DOE/RL-2022-06
Revision 0

Air Emissions Inventory for the Hanford Site, Calendar Year 2021

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

P.O. Box 550
Richland, Washington 99352

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Air Emissions Inventory for the Hanford Site, Calendar Year 2021

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Hanford Mission Integration Solutions (HMIS)

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

U.S. DEPARTMENT OF ENERGY | Richland Operations Office
P.O. Box 550
Richland, Washington 99352

APPROVED
By Sarah Harrison at 11:21 am, Jun 07, 2022

Release Approval | Date

TRADEMARK DISCLAIMER

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Contents

Tables

ACRONYMS

AEI	Air Emissions Inventory
AOP	Air Operating Permit
CO	Carbon Monoxide
CWC	Central Waste Complex
CY	calendar year
DOE	Department of Energy
DOE-RL	Department of Energy, Richland Operations Office
Ecology	State of Washington, Department of Ecology
EPA	U.S. Environmental Protection Agency
Lbs	pounds
N/A	Not applicable
NH_3	Ammonia
NO_x	Oxides of Nitrogen
ORP	Office of River Protection
PM	Particulate Matter
PM-10	Particulate Matter of diameter less than 10 microns
PM-2.5	Particulate Matter of diameter less than 2.5 microns
PNSO	U.S. Department of Energy, Pacific Northwest Site Office
SAW	Secure Access Washington
SO_x	Oxides of Sulfur
STGC	Standard Terms and General Conditions
TAP	Toxic Air Pollutant
VOC	Volatile Organic Compounds
WAC	*Washington Administrative Code*
WEIRS	Washington Emissions Inventory Reporting System
WRAP	Waste Receiving and Processing
WTP	Waste Treatment Plant

1.0 Introduction

In accordance with WAC 173-400 "General Regulations for Air Pollution Sources," Section 105 and the Hanford Site Air Operating Permit (AOP), Number 00-05-06, Renewal 3, Standard Terms and General Conditions (STGC), Section 5.9, "Annual Air Emission Inventory," the U.S. Department of Energy (DOE), Richland Operations Office (RL), Office of River Protection (ORP), Pacific Northwest Site Office (PNSO), and their contractors on the Hanford Site are reporting their emissions inventories for calendar year (CY) 2021. This report contains the summary of emission estimates from the Hanford Site for CY 2021.

The WAC 173-400-105(1) specifically requires the owner(s) or operator(s) of air contaminant sources to submit an air emissions inventory (AEI) each year. The AEI should include stack and fugitive emissions of particulate matter (PM), PM of diameter less than 10 microns (PM-10), PM of diameter less than 2.5 microns (PM-2.5), sulfur dioxides, oxides of nitrogen, carbon monoxide, volatile organic compounds (VOCs), ammonia, and other contaminants. The term *"other contaminants"* in this requirement are not specified, defined, or listed in the WAC 173-400 or other regulations. Ecology provides clarification during annual report preparation training that toxic air pollutant reporting is not required unless specified in facility specific permits or approval orders.

The AOP STGC Section 5.9 states the emissions inventory shall be submitted no later than 105 days after the end of the calendar year and will contain information on air emissions:

- For emission units as listed in the AOP Attachment 1, Section 1.4, and
- For emission unit composites as requested by Ecology.

The Washington State Department of Ecology has requested permittees submit air emissions inventories through the Secure Access Washington (SAW) web-based database Washington Emission Inventory Reporting System (WEIRS). The Ecology WEIRS system is the mechanism used to define the composite emission reporting categories. The emission estimates in this report are entered into WEIRS database and certified by a DOE official to satisfy the Ecology reporting requirements. This document is created and published per a DOE request.

Multiple Hanford contractors were solicited for information and contributed to this report. All the AOP Attachment 1, Section 1.4 emission units were included in the contractor evaluation of emissions. The following is a list of contractors providing input for calendar year 2021:

- Bechtel National, Inc.
- Central Plateau Cleanup Company
- Hanford Laboratory Management and Integration
- Hanford Mission Integration Solutions
- Pacific Northwest National Laboratory
- Washington River Protection Solutions.

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2.0 Emissions Estimates

The following report sections and tables present the CY 2021 air emissions inventory for the Hanford Site organized in different formats.

2.1 Air Emissions Listed by Pollutant

Table 1 lists the total sum of all reported emission sources by pollutant.

Table 1. Calendar Year 2021 Air Emissions by Pollutant

Pollutant	Calendar Year 2021 Emissions (tons)	Calendar Year 2020 Emissions (tons)
Carbon Monoxide (CO)	22.06	8.40
Nitrogen Oxides (NO_x)	51.12	14.22
Particulate Matter (PM)	5.57	0.87
Particulate Matter less than 10 microns (PM10)	5.54	0.86
Particulate Matter less than 2.5 microns ($PM_{2.5}$)	2.54	0.67
Sulfur Oxides (SO_x)	2.12	0.53
Volatile Organic Compounds (VOCs)	11.72	6.50
Ammonia (NH_3)	3.14	2.49
Other Toxic Air Pollutants (TAPs)	0.7 (lbs)	11.9 (lbs)

2.2 Air Emissions Listed by Emission Point Identification

Table 2 lists air pollutants by emission point definitions provided by Ecology for AEI reporting purposes.

Table 2. Calendar Year 2021 Air Emissions by Emission Point

Emission Point ID	Emission Point Description	CO	NO_x	PM	PM_{10}	$PM_{2.5}$	SO_x	VOC	NH_3	TAPs
		(Tons)								(lbs)
22	Tank Farm Exhausters, 200E Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.18	2.98	0.00
23	Tank Farm Exhausters, 200W Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.00
24	242A Evaporator, 200E	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	200 Area Effluent Treatment, 200E	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00
26	ESPC Dist. Oil Boilers, 200 Area Composite	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27	ESPC Natural Gas Boilers, 300 Area Composite	4.66	2.07	0.25	0.25	0.25	0.01	0.27	0.06	0.00
28	CWC Diffuse and Fugitive, 200W Area	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.54
30	T Plant Point Source and Fugitive, 200W Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	WRAP Point Source and Fugitive, 200W Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32	Fuel Dispensing, Evaporative Losses, Area 200/600	0.00	0.00	0.00	0.00	0.00	0.00	4.60	0.00	0.00
33	WTP Concrete Batch Plant, 200 Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34	WTP Pit 30 Quarry, 600 Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35	Fuel Dispensing, Evaporative Losses, WTP Construction Site	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36	WTP Heaters and Dehumidifiers	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37	Site wide Composite Emissions from Diesel Fuel Combustion	7.40	34.04	2.32	2.29	2.29	2.11	2.67	0.00	0.19
38	Tank Farms Direct-Fired Hot Water Heaters	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39	Site wide Composite Emissions from Propane Fuel Combustion	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	WTP Standby Diesel Generator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41	WTP Steam Plant Boilers	10.0	13.00	3.00	3.00	0.00	0.00	4.00	0.00	0.00

2.3 Fuel Use

Table 3 lists the quantity of fuel use reported by Hanford Site contractors in CY 2021 for emission units listed in AOP Attachment 1 Section 1.4. As illustrated in this table, 11 of the 19 emission points rely upon fuel use records and Environmental Protection Agency (EPA) emission factors published in AP-42, *Compilation of Air Emissions Factors*, to estimate emissions.

