Phillips 66 Company
Los Angeles Refinery
Wilmington Plant

AB 2588 Air Toxics "Hot Spots"
Health Risk Assessment
RY 2015

Prepared for:

Phillips 66 Company
Los Angeles Refinery - Wilmington Plant
1660 West Anaheim Street
Wilmington, CA 90744

Prepared by:

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June 8, 2020

DAVENPORT ENGINEERING, INC.
Davenport
ENVIRONMENTAL SERVICES

FORM A	SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT AB 2588 Program, 21865 COPLEY DR., DIAMOND BAR CA 91765-0949	INVENTORY YEAR 20 15

AB 2588 AIR TOXICS DOCUMENT CERTIFICATION & SUBMITTAL FORM

Please check the appropriate boxes for purpose of submittal:

☐	*INITIAL INFORMATION for ATIR*	☐	*EARLY ACTION REDUCTION PLAN (EARP)*	☐	*INITIAL*
☐	*AIR TOXICS INVENTORY REPORT (ATIR)*	☐	*VOLUNTARY RISK REDUCTION PLAN (VRRP)*	☑	*REVISION*
☑	*HEALTH RISK ASSESSMENT (HRA)*	☐	*IMPLEMENTATION PROGRESS REPORT for VRRP/RRP*	☐	*FINAL*
☐	*RISK REDUCTION PLAN (RRP)*	☐	*OTHER:*		

Does your facility participate or wish to participate in VRRP program pursuant to Rule 1402(h)? *YES* ☐ ☐

Please provide the following information:

Facility name: P66 Los Angeles Refinery - Wilmington Plant

South Coast AQMD ID: 171107

Facility SIC/NAICS CODE: 324110

Facility Location Address: 1660 West Anaheim Street, Wilmington, California 90744

Mailing Address: 1660 West Anaheim Street, Wilmington, California 90744

Contact Person (Company Official)

Name: Michael D. Bechtol **Title:** Environmental Manager

Telephone: (310) 952-6132 **eMail:** mike.d.bechtol@p66.com

Preparer (if different from above)

Name: Trevor Ford **Title:** Senior Engineer

Company: Davenport Engineering, Inc.

Telephone: (310) 787-4600 x19 **eMail:** trevor.ford@davenport-co.com

FAILURE TO SUBMIT REQUIRED INFORMATION OR KNOWINGLY SUPPLYING FALSE INFORMATION IS PUNISHABLE TO THE EXTENT DEFINED IN HEALTH AND SAFETY CODE SECTIONS 44381(a) AND 44381(b), WHICH INCLUDES MINIMUM FINES OF NOT LESS THAN FIVE HUNDRED DOLLARS.

Signature Of Responsible Company Official: 

Date: 8 June 2020

Name Of Responsible Company Official: Michael D. Bechtol

Title: Environment Manager

South Coast Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

HEALTH RISK ASSESSMENT SUMMARY FORM

(Required in Executive Summary of HRA)

Facility Name : Phillips 66 Los Angeles Refinery - Wilmington Plant
Facility Address: 1660 West Anaheim Street
Wilmington, California 90744
Type of Business: Petroleum Refining
SCAQMD ID No.: 171107

A. Cancer Risk

(One in a million means one chance in a million of getting cancer from being constantly exposed to a certain level of a chemical over a period of time)

1. Inventory Reporting Year : RY 2015
2. Maximum Cancer Risk to Receptors : *(Offsite and residence = 30-year exposure, worker = 25-year exposure)*
   a. Offsite 47.4 in a million Location: 381400E, 3737400N (fine grid, receptor ID 202)
   b. Residence 33.8 in a million Location: 381343E, 3737980N (receptor ID 541)
   c. Worker 2.9 in a million Location: 381500E, 3737300N (fine grid, receptor ID 180)
3. Substances Accounting for 90% of Cancer Risk: Diesel PM, PAHs, Naphthalene, Chromium (VI), Benzene
   Processes Accounting for 90% of Cancer Risk: Rental Portable Diesel ICEs, Welding, Fugitives, FCC Stack, U118 Heater, Oxidizers
4. Cancer Burden for a 70-yr exposure: *(Cancer Burden = [cancer risk] x [# of people exposed to specific cancer risk])*
   a. Cancer Burden 0.64
   b. Number of people exposed to >1 per million cancer risk for a 70-yr exposure 264,569
   c. Maximum distance to edge of 70-year, 1 x 10^{-6} cancer risk isopleth (meters) 8,000

B. Hazard Indices

[Long Term Effects (chronic) and Short Term Effects (acute)]
(non-carcinogenic impacts are estimated by comparing calculated concentration to identified Reference Exposure Levels, and expressing this comparison in terms of a "Hazard Index")

1. Maximum Chronic Hazard Indices:
   a. Residence HI: 0.17 Location: 381343E, 3737980N toxicological endpoint: Respiratory tract
   b. Worker HI : 0.19 Location: 381500E, 3737300N toxicological endpoint: Respiratory tract
2. Substances Accounting for 90% of Chronic Hazard Index: Arsenic, Nickel, Sulfuric acid, HCN
3. Maximum 8-hour Chronic Hazard Index:
   8-Hour Chronic HI: 0.02 Location: 381343E, 3737980N toxicological endpoint: Respiratory tract
4. Substances Accounting for 90% of 8-hour Chronic Hazard Index: Nickel, Acrolein, Formaldehyde
5. Maximum Acute Hazard Index:
   PMI: 0.44 Location: 380800E, 3738400N toxicological endpoint: Vision tract
6. Substances Accounting for 90% of Acute Hazard Index: Acrolein

