FFTFRESB 001
N123180 E587615

4717
Building Corner
N123173 E587616

Emission Point
400 P-FFTFCEBEX 001
N123151 E587612

Emission Point
400 P-FFTFHTTR 001
N123083 E587614

491S
Building Corner
N123067 E587621

400 Area Emission Points

40 0 40 80 Meters

APPENDIX H

600 AREA

APPENDIX H

CONTENTS

H-1 600 AREA TANK FARM VENT STATION

H-2 WASTE SAMPLING AND CHARACTERIZATION FACILITY

APPENDIX H-1

600 AREA TANK FARM VENT STATION

Chapter I. General Information

I-B.1. Facility Description

The 241-EW-151 DCRT was designed to allow air to enter the cross-site transfer line at the high point in the line. The entry of air behind the transfer breaks the vacuum formed in the line and allows the waste to flow by gravity through the transfer lines with half the waste draining to the 200 West Area and half to the 200 East Area. The vent station tank provides a catch tank for liquids that might enter cross-site transfer vent lines. The primary tank is 4 feet 7 inches in diameter, approximately 6 feet high, has an 800-gallon capacity, and is constructed of stainless steel.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principle products - There are no products produced.
- Process information - There are no process activities.
- Raw materials used by processes - There are no raw materials used at the 241-EW-151 DCRT.
- Fuels used by processes - There are no fuels used at the 241-EW-151 DCRT.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on page 1 of the AEI report output. The control information is found on page 3 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on page 1 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 600 Area
 FACILITY NAME: 600 Area Tank Farm and Associated Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Point of Contact (POC)	(POC) Phone	DOE POC	DOE Phone
241EW151	135304	570640	DIVERSION BOX VENT STATION, PART OF CROSS-SITE WASTE TRANSFER SYSTEM	CRUMMEL, GARY M.	373-5175	CASEY O. RUUD	373-3478

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Src Code	Src Type
600 P-241EW151 001	POINT	135304	570640	1	not assigned	PROCESS AND PRODUCTION

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITH WEATHER CAP	.33			.09	78	.0325	1	1

Source (Process) Listing

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
600 P-241EW151 001	1	PROCESS AND PRODUCTION	24	7	52	241-EW-151 VENT STATION

THE 241-EW-151 DIVERSION BOX IS A CONCRETE UNDERGROUND PIT WITH DIMENSIONS OF 8' x 6' x 3'8" (LxWxD). THE 241 EW-151 DIVERSION BOX IS THE PRIMARY CONNECTOR BETWEEN THE 200 EAST AND 200 WEST TANK FARMS.
 WASTES TRANSFERRED VIA THE 241-EW-151 DIVERSION BOX COULD POTENTIALLY INCLUDE ANY 200 AREA WASTE.

Source Raw Materials Usage

Em Point	Src Nbr	Src Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Src Nbr	Src Type	Qty	Uom	Fuel
----------	---------	----------	-----	-----	------

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
----------	---------	----------	-----	-----	------

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 600 Area
 FACILITY NAME: 600 Area Tank Farm and Associated Structures

Point Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant
600 P-241EW151 001	1	PROCESS AND PRODUCTION	.000000036 .000008700 .000000018	.000000000 .000000003 .000000000	AMERICIUM - 241 CESIUM - 137 PLUTONIUM - 239

Page 3 of 5

Point Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant
600 P-241EW151 001	1	PROCESS AND PRODUCTION	.000230000	.000000077	STRONTIUM - 090

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
Sum					

Point Source Emissions - Uncategorized Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
Sum					

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant

AIR EMISSIONS INVENTORY AND AIR QUALITY REPORT (01-460)
 FACILITY ID: 600 Area
 FACILITY NAME: 600 Area Tank Farm and Associated Structures

Fugitive Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum						

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum						

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type	Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
----------	----------	-----------	-----------	--------------------------------------	-------------------------------	-----------

Insignificant Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum						

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum						

Control Device Listing

Em Point	Control Equipment Code
600 P-241EW151 001	099

FACILITY:

600 Area

EMISSION POINT:

600 P-241EW151 001

Catch Tank
and Vault

600 Area Tank Farm Transfer Line Vent Station Emission Point

1000 0 1000 2000 Meters

WHCHTSNFM4-95XSITEEMS

APPENDIX H-2

WASTE SAMPLING AND CHARACTERIZATION FACILITY

Chapter I. General Information

I-B.1. Facility Description

The Waste Sampling and Characterization Facility (WSCF) provides for processing of low-level and nonradioactive samples. The facility commenced operation in 1994. Current operations are for twenty-four hours per day, 365 days per year.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principle products - There are no products at WSCF
- Process information - There are no process activities at WSCF
- Raw materials used by processes - There are no raw materials used at WSCF
- Fuels used by processes - There are fuels used at WSCF.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on page 1 of the AEI report output. The control information is found on page five of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on page 1 of the AEI report output.

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AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 600 LABS
FACILITY NAME: 600 Laboratories and Associated Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
6266	136413	568856	WASTE SAMPLING AND CHARACTERIZATION FACILITY (WSCF)	HALL, MICHAEL J.	373-5719	STEVE VEITENHEIMER	373-9725
6266A	136411	568778	WSCF BUILDING	HALL, MICHAEL J.	373-5719	STEVE VEITENHEIMER	373-9725
6269	136440	568900	WSCF BUILDING	HALL, MICHAEL J.	373-5719	STEVE VEITENHEIMER	373-9725

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
600 S-6266 001	POINT	136417	568856	1	not assigned	ANALYTICAL LABORATORY	VERTICAL WITHOUT WEATHER CAP	4			12.57	78	66	25	8

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
600 S-6266 002	POINT	136359	568825	1	not assigned	ANALYTICAL LABORATORY	NONE SPECIFIED		1	3	3	90	33.33	32.3	16.33

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
600 S-6269 001	POINT	136443	568891	1	not assigned	ANALYTICAL LABORATORY	HORIZONTAL		.83	.83	.69	78	.325	10	0

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
600 Z-6266A 001	FUGITIVE	136411	568778	1	not assigned	PROCESS AND PRODUCTION					0	78	.0325	0	

Source (Process) Listing

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
600 S-6266 001	1	ANALYTICAL LABORATORY	8	5	52	ANALYTICAL LABORATORY FOR WASTE SAMPLING AND CHARACTERIZATION

AIR EMISSIONS INVENTORY REPORT
 FACILITY NAME: 600 Laboratories and Associated Structures

Source (Process) Listing

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
600 S-6266 002	1	ANALYTICAL LABORATORY	8	5	52	THIS STACK IS ROOM AIR VENTILATION FOR THE NUCLEAR SPECTROSCOPY LABORATORY WHICH PERFORMS TOTAL ACTIVITY AND GAMMA ENERGY ANALYSES PRIMARILY.

THERE ARE NO FREE CHEMICALS PREPARED OR USED FOR OTHER PURPOSES WITHIN THE ROOM. THE NUCLEAR SPECTROSCOPY LAB IS ALSO USED FOR COUNTING AIR SAMPLE PAPERS FROM AROUND THE SITE. THERE IS NO CAM IN THE ROOM OR IN THE STACK.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
600 S-6269 001	1	ANALYTICAL LABORATORY	2	5	52	MOBILE LAB VENT STACK. THE MOBILE SAMPLE LAB CONTAINS A PROTECTIVE HOOD USED FOR THE CHEMICAL PREPARATION OF SAMPLE BOTTLES PRIOR TO TAKING THEM OUT IN THE FIELD. THE HOOD EXITS THROUGH THE WEST SIDE OF THE BUILDING WALL VIA A 10"X10" DUCT.

Em Point	Src# Nbr	Src# Type	Hrs Day	Days Week	Wks Year	Summary Process Description
600 Z-6266A 001	1	PROCESS AND PRODUCTION	24	7	52	TWO CHEMICAL TANKS VENT INTERNALLY THROUGH 2 HEPA FILTERS INTO BUILDING 6266A. THERE ARE NO EXTERNAL VENTS FROM 6266A.

THE 6266A BUILDING IS A CONTAMINATED LIQUID WASTE RETENTION VAULT. LABORATORY WASTE (AQUEOUS INORGANICS WITH SOME MISCIBLE ALCOHOLS <2%) IS STORED IN THESE TANKS UNTIL DISPOSAL. THE TANKS HAVE A VENTILATION SYSTEM 2 FLANDERS FILTER HOUSINGS (HEPA) THAT VENT INTO THE OPEN SPACES OF THE BUILDING. THE FILTERS PURPOSE IS THE CAPTURE OF SPURIOUS RADIONUCLIDES THAT MAY OR MAY NOT EVER VENT OFF OF THE TANKS. WITH A RELATIVE pH OF 7 AND A VAPOR PRESSURE OF 1. IT IS NOT LIKELY TO OFF GAS IN ANY VOLUME.

Source Raw Materials Usage

Em Point	Src# Nbr	Src# Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Src# Nbr	Src# Type	Qty	Uom	Fuel
----------	----------	-----------	-----	-----	------

Fuels Usage by Control Devices

Em Point	Ctl# Nbr	Ctl# Type	Qty	Uom	Fuel
----------	----------	-----------	-----	-----	------

Point Source Criteria Pollutants - Type: H2S04

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 600 LABS
FACILITY NAME: 600 Laboratories and Associated Structures

Point Source Criteria Pollutants - Type: H2S04

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
600 S-6266 001	1	ANALYTICAL LABORATORY	.062000000	.014000000	SULFURIC ACID
Sum			.062000000	.014000000	

Point Source Criteria Pollutants - Type: LEAD

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
600 S-6266 001	1	ANALYTICAL LABORATORY	.012500000	.012500000	LEAD
Sum			.012500000	.012500000	

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
600 S-6266 001	1	ANALYTICAL LABORATORY	.027000000	.006100000	2,2,4-TRIMETHYLPENTANE
			.000044600	.000044600	2-HEXANONE
			.051000000	.005790000	ACETIC ACID
			.000043500	.000043500	ACETONE
			.000903000	.000903000	ACETONITRILE
			.000048500	.000048500	BENZENE
			.000860000	.000860000	CYCLOHEXANONE
			.550000000	.130000000	ETHYL ALCOHOL
			.000048000	.000048000	ETHYLBENZENE
			.031000000	.000043000	ISOPROPYL ALCOHOL
			.004350000	.004350000	METHYL ALCOHOL
			.200000000	.046000000	METHYL CHLORIDE
			.100000000	.000036400	N-HEXANE
			.000066100	.000066100	NITROBENZENE
			.000055100	.000055100	NITROSODIMETHYLAMINE
			.000034700	.000034700	PENTANE
			.000108000	.000108000	PYRIDINE
			.004200000	.000960000	TOLUENE
			.056000000	.000080700	TRICHLOROETHYLENE
			.017000000	.000048500	XYLENE
Sum			1.042761500	.195620100	

Point Source Emissions - Radiological Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
600 S-6266 001	1	ANALYTICAL LABORATORY	.000000000	.000000000	CESIUM - 137
			.000000000	.000000028	PLUTONIUM - 239

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : 600 LABS
FACILITY NAME: 600 Laboratories and Associated Structures

Point Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
600 S-6266 001	1	ANALYTICAL LABORATORY	.027000000	.006100000	2,2,4-TRIMETHYLPENTANE
			.000903000	.000903000	ACETONITRILE
			.000082700	.000082700	ANTIMONY
			.000048500	.000048500	BENZENE
			.002040000	.002040000	BERYLLIUM
			.001820000	.001820000	CADMIUM
			.000078300	.000078300	CHLORINE
			.002150000	.002150000	COBALT
			.000048000	.000048000	ETHYLBENZENE
			1.200000000	.000544000	HYDROCHLORIC ACID (HYDROGEN CHLORIDE)
			.012500000	.012500000	LEAD
			.016000000	.014900000	MERCURY
			.004350000	.004350000	METHYL ALCOHOL
			.200000000	.046000000	METHYL CHLORIDE
			.480000000	.325000000	METHYLENE CHLORIDE
			.100000000	.000036400	N-HEXANE
			.001320000	.001320000	NICKEL
			.000066100	.000066100	NITROBENZENE
			.000055100	.000055100	NITROSODIMETHYLAMINE
			.001100000	.001100000	SELENIUM
			.004200000	.000960000	TOLUENE
			.056000000	.000080700	TRICHLOROETHYLENE
			.017000000	.000048500	XYLENE
Sum			2.126761700	.420231300	

Point Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
600 S-6266 001	1	ANALYTICAL LABORATORY	.000900000	.000210000	BROMINE
			.000092600	.000092600	PHOSPHORIC ACID
			.001100000	.001100000	YTTRIUM
Sum			.002092600	.001402600	

Fugitive Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
----------	----------	---------------------	--------------------------------------	-------------------------------	-----------

Fugitive Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : 600 LABS
 FACILITY NAME: 600 Laboratories and Associated Structures

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
Sum					

Insignificant Source Emissions - Radiological Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct'l Actual (Ci/yr)	Pollutant
----------	-----------	----------------------	--------------------------------------	--------------------------------	-----------

Insignificant Source Emissions - HAP Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
Sum					

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Srcce Nbr	Srcce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant
Sum					

Control Device Listing

Em Point	Control Equipment Code
600 S-6266 001	099
600 S-6266 002	099

FACILITY: 600 Area Waste Sampling and Characterization Facility

EMISSION POINT: 600 S-6269 001

K.A. Giese
5/08/95

FACILITY: 600 Area Waste Sampling and Characterization Facility

EMISSION POINT: 600 Z-6266A 001

Building 6266A

FACILITY: 600 Area Waste Sampling and Characterization Facility

EMISSION POINT: 600 S-6266 002

K.A. Giese
5/08/95

FACILITY: 600 Analytical Laboratory Operations and Characterization Facility

EMISSION POINT: 600 S-6266001

Waste Sampling & Characterization Facility (WSCF) Emission Points

Emission Point
600 Z-6266A 001
N136411 E568778

Emission Point
600 S-6269 001
N136443 E568891

Emission Point
600 S-6266 001
N136417 E568856

6266
Building Corner
N136413 E568854

Emission Point
600 S-6266 002
N136356 E568825

6266
Building Corner
N136359 E568825

25 0 25 50 Meters

APPENDIX I

MAINTENANCE

APPENDIX I

CONTENTS

I-1 MAINTENANCE

APPENDIX I-1

MAINTENANCE

Chapter I. General Information

I-B.1. Facility Description

The maintenance activities span all areas of the Hanford Site. These activities generally are performed in small shops or in open areas. The majority of the maintenance activities are classified as IEUs, and are listed in appendix K. The maintenance activities that are not classified as IEUs are open burning and painting-associated activities.

Open burning is conducted in burn pits in the 200 East Area and the 200 West Area to reduce the volume of tumbleweeds. The burning is conducted for 1 hour per day, 1 day per week, 50 weeks per year. Additionally, tumbleweeds are burned along road sides, fence lines, etc.

Paint activities listed in this appendix are conducted in the 200 East Area, 200 West Area, 300 Area, and the 400 Area. Painting and paint clean-up activities are conducted for 8 hours per day, 5 days per week, 50 weeks per year.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principle products - There are no products produced.
- Process information - There are no process activities.
- Raw materials used by processes - No raw materials are used as there are no commercial products manufactured on the Hanford Site.
- Fuels used by processes - There are no fuels used for these activities.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on pages 1 and 2 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on pages 1 and 2 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : MAINTEN
FACILITY NAME: Maintenance Facilities and Assoc. Structures

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
1167	110232	593416	GENERAL STORES COVERED STORAGE BUILDING	CARLSON, GARY B.	376-6706	DAVID G. MURILLO	373-9179
200E001	136312	573410	PAINT SHOP	MCLERRAN, KATHY M.	372-1418	DAVID G. MURILLO	373-9179
200E002	137231	575237	200E BURN PIT USED FOR RUSSIAN THISTLE (TUMBLEWEED) BURNING.	MARPLE, CANDICE	373-2202	DAVID G. MURILLO	373-9179
200W003	135893	567261	PAINT SHOP	MCLERRAN, KATHY M.	372-1418	DAVID G. MURILLO	373-9179
200W007	135473	568066	200W AREA BURN PIT USED FOR RUSSIAN THISTLE (TUMBLEWEED) BURNING.	MARPLE, CANDICE	372-2202	DAVID G. MURILLO	373-9179
3709	115973	593685	PAINT SHOP	POOR, A.D. (DENNIS)	376-7210	DAVID G. MURILLO	373-9179
4722C	122923	587466	PAINTERS SHOP	POOR, A.D. (DENNIS)	376-7210	DAVID G. MURILLO	373-9179

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type			
1100 P-1167 001	FUGITIVE	110238	593414	1	not assigned	FUEL DISPENSING FACILITY			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
					0	78	.0325	9	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type			
200E H-200E002 001	FUGITIVE	137231	575237	1	not assigned	OPEN BURNING/FIRE TRAINING			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
					0	78	.0325	5	

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type			
200E K-200E001 001	POINT	136312	573410	1	not assigned	PAINTING AND PRINTING			
Stack Configuration		Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
VERTICAL WITH WEATHER CAP		.5			.2	78	32.5	13	3

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type		
200W H-200W007 001	FUGITIVE	135473	568066	1	not assigned	OPEN BURNING/FIRE TRAINING		
Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
				0	78	.0325	5	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : MAINTEN
FACILITY NAME: Maintenance Facilities and Assoc. Structures

Emission Point Listing

Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
200W K-200W003 001	POINT	135893	567261	1	not assigned	PAINTING AND PRINTING				
	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
	HORIZONTAL OR DOWNWARD	1.2			1.13	78	32.5	14	-1	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
300 K-3709 001	FUGITIVE	115969	593684	1	not assigned	PAINTING AND PRINTING				
	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
	HORIZONTAL OR DOWNWARD	1			.79	78	.0325	9	-6	
Em Point	Ep Type	North	East	Srce Nbr	Scc Code	Srce Type				
400 K-4722C 001	FUGITIVE	122916	587456	1	not assigned	PAINTING AND PRINTING				
	Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)	
	HORIZONTAL OR DOWNWARD	3			7.07	78	.0325	18	4	

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
1100 P-1167 001	1	FUEL DISPENSING FACILITY	8	5	52	LIQUID PROPANE STORAGE TANK AND FILLING DEPOT. (APPROXIMATELY 3,000 GALLON CAPACITY). ACTUAL INSTALLED AND INITIAL OPERATION DATES ARE UNKNOWN (PRE-1980).

Source (Process) Listing

Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E H-200E002 001	1	OPEN BURNING/FIRE TRAINING	1	1	50	BURN PIT FOR TUMBLEWEED BURNING. ACTUAL INSTALLED AND INITIAL OPERATION DATES ARE UNKNOWN (PRE-1990).
Em Point	Srce Nbr	Srce Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E K-200E001 001	1	PAINTING AND PRINTING	8	5	50	PAINT CLEAN-UP ACTIVITIES (1992)

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : MAINTEN
 FACILITY NAME: Maintenance Facilities and Assoc. Structures

Source (Process) Listing

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W H-200W007 001	1	OPEN BURNING/FIRE TRAINING	1	1	50	BURN PIT FOR TUMBLEWEED BURNING. ACTUAL INSTALLED AND INITIAL OPERATION DATES ARE UNKNOWN (PRE-1990).

TYPE OF MATERIAL BURNED - RUSSIAN THISTLE (TUMBLEWEED).

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200W K-200W003 001	1	PAINTING AND PRINTING	8	5	50	PAINT CLEAN-UP ACTIVITIES. ACTUAL INSTALLED AND INITIAL OPERATION DATES ARE UNKNOWN (PRE-1990).

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
300 K-3709 001	1	PAINTING AND PRINTING	4	5	50	VOC EMISSIONS FROM PAINTING OPERATIONS

Em Point	Srcr Nbr	Srcr Type	Hrs Day	Days Week	Wks Year	Summary Process Description
400 K-4722C 001	1	PAINTING AND PRINTING	4	5	50	MAINTENANCE PAINTING ACTIVITIES.

Source Raw Materials Usage

Em Point	Srcr Nbr	Srcr Type	Process Rate	Process Uom	Material

Fuels Usage by Source Processes

Em Point	Srcr Nbr	Srcr Type	Qty	Uom	Fuel

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : MAINTEN
FACILITY NAME: Maintenance Facilities and Assoc. Structures

Point Source Criteria Pollutants - Type: VOC

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E K-200E001 001	1	PAINTING AND PRINTING	.500000000 .093000000 6.500000000 .062000000 .050000000 .100000000 .540000000 .300000000	.057000000 .011000000 .740000000 .007000000 .005700000 .011000000 .062000000 .034000000	ACETONE ISOPROPYL ALCOHOL METHYL ETHYL KETONE (2-BUTANONE) METHYL ISOBUTYL KETONE N-BUTYL ALCOHOL PROPYLENE GLYCOL METHYL ETHER ACETATE TOLUENE XYLENE
200W K-200W003 001	1	PAINTING AND PRINTING	.500000000 .093000000 6.500000000 .062000000 .050000000 .100000000 .540000000 .300000000	.057000000 .011000000 .740000000 .007000000 .005700000 .011000000 .062000000 .034000000	ACETONE ISOPROPYL ALCOHOL METHYL ETHYL KETONE (2-BUTANONE) METHYL ISOBUTYL KETONE N-BUTYL ALCOHOL PROPYLENE GLYCOL METHYL ETHER ACETATE TOLUENE XYLENE
Sum			16.290000000	1.855400000	

Point Source Emissions - Radiological Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E K-200E001 001	1	PAINTING AND PRINTING	6.500000000 .062000000 .540000000 .300000000	.740000000 .007000000 .062000000 .034000000	METHYL ETHYL KETONE (2-BUTANONE) METHYL ISOBUTYL KETONE TOLUENE XYLENE

Point Source Emissions - HAP Pollutants

Em Point	Srcr Nbr	Srcr Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200W K-200W003 001	1	PAINTING AND PRINTING	6.500000000 .062000000 .540000000 .300000000	.740000000 .007000000 .062000000 .034000000	METHYL ETHYL KETONE (2-BUTANONE) METHYL ISOBUTYL KETONE TOLUENE XYLENE
Sum			14.804000000	1.686000000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
 FACILITY ID : MAINTEN
 FACILITY NAME: Maintenance Facilities and Assoc. Structures

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E K-200E001 001	1	PAINTING AND PRINTING	3.200000000	.360000000	LIGROINE OR VM&P NAPHTHA, OR PETROLEUM NAPHTHA
200W K-200W003 001	1	PAINTING AND PRINTING	3.200000000	.360000000	LIGROINE OR VM&P NAPHTHA, OR PETROLEUM NAPHTHA
Sum			6.400000000	.720000000	

Fugitive Source Criteria Pollutants - Type: CO

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E H-200E002 001	1	OPEN BURNING/FIRE TRAINING	20.810000000	10.410000000	CARBON MONOXIDE
200W H-200W007 001	1	OPEN BURNING/FIRE TRAINING	20.810000000	10.410000000	CARBON MONOXIDE
Sum			41.620000000	20.820000000	

Fugitive Source Criteria Pollutants - Type: PM

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Fugitive Source Criteria Pollutants - Type: PM10

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E H-200E002 001	1	OPEN BURNING/FIRE TRAINING	1.480000000	.740000000	PARTICULATE MATTER (10 MICRONS OR LESS)
200W H-200W007 001	1	OPEN BURNING/FIRE TRAINING	1.480000000	.740000000	PARTICULATE MATTER (10 MICRONS OR LESS)
Sum			2.960000000	1.480000000	

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : MAINTEN
FACILITY NAME: Maintenance Facilities and Assoc. Structures

Fugitive Source Criteria Pollutants - Type: VOC

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
1100 P-1167 001	1	FUEL DISPENSING FACILITY	.930000000	.930000000	PROPANE
200E H-200E002 001	1	OPEN BURNING/FIRE TRAINING	.100000000	.050000000	VOLATILE ORGANIC COMPOUND
200W H-200W007 001	1	OPEN BURNING/FIRE TRAINING	.100000000	.050000000	VOLATILE ORGANIC COMPOUND
300 K-3709 001	1	PAINTING AND PRINTING	.500000000 .093000000 .750000000 .062000000 .050000000 .100000000 .540000000 .300000000	.057000000 .011000000 .086000000 .007000000 .005700000 .011000000 .062000000 .034000000	ACETONE ISOPROPYL ALCOHOL METHYL ETHYL KETONE (2-BUTANONE) METHYL ISOBUTYL KETONE N-BUTYL ALCOHOL PROPYLENE GLYCOL METHYL ETHER ACETATE TOLUENE XYLENE
400 K-4722C 001	1	PAINTING AND PRINTING	.500000000 .093000000 .750000000 .062000000 .050000000 .100000000 .540000000 .300000000	.057000000 .011000000 .086000000 .007000000 .005700000 .011000000 .062000000 .034000000	ACETONE ISOPROPYL ALCOHOL METHYL ETHYL KETONE (2-BUTANONE) METHYL ISOBUTYL KETONE N-BUTYL ALCOHOL PROPYLENE GLYCOL METHYL ETHER ACETATE TOLUENE XYLENE
Sum			5.920000000	1.577400000	

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Fugitive Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
300 K-3709 001	1	PAINTING AND PRINTING	.750000000	.086000000	METHYL ETHYL KETONE (2-BUTANONE)

AIR EMISSIONS INFORMATION REPORT
FACILITY TO: MAINTENANCE
FACILITY NAME: Maintenance Facilities and Assoc Structures

Fugitive Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
300 K-3709 001	1	PAINTING AND PRINTING	.062000000 .540000000 .300000000	.007000000 .062000000 .034000000	METHYL ISOBUTYL KETONE TOLUENE XYLENE
400 K-4722C 001	1	PAINTING AND PRINTING	.750000000 .062000000 .540000000 .300000000	.086000000 .007000000 .062000000 .034000000	METHYL ETHYL KETONE (2-BUTANONE) METHYL ISOBUTYL KETONE TOLUENE XYLENE
Sum			3.304000000	.378000000	

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
300 K-3709 001	1	PAINTING AND PRINTING	.097000000	.011000000	LIGROINE OR VM&P NAPHTHA, OR PETROLEUM NAPHTHA
400 K-4722C 001	1	PAINTING AND PRINTING	.097000000	.011000000	LIGROINE OR VM&P NAPHTHA, OR PETROLEUM NAPHTHA
Sum			.194000000	.022000000	

Insignificant Source Criteria Pollutants - Type: PM

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant

Insignificant Source Emissions - HAP Pollutants

Em Point	Src# Nbr	Src# Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : MAINTEN
FACILITY NAME: Maintenance Facilities and Assoc. Structures

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Src# Nbr	Src# Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct'l Actual (tons/yr)	Pollutant

Sum						

Control Device Listing

FACILITY:

Maintenance Sources

EMISSION POINT:

200E K-200E001 001

K.A. Giese

2/17/95

FACILITY: Maintenance Sources

EMISSION POINT: 200W K-200W003 001

K.A. Giese
2/17/95

FACILITY:	Maintenance Sources
EMISSION POINT:	SEE INSET LIST

FACILITY:

Maintenance Sources

EMISSION POINT:

1100 P-1167 001

Propane Dispensing Facility

The diagram consists of a large rectangular frame. Inside this frame, centered horizontally and positioned in the lower half, is a smaller rectangle labeled "Propane Dispensing Facility". From the top center of this smaller rectangle, a vertical line extends upwards, ending in an arrowhead that points towards the "Maintenance Sources" facility listed in the header box above the main frame.

K. A. Giese

5/10/95

FACILITY: Maintenance Sources

EMISSION POINT: 300 K-3709 001

Building 3709
Painting Operations

The diagram consists of a large rectangular frame. Inside this frame, centered horizontally and slightly below the vertical center, is a smaller rectangle. From the top center of this smaller rectangle, a vertical arrow points upwards, extending towards the top of the large frame. The text 'Building 3709' and 'Painting Operations' is centered within the smaller rectangle.

FACILITY: _____

EMISSION POINT: _____

400 K-4722C 001

Building 4722C
Painting
Operations

Emission Point
200W K-200W003 001
N135893 E567261

Emission Point
200W H-200W007 001
N135473 E568066

200 West Area Maintenance Emission Points

500 0 500 1000 Meters

WHC\HTSNFM\1-95\2WMEMISS

WHCVTSTNFM2-893EMISS2

400 Area Maintenance Emission Points

WHCHTSNFM2-854MEMIS2

APPENDIX J

MISCELLANEOUS ITEMS

APPENDIX J

CONTENTS

J-1 ROTARY MODE CORE SAMPLING OPERATIONS

APPENDIX J-1

ROTARY MODE CORE SAMPLING OPERATIONS

Chapter I. General Information

I-B.1. Facility Description

The rotary mode core sampling system initially was operated on November 17, 1994, and provided an additional capability to sample wastes in single-shell tanks (SSTs) and double-shell tanks (DSTs). This system was designed to sample soft sludge wastes, and hard saltcake wastes.