Table 3. Calendar Year 2021 Fuel Use by Contractor

(gallons)

Contractor	Emission Point Identification Number							
	#27 (therms)	**#32**	**#35**	**#36**	**#37**	**#39**	**#40**	**#41**
Bechtel National	0	0	37,937	70,598	4,407	260	4,238	2,016,920
Central Plateau Cleanup Co.	61,280	0	0	0	1,347	0	0	0
Hanford Laboratory Management and Integration	0	0	0	0	10,315	0	0	0
Hanford Mission Integration Solutions	2,679	819,500	0	0	10,919	743	0	0
Pacific Northwest National Laboratory	350,456	0	0	0	1,261	0	0	0
Washington River Protection Solutions	0	0	0	0	87,358	0	0	0
Totals	414,415	819,500	37,937	70,598	115,607	1,003	4,238	2,016,920

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3.0 References

AP-42, *Compilation of Air Emission Factors*, United States Environmental Protection Agency, Washington, D.C. Online at: https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emissions-factors

Hanford Site Air Operating Permit 00-05 Renewal 3, 2019, Washington State Department of Ecology. Olympia, Washington. Online at: https://fortress.wa.gov/ecy/nwp/permitting/AIR/AOP/renewal/three/index.html

WAC 173-400, "General Regulations for Air Pollution Sources," Washington Administrative Code, Olympia, Washington. Online at: https://apps.leg.wa.gov/WAC/default.aspx?cite=173-400

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APPENDIX A:
Washington Emissions Inventory Reporting System

Facility Summary eFORM

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Facility Summary eFORM

Dept. of Ecology Nuclear Waste Section

M-005-0009 **U.S. Dept of Energy** **2021**

FACILITY OPERATIONS	
Facility Category:	HAP and CAP Major
NAICS Code:	924110
Facility Comments:	Operating Status Year: 2021
Operating Status:	Operating

FACILITY LOCATION	
Coordinates:	Latitude: 46.27800 Longitude: -119.27500
Reference Point:	Entrance Point
Comments:	
Facility Address:	Hanford Reservation Richland, WA 99352 Benton County
Contact:	Bryan R.Trimberger PO BOX 550 Richland, WA 99352 (509) 376-2674 Bryan.Trimberger@rl.doe.gov

RESPONSIBLE OFFICIAL CERTIFICATION OF DATA ACCURACY

I do hereby certify that, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Release Point for Unit 22 - Tank Farm Exhausters, 200 E Composite		
Release Point Type	**Status**	
Fugitive	Operating	
Stack	**Fugitive**	**Comments**
Height: not provided Diameter: not provided Temperature: not provided Flow Rate: not provided Velocity: not provided Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	The 12 tank farm exhausters vary in stack dimensions and flow parameters. Geographic Coordinates Comments: The dimensions have been previously provided in the AOP application.
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 23 - Tank Farm Exhausters, 200 W Composite		
Release Point Type	**Status**	
Fugitive	Operating	
Stack	**Fugitive**	**Comments**
Height: not provided Diameter: not provided Temperature: not provided Flow Rate: not provided Velocity: not provided Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	The 3 tank farm exhausters vary in dimensions. The schematics have been previously provided in the AOP. Geographic Coordinates Comments: The 3 tank farm exhausters vary in stack dimensions and flow parameters. The dimensions have been previously provided in the AOP application.
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 24 - 242-A Evaporator, 200 East Area		
Release Point Type	**Status**	
Vertical	Temporarily Shutdown	
Stack	**Fugitive**	**Comments**
Height: 111 ft Diameter: .5 ft Temperature: 120°F Flow Rate: 520 ACFM Velocity: 2,648 FPM Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	Mixed radioactive-dangerous waste evaporation; subject to RCRA Subpart AA. Geographic Coordinates Comments: The 242-A Evaporator did not process waste in 2021.
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 25 - 200 Area Effluent Treat, 200 E Area		
Release Point Type	**Status**	
Vertical	Operating	
Stack	**Fugitive**	**Comments**
Height: 50 ft Diameter: 6 ft Temperature: 85°F Flow Rate: 1,000 ACFS Velocity: 35.4 FPS Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	ETF operated a total of 12 weeks in 2021.
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 26 - ESPC Dist. Oil Blrs, 200 Area Compos.		
Release Point Type	**Status**	
Fugitive	Temporarily Shutdown	
Stack	**Fugitive**	**Comments**
Height: not provided Diameter: not provided Temperature: not provided Flow Rate: not provided Velocity: not provided Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 27 - ESPC Nat Gas Blrs, 300 Area Compos.		
Release Point Type	**Status**	
Fugitive	Operating	
Stack	**Fugitive**	**Comments**
Height: not provided Diameter: not provided Temperature: not provided Flow Rate: not provided Velocity: not provided Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 28 - CWC Diffuse and Fugitive, 200 W Area		
Release Point Type	**Status**	
Fugitive	Operating	
Stack	**Fugitive**	**Comments**
Height: not provided Diameter: not provided Temperature: not provided Flow Rate: not provided Velocity: not provided Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 30 - T Plant Point Source and Fugitive, 200 W Area		
Release Point Type	**Status**	
Fugitive	Operating	
Stack	**Fugitive**	**Comments**
Height: not provided Diameter: not provided Temperature: not provided Flow Rate: not provided Velocity: not provided Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 31 - WRAP Point Source & Fugitive, 200 W Area		
Release Point Type	**Status**	
Fugitive	Operating	
Stack	**Fugitive**	**Comments**
Height: not provided Diameter: not provided Temperature: not provided Flow Rate: not provided Velocity: not provided Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 32 - Fuel Dispensing, Evaporative Losses, Area 200/600		
Release Point Type	**Status**	
Fugitive	Operating	
Stack	**Fugitive**	**Comments**
Height: not provided Diameter: not provided Temperature: not provided Flow Rate: not provided Velocity: not provided Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 35 - Fuel Dispensing, Evaporative Losses, WTP Construction Site		
Release Point Type	**Status**	
Fugitive	Operating	
Stack	**Fugitive**	**Comments**
Height: not provided Diameter: not provided Temperature: not provided Flow Rate: not provided Velocity: not provided Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	none
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 36 - WTP heaters and Dehumidifiers		
Release Point Type	**Status**	
Fugitive	Operating	
Stack	**Fugitive**	**Comments**
Height: not provided Diameter: not provided Temperature: not provided Flow Rate: not provided Velocity: not provided Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 37 - Sitewide Composite Emissions from Diesel Fuel Combustion		
Release Point Type	**Status**	
Fugitive	Operating	
Stack	**Fugitive**	**Comments**
Height: not provided Diameter: not provided Temperature: not provided Flow Rate: not provided Velocity: not provided Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	Release point for Unit 37 is comprised of multiple stationary diesel-powered engines, compressors, light plants and generators.
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 38 - Tank Farms Direct-Fired Hot Water Heaters Composite		
Release Point Type	**Status**	
Fugitive	Temporarily Shutdown	
Stack	**Fugitive**	**Comments**
Height: 10 ft Diameter: 1.5 ft Temperature: 10°F Flow Rate: 700 ACFM Velocity: 396 FPM Water Vapor: not provided Oxygen: 7.0000 %	Height: not provided Length: not provided Width: not provided Angle: not provided	Two direct-fired diesel water heaters allowed in accordance with DE12NWP-003. Units shutdown January 2018. Units did not operate in 2021.
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release Point for Unit 39 - Site-wide Composite Emissions from Propane Fuel Combustion		
Release Point Type	**Status**	
Fugitive	Operating	
Stack	**Fugitive**	**Comments**
Height: not provided Diameter: not provided Temperature: not provided Flow Rate: not provided Velocity: not provided Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	Release point for Unit 39 is a composite of multiple units operated in various locations on the Hanford Site.
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release point for unit 40 - WTP Standby Diesel Generator, 200 Area		
Release Point Type	**Status**	
Vertical with Rain Cap	Operating	
Stack	**Fugitive**	**Comments**
Height: 14.8 ft Diameter: 1.6 ft Temperature: 696°F Flow Rate: 327.9 ACFS Velocity: 158.1 FPS Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	none
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