C. Public Notification and Risk Reduction

1. Public Notification Required? X Yes ____ No
   a. If 'Yes', estimated population exposed to risks > 10 in a million for a 30-year exposure, or an HI >1
   1,532
2. Risk Reduction Required? X Yes ____ No

GLOSSARY OF TERMS

Assembly Bill 2588 (AB 2588): California's Air Toxics "Hot Spots" Information and Assessment Act of 1987 that requires the California Air Resources Board (ARB) to compile and maintain a list of substances that pose chronic or acute threats to public health when present in the air. Additionally, the "Hot Spots" program includes an emissions inventory, requirements for assessing health risks, and provisions for notifying the public about emissions of toxic air contaminants.

Action Risk Level: Maximum Individual Cancer Risk (MICR) of twenty-five in one million (25×10^{-6}), cancer burden of 0.5, or a total acute or chronic HI of three (3.0) for any target organ system at any receptor location.

Acute Health Impact: Health effect that is characterized by sudden and severe exposure and rapid absorption of the substance (e.g., minutes or hours).

Air Resources Board (ARB): Established in 1967 by California's Legislature to: 1) attain and maintain healthy air quality, 2) conduct research into the causes of and solutions to air pollution, and 3) systematically attack the serious problems caused by motor vehicles, which are a major cause of air pollution in the State.

Annual Emissions Reporting (AER): Program that was developed by the South Coast Air Quality Management District (AQMD) to track emissions of air contaminants from permitted facilities.

Building Downwash: Phenomenon caused by eddies created by air movement around building obstacles. Buildings act as barriers triggering pollutant accumulation that will then increase concentration values.

Building Profile Input Program (BPIP): Software program designed to incorporate the concepts and procedures expressed in the Good Engineering Practice (GEP) technical support document, building downwash guidance, and other related references to calculate building heights and projected building widths for simple, multi-tiered, and groups of structures.

California Air Pollution Control Officers Association (CAPCOA): Association of Air Pollution Control Officers representing all thirty-five local air quality agencies throughout California.

Cancer Burden: Estimated increase in the occurrence of cancer cases in a population subject to a Maximum Individual Cancer Risk (MICR) of greater than or equal to one in one million (1×10^{-6}) resulting from exposure to toxic air contaminants.

Cancer Risk: The theoretical probability of contracting cancer when continually exposed for a lifetime (30 years) to a given concentration of a substance.

Chronic Health Impact: Health effect that is characterized by prolonged or repeated exposures over many days, months, or years. Symptoms may not be immediately apparent. 8-hour chronic health impacts result from daily 8-hour exposure periods.

Coarse Grid: Receptors laid out in a grid pattern surrounding a facility at 500 meter spacing. The purpose of the coarse grid is to identify the general locations of large ground-level concentrations.

Fine Grid: Receptors laid out in a grid pattern surrounding a facility at 100 meter spacing in order to look in more detail at areas where concentrations are high. The purpose of the fine grid is to identify the maximum ground-level concentration point and to identify local gradients in concentrations.

Hotspots Analysis and Reporting Program (HARP): Single integrated software package that combines the tools of emission inventory database, facility prioritization, air dispersion modeling, and risk assessment analysis.

Hazard Index (HI): The sum of individual acute or chronic hazard quotients for substances that affect the same target organ or organ system.

Health Risk Assessment (HRA): Comprehensive analysis of the dispersion of hazardous substances in the environment, their potential for human exposure, and a quantitative assessment of both individual and population-wide health risks associated with those levels exposed.

Maximum Exposed Individual Resident (MEIR or residential MEI): Location of an actual residence where a person resides or could reside for 30 years and has the highest estimated health impact. Primary exposure pathways include inhalation, ingestion of soils, dermal contact with soils, and ingestion of mother's milk as an infant.

Maximum Exposed Individual Worker (MEIW or worker MEI): Location of an area currently zoned or used for commercial or industrial purposes and has the highest estimated health impact. Exposure pathways include inhalation, soil ingestion, and dermal contact. Exposure durations for workers are typically 8 hours per day, 240 days per year, for 25 years.

Maximum Individual Cancer Risk (MICR): Estimated probability of a potential maximally exposed individual contracting cancer as a result of exposure to toxic air contaminants over a period of 30 years.

Noncancer Risk: Risk associated with acute or chronic health effects.

Office of Environmental Health Hazard Assessment (OEHHA): Specialized department within the cabinet-level California Environmental Protection Agency with responsibility for evaluating health risks from environmental chemical contaminants.

Point of Maximum Impact (PMI): Location of maximum estimated off-site health impact.

Sensitive Receptors: Location of specific sensitive sites where certain populations may exist, such as a school or nursing home.

South Coast Air Quality Management District (SCAQMD): Air pollution control agency for all of Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino counties.

Zone of Impact: Area surrounding a facility where receptors have a potential cancer risk greater than $1x10^{-6}$ (one in a million), or an acute or chronic hazard index of 0.5.