For sludge sampling, it usually is not necessary for the core sampling drill to rotate. The sludge is usually soft enough to allow sample collection by applying pressure to the drill string. Under these conditions, the sampling method is termed "push mode". During push mode, the exhaustor system does not operate.

For sampling of hard saltcake wastes, it might be necessary to drill to obtain the core sample. Under these conditions, the sampling method is termed "rotary mode". During rotary mode operations, a nitrogen purge gas is vented through the core sampling bit for bit cooling and sample integrity. For tanks that have an installed exhaustor system, the purge nitrogen is effectively exhausted, and negative pressure is maintained in the tank atmosphere. For passively ventilated tanks, there is a need to use the exhaustor system to prevent over pressuring the tank. Use of an exhaustor has the potential to increase particulate solid and vapor space gas emissions as it provides a safe pathway to vent the purge gas.

The charter of the rotary mode core sampling operations is to sample all SSTs and DSTs that cannot otherwise be sampled by less labor intensive means. These are approximately 80 SSTs and 30 DSTs that will be sampled. All of these tanks are located in the 200 East and 200 West Areas.

A rotary mode core sampler typically is operated up to 16 hours per day, 5 days per week, 50 weeks per year. When the optional portable exhaustor is used, the exhaustor runs 24 hours per day until the entire core sample is complete.

I-B.2. Products, Raw Materials, Fuels, Processes

- Principle products - The product is a complete core sample consisting of 19-inch segments.
- Process information - Tank vapor space sampling and analysis is performed to determine the appropriate level of monitoring, and if subsequent vapor sampling

- will be performed. Push mode is the preferred sampling mode. Once it is determined that push mode operation can proceed no further, the core sampling truck is prepared for operation in the rotary mode. Once a complete core has been obtained, the sampling truck is moved to another riser or another location using the same riser to allow a second core to be obtained. On completion of the second core, the system is disconnected and moved to the next tank.
- Raw materials used by processes - There are no raw materials used on the rotary mode core sampler.
- Fuels used by processes - Diesel fuel is used for a portable generator unit to power the portable exhauster if needed during sampling operations.

I-C.1. Emission Points, Controls, Stacks

The emission point and stack information is found on page 1 of the AEI report output. The control information is found on page 4 of the AEI report output.

I-C.2. Facility Process Flow Diagrams

Attached.

I-C.3. Site Map

Attached.

Chapter II. Regulatory Requirements

II-A.1. Description of Discharge and Emission Points

The emission point and stack information is found on page 1 of the AEI report output.

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : Core Sampler
FACILITY NAME: Rotary Mode Core Sampling Unit

Facility Building List

Bldg Id	North	East	Bldg Desc	Custodian(Contractor)	Cust Phone	DOE POC	DOE Phone
CORE	136054	570410	ROTARY MODE CORE-SAMPLING SYSTEM	ERMOLD, LEONARD F.	373-1978	CASEY O. RUUD	373-3478

Emission Point Listing

Em Point	Ep Type	North	East	Src Nbr	Scc Code	Src Type
200E P-CORE 001	POINT	136054	570410	1	not assigned	PROCESS AND PRODUCTION

Stack Configuration	Diameter(ft)	Length(ft)	Width(ft)	Area(sq ft)	Exit Temp(F)	Exit Veloc(ft/sec)	Ht Abv Grnd(ft)	Ht Abv Struc(ft)
	.33			.09	140	3.3	10	0

Source (Process) Listing

Em Point	Src Nbr	Src Type	Hrs Day	Days Week	Wks Year	Summary Process Description
200E P-CORE 001	1	PROCESS AND PRODUCTION	16	5	50	ROTARY MODE CORE-SAMPLER

After the exhaust system and rotary mode core sample system are connected to the tank to be sampled, and all required preoperational tests are complete, rotary mode core-sampling will progress. (Pre-operational tests include sampling of the vapor space for toxic air pollutants.) An attempt will first be made to core-sample the waste using push mode. During push mode, it is not necessary to inject nitrogen gas and therefore it is not necessary to operate the exhaust system. When instrumentation indicates that hard waste has been reached, the exhauster will be started and the drill bit will start rotating. Whenever the drill bit is rotating, nitrogen gas will be injected into the drill string at approximately 1.4 cu.m/min (50 cu.ft/min) to a maximum of 2.8 cu.m/min (100 cu.ft/min). Each 48.3-cm (19-in.) segment requires drilling for 5 to 20 min. While the sampler is being changed out after each segment, nitrogen will be injected into the drill string at approximately .03 cu.m/min (1 cu.ft/min). This will maintain the pressure head in the drill string (preventing waste from entering the space just sampled) and allows for pressurization and depressurization of the sample receiver as necessary for sampler changeout. The exhauster will be operated only when sampling activities are underway (i.e., one or two 8-hour shifts of actual sampling each day).

Once a complete core has been obtained, the position of the rotary mode core-sampling truck will be changed. The rotary mode core-sampling truck will either be repositioned at the same riser, or moved to a different riser on the same tank, to allow a second core to be obtained. Upon completion of the second core, the exhauster and rotary mode core-sampling systems will be disconnected and moved to the next tank to be sampled. During sampler and exhauster connection and disconnection, as-low-as-reasonably-achievable principles will be followed including minimizing the time the riser is left open.

Source Raw Materials Usage

Em Point	Src Nbr	Src Type	Process Rate	Process Uom	Material
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Fuels Usage by Source Processes

Em Point	Src Nbr	Src Type	Qty	Uom	Fuel
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AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP-460)
 FACILITY ID Core Sampler
 FACILITY NAME Rotary Mode Core Sampling Unit

Fuels Usage by Control Devices

Em Point	Ctl Nbr	Ctl Type	Qty	Uom	Fuel
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Point Source Criteria Pollutants - Type: H2S

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E P-CORE 001	1	PROCESS AND PRODUCTION		.010000000	.002000000	HYDROGEN SULFIDE
Sum				.010000000	.002000000	

Point Source Criteria Pollutants - Type: VOC

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ctl Actual (tons/yr)	Pollutant
200E P-CORE 001	1	PROCESS AND PRODUCTION		.560000000	.180000000	ACETONE
				.003400000	.000680000	BENZENE
				.240000000	.004600000	CARBON DISULFIDE
				.003300000	.000670000	CARBON TETRACHLORIDE
				.150000000	.019000000	METHYLAMINE
				1.800000000	.460000000	N-BUTYL ALCOHOL
				.070000000	.014000000	N-HEXANE
Sum				2.826700000	.678950000	

Point Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type	Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ctl Actual (Ci/yr)	Pollutant
200E P-CORE 001	1	PROCESS AND PRODUCTION		.002280000	.000000001	AMERICIUM - 241
				.000001190	.000000000	AMERICIUM - 243
				.000912000	.000912000	CARBON - 014
				2.710000000	.000000677	CESIUM - 137
				.000002400	.000000000	CURIUM - 242
				.000005460	.000000000	CURIUM - 244
				.000002890	.000002890	IODINE - 129
				.000003840	.000000000	NEPTUNIUM - 237
				.015700000	.000000004	NICKEL - 063
				.000087300	.000000000	PLUTONIUM - 238
				.001440000	.000000000	PLUTONIUM - 239
				.000336000	.000000000	PLUTONIUM - 240
				.003930000	.000000001	PLUTONIUM - 241
				3.060000000	.000000765	STRONTIUM - 090
				.001900000	.000000000	TECHNETIUM - 099
				.000037500	.000000000	TIN - 126
				.000001930	.000000000	URANIUM - 235
				.000045300	.000000000	URANIUM - 238

AIR EMISSIONS INVENTORY PERMIT APPLICATION REPORT (UP460)
FACILITY ID : Core Sampler
FACILITY NAME: Rotary Mode Core Sampling Unit

Point Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-CORE 001	1	PROCESS AND PRODUCTION	.003400000	.000680000	BENZENE
			.240000000	.004600000	CARBON DISULFIDE
			.003300000	.000670000	CARBON TETRACHLORIDE
			.180000000	.001700000	HYDROGEN CYANIDE
			.010000000	.002000000	HYDROGEN SULFIDE
			.070000000	.014000000	N-HEXANE
Sum			.506700000	.023650000	

Point Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
200E P-CORE 001	1	PROCESS AND PRODUCTION	.740000000	.200000000	AMMONIA
			.190000000	.038000000	NITRIC ACID
Sum			.930000000	.238000000	

Fugitive Source Emissions - Radiological Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
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Fugitive Source Emissions - HAP Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Fugitive Source Emissions - Uncategorized Pollutants

Em Point	Srce Nbr	Srce Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
Sum					

Insignificant Source Emissions - Radiological Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (Ci/yr)	Em. Pt. Ct1 Actual (Ci/yr)	Pollutant
-----	-----	-----	-----	-----	-----

Insignificant Source Emissions - HAP Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
-----	-----	-----	-----	-----	-----
Sum			-----	-----	

Insignificant Source Emissions - Uncategorized Pollutants

Em Point	Src Nbr	Src Type Pollutant	Em. Pt. Potential to Emit (tons/yr)	Em. Pt. Ct1 Actual (tons/yr)	Pollutant
-----	-----	-----	-----	-----	-----
Sum			-----	-----	

Control Device Listing

Em Point	Control Equipment Code
-----	-----
200E P-CORE 001	099

FACILITY: _____

EMISSION POINT: _____

200E P-CORE 001

Locations of Rotary Mode Core Sampler Operations Within the Tank Farms on the Hanford Site, Washington

900 0 900 1800 Meters

APPENDIX K

INSIGNIFICANT EMISSIONS UNITS

APPENDIX K

INSIGNIFICANT EMISSIONS UNITS

- K.1a. PNL Building List.
- K.1b. PNL Building Inventories Compared to Threshold Values.
- K.1c. PNL Building Inventories by Room Compared to Threshold Values.
- K.2. Insignificant Emission Units Based on Threshold Comparisons [WAC 173-401-530(1)(a)].
- K.3. Fugitive Source Insignificant Emission Units [WAC 173-401(1)(d)].

Table K.1a. PNL Building List.

PROPERTY ID	PROPERTY NAME	PROPERTY USAGE PRODOM CODE	LONG DISCRIPTION	GROSS SQFT	TOTAL AOP INVENTORY CHEMICAL (TONS)
213J	STORAGE VAULT	401	PROGRAMMATIC GENERAL STORAGE	482	0
242B	RADIOACTIVE PAT RES LAB	401	PROGRAMMATIC GENERAL STORAGE	2713	0
242BL	CASK LOADING BUILDING	401	PROGRAMMATIC GENERAL STORAGE	546	0
2718E	CRITICAL MASS STORAGE BUILDING	412	SPECIAL NUCLEAR STORAGE	1664	0
303C	MATERIALS EVALUATION LAB.	724	NUCLEAR PHYSICS LAB	1296	0
303J	MATERIAL STORAGE BUILDING	401	PROGRAMMATIC GENERAL STORAGE	3652	0
305B	HAZARDOUS WASTE STORAGE FAC	410	HAZARDOUS/FLAMMA BLE STORAGE	9176	0
306W	MATERIALS DEVELOPMENT LAB	751	MATERIALS LAB	36531	0.3143
306WTRL2	OFFICE TRAILER	101	OFFICE	1569	0
306WTRL5	OFFICE TRAILER	101	OFFICE	667	0
306WTRL6	OFFICE TRAILER	101	OFFICE	1577	0
314	ENGINEERING DEVEL. LAB	712	CALIBRATION LAB	28192	0.1978
314B	STRESS RUPTURE TEST FAC.	759	OTHER MATERIALS R&D TEST BLDG	860	0.0168
318	RADIOLOGICAL CALIBRATIONS LAB	704	CALIBRATION LAB	32662	0.2103
318TRL2	OFFICE TRAILER	101	OFFICE	1568	0
318TRL4	OFFICE TRAILER	101	OFFICE	3669	0
318TRL5	OFFICE TRAILER	101	OFFICE	1339	0
320	ANALYTICAL AND NUCLEAR RES LAB	712	CALIBRATION LAB	31437	0.296
320TRL2	OFFICE TRAILER	101	OFFICE	667	0
323	MECHANICAL PROPERTIES LAB	724	NUCLEAR PHYSICS LAB	4150	0
324	WASTE TECH ENGINEERING LAB	781	DEMONSTRATION RESEARCH BLDG	101709	0.3052
324A	STACK SAMPLING FACILITY	694	OTHER SERVICE BLDG	144	0
324D	STACK SAMPLING FACILITY	694	OTHER SERVICE BLDG	520	0
325	APPLIED CHEMISTRY LAB	712	CALIBRATION LAB	144092	0.8567
325TRL1	OFFICE TRAILER	101	OFFICE	659	0
326	MATERIALS SCIENCES LAB	759	OTHER MATERIALS R&D TEST BLDG	63101	0.4535
326TRL1	OFFICE TRAILER	101	OFFICE	1556	0
326TRL2	OFFICE TRAILER	101	OFFICE	1573	0
327	POST IRRADIATION TEST LAB	759	OTHER MATERIALS R&D TEST BLDG	26925	0.008
329	CHEMICAL SCIENCES LAB	712	CALIBRATION LAB	39420	0.5824
329TRL1	OFFICE TRAILER	101	OFFICE	671	0
329TRL2	OFFICE TRAILER	101	OFFICE	671	0
329TRL4	OFFICE TRAILER	101	OFFICE	1557	0
329TRL5	OFFICE TRAILER	101	OFFICE	1556	0
329TRL6	OFFICE TRAILER	101	OFFICE	1562	0

Table K.1a. PNL Building List.

PROPERTY ID	PROPERTY NAME	PROPERTY USAGE PRODOM CODE	LONG DISCRIPTION	GROSS SQFT	TOTAL AOP INVENTORY CHEMICAL (TONS)
331	LIFE SCIENCES LAB	741	BIOLOGICAL RESEARCH LAB	117240	1.0763
331A	VIROLOGY LABORATORY	741	BIOLOGICAL RESEARCH LAB	2800	0.1628
331B	DOG KENNEL	745	ANIMAL RESEARCH FAC	4225	0
331C	ANIMAL CARE FAC. STORAGE	401	PROGRAMMATIC GENERAL STORAGE	5000	0.0004
331D	BIOMAGNETIC EFFECTS LAB	749	OTHER BIO-MED BLDG	1357	0
331E	GREENHOUSE	769	OTHER ENVIRON. R&D TEST BLDG	1560	0
331F	ANIMAL RESOURCES STORAGE	401	PROGRAMMATIC GENERAL STORAGE	1120	0
331G	INTERIM TISSUE REPOSITORY	423	TEMPERATURE AND HUMIDITY	1200	0
331H	AEROSOL WIND TUNNEL RES. FAC.	741	BIOLOGICAL RESEARCH LAB	3557	0.1706
331J	INCINERATOR	450	SHED STORAGE	380	0
331TRL4	STORAGE TRAILER	401	PROGRAMMATIC GENERAL STORAGE	516	0
331TRL5	OFFICE TRAILER	101	OFFICE	1842	0
332	PACKAGING TEST FACILITY	801	OTHER	400	0
336	HIGH BAY TEST FACILITY	781	DEMONSTRATION RESEARCH BLDG	3863	0.0023
337	TECH MANAGEMENT CENTER	101	OFFICE	70424	0.0011
350	PLNT OPRNS AND MAINT FAC	501	PRODUCTION/MANUF AC. BLDG	16320	0
350A	PAINT SHOP	602	PAINT SHOP	1400	0.0338
350B	WAREHOUSE	400	GENERAL STORAGE	2122	0
350C	STORAGE BUILDING	400	GENERAL STORAGE	212	0
350D	OIL STORAGE FACILITY	410	HAZARDOUS/FLAMMABLE STORAGE	960	0
3614A	RIVER MONITORING STATION	694	OTHER SERVICE BLDG	144	0
3708	RADIOANALYTICAL LAB	712	CALIBRATION LAB	4027	0.0302
3718A	LAB EQUIP. CENTRAL POOL	411	NUCLEAR CONTAMINATED STORAGE	6400	0
3718B	LAB EQUIP. CENTRAL POOL	400	GENERAL STORAGE	3200	0
3718E	STORAGE (324)	401	PROGRAMMATIC GENERAL STORAGE	3000	0
3718G	STORAGE BUILDING	410	HAZARDOUS/FLAMMABLE STORAGE	4000	1.1705
3718O	STORAGE BUILDING	400	GENERAL STORAGE	800	0
3720	ENVIRONMENTAL SCIENCES LAB	761	ENVIRONMENTAL LAB	29030	0.5117
3723	SOLVENT/ACID STORAGE	410	HAZARDOUS/FLAMMABLE STORAGE	144	0.0041
3730	GAMMA IRRADIATION FAC	765	RADIATION EFFECTS LAB	3637	0.0042
3731	LAB EQUIP. CENTRAL POOL	400	GENERAL STORAGE	3200	0
3731A	GRAPHITE MACHINE SHOP	611	MACHINE SHOP	3200	0

Table K.1a. PNL Building List.

PROPERTY ID	PROPERTY NAME	PROPERTY USAGE PRODOM CODE	LONG DISCRIPTION	GROSS SQFT	TOTAL AOP INVENTORY CHEMICAL (TONS)
3745	RADIOLOGICAL SCIENCES LAB	792	GENERAL LAB (NUCLEAR)	5152	0
3745A	ELECTRON ACCELERATOR FACILITY	785	ACCELERATOR BLDG	1277	0
3745B	POSTIVE ION ACCELERATOR FAC	785	ACCELERATOR BLDG	6744	0.0181
3745TRL3	OFFICE TRAILER	401	PROGRAMMATIC GENERAL STORAGE	673	0
3746	IRRADIATION PHYSICS LAB	721	PHYSICS LAB	2203	0.00001
3746A	RADIOLOGICAL PHYSICS LAB	721	PHYSICS LAB	5100	0.339
3760	TECHNICAL LIBRARY	290	LIBRARY	21700	0
3760TRL1	OFFICE TRAILER	101	OFFICE	1524	0
3760TRL2	STORAGE TRAILER	400	GENERAL STORAGE	1573	0
3760TRL3	OFFICE TRAILER	101	OFFICE	1338	0
3762	TECHNICAL SECURITY	101	OFFICE	8030	0
3764	OFFICE_BUILDING	101	OFFICE	8030	0
3765TRL1	OFFICE TRAILER	101	OFFICE	1848	0
3765TRL2	OFFICE TRAILER	101	OFFICE	1848	0
3767	OFFICE_BUILDING	101	OFFICE	2839	0
614	MONITORING STATION	694	OTHER SERVICE BLDG	110	0
614BYRL	BYERS LANDING MONITORING STAT	694	OTHER SERVICE BLDG	49	0
622A	ELEVATOR CONTROL BLDG	761	ENVIRONMENTAL LAB	170	0
622B	PILOT BALLOON RELEASE BLDG	761	ENVIRONMENTAL LAB	144	0
622C	STORAGE BUILDING	400	GENERAL STORAGE	1170	0
622D	STORAGE BUILDING	400	GENERAL STORAGE	1013	0
622F	FIELD OFFICE	761	ENVIRONMENTAL LAB	3300	0
622R	METEOROLOGY LAB	761	ENVIRONMENTAL LAB	8960	0.0049
622TRL1	FIELD OFFICE	694	OTHER SERVICE BLDG	200	0
622TRL2	FIELD OFFICE	694	OTHER SERVICE BLDG	200	0
646	RADIOECOLOGY FIELD LAB	761	ENVIRONMENTAL LAB	800	0
6652C	SPACE SCIENCE LABORATORY	761	ENVIRONMENTAL LAB	6359	0.0038
6652CSHED	STORAGE BUILDING	694	OTHER SERVICE BLDG	96	0
6652D	PUMPHOUSE	694	OTHER SERVICE BLDG	86	0
6652DOME1	ATMOSPHERIC FACILITY	729	OTHER PHYSICS LAB	463	0
6652DOME2	ATMOSPHERIC FACILITY	729	OTHER PHYSICS LAB	160	0
6652E	LYSIMETER PREPARATION BLDG	761	ENVIRONMENTAL LAB	600	0
6652G	ALE FIELD STORAGE	400	GENERAL STORAGE	6783	0
6652H	ALE LABORATORY I	761	ENVIRONMENTAL LAB	3801	0
6652I	ALE HEADQUARTERS	761	ENVIRONMENTAL LAB	4235	0
6652J	ALE LABORATORY II	761	ENVIRONMENTAL LAB	7794	0
6652K	PUMPHOUSE	694	OTHER SERVICE BLDG	178	0
6652LP	RATTLESNAKE MTN LOWR PUMPHOUSE	694	OTHER SERVICE BLDG	200	0
6652M	FALLOUT LABORATORY	761	ENVIRONMENTAL LAB	694	0
6652O	STORAGE BUILDING	400	GENERAL STORAGE	1500	0
6652PH	FIRE PROT PUMPHOUSE	694	OTHER SERVICE BLDG	597	0