Release point for unit 41 - WTP Steam Plant Boilers, 200 Area		
Release Point Type	**Status**	
Vertical with Rain Cap	Operating	
Stack	**Fugitive**	**Comments**
Height: 35 ft Diameter: 2.5 ft Temperature: 425°F Flow Rate: 1,862 ACFM Velocity: 379.3 FPM Water Vapor: not provided Oxygen: not provided	Height: not provided Length: not provided Width: not provided Angle: not provided	none
Stack and Fugitive		**Release Point Coordinates**
Fence Line Distance: not provided EPA Release Point ID: not provided		Reference Point: Facility Center Latitude: 46.56300 Longitude: -119.59900

U.S. Dept of Energy CONTROL APPROACHES

Control Approach: Controlled 536 Release Point for Unit 33 - WTP Concrete Batch Plant, 200 Area	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	99 - Other Control Device

Control Approach: Controlled 536 Release Point for Unit 33 - WTP Concrete Batch Plant, 200 Area	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	99 - Other Control Device

Control Approach: Controlled 536 Release Point for Unit 33 - WTP Concrete Batch Plant, 200 Area	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	99 - Other Control Device

Control Approach: Controlled 536 Release Point for Unit 33 - WTP Concrete Batch Plant, 200 Area	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	99 - Other Control Device

Control Approach: Controlled
536 Release Point for Unit 33 - WTP Concrete Batch Plant, 200 Area

Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	99 - Other Control Device

Control Approach: Controlled
401 Release Point for Unit 22 - Tank Farm Exhausters, 200 E Composite

Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	101 - High-Efficiency Particulate Air Filter (HEPA)

Control Approach: Controlled
402 Release Point for Unit 23 - Tank Farm Exhausters, 200 W Composite

Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	101 - High-Efficiency Particulate Air Filter (HEPA)

Control Approach: Controlled
1110 Release Point for Unit 24 - 242-A Evaporator, 200 East Area

Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	101 - High-Efficiency Particulate Air Filter (HEPA)

Control Approach: Controlled
1109 Release Point for Unit 25 - 200 Area Effluent Treat, 200 E Area

Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	101 - High-Efficiency Particulate Air Filter (HEPA)

Control Approach: Controlled
403 Release Point for Unit 26 - ESPC Dist. Oil Blrs, 200 Area Compos.

Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	205 - Low NOx Burner (LNB)

Control Approach: Controlled 404 Release Point for Unit 27 - ESPC Nat Gas Blrs, 300 Area Compos.	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	205 - Low NOx Burner (LNB)

Control Approach: Controlled 405 Release Point for Unit 28 - CWC Diffuse and Fugitive, 200 W Area	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	101 - High-Efficiency Particulate Air Filter (HEPA)

Control Approach: Controlled 406 Release Point for Unit 30 - T Plant Point Source and Fugitive, 200 W Area	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	101 - High-Efficiency Particulate Air Filter (HEPA)

Control Approach: Controlled 407 Release Point for Unit 31 - WRAP Point Source & Fugitive, 200 W Area	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	101 - High-Efficiency Particulate Air Filter (HEPA)

Control Approach: Controlled 408 Release Point for Unit 32 - Fuel Dispensing, Evaporative Losses, Area 200/600	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	99 - Other Control Device

Control Approach: Controlled 409 Release Point for Unit 34 - WTP Pit 30 Quarry, 600 Area	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	99 - Other Control Device

Control Approach: Controlled 320 Release Point for Unit 35 - Fuel Dispensing, Evaporative Losses, WTP Construction Site	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	99 - Other Control Device

Control Approach: Controlled 320 Release Point for Unit 35 - Fuel Dispensing, Evaporative Losses, WTP Construction Site	
Control Effectiveness (%):	Capture Efficiency (%):

Control Approach: Controlled 321 Release Point for Unit 36 - WTP heaters and Dehumidifiers	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	205 - Low NOx Burner (LNB)

Control Approach: Controlled 321 Release Point for Unit 36 - WTP heaters and Dehumidifiers	
Control Effectiveness (%):	Capture Efficiency (%):