LIST OF ABBREVIATIONS

AB 2588	Assembly Bill 2588
AER	Annual Emissions Reporting
AERMOD	American Meteorological Society / US EPA air dispersion model
ARB	California Air Resources Board
ATIR	Air Toxic Inventory Report
BPIP	Building Profile Input Program
CAPCOA	California Air Pollution Control Officers Association
CAS	Chemical Abstracts Service
CPF	Cancer Potency Factor
CSF	Cancer Slope Factor
DICE	Diesel Internal Combustion Engine
DPM	Diesel Particulate Matter
EF	Emission Factor
EPA	U.S. Environmental Protection Agency
HARP	"Hot Spots" Analysis and Reporting Program
HI	Hazard Index
HRA	Health Risk Assessment
ICE	Internal Combustion Engine
MEI	Maximally Exposed Individual
MEIR	Maximally Exposed Individual Resident
MEIW	Maximally Exposed Individual Worker
MHE	Maximum Hourly Emission
OEHHA	Office of Environmental Health Hazard Assessment
PAHs	Polycyclic Aromatic Hydrocarbons
PF	Potency Factor
PMI	Point of Maximum Impact
REL	Reference Exposure Level
RY	Reporting Year
SCAQMD	South Coast Air Quality Management District
TAC	Toxic Air Contaminant
UTM	Universal Transverse Mercator
WGS84	World Geodetic System 1984

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1.0 EXECUTIVE SUMMARY

1.1 Project & Facility Background

The Phillips 66 Los Angeles Refinery operates a plant facility in Wilmington, California which is subject to emission and health risk reporting requirements imposed by the California *Air Toxics "Hot Spots" Information and Assessment Act of 1987* (AB 2588). This health risk assessment (HRA) was prepared in response to a request from the South Coast Air Quality Management District (SCAQMD), the lead agency for administering AB 2588 requirements in the region. Source and emissions data used in this HRA were previously submitted to the SCAQMD, and subsequently approved on May 3, 2019.

Facility Name:	Phillips 66 Los Angeles Refinery - Wilmington Plant
SCAQMD FID:	171107
Facility Location:	1660 W. Anaheim St. Wilmington, CA 90744 UTMs 11S 380720 m E, 3737698 m N

The Wilmington Plant processes intermediate feed stocks into transportation fuels and other products. Sources of toxic air emissions include industrial heaters and boilers, refinery flares, process vents, storage tanks, cooling towers, a wastewater treatment unit, piping components, and various maintenance and repair equipment.

The SCAQMD identified 2015 as the base operating year for this HRA. A number of large-scale refinery turnaround and maintenance activities occurred in 2015, which required the use of many rented and contracted diesel engines subject to AB 2588 reporting. Consequently, particulate matter (PM) exhaust from diesel engines was abnormally high and identified as the primary risk driver in this HRA.

1.2 Modeling Approach

This HRA was conducted pursuant to SCAQMD Rule 1402(e)(1) using the California Air Resources Board's current *"Hot Spots" Analysis and Reporting Program* database (HARP2) which integrates the emissions inventory, air dispersion modeling, and risk analysis components of an HRA. This HRA was also prepared in accordance with California Office of Environmental Health Hazard Assessment (OEHHA) guidance and SCAQMD supplemental guidelines.

A total of 91 trace toxic chemicals emitted by the facility were evaluated in this HRA, 63 of which contributed to risk based on OEHHA defined health factors. Human exposure pathways include inhalation, soil and local plant ingestion, dermal absorption, and intake of mother's milk.

1.3 Health Risk Results

Health impacts (i.e., risks) were determined in this HRA after carefully considering the facility's source locations and emissions, their release characteristics, human exposure pathways, and surrounding land use and meteorology. AB 2588 requires quantification and reporting of the following incremental risks:

- Individual lifetime cancer risk
- Population cancer risk (cancer burden)
- Long-term and acute noncancer effects

Risks associated with this 2015-based HRA were found to be:

- Above certain levels adopted by the SCAQMD for purposes of public notification
- Above certain levels identified in SCAQMD Rule 1402 requiring a risk reduction plan

Table 1-1 below summarizes all risks relative to AB 2588 and SCAQMD action risk levels. With the exception of cancer burden, all such risks were identified at boundary or offsite receptor locations defined as a point of maximum impact (PMI) or maximally exposed individual (MEI), respectively. Each PMI and MEI was determined independently based on the outcome of model dispersion, individual chemical toxicities, and exposure conditions (e.g., 30 years for residents, 25 years for workers). PMIs are often located on the facility boundary where no one lives or works.

Table 1-1 Summary of Risks

Maximally Exposed Individual (MEI)	Risk	Public Notice	Risk Reduction
Residential Cancer Risk	33.8×10^{-6}	10×10^{-6}	25×10^{-6}
Worker Cancer Risk	2.9×10^{-6}	10×10^{-6}	25×10^{-6}
Point of Maximum Impact (PMI)	47.4×10^{-6}		
Residential Chronic HI {RESP}	0.17	1	3
Worker Chronic HI {RESP}	0.19	1	3
PMI Chronic HI {RESP}	0.25		
Residential Acute HI {EYE}	0.32	1	3
Worker Acute HI {IMMUNE}	0.40	1	3
PMI Acute HI {EYE}	0.44		
Cancer Burden [264,569 population]	0.64	--	0.5

Over 65% of cancer risk at the residential and worker MEIs was attributed to exposure to diesel PM exhaust (DPM). The highest residential and worker chronic hazard indexes (HIs) were associated with risks to the respiratory organ system. The highest acute HIs were associated with risks to the vision (resident) and immune organ systems (worker).