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
306W	1,1,1-TRICHLOROETHANE	71-55-6	L	2.79e-03	0.03348	0.5	*
306W	BENZENE	71-43-2	L	4.60e-04	0.00552	0.5	*
306W	BERYLLIUM	7440-41-7	S	1.70e-04	0.00204	0.004	*
306W	CHROMIUM	7440-47-3	S	4.50e-03	0.054	0.5	*
306W	COBALT	7440-48-4	S	3.60e-02	0.432	0.1	EXCEED
306W	HEXANE	110-54-3	L	1.38e-02	0.16512	0.5	*
306W	HYDROFLUORIC ACID	7664-39-3	L	1.18e-02	0.14136	0.5	*
306W	HYDROGEN CHLORIDE	7647-01-0	L	2.46e-02	0.29508	0.5	*
306W	LEAD	7439-92-1	S	2.50e-03	0.03	0.005	EXCEED
306W	MANGANESE	7439-96-5	S	1.10e-03	0.0132	0.5	*
306W	METHYL ALCOHOL	67-56-1	L	1.28e-03	0.01536	0.5	*
306W	METHYL ETHYL KETONE	78-93-3	L	8.40e-04	0.01008	0.5	*
306W	METHYL ISOBUTYL KETONE	108-10-1	L	1.67e-03	0.02004	0.1	*
306W	NICKEL	7440-02-0	S	1.66e-01	1.98684	0.02	EXCEED
306W	SULFURIC ACID	7664-93-9	L	7.67e-03	0.09204	0.35	*
306W	TOLUENE	108-88-3	L	7.50e-03	0.09	0.5	*
306W	XYLENE	1330-20-7	L	3.00e-02	3.60e-01	0.5	*
306W	VOLATILE ORGANIC COMPOUNDS			2.17e-03	0.02604	2	*
314	1,4-DIOXANE	123-91-1	L	1.10e-03	0.0132	0.5	*
314	2-BUTOXYETHANOL	111-76-2	L	8.48e-03	0.10176	0.5	*
314	ACETONITRILE	75-05-8	L	1.04e-02	0.12456	0.5	*
314	ANTIMONY TRIOXIDE	1309-64-4	S	2.00e-03	0.024	0.5	*
314	CADMIUM	7440-43-9	S	5.00e-04	0.006	0.005	EXCEED
314	CARBON TETRACHLORIDE	56-23-5	L	7.00e-03	0.084	0.5	*
314	CHLOROACETIC ACID	79-11-8	S	2.80e-04	0.00336	0.1	*
314	CHLOROFORM	67-66-3	L	6.22e-03	0.07464	0.45	*
314	CHROMIC CHLORIDE	10025-73-7	S	5.00e-04	0.006	0.1	*
314	CHROMIUM	7440-47-3	S	2.20e-04	0.00264	0.5	*
314	COBALT	7440-48-4	S	5.40e-04	0.00648	0.1	*
314	DIMETHYLFORMAMIDE	68-12-2	L	6.42e-03	0.07704	0.5	*
314	ETHYLENE DICHLORIDE	107-06-2	L	3.87e-03	0.04644	0.4	*
314	FORMALDEHYDE	50-00-0	L	6.00e-04	0.0072	0.5	*
314	HYDROFLUORIC ACID	7664-39-3	L	6.60e-04	0.00792	0.5	*
314	HYDROGEN CHLORIDE	7647-01-0	L	4.70e-02	0.56364	0.5	EXCEED
314	HYDROQUINONE	123-31-9	S	1.00e-03	0.012	0.5	*
314	LEAD	7439-92-1	S	1.70e-02	0.204	0.005	EXCEED
314	MANGANESE	7439-96-5	S	1.00e-03	0.012	0.5	*
314	MERCURIC CHLORIDE	7487-94-7	S	2.50e-04	0.003	0.01	*
314	MERCURY	7439-97-6	L	3.30e-04	0.00396	0.01	*
314	METHYL ALCOHOL	67-56-1	L	9.54e-03	0.11448	0.5	*
314	METHYL IODIDE	74-88-4	L	3.00e-04	0.0036	0.06	*
314	METHYL ISOBUTYL KETONE	108-10-1	L	8.80e-04	0.01056	0.1	*
314	METHYL METHACRYLATE	80-62-6	L	8.37e-03	0.10044	0.5	*
314	NICKEL	7440-02-0	S	1.26e-03	0.01512	0.02	*
314	PHENOL	108-95-2	S	1.50e-03	0.018	0.1	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
314	POTASSIUM ANTIMONYL TARTRATE		S	5.00e-04	0.006	0.5	*
314	POTASSIUM CYANIDE	151-50-8	S	1.18e-03	0.01416	0.1	*
314	QUINONE	106-51-4	S	1.10e-03	0.0132	0.5	*
314	SODIUM CYANIDE	143-33-9	S	1.30e-04	0.00156	0.1	*
314	SULFURIC ACID	7664-93-9	L	1.35e-02	0.162	0.35	*
314	TOLUENE	108-88-3	L	5.00e-04	0.006	0.5	*
314	XYLENE	1330-20-7	L	1.91e-03	0.02292	0.5	*
314	FLUORIDES			3.64e-02	0.43728	0.15	EXCEED
314	VOLATILE ORGANIC COMPOUNDS			5.34e-03	0.06408	2	*
314B	METHYL ETHYL KETONE	78-93-3	L	1.68e-02	0.20136	0.5	*
318	METHYL ALCOHOL	67-56-1	L	2.02e-01	2.42832	0.5	EXCEED
318	TOLUENE	108-88-3	L	7.97e-03	0.09564	0.5	*
320	2,2,4-TRIMETHYLPENTANE, HYDROCARBON KIT 22	540-84-1	L	4.95e-02	0.59448	0.5	EXCEED
320	2-ETHOXYETHANOL	110-80-5	L	6.60e-04	0.00792	0.5	*
320	ACETONITRILE	75-05-8	L	1.95e-02	0.2334	0.5	*
320	ANTIMONY	7440-36-0	S	1.50e-04	0.0018	0.5	*
320	ANTIMONY TRIOXIDE	1309-64-4	S	5.50e-04	0.0066	0.5	*
320	ARSENIC	7440-38-2	S	1.65e-03	0.0198	0.002	EXCEED
320	BENZENE	71-43-2	L	9.40e-04	0.01128	0.5	*
320	CARBON TETRACHLORIDE	56-23-5	L	6.63e-03	0.07956	0.5	*
320	CHLOROACETIC ACID	79-11-8	S	1.50e-03	0.018	0.1	*
320	CHLOROFORM	67-66-3	L	2.38e-03	0.02856	0.45	*
320	CHROMIC CHLORIDE	10025-73-7	S	2.80e-04	0.00336	0.1	*
320	CHROMIUM	7440-47-3	S	1.90e-04	0.00228	0.5	*
320	DIBUTYL PHTHALATE	84-74-2	S	5.20e-04	0.00624	0.5	*
320	ETHYLENE DICHLORIDE	107-06-2	L	2.00e-05	0.00024	0.4	*
320	ETHYLENE GLYCOL	107-21-1	L	1.10e-03	0.0132	0.5	*
320	FORMALDEHYDE	50-00-0	L	6.10e-04	0.00732	0.5	*
320	HEXANE	110-54-3	L	5.82e-03	0.06984	0.5	*
320	HYDROFLUORIC ACID	7664-39-3	L	5.82e-03	0.06984	0.5	*
320	HYDROGEN CHLORIDE	7647-01-0	L	3.92e-02	0.47076	0.5	*
320	HYDROQUINONE	123-31-9	S	1.11e-03	0.01332	0.5	*
320	LEAD	7439-92-1	S	5.00e-04	0.006	0.005	EXCEED
320	MANGANESE	7439-96-5	S	5.00e-04	0.006	0.5	*
320	MERCURIC CHLORIDE	7487-94-7	S	5.00e-04	0.006	0.01	*
320	MERCURIC NITRATE, MONOHYDRATE	10045-94-0	S	1.20e-04	0.00144	0.01	*
320	METHYL ALCOHOL	67-56-1	L	6.33e-02	0.76008	0.5	EXCEED
320	METHYL IODIDE	74-88-4	L	1.10e-04	0.00132	0.06	*
320	METHYL METHACRYLATE	80-62-6	L	5.50e-04	0.0066	0.5	*
320	METHYLENE CHLORIDE	75-09-2	L	5.03e-02	0.60408	0.5	EXCEED
320	NAPHTHALENE	91-20-3	S	2.80e-04	0.00336	0.5	*
320	NICKEL	7440-02-0	S	3.70e-04	0.00444	0.02	*
320	PHENOL	108-95-2	S	5.00e-04	0.006	0.1	*
320	PHOSPHOROUS	7723-14-0	S	1.10e-04	0.00132	0.1	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
320	POLYCHLORINATED BIPHENYLS	1336-36-3	S	1.00e-05	0.00012	0.0045	*
320	POTASSIUM CYANIDE	151-50-8	S	5.50e-04	0.0066	0.1	*
320	SELENIUM	7782-49-2	S	7.40e-04	0.00888	0.5	*
320	SULFURIC ACID	7664-93-9	L	1.44e-02	0.17304	0.35	*
320	TOLUENE	108-88-3	L	4.46e-03	0.05352	0.5	*
320	TRIETHYLAMINE	121-44-8	L	6.00e-05	0.00072	0.5	*
320	XYLENE	1330-20-7	L	3.12e-03	0.03744	0.5	*
320	FLUORIDES			6.75e-03	0.081	0.15	*
320	NITRIC OXIDES			2.50e-03	0.03	2	*
320	TOTAL REDUCED SULFUR			1.40e-04	0.00168	0.5	*
320	VOLATILE ORGANIC COMPOUNDS			7.88e-03	0.09456	2	*
324	1,1,1-TRICHLOROETHANE	71-55-6	L	6.60e-04	0.00792	0.5	*
324	1,4-DIOXANE	123-91-1	L	1.32e-03	0.01584	0.5	*
324	4-AMINOBIPHENYL	92-67-1	S	2.00e-05	0.00024	0.5	*
324	ANTIMONY	7440-36-0	S	5.50e-04	0.0066	0.5	*
324	ANTIMONY TRIOXIDE	1309-64-4	S	1.40e-04	0.00168	0.5	*
324	ARSENIC	7440-38-2	S	5.50e-04	0.0066	0.002	EXCEED
324	BENZENE	71-43-2	L	3.99e-03	0.04788	0.5	*
324	BERYLLIUM	7440-41-7	S	8.30e-04	0.00996	0.004	EXCEED
324	CADMIUM	7440-43-9	S	8.30e-04	0.00996	0.005	EXCEED
324	CARBON MONOXIDE	630-08-0	G	1.50e-02	0.17964	5	*
324	CARBON TETRACHLORIDE	56-23-5	L	8.81e-03	0.10572	0.5	*
324	CHLORDANE	57-74-9	S	2.00e-05	0.00024	0.005	*
324	CHLOROFORM	67-66-3	L	1.80e-03	0.0216	0.45	*
324	CHROMIUM	7440-47-3	S	2.20e-04	0.00264	0.5	*
324	COBALT	7440-48-4	S	8.30e-04	0.00996	0.1	*
324	DIMETHYLFORMAMIDE	68-12-2	L	2.08e-03	0.02496	0.5	*
324	ETHYLBENZENE	100-41-4	L	9.00e-05	0.00108	0.5	*
324	ETHYLENE DICHLORIDE	107-06-2	L	6.00e-05	0.00072	0.4	*
324	ETHYLENE GLYCOL	107-21-1	L	6.10e-04	0.00732	0.5	*
324	FORMALDEHYDE	50-00-0	L	6.10e-04	0.00732	0.5	*
324	HEXACHLOROETHANE	67-72-1	S	6.60e-04	0.00792	0.5	*
324	HEXANE	110-54-3	L	1.21e-02	0.14532	0.5	*
324	HYDROFLUORIC ACID	7664-39-3	L	9.20e-04	0.01104	0.5	*
324	HYDROGEN CHLORIDE	7647-01-0	L	5.42e-02	0.6504	0.5	EXCEED
324	HYDROGEN SULFIDE	7783-06-4	G	2.40e-04	0.00288	0.5	*
324	HYDROQUINONE	123-31-9	S	5.50e-04	0.0066	0.5	*
324	LEAD	7439-92-1	S	6.43e-03	0.07716	0.005	EXCEED
324	MANGANESE	7439-96-5	S	8.30e-04	0.00996	0.5	*
324	MERCURIC CHLORIDE	7487-94-7	S	5.50e-04	0.0066	0.01	*
324	MERCURY	7439-97-6	L	1.19e-02	0.1428	0.01	EXCEED
324	METHYL ALCOHOL	67-56-1	L	1.13e-02	0.13608	0.5	*
324	METHYL ISOBUTYL KETONE	108-10-1	L	8.30e-04	0.00996	0.1	*
324	METHYLENE CHLORIDE	75-09-2	L	2.07e-02	0.24864	0.5	*
324	NAPHTHALENE	91-20-3	S	2.20e-04	0.00264	0.5	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
324	NICKEL	7440-02-0	S	5.83e-03	0.06996	0.02	EXCEED
324	PERCHLOROETHYLENE	127-18-4	L	9.65e-03	0.1158	0.5	*
324	PHENOL	108-95-2	S	9.00e-05	0.00108	0.1	*
324	PHOSPHOROUS	7723-14-0	S	5.00e-04	0.006	0.1	*
324	SELENIUM	7782-49-2	S	1.10e-03	0.0132	0.5	*
324	SODIUM SELENITE	10102-18-8	S	3.00e-05	0.00036	0.1	*
324	SULFURIC ACID	7664-93-9	L	5.98e-02	0.71772	0.35	EXCEED
324	TOLUENE	108-88-3	L	3.91e-03	0.04692	0.5	*
324	TRICHLOROETHYLENE	79-01-6	L	1.39e-02	0.16632	0.5	*
324	TRIETHYLAMINE	121-44-8	L	1.50e-04	0.0018	0.5	*
324	VINYL CHLORIDE	75-01-4	L	5.00e-04	0.006	0.1	*
324	VINYLDENE CHLORIDE	75-35-4	L	6.70e-04	0.00804	0.2	*
324	XYLENE	1330-20-7	L	2.06e-02	0.2472	0.5	*
324	FLUORIDES			2.10e-03	0.0252	0.15	*
324	TOTAL REDUCED SULFUR			2.40e-04	0.00288	0.5	*
324	VOLATILE ORGANIC COMPOUNDS			2.56e-02	0.30768	2	*
325	1,1,1-TRICHLOROETHANE	71-55-6	L	5.58e-02	0.67008	0.5	EXCEED
325	1,2,4-TRICHLOROBENZENE	120-82-1	L	4.40e-04	0.00528	0.5	*
325	2,2,4-TRIMETHYLPENTANE, HYDROCARBON KIT 22	540-84-1	L	1.63e-02	0.19608	0.5	*
325	2,4,5-TRICHLOROPHENOL	95-95-4	S	3.00e-05	0.00036	0.5	*
325	2,4,6-TRICHLOROPHENOL	88-06-2	S	1.80e-04	0.00216	0.5	*
325	2,4-DINITROPHENOL	51-28-5	S	1.10e-04	0.00132	0.5	*
325	2-BUTOXYETHANOL	111-76-2	L	1.00e-04	0.0012	0.5	*
325	2-TOLUIDINE	95-53-4	L	6.60e-04	0.00792	0.5	*
325	4-AMINOBIPHENYL	92-67-1	S	5.10e-04	0.00612	0.5	*
325	4-DIMETHYLAMINOAZOBEN ZENE	60-11-7	S	1.10e-04	0.00132	0.5	*
325	4-NITROPHENOL	100-02-7	S	3.00e-05	0.00036	0.5	*
325	ACETALDEHYDE	75-07-0	L	1.00e-05	0.00012	0.5	*
325	ACETONITRILE	75-05-8	L	1.54e-02	0.18468	0.5	*
325	ANILINE	62-53-3	L	1.10e-04	0.00132	0.5	*
325	ANTIMONY	7440-36-0	S	8.70e-04	0.01044	0.5	*
325	ANTIMONY TRIOXIDE	1309-64-4	S	3.96e-03	0.04752	0.5	*
325	ARSENIC	7440-38-2	S	1.37e-03	0.01644	0.002	EXCEED
325	BENZENE	71-43-2	L	9.10e-04	0.01092	0.5	*
325	BERYLLIUM	7440-41-7	S	1.10e-04	0.00132	0.004	*
325	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	S	5.50e-04	0.0066	0.5	*
325	BROMOFORM	75-25-2	L	6.37e-03	0.07644	0.5	*
325	CADMIUM	7440-43-9	S	3.24e-03	0.03888	0.005	EXCEED
325	CARBON DISULFIDE	75-15-0	L	2.64e-03	0.03168	0.5	*
325	CARBON TETRACHLORIDE	56-23-5	L	7.74e-03	0.09288	0.5	*
325	CHLOROACETIC ACID	79-11-8	S	1.82e-03	0.02184	0.1	*
325	CHLOROBENZENE	108-90-7	L	5.80e-04	0.00696	0.5	*
325	CHLOROFORM	67-66-3	L	6.32e-03	0.07584	0.45	*
325	CHROMIC CHLORIDE	10025-73-7	S	3.50e-03	0.042	0.1	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
325	CHROMIUM	7440-47-3	S	2.20e-04	0.00264	0.5	*
325	COBALT	7440-48-4	S	6.30e-04	0.00756	0.1	*
325	DIBUTYL PHTHALATE	84-74-2	S	2.80e-04	0.00336	0.5	*
325	DIMETHYLANILINE	121-69-7	L	6.20e-04	0.00744	0.5	*
325	ETHYLENE DICHLORIDE	107-06-2	L	6.01e-03	0.07212	0.4	*
325	ETHYLENE GLYCOL	107-21-1	L	1.16e-02	0.1386	0.5	*
325	FORMALDEHYDE	50-00-0	L	2.85e-03	0.0342	0.5	*
325	HEXANE	110-54-3	L	3.96e-02	0.47556	0.5	*
325	HYDRAZINE	302-01-2	L	1.66e-03	0.01992	0.002	EXCEED
325	HYDROFLUORIC ACID	7664-39-3	L	2.02e-02	0.24288	0.5	*
325	HYDROGEN CHLORIDE	7647-01-0	L	1.27e-01	1.5282	0.5	EXCEED
325	HYDROQUINONE	123-31-9	S	1.50e-03	0.018	0.5	*
325	LEAD	7439-92-1	S	7.28e-03	0.08736	0.005	EXCEED
325	MANGANESE	7439-96-5	S	2.05e-03	0.0246	0.5	*
325	MERCURIC CHLORIDE	7487-94-7	S	3.80e-04	0.00456	0.01	*
325	MERCURY	7439-97-6	L	6.94e-03	0.08328	0.01	EXCEED
325	METHYL ALCOHOL	67-56-1	L	9.88e-02	1.18512	0.5	EXCEED
325	METHYL ETHYL KETONE	78-93-3	L	3.35e-03	0.0402	0.5	*
325	METHYL IODIDE	74-88-4	L	6.30e-04	0.00756	0.06	*
325	METHYL ISOBUTYL KETONE	108-10-1	L	7.74e-03	0.09288	0.1	*
325	METHYLENE CHLORIDE	75-09-2	L	1.23e-01	1.47096	0.5	EXCEED
325	NAPHTHALENE	91-20-3	S	4.91e-03	0.05892	0.5	*
325	NICKEL	7440-02-0	S	2.15e-03	0.0258	0.02	EXCEED
325	NITROBENZENE	98-95-3	L	6.80e-04	0.00816	0.5	*
325	PENTACHLOROPHENOL	87-86-5	S	1.10e-04	0.00132	0.35	*
325	PHENOL	108-95-2	S	2.62e-03	0.03144	0.1	*
325	PHOSPHOROUS	7723-14-0	S	2.80e-04	0.00336	0.1	*
325	POTASSIUM ANTIMONYL TARTRATE		S	5.00e-04	0.006	0.5	*
325	POTASSIUM CYANIDE	151-50-8	S	4.10e-04	0.00492	0.1	*
325	QUINOLINE	91-22-5	S	5.20e-04	0.00624	0.003	EXCEED
325	SELENIUM	7782-49-2	S	4.00e-04	0.0048	0.5	*
325	SODIUM CYANIDE	143-33-9	S	1.35e-03	0.0162	0.1	*
325	SODIUM SELENATE	13410-01-0	S	2.20e-04	0.00264	0.1	*
325	SODIUM SELENITE	10102-18-8	S	1.40e-04	0.00168	0.1	*
325	SULFURIC ACID	7664-93-9	L	1.15e-01	1.3806	0.35	EXCEED
325	TITANIUM TETRACHLORIDE	7550-45-0	L	4.48e-03	0.05376	0.1	*
325	TOLUENE	108-88-3	L	2.27e-02	0.27192	0.5	*
325	TRIETHYLAMINE	121-44-8	L	2.90e-04	0.00348	0.5	*
325	XYLENE	1330-20-7	L	6.87e-03	0.08244	0.5	*
325	FLUORIDES			6.88e-02	0.82512	0.15	EXCEED
325	NITRIC OXIDES			9.46e-03	0.11352	2	*
325	TOTAL REDUCED SULFUR			1.47e-03	0.01764	0.5	*
325	VOLATILE ORGANIC COMPOUNDS			2.13e-02	0.2556	2	*
326	1,1,1-TRICHLOROETHANE	71-55-6	L	8.36e-03	0.10032	0.5	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
326	1,2,4-TRICHLOROBENZENE	120-82-1	L	1.00e-05	0.00012	0.5	*
326	2,2,4-TRIMETHYLPENTANE, HYDROCARBON KIT 22	540-84-1	L	9.15e-03	0.1098	0.5	*
326	2-METHOXYETHANOL	109-86-4	L	4.25e-03	0.051	0.5	*
326	ACETONITRILE	75-05-8	L	3.12e-02	0.3738	0.5	*
326	ACRYLAMIDE	79-06-1	S	1.32e-03	0.01584	0.01	EXCEED
326	ACRYLIC ACID	79-10-7	L	5.50e-04	0.0066	0.5	*
326	ANILINE	62-53-3	L	2.80e-04	0.00336	0.5	*
326	ANTIMONY	7440-36-0	S	1.00e-03	0.012	0.5	*
326	BIPHENYL	92-52-4	S	1.10e-03	0.0132	0.5	*
326	CADMIUM	7440-43-9	S	5.00e-04	0.006	0.005	EXCEED
326	CARBON DISULFIDE	75-15-0	L	6.97e-03	0.08364	0.5	*
326	CARBON MONOXIDE	630-08-0	G	5.00e-04	0.006	5	*
326	CARBON TETRACHLORIDE	56-23-5	L	2.06e-02	0.24768	0.5	*
326	CHLOROACETIC ACID	79-11-8	S	1.10e-04	0.00132	0.1	*
326	CHLOROFORM	67-66-3	L	4.60e-02	0.55212	0.45	EXCEED
326	CHROMIUM	7440-47-3	S	4.69e-03	0.05628	0.5	*
326	DIMETHYLANILINE	121-69-7	L	3.41e-03	0.04092	0.5	*
326	DIMETHYLFORMAMIDE	68-12-2	L	1.82e-03	0.02184	0.5	*
326	ETHYLBENZENE	100-41-4	L	1.10e-03	0.0132	0.5	*
326	ETHYLENE DICHLORIDE	107-06-2	L	1.38e-03	0.01656	0.4	*
326	ETHYLENE GLYCOL	107-21-1	L	4.90e-03	0.0588	0.5	*
326	FORMALDEHYDE	50-00-0	L	6.00e-04	0.0072	0.5	*
326	HEXANE	110-54-3	L	1.22e-02	0.14664	0.5	*
326	HYDROFLUORIC ACID	7664-39-3	L	2.82e-02	0.33864	0.5	*
326	HYDROGEN CHLORIDE	7647-01-0	L	3.94e-02	0.4722	0.5	*
326	HYDROQUINONE	123-31-9	S	2.32e-02	0.27816	0.5	*
326	LEAD	7439-92-1	S	3.00e-03	0.036	0.005	EXCEED
326	MANGANESE	7439-96-5	S	5.20e-04	0.00624	0.5	*
326	MERCURY	7439-97-6	L	1.10e-03	0.0132	0.01	EXCEED
326	METHYL ALCOHOL	67-56-1	L	3.91e-02	0.46884	0.5	*
326	METHYL ETHYL KETONE	78-93-3	L	4.19e-03	0.05028	0.5	*
326	METHYL IODIDE	74-88-4	L	1.10e-04	0.00132	0.06	*
326	METHYL ISOBUTYL KETONE	108-10-1	L	3.34e-03	0.04008	0.1	*
326	METHYL METHACRYLATE	80-62-6	L	7.66e-03	0.09192	0.5	*
326	METHYLENE CHLORIDE	75-09-2	L	2.63e-02	0.31524	0.5	*
326	NAPHTHALENE	91-20-3	S	1.39e-03	0.01668	0.5	*
326	NICKEL	7440-02-0	S	5.17e-03	0.06204	0.02	EXCEED
326	NITROBENZENE	98-95-3	L	6.20e-04	0.00744	0.5	*
326	PHENOL	108-95-2	S	3.00e-05	0.00036	0.1	*
326	POTASSIUM CYANIDE	151-50-8	S	5.00e-04	0.006	0.1	*
326	SODIUM CYANIDE	143-33-9	S	1.00e-03	0.012	0.1	*
326	SULFURIC ACID	7664-93-9	L	2.57e-02	0.30804	0.35	*
326	TOLUENE	108-88-3	L	3.37e-02	0.4044	0.5	*
326	TRIETHYLAMINE	121-44-8	L	1.59e-03	0.01908	0.5	*
326	URETHANE 99%	51-79-6	S	5.30e-04	0.00636	0.5	*
326	XYLENE	1330-20-7	L	1.31e-02	0.1566	0.5	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
326	FLUORIDES			2.04e-02	0.2442	0.15	EXCEED
326	TOTAL REDUCED SULFUR			3.60e-04	0.00432	0.5	*
326	VOLATILE ORGANIC COMPOUNDS			1.15e-02	0.138	2	*
327	CARBON TETRACHLORIDE	56-23-5	L	3.31e-03	0.03972	0.5	*
327	METHYL ALCOHOL	67-56-1	L	2.60e-04	0.00312	0.5	*
327	METHYL METHACRYLATE	80-62-6	L	6.20e-04	0.00744	0.5	*
327	SULFURIC ACID	7664-93-9	L	3.84e-03	0.04608	0.35	*
329	1,1,1-TRICHLOROETHANE	71-55-6	L	5.89e-03	0.07068	0.5	*
329	1,1,2-TRICHLOROETHANE	79-00-5	L	1.10e-04	0.00132	0.5	*
329	1,4-DICHLOROBENZENE	106-46-7	L	1.00e-05	0.00012	0.5	*
329	1,4-DIOXANE	123-91-1	L	3.00e-05	0.00036	0.5	*
329	2,2,4-TRIMETHYLPENTANE, HYDROCARBON KIT 22	540-84-1	L	2.89e-03	0.03468	0.5	*
329	2,4,6-TRICHLOROPHENOL	88-06-2	S	1.00e-05	0.00012	0.5	*
329	2,4-DICHLOROPHENOXYAC ETIC ACID	94-75-7	L	1.00e-05	0.00012	0.5	*
329	2,4-DINITROTOLUENE	121-14-2	S	1.10e-04	0.00132	0.01	*
329	2,4-TOLUENE DIISOCYANATE	584-84-9	S	2.00e-05	0.00024	0.05	*
329	2-ETHOXYETHANOL	110-80-5	L	2.00e-05	0.00024	0.5	*
329	2-NITROPROPANE	79-46-9	L	2.00e-05	0.00024	0.5	*
329	3-METHYLPHENOL	108-39-4	L	2.00e-05	0.00024	0.5	*
329	4-AMINOBIPHENYL	92-67-1	S	2.00e-05	0.00024	0.5	*
329	4-HYDROXYTOLUENE	106-44-5	S	1.00e-05	0.00012	0.5	*
329	4-NITROBIPHENYL	92-93-3	S	1.20e-04	0.00144	0.5	*
329	4-NITROPHENOL	100-02-7	S	1.10e-04	0.00132	0.5	*
329	ACETONITRILE	75-05-8	L	5.41e-02	0.64944	0.5	EXCEED
329	ACETOPHENONE	98-86-2	L	2.00e-05	0.00024	0.5	*
329	ACRYLAMIDE	79-06-1	S	1.20e-04	0.00144	0.01	*
329	ACRYLIC ACID	79-10-7	L	3.00e-05	0.00036	0.5	*
329	ANILINE	62-53-3	L	5.30e-04	0.00636	0.5	*
329	ANTIMONY	7440-36-0	S	9.50e-04	0.0114	0.5	*
329	ARSENIC	7440-38-2	S	1.06e-03	0.01272	0.002	EXCEED
329	ASBESTOS	1332-21-4	S	1.30e-04	0.00156	0.00004	EXCEED
329	BENZENE	71-43-2	L	2.04e-02	0.2442	0.5	*
329	BENZYL CHLORIDE	100-44-7	L	2.00e-05	0.00024	0.1	*
329	BERYLLIUM	7440-41-7	S	3.00e-04	0.0036	0.004	*
329	BIPHENYL	92-52-4	S	1.11e-03	0.01332	0.5	*
329	CADMIUM	7440-43-9	S	1.00e-05	0.00012	0.005	*
329	CAPROLACTAM, DUST	105-60-2	S	1.00e-05	0.00012	0.5	*
329	CARBON DISULFIDE	75-15-0	L	2.20e-04	0.00264	0.5	*
329	CARBON TETRACHLORIDE	56-23-5	L	7.14e-03	0.08568	0.5	*
329	CHLOROACETIC ACID	79-11-8	S	1.01e-03	0.01212	0.1	*
329	CHLOROFORM	67-66-3	L	4.35e-02	0.52236	0.45	EXCEED
329	CHROMIC CHLORIDE	10025-73-7	S	5.00e-04	0.006	0.1	*
329	CHROMIUM	7440-47-3	S	5.70e-04	0.00684	0.5	*
329	CHRYSENE	218-01-9	S	6.00e-05	0.00072	0.005	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
329	COBALT	7440-48-4	S	9.50e-04	0.0114	0.1	*
329	CRESOL, O-	95-48-7	L	1.00e-05	0.00012	0.5	*
329	DIBENZOFURAN	132-64-9	S	8.30e-04	0.00996	0.5	*
329	DIETHANOLAMINE	111-42-2	L	1.00e-05	0.00012	0.5	*
329	DIMETHYL SULFATE	77-78-1	L	1.10e-04	0.00132	0.1	*
329	DIMETHYLFORMAMIDE	68-12-2	L	3.99e-03	0.04788	0.5	*
329	DIMETHYLHYDRAZINE	57-14-7	S	1.00e-05	0.00012	0.004	*
329	EPICHLOROHYDRIN	106-89-8	L	2.00e-05	0.00024	0.5	*
329	ETHYL SULFATE	64-67-5	S	2.00e-05	0.00024	0.5	*
329	HEXACHLOROENZENE	118-74-1	S	5.60e-04	0.00672	0.005	EXCEED
329	HEXACHLOROBUTADIENE	87-68-3	L	1.00e-05	0.00012	0.5	*
329	HEXACHLOROETHANE	67-72-1	S	1.00e-05	0.00012	0.5	*
329	HEXANE	110-54-3	L	2.01e-02	0.24072	0.5	*
329	HYDROFLUORIC ACID	7664-39-3	L	7.85e-03	0.0942	0.5	*
329	HYDROGEN CHLORIDE	7647-01-0	L	1.13e-01	1.36056	0.5	EXCEED
329	HYDROQUINONE	123-31-9	S	5.90e-04	0.00708	0.5	*
329	ISOPHORONE	78-59-1	L	2.00e-05	0.00024	0.5	*
329	LEAD	7439-92-1	S	4.18e-02	0.50124	0.005	EXCEED
329	MALEIC ANHYDRIDE	108-31-6	S	1.00e-05	0.00012	0.5	*
329	MANGANESE	7439-96-5	S	1.20e-04	0.00144	0.5	*
329	MERCURIC CHLORIDE	7487-94-7	S	5.00e-04	0.006	0.01	*
329	MERCURIC NITRATE, MONOHYDRATE	10045-94-0	S	1.30e-04	0.00156	0.01	*
329	MERCURY	7439-97-6	L	7.46e-03	0.08952	0.01	EXCEED
329	METHYL ALCOHOL	67-56-1	L	3.88e-02	0.465	0.5	*
329	METHYL ETHYL KETONE	78-93-3	L	2.30e-04	0.00276	0.5	*
329	METHYL IODIDE	74-88-4	L	1.60e-03	0.0192	0.06	*
329	METHYL ISOBUTYL KETONE	108-10-1	L	3.00e-05	0.00036	0.1	*
329	METHYL METHACRYLATE	80-62-6	L	3.00e-05	0.00036	0.5	*
329	METHYLENE CHLORIDE	75-09-2	L	5.19e-02	0.62292	0.5	EXCEED
329	NAPHTHALENE	91-20-3	S	5.50e-04	0.0066	0.5	*
329	NICKEL	7440-02-0	S	3.58e-03	0.04296	0.02	EXCEED
329	NITROBENZENE	98-95-3	L	6.70e-04	0.00804	0.5	*
329	O-ANISIDINE	90-04-0	S	2.00e-05	0.00024	0.5	*
329	PERCHLOROETHYLENE	127-18-4	L	2.00e-05	0.00024	0.5	*
329	PHENOL	108-95-2	S	1.30e-04	0.00156	0.1	*
329	PHOSPHOROUS	7723-14-0	S	8.30e-04	0.00996	0.1	*
329	PHTHALIC ANHYDRIDE	85-44-9	S	2.00e-05	0.00024	0.5	*
329	POTASSIUM ANTIMONYL TARTRATE		S	5.20e-04	0.00624	0.5	*
329	POTASSIUM CYANIDE	151-50-8	S	1.30e-04	0.00156	0.1	*
329	PROPYLENE DICHLORIDE	78-87-5	S	1.00e-05	0.00012	0.5	*
329	PROPYLENE OXIDE	75-56-9	L	2.00e-05	0.00024	0.5	*
329	SELENIUM	7782-49-2	S	8.30e-04	0.00996	0.5	*
329	SODIUM CYANIDE	143-33-9	S	1.40e-04	0.00168	0.1	*
329	STYRENE	100-42-5	L	1.10e-04	0.00132	0.5	*
329	STYRENE OXIDE	96-09-3	S	2.00e-05	0.00024	0.5	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
329	SULFURIC ACID	7664-93-9	L	9.63e-02	1.15536	0.35	EXCEED
329	TOLUENE	108-88-3	L	2.79e-02	0.33456	0.5	*
329	TRICHLOROETHYLENE	79-01-6	L	8.20e-04	0.00984	0.5	*
329	TRIETHYLAMINE	121-44-8	L	1.48e-03	0.01776	0.5	*
329	URETHANE 99%	51-79-6	S	1.00e-05	0.00012	0.5	*
329	VINYL ACETATE	108-05-4	L	2.00e-05	0.00024	0.5	*
329	XYLENE	1330-20-7	L	1.87e-03	0.02244	0.5	*
329	FLUORIDES			9.88e-03	0.11856	0.15	*
329	TOTAL REDUCED SULFUR			8.70e-04	0.01044	0.5	*
329	VOLATILE ORGANIC COMPOUNDS			3.55e-03	0.0426	2	*
331	1,1,1-TRICHLOROETHANE	71-55-6	L	4.42e-03	0.05304	0.5	*
331	2,2,4-TRIMETHYLPENTANE, HYDROCARBON KIT 22	540-84-1	L	4.19e-03	0.05028	0.5	*
331	2,4,6-TRICHLOROPHENOL	88-06-2	S	1.10e-03	0.0132	0.5	*
331	2,4-DINITROPHENOL	51-28-5	S	9.00e-05	0.00108	0.5	*
331	2-ETHOXYETHANOL	110-80-5	L	5.28e-03	0.06336	0.5	*
331	2-METHOXYETHANOL	109-86-4	L	9.56e-03	0.11472	0.5	*
331	3,3'-DIMETHOXYBENZIDINE	119-90-4	S	3.00e-05	0.00036	0.5	*
331	4,4'-METHYLENEDIANILINE	101-77-9	L	5.50e-04	0.0066	0.5	*
331	4-AMINOBIIPHENYL	92-67-1	S	1.00e-03	0.012	0.5	*
331	4-DIMETHYLAMINOAZOBEN ZENE	60-11-7	S	3.00e-05	0.00036	0.5	*
331	4-NITROPHENOL	100-02-7	S	6.00e-05	0.00072	0.5	*
331	ACETAMIDE	60-35-5	S	3.00e-05	0.00036	0.5	*
331	ACETONITRILE	75-05-8	L	2.77e-01	3.3204	0.5	EXCEED
331	ACRYLAMIDE	79-06-1	S	8.98e-03	0.10776	0.01	EXCEED
331	ANTIMONY	7440-36-0	S	2.20e-04	0.00264	0.5	*
331	BENZENE	71-43-2	L	1.45e-02	0.17388	0.5	*
331	BENZO(A)PYRENE	50-32-8	S	3.00e-05	0.00036	0.005	*
331	BIPHENYL	92-52-4	S	2.21e-03	0.02652	0.5	*
331	CADMIUM	7440-43-9	S	1.10e-04	0.00132	0.005	*
331	CARBON DISULFIDE	75-15-0	L	3.50e-04	0.0042	0.5	*
331	CARBON TETRACHLORIDE	56-23-5	L	2.08e-02	0.25008	0.5	*
331	CHLOROFORM	67-66-3	L	5.89e-02	0.70716	0.45	EXCEED
331	CRESOL	1319-77-3	S	6.00e-05	0.00072	0.5	*
331	DIBENZOFURAN	132-64-9	S	4.00e-05	0.00048	0.5	*
331	DIMETHYLFORMAMIDE	68-12-2	L	8.59e-03	0.10308	0.5	*
331	ETHYLENE GLYCOL	107-21-1	L	6.58e-03	0.07896	0.5	*
331	ETHYLENE THIOUREA	96-45-7	S	1.10e-04	0.00132	0.3	*
331	FORMALDEHYDE	50-00-0	L	2.75e-02	0.3294	0.5	*
331	HEXANE	110-54-3	L	2.95e-02	0.35412	0.5	*
331	HYDROFLUORIC ACID	7664-39-3	L	5.00e-04	0.006	0.5	*
331	HYDROGEN CHLORIDE	7647-01-0	L	4.67e-02	0.56016	0.5	EXCEED
331	HYDROQUINONE	123-31-9	S	5.50e-04	0.0066	0.5	*
331	LINDANE	58-89-9	S	3.00e-05	0.00036	0.005	*
331	MERCURIC CHLORIDE	7487-94-7	S	1.90e-04	0.00228	0.01	*
331	MERCURY	7439-97-6	L	2.80e-04	0.00336	0.01	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
331	METHYL ALCOHOL	67-56-1	L	1.75e-01	2.10504	0.5	EXCEED
331	METHYL ISOBUTYL KETONE	108-10-1	L	9.70e-03	0.1164	0.1	EXCEED
331	METHYL METHACRYLATE	80-62-6	L	5.00e-04	0.006	0.5	*
331	METHYL TERT-BUTYL ETHER	1634-04-4	L	4.90e-04	0.00588	0.5	*
331	METHYLENE CHLORIDE	75-09-2	L	5.69e-02	0.68292	0.5	EXCEED
331	NAPHTHALENE	91-20-3	S	1.88e-03	0.02256	0.5	*
331	NICKEL	7440-02-0	S	1.10e-04	0.00132	0.02	*
331	NITROSODIMETHYLAMINE	62-75-9	S	3.00e-05	0.00036	0.0005	*
331	P-PHENYLENEDIAMINE	106-50-3	S	2.01e-03	0.02412	0.5	*
331	PERCHLOROETHYLENE	127-18-4	L	7.15e-03	0.0858	0.5	*
331	PHENOL	108-95-2	S	9.26e-03	0.11112	0.1	EXCEED
331	PHOSPHINE	7803-51-2	G	1.00e-05	0.00012	0.5	*
331	POTASSIUM CYANIDE	151-50-8	S	6.60e-04	0.00792	0.1	*
331	PROPYLENE OXIDE	75-56-9	L	1.10e-03	0.0132	0.5	*
331	QUINONE	106-51-4	S	5.50e-04	0.0066	0.5	*
331	SELENIUM	7782-49-2	S	1.20e-04	0.00144	0.5	*
331	SODIUM CYANIDE	143-33-9	S	5.00e-04	0.006	0.1	*
331	SODIUM SELENATE	13410-01-0	S	1.10e-03	0.0132	0.1	*
331	SODIUM SELENITE	10102-18-8	S	1.40e-04	0.00168	0.1	*
331	STYRENE	100-42-5	L	1.10e-03	0.0132	0.5	*
331	SULFURIC ACID	7664-93-9	L	1.10e-01	1.3194	0.35	EXCEED
331	TOLUENE	108-88-3	L	3.78e-02	0.453	0.5	*
331	TRICHLOROETHYLENE	79-01-6	L	2.42e-02	0.29004	0.5	*
331	TRIETHYLAMINE	121-44-8	L	1.93e-03	0.02316	0.5	*
331	URETHANE 99%	51-79-6	S	5.10e-04	0.00612	0.5	*
331	XYLENE	1330-20-7	L	4.94e-02	0.59232	0.5	EXCEED
331	FLUORIDES			2.41e-03	0.02892	0.15	*
331	TOTAL REDUCED SULFUR			1.12e-03	0.01344	0.5	*
331	VOLATILE ORGANIC COMPOUNDS			5.06e-02	0.60696	2	*
331A	4-NITROPHENOL	100-02-7	S	1.00e-05	0.00012	0.5	*
331A	9,10-DIMETHYLBENZ(A)ANT HRACENE	57-97-6	S	1.10e-04	0.00132	0.005	*
331A	ACETONITRILE	75-05-8	L	4.16e-02	0.4992	0.5	*
331A	BENZENE	71-43-2	L	3.85e-03	0.0462	0.5	*
331A	CARBON MONOXIDE	630-08-0	G	1.40e-04	0.00168	5	*
331A	CARBON TETRACHLORIDE	56-23-5	L	1.75e-03	0.021	0.5	*
331A	CHLOROFORM	67-66-3	L	2.04e-02	0.24468	0.45	*
331A	CHROMIUM	7440-47-3	S	5.20e-04	0.00624	0.5	*
331A	DIMETHYLFORMAMIDE	68-12-2	L	2.08e-03	0.02496	0.5	*
331A	FORMALDEHYDE	50-00-0	L	5.11e-03	0.06132	0.5	*
331A	HYDROGEN CHLORIDE	7647-01-0	L	1.30e-03	0.0156	0.5	*
331A	METHYL ALCOHOL	67-56-1	L	4.03e-02	0.4836	0.5	*
331A	METHYL CHLORIDE	74-87-3	G	1.10e-04	0.00132	0.5	*
331A	METHYL ETHYL KETONE	78-93-3	L	2.22e-03	0.02664	0.5	*
331A	METHYLENE CHLORIDE	75-09-2	L	2.77e-02	0.33276	0.5	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
331A	PHENOL	108-95-2	S	2.75e-03	0.033	0.1	*
331A	SELENIUM	7782-49-2	S	1.10e-04	0.00132	0.5	*
331A	SULFURIC ACID	7664-93-9	L	6.76e-03	0.08112	0.35	*
331A	TRIETHYLAMINE	121-44-8	L	6.20e-04	0.00744	0.5	*
331A	XYLENE	1330-20-7	L	1.25e-03	0.015	0.5	*
331A	FLUORIDES			1.33e-03	0.01596	0.15	*
331A	TOTAL REDUCED SULFUR			6.60e-04	0.00792	0.5	*
331A	VOLATILE ORGANIC COMPOUNDS			2.09e-03	0.02508	2	*
331C	METHYL ALCOHOL	67-56-1	L	4.40e-04	0.00528	0.5	*
331H	1,1,1-TRICHLOROETHANE	71-55-6	L	7.40e-04	0.00888	0.5	*
331H	BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	S	6.60e-04	0.00792	0.5	*
331H	HEXACHLOROETHANE	67-72-1	S	5.50e-04	0.0066	0.5	*
331H	HYDROGEN CHLORIDE	7647-01-0	L	3.08e-03	0.03696	0.5	*
331H	METHYL ALCOHOL	67-56-1	L	1.64e-01	1.9704	0.5	EXCEED
331H	PHOSPHOROUS	7723-14-0	S	3.90e-04	0.00468	0.1	*
331H	TITANIUM TETRACHLORIDE	7550-45-0	L	6.60e-04	0.00792	0.1	*
331H	XYLENE	1330-20-7	L	3.10e-04	0.00372	0.5	*
336	CHLORINE	7782-50-5	G	1.50e-03	0.018	0.1	*
336	METHYL ALCOHOL	67-56-1	L	4.10e-04	0.00492	0.5	*
336	TOLUENE	108-88-3	L	3.80e-04	0.00456	0.5	*
337	CARBON MONOXIDE	630-08-0	G	1.40e-04	0.00168	5	*
337	HYDROGEN SULFIDE	7783-06-4	G	1.70e-04	0.00204	0.5	*
337	TOTAL REDUCED SULFUR			1.70e-04	0.00204	0.5	*
337	SULFUR OXIDES			3.20e-04	0.00384	2	*
337	VOLATILE ORGANIC COMPOUNDS			2.80e-04	0.00336	2	*
350A	TOLUENE	108-88-3	L	3.38e-02	0.40512	0.5	*
3708	ANTIMONY	7440-36-0	S	1.40e-04	0.00168	0.5	*
3708	ARSENIC	7440-38-2	S	1.40e-04	0.00168	0.002	*
3708	BERYLLIUM	7440-41-7	S	1.40e-04	0.00168	0.004	*
3708	CADMIUM	7440-43-9	S	6.40e-04	0.00768	0.005	EXCEED
3708	CHROMIUM	7440-47-3	S	1.50e-04	0.0018	0.5	*
3708	COBALT	7440-48-4	S	1.40e-04	0.00168	0.1	*
3708	HYDROFLUORIC ACID	7664-39-3	L	2.33e-03	0.02796	0.5	*
3708	HYDROGEN CHLORIDE	7647-01-0	L	1.04e-02	0.1248	0.5	*
3708	LEAD	7439-92-1	S	4.70e-04	0.00564	0.005	EXCEED
3708	MANGANESE	7439-96-5	S	2.00e-04	0.0024	0.5	*
3708	MERCURIC CHLORIDE	7487-94-7	S	1.40e-04	0.00168	0.01	*
3708	MERCURY	7439-97-6	L	1.94e-03	0.02328	0.01	EXCEED
3708	NICKEL	7440-02-0	S	2.70e-04	0.00324	0.02	*
3708	PHOSPHOROUS	7723-14-0	S	1.40e-04	0.00168	0.1	*
3708	SELENIUM	7782-49-2	S	1.40e-04	0.00168	0.5	*
3708	SULFURIC ACID	7664-93-9	L	4.50e-03	0.054	0.35	*
3708	VOLATILE ORGANIC COMPOUNDS			8.33e-03	0.09996	2	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
3718G	ANTIMONY TRIOXIDE	1309-64-4	S	1.00e-03	0.012	0.5	*
3718G	ETHYLENE GLYCOL	107-21-1	L	1.04e+00	12.4242	0.5	EXCEED
3718G	HEXANE	110-54-3	L	4.36e-03	0.05232	0.5	*
3718G	HYDROFLUORIC ACID	7664-39-3	L	6.90e-04	0.00828	0.5	*
3718G	HYDROGEN CHLORIDE	7647-01-0	L	1.73e-02	0.20712	0.5	*
3718G	MERCURIC NITRATE, MONOHYDRATE	10045-94-0	S	2.50e-04	0.003	0.01	*
3718G	METHYL ALCOHOL	67-56-1	L	9.08e-03	0.10896	0.5	*
3718G	SULFURIC ACID	7664-93-9	L	1.15e-02	0.138	0.35	*
3718G	FLUORIDES			9.10e-02	1.092	0.15	EXCEED
3720	1,1,1-TRICHLOROETHANE	71-55-6	L	9.92e-03	0.11904	0.5	*
3720	1,1,2,2-TETRACHLOROETHA NE	79-34-5	L	2.80e-04	0.00336	0.15	*
3720	1,1,2-TRICHLOROETHANE	79-00-5	L	2.37e-03	0.02844	0.5	*
3720	1,2-DIPHENYLHYDRAZINE	122-66-7	S	1.10e-04	0.00132	0.045	*
3720	1,3-BUTADIENE	106-99-0	G	1.00e-03	0.012	0.035	*
3720	1,4-DIOXANE	123-91-1	L	1.17e-02	0.13992	0.5	*
3720	2,2,4-TRIMETHYLPENTANE, HYDROCARBON KIT 22	540-84-1	L	5.77e-03	0.06924	0.5	*
3720	2-ETHOXYETHANOL	110-80-5	L	6.60e-04	0.00792	0.5	*
3720	2-METHOXYETHANOL	109-86-4	L	1.10e-04	0.00132	0.5	*
3720	2-TOLUIDINE	95-53-4	L	6.60e-04	0.00792	0.5	*
3720	3,3'-DIMETHYL BENZIDINE	119-93-7	S	5.50e-04	0.0066	0.004	EXCEED
3720	3-CHLOROPROPENE	107-05-1	L	1.10e-03	0.0132	0.5	*
3720	3-METHYLPHENOL	108-39-4	L	2.20e-04	0.00264	0.5	*
3720	4,4'-BIPHENYLENEDIAMINE	92-87-5	S	1.30e-04	0.00156	0.00015	EXCEED
3720	4-AMINOBIIPHENYL	92-67-1	S	2.15e-03	0.0258	0.5	*
3720	ACETALDEHYDE	75-07-0	L	9.60e-04	0.01152	0.5	*
3720	ACETAMIDE	60-35-5	S	5.50e-04	0.0066	0.5	*
3720	ACETONITRILE	75-05-8	L	3.46e-03	0.04152	0.5	*
3720	ACETOPHENONE	98-86-2	L	1.21e-03	0.01452	0.5	*
3720	ACROLEIN	107-02-8	L	1.21e-03	0.01452	0.04	*
3720	ACRYLIC ACID	79-10-7	L	3.14e-03	0.03768	0.5	*
3720	ANILINE	62-53-3	L	5.30e-04	0.00636	0.5	*
3720	ANTIMONY	7440-36-0	S	5.50e-04	0.0066	0.5	*
3720	ANTIMONY TRIOXIDE	1309-64-4	S	1.17e-03	0.01404	0.5	*
3720	ARSENIC	7440-38-2	S	2.20e-04	0.00264	0.002	EXCEED
3720	BENZENE	71-43-2	L	2.40e-04	0.00288	0.5	*
3720	BERYLLIUM	7440-41-7	S	1.10e-04	0.00132	0.004	*
3720	BROMOFORM	75-25-2	L	6.00e-05	0.00072	0.5	*
3720	CADMIUM	7440-43-9	S	1.55e-03	0.0186	0.005	EXCEED
3720	CARBON DISULFIDE	75-15-0	L	2.09e-03	0.02508	0.5	*
3720	CARBON OXYSLFIDE	463-58-1	G	1.00e-03	0.012	0.5	*
3720	CARBON TETRACHLORIDE	56-23-5	L	7.83e-03	0.09396	0.5	*
3720	CATECHOL	120-80-9	S	1.10e-04	0.00132	0.5	*
3720	CHLOROBENZENE	108-90-7	L	1.10e-04	0.00132	0.5	*
3720	CHLOROFORM	67-66-3	L	1.40e-02	0.16764	0.45	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
3720	CHLOROMETHYL METHYL ETHER	107-30-2	L	5.50e-04	0.0066	0.1	*
3720	CHROMIC CHLORIDE	10025-73-7	S	5.00e-04	0.006	0.1	*
3720	CHROMIUM	7440-47-3	S	5.50e-04	0.0066	0.5	*
3720	CHRYSENE	218-01-9	S	6.00e-05	0.00072	0.005	*
3720	COBALT	7440-48-4	S	2.20e-04	0.00264	0.1	*
3720	COBALT CARBONYL	10210-68-1	S	1.70e-04	0.00204	0.1	*
3720	CRESOL, O-	95-48-7	L	5.00e-04	0.006	0.5	*
3720	CYSTEINE, N-ACETYL-, L-	63-25-2	S	1.10e-03	0.0132	0.5	*
3720	DIBUTYL PHTHALATE	84-74-2	S	6.61e-03	0.07932	0.5	*
3720	DIETHANOLAMINE	111-42-2	L	1.21e-03	0.01452	0.5	*
3720	DIMETHYLFORMAMIDE	68-12-2	L	8.28e-03	0.09936	0.5	*
3720	ETHYL ACRYLATE	140-88-5	L	2.75e-03	0.033	0.5	*
3720	ETHYLBENZENE	100-41-4	L	1.10e-03	0.0132	0.5	*
3720	ETHYLENE DIBROMIDE	106-93-4	L	1.10e-04	0.00132	0.05	*
3720	ETHYLENE DICHLORIDE	107-06-2	L	6.90e-04	0.00828	0.4	*
3720	ETHYLENE GLYCOL	107-21-1	L	1.26e-02	0.15156	0.5	*
3720	FORMALDEHYDE	50-00-0	L	8.82e-03	0.10584	0.5	*
3720	HEXANE	110-54-3	L	6.16e-03	0.07392	0.5	*
3720	HYDROFLUORIC ACID	7664-39-3	L	1.16e-02	0.13944	0.5	*
3720	HYDROGEN CHLORIDE	7647-01-0	L	5.38e-02	0.64584	0.5	EXCEED
3720	HYDROQUINONE	123-31-9	S	1.65e-03	0.0198	0.5	*
3720	LEAD	7439-92-1	S	6.01e-03	0.07212	0.005	EXCEED
3720	MALEIC ANHYDRIDE	108-31-6	S	2.20e-03	0.0264	0.5	*
3720	MANGANESE	7439-96-5	S	6.90e-04	0.00828	0.5	*
3720	MERCURIC CHLORIDE	7487-94-7	S	1.12e-03	0.01344	0.01	EXCEED
3720	MERCURY	7439-97-6	L	3.20e-02	0.38364	0.01	EXCEED
3720	METHYL ALCOHOL	67-56-1	L	9.55e-03	0.1146	0.5	*
3720	METHYL ETHYL KETONE	78-93-3	L	4.19e-03	0.05028	0.5	*
3720	METHYL IODIDE	74-88-4	L	1.70e-04	0.00204	0.06	*
3720	METHYL ISOBUTYL KETONE	108-10-1	L	2.21e-03	0.02652	0.1	*
3720	METHYL METHACRYLATE	80-62-6	L	2.97e-03	0.03564	0.5	*
3720	METHYLENE CHLORIDE	75-09-2	L	4.52e-02	0.54192	0.5	EXCEED
3720	NAPHTHALENE	91-20-3	S	1.14e-03	0.01368	0.5	*
3720	NICKEL	7440-02-0	S	1.93e-03	0.02316	0.02	EXCEED
3720	PENTACHLOROPHENOL	87-86-5	S	3.00e-05	0.00036	0.35	*
3720	PERCHLOROETHYLENE	127-18-4	L	5.51e-03	0.06612	0.5	*
3720	PHENOL	108-95-2	S	1.35e-03	0.0162	0.1	*
3720	PHENYLMERCURY ACETATE	62-38-4	S	5.00e-04	0.006	0.01	*
3720	PHOSPHOROUS	7723-14-0	S	1.10e-04	0.00132	0.1	*
3720	PHTHALIC ANHYDRIDE	85-44-9	S	2.61e-03	0.03132	0.5	*
3720	POTASSIUM ANTIMONYL TARTRATE		S	4.70e-04	0.00564	0.5	*
3720	POTASSIUM CYANIDE	151-50-8	S	7.00e-04	0.0084	0.1	*
3720	PROPIONALDEHYDE	123-38-6	L	1.10e-04	0.00132	0.5	*
3720	QUINOLINE	91-22-5	S	1.04e-03	0.01248	0.003	EXCEED
3720	SELENIUM	7782-49-2	S	4.80e-04	0.00576	0.5	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
3720	SODIUM CYANIDE	143-33-9	S	6.10e-04	0.00732	0.1	*
3720	SODIUM SELENATE	13410-01-0	S	2.20e-04	0.00264	0.1	*
3720	SODIUM SELENITE	10102-18-8	S	1.10e-03	0.0132	0.1	*
3720	STYRENE	100-42-5	L	1.10e-04	0.00132	0.5	*
3720	SULFURIC ACID	7664-93-9	L	7.32e-02	0.87864	0.35	EXCEED
3720	TITANIUM TETRACHLORIDE	7550-45-0	L	1.30e-04	0.00156	0.1	*
3720	TOLUENE	108-88-3	L	1.30e-02	0.15564	0.5	*
3720	TRICHLOROETHYLENE	79-01-6	L	1.86e-03	0.02232	0.5	*
3720	TRIETHYLAMINE	121-44-8	L	3.30e-03	0.0396	0.5	*
3720	VINYL ACETATE	108-05-4	L	1.03e-03	0.01236	0.5	*
3720	VINYLDENE CHLORIDE	75-35-4	L	1.10e-04	0.00132	0.2	*
3720	XYLENE	1330-20-7	L	9.65e-03	0.1158	0.5	*
3720	FLUORIDES			4.84e-02	0.5808	0.15	EXCEED
3720	TOTAL REDUCED SULFUR			3.46e-03	0.04152	0.5	*
3720	VOLATILE ORGANIC COMPOUNDS			3.75e-02	0.44976	2	*
3723	HYDROFLUORIC ACID	7664-39-3	L	7.80e-04	0.00936	0.5	*
3723	METHYL ALCOHOL	67-56-1	L	3.30e-03	0.0396	0.5	*
3740	1,1,1-TRICHLOROETHANE	71-55-6	L	4.18e-03	0.05016	0.5	*
3745B	1,1,1-TRICHLOROETHANE	71-55-6	L	9.76e-03	0.11712	0.5	*
3745B	CARBON MONOXIDE	630-08-0	G	5.00e-04	0.006	5	*
3745B	DIMETHYLANILINE	121-69-7	L	5.00e-04	0.006	0.5	*
3745B	HYDROFLUORIC ACID	7664-39-3	L	1.00e-03	0.012	0.5	*
3745B	HYDROGEN CHLORIDE	7647-01-0	L	5.00e-04	0.006	0.5	*
3745B	HYDROGEN SULFIDE	7783-06-4	G	5.00e-04	0.006	0.5	*
3745B	METHYL ALCOHOL	67-56-1	L	8.30e-04	0.00996	0.5	*
3745B	TOLUENE	108-88-3	L	1.49e-03	0.01788	0.5	*
3745B	FLUORIDES			2.00e-03	0.024	0.15	*
3745B	TOTAL REDUCED SULFUR			5.00e-04	0.006	0.5	*
3745B	SULFUR OXIDES			5.00e-04	0.006	2	*
3746	VOLATILE ORGANIC COMPOUNDS			1.00e-05	0.00012	2	*
3746A	1,1,1-TRICHLOROETHANE	71-55-6	L	6.97e-03	0.08364	0.5	*
3746A	1,4-DIOXANE	123-91-1	L	5.28e-03	0.06336	0.5	*
3746A	CADMIUM	7440-43-9	S	5.00e-04	0.006	0.005	EXCEED
3746A	CHLOROFORM	67-66-3	L	6.57e-03	0.07884	0.45	*
3746A	FORMALDEHYDE	50-00-0	L	5.64e-03	0.06768	0.5	*
3746A	HYDROFLUORIC ACID	7664-39-3	L	6.20e-04	0.00744	0.5	*
3746A	HYDROGEN CHLORIDE	7647-01-0	L	2.87e-02	0.34452	0.5	*
3746A	METHYL ALCOHOL	67-56-1	L	2.18e-01	2.61336	0.5	EXCEED
3746A	NAPHTHALENE	91-20-3	S	1.10e-03	0.0132	0.5	*
3746A	PHENOL	108-95-2	S	3.85e-03	0.0462	0.1	*
3746A	SULFURIC ACID	7664-93-9	L	2.47e-03	0.02964	0.35	*
3746A	TRIETHYLAMINE	121-44-8	L	8.00e-05	0.00096	0.5	*
3746A	XYLENE	1330-20-7	L	5.28e-02	0.63348	0.5	EXCEED
3746A	FLUORIDES			5.26e-03	0.06312	0.15	*