Control Approach: Controlled 322 Release Point for Unit 37 - Sitewide Composite Emissions from Diesel Fuel Combustion	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	99 - Other Control Device

Control Approach: Controlled 2020 Release Point for Unit 38 - Tank Farms Direct-Fired Hot Water Heaters Composite	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	205 - Low NOx Burner (LNB)

Control Approach: Not-Controlled **2099 Release Point for Unit 39 - Site-wide Composite Emissions from Propane Fuel Combustion**	
Control Effectiveness (%):	Capture Efficiency (%):

Measure Type	Measure
Device	99 - Other Control Device

U.S. Dept of Energy UNITS

Unit ID: 22 Tank Farm Exhausters, 200 E Composite		
Unit Type	**Status**	**Capacity**
690 - Other Process Equipment	Operating	capacity not provided

Unit ID: 23 Tank Farm Exhausters, 200 W Composite		
Unit Type	**Status**	**Capacity**
690 - Other Process Equipment	Operating	capacity not provided

Unit ID: 24 242-A Evaporator, 200 East Area		
Unit Type	**Status**	**Capacity**
490 - Other Evaporative Sources	Temporarily Shutdown	capacity not provided

Unit ID: 25 200 Area Effluent Treat, 200 E Area		
Unit Type	**Status**	**Capacity**
690 - Other Process Equipment	Operating	capacity not provided

Unit ID: 26 ESPC Dist. Oil Blrs, 200 Area Compos.		
Unit Type	**Status**	**Capacity**
100 - Boiler	Temporarily Shutdown	capacity not provided

Unit ID: 27 ESPC Nat Gas Blrs, 300 Area Compos.		
Unit Type	**Status**	**Capacity**
100 - Boiler	Operating	capacity not provided

Unit ID: 28 CWC Diffuse and Fugitive, 200 W Area		
Unit Type	**Status**	**Capacity**
999 - Unclassified	Operating	capacity not provided

Unit ID: 30
T Plant Point Source and Fugitive, 200 W Area

Unit Type	Status	Capacity
999 - Unclassified	Operating	capacity not provided

Unit ID: 31
WRAP Point Source & Fugitive, 200 W Area

Unit Type	Status	Capacity
999 - Unclassified	Operating	capacity not provided

Unit ID: 32
Fuel Dispensing, Evaporative Losses, 200 Area

Unit Type	Status	Capacity
490 - Other Evaporative Sources	Operating	capacity not provided

Unit ID: 35
Fuel Dispensing, Evaporative Losses, WTP Construction Site

Unit Type	Status	Capacity
400 - Storage Tank	Operating	capacity not provided

Unit ID: 36
WTP heaters and dehumidifiers

Unit Type	Status	Capacity
290 - Other Combustion	Operating	1 Million BTU Per Hour

Unit ID: 37
Sitewide Composite Emissions from Diesel Fuel Combustion

Unit Type	Status	Capacity
290 - Other Combustion	Operating	capacity not provided

Unit ID: 38
Tank Farms Direct-Fired Hot Water Heaters Composite

Unit Type	Status	Capacity
290 - Other Combustion	Temporarily Shutdown	2.5 Million BTU Per Hour

Unit ID: 39
Site-wide Composite from Propane Fuel Combustion

Unit Type	Status	Capacity
160 - Reciprocating IC Engine	Operating	capacity not provided

Unit ID: 40
WTP Standby Diesel Generator

Unit Type	Status	Capacity
290 - Other Combustion	Operating	2,500 Kilowatts

Unit ID: 41
WTP Steam Plant Boilers, 200 Area

Unit Type	Status	Capacity
310 - Roof Vents/Building Vents	Operating	50.2 Million BTU Per Hour

U.S. Dept of Energy PROCESSES
Unit ID: 22 **Process ID:** 01 **Process Description:** not provided
SCC CODE: 39999999 - Misc Manuf / Indus Processes /Other Not Classified

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Material:	**Material State:**
Throughput and Units:	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	25 %	Hours/Day	24.0
Spring %	25 %	Days/Week	7.0
Summer %	25 %	Weeks/Year	52
Fall %	25 %	Hours/Year	8,760

sum of quarters must be 100%

Comments: 12 exhausters operated continuously and/or intermittently throughout the reporting year.

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
22	Release Point for Unit 22 - Tank Farm Exhausters, 200 E Composite	100%

EMISSIONS

U.S. Dept of Energy M-005-0009
Unit ID: 22 Process ID: 01

CO - Carbon Monoxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NOX - Nitrogen Oxides 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM-PRI - PM Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
SO2 - Sulfur Dioxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds **VOC Expression: Unknown 0.18 TON**	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: Calculation of air emissions sample data.	
NH3 - Ammonia 2.98 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: Calculation of air emissions sample data.	

U.S. Dept of Energy PROCESSES
Unit ID: 23 **Process ID:** 01 **Process Description:** not provided
SCC CODE: 39999999 - Misc Manuf / Indus Processes /Other Not Classified

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Material:	**Material State:**
Throughput and Units:	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	25 %	Hours/Day	24.0
Spring %	25 %	Days/Week	7.0
Summer %	25 %	Weeks/Year	52
Fall %	25 %	Hours/Year	8,760

Comments: Three exhausters operated continuously and/or intermittently throughout the reporting year.

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
23	Release Point for Unit 23 - Tank Farm Exhausters, 200 W Composite	100%

EMISSIONS

U.S. Dept of Energy M-005-0009 Unit ID: 23 Process ID: 01	
CO - Carbon Monoxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NH3 - Ammonia 0.05 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds **VOC Expression: Sum of Volatile Organic Compounds 0.00 TON**	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: Calculation based on actual air emissions sampling data.	
SO2 - Sulfur Dioxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM-PRI - PM Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NOX - Nitrogen Oxides 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: Calculation based on actual air emissions sampling data.	