Cancer burden is a measure of population risk measured for the population working and residing within the HRA study area, also referred to as the zone of impact. The study area is depicted in Figure 1-1, and shows a distance of 5 miles from the facility to its furthest perimeter.

The nearest sensitive receptors are schools and convalescent homes located east and north of the facility. Los Angeles Harbor College and Kaiser Permanente South Bay Hospital are also located a short distance from the facility.

The facility, its boundary, surrounding land use, and HRA study area, are all represented in Figure 1-1. The location of each MEI in Table 1-1 is identified in Figure 1-2. All risk results presented in Table 1-1, Figure 1-1, and Figure 1-2 are also summarized in the SCAQMD Health Risk Assessment Summary Form which is included near the front of this HRA report document.

1.4 Conclusions

2015 was an unusual operating year for the facility. In particular, rented and contracted diesel engines were used heavily to support a large number of planned turnaround and maintenance activities that year. In subsequent years, the facility voluntarily reduced DPM emissions considerably based on a concerted effort to use cleaner burning engines and add DPM filters where feasible. Records show a pattern of DPM emission reductions after the facility satisfied AB 2588 HRA public notification requirements in 2013. Phillips 66 attributes the trend in emission reductions to better project planning and plant awareness related to need for and use of portable engines.

An HRA alternative analysis is presented in Appendix A to portray lifetime cancer risk based on DPM emissions over a five (5) year averaging period (rather than year 2015 alone). This reflects the length of a typical turnaround cycle for refinery operations and is thought to be most representative of "routine and predictable" emissions as defined in AB 2588 guidelines. This is also consistent with how DPM emissions were modeled in the previous HRA approved by the SCAQMD on January 15, 2013. Given that cancer risk is estimated based on a 30 and 25 year lifetime exposure period for residents and workers, respectively, Phillips 66 found the lower risk results in this alternative analysis to be noteworthy and important to include in an appendix to this HRA report.

Phillips 66 is familiar with the AB 2588 risk reduction requirements outlined in Rule 1402. Statements in previous paragraphs demonstrate the facility's commitment to reducing toxic emissions that drive health risks. It is worth noting that risks reported in this HRA are below the 3-fold increase in residential cancer risk predicted by the SCAQMD after the OEHHA updated its HRA guidelines in March 2015[1]. Phillips 66 is committed to protecting public health and safety as it continues to provide transportation fuels and other products in the marketplace. The facility operates in compliance with all environmental rules and regulations.

The remaining sections of this HRA, along with appendices, provide more detail and background to satisfy the reporting requirements of AB 2588 and SCAQMD supplemental guidelines.

[1] Notice to Prepare Air Toxics Inventory Report and/or Voluntary Risk Reduction Plan, SCAQMD, March 1, 2017

Figure 1-1 Facility, Surrounding Land Use, Study Area

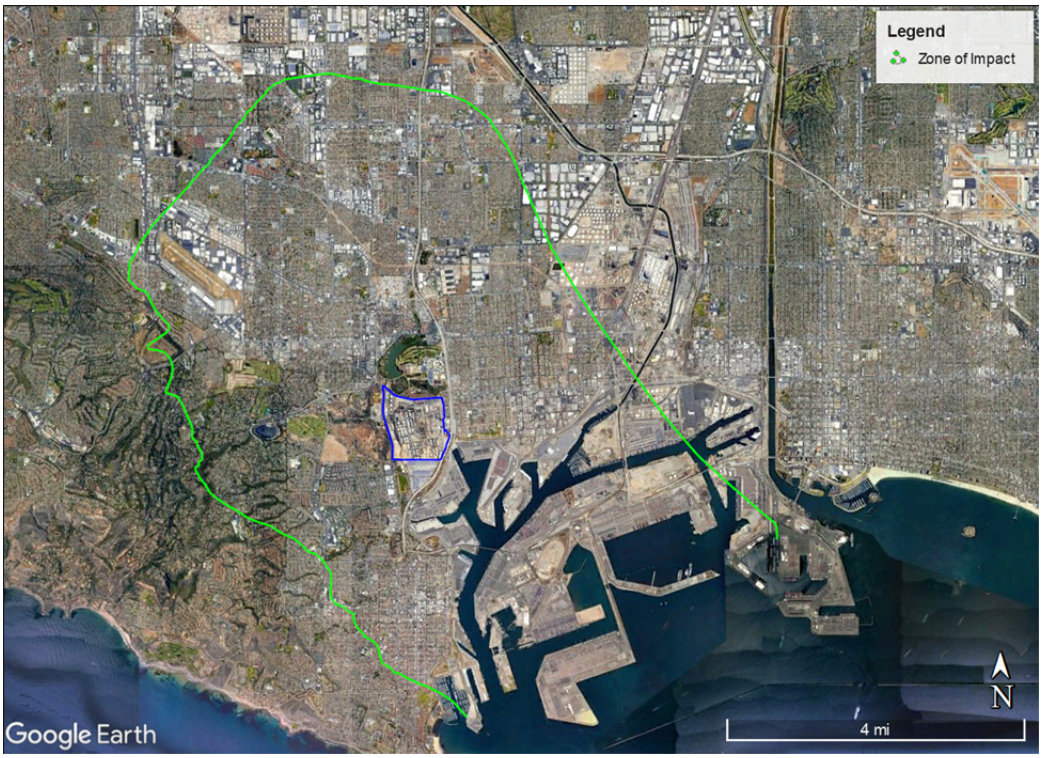


Figure 1-2 Cancer and Noncancer MEIs[2]

[2] MEI locations are the same for cancer and noncancer health impacts except for the acute Worker MEI and PMI (see Figure 6-8).