Table K-1b. PNL Building Inventories Compared to Threshold Values.

BLDG	CHEMICAL NAME	CAS#	FORM	INVENTORY (TONS)	12X INVENTORY (TONS)	THRESHOLD VALUES (TONS)	12X INVENTORY EXCEEDS THRESHOLD VALUE
3746A	TOTAL REDUCED SULFUR			1.10e-04	0.00132	0.5	*
3746A	VOLATILE ORGANIC COMPOUNDS			1.31e-03	0.01572	2	*
622R	METHYL ALCOHOL	67-56-1	L	2.89e-03	0.03468	0.5	*
622R	SULFURIC ACID	7664-93-9	L	2.03e-03	0.02436	0.35	*
6652C	XYLENE	1330-20-7	L	3.75e-03	0.045	0.5	*

Table K-1c. PNL Building Inventories by Room Compared to Threshold Values.

Bldg.	Room	Pollutants	CAS Number	Form	Inventory (tons/yr)	12X Inventory (tons/yr)	Threshold Values (tons/yr)	Release Fraction	12X Inventory Exceeds Threshold Value
306W	160	COBALT	7440-48-4	S	0.0325	0.39	0.1	0.000001	*
306W	164	COBALT	7440-48-4	S	0.0035	0.042	0.1	0.000001	*
306W	150	LEAD	7439-92-1	S	0.0025	0.03	0.005	0.000001	*
306W	150	NICKEL	7440-02-0	S	0.00208	0.02496	0.02	0.000001	*
306W	160	NICKEL	7440-02-0	S	0.16085	1.9302	0.02	0.000001	*
306W	164	NICKEL	7440-02-0	S	0.00263	0.03156	0.02	0.000001	*
314	57	CADMIUM	7440-43-9	S	0.0005	0.006	0.005	0.000001	*
314	42	FLUORIDES		L	0.01094	0.13128	0.15	0.001	*
314	57	FLUORIDES		L	0.0255	0.306	0.15	0.001	*
314	42	HYDROGEN CHLORIDE	7647-01-0	L	0.02404	0.28848	0.5	0.001	*
314	57	HYDROGEN CHLORIDE	7647-01-0	L	0.02292	0.27504	0.5	0.001	*
314	42	LEAD	7439-92-1	S	0.0135	0.162	0.005	0.000001	*
314	57	LEAD	7439-92-1	S	0.0035	0.042	0.005	0.000001	*
318	134	METHYL ALCOHOL	67-56-1	L	0.04187	0.50244	0.5	0.001	*
318	147	METHYL ALCOHOL	67-56-1	L	0.04885	0.5862	0.5	0.001	*
318	149	METHYL ALCOHOL	67-56-1	L	0.11165	1.3398	0.5	0.001	*
320	185	ARSENIC	7440-38-2	S	0.00165	0.0198	0.002	0.000001	*
320	6666	LEAD	7439-92-1	S	0.0005	0.006	0.005	0.000001	*
320	5	METHYL ALCOHOL	67-56-1	L	0.00087	0.01044	0.5	0.001	*
320	7	METHYL ALCOHOL	67-56-1	L	0.00218	0.02616	0.5	0.001	*
320	65	METHYL ALCOHOL	67-56-1	L	0.00523	0.06276	0.5	0.001	*
320	6666	METHYL ALCOHOL	67-56-1	L	0.03325	0.399	0.5	0.001	*
320	138	METHYLENE CHLORIDE	75-09-2	L	0.0321	0.3852	0.5	0.001	*
320	6666	METHYLENE CHLORIDE	75-09-2	L	0.01824	0.21888	0.5	0.001	*
324	208	ARSENIC	7440-38-2	S	0.00055	0.0066	0.002	0.000001	*
324	208	BERYLLIUM	7440-41-7	S	0.00083	0.00996	0.004	0.000001	*
324	208	CADMIUM	7440-43-9	S	0.00083	0.00996	0.005	0.000001	*
324	22	HYDROGEN CHLORIDE	7647-01-0	L	0.0093	0.1116	0.5	0.001	*
324	207	HYDROGEN CHLORIDE	7647-01-0	L	0.04029	0.48348	0.5	0.001	*
324	208	HYDROGEN CHLORIDE	7647-01-0	L	0.00461	0.05532	0.5	0.001	*
324	208	LEAD	7439-92-1	S	0.00478	0.05736	0.005	0.000001	*
324	210	LEAD	7439-92-1	S	0.00165	0.0198	0.005	0.000001	*
324	22	MERCURY	7439-97-6	L	0.00439	0.05268	0.01	0.001	*
324	208	MERCURY	7439-97-6	L	0.00751	0.09012	0.01	0.001	*
324	208	NICKEL	7440-02-0	S	0.00333	0.03996	0.02	0.000001	*
324	210	NICKEL	7440-02-0	S	0.0025	0.03	0.02	0.000001	*
324		SULFURIC ACID	7664-93-9	L	0.00203	0.02436	0.35	0.001	*
324		SULFURIC ACID	7664-93-9	L	0.00551	0.06612	0.35	0.001	*
324	22	SULFURIC ACID	7664-93-9	L	0.0233	0.2796	0.35	0.001	*
324	115	SULFURIC ACID	7664-93-9	L	0.00344	0.04128	0.35	0.001	*
324	207	SULFURIC ACID	7664-93-9	L	0.02533	0.30396	0.35	0.001	*
324	208	SULFURIC ACID	7664-93-9	L	0.0002	0.0024	0.35	0.001	*
325	300	1,1,1-TRICHLOROETHANE	71-55-6	L	0.0007	0.0084	0.5	0.001	*
325	426	1,1,1-TRICHLOROETHANE	71-55-6	L	0.0007	0.0084	0.5	0.001	*
325	517	1,1,1-TRICHLOROETHANE	71-55-6	L	0.00139	0.01668	0.5	0.001	*
325	700	1,1,1-TRICHLOROETHANE	71-55-6	L	0.05305	0.6366	0.5	0.001	*
325	300	ARSENIC	7440-38-2	S	0.00074	0.00888	0.002	0.000001	*
325	517	ARSENIC	7440-38-2	S	0.00063	0.00756	0.002	0.000001	*
325	300	CADMIUM	7440-43-9	S	0.00124	0.01488	0.005	0.000001	*

Table K-1c. PNL Building Inventories by Room Compared to Threshold Values.