U.S. Dept of Energy PROCESSES
Unit ID: 24 **Process ID:** 01 **Process Description:** not provided
SCC CODE: 39999999 - Misc Manuf / Indus Processes /Other Not Classified

Insignificant Emissions Unit? No Status:Temporarily Shutdown

ANNUAL THROUGHPUT

Operating Type:	
Routine	
Material:	**Material State:**
177 - Liquid Waste	Input
Throughput and Units:	
0.00 GALLONS	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	25 %	Hours/Day	24.0
Spring %	25 %	Days/Week	7.0
Summer %	25 %	Weeks/Year	52
Fall %	25 %	Hours/Year	8,736

Comments:

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
24	Release Point for Unit 24 - 242-A Evaporator, 200 East Area	100%

EMISSIONS

U.S. Dept of Energy M-005-0009
Unit ID: 24 Process ID: 01

CO - Carbon Monoxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds **VOC Expression: Unknown 0.00 TON**	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
SO2 - Sulfur Dioxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM-PRI - PM Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NH3 - Ammonia 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NOX - Nitrogen Oxides 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 25 **Process ID:** 01 **Process Description:** not provided
SCC CODE: 39999999 - Misc Manuf / Indus Processes /Other Not Classified

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Routine	
Material:	**Material State:**
004 - Wastewater	Input
Throughput and Units:	
1789.81 1000 GALLONS	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	10 %	Hours/Day	0.0
Spring %	90 %	Days/Week	0.0
Summer %	%	Weeks/Year	12
Fall %	%	Hours/Year	0

Comments: ETF processed waste for a total of 12 weeks during the reporting period.

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
25	Release Point for Unit 25 - 200 Area Effluent Treat, 200 E Area	100%

EMISSIONS

U.S. Dept of Energy **M-005-0009** **Unit ID: 25 Process ID: 01**	
CO - Carbon Monoxide 0.00 TON	
Calculation Method: Material Balance	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NH3 - Ammonia 0.04 TON	
Calculation Method: Material Balance	
Emission Factor:	Emission Factor Desc: none entered
Comments: Calculation based on waste sampling and mass balance.	
NOX - Nitrogen Oxides 0.00 TON	
Calculation Method: Material Balance	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM-PRI - PM Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
SO2 - Sulfur Dioxide 0.00 TON	
Calculation Method: Material Balance	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds **VOC Expression: Sum of Volatile Organic Compounds 0.00 TON**	
Calculation Method: Material Balance	
Emission Factor:	Emission Factor Desc: none entered
Comments: Calculation based on waste sampling and mass balance.	

U.S. Dept of Energy PROCESSES
Unit ID: 26 **Process ID:** 01 **Process Description:** not provided
SCC CODE: 10200501 - Ext Comb /Industrial /Distillate Oil - Grades 1 and 2 /Boiler

Insignificant Emissions Unit? No Status:Temporarily Shutdown

ANNUAL THROUGHPUT

Operating Type:	
Routine	
Material:	**Material State:**
823 - Distillate Oil (No. 1 & 2)	Input
Throughput and Units:	
0.00 1000 GALLONS	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	0%
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	%	Hours/Day	24.0
Spring %	%	Days/Week	7.0
Summer %	%	Weeks/Year	12
Fall %	%	Hours/Year	2,184

Comments:

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
26	Release Point for Unit 26 - ESPC Dist. Oil Blrs, 200 Area Compos.	100%

EMISSIONS

U.S. Dept of Energy M-005-0009
Unit ID: 26 Process ID: 01

Calculation Method: none entered	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 27 **Process ID:** 01 **Process Description:** not provided
SCC CODE: 10200602 - Ext Comb /Industrial /Natural Gas /10-100 Million Btu/hr

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Routine	
Material:	**Material State:**
209 - Natural Gas	Input
Throughput and Units:	
39.47 MILLION CUBIC FEET	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	50 %	Hours/Day	24.0
Spring %	10 %	Days/Week	7.0
Summer %	4 %	Weeks/Year	52
Fall %	36 %	Hours/Year	8,760

Comments:

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
27	Release Point for Unit 27 - ESPC Nat Gas Blrs, 300 Area Compos.	100%

EMISSIONS

U.S. Dept of Energy M-005-0009
Unit ID: 27 Process ID: 01

SO2 - Sulfur Dioxide 0.01 TON	
Calculation Method: S/L/T Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
CO - Carbon Monoxide 4.66 TON	
Calculation Method: S/L/T Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NOX - Nitrogen Oxides 2.07 TON	
Calculation Method: S/L/T Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds 0.27 TON	
Calculation Method: S/L/T Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM-PRI - PM Primary (Filt + Cond) 0.25 TON	
Calculation Method: S/L/T Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 0.25 TON	
Calculation Method: S/L/T Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NH3 - Ammonia 0.06 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.25 TON	
Calculation Method: S/L/T Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
c7439921 - Lead and Compounds 0.00 LB	
Calculation Method: S/L/T Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 28 **Process ID:** 01 **Process Description:** not provided
SCC CODE: 39999999 - Misc Manuf / Indus Processes /Other Not Classified

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Material:	**Material State:**
Throughput and Units:	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	25 %	Hours/Day	24.0
Spring %	25 %	Days/Week	7.0
Summer %	25 %	Weeks/Year	52
Fall %	25 %	Hours/Year	8,736

Comments: storage of vented containers pursuant to DE00NWP-002, Revision 1

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
28	Release Point for Unit 28 - CWC Diffuse and Fugitive, 200 W Area	100%

EMISSIONS

U.S. Dept of Energy M-005-0009
Unit ID: 28 Process ID: 01

PM10-PRI - PM10 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM-PRI - PM Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
SO2 - Sulfur Dioxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NH3 - Ammonia 0.01 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
CO - Carbon Monoxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds **VOC Expression: Unknown 0.00 TON**	
Calculation Method: Material Balance	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NOX - Nitrogen Oxides 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
67641 - Acetone 0.05 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

67663 - Chloroform 0.05 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
71556 - 1,1,1-Trichloroethane 0.03 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
75092 - Dichloromethane 0.21 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
71432 - Benzene 0.01 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
79016 - Trichloroethylene 0.00 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
1330207 - Xylenes (Mixed Isomers) 0.00 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
78933 - Methyl Ethyl Ketone 0.03 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
108883 - Toluene 0.01 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
127184 - Perchloroethylene 0.00 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
56235 - Carbon Tetrachloride 0.09 LB	
Calculation Method: Engineering Judgment	

Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
67561 - Methanol 0.01 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
107062 - 1,2-Dichloroethane 0.00 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
106467 - 1,4-Dichlorobenzene 0.00 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
141786 - Ethyl Acetate 0.01 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
75694 - Trichlorofluoromethane 0.03 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
75070 - Acetaldehyde 0.00 LB	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 30 **Process ID:** 01 **Process Description:** not provided
SCC CODE: 39999999 - Misc Manuf / Indus Processes /Other Not Classified

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Material:	**Material State:**
Throughput and Units:	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	25 %	Hours/Day	24.0
Spring %	25 %	Days/Week	7.0
Summer %	25 %	Weeks/Year	52
Fall %	25 %	Hours/Year	8,736