2.0 INTRODUCTION

Phillips 66 Company owns and operates a two-part refinery in the cities of Carson and Wilmington, California. The Carson Plant receives various crude stocks, via rail car and pipeline, which are processed into intermediate feed stocks. These intermediate products are then transferred by pipeline to the Wilmington Plant (i.e., the facility) for further processing. Final products manufactured at the Wilmington Plant include gasoline, diesel fuel, jet fuel, and other related petroleum products. Per California Assembly Bill 2588 (adopted in 1987), Phillips 66 is subject to emission and health risk reporting requirements imposed by the state. AB 2588 is the *Air Toxics "Hot Spots" Information and Assessment Act of 1987*.

This document presents results associated with a comprehensive AB 2588 health risk assessment completed for the Phillips 66 Los Angeles Refinery - Wilmington Plant (Facility ID 171107), based on emissions from the year 2015 Annual Emissions Report (AER). The assessment was performed in direct response to a written request made by Mr. Tracy Goss of the SCAQMD in a letter dated May 3, 2019.

2.1 Facility Location & Contact Information

Phillips 66 has been diligent in its pursuit of AB 2588 compliance over the past few years in response to SCAQMD questions related to its recent ATIR, preparation of this HRA, and forthcoming risk reduction efforts. Facility contacts for this program are as follows:

Facility Name:	Phillips 66 Los Angeles Refinery - Wilmington Plant	
SCAQMD FID:	171107	
Facility Location:	1660 W. Anaheim Street Wilmington, CA 90744	
Mr. Michael D. Bechtol Environmental Manager (310) 952-6132 mike.d.bechtol@p66.com	Mr. Marshall G. Waller Principal Environmental Consultant (310) 952-6120 marshall.g.waller@p66.com	Mr. Kenneth G. Dami Public Relations Manager (310) 952-6028 kenneth.g.dami@p66.com

The facility is located at 1660 West Anaheim Street in Wilmington, California. It operates on a parcel of land bounded by Anaheim Street, part of the I-110 freeway, and N. Gaffey Street. Figure 2-1 shows the location of the facility relative to street boundaries, freeways, and nearby residential communities.

Principle equipment at the facility includes combustion devices, reactor units, separation systems, storage tanks, piping, cooling towers, rail cars, maintenance equipment, and motor vehicles.

2.2 AB 2588 History

Within the South Coast Air District, the AB 2588 program is administered by the South Coast Air Quality Management District (SCAQMD). From the program's inception, the facility has been required to prepare an Air Toxic Inventory Report (ATIR), typically on a four-year cycle, and transmitted through the SCAQMD's Annual Emissions Reporting Program (AER).

An HRA (or HRA update) has been requested less frequently by the SCAQMD, presumably because toxic emissions and prioritization scoring have been relatively steady over the past 20 years. An AB 2588 HRA was approved for this facility on two prior occasions by the SCAQMD, May 31, 2001 and January 15, 2013. Phillips 66 previously complied with AB 2588 public notification requirements for this facility and participated in a related public meeting on March 21, 2013.

This HRA is based on toxic emissions reported in the facility's 2015 AER, as modified and reported in ATIR documentation submitted between August 1, 2017 and April 18, 2019. The approved ATIR includes an electronic copy of the HARP database populated with source emissions, related release parameters, building downwash structure dimensions, and prescribed offsite grid and sensitive receptor coordinates. This HRA was prepared in response to a SCAQMD letter dated May 3, 2019 entitled *Conditional Approval of Air Toxics Inventory Report and Notice to Prepare a Health Risk Assessment for Phillips 66 Wilmington (South Coast AQMD Facility ID No.: 171107)*. The letter both conditionally approved the ATIR and formally requested Phillips 66 to prepare and submit this HRA. This HRA reflects additional comments on modeling received from the SCAQMD on December 4, 2019.

2.3 HRA Guidelines

The California Air Pollution Control Officers Association (CAPCOA), in conjunction with the California Air Resources Board (ARB) and California EPA Office of Environmental Health Hazard Assessment (OEHHA), has developed risk assessment guidelines and specific procedures to be used by local administering agencies to implement the health risk portion of AB 2588. By standardizing the risk assessment process, risks between different facilities can be compared evenly. However, it should be noted that following these guidelines may lead to worst-case (i.e., health-conservative) estimates of risk.

ARB and SCAQMD require use of HARP ("Hot Spots" Analysis and Reporting Program) to conduct AB 2588 health risk assessments. HARP is ARB's database program that integrates the emissions inventory, air dispersion modeling, and risk analysis and mapping elements of a health risk assessment. This HRA was also conducted in accordance with SCAQMD *AB 2588 and Rule 1402 Supplemental Guidelines (Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act)*, dated September 2018. AB 2588 action risk levels associated with public notification and risk reduction can vary by air district

throughout the state. It should be noted that action risk levels in SCAQMD Rule 1402 are more stringent, in some cases, than other air districts.