Bldg.	Room	Pollutants	CAS Number	Form	Inventory (tons/yr)	12X Inventory (tons/yr)	Threshold Values (tons/yr)	Release Fraction	12X Inventory Exceeds Threshold Value
325	501	CADMIUM	7440-43-9	S	0.0005	0.006	0.005	0.000001	*
325	507	CADMIUM	7440-43-9	S	0.0005	0.006	0.005	0.000001	*
325	517	CADMIUM	7440-43-9	S	0.001	0.012	0.005	0.000001	*
325	56	FLUORIDES		L	0.0015	0.018	0.15	0.001	*
325	95	FLUORIDES		L	0.00314	0.03768	0.15	0.001	*
325	200	FLUORIDES		L	0.00028	0.00336	0.15	0.001	*
325	300	FLUORIDES		L	0.00776	0.09312	0.15	0.001	*
325	305	FLUORIDES		L	0.0035	0.042	0.15	0.001	*
325	316	FLUORIDES		L	0.00165	0.0198	0.15	0.001	*
325	400	FLUORIDES		L	0.00072	0.00864	0.15	0.001	*
325	410	FLUORIDES		L	0.00641	0.07692	0.15	0.001	*
325	419	FLUORIDES		L	0.00055	0.0066	0.15	0.001	*
325	427	FLUORIDES		L	0.00006	0.00072	0.15	0.001	*
325	501	FLUORIDES		L	0.00955	0.1146	0.15	0.001	*
325	507	FLUORIDES		L	0.00951	0.11412	0.15	0.001	*
325	510	FLUORIDES		L	0.0015	0.018	0.15	0.001	*
325	511	FLUORIDES		L	0.00859	0.10308	0.15	0.001	*
325	514	FLUORIDES		L	0.00055	0.0066	0.15	0.001	*
325	516	FLUORIDES		L	0.002	0.024	0.15	0.001	*
325	517	FLUORIDES		L	0.0077	0.0924	0.15	0.001	*
325	524	FLUORIDES		L	0.0033	0.0396	0.15	0.001	*
325	300	HYDRAZINE	302-01-2	L	0.00166	0.01992	0.002	0.001	*
325	48	HYDROGEN CHLORIDE	7647-01-0	L	0.00195	0.0234	0.5	0.001	*
325	56	HYDROGEN CHLORIDE	7647-01-0	L	0.0039	0.0468	0.5	0.001	*
325	95	HYDROGEN CHLORIDE	7647-01-0	L	0.00123	0.01476	0.5	0.001	*
325	200	HYDROGEN CHLORIDE	7647-01-0	L	0.03144	0.37728	0.5	0.001	*
325	300	HYDROGEN CHLORIDE	7647-01-0	L	0.00791	0.09492	0.5	0.001	*
325	306	HYDROGEN CHLORIDE	7647-01-0	L	0.00065	0.0078	0.5	0.001	*
325	309	HYDROGEN CHLORIDE	7647-01-0	L	0.0026	0.0312	0.5	0.001	*
325	312	HYDROGEN CHLORIDE	7647-01-0	L	0.00065	0.0078	0.5	0.001	*
325	317	HYDROGEN CHLORIDE	7647-01-0	L	0.00065	0.0078	0.5	0.001	*
325	330	HYDROGEN CHLORIDE	7647-01-0	L	0.00065	0.0078	0.5	0.001	*
325	405	HYDROGEN CHLORIDE	7647-01-0	L	0.00338	0.04056	0.5	0.001	*
325	410	HYDROGEN CHLORIDE	7647-01-0	L	0.0077	0.0924	0.5	0.001	*
325	419	HYDROGEN CHLORIDE	7647-01-0	L	0.00976	0.11712	0.5	0.001	*
325	422	HYDROGEN CHLORIDE	7647-01-0	L	0.0013	0.0156	0.5	0.001	*
325	426	HYDROGEN CHLORIDE	7647-01-0	L	0.024	0.288	0.5	0.001	*
325	500	HYDROGEN CHLORIDE	7647-01-0	L	0.0026	0.0312	0.5	0.001	*
325	501	HYDROGEN CHLORIDE	7647-01-0	L	0.003	0.036	0.5	0.001	*
325	505	HYDROGEN CHLORIDE	7647-01-0	L	0.00455	0.0546	0.5	0.001	*
325	507	HYDROGEN CHLORIDE	7647-01-0	L	0.0039	0.0468	0.5	0.001	*
325	510	HYDROGEN CHLORIDE	7647-01-0	L	0.0026	0.0312	0.5	0.001	*
325	516	HYDROGEN CHLORIDE	7647-01-0	L	0.00329	0.03948	0.5	0.001	*
325	517	HYDROGEN CHLORIDE	7647-01-0	L	0.0025	0.03	0.5	0.001	*
325	525	HYDROGEN CHLORIDE	7647-01-0	L	0.00715	0.0858	0.5	0.001	*
325	300	LEAD	7439-92-1	S	0.00578	0.06936	0.005	0.000001	*
325	510	LEAD	7439-92-1	S	0.001	0.012	0.005	0.000001	*

Table K-1c. PNL Building Inventories by Room Compared to Threshold Values.

Bldg.	Room	Pollutants	CAS Number	Form	Inventory (tons/yr)	12X Inventory (tons/yr)	Threshold Values (tons/yr)	Release Fraction	12X Inventory Exceeds Threshold Value
325	517	LEAD	7439-92-1	S	0.0005	0.006	0.005	0.000001	*
325	300	MERCURY	7439-97-6	L	0.00149	0.01788	0.01	0.001	*
325	410	MERCURY	7439-97-6	L	0.0025	0.03	0.01	0.001	*
325	419	MERCURY	7439-97-6	L	0.00045	0.0054	0.01	0.001	*
325	510	MERCURY	7439-97-6	L	0.0025	0.03	0.01	0.001	*
325		METHYL ALCOHOL	67-56-1	L	0.0157	0.1884	0.5	0.001	*
325	200	METHYL ALCOHOL	67-56-1	L	0.00248	0.02976	0.5	0.001	*
325	300	METHYL ALCOHOL	67-56-1	L	0.00259	0.03108	0.5	0.001	*
325	306	METHYL ALCOHOL	67-56-1	L	0.00349	0.04188	0.5	0.001	*
325	308	METHYL ALCOHOL	67-56-1	L	0.00698	0.08376	0.5	0.001	*
325	312	METHYL ALCOHOL	67-56-1	L	0.00087	0.01044	0.5	0.001	*
325	327	METHYL ALCOHOL	67-56-1	L	0.03489	0.41868	0.5	0.001	*
325	405	METHYL ALCOHOL	67-56-1	L	0.00041	0.00492	0.5	0.001	*
325	410	METHYL ALCOHOL	67-56-1	L	0.00041	0.00492	0.5	0.001	*
325	416	METHYL ALCOHOL	67-56-1	L	0.00041	0.00492	0.5	0.001	*
325	426	METHYL ALCOHOL	67-56-1	L	0.0048	0.0576	0.5	0.001	*
325	517	METHYL ALCOHOL	67-56-1	L	0.00436	0.05232	0.5	0.001	*
325	524	METHYL ALCOHOL	67-56-1	L	0.00044	0.00528	0.5	0.001	*
325	700	METHYL ALCOHOL	67-56-1	L	0.01744	0.20928	0.5	0.001	*
325	702	METHYL ALCOHOL	67-56-1	L	0.00349	0.04188	0.5	0.001	*
325	306	METHYLENE CHLORIDE	75-09-2	L	0.00584	0.07008	0.5	0.001	*
325	308	METHYLENE CHLORIDE	75-09-2	L	0.07004	0.84048	0.5	0.001	*
325	700	METHYLENE CHLORIDE	75-09-2	L	0.01167	0.14004	0.5	0.001	*
325	702	METHYLENE CHLORIDE	75-09-2	L	0.03502	0.42024	0.5	0.001	*
325	300	NICKEL	7440-02-0	S	0.0011	0.0132	0.02	0.000001	*
325	501	NICKEL	7440-02-0	S	0.00012	0.00144	0.02	0.000001	*
325	505	NICKEL	7440-02-0	S	0.00061	0.00732	0.02	0.000001	*
325	507	NICKEL	7440-02-0	S	0.00003	0.00036	0.02	0.000001	*
325	517	NICKEL	7440-02-0	S	0.00028	0.00336	0.02	0.000001	*
325	300	QUINOLINE	91-22-5	S	0.00052	0.00624	0.003	0.000001	*
325	48	SULFURIC ACID	7664-93-9	L	0.00101	0.01212	0.35	0.001	*
325	56	SULFURIC ACID	7664-93-9	L	0.01013	0.12156	0.35	0.001	*
325	200	SULFURIC ACID	7664-93-9	L	0.01824	0.21888	0.35	0.001	*
325	300	SULFURIC ACID	7664-93-9	L	0.00551	0.06612	0.35	0.001	*
325	305	SULFURIC ACID	7664-93-9	L	0.0045	0.054	0.35	0.001	*
325	306	SULFURIC ACID	7664-93-9	L	0.004	0.048	0.35	0.001	*
325	309	SULFURIC ACID	7664-93-9	L	0.0045	0.054	0.35	0.001	*
325	316	SULFURIC ACID	7664-93-9	L	0.0045	0.054	0.35	0.001	*
325	400	SULFURIC ACID	7664-93-9	L	0.00101	0.01212	0.35	0.001	*
325	406	SULFURIC ACID	7664-93-9	L	0.00101	0.01212	0.35	0.001	*
325	416	SULFURIC ACID	7664-93-9	L	0.00479	0.05748	0.35	0.001	*
325	419	SULFURIC ACID	7664-93-9	L	0.00912	0.10944	0.35	0.001	*
325	426	SULFURIC ACID	7664-93-9	L	0.009	0.108	0.35	0.001	*
325	500	SULFURIC ACID	7664-93-9	L	0.0045	0.054	0.35	0.001	*
325	501	SULFURIC ACID	7664-93-9	L	0.0045	0.054	0.35	0.001	*
325	510	SULFURIC ACID	7664-93-9	L	0.01621	0.19452	0.35	0.001	*
325	516	SULFURIC ACID	7664-93-9	L	0.0035	0.042	0.35	0.001	*
325	517	SULFURIC ACID	7664-93-9	L	0.0045	0.054	0.35	0.001	*
325	528	SULFURIC ACID	7664-93-9	L	0.0045	0.054	0.35	0.001	*

Table K-1c. PNL Building Inventories by Room Compared to Threshold Values.

Bldg.	Room	Pollutants	CAS Number	Form	Inventory (tons/yr)	12X Inventory (tons/yr)	Threshold Values (tons/yr)	Release Fraction	12X Inventory Exceeds Threshold Value
326		ACRYLAMIDE	79-06-1	S	0.00011	0.00132	0.01	0.000001	*
326		ACRYLAMIDE	79-06-1	S	0.00121	0.01452	0.01	0.000001	*
326		CADMIUM	7440-43-9	S	0.0005	0.006	0.005	0.000001	*
326		CHLOROFORM	67-66-3	L	0.00657	0.07884	0.45	0.001	*
326		CHLOROFORM	67-66-3	L	0.01315	0.1578	0.45	0.001	*
326		CHLOROFORM	67-66-3	L	0.02629	0.31548	0.45	0.001	*
326		FLUORIDES		L	0.00011	0.00132	0.15	0.001	*
326		FLUORIDES		L	0.00024	0.00288	0.15	0.001	*
326		FLUORIDES		L	0.0005	0.006	0.15	0.001	*
326	26-A	FLUORIDES		G	0.0195	0.234	0.15	1	EXCEEDS
326		LEAD	7439-92-1	S	0.001	0.012	0.005	0.000001	*
326		LEAD	7439-92-1	S	0.002	0.024	0.005	0.000001	*
326		MERCURY	7439-97-6	L	0.0011	0.0132	0.01	0.001	*
326		NICKEL	7440-02-0	S	0.0005	0.006	0.02	0.000001	*
326		NICKEL	7440-02-0	S	0.00417	0.05004	0.02	0.000001	*
329		ACETONITRILE	75-05-8	L	0.00346	0.04152	0.5	0.001	*
329		ACETONITRILE	75-05-8	L	0.00655	0.0786	0.5	0.001	*
329		ACETONITRILE	75-05-8	L	0.00659	0.07908	0.5	0.001	*
329		ACETONITRILE	75-05-8	L	0.03752	0.45024	0.5	0.001	*
329		ARSENIC	7440-38-2	S	0.00051	0.00612	0.002	0.000001	*
329		ARSENIC	7440-38-2	S	0.00055	0.0066	0.002	0.000001	*
329	121	ASBESTOS	1332-21-4	S	0.00013	0.00156	0.00004	0.000001	*
329		CHLOROFORM	67-66-3	L	0.04353	0.52236	0.45	0.001	*
329		HEXACHLOROBENZENE	118-74-1	S	0.00055	0.0066	0.005	0.000001	*
329		HYDROGEN CHLORIDE	7647-01-0	L	0.003	0.036	0.5	0.001	*
329		HYDROGEN CHLORIDE	7647-01-0	L	0.0035	0.042	0.5	0.001	*
329		HYDROGEN CHLORIDE	7647-01-0	L	0.006	0.072	0.5	0.001	*
329		HYDROGEN CHLORIDE	7647-01-0	L	0.0078	0.0936	0.5	0.001	*
329		HYDROGEN CHLORIDE	7647-01-0	L	0.008	0.096	0.5	0.001	*
329		HYDROGEN CHLORIDE	7647-01-0	L	0.00964	0.11568	0.5	0.001	*
329		HYDROGEN CHLORIDE	7647-01-0	L	0.06425	0.771	0.5	0.001	*
329	121	HYDROGEN CHLORIDE	7647-01-0	L	0.0077	0.0924	0.5	0.001	*
329		LEAD	7439-92-1	S	0.00055	0.0066	0.005	0.000001	*
329		LEAD	7439-92-1	S	0.0011	0.0132	0.005	0.000001	*
329		LEAD	7439-92-1	S	0.00512	0.06144	0.005	0.000001	*
329		LEAD	7439-92-1	S	0.035	0.42	0.005	0.000001	*
329		MERCURY	7439-97-6	L	0.00746	0.08952	0.01	0.001	*
329		METHYLENE CHLORIDE	75-09-2	L	0.00552	0.06624	0.5	0.001	*
329		METHYLENE CHLORIDE	75-09-2	L	0.02303	0.27636	0.5	0.001	*
329		METHYLENE CHLORIDE	75-09-2	L	0.02335	0.2802	0.5	0.001	*
329		NICKEL	7440-02-0	S	0.00002	0.00024	0.02	0.000001	*
329		NICKEL	7440-02-0	S	0.00057	0.00684	0.02	0.000001	*
329		NICKEL	7440-02-0	S	0.003	0.036	0.02	0.000001	*

Table K-1c. PNL Building Inventories by Room Compared to Threshold Values.

Bldg.	Room	Pollutants	CAS Number	Form	Inventory (tons/yr)	12X Inventory (tons/yr)	Threshold Values (tons/yr)	Release Fraction	12X Inventory Exceeds Threshold Value
329		SULFURIC ACID	7664-93-9	L	0.00101	0.01212	0.35	0.001	*
329		SULFURIC ACID	7664-93-9	L	0.0045	0.054	0.35	0.001	*
329		SULFURIC ACID	7664-93-9	L	0.00891	0.10692	0.35	0.001	*
329		SULFURIC ACID	7664-93-9	L	0.009	0.108	0.35	0.001	*
329		SULFURIC ACID	7664-93-9	L	0.0135	0.162	0.35	0.001	*
329		SULFURIC ACID	7664-93-9	L	0.05936	0.71232	0.35	0.001	*
331		ACETONITRILE	75-05-8	L	0.00346	0.04152	0.5	0.001	*
331		ACETONITRILE	75-05-8	L	0.00865	0.1038	0.5	0.001	*
331		ACETONITRILE	75-05-8	L	0.03115	0.3738	0.5	0.001	*
331	102	ACETONITRILE	75-05-8	L	0.02077	0.24924	0.5	0.001	*
331	116	ACETONITRILE	75-05-8	L	0.00346	0.04152	0.5	0.001	*
331	164	ACETONITRILE	75-05-8	L	0.01384	0.16608	0.5	0.001	*
331	304	ACETONITRILE	75-05-8	L	0.03469	0.41628	0.5	0.001	*
331	305	ACETONITRILE	75-05-8	L	0.00692	0.08304	0.5	0.001	*
331	308	ACETONITRILE	75-05-8	L	0.13481	1.61772	0.5	0.001	*
331	312	ACETONITRILE	75-05-8	L	0.00013	0.00156	0.5	0.001	*
331	350	ACETONITRILE	75-05-8	L	0.00029	0.00348	0.5	0.001	*
331	354	ACETONITRILE	75-05-8	L	0.00263	0.03156	0.5	0.001	*
331	6666	ACETONITRILE	75-05-8	L	0.01242	0.14904	0.5	0.001	*
331	304	ACRYLAMIDE	79-06-1	S	0.00402	0.04824	0.01	0.000001	*
331	305	ACRYLAMIDE	79-06-1	S	0.00165	0.0198	0.01	0.000001	*
331	316	ACRYLAMIDE	79-06-1	S	0.00055	0.0066	0.01	0.000001	*
331	354	ACRYLAMIDE	79-06-1	S	0.00165	0.0198	0.01	0.000001	*
331	357	ACRYLAMIDE	79-06-1	S	0.0011	0.0132	0.01	0.000001	*
331		CHLOROFORM	67-66-3	L	0.00078	0.00936	0.45	0.001	*
331	116	CHLOROFORM	67-66-3	L	0.00164	0.01968	0.45	0.001	*
331	175	CHLOROFORM	67-66-3	L	0.00078	0.00936	0.45	0.001	*
331	304	CHLOROFORM	67-66-3	L	0.00986	0.11832	0.45	0.001	*
331	308	CHLOROFORM	67-66-3	L	0.01392	0.16704	0.45	0.001	*
331	309	CHLOROFORM	67-66-3	L	0.00074	0.00888	0.45	0.001	*
331	312	CHLOROFORM	67-66-3	L	0.00164	0.01968	0.45	0.001	*
331	350	CHLOROFORM	67-66-3	L	0.00041	0.00492	0.45	0.001	*
331	354	CHLOROFORM	67-66-3	L	0.00657	0.07884	0.45	0.001	*
331	359	CHLOROFORM	67-66-3	L	0.01865	0.2238	0.45	0.001	*
331	365	CHLOROFORM	67-66-3	L	0.00082	0.00984	0.45	0.001	*
331	6666	CHLOROFORM	67-66-3	L	0.00311	0.03732	0.45	0.001	*
331		HYDROGEN CHLORIDE	7647-01-0	L	0.00599	0.07188	0.5	0.001	*
331	102	HYDROGEN CHLORIDE	7647-01-0	L	0.003	0.036	0.5	0.001	*
331	146	HYDROGEN CHLORIDE	7647-01-0	L	0.00065	0.0078	0.5	0.001	*
331	158	HYDROGEN CHLORIDE	7647-01-0	L	0.0026	0.0312	0.5	0.001	*
331	164	HYDROGEN CHLORIDE	7647-01-0	L	0.0013	0.0156	0.5	0.001	*
331	175	HYDROGEN CHLORIDE	7647-01-0	L	0.003	0.036	0.5	0.001	*
331	304	HYDROGEN CHLORIDE	7647-01-0	L	0.0026	0.0312	0.5	0.001	*
331	308	HYDROGEN CHLORIDE	7647-01-0	L	0.0039	0.0468	0.5	0.001	*
331	312	HYDROGEN CHLORIDE	7647-01-0	L	0.003	0.036	0.5	0.001	*
331	357	HYDROGEN CHLORIDE	7647-01-0	L	0.0011	0.0132	0.5	0.001	*
331	359	HYDROGEN CHLORIDE	7647-01-0	L	0.00039	0.00468	0.5	0.001	*
331	365	HYDROGEN CHLORIDE	7647-01-0	L	0.00195	0.0234	0.5	0.001	*

Table K-1c. PNL Building Inventories by Room Compared to Threshold Values.

Bldg.	Room	Pollutants	CAS Number	Form	Inventory (tons/yr)	12X Inventory (tons/yr)	Threshold Values (tons/yr)	Release Fraction	12X Inventory Exceeds Threshold Value
331	6666	HYDROGEN CHLORIDE	7647-01-0	L	0.0172	0.2064	0.5	0.001	*
331		METHYL ALCOHOL	67-56-1	L	0.00349	0.04188	0.5	0.001	*
331		METHYL ALCOHOL	67-56-1	L	0.01321	0.15852	0.5	0.001	*
331		METHYL ALCOHOL	67-56-1	L	0.01822	0.21864	0.5	0.001	*
331	102	METHYL ALCOHOL	67-56-1	L	0.0109	0.1308	0.5	0.001	*
331	103	METHYL ALCOHOL	67-56-1	L	0.00349	0.04188	0.5	0.001	*
331	112	METHYL ALCOHOL	67-56-1	L	0.00523	0.06276	0.5	0.001	*
331	116	METHYL ALCOHOL	67-56-1	L	0.01396	0.16752	0.5	0.001	*
331	164	METHYL ALCOHOL	67-56-1	L	0.01396	0.16752	0.5	0.001	*
331	304	METHYL ALCOHOL	67-56-1	L	0.01483	0.17796	0.5	0.001	*
331	305	METHYL ALCOHOL	67-56-1	L	0.00044	0.00528	0.5	0.001	*
331	308	METHYL ALCOHOL	67-56-1	L	0.02442	0.29304	0.5	0.001	*
331	309	METHYL ALCOHOL	67-56-1	L	0.00523	0.06276	0.5	0.001	*
331	312	METHYL ALCOHOL	67-56-1	L	0.00044	0.00528	0.5	0.001	*
331	317	METHYL ALCOHOL	67-56-1	L	0.02093	0.25116	0.5	0.001	*
331	357	METHYL ALCOHOL	67-56-1	L	0.0075	0.09	0.5	0.001	*
331	359	METHYL ALCOHOL	67-56-1	L	0.00041	0.00492	0.5	0.001	*
331	365	METHYL ALCOHOL	67-56-1	L	0.00262	0.03144	0.5	0.001	*
331	6666	METHYL ALCOHOL	67-56-1	L	0.01614	0.19368	0.5	0.001	*
331		METHYL ISOBUTYL KETONE	108-10-1	L	0.00706	0.08472	0.1	0.001	*
331	6666	METHYL ISOBUTYL KETONE	108-10-1	L	0.00265	0.0318	0.1	0.001	*
331		METHYLENE CHLORIDE	75-09-2	L	0.00146	0.01752	0.5	0.001	*
331		METHYLENE CHLORIDE	75-09-2	L	0.00584	0.07008	0.5	0.001	*
331	304	METHYLENE CHLORIDE	75-09-2	L	0.02043	0.24516	0.5	0.001	*
331	308	METHYLENE CHLORIDE	75-09-2	L	0.02335	0.2802	0.5	0.001	*
331	357	METHYLENE CHLORIDE	75-09-2	L	0.00584	0.07008	0.5	0.001	*
331		PHENOL	108-95-2	S	0.00055	0.0066	0.1	0.000001	*
331	5	PHENOL	108-95-2	S	0.0022	0.0264	0.1	0.000001	*
331	305	PHENOL	108-95-2	S	0.00143	0.01716	0.1	0.000001	*
331	308	PHENOL	108-95-2	S	0.00176	0.02112	0.1	0.000001	*
331	312	PHENOL	108-95-2	S	0.0022	0.0264	0.1	0.000001	*
331	316	PHENOL	108-95-2	S	0.00011	0.00132	0.1	0.000001	*
331	350	PHENOL	108-95-2	S	0.00028	0.00336	0.1	0.000001	*
331	354	PHENOL	108-95-2	S	0.00022	0.00264	0.1	0.000001	*
331	357	PHENOL	108-95-2	S	0.0005	0.006	0.1	0.000001	*
331		SULFURIC ACID	7664-93-9	L	0.0225	0.27	0.35	0.001	*
331	102	SULFURIC ACID	7664-93-9	L	0.01261	0.15132	0.35	0.001	*
331	116	SULFURIC ACID	7664-93-9	L	0.00405	0.0486	0.35	0.001	*
331	158	SULFURIC ACID	7664-93-9	L	0.00904	0.10848	0.35	0.001	*
331	164	SULFURIC ACID	7664-93-9	L	0.0045	0.054	0.35	0.001	*
331	304	SULFURIC ACID	7664-93-9	L	0.02432	0.29184	0.35	0.001	*
331	308	SULFURIC ACID	7664-93-9	L	0.00619	0.07428	0.35	0.001	*
331	357	SULFURIC ACID	7664-93-9	L	0.00041	0.00492	0.35	0.001	*
331	365	SULFURIC ACID	7664-93-9	L	0.00608	0.07296	0.35	0.001	*
331	6666	SULFURIC ACID	7664-93-9	L	0.02026	0.24312	0.35	0.001	*
331		XYLENE	1330-20-7	L	0.00062	0.00744	0.5	0.001	*
331	9	XYLENE	1330-20-7	L	0.00062	0.00744	0.5	0.001	*

Table K-1c. PNL Building Inventories by Room Compared to Threshold Values.