Comments:

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
30	Release Point for Unit 30 - T Plant Point Source and Fugitive, 200 W Area	100%

EMISSIONS

U.S. Dept of Energy M-005-0009
Unit ID: 30 Process ID: 01

SO2 - Sulfur Dioxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds **VOC Expression: Sum of Volatile Organic Compounds 0.00 TON**	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM-PRI - PM Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NOX - Nitrogen Oxides 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NH3 - Ammonia 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
CO - Carbon Monoxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 31 **Process ID:** 01 **Process Description:** not provided
SCC CODE: 39999999 - Misc Manuf / Indus Processes /Other Not Classified

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Material:	**Material State:**
Throughput and Units:	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	25 %	Hours/Day	24.0
Spring %	25 %	Days/Week	7.0
Summer %	25 %	Weeks/Year	52
Fall %	25 %	Hours/Year	8,736

Comments: Store and repack vented containers pursuant to DE03NWP-002, Amendment 1.

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
31	Release Point for Unit 31 - WRAP Point Source & Fugitive, 200 W Area	100%

EMISSIONS

U.S. Dept of Energy M-005-0009 Unit ID: 31 Process ID: 01	
NOX - Nitrogen Oxides 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds **VOC Expression: Unknown 0.00 TON**	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
SO2 - Sulfur Dioxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM-PRI - PM Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
CO - Carbon Monoxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NH3 - Ammonia 0.00 TON	
Calculation Method: Material Balance	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 32 **Process ID:** 01 **Process Description:** not provided
SCC CODE: 40400402 - Petrol Prod Stor-Underground Tanks /Gasoline RVP 13: Working Loss

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Routine	
Material:	**Material State:**
127 - Gasoline	Output
Throughput and Units:	
819.50 1000 GALLONS	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	27 %	Hours/Day	24.0
Spring %	25.6 %	Days/Week	7.0
Summer %	24.4 %	Weeks/Year	52
Fall %	23 %	Hours/Year	8,760

Comments: fuel dispensing, evaporative loss

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
32	Release Point for Unit 32 - Fuel Dispensing, Evaporative Losses, Area 200/600	100%

EMISSIONS

U.S. Dept of Energy M-005-0009 Unit ID: 32 Process ID: 01	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NH3 - Ammonia 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds **VOC Expression: Unknown 4.60 TON**	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
SO2 - Sulfur Dioxide 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM-PRI - PM Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NOX - Nitrogen Oxides 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
CO - Carbon Monoxide 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 35 **Process ID:** 01 **Process Description:** not provided
SCC CODE: 39090011 - Fuel Storage - Fixed Roof Tanks /Dual Fuel (Gas/Oil): Breathing Loss

Insignificant Emissions Unit? Yes Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Routine	
Material:	**Material State:**
044 - Diesel	Input
Throughput and Units:	
37.94 1000 GALLONS	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	0%
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	25 %	Hours/Day	24.0
Spring %	25 %	Days/Week	7.0
Summer %	25 %	Weeks/Year	52
Fall %	25 %	Hours/Year	8,760

Comments: Diesel fuel dispensing, evaporative loss. Fuel 00.0015% sulfur content.

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
35	Release Point for Unit 35 - Fuel Dispensing, Evaporative Losses, WTP Construction Site	100%

EMISSIONS

U.S. Dept of Energy M-005-0009
Unit ID: 35 Process ID: 01

PM-PRI - PM Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
SO2 - Sulfur Dioxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NH3 - Ammonia 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
CO - Carbon Monoxide 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NOX - Nitrogen Oxides 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 35 **Process ID:** 02 **Process Description:** not provided
SCC CODE: 39090011 - Fuel Storage - Fixed Roof Tanks /Dual Fuel (Gas/Oil): Breathing Loss

Insignificant Emissions Unit? Yes Status:Temporarily Shutdown

ANNUAL THROUGHPUT

Operating Type:	
Shutdown	
Material:	**Material State:**
127 - Gasoline	Existing
Throughput and Units:	
0.00 1000 GALLONS	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	25 %	Hours/Day	0.0
Spring %	25 %	Days/Week	0.0
Summer %	25 %	Weeks/Year	0
Fall %	25 %	Hours/Year	0

Comments: Gasoline fuel dispensing did not occur during reporting period.

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
35	Release Point for Unit 35 - Fuel Dispensing, Evaporative Losses, WTP Construction Site	100%

EMISSIONS

U.S. Dept of Energy M-005-0009
Unit ID: 35 Process ID: 02

Calculation Method: none entered	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 36 **Process ID:** 01 **Process Description:** not provided
SCC CODE: 10500205 - Ext Comb /Space Heater /Comm-Inst /Distillate Oil

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Routine	
Material:	**Material State:**
044 - Diesel	Input
Throughput and Units:	
0.00 GALLONS	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	0%
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	40 %	Hours/Day	20.0
Spring %	10 %	Days/Week	4.0
Summer %	10 %	Weeks/Year	52
Fall %	40 %	Hours/Year	4,160

Comments: Various diesel heaters are allowed for operation.

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
36	Release Point for Unit 36 - WTP heaters and Dehumidifiers	100%

EMISSIONS

U.S. Dept of Energy M-005-0009
Unit ID: 36 Process ID: 01

Calculation Method: none entered	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 36 **Process ID:** 02 **Process Description:** not provided
SCC CODE: 10500210 - Ext Comb /Space Heater /Comm-Inst /Liquified Petroleum Gas (LPG)

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Routine	
Material:	**Material State:**
255 - Propane	Input
Throughput and Units:	
70.60 1000 GALLONS	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	40 %	Hours/Day	20.0
Spring %	10 %	Days/Week	4.0
Summer %	10 %	Weeks/Year	52
Fall %	40 %	Hours/Year	4,160

Comments: Various propane heaters and dehumidifiers are allowed for operation.