The balance of this document is organized sequentially to summarize hazards and emissions, outline the approach for air dispersion modeling, and present results associated with risk characterization. Other supporting documentation, as listed in the Table of Contents, is included in the appendices. In particular, an HRA alternative analysis is presented in Appendix A to portray lifetime cancer risk based on average DPM emissions over a five (5) year period. Given the uncertainties inherent to risk modeling, it important to understand how varying emissions can potentially impact long-term health risk estimates.

Figure 2-1 Facility Plot Plan and Nearby Land Use Map

3.0 HAZARD IDENTIFICATION

The Phillips 66 Los Angeles Refinery - Wilmington Plant is part of a complex oil refinery that operates continuously, 24 hours per day, 7 days per week. Numerous chemical hazards exist in this setting, ranging from acute, short-term potential exposure to hydrogen sulfide, to chronic, long-term exposure to byproducts of combustion and volatile hydrocarbons.

3.1 Health Tables

SCAQMD guidelines require the facility to identify and evaluate all chemicals regulated by AB 2588, regardless of total facility emission levels. Chemicals emitted by the facility, for which AB 2588 dose-response or health impact factors are published, are listed in Table 3-1. Table 3-1 distinguishes between chemicals evaluated for cancer risk, noncancer chronic, and noncancer acute health impacts.

3.2 Multi-Pathways & Organ Systems

While most chemicals emitted from the facility present inhalation risk, a few pose health impacts from other exposure pathways as well. Table 3-2 lists multi-pathway chemicals emitted from the facility.

Chemicals with noncancer chronic and acute health impacts are evaluated for their cumulative effects on human organ systems. Table 3-3 lists chemicals emitted from the facility with noncancer health impacts by organ system.

Many chemicals are emitted from the facility continuously, as various processes and combustion equipment operate around the clock. Intermittent, yet predictable, emission sources include flaring and various maintenance activities. Significant maintenance periods, called turnarounds, often require equipment to be shut down and later restarted. Unexpected spill and process vent releases can result in short-term emissions as well. Chemicals of concern most commonly emitted on a short-term basis include benzene, hydrogen sulfide, and DPM.

Table 3-1 Dose Response Table

Pollutants	CAS	Cancer Risk Factor		Chronic			Acute
		Inhalation Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	Inhalation REL $(\mu g/m^3)$	8-Hour Inhalation REL $(\mu g/m^3)$	Oral REL (mg/kg-day)	Inhalation REL $(\mu g/m^3)$
1,2,4-Trimethylbenzene	95-63-6						
1,2-Dichlorobenzene	95-50-1						
1,3-Butadiene	106-99-0	6.0E-01		2.0E+00	9.0E+00		6.6E+02
2-Methyl naphthalene (PAHs)	91-57-6						
Acenaphthene (PAHs)	83-32-9						
Acenaphthylene (PAHs)	208-96-8						
Acetaldehyde	75-07-0	1.0E-02		1.4E+02	3.0E+02		4.7E+02
Acrolein	107-02-8			3.5E-01	7.0E-01		2.5E+00
Aluminum	7429-90-5						
Ammonia	7664-41-7			2.0E+02			3.2E+03
Anthracene	120-12-7						
Antimony	7440-36-0						
Arsenic	7440-38-2	1.2E+01	1.5E+00	1.5E-02	1.5E-02	3.5E-06	2.0E-01
Barium	7440-39-3						
Benz(a)anthracene (PAHs)	56-55-3	3.9E-01	1.2E+00				
Benzene	71-43-2	1.0E-01		3.0E+00	3.0E+00		2.7E+01
Benzidine	92-87-5	5.0E+02					
Benzo(a)pyrene	50-32-8	3.9E+00	1.2E+01				
Benzo(b)fluoranthene (PAHs)	205-99-2	3.9E-01	1.2E+00				
Benzo(g,h,i)perylene (PAHs)	191-24-2						
Benzo(k)fluoranthene (PAHs)	207-08-9	3.9E-01	1.2E+00				
Beryllium	7440-41-7	8.4E+00		7.0E-03		2.0E-03	
Biphenyl	92-52-4						
Bromoform	75-25-2						
Cadmium	7440-43-9	1.5E+01		2.0E-02		5.0E-04	
Carbon disulfide	75-15-0			8.0E+02			6.2E+03
Carbonyl sulfide	463-58-1			1.0E+01	1.0E+01		6.6E+02
Chlorine	7782-50-5			2.0E-01			2.1E+02
Chlorobenzene	108-90-7			1.0E+03			
Chlorodifluoromethane {Freon 22}	75-45-6						
Chloroform	67-66-3	1.9E-02		3.0E+02			1.5E+02