Bldg.	Room	Pollutants	CAS Number	Form	Inventory (tons/yr)	12X Inventory (tons/yr)	Threshold Values (tons/yr)	Release Fraction	12X Inventory Exceeds Threshold Value
331	114	XYLENE	1330-20-7	L	0.00499	0.05988	0.5	0.001	*
331	151	XYLENE	1330-20-7	L	0.00187	0.02244	0.5	0.001	*
331	302	XYLENE	1330-20-7	L	0.00062	0.00744	0.5	0.001	*
331	309	XYLENE	1330-20-7	L	0.00066	0.00792	0.5	0.001	*
331	356	XYLENE	1330-20-7	L	0.03996	0.47952	0.5	0.001	*
331H	100	METHYL ALCOHOL	67-56-1	L	0.03214	0.38568	0.5	0.001	*
331H	103	METHYL ALCOHOL	67-56-1	L	0.13206	1.58472	0.5	0.001	*
3708	111	CADMIUM	7440-43-9	S	0.00014	0.00168	0.005	0.000001	*
3708	116	CADMIUM	7440-43-9	S	0.0005	0.006	0.005	0.000001	*
3708	111	LEAD	7439-92-1	S	0.00014	0.00168	0.005	0.000001	*
3708	116	LEAD	7439-92-1	S	0.00033	0.00396	0.005	0.000001	*
3708	111	MERCURY	7439-97-6	L	0.00194	0.02328	0.01	0.001	*
3718G	1	ETHYLENE GLYCOL	107-21-1	L	1.03535	12.4242	0.5	0.001	*
3718G	1	FLUORIDES		L	0.091	1.092	0.15	0.001	*
3720	512	3,3'-DIMETHYL BENZIDINE	119-93-7	S	0.00055	0.0066	0.004	0.000001	*
3720	508	4,4'-BIPHENYLENEDIAMINE	92-87-5	S	0.00013	0.00156	0.00015	0.000001	*
3720	210	ARSENIC	7440-38-2	S	0.00022	0.00264	0.002	0.000001	*
3720	210	CADMIUM	7440-43-9	S	0.00011	0.00132	0.005	0.000001	*
3720	233	CADMIUM	7440-43-9	S	0.00055	0.0066	0.005	0.000001	*
3720	237	CADMIUM	7440-43-9	S	0.00011	0.00132	0.005	0.000001	*
3720	508	CADMIUM	7440-43-9	S	0.0005	0.006	0.005	0.000001	*
3720	602	CADMIUM	7440-43-9	S	0.00028	0.00336	0.005	0.000001	*
3720	2	FLUORIDES		L	0.00483	0.05796	0.15	0.001	*
3720	10	FLUORIDES		L	0.0005	0.006	0.15	0.001	*
3720	105	FLUORIDES		L	0.00283	0.03396	0.15	0.001	*
3720	206	FLUORIDES		L	0.00077	0.00924	0.15	0.001	*
3720	210	FLUORIDES		L	0.00151	0.01812	0.15	0.001	*
3720	237	FLUORIDES		L	0.00055	0.0066	0.15	0.001	*
3720	508	FLUORIDES		L	0.01029	0.12348	0.15	0.001	*
3720	512	FLUORIDES		L	0.00036	0.00432	0.15	0.001	*
3720	603	FLUORIDES		L	0.0005	0.006	0.15	0.001	*
3720	6666	FLUORIDES		L	0.02627	0.31524	0.15	0.001	*
3720	2	HYDROGEN CHLORIDE	7647-01-0	L	0.0026	0.0312	0.5	0.001	*
3720	3	HYDROGEN CHLORIDE	7647-01-0	L	0.0013	0.0156	0.5	0.001	*
3720	7	HYDROGEN CHLORIDE	7647-01-0	L	0.0033	0.0396	0.5	0.001	*
3720	11	HYDROGEN CHLORIDE	7647-01-0	L	0.0052	0.0624	0.5	0.001	*
3720	12	HYDROGEN CHLORIDE	7647-01-0	L	0.0052	0.0624	0.5	0.001	*
3720	109	HYDROGEN CHLORIDE	7647-01-0	L	0.00665	0.0798	0.5	0.001	*
3720	201	HYDROGEN CHLORIDE	7647-01-0	L	0.00588	0.07056	0.5	0.001	*
3720	210	HYDROGEN CHLORIDE	7647-01-0	L	0.0052	0.0624	0.5	0.001	*
3720	237	HYDROGEN CHLORIDE	7647-01-0	L	0.0172	0.2064	0.5	0.001	*
3720	322	HYDROGEN CHLORIDE	7647-01-0	L	0.0013	0.0156	0.5	0.001	*
3720	7	LEAD	7439-92-1	S	0.00052	0.00624	0.005	0.000001	*
3720	105	LEAD	7439-92-1	S	0.00078	0.00936	0.005	0.000001	*
3720	210	LEAD	7439-92-1	S	0.00017	0.00204	0.005	0.000001	*
3720	233	LEAD	7439-92-1	S	0.00052	0.00624	0.005	0.000001	*

Table K-1c. PNL Building Inventories by Room Compared to Threshold Values.

Bldg.	Room	Pollutants	CAS Number	Form	Inventory (tons/yr)	12X Inventory (tons/yr)	Threshold Values (tons/yr)	Release Fraction	12X Inventory Exceeds Threshold Value
3720	508	LEAD	7439-92-1	S	0.0035	0.042	0.005	0.000001	*
3720	602	LEAD	7439-92-1	S	0.00053	0.00636	0.005	0.000001	*
3720	237	MERCURIC CHLORIDE	7487-94-7	S	0.00011	0.00132	0.01	0.000001	*
3720	508	MERCURIC CHLORIDE	7487-94-7	S	0.00101	0.01212	0.01	0.000001	*
3720	210	MERCURY	7439-97-6	L	0.00597	0.07164	0.01	0.001	*
3720	508	MERCURY	7439-97-6	L	0.026	0.312	0.01	0.001	*
3720	302	METHYLENE CHLORIDE	75-09-2	L	0.02335	0.2802	0.5	0.001	*
3720	512	METHYLENE CHLORIDE	75-09-2	L	0.02043	0.24516	0.5	0.001	*
3720	602	METHYLENE CHLORIDE	75-09-2	L	0.00069	0.00828	0.5	0.001	*
3720	603	METHYLENE CHLORIDE	75-09-2	L	0.00069	0.00828	0.5	0.001	*
3720	210	NICKEL	7440-02-0	S	0.00011	0.00132	0.02	0.000001	*
3720	237	NICKEL	7440-02-0	S	0.00011	0.00132	0.02	0.000001	*
3720	508	NICKEL	7440-02-0	S	0.00165	0.0198	0.02	0.000001	*
3720	602	NICKEL	7440-02-0	S	0.00006	0.00072	0.02	0.000001	*
3720	512	QUINOLINE	91-22-5	S	0.00104	0.01248	0.003	0.000001	*
3720	2	SULFURIC ACID	7664-93-9	L	0.02124	0.25488	0.35	0.001	*
3720	7	SULFURIC ACID	7664-93-9	L	0.01419	0.17028	0.35	0.001	*
3720	109	SULFURIC ACID	7664-93-9	L	0.0075	0.09	0.35	0.001	*
3720	201	SULFURIC ACID	7664-93-9	L	0.00111	0.01332	0.35	0.001	*
3720	206	SULFURIC ACID	7664-93-9	L	0.0015	0.018	0.35	0.001	*
3720	237	SULFURIC ACID	7664-93-9	L	0.009	0.108	0.35	0.001	*
3720	501	SULFURIC ACID	7664-93-9	L	0.00405	0.0486	0.35	0.001	*
3720	603	SULFURIC ACID	7664-93-9	L	0.0045	0.054	0.35	0.001	*
3720	604	SULFURIC ACID	7664-93-9	L	0.01013	0.12156	0.35	0.001	*
3746A		CADMIUM	7440-43-9	S	0.0005	0.006	0.005	0.000001	*
3746A		METHYL ALCOHOL	67-56-1	L	0.01875	0.225	0.5	0.001	*
3746A		METHYL ALCOHOL	67-56-1	L	0.18158	2.17896	0.5	0.001	*
3746A	13	METHYL ALCOHOL	67-56-1	L	0.01396	0.16752	0.5	0.001	*
3746A	16	METHYL ALCOHOL	67-56-1	L	0.00349	0.04188	0.5	0.001	*
3746A	16	XYLENE	1330-20-7	L	0.05279	0.63348	0.5	0.001	*

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
100K N-1706KEL 001	Hexane, n-hexane	110-54-3	5.00E-01	7.51E-03
100K N-1717K 001	1,1,1-Trichloroethylene	71-55-6	5.0E-01	3.2E-01
100K N-1717K 001	1,2-Butylene oxide	106-88-7	5.0E-01	1.7E-02
100K N-1717K 001	Butyl alcohol, tert	75-65-0	5.0E-01	1.7E-02
100K N-1717K 001	Dimethoxymethane	109-87-5	1.7E-02	
100K N-1717K 001	Isopropyl alcohol	67-63-0	5.0E-01	1.7E-02
100K N-1717K 001	Methyl alcohol	67-56-1	5.0E-01	2.7E-04
100K N-1717K 001	Methylene chloride	75-9-2	5.0E-01	1.2E-02
100N M-105N 001	PM < 10		7.5E-01	1.0E-02
100N N-1516N 017	PM < 10		7.5E-01	5.2E-01
200E P-241A101 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241A101 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241A101 001	2-Pentanone	107-87-9		5.51E-05
200E P-241A101 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241A101 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241A101 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241A101 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241A101 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241A101 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241A101 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241A101 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241A101 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241A101 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241A101 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241A101 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241A101 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241A102 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241A102 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241A102 001	2-Pentanone	107-87-9		1.19E-04
200E P-241A102 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241A102 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241A102 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241A102 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241A102 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241A102 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241A102 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241A102 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241A102 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241A102 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241A102 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241A102 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241A102 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241A103 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241A103 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241A103 001	2-Pentanone	107-87-9		1.19E-04
200E P-241A103 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241A103 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241A103 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241A103 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241A103 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241A103 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241A103 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241A103 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241A103 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241A103 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241A103 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241A103 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241A103 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241A104 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241A104 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241A104 001	2-Pentanone	107-87-9		5.51E-05
200E P-241A104 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241A104 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241A104 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241A104 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241A104 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241A104 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241A104 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241A104 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241A104 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241A104 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241A104 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241A104 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241A104 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241A106 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241A106 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241A106 001	2-Pentanone	107-87-9		1.19E-04
200E P-241A106 001	Acetone	67-64-1	5.00E-01	1.43E-03

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241A106 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241A106 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241A106 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241A106 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241A106 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241A106 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241A106 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241A106 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241A106 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241A106 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241A106 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241A106 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241AX101 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241AX101 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241AX101 001	2-Pentanone		107-87-9	1.19E-04
200E P-241AX101 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241AX101 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241AX101 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241AX101 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241AX101 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241AX101 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241AX101 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241AX101 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241AX101 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241AX101 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241AX101 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241AX101 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241AX101 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241AX102 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241AX102 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241AX102 001	2-Pentanone	107-87-9		1.51E-05
200E P-241AX102 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241AX102 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241AX102 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241AX102 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241AX102 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241AX102 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241AX102 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241AX102 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241AX102 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241AX102 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241AX102 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241AX102 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241AX102 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241AX103 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241AX103 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241AX103 001	2-Pentanone	107-87-9		1.19E-04
200E P-241AX103 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241AX103 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241AX103 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241AX103 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241AX103 001	Carbon monoxide	630-8-0	5.00E+00	9.05E-04
200E P-241AX103 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241AX103 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241AX103 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241AX103 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241AX103 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241AX103 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241AX103 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241AX103 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241AX104 001	1,3-Butadiene	106-99-0	3.50E-02	1.19E-06
200E P-241AX104 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241AX104 001	2-Pentanone	107-87-9		5.51E-05
200E P-241AX104 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241AX104 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241AX104 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241AX104 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241AX104 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241AX104 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241AX104 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241AX104 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241AX104 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241AX104 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241AX104 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241AX104 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241AX104 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241B101 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241B101 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241B101 001	2-Pentanone	107-87-9		1.19E-04
200E P-241B101 001	Acetone	67-64-1	5.00E-01	1.43E-03

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241B101 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241B101 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241B101 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241B101 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241B101 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241B101 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241B101 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241B101 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241B101 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241B101 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241B101 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241B101 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241B102 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241B102 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241B102 001	2-Pentanone	107-87-9		1.19E-04
200E P-241B102 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241B102 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241B102 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241B102 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241B102 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241B102 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241B102 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241B102 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241B102 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241B102 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241B102 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241B102 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241B102 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241B103 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241B103 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241B103 001	2-Pentanone	107-87-9		1.19E-04
200E P-241B103 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241B103 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241B103 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241B103 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241B103 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241B103 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241B103 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241B103 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241B103 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241B103 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241B103 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241B103 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241B103 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241B104 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241B104 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241B104 001	2-Pentanone	107-87-9		5.51E-05
200E P-241B104 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241B104 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241B104 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241B104 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241B104 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241B104 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241B104 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241B104 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241B104 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241B104 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241B104 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241B104 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241B104 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241B105 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241B105 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241B105 001	2-Pentanone	107-87-9		5.51E-05
200E P-241B105 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241B105 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241B105 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241B105 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241B105 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241B105 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241B105 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241B105 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241B105 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241B105 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241B105 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241B105 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241B105 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241B106 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241B106 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241B106 001	2-Pentanone	107-87-9		1.19E-04
200E P-241B106 001	Acetone	67-64-1	5.00E-01	1.43E-03

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241B106 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241B106 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241B106 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241B106 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241B106 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241B106 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241B106 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241B106 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241B106 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241B106 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241B106 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241B106 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241B107 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241B107 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241B107 001	2-Pentanone	107-87-9		5.51E-05
200E P-241B107 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241B107 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241B107 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241B107 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241B107 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241B107 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241B107 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241B107 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241B107 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241B107 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241B107 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241B107 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241B107 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241B108 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241B108 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241B108 001	2-Pentanone	107-87-9		1.19E-04
200E P-241B108 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241B108 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241B108 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241B108 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241B108 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241B108 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241B108 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241B108 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241B108 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241B108 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241B108 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241B108 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241B108 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241B109 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241B109 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241B109 001	2-Pentanone	107-87-9		5.51E-05
200E P-241B109 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241B109 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241B109 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241B109 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241B109 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241B109 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241B109 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241B109 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241B109 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241B109 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241B109 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241B109 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241B109 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241B110 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241B110 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241B110 001	2-Pentanone	107-87-9		5.51E-05
200E P-241B110 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241B110 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241B110 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241B110 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241B110 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241B110 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241B110 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241B110 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241B110 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241B110 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241B110 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241B110 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241B110 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241B111 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241B111 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241B111 001	2-Pentanone	107-87-9		1.19E-04
200E P-241B111 001	Acetone	67-64-1	5.00E-01	1.43E-03

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241B111 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241B111 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241B111 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241B111 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241B111 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241B111 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241B111 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241B111 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241B111 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241B111 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241B111 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241B111 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241B112 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241B112 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241B112 001	2-Pentanone	107-87-9		1.19E-04
200E P-241B112 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241B112 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241B112 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241B112 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241B112 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241B112 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241B112 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241B112 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241B112 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241B112 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241B112 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241B112 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241B112 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241B201 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241B201 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241B201 001	2-Pentanone	107-87-9		5.51E-05
200E P-241B201 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241B201 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241B201 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241B201 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241B201 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241B201 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241B201 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241B201 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241B201 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241B201 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241B201 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241B201 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241B201 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241B202 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241B202 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241B202 001	2-Pentanone	107-87-9		5.51E-05
200E P-241B202 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241B202 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241B202 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241B202 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241B202 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241B202 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241B202 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241B202 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241B202 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241B202 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241B202 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241B202 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241B202 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241B203 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241B203 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241B203 001	2-Pentanone	107-87-9		5.51E-05
200E P-241B203 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241B203 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241B203 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241B203 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241B203 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241B203 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241B203 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241B203 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241B203 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241B203 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241B203 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241B203 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241B203 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241B204 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241B204 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241B204 001	2-Pentanone	107-87-9		5.51E-05
200E P-241B204 001	Acetone	67-64-1	5.00E-01	6.62E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241B204 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241B204 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241B204 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241B204 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241B204 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241B204 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241B204 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241B204 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241B204 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241B204 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241B204 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241B204 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BX101 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241BX101 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BX101 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BX101 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241BX101 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BX101 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BX101 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241BX101 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BX101 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BX101 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241BX101 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BX101 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BX101 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241BX101 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BX101 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BX101 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BX102 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241BX102 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BX102 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BX102 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241BX102 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BX102 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BX102 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241BX102 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BX102 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BX102 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241BX102 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BX102 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BX102 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241BX102 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BX102 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241BX102 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BX103 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241BX103 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241BX103 001	2-Pentanone	107-87-9		1.19E-04
200E P-241BX103 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241BX103 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241BX103 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241BX103 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241BX103 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241BX103 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241BX103 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BX103 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241BX103 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241BX103 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241BX103 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241BX103 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241BX103 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241BX104 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241BX104 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241BX104 001	2-Pentanone	107-87-9		1.19E-04
200E P-241BX104 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241BX104 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241BX104 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241BX104 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241BX104 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241BX104 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241BX104 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241BX104 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241BX104 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241BX104 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241BX104 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241BX104 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241BX104 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241BX105 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241BX105 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241BX105 001	2-Pentanone	107-87-9		1.19E-04
200E P-241BX105 001	Acetone	67-64-1	5.00E-01	1.43E-03

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BX105 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241BX105 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241BX105 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241BX105 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241BX105 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241BX105 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241BX105 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241BX105 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241BX105 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241BX105 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241BX105 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241BX105 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241BX106 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241BX106 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BX106 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BX106 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241BX106 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BX106 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BX106 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241BX106 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BX106 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BX106 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241BX106 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BX106 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BX106 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241BX106 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BX106 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BX106 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BX107 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241BX107 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241BX107 001	2-Pentanone	107-87-9		1.19E-04
200E P-241BX107 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241BX107 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241BX107 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241BX107 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241BX107 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241BX107 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241BX107 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241BX107 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241BX107 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241BX107 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241BX107 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241BX107 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241BX107 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241BX108 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241BX108 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BX108 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BX108 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241BX108 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BX108 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BX108 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241BX108 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BX108 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BX108 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BX108 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BX108 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BX108 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241BX108 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BX108 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241BX108 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BX109 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241BX109 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241BX109 001	2-Pentanone	107-87-9		1.19E-04
200E P-241BX109 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241BX109 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241BX109 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241BX109 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241BX109 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241BX109 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241BX109 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241BX109 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241BX109 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241BX109 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241BX109 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241BX109 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241BX109 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241BX110 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241BX110 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BX110 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BX110 001	Acetone	67-64-1	5.00E-01	6.62E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BX110 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BX110 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BX110 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241BX110 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BX110 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BX110 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241BX110 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BX110 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BX110 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241BX110 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BX110 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241BX110 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BX111 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241BX111 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BX111 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BX111 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241BX111 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BX111 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BX111 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241BX111 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BX111 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BX111 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241BX111 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BX111 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BX111 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241BX111 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BX111 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BX111 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BX112 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241BX112 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241BX112 001	2-Pentanone	107-87-9		1.19E-04
200E P-241BX112 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241BX112 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241BX112 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241BX112 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241BX112 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241BX112 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241BX112 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241BX112 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241BX112 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241BX112 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241BX112 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241BX112 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241BX112 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241BY101 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241BY101 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BY101 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BY101 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241BY101 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BY101 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BY101 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241BY101 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BY101 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BY101 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BY101 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BY101 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BY101 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241BY101 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BY101 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241BY101 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BY102 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241BY102 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BY102 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BY102 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241BY102 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BY102 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BY102 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241BY102 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BY102 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BY102 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241BY102 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BY102 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BY102 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241BY102 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BY102 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241BY102 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BY103 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241BY103 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BY103 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BY103 001	Acetone	67-64-1	5.00E-01	6.62E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BY103 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BY103 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BY103 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241BY103 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BY103 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BY103 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241BY103 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BY103 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BY103 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241BY103 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BY103 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241BY103 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BY104 001	2-Hexanone	591-78-6	5.00E-01	3.83E-06
200E P-241BY104 001	2-Pentanone	107-87-9		8.10E-06
200E P-241BY104 001	Acetone	67-64-1	5.00E-01	4.10E-05
200E P-241BY104 001	Acetonitrile	75-5-8	5.00E-01	7.97E-06
200E P-241BY104 001	Ammonia	7664-41-7	5.00E-01	2.48E-03
200E P-241BY104 001	Benzene	71-43-2	5.00E-01	1.93E-06
200E P-241BY104 001	Heptane	142-82-5	5.00E-01	7.07E-06
200E P-241BY104 001	Hexane, n-hexane	110-54-3	5.00E-01	1.62E-05
200E P-241BY104 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.22E-06
200E P-241BY104 001	Methylene chloride	75-9-2	5.00E-01	9.00E-08
200E P-241BY104 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.29E-06
200E P-241BY104 001	Nonane	111-84-2	5.00E-01	2.11E-06
200E P-241BY104 001	Octane	111-65-9	5.00E-01	3.96E-06
200E P-241BY104 001	Phosphoric acid, tributyl ester	126-73-8		1.28E-07
200E P-241BY104 001	Toluene	108-88-3	5.00E-01	2.22E-06

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BY105 001	2-Hexanone	591-78-6	5.00E-01	3.18E-07
200E P-241BY105 001	2-Pentanone	107-87-9		6.07E-07
200E P-241BY105 001	Acetone	67-64-1	5.00E-01	8.54E-06
200E P-241BY105 001	Acetonitrile	75-5-8	5.00E-01	1.96E-06
200E P-241BY105 001	Ammonia	7664-41-7	5.00E-01	4.30E-04
200E P-241BY105 001	Benzene	71-43-2	5.00E-01	3.17E-07
200E P-241BY105 001	Carbon monoxide	630-8-0	5.00E+00	8.23E-06
200E P-241BY105 001	Heptane	142-82-5	5.00E-01	2.30E-06
200E P-241BY105 001	Hexane, n-hexane	110-54-3	5.00E-01	4.36E-06
200E P-241BY105 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	2.95E-07
200E P-241BY105 001	Methylene chloride	75-9-2	5.00E-01	2.59E-07
200E P-241BY105 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	1.41E-06
200E P-241BY105 001	Nonane	111-84-2	5.00E-01	4.52E-07
200E P-241BY105 001	Octane	111-65-9	5.00E-01	1.01E-06
200E P-241BY105 001	Phosphoric acid, tributyl ester	126-73-8		2.70E-08
200E P-241BY105 001	Toluene	108-88-3	5.00E-01	4.65E-07
200E P-241BY106 001	2-Hexanone	591-78-6	5.00E-01	2.47E-07
200E P-241BY106 001	2-Pentanone	107-87-9		5.57E-07
200E P-241BY106 001	Acetone	67-64-1	5.00E-01	1.26E-05
200E P-241BY106 001	Acetonitrile	75-5-8	5.00E-01	2.90E-06
200E P-241BY106 001	Ammonia	7664-41-7	5.00E-01	7.39E-04
200E P-241BY106 001	Benzene	71-43-2	5.00E-01	3.35E-07
200E P-241BY106 001	Heptane	142-82-5	5.00E-01	1.83E-06
200E P-241BY106 001	Hexane, n-hexane	110-54-3	5.00E-01	4.31E-06
200E P-241BY106 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	2.15E-07
200E P-241BY106 001	Methylene chloride	75-9-2	5.00E-01	2.30E-08
200E P-241BY106 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	1.76E-06

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BY106 001	Nonane	111-84-2	5.00E-01	3.47E-07
200E P-241BY106 001	Octane	111-65-9	5.00E-01	8.05E-07
200E P-241BY106 001	Phosphoric acid, tributyl ester	126-73-8		7.00E-09
200E P-241BY106 001	Toluene	108-88-3	5.00E-01	4.49E-07
200E P-241BY107 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241BY107 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BY107 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BY107 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241BY107 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BY107 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BY107 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241BY107 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BY107 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BY107 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241BY107 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BY107 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BY107 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241BY107 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BY107 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241BY107 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BY108 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241BY108 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BY108 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BY108 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241BY108 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BY108 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BY108 001	Benzene	71-43-2	5.00E-01	1.51E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BY108 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BY108 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BY108 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241BY108 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BY108 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BY108 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241BY108 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BY108 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241BY108 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BY109 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241BY109 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241BY109 001	2-Pentanone	107-87-9		1.19E-04
200E P-241BY109 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241BY109 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241BY109 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241BY109 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241BY109 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241BY109 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241BY109 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241BY109 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241BY109 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241BY109 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241BY109 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241BY109 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241BY109 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241BY110 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BY110 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BY110 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BY110 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241BY110 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BY110 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BY110 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241BY110 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BY110 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BY110 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241BY110 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BY110 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BY110 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241BY110 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BY110 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241BY110 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BY111 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241BY111 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BY111 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BY111 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241BY111 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BY111 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BY111 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241BY111 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BY111 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BY111 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241BY111 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BY111 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BY111 001	Nonane	111-84-2	5.00E-01	2.11E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241BY111 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BY111 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241BY111 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241BY112 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241BY112 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241BY112 001	2-Pentanone	107-87-9		5.51E-05
200E P-241BY112 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241BY112 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241BY112 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241BY112 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241BY112 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241BY112 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241BY112 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241BY112 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241BY112 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241BY112 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241BY112 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241BY112 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241BY112 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241C101 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241C101 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241C101 001	2-Pentanone	107-87-9		5.51E-05
200E P-241C101 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241C101 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241C101 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241C101 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241C101 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241C101 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241C101 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241C101 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241C101 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241C101 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241C101 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241C101 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241C101 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241C102 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241C102 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241C102 001	2-Pentanone	107-87-9		1.19E-04
200E P-241C102 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241C102 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241C102 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241C102 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241C102 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241C102 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241C102 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241C102 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241C102 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241C102 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241C102 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241C102 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241C102 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241C103 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241C103 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241C103 001	2-Pentanone	107-87-9		1.19E-04
200E P-241C103 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241C103 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241C103 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241C103 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241C103 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241C103 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241C103 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241C103 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241C103 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241C103 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241C103 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241C103 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241C103 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241C104 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241C104 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241C104 001	2-Pentanone	107-87-9		1.19E-04
200E P-241C104 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241C104 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241C104 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241C104 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241C104 001	Carbon monoxide	630-8-0	5.00E+00	7.12E-05
200E P-241C104 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241C104 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241C104 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241C104 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241C104 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241C104 001	Octane	111-65-9	5.00E-01	4.79E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241C104 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241C104 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241C107 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-241C107 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-241C107 001	2-Pentanone	107-87-9		1.19E-04
200E P-241C107 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-241C107 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-241C107 001	Ammonia	7664-41-7	5.00E-01	6.57E-03
200E P-241C107 001	Benzene	71-43-2	5.00E-01	3.28E-05
200E P-241C107 001	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200E P-241C107 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-241C107 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-241C107 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-241C107 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-241C107 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-241C107 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-241C107 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-241C107 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-241C108 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241C108 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241C109 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241C109 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241C109 001	2-Pentanone	107-87-9		5.51E-05
200E P-241C109 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241C109 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241C109 001	Ammonia	7664-41-7	5.00E-01	3.04E-03

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241C109 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241C109 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241C109 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241C109 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241C109 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241C109 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241C109 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241C109 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241C109 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241C109 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241C110 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241C110 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241C110 001	2-Pentanone	107-87-9		5.51E-05
200E P-241C110 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241C110 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241C110 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241C110 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241C110 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241C110 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241C110 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241C110 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241C110 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241C110 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241C110 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241C110 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241C110 001	Toluene	108-88-3	5.00E-01	3.08E-06