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
36	Release Point for Unit 36 - WTP heaters and Dehumidifiers	100%

EMISSIONS

U.S. Dept of Energy M-005-0009 Unit ID: 36 Process ID: 02	
VOC - Volatile Organic Compounds 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
CO - Carbon Monoxide 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NOX - Nitrogen Oxides 1.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
SO2 - Sulfur Dioxide 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM-PRI - PM Primary (Filt + Cond) 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NH3 - Ammonia 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 37 **Process ID:** 01 **Process Description:** Sitewide composite emissions from diesel fuel combustion
SCC CODE: 20200401 - Int Comb /Industrial /Large Bore Engine /Diesel

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Routine	
Material:	**Material State:**
823 - Distillate Oil (No. 1 & 2)	Input
Throughput and Units:	
115.61 1000 GALLONS	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	0%
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	25 %	Hours/Day	24.0
Spring %	25 %	Days/Week	7.0
Summer %	25 %	Weeks/Year	52
Fall %	25 %	Hours/Year	8,736

sum of quarters must be 100%

Comments: Composite includes other SCC codes and emissions per NWP-96-1, DE02NWP-002, PSD-02-01, DE07NWP-002, DE08NWP-001, DE12NWP-002, and DE02NWP-001

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
37	Release Point for Unit 37 - Sitewide Composite Emissions from Diesel Fuel Combustion	100%

EMISSIONS

U.S. Dept of Energy M-005-0009
Unit ID: 37 Process ID: 01

PM-PRI - PM Primary (Filt + Cond) 2.32 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NOX - Nitrogen Oxides 34.04 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
CO - Carbon Monoxide 7.40 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NH3 - Ammonia 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
SO2 - Sulfur Dioxide 2.11 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 2.29 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 2.29 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds 2.67 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
130498292 - PAH, Total 0.19 LB	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 38 **Process ID:** 01 **Process Description:** Tank Farms Direct-Fired Hot Water Heaters Comp
SCC CODE: 10200503 - Ext Comb /Industrial /Distillate Oil /< 10 Million Btu/hr **

Insignificant Emissions Unit? Yes Status:Temporarily Shutdown

ANNUAL THROUGHPUT

Operating Type:	
Material:	**Material State:**
Throughput and Units:	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	0%
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	%	Hours/Day	0.0
Spring %	%	Days/Week	0.0
Summer %	%	Weeks/Year	0
Fall %	%	Hours/Year	0

Comments:

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
38	Release Point for Unit 38 - Tank Farms Direct-Fired Hot Water Heaters Composite	100%

EMISSIONS

U.S. Dept of Energy M-005-0009
Unit ID: 38 Process ID: 01

Calculation Method: none entered	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 39 **Process ID:** 01 **Process Description:** Internal Combustion
SCC CODE: 20201001 - Int Comb /Industrial /Liquified Petroleum Gas /Propane: Reciprocating

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Routine	
Material:	**Material State:**
255 - Propane	Input
Throughput and Units:	
1003.00 GALLONS	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	91502.00 BTUs / GAL

OPERATING SCHEDULE

Winter %	25 %	Hours/Day	24.0
Spring %	25 %	Days/Week	7.0
Summer %	25 %	Weeks/Year	52
Fall %	25 %	Hours/Year	8,736

Comments: Multiple internal combustion units operate intermittently throughout the reporting period as needed.

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
39	Release Point for Unit 39 - Site-wide Composite Emissions from Propane Fuel Combustion	100%

EMISSIONS

U.S. Dept of Energy M-005-0009 Unit ID: 39 Process ID: 01	
CO - Carbon Monoxide 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NOX - Nitrogen Oxides 0.01 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
SO2 - Sulfur Dioxide 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds **VOC Expression: Sum of Volatile Organic Compounds 0.00 TON**	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM-PRI - PM Primary (Filt + Cond) 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 40 **Process ID:** 01 **Process Description:** WTP Standby Diesel Generator
SCC CODE: 20100102 - Int Comb /Electric Gen /Distillate Oil (Diesel) /Reciprocating

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Routine	
Material:	**Material State:**
044 - Diesel	Input
Throughput and Units:	
4238.00 GALLONS	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	25 %	Hours/Day	10.0
Spring %	25 %	Days/Week	4.0
Summer %	25 %	Weeks/Year	52
Fall %	25 %	Hours/Year	2,080

Comments:

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
40	Release point for unit 40 - WTP Standby Diesel Generator, 200 Area	100%

EMISSIONS

U.S. Dept of Energy M-005-0009
Unit ID: 40 Process ID: 01

CO - Carbon Monoxide 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NH3 - Ammonia 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NOX - Nitrogen Oxides 1.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM-PRI - PM Primary (Filt + Cond) 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
SO2 - Sulfur Dioxide 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

U.S. Dept of Energy PROCESSES
Unit ID: 41 **Process ID:** 01 **Process Description:** WTP Steam Plant Boilers
SCC CODE: 10200506 - Ext Comb /Industrial /Distillate Oil /Boiler > 100 Million BTU/hr

Insignificant Emissions Unit? No Status:Operating

ANNUAL THROUGHPUT

Operating Type:	
Routine	
Material:	**Material State:**
044 - Diesel	Input
Throughput and Units:	
2016.29 1000 GALLONS	

FUEL PARAMETERS

Fuel Parameter Content	
Sulfur:	no entry
Ash:	no entry
Heat:	no entry

OPERATING SCHEDULE

Winter %	25 %	Hours/Day	10.0
Spring %	25 %	Days/Week	4.0
Summer %	25 %	Weeks/Year	52
Fall %	25 %	Hours/Year	2,080

Comments:

sum of quarters must be 100%

RELEASE POINT APPORTIONMENT

RP ID	Description	Ave Emissions (%)
41	Release point for unit 41 - WTP Steam Plant Boilers, 200 Area	100%

EMISSIONS

U.S. Dept of Energy M-005-0009
Unit ID: 41 Process ID: 01

CO - Carbon Monoxide 10.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NH3 - Ammonia 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
NOX - Nitrogen Oxides 13.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM10-PRI - PM10 Primary (Filt + Cond) 3.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM25-PRI - PM2.5 Primary (Filt + Cond) 0.00 TON	
Calculation Method: Engineering Judgment	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
PM-PRI - PM Primary (Filt + Cond) 3.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
SO2 - Sulfur Dioxide 0.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	
VOC - Volatile Organic Compounds 4.00 TON	
Calculation Method: USEPA Emission Factor (no Control Efficiency used)	
Emission Factor:	Emission Factor Desc: none entered
Comments: none entered	

END

APPENDIX B:
Washington Emissions Inventory Reporting System

Emission Summary

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Dept. of Ecology Nuclear Waste Section