Table 3-1 Dose Response Table

Pollutants	CAS	Cancer Risk Factor		Chronic			Acute
		Inhalation Cancer Potency Factor $(mg/kg\text{-}day)^{-1}$	Oral Slope Factor $(mg/kg\text{-}day)^{-1}$	Inhalation REL $(\mu g/m^3)$	8-Hour Inhalation REL $(\mu g/m^3)$	Oral REL (mg/kg-day)	Inhalation REL $(\mu g/m^3)$
Chromium	7440-47-3						
Chromium, hexavalent	18540-29-9	5.1E+02	5.0E-01	2.0E-01		2.0E-02	
Chrysene (PAHs)	218-01-9	3.9E-02	1.2E-01				
Cobalt	7440-48-4						
Copper	7440-50-8						1.0E+02
Cresol (mixed isomers)	1319-77-3			6.0E+02			
Cumene	98-82-8						
Cumene hydroperoxide	80-15-9						
Cyclohexane	110-82-7						
Di(2-ethylhexyl) phthalate	117-81-7	8.4E-03	8.4E-03				
Dibenz(a,h)anthracene (PAHs)	53-70-3	4.1E+00	4.1E+00				
Dibenzofuran	132-64-9						
Dichlorobenzenes (mixed isomers)	25321-22-6	4.0E-02		8.0E+02			
Diesel exhaust particulates	9901	1.1E+00		5.0E+00			
Diethanolamine	111-42-2			3.0E+00			
Dioxins, total, w/o ind. isomers	1086	1.3E+05	1.3E+05	4.0E-05		1.0E-08	
Ethyl benzene	100-41-4	8.7E-03		2.0E+03			
Ethylene	74-85-1						
Ethylene glycol	107-21-1			4.0E+02			
Fluoranthene (PAHs)	206-44-0						
Fluorene (PAHs)	86-73-7						
Fluorocarbons (chlorinated)	1104						
Formaldehyde	50-00-0	2.1E-02		9.0E+00	9.0E+00		5.5E+01
Hexane	110-54-3			7.0E+03			
Hydrochloric acid	7647-01-0			9.0E+00			2.1E+03
Hydrocyanic acid	74-90-8			9.0E+00			3.4E+02
Hydrogen sulfide	7783-06-4			1.0E+01			4.2E+01
Hydroquinone	123-31-9						
Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	3.9E-01	1.2E+00				
Lead (inorganic)	7439-92-1	4.2E-02	8.5E-03				
Lead compounds	1128	4.2E-02	8.5E-03				

Table 3-1 Dose Response Table

Pollutants	CAS	Cancer Risk Factor		Chronic			Acute
		Inhalation Cancer Potency Factor (mg/kg-day)$^{-1}$	Oral Slope Factor (mg/kg-day)$^{-1}$	Inhalation REL (µg/m^3)	8-Hour Inhalation REL (µg/m^3)	Oral REL (mg/kg-day)	Inhalation REL (µg/m^3)
Manganese	7439-96-5			9.0E-02	1.7E-01		
Mercury	7439-97-6			3.0E-02	6.0E-02	1.6E-04	6.0E-01
Methanol	67-56-1			4.0E+03			2.8E+04
Methyl bromide	74-83-9			5.0E+00			3.9E+03
Methyl chloroform	71-55-6			1.0E+03			6.8E+04
Methyl ethyl ketone	78-93-3						1.3E+04
Methyl tert-butyl ether	1634-04-4	1.8E-03		8.0E+03			
Molybdenum trioxide	1313-27-5						
Naphthalene	91-20-3	1.2E-01		9.0E+00			
n-Butyl alcohol	71-36-3						
Nickel	7440-02-0	9.1E-01		1.4E-02	6.0E-02	1.1E-02	2.0E-01
o-Xylene	95-47-6			7.0E+02			2.2E+04
PAHs, total, w/o ind. comp.	1151	3.9E+00	1.2E+01				
Phenanthrene (PAHs)	85-01-8						
Phenol	108-95-2			2.0E+02			5.8E+03
Phosphorus	7723-14-0						
Propylene	115-07-1			3.0E+03			
p-Xylene	106-42-3			7.0E+02			2.2E+04
Pyrene	129-00-0						
Selenium	7782-49-2			2.0E+01		5.0E-03	
Silver	7440-22-4						
Styrene	100-42-5			9.0E+02			2.1E+04
Sulfuric acid	7664-93-9			1.0E+00			1.2E+02
Thallium	7440-28-0						
Toluene	108-88-3			3.0E+02			3.7E+04
Trichlorofluoromethane {Freon 11}	75-69-4						
Vanadium	7440-62-2						3.0E+01
Xylenes (mixed isomers)	1330-20-7			7.0E+02			2.2E+04
Zinc	7440-66-6						

Table 3-2 Multi-Pathway Pollutants

Pollutants	Inhalation	Plant	Soil Ingestion	Dermal	Mother's Milk
Arsenic	X	X	X	X	
B[a]anthracene	X	X	X	X	X
B[a]Pyrene	X	X	X	X	X
B[b]fluoranthene	X	X	X	X	X
B[k]fluoranthene	X	X	X	X	X
Beryllium	X	X	X	X	
Cadmium	X	X	X	X	
Chrysene	X	X	X	X	X
Cr(VI)	X	X	X	X	
D[a,h]anthracene	X	X	X	X	X
Di2-EthHxPhthalene	X	X	X	X	
Dioxins	X	X	X	X	X
In[1,2,3-cd]pyrene	X	X	X	X	X
Lead	X	X	X	X	X
Lead cmpd (inorg)	X	X	X	X	X
Mercury	X	X	X	X	
Nickel	X	X	X	X	
PAHs	X	X	X	X	X