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241C111 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241C111 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241C112 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241C112 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241C112 001	2-Pentanone	107-87-9		5.51E-05
200E P-241C112 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241C112 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241C112 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241C112 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241C112 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241C112 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241C112 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241C112 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241C112 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241C112 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241C112 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241C112 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241C112 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241C201 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241C201 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241C201 001	2-Pentanone	107-87-9		5.51E-05
200E P-241C201 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241C201 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241C201 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241C201 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241C201 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241C201 001	Heptane	142-82-5	5.00E-01	3.89E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241C201 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241C201 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241C201 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241C201 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241C201 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241C201 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241C201 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241C202 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241C202 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241C202 001	2-Pentanone	107-87-9		5.51E-05
200E P-241C202 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241C202 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241C202 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241C202 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241C202 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241C202 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241C202 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241C202 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241C202 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241C202 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241C202 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241C202 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241C202 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241C203 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241C203 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241C203 001	2-Pentanone	107-87-9		5.51E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241C203 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241C203 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241C203 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241C203 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241C203 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241C203 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241C203 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241C203 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241C203 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241C203 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241C203 001	Octane	111-65-9	5.00E-01	2.21E-05
200E P-241C203 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241C203 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-241C204 001	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200E P-241C204 001	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200E P-241C204 001	2-Pentanone	107-87-9		5.51E-05
200E P-241C204 001	Acetone	67-64-1	5.00E-01	6.62E-04
200E P-241C204 001	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200E P-241C204 001	Ammonia	7664-41-7	5.00E-01	3.04E-03
200E P-241C204 001	Benzene	71-43-2	5.00E-01	1.51E-05
200E P-241C204 001	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200E P-241C204 001	Heptane	142-82-5	5.00E-01	3.89E-05
200E P-241C204 001	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200E P-241C204 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200E P-241C204 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200E P-241C204 001	Nonane	111-84-2	5.00E-01	2.11E-05
200E P-241C204 001	Octane	111-65-9	5.00E-01	2.21E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-241C204 001	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200E P-241C204 001	Toluene	108-88-3	5.00E-01	3.08E-06
200E P-242A 001	2-Hexanone	591-78-6	5.00E-01	9.00E-08
200E P-242A 001	Acetone	67-64-1	5.00E-01	2.50E-05
200E P-242A 001	Ammonia	7664-41-7	5.00E-01	2.35E-05
200E P-242A 001	Methyl isobutyl ketone	108-10-1	5.00E-01	1.70E-06
200E P-242A 001	Methyl isobutyl ketone	108-10-1	5.00E-01	1.70E-06
200E P-242A 001	Methyl isobutyl ketone	108-10-1	5.00E-01	1.70E-06
200E P-242A 001	Methyl isobutyl ketone	108-10-1	5.00E-01	1.70E-06
200E P-242A 001	Methyl isobutyl ketone	108-10-1	5.00E-01	1.70E-06
200E P-242A 001	N-butyl alcohol	71-36-3	5.00E-01	1.88E-04
200E P-242A 002	2-Hexanone	591-78-6	5.00E-01	2.87E-05
200E P-242A 002	Acetone	67-64-1	5.00E-01	7.95E-03
200E P-242A 002	Ammonia	7664-41-7	5.00E-01	7.49E-03
200E P-242A 002	Methyl isobutyl ketone	108-10-1	5.00E-01	5.42E-04
200E P-242A 002	Methyl isobutyl ketone	108-10-1	5.00E-01	5.42E-04
200E P-242A 002	Methyl isobutyl ketone	108-10-1	5.00E-01	5.42E-04
200E P-242A 002	Methyl isobutyl ketone	108-10-1	5.00E-01	5.42E-04
200E P-242A 002	Methyl isobutyl ketone	108-10-1	5.00E-01	5.42E-04
200E P-242A 002	Methyl isobutyl ketone	108-10-1	5.00E-01	5.42E-04
200E P-242A 002	N-butyl alcohol	71-36-3	5.00E-01	5.98E-02
200E P-296A 001	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-296A 001	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200E P-296A 001	2-Pentanone	107-87-9		1.19E-04
200E P-296A 001	Acetone	67-64-1	5.00E-01	1.43E-03
200E P-296A 001	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200E P-296A 001	Ammonia	7664-41-7	5.00E-01	3.21E-01
200E P-296A 001	Benzene	71-43-2	5.00E-01	3.28E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-296A 001	Carbon monoxide	630-8-0	5.00E+00	1.72E-02
200E P-296A 001	Heptane	142-82-5	5.00E-01	8.40E-05
200E P-296A 001	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200E P-296A 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200E P-296A 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200E P-296A 001	Nonane	111-84-2	5.00E-01	4.57E-05
200E P-296A 001	Octane	111-65-9	5.00E-01	4.79E-05
200E P-296A 001	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200E P-296A 001	Toluene	108-88-3	5.00E-01	6.67E-06
200E P-296AP 001	1,3-Butadiene	106-99-0	3.50E-02	3.30E-05
200E P-296AP 001	2-Hexanone	591-78-6	5.00E-01	6.01E-04
200E P-296AP 001	2-Pentanone	107-87-9		9.54E-04
200E P-296AP 001	Acetone	67-64-1	5.00E-01	1.15E-02
200E P-296AP 001	Acetonitrile	75-5-8	5.00E-01	5.52E-03
200E P-296AP 001	Ammonia	7664-41-7	5.00E-01	3.52E-01
200E P-296AP 001	Benzene	71-43-2	5.00E-01	2.62E-04
200E P-296AP 001	Carbon monoxide	630-8-0	5.00E+00	1.38E-01
200E P-296AP 001	Heptane	142-82-5	5.00E-01	6.72E-04
200E P-296AP 001	Hexane, n-hexane	110-54-3	5.00E-01	7.01E-04
200E P-296AP 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	6.50E-04
200E P-296AP 001	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	4.58E-04
200E P-296AP 001	Nonane	111-84-2	5.00E-01	3.65E-04
200E P-296AP 001	Octane	111-65-9	5.00E-01	3.83E-04
200E P-296AP 001	Phosphoric acid, tributyl ester	126-73-8		1.38E-03
200E P-296AP 001	Toluene	108-88-3	5.00E-01	5.34E-05
200E P-LERF 001	Ammonia	7664-41-7	5.00E-01	1.10E-01

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-LERF 001	Isopropyl alcohol	67-63-0	5.00E-01	1.20E-05
200E P-LERF 001	N-butyl alcohol	71-36-3	5.00E-01	3.00E-05
200E P-LERF 001	Nitrosodimethylamine	62-75-9	5.00E-04	0.00E+00
200E L-2703E 001	Acetone	67-64-1	5.00E-01	9.70E-04
200E L-2703E 001	Chloroform	67-66-3	5.00E-01	5.50E-04
200E L-2703E 001	Hydrochloric acid	7647-1-0	5.00E-01	2.90E-03
200E L-2703E 001	Methylene chloride	75-9-2	5.00E-01	1.50E-04
200E L-2703E 001	Methyl isobutyl ketone	108-10-1	5.00E-01	4.00E-05
200E L-2703E 001	N-amyl acetate	628-63-7	5.00E-01	1.00E-04
200E L-2703E 001	Nitric acid	7697-37-2	5.00E-01	1.75E-02
200E L-2703E 001	Phosphoric acid	7664-38-2	5.00E-01	4.00E-03
200E L-2703E 001	Potassium hydroxide	1310-58-3	5.00E-01	3.70E-04
200E L-2703E 001	Sodium hydroxide	1310-73-2	5.00E-01	7.04E-03
200E L-2703E 001	Sodium metabisulfite	7681-57-4	5.00E-01	1.38E-03
200E L-2703E 001	Sulfuric acid	7664-93-9	5.00E-01	1.80E-02
200E L-2703E 001	Xylene	1330-20-7	5.00E-01	1.43E-03
200W P 241S101	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241S101	2-Pentanone	107-87-9		1.19E-04
200W P 241S101	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241S101	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241S101	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241S101	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241S101	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241S101	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241S101	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241S101	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241S101	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241S101	Nonane	111-84-2	5.00E-01	4.57E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241S101	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241S101	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241S101	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241S102	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241S102	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241S102	2-Pentanone	107-87-9		1.19E-04
200W P 241S102	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241S102	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241S102	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241S102	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241S102	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241S102	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241S102	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241S102	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241S102	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241S102	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241S102	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241S102	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241S102	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241S103	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241S103	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241S103	2-Pentanone	107-87-9		1.19E-04
200W P 241S103	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241S103	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241S103	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241S103	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241S103	Carbon monoxide	630-8-0	5.00E+00	9.50E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241S103	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241S103	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241S103	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241S103	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241S103	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241S103	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241S103	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241S103	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241S104	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241S104	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241S104	2-Pentanone	107-87-9		1.19E-04
200W P 241S104	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241S104	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241S104	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241S104	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241S104	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241S104	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241S104	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241S104	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241S104	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241S104	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241S104	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241S104	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241S104	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241S105	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241S105	2-Hexanone	591-78-6	5.00E-01	7.51E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241S105	2-Pentanone	107-87-9		1.19E-04
200W P 241S105	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241S105	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241S105	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241S105	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241S105	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241S105	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241S105	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241S105	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241S105	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241S105	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241S105	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241S105	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241S105	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241S106	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241S106	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241S106	2-Pentanone	107-87-9		1.19E-04
200W P 241S106	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241S106	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241S106	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241S106	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241S106	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241S106	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241S106	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241S106	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241S106	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241S106	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241S106	Octane	111-65-9	5.00E-01	4.79E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241S106	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241S106	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241S107	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241S107	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241S107	2-Pentanone	107-87-9		1.19E-04
200W P 241S107	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241S107	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241S107	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241S107	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241S107	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241S107	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241S107	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241S107	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241S107	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241S107	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241S107	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241S107	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241S107	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241S108	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241S108	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241S108	2-Pentanone	107-87-9		1.19E-04
200W P 241S108	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241S108	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241S108	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241S108	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241S108	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241S108	Heptane	142-82-5	5.00E-01	8.40E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS. Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241S108	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241S108	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241S108	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241S108	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241S108	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241S108	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241S108	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241S109	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241S109	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241S109	2-Pentanone	107-87-9		1.19E-04
200W P 241S109	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241S109	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241S109	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241S109	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241S109	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241S109	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241S109	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241S109	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241S109	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241S109	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241S109	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241S109	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241S109	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241S110	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241S110	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241S110	2-Pentanone	107-87-9		1.19E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241S110	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241S110	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241S110	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241S110	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241S110	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241S110	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241S110	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241S110	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241S110	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241S110	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241S110	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241S110	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241S110	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241S111	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241S111	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241S111	2-Pentanone	107-87-9		1.19E-04
200W P 241S111	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241S111	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241S111	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241S111	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241S111	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241S111	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241S111	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241S111	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241S111	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241S111	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241S111	Octane	111-65-9	5.00E-01	4.79E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241S111	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241S111	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241S112	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241S112	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241S112	2-Pentanone	107-87-9		1.19E-04
200W P 241S112	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241S112	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241S112	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241S112	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241S112	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241S112	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241S112	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241S112	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241S112	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241S112	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241S112	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241S112	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241S112	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241SX113	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241SX113	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241SX113	2-Pentanone	107-87-9		5.51E-05
200W P 241SX113	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241SX113	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241SX113	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241SX113	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241SX113	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241SX113	Heptane	142-82-5	5.00E-01	3.89E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241SX113	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241SX113	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241SX113	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241SX113	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241SX113	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241SX113	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241SX113	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241SX115	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241SX115	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241SX115	2-Pentanone	107-87-9		5.51E-05
200W P 241SX115	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241SX115	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241SX115	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241SX115	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241SX115	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241SX115	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241SX115	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241SX115	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241SX115	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241SX115	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241SX115	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241SX115	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241SX115	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241T101	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241T101	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241T101	2-Pentanone	107-87-9		1.19E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241T101	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241T101	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241T101	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241T101	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241T101	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241T101	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241T101	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241T101	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241T101	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241T101	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241T101	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241T101	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241T101	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241T102	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241T102	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241T102	2-Pentanone	107-87-9		1.19E-04
200W P 241T102	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241T102	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241T102	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241T102	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241T102	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241T102	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241T102	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241T102	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241T102	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241T102	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241T102	Octane	111-65-9	5.00E-01	4.79E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241T102	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241T102	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241T103	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241T103	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241T103	2-Pentanone	107-87-9		1.19E-04
200W P 241T103	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241T103	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241T103	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241T103	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241T103	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241T103	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241T103	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241T103	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241T103	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241T103	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241T103	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241T103	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241T103	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241T104	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241T104	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241T104	2-Pentanone	107-87-9		5.51E-05
200W P 241T104	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241T104	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241T104	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241T104	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241T104	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241T104	Heptane	142-82-5	5.00E-01	3.89E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241T104	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241T104	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241T104	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241T104	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241T104	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241T104	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241T104	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241T105	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241T105	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241T105	2-Pentanone	107-87-9		1.19E-04
200W P 241T105	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241T105	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241T105	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241T105	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241T105	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241T105	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241T105	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241T105	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241T105	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241T105	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241T105	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241T105	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241T105	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241T106	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241T106	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241T106	2-Pentanone	107-87-9		1.19E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241T106	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241T106	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241T106	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241T106	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241T106	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241T106	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241T106	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241T106	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241T106	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241T106	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241T106	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241T106	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241T106	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241T107	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241T107	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241T107	2-Pentanone	107-87-9		1.19E-04
200W P 241T107	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241T107	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241T107	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241T107	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241T107	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241T107	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241T107	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241T107	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241T107	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241T107	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241T107	Octane	111-65-9	5.00E-01	4.79E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241T107	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241T107	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241T108	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241T108	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241T108	2-Pentanone	107-87-9		5.51E-05
200W P 241T108	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241T108	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241T108	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241T108	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241T108	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241T108	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241T108	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241T108	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241T108	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241T108	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241T108	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241T108	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241T108	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241T109	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241T109	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241T109	2-Pentanone	107-87-9		1.19E-04
200W P 241T109	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241T109	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241T109	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241T109	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241T109	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241T109	Heptane	142-82-5	5.00E-01	8.40E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241T109	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241T109	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241T109	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241T109	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241T109	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241T109	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241T109	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241T110	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241T110	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241T110	2-Pentanone	107-87-9		1.19E-04
200W P 241T110	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241T110	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241T110	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241T110	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241T110	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241T110	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241T110	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241T110	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241T110	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241T110	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241T110	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241T110	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241T110	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241T111	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241T111	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241T111	2-Pentanone	107-87-9		1.19E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241T111	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241T111	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241T111	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241T111	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241T111	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241T111	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241T111	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241T111	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241T111	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241T111	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241T111	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241T111	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241T111	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241T112	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241T112	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241T112	2-Pentanone	107-87-9		1.19E-04
200W P 241T112	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241T112	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241T112	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241T112	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241T112	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241T112	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241T112	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241T112	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241T112	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241T112	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241T112	Octane	111-65-9	5.00E-01	4.79E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241T112	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241T112	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241T201	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241T201	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241T201	2-Pentanone	107-87-9		5.51E-05
200W P 241T201	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241T201	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241T201	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241T201	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241T201	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241T201	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241T201	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241T201	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241T201	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241T201	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241T201	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241T201	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241T201	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241T202	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241T202	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241T202	2-Pentanone	107-87-9		5.51E-05
200W P 241T202	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241T202	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241T202	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241T202	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241T202	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241T202	Heptane	142-82-5	5.00E-01	3.89E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241T202	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241T202	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241T202	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241T202	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241T202	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241T202	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241T202	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241T203	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241T203	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241T203	2-Pentanone	107-87-9		5.51E-05
200W P 241T203	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241T203	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241T203	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241T203	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241T203	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241T203	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241T203	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241T203	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241T203	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241T203	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241T203	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241T203	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241T203	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241T204	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241T204	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241T204	2-Pentanone	107-87-9		5.51E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241T204	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241T204	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241T204	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241T204	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241T204	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241T204	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241T204	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241T204	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241T204	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241T204	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241T204	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241T204	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241T204	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241TX101	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241TX101	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241TX101	2-Pentanone	107-87-9		1.19E-04
200W P 241TX101	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241TX101	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241TX101	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241TX101	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241TX101	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241TX101	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241TX101	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241TX101	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241TX101	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241TX101	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241TX101	Octane	111-65-9	5.00E-01	4.79E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TX101	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241TX101	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241TX102	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241TX102	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241TX102	2-Pentanone	107-87-9		5.51E-05
200W P 241TX102	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241TX102	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241TX102	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241TX102	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241TX102	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241TX102	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241TX102	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241TX102	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241TX102	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241TX102	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241TX102	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241TX102	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241TX102	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241TX103	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241TX103	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241TX103	2-Pentanone	107-87-9		1.19E-04
200W P 241TX103	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241TX103	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241TX103	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241TX103	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241TX103	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241TX103	Heptane	142-82-5	5.00E-01	8.40E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TX103	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241TX103	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241TX103	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.73E-05
200W P 241TX103	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241TX103	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241TX103	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241TX103	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241TX104	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241TX104	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241TX104	2-Pentanone	107-87-9		1.19E-04
200W P 241TX104	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241TX104	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241TX104	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241TX104	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241TX104	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241TX104	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241TX104	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241TX104	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241TX104	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241TX104	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241TX104	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241TX104	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241TX104	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241TX105	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241TX105	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241TX105	2-Pentanone	107-87-9		5.51E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TX105	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241TX105	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241TX105	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241TX105	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241TX105	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241TX105	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241TX105	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241TX105	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241TX105	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241TX105	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241TX105	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241TX105	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241TX105	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241TX106	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241TX106	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241TX106	2-Pentanone	107-87-9		5.51E-05
200W P 241TX106	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241TX106	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241TX106	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241TX106	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241TX106	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241TX106	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241TX106	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241TX106	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241TX106	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241TX106	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241TX106	Octane	111-65-9	5.00E-01	2.21E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TX106	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241TX106	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241TX107	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241TX107	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241TX107	2-Pentanone	107-87-9		1.19E-04
200W P 241TX107	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241TX107	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241TX107	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241TX107	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241TX107	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241TX107	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241TX107	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241TX107	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241TX107	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241TX107	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241TX107	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241TX107	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241TX107	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241TX108	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241TX108	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241TX108	2-Pentanone	107-87-9		1.19E-04
200W P 241TX108	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241TX108	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241TX108	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241TX108	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241TX108	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241TX108	Heptane	142-82-5	5.00E-01	8.40E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TX108	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241TX108	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241TX108	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241TX108	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241TX108	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241TX108	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241TX108	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241TX109	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241TX109	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241TX109	2-Pentanone	107-87-9		1.19E-04
200W P 241TX109	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241TX109	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241TX109	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241TX109	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241TX109	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241TX109	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241TX109	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241TX109	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241TX109	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241TX109	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241TX109	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241TX109	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241TX109	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241TX110	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241TX110	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241TX110	2-Pentanone	107-87-9		5.51E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TX110	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241TX110	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241TX110	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241TX110	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241TX110	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241TX110	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241TX110	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241TX110	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241TX110	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241TX110	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241TX110	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241TX110	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241TX110	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241TX111	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241TX111	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241TX111	2-Pentanone	107-87-9		5.51E-05
200W P 241TX111	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241TX111	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241TX111	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241TX111	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241TX111	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241TX111	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241TX111	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241TX111	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241TX111	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241TX111	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241TX111	Octane	111-65-9	5.00E-01	2.21E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TX111	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241TX111	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241TX112	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241TX112	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241TX112	2-Pentanone	107-87-9		5.51E-05
200W P 241TX112	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241TX112	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241TX112	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241TX112	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241TX112	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241TX112	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241TX112	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241TX112	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241TX112	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241TX112	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241TX112	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241TX112	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241TX112	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241TX113	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241TX113	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241TX113	2-Pentanone	107-87-9		5.51E-05
200W P 241TX113	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241TX113	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241TX113	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241TX113	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241TX113	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241TX113	Heptane	142-82-5	5.00E-01	3.89E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TX113	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241TX113	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241TX113	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241TX113	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241TX113	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241TX113	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241TX113	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241TX114	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241TX114	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241TX114	2-Pentanone	107-87-9		5.51E-05
200W P 241TX114	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241TX114	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241TX114	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241TX114	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241TX114	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241TX114	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241TX114	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241TX114	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241TX114	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241TX114	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241TX114	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241TX114	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241TX114	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241TX115	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241TX115	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241TX115	2-Pentanone	107-87-9		5.51E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TX115	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241TX115	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241TX115	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241TX115	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241TX115	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241TX115	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241TX115	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241TX115	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241TX115	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241TX115	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241TX115	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241TX115	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241TX115	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241TX116	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241TX116	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241TX116	2-Pentanone	107-87-9		5.51E-05
200W P 241TX116	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241TX116	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241TX116	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241TX116	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241TX116	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241TX116	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241TX116	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241TX116	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241TX116	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241TX116	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241TX116	Octane	111-65-9	5.00E-01	2.21E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TX116	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241TX116	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241TX117	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241TX117	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241TX117	2-Pentanone	107-87-9		5.51E-05
200W P 241TX117	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241TX117	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241TX117	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241TX117	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241TX117	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241TX117	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241TX117	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241TX117	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241TX117	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241TX117	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241TX117	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241TX117	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241TX117	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241TX118	Acetonitrile	75-5-8	5.00E-01	7.31E-07
200W P 241TX118	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241TX118	Benzene	71-43-2	5.00E-01	3.97E-07
200W P 241TX118	Carbon monoxide	630-8-0	5.00E+00	1.03E-04
200W P 241TX118	Carbon Tetrachloride	56-23-5	5.00E-01	3.91E-06
200W P 241TX118	Ethyl butyl ketone	106-35-4	5.00E-01	1.31E-05
200W P 241TX118	Methyl chloride	74-87-3	5.00E-01	5.78E-07
200W P 241TX118	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241TX118	Tetrahydrofuran	109-99-9	5.00E-01	1.01E-06

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TX118	Toluene	108-88-3	5.00E-01	1.17E-06
200W P 241TX118	Trichlorofluoromethane	75-69-4	5.00E-01	4.89E-05
200W P 241TY101	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241TY101	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241TY101	2-Pentanone	107-87-9		1.19E-04
200W P 241TY101	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241TY101	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241TY101	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241TY101	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241TY101	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241TY101	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241TY101	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241TY101	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241TY101	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241TY101	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241TY101	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241TY101	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241TY101	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241TY102	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241TY102	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241TY102	2-Pentanone	107-87-9		1.19E-04
200W P 241TY102	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241TY102	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241TY102	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241TY102	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241TY102	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241TY102	Heptane	142-82-5	5.00E-01	8.40E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TY102	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241TY102	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241TY102	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241TY102	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241TY102	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241TY102	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241TY102	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241TY103	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241TY103	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241TY103	2-Pentanone	107-87-9		1.19E-04
200W P 241TY103	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241TY103	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241TY103	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241TY103	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241TY103	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241TY103	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241TY103	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241TY103	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241TY103	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241TY103	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241TY103	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241TY103	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241TY103	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241TY104	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241TY104	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241TY104	2-Pentanone	107-87-9		1.19E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TY104	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241TY104	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241TY104	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241TY104	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241TY104	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241TY104	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241TY104	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241TY104	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241TY104	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241TY104	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241TY104	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241TY104	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241TY104	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241TY105	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241TY105	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241TY105	2-Pentanone	107-87-9		5.51E-05
200W P 241TY105	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241TY105	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241TY105	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241TY105	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241TY105	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241TY105	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241TY105	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241TY105	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241TY105	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241TY105	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241TY105	Octane	111-65-9	5.00E-01	2.21E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241TY105	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241TY105	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241TY106	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241TY106	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241TY106	2-Pentanone	107-87-9		5.51E-05
200W P 241TY106	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241TY106	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241TY106	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241TY106	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241TY106	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241TY106	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241TY106	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241TY106	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241TY106	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241TY106	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241TY106	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241TY106	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241TY106	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241U101	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241U101	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241U101	2-Pentanone	107-87-9		5.51E-05
200W P 241U101	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241U101	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241U101	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241U101	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241U101	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241U101	Heptane	142-82-5	5.00E-01	3.89E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241U101	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241U101	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241U101	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241U101	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241U101	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241U101	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241U101	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241U102	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241U102	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241U102	2-Pentanone	107-87-9		1.19E-04
200W P 241U102	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241U102	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241U102	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241U102	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241U102	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241U102	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241U102	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241U102	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241U102	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241U102	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241U102	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241U102	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241U102	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241U103	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241U103	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241U103	2-Pentanone	107-87-9		1.19E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241U103	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241U103	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241U103	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241U103	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241U103	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241U103	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241U103	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241U103	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241U103	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241U103	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241U103	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241U103	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241U103	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241U104	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241U104	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241U104	2-Pentanone	107-87-9		5.51E-05
200W P 241U104	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241U104	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241U104	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241U104	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241U104	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241U104	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241U104	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241U104	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241U104	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241U104	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241U104	Octane	111-65-9	5.00E-01	2.21E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241U104	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241U104	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241U105	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241U105	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241U105	2-Pentanone	107-87-9		1.19E-04
200W P 241U105	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241U105	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241U105	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241U105	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241U105	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241U105	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241U105	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241U105	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241U105	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241U105	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241U105	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241U105	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241U105	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241U106	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241U106	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241U106	2-Pentanone	107-87-9		1.19E-04
200W P 241U106	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241U106	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241U106	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241U106	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241U106	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241U106	Heptane	142-82-5	5.00E-01	8.40E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241U106	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241U106	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241U106	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241U106	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241U106	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241U106	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241U106	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241U107	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241U107	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241U107	2-Pentanone	107-87-9		1.19E-04
200W P 241U107	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241U107	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241U107	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241U107	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241U107	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241U107	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241U107	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241U107	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241U107	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241U107	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241U107	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241U107	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241U108	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241U108	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241U108	2-Pentanone	107-87-9		1.19E-04
200W P 241U108	Acetone	67-64-1	5.00E-01	1.43E-03

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241U108	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241U108	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241U108	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241U108	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241U108	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241U108	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241U108	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241U108	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241U108	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241U108	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241U108	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241U108	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241U109	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241U109	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241U109	2-Pentanone	107-87-9		1.19E-04
200W P 241U109	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241U109	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241U109	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241U109	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241U109	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241U109	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241U109	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241U109	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241U109	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241U109	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241U109	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241U109	Phosphoric acid, tributyl ester	126-73-8		1.72E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241U109	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241U110	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241U110	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241U110	2-Pentanone	107-87-9		1.19E-04
200W P 241U110	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241U110	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241U110	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241U110	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241U110	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241U110	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241U110	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05
200W P 241U110	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241U110	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241U110	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241U110	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241U110	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241U110	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241U111	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200W P 241U111	2-Hexanone	591-78-6	5.00E-01	7.51E-05
200W P 241U111	2-Pentanone	107-87-9		1.19E-04
200W P 241U111	Acetone	67-64-1	5.00E-01	1.43E-03
200W P 241U111	Acetonitrile	75-5-8	5.00E-01	6.89E-04
200W P 241U111	Ammonia	7664-41-7	5.00E-01	6.57E-03
200W P 241U111	Benzene	71-43-2	5.00E-01	3.28E-05
200W P 241U111	Carbon monoxide	630-8-0	5.00E+00	9.50E-04
200W P 241U111	Heptane	142-82-5	5.00E-01	8.40E-05
200W P 241U111	Hexane, n-hexane	110-54-3	5.00E-01	8.76E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241U111	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	8.13E-05
200W P 241U111	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	5.72E-05
200W P 241U111	Nonane	111-84-2	5.00E-01	4.57E-05
200W P 241U111	Octane	111-65-9	5.00E-01	4.79E-05
200W P 241U111	Phosphoric acid, tributyl ester	126-73-8		1.72E-04
200W P 241U111	Toluene	108-88-3	5.00E-01	6.67E-06
200W P 241U112	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241U112	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241U112	2-Pentanone	107-87-9		5.51E-05
200W P 241U112	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241U112	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241U112	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241U112	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241U112	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241U112	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241U112	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241U112	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241U112	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241U112	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241U112	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241U112	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241U112	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241U201	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241U201	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241U201	2-Pentanone	107-87-9		5.51E-05
200W P 241U201	Acetone	67-64-1	5.00E-01	6.62E-04

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241U201	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241U201	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241U201	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241U201	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241U201	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241U201	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241U201	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241U201	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241U201	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241U201	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241U201	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241U201	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241U202	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241U202	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241U202	2-Pentanone	107-87-9		5.51E-05
200W P 241U202	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241U202	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241U202	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241U202	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241U202	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241U202	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241U202	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241U202	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241U202	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241U202	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241U202	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241U202	Phosphoric acid, tributyl ester	126-73-8		7.95E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241U202	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241U203	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241U203	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241U203	2-Pentanone	107-87-9		5.51E-05
200W P 241U203	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241U203	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241U203	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241U203	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241U203	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241U203	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241U203	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05
200W P 241U203	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241U203	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241U203	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241U203	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241U203	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241U203	Toluene	108-88-3	5.00E-01	3.08E-06
200W P 241U204	1,3-Butadiene	106-99-0	3.50E-02	1.91E-06
200W P 241U204	2-Hexanone	591-78-6	5.00E-01	3.47E-05
200W P 241U204	2-Pentanone	107-87-9		5.51E-05
200W P 241U204	Acetone	67-64-1	5.00E-01	6.62E-04
200W P 241U204	Acetonitrile	75-5-8	5.00E-01	3.19E-04
200W P 241U204	Ammonia	7664-41-7	5.00E-01	3.04E-03
200W P 241U204	Benzene	71-43-2	5.00E-01	1.51E-05
200W P 241U204	Carbon monoxide	630-8-0	5.00E+00	4.39E-04
200W P 241U204	Heptane	142-82-5	5.00E-01	3.89E-05
200W P 241U204	Hexane, n-hexane	110-54-3	5.00E-01	4.05E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P 241U204	Methyl N-amyl ketone, 2-heptanone	110-43-0	5.00E-01	3.76E-05
200W P 241U204	Nitrogen Oxide {NO}	10102-43-9	2.00E+00	2.64E-05
200W P 241U204	Nonane	111-84-2	5.00E-01	2.11E-05
200W P 241U204	Octane	111-65-9	5.00E-01	2.21E-05
200W P 241U204	Phosphoric acid, tributyl ester	126-73-8		7.95E-05
200W P 241U204	Toluene	108-88-3	5.00E-01	3.08E-06
200W P-241S101	1,3-Butadiene	106-99-0	3.50E-02	4.13E-06
200E P-296AW 001	1, 3-Butadiene	106-99-0	3.50E-02	2.48E-05
200E P-296AW 001	2-Hexanone	591-78-6	5.00E-01	4.5E-04
200E P-296AW 001	2-Pentanone	107-87-9	7.16E-04	
200E P-296AW 001	Acetone	67-64-1	8.59E-03	5.00E-01
200E P-296AW 001	Acetonitrile	75-5-8	4.14E-03	5.00E-01
200E P-296AW 001	Ammonia	7664-41-7	2.82E-01	5.00E-01
200E P-296AW 001	Benzene	71-43-2	1.97E-04	5.00E-01
200E P-296AW 001	Carbon monoxide	630-8-0	1.03E-01	5.00E+00
200E P-296AW 001	Heptane	142-82-5	5.04E-04	5.00E-01
200E P-296AW 001	Hexane, n-hexane	110-54-3	5.26E-04	5.00E-01
200E P-296AW 001	Methyl N-amyl ketone, 2-heptanone	110-43-0	4.88E-04	5.00E-01
200E P-296AW 001	Nitrogen oxide (NO)	10102-43-9	3.43E-04	2.00E+00
200E P-296AW 001	Nonane	111-84-2	2.74E-04	5.00-01
200E P-296AW 001	Octane	111-65-9	2.87E-04	5.00E-01
200E P-296AW 001	Phosphoric acid, tributyl ester	126-73-8	1.03E-03	
200E P-296AW 001	Toluene	108-88-3	4.00E-05	5.00E-01
200W S-222SA 001	Acetone	67-64-1	5.00E-01	5.90E-03
200W S-222SA 001	Ammonium hydroxide	1336-21-6		6.90E-02