U.S. Dept of Energy
Richland

M-005-0009 Operating

Emission Summary **2021**

Emissions Units and Processes	TSP	PM10	PM2.5	SO2	NOx	VOC	CO	NH3	IEU?
Emissions Unit 22, Tank Farm Exhausters, 200 E Composite									
Process 01, SCC 39999999	0.00	0.00	0.00	0.00	0.00	0.18	0.00	2.98	NO
Emissions Unit 23, Tank Farm Exhausters, 200 W Composite									
Process 01, SCC 39999999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	NO
Emissions Unit 24, 242-A Evaporator, 200 East Area									Temporarily Shutdown
Process 01, SCC 39999999									NO
Emissions Unit 25, 200 Area Effluent Treat, 200 E Area									
Process 01, SCC 39999999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	NO
Emissions Unit 26, ESPC Dist. Oil Blrs, 200 Area Compos.									Temporarily Shutdown
Process 01, SCC 10200501									NO
Emissions Unit 27, ESPC Nat Gas Blrs, 300 Area Compos.									
Process 01, SCC 10200602	0.25	0.25	0.25	0.01	2.07	0.27	4.66	0.06	NO
Emissions Unit 28, CWC Diffuse and Fugitive, 200 W Area									
Process 01, SCC 39999999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO
Emissions Unit 30, T Plant Point Source and Fugitive, 200 W Area									
Process 01, SCC 39999999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO
Emissions Unit 31, WRAP Point Source & Fugitive, 200 W Area									
Process 01, SCC 39999999	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NO
Emissions Unit 32, Fuel Dispensing, Evaporative Losses, 200 Area									
Process 01, SCC 40400402	0.00	0.00	0.00	0.00	0.00	4.60	0.00	0.00	NO
Emissions Unit 35, Fuel Dispensing, Evaporative Losses, WTP Construction Site									
Process 01, SCC 39090011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	YES
Process 02, SCC 39090011									YES
Emissions Unit 36, WTP heaters and dehumidifiers									
Process 01, SCC 10500205									NO
Process 02, SCC 10500210	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	NO
Emissions Unit 37, Sitewide Composite Emissions from Diesel Fuel Combustion									
Process 01, SCC 20200401	2.32	2.29	2.29	2.11	34.04	2.67	7.40	0.00	NO
Emissions Unit 38, Tank Farms Direct-Fired Hot Water Heaters Composite									Temporarily Shutdown
Process 01, SCC 10200503									YES
Emissions Unit 39, Site-wide Composite from Propane Fuel Combustion									
Process 01, SCC 20201001	0.00	0.00	0.00	0.00	0.01	0.00	0.00		NO
Emissions Unit 40, WTP Standby Diesel Generator									

Dept. of Ecology Nuclear Waste Section

U.S. Dept of Energy
Richland

M-005-0009 Operating

Emission Summary **2021**

Emissions Units and Processes	TSP	PM10	PM2.5	SO2	NOx	VOC	CO	NH3	IEU?
Process 01, SCC 20100102	0.00	0.00	0.00	0.00	1.00	0.00	0.00	0.00	NO
Emissions Unit 41, WTP Steam Plant Boilers, 200 Area									
Process 01, SCC 10200506	3.00	3.00	0.00	0.00	13.00	4.00	10.00	0.00	NO
Total Emissions (in tons)	6	6	3	2	51	12	22	3	
Total Fee Eligible Emissions		**6**		**2**	**51**	**12**			

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N/A		N/A	N/A

Approval Signatures:

Author:

Dale Dyekman — *Print First and Last Name*

DALE DYEKMAN (Affiliate) — Digitally signed by DALE DYEKMAN (Affiliate) Date: 2022.05.31 12:21:02 -07'00' — *Signature / Date*

Responsible Manager:

April Johnson — *Print First and Last Name*

APRIL JOHNSON (Affiliate) — Digitally signed by APRIL JOHNSON (Affiliate) Date: 2022.05.31 15:44:40 -07'00' — *Signature / Date*

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DATE: Jun 07, 2022

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05/31/2022

INFORMATION CLEARANCE FORM

A. Information Category

☐ Abstract ☐ Journal Article
☐ Summary ☐ Internet
☐ Visual Aid ☐ Software
☐ Full Paper ☐ Report
☐ Other _____

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1. Is document potentially Classified? ◉ No ○ Yes

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Manager Required (Print and Sign)

If Yes _____
ADC Required (Print and Sign) ○ No ○ Yes Classified

2. Official Use Only ◉ No ○ Yes Exemption No. ____
3. Export Controlled Information ◉ No ○ Yes OUO Exemption No. 3
4. UCNI ◉ No ○ Yes
5. Applied Technology ◉ No ○ Yes OUO Exemption No. 5
6. Other (Specify) _____

7. Does Information Contain the Following:

a. New or Novel (Patentable) Subject Matter? ◉ No ○ Yes
If "Yes", OUO Exemption No. 3
If "Yes", Disclosure No.: _____

b. Commercial Proprietary Information Received in Confidence, Such as Proprietary and/or Inventions?
◉ No ○ Yes If "Yes", OUO Exemption No. 4

c. Corporate Privileged Information? ◉ No ○ Yes
If "Yes", OUO Exemption No. 4

d. Government Privileged Information? ◉ No ○ Yes
If "Yes", Exemption No. 5

e. Copyrights? ◉ No ○ Yes If "Yes", Attach Permission.

f. Trademarks? ◉ No ○ Yes If "Yes", Identify in Document.

8. Is Information requiring submission to OSTI? ◉ No ○ Yes

9. Release Level? ◉ Public ○ Limited

F. Complete for a Journal Article

1. Title of Journal

G. Complete for a Presentation

1. Title for Conference or Meeting _____
2. Group Sponsoring _____
3. Date of Conference _____ 4. City/State _____
5. Will Information be Published in Proceedings? ◉ No ○ Yes 6. Will Material be Handed Out? ◉ No ○ Yes

H. Information Owner/Author/Requestor

Dyekman, Dale L Approved - IDMS data file att
(Print and Sign)

Responsible Manager
Johnson, April L Approved - IDMS data file att
(Print and Sign)

Approval by Direct Report to President (Speech/Articles Only) _____
(Print and Sign)

I. Reviewers	Yes	Print	Signature	Public Y/N (If N, complete J)
General Counsel	☒	Hamner, John A	Approved - IDMS data file att	(Y) / N
Office of External Affairs	☒	Bohrmann, Dieter G	Approved - IDMS data file att	(Y) / N
DOE	☐			Y / N
Other	☐			Y / N
Other	☐			Y / N
Other	☐			Y / N

J. Comments

Information Clearance Approval

APPROVED
By Sarah Harrison at 11:21 am, Jun 07, 2022

Approved for Public Release; Further Dissemination Unlimited

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    Site, Calendar Year 2021, Revision 0, submitted by Dale Dyekman for public release.</comments>
  </task>
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