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W S-222SA 001	Bis(2-ethylhexyl)phosphate	298-7-7		2.20E-03
200W S-222SA 001	Hydrochloric acid (Hydrogen chloride)	7647-1-0	5.00E-01	2.10E-02
200W S-222SA 001	Isopropyl Alcohol	67-63-0	5.00E-01	1.70E-03
200W S-222SA 001	Kerosene	---		1.40E-02
200W S-222SA 001	Methyl alcohol	67-56-1	5.00E-01	6.30E-02
200W S-222SA 001	Methyl isobutyl ketone	108-10-1	5.00E-01	1.80E-03
200W S-222SA 001	Methylene chloride	75-9-2	5.00E-01	2.10E-02
200W S-222SA 001	N-butyl alcohol	71-36-3	5.00E-01	8.90E-04
200W S-222SA 001	Nitrobenzene	98-95-3	5.00E-01	5.30E-03
200W S-222SA 001	Petroleum benzin	8030-30-6		3.50E-03
200W S-222SA 001	Phosphoric acid, tributyl ester	126-73-8		2.30E-02
200W S-222SA 001	Pyridine	110-86-1	5.00E-01	2.20E-03
200W S-222SA 001	Sulfuric acid	7664-93-9	5.00E-01	5.40E-02
200W S-222SA 001	Tetrapropylammonium hydroxide	4499-86-9		3.90E-03
200W S-222SA 001	Toluene	108-88-3	5.00E-01	9.60E-04
200W S-222SA 001	Xylene	1330-20-7	5.00E-01	3.80E-03
200W S-296S021 001	2,2,4-Trimethylpentane	540-84-1	5.00E-01	6.10E-03
200W S-296S021 001	Acetic acid	64-19-7	5.00E-01	1.20E-02
200W S-296S021 001	Bromine	7726-95-6	5.00E-01	2.10E-04
200W S-296S021 001	Ethyl alcohol	64-17-5	5.00E-01	1.30E-01
200W S-296S021 001	Hexane, n-hexane	110-54-3	5.00E-01	2.30E-02
200W S-296S021 001	Hydrochloric acid (Hydrogen chloride)	7647-1-0	5.00E-01	3.33E-02
200W S-296S021 001	Isopropyl Alcohol	67-63-0	5.00E-01	7.00E-03
200W S-296S021 001	Mercury	7439-97-6	1.00E-02	1.38E-08
200W S-296S021 001	Methyl chloride	74-87-3	5.00E-01	4.60E-02
200W S-296S021 001	Methylene chloride	75-9-2	5.00E-01	1.10E-01
200W S-296S021 001	Sulfuric acid	7664-93-9	5.00E-01	1.40E-02

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W S-296S021 001	Toluene	108-88-3	5.00E-01	9.60E-04
200W S-296S021 001	Trichloroethylene	79-1-6	5.00E-01	1.30E-02
200W S-296S021 001	Xylene	1330-20-7	5.00E-01	3.80E-03
200W S-296S023 001	2,2,4-Trimethylpentane	540-84-1	5.00E-01	3.66E-05
200W S-296S023 001	Acetic acid	64-19-7	5.00E-01	7.20E-05
200W S-296S023 001	Bromine	7726-95-6	5.00E-01	1.26E-06
200W S-296S023 001	Ethyl alcohol	64-17-5	5.00E-01	7.80E-04
200W S-296S023 001	Hexane, N-hexane	110-54-3	5.00E-01	1.38E-04
200W S-296S023 001	Hydrochloric acid	7647-1-0	5.00E-01	2.00E-04
200W S-296S023 001	Isopropyl alcohol	67-63-0	5.00E-01	4.20E-05
200W S-296S023 001	Mercury	7439-97-6	1.00E-02	8.27E-11
200W S-296S023 001	Methyl alcohol	67-56-1	5.00E-01	2.76E-04
200W S-296S023 001	Methylene chloride	75-09-2	5.00E-01	6.60E-04
200W S-296S023 001	Sulfuric acid	7664-93-9	5.00E-01	8.40E-05
200W S-296S023 001	Toluene	108-88-3	5.00E-01	5.76E-06
200W S-296S023 001	Trichloroethylene	79-1-6	5.00E-01	7.80E-05
200W S-296S023 001	Xylene	1330-20-7	5.00E-01	2.28E-05
200W P-291Z001 001 ¹	Acetic acid	64-19-7	5.00E-01	5.95E-04
200W P-291Z001 001	Aluminum nitrate	13473-90-0		1.86E-04
200W P-291Z001 001	Aluminum sulfate	10043-01-3		1.65E-06
200W P-291Z001 001	Anhydrous ammonia	7664-41-7	5.00E-01	3.75E-01
200W P-291Z001 001	Boric acid	10043-35-3		1.09E-07
200W P-291Z001 001	Calcium nitrate	10124-37-5		4.07E-06
200W P-291Z001 001	Carbon Tetrachloride	56-23-5	5.00E-01	6.78E-04
200W P-291Z001 001	Ethyl alcohol	64-17-5	5.00E-01	2.18E-05
200W P-291Z001 001	Europium nitrate	10138-01-9		1.10E-04
200W P-291Z001 001	Ferrous sulfamate			2.64E-05

¹Reported emissions are from the laboratory that are emitted through PFP main stack.

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W P-291Z001 001	Hydrochloric acid	7647-01-0	5.00E-01	1.16E-04
200W P-291Z001 001	Iron II nitrate			8.92E-06
200W P-291Z001 001	Magnesium nitrate	10377-60-3		1.47E-06
200W P-291Z001 001	Naphthylamine sulfonic	84-86-6		3.30E-06
200W P-291Z001 001	Nitric acid	7697-37-2	5.00E-01	4.50E-04
200W P-291Z001 001	Potassium dichromate	7778-50-9		2.75E-06
200W P-291Z001 001	Potassium persulfate	7727-21-1		6.61E-03
200W P-291Z001 001	Silver nitrate	7761-88-8		1.10E-04
200W P-291Z001 001	Silver oxide	20667-12-3		5.51E-06
200W P-291Z001 001	Sodium fluoride	7681-49-4		5.32E-05
200W P-291Z001 001	Sodium hydroxide	1310-73-2	5.00E-01	2.64E-05
200W P-291Z001 001	Sodium nitrate	7631-99-4		2.57E-04
200W P-291Z001 001	Sodium nitrite	7632-00-00		2.77E-03
200W P-291Z001 001	Sodium tartrate	526-94-3		2.14E-04
200W P-291Z001 001	Stannic chloride	7646-78-8		2.20E-03
200W P-291Z001 001	Sulfanic acid	121-57-3		1.32E-05
200W P-291Z001 001	Sulfuric acid	7664-93-9	5.00E-01	4.28E-03
200W P-291Z001 001	Titanium chloride	7550-45-0	1.00E-01	3.30E-03
200W P-291Z001 001	ZnCl ₂	7646-85-7	5.00E-01	1.26E-03
200E P-296-A05A&05B 001	Acetic acid	64-19-7	5.00E-01	1.73E-03
200E P-296-A05A&05B 001	Aluminum nitrate	13473-90-0		3.22E-03
200E P-296-A05A&05B 001	Ammonia	7664-41-7	5.00E-01	3.75E-07
200E P-296-A05A&05B 001	Ammonium hydroxide	1336-21-6		2.32E-04
200E P-296-A05A&05B 001	Ammonium molybdate	12027-67-7		2.20E-04
200E P-296-A05A&05B 001	Ammonium nitrate	6482-52-2		6.61E-05
200E P-296-A05A&05B 001	Barium chloride	10361-37-2		2.29E-04
200E P-296-A05A&05B 001	Boric acid	10043-35-3		9.65E-06
200E P-296-A05A&05B 001	Ethyl alcohol	64-17-5	5.00E-01	8.69E-03
200E P-296-A05A&05B 001	Ferric nitrate	10421-48-4		3.56E-05
200E P-296-A05A&05B 001	Sodium oxylate	62-76-0		6.61E-05

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E P-296-A05A&05B 001	Sodium fluoride	7681-49-4		7.27E-05
200E P-296-A05A&05B 001	Hydrochloric acid	7647-1-0	5.00E-01	1.20E-05
200E P-296-A05A&05B 001	Hydroxylamine HCL	5470-11-1		1.54E-03
200E P-296-A05A&05B 001	Nitric acid	7697-37-2		6.50E-02
200E P-296-05A&05B 001	Normal paraffinic hydrocarbons			2.12E-02
200E P-296-A05A&05B 001	Phosphoric acid	7664-38-2	5.00E-01	1.26E-01
200E P-296-A05A&05B 001	Sodium bicarbonate	144-55-8		2.22E-04
200E P-296-A05A&05B 001	Sodium carbonate	497-19-8		2.62E-03
200E P-296-A05A&05B 001	Sodium hydroxide	1310-73-2		6.98E-04
200E P-296-A05A&05B 001	Sodium nitrite	7632-00-00		9.40E-04
200E P-296-A05A&05B 001	Sulfamic acid	5329-14-6		4.18E-03
200E P-296-A05A&05B 001	Sulfuric acid	764-93-9	5.00E-01	1.71E-04
200E P-296-A05A&05B 001	Sulfanic acid	121-57-3		7.93E-05
200E P-296-A05A&05B 001	Tributyl phosphate	126-73-8		8.57E-03
200E P-296-A05A&05B 001	Thenoyltrifluoroacetane			8.56E-04
200E P-296-A05A&05B 001	Vanadyl sulfate	27774-13-6		2.48E-03
200E P-296-A05A&05B 001	Xylene	1330-20-7		6.83E-03
200E P-296-A05A&05B 001	Zinc chloride	7646-85-7		1.20E-03
1100 G-1172A 002	2,2,4-Trimethylpentane	540-84-1	5.00E-01	3.70E-03
1100 G-1172A 002	Benzene	71-43-2	5.00E-01	1.00E-02
1100 G-1172A 002	Ethyl benzene	100-41-4	5.00E-01	2.80E-03
1100 G-1172A 002	Hexane, n-hexane	110-54-3	5.00E-01	9.10E-03
1100 G-1172A 002	Methyl tert-butyl ether	1634-4-4	5.00E-01	2.90E-02
1100 G-1172A 002	Toluene	108-88-3	5.00E-01	1.00E-02
1100 G-1172A 002	Volatile organic compound	---	2.00E+00	9.40E-01
1100 G-1172A 002	Xylene	1330-20-7	5.00E-01	4.40E-03
1100 G-1172A 003	2,2,4-Trimethylpentane	540-84-1	5.00E-01	3.70E-03
1100 G-1172A 003	Benzene	71-43-2	5.00E-01	1.00E-02

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
1100 G-1172A 003	Ethyl benzene	100-41-4	5.00E-01	2.80E-03
1100 G-1172A 003	Hexane, n-hexane	110-54-3	5.00E-01	9.10E-03
1100 G-1172A 003	Methyl tert-butyl ether	1634-4-4	5.00E-01	2.90E-02
1100 G-1172A 003	Toluene	108-88-3	5.00E-01	1.00E-02
1100 G-1172A 003	Volatile organic compound	---	2.00E+00	9.40E-01
1100 G-1172A 003	Xylene	1330-20-7	5.00E-01	4.40E-03
1100 G-1172A 004	Benzene	71-43-2	5.00E-01	2.80E-05
1100 G-1172A 004	Hexane, n-hexane	110-54-3	5.00E-01	1.10E-04
1100 G-1172A 004	Toluene	108-88-3	5.00E-01	1.60E-05
1100 G-1172A 004	Volatile organic compound	---	2.00E+00	1.00E-03
1100 G-1172A 005	Benzene	71-43-2	5.00E-01	2.80E-05
1100 G-1172A 005	Hexane, n-hexane	110-54-3	5.00E-01	1.10E-04
1100 G-1172A 005	Toluene	108-88-3	5.00E-01	1.60E-05
1100 G-1172A 005	Volatile organic compound	---	2.00E+00	1.00E-03
200E G-2713E 002	2,2,4-Trimethylpentane	540-84-1	5.00E-01	3.50E-03
200E G-2713E 002	Benzene	71-43-2	5.00E-01	9.50E-03
200E G-2713E 002	Ethyl benzene	100-41-4	5.00E-01	2.70E-03
200E G-2713E 002	Hexane, n-hexane	110-54-3	5.00E-01	8.60E-03
200E G-2713E 002	Methyl tert-butyl ether	1634-4-4	5.00E-01	2.70E-02
200E G-2713E 002	Toluene	108-88-3	5.00E-01	9.80E-03
200E G-2713E 002	Volatile organic compound	---	2.00E+00	8.90E-01
200E G-2713E 002	Xylene	1330-20-7	5.00E-01	4.20E-03
200E G-2713E 003	Benzene	71-43-2	5.00E-01	7.30E-05
200E G-2713E 003	Hexane, n-hexane	110-54-3	5.00E-01	3.00E-04
200E G-2713E 003	Toluene	108-88-3	5.00E-01	4.30E-05
200E G-2713E 003	Volatile organic compound	---	2.00E+00	2.60E-03

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200E K-2715EC 001	Isopropyl alcohol	67-63-0	5.00E-01	2.30E-02
200E K-2715EC 001	Methyl ethyl ketone (2-butone)	78-93-3	5.00E-01	1.50E-02
200E K-2715EC 001	Methyl isobutyl ketone	108-10-1	5.00E-01	1.50E-02
200E K-2715EC 001	Petroleum distillates 3	64742-88-7		2.40E-01
200E K-2715EC 001	Petroleum distillate, hydrotreated middle	64742-46-7		5.90E-02
200E K-2715EC 001	Toluene	108-88-3	5.00E-01	1.20E-01
200E K-2715EC 001	Vm&p naphtha	64742-48-9		1.80E-01
200E N-2101M 001	Stoddard solvent	8052-41-3		8.40E-02
200E N-2101M 002	Hydrogen sulfide	7783-06-4	5.0E-01	4.6E-09
200E N-2101M 002	Sulfur dioxide	7446-09-5	2.0E+0	3.3E-09
200E N-2101M 002	Nitrogen dioxide	10102-44-0	2.0E+02	3.0E-08
200E N-2101M 002	Carbon monoxide	630-08-0	5.0E+0	1.5E-08
200E N-2101M 002	Pentane	109-66-0	5.0E-01	6.4E-05
200E N-2101M 002	Chlorine	7782-50-5	1.0E-01	4.1E-08
200E N-2101M 002	Methane	74-82-8	5.0E-01	2.1E-06
200E N-2101M 002	Isobutylene	115-11-7		6.6E-07
200E N-2101M 002	Ammonia	7664-41-7	5.0E-01	7.3E-08
200E N-2101M 002	Hydrogen cyanide	74-90-8	5.0E-01	1.1E-08
200E N-2242B 001	PM < 10 μ	---	7.50E-01	2.50E-01
200E N-2242B 001	PM > 10	---		6.30E-01
200E N-2715EC 003	Total particulate matter	---		1.50E+00
200E N-275E 001	PM < 10 μ	---	7.50E-01	4.00E-01
200E N-275E 001	PM > 10	---		9.90E-01

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
200W M-242AC 001	PM < 10 μ	---	7.50E-01	1.40E-02
200W N-200W001 001	PM < 10 μ	---	7.50E-01	1.00E-01
200W N-200W001 001	PM > 10 μ	---		2.60E-01
200W N-277W 002	Lead	7439-92-1	5.00E-03	4.80E-06
200W N-277W 002	Total particulate matter	---		1.90E-05
300 N-328 001	PM < 10 μ	---	7.50E-01	1.50E-02
300 N-328 001	PM > 10	---		3.80E-02
300 N-328 002	Total particulate matter	---		3.90E-02
300 N-3713 001	PM < 10 μ	---	7.50E-01	4.00E-01
300 N-3713 001	PM > 10	---		9.90E-01
300 N-3722 002	PM < 10 μ	---	7.50E-01	1.10E-01
300 N-3722 002	PM > 10	---		2.90E-01
400 N-4722B 001	PM < 10 μ	---	7.50E-01	2.30E-01
400 N-4722B 001	PM > 10	---		5.70E-01
400 N-4722C 003	Total particulate matter	---		6.00E-03
600 N-MO222 001	Petroleum distillates 3	64742-88-7		3.10E-02
600 N-MO222 002	Petroleum distillates 3	64742-88-7		3.10E-02
300 N-3717B 001	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	5.00E-01	5.20E-02

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
300 N-3717B 001	Ethyl alcohol	64-17-5	5.00E-01	3.30E-03
600 S-6266-001	2-Hexanone	540-84-1		4.46E-05
600 S-6266-001	Acetic acid	64-19-7	5.00E-01	5.79E-03
600 S-6266-001	Acetone	67-64-1	5.00E-01	4.35E-05
600 S-6266-001	Acetronile	75-5-8	5.00E-01	9.03E-04
600 S-6266-001	Antimony	7440-36-0		8.27E-05
600 S-6266-001	Benzene	71-43-2	5.00E-01	4.85E-05
600 S-6266-001	Beryllium	7440-41-7	4.00E-03	2.04E-03
600 S-6266-001	Cadmium	7440-43-9	5.00E-03	1.82E-03
600 S-6266-001	Chlorine	7782-50-5	1.00E-01	7.83E-05
600 S-6266-001	Cobalt	7440-48-4		2.15E-03
600 S-6266-001	Cyclohexanone	110-82-7	5.00E-01	8.60E-04
600 S-6266-001	Ethyl benzene	100-41-4	5.00E-01	4.80E-05
600 S-6266-001	Hexane, n-hexane	110-54-3	5.00E-01	3.64E-05
600 S-6266-001	Hydrochloric acid (Hydrogen chloride)	7647-1-0	5.00E-01	5.44E-04
600 S-6266-001	Isopropyl alcohol	67-63-0	5.00E-01	4.30E-05
600 S-6266-001	Lead	7439-92-1	5.00E-03	1.25E-02
600 S-6266-001	Mercury	7439-97-6	1.00E-02	1.49E-02
600 S-6266-001	Methyl alcohol	67-56-1	5.00E-01	4.35E-03
600 S-6266-001	Methylene chloride	75-9-2	5.00E-01	3.25E-01
600 S-6266-001	Nickel	7440-2-0	2.00E-02	1.32E-03
600 S-6266-001	Nitrobenzene	98-95-3	5.00E-01	6.61E-05
600 S-6266-001	Nitrosodimethylamine	62-75-9	5.00E-04	5.51E-05
600 S-6266-001	Pentane	109-66-0	5.00E-01	3.47E-05
600 S-6266-001	Phosphoric acid	7664-38-2	5.00E-01	9.26E-05
600 S-6266-001	Pyridine	110-86-1	5.00E-01	1.08E-04
600 S-6266-001	Selenium	7782-49-2	5.00E-01	1.10E-03
600 S-6266-001	Trichloroethylene	79-1-6	5.00E-01	2.76E-06
600 S-6266-001	Xylene	1330-20-7	5.00E-01	2.76E-06

**Table K.2. Insignificant Emission Units Based on Threshold Comparisons
[WAC 173-401-530(1)(a)]**

Emission Point	Pollutants	CAS Number	Emission Threshold (tons/yr)	Actual Emissions (tons/yr)
600 S-6266-001	Yttrium	7440-65-5	5.00E-01	1.10E-03

Table K.3. Fugitive Source Insignificant Emission Units [WAC 173-401(1)(d)].

Emission Point	Pollutants	CAS Number
100K N-1717K 001	1,1,1-Trichloroethane	71-55-6
100K N-1717K 001	1,2-Butylene Oxide	106-88-7
100K N-1717K 001	Butyl alcohol, tert-	75-65-0
100K N-1717K 001	Dimethoxymethane	109-87-5
100K N-1717K 001	Isopropyl alcohol	67-63-0
100K N-1717K 001	Methyl Alcohol	67-56-1
100K N-1717K 001	Methylene Chloride	75-9-2
100N K-1143N 015	Methyl ethyl ketone (2-butanone)	78-93-3
100N K-1143N 015	Petroleum Benzin	8030-30-6
100N K-1517N 021	Methyl ethyl ketone (2-butanone)	78-93-3
100N K-1517N 021	Petroleum Benzin	8030-30-6
100N M-1515N 020	PM < 10 μ	---
100N M-1518N 019	PM < 10 μ	---
100N M-1705N 013	PM < 10 μ	---
100N N-1143N 016	Methyl ethyl ketone (2-butanone)	78-93-3
100N N-1143N 016	Petroleum Benzin	8030-30-6
100N N-1143N 016	Total particulate matter	---
100N N-1517N 018	Total particulate matter	---
200E N-272AW 001	2-Butoxy ethanol	111-76-2
200E N-272AW 001	2-(2-Butoxyethoxy) ethanol	112-34-5
200E N-272AW 001	2-(2-Methoxyethoxy) ethanol	111-77-3
200E N-272AW 001	2,2,4Trimethyl 1,3pentadiol	25265-77-4
200E N-272AW 001	Acetone	67-64-1
200E N-272AW 001	Butyl Acetate	123-86-4
200E N-272AW 001	Cyclohexane	110-82-7
200E N-272AW 001	Cyclohexanone	108-94-1
200E N-272AW 001	Dibutyl Phthalate	87-74-2
200E N-272AW 001	Ester alcohol	25264-77-4
200E N-272AW 001	Ethyl benzene	100-41-4
200E N-272AW 001	Ethylene glycol	107-21-1
200E N-272AW 001	Hexane, n-hexane	110-54-3
200E N-272AW 001	Isobutane	75-28-5
200E N-272AW 001	Ligroine or vm&p naphtha, or petroleum	8032-32-4

Table K.3. Fugitive Source Insignificant Emission Units [WAC 173-401(1)(d)].

Emission Point	Pollutants	CAS Number
200E N-272AW 001	Methyl ether or dimethyl ether	115-10-6
200E N-272AW 001	Methyl ethyl ketone (2-butanone)	78-93-3
200E N-272AW 001	Methyl isobutyl ketone	108-10-1
200E N-272AW 001	Methyl N-amyl ketone, 2-heptanone	110-43-0
200E N-272AW 001	Phosphoric acid	7664-38-2
200E N-272AW 001	Polyvinyl Chloride Latex	9002-86-2
200E N-272AW 001	Propane	74-98-6
200E N-272AW 001	Tetrahydrofuran	109-99-9
200E N-272AW 001	Toluene	108-88-3
200E N-272AW 001	Vm&p naphtha	64742-48-9
200E N-272AW 001	Xylene	1330-20-7
200W M 272WA	2-Butoxy ethanol	111-76-2
200W M 272WA	2-(2-Butoxyethoxy) ethanol	112-34-5
200W M 272WA	2-(2-Methoxyethoxy) ethanol	111-77-3
200W M 272WA	2,2,4-Trimethyl 1,3-pentadiol	25265-77-4
200W M 272WA	Acetone	67-64-1
200W M 272WA	Butyl Acetate	123-86-4
200W M 272WA	Cyclohexane	110-82-7
200W M 272WA	Cyclohexanone	108-94-1
200W M 272WA	Dibutyl Phthalate	87-74-2
200W M 272WA	Ester alcohol	25264-77-4
200W M 272WA	Ethyl benzene	100-41-4
200W M 272WA	Ethylene glycol	107-21-1
200W M 272WA	Hexane, n-hexane	110-54-3
200W M 272WA	Isobutane	75-28-5
200W M 272WA	Ligroine or vm&p naphtha, or petroleum	8032-32-4
200W M 272WA	Methyl ether or dimethyl ether	115-10-6
200W M 272WA	Methyl ethyl ketone (2-butanone)	78-93-3
200W M 272WA	Methyl isobutyl ketone	108-10-1
200W M 272WA	Methyl N-amyl ketone, 2-heptanone	110-43-0
200W M 272WA	Phosphoric acid	7664-38-2
200W M 272WA	Polyvinyl Chloride Latex	9002-86-2
200W M 272WA	Propane	74-98-6
200W M 272WA	Tetrahydrofuran	109-99-9
200W M 272WA	Toluene	108-88-3
200W M 272WA	Vm&p naphtha	64742-48-9
200W M 272WA	Xylene	1330-20-7
1100 G-1172A 001	2,2,4-Trimethylpentane	540-84-1

Table K.3. Fugitive Source Insignificant Emission Units [WAC 173-401(1)(d)].

Emission Point	Pollutants	CAS Number
1100 G-1172A 001	Benzene	71-43-2
1100 G-1172A 001	Ethyl benzene	100-41-4
1100 G-1172A 001	Hexane, n-hexane	110-54-3
1100 G-1172A 001	Methyl tert-butyl ether	1634-4-4
1100 G-1172A 001	Toluene	108-88-3
1100 G-1172A 001	Volatile organic compound	---
1100 G-1172A 001	Xylene	1330-20-7
200E G-2713E 001	2,2,4-Trimethylpentane	540-84-1
200E G-2713E 001	Benzene	71-43-2
200E G-2713E 001	Ethyl benzene	100-41-4
200E G-2713E 001	Hexane, n-hexane	110-54-3
200E G-2713E 001	Methyl tert-butyl ether	1634-4-4
200E G-2713E 001	Toluene	108-88-3
200E G-2713E 001	Volatile organic compound	---
200E G-2713E 001	Xylene	1330-20-7
200E M-277A 001	PM < 10 μ	---
200E M-2244B 001	PM < 10 μ	---
200E M-2247B 001	PM < 10 μ	---
200E N-2242B 002	PM < 10 μ	---
200E N-2242B 002	PM > 10	---
200E N-2721EA 001	Stoddard solvent	8052-41-3
200E N-272E 001	PM < 10 μ	---
200E N-272E 001	Stoddard solvent	8052-41-3
200E N-275E 002	PM < 10 μ	---
200E N-275E 002	PM > 10	---
200W N-200W004 001	Total particulate matter	---
200W M-200W005 001	PM < 10 μ	---
200W M-200W006 001	PM < 10 μ	---
200W M-272W 001	PM < 10 μ	---

Table K.3. Fugitive Source Insignificant Emission Units [WAC 173-401(1)(d)].

Emission Point	Pollutants	CAS Number
200W M-277W 001	PM < 10 μ	---
200W N-200W002 001	PM < 10 μ	---
200W N-200W002 001	PM > 10	---
200W N-275W 001	PM < 10 μ	---
200W N-277W 003	PM < 10 μ	---
200W M-2722W 001	PM < 10 μ	---
300 M-305A 001	1,1,1-Trichloroethane	71-55-6
300 M-305A 001	Isopropyl alcohol	67-63-0
300 M-305A 001	Total particulate matter	---
300 M-328 003	PM10 μ	---
300 M-338 001	Acetone	67-64-1
300 M-338 001	Stoddard solvent	8052-41-3
300 N-305 001	Total particulate matter	---
300 N-3713 002	PM < 10 μ	---
300 N-3713 002	PM > 10	---
300 N-3722 001	PM < 10 μ	---
300 N-3722 003	PM < 10 μ	---
300 N-3722 003	PM > 10	---
400 N-4704N 001	Stoddard solvent	8052-41-3
400 N-4704N 001	Total particulate matter	---
400 N-4722B 002	PM < 10 μ	---
400 N-4722B 002	PM > 10	---
400 N-4722C 002	Total particulate matter	---
600 M-6290 001	PM < 10 μ	---

Table K.3. Fugitive Source Insignificant Emission Units [WAC 173-401(1)(d)].

Emission Point	Pollutants	CAS Number
600 N-661 001	Hydrogen sulfide	7783-6-4
600 N-661 001	Lead	7439-92-1
600 N-MO302 001	Petroleum distillates 3	64742-88-7

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