Table 3-3 Target Organs Table

Pollutants	CAS	AT	BO	CV	DV	EN	EY	HE	IM	KI	NE	RE	RP	SK
1,2,4-Trimethylbenzene	95-63-6	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene	95-50-1	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Butadiene	106-99-0	--	--	--	A	--	--	--	--	--	--	8 C	--	--
2-Methyl naphthalene (PAHs)	91-57-6	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthene (PAHs)	83-32-9	--	--	--	--	--	--	--	--	--	--	--	--	--
Acenaphthylene (PAHs)	208-96-8	--	--	--	--	--	--	--	--	--	--	--	--	--
Acetaldehyde	75-07-0	--	--	--	--	--	A	--	--	--	--	A 8 C	--	--
Acrolein	107-02-8	--	--	--	--	--	A	--	--	--	--	A 8 C	--	--
Aluminum	7429-90-5	--	--	--	--	--	--	--	--	--	--	--	--	--
Ammonia	7664-41-7	--	--	--	--	--	A	--	--	--	--	A C	--	--
Anthracene (PAHs)	120-12-7	--	--	--	--	--	--	--	--	--	--	--	--	--
Antimony	7440-36-0	--	--	--	--	--	--	--	--	--	--	--	--	--
Arsenic	7440-38-2	--	--	A 8 C	A 8 C	--	--	--	--	--	A 8 C	8 C	--	8 C
Barium	7440-39-3	--	--	--	--	--	--	--	--	--	--	--	--	--
Benz[a]anthracene (PAHs)	56-55-3	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzene	71-43-2	--	--	--	A	--	--	A 8 C	A	--	--	--	--	--
Benzidine (and its salts)	92-87-5	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[a]pyrene	50-32-8	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[b]fluoranthene (PAHs)	205-99-2	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[g,h,i]perylene (PAHs)	191-24-2	--	--	--	--	--	--	--	--	--	--	--	--	--
Benzo[k]fluoranthene (PAHs)	207-08-9	--	--	--	--	--	--	--	--	--	--	--	--	--
Beryllium	7440-41-7	C	--	--	--	--	--	--	C	--	--	C	--	--
Biphenyl	92-52-4	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromoform	75-25-2	--	--	--	--	--	--	--	--	--	--	--	--	--
Cadmium	7440-43-9	--	--	--	--	--	--	--	--	C	--	C	--	--

Table 3-3 Target Organs Table

Pollutants	CAS	AT	BO	CV	DV	EN	EY	HE	IM	KI	NE	RE	RP	SK
Carbon disulfide	75-15-0	--	--	--	A	--	--	--	--	--	A C	--	A C	--
Carbonyl sulfide	463-58-1	--	--	--	--	--	--	--	--	--	A 8 C	--	--	--
Chlorine	7782-50-5	--	--	--	--	--	A	--	--	--	--	A C	--	--
Chlorobenzene	108-90-7	C	--	--	--	--	--	--	--	C	--	--	C	--
Chlorodifluoromethane {Freon 22}	75-45-6	--	--	--	--	--	--	--	--	--	--	--	--	--
Chloroform	67-66-3	C	--	--	A C	--	--	--	--	C	A	A	A	--
Chromium	7440-47-3	--	--	--	--	--	--	--	--	--	--	--	--	--
Chromium VI, and compounds	18540-29-9	--	--	--	--	--	--	C	--	--	--	C	--	--
Chrysene (PAHs)	218-01-9	--	--	--	--	--	--	--	--	--	--	--	--	--
Cobalt	7440-48-4	--	--	--	--	--	--	--	--	--	--	--	--	--
Copper	7440-50-8	--	--	--	--	--	--	--	--	--	--	--	--	--
Cresols (mixtures of) {Cresylic acid}	1319-77-3	--	--	--	--	--	--	--	--	--	C	--	--	--
Cumene	98-82-8	--	--	--	--	--	--	--	--	--	--	--	--	--
Cumene hydroperoxide	80-15-9	--	--	--	--	--	--	--	--	--	--	--	--	--
Cyclohexane	110-82-7	--	--	--	--	--	--	--	--	--	--	--	--	--
Di(2-ethylhexyl) phthalate	117-81-7	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenz[a,h]anthracene	53-70-3	--	--	--	--	--	--	--	--	--	--	--	--	--
Dibenzofuran	132-64-9	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorobenzenes (mixed isomers)	25321-22-6	C	--	--	--	--	--	--	--	C	--	--	--	--
Diesel engine exhaust (DPM)	9901	--	--	--	--	--	--	--	--	--	--	C	--	--
Diethanolamine	111-42-2	--	--	--	--	--	--	C	--	--	--	C	--	--
Dioxins, total, w/o ind. Isomers	1086	C	--	--	C	C	--	C	--	--	--	C	C	--
Ethyl benzene	100-41-4	C	--	--	C	C	--	--	--	C	--	--	--	--
Ethylene	74-85-1	--	--	--	--	--	--	--	--	--	--	--	--	--
Ethylene glycol	107-21-1	--	--	--	C	--	--	--	--	C	--	C	--	--

Table 3-3 Target Organs Table

Pollutants	CAS	AT	BO	CV	DV	EN	EY	HE	IM	KI	NE	RE	RP	SK
Fluoranthene (PAHs)	206-44-0	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorene (PAHs)	86-73-7	--	--	--	--	--	--	--	--	--	--	--	--	--
Fluorocarbons (chlorinated)	1104	--	--	--	--	--	--	--	--	--	--	--	--	--
Formaldehyde	50-00-0	--	--	--	--	--	A	--	--	--	--	A 8 C	--	--
Hexane	110-54-3	--	--	--	--	--	--	--	--	--	C	--	--	--
Hydrochloric acid	7647-01-0	--	--	--	--	--	A	--	--	--	--	AC	--	--
Hydrocyanic acid	74-90-8	--	--	C	--	C	--	--	--	--	A C	--	--	--
Hydrogen sulfide	7783-06-4	--	--	--	--	--	--	--	--	--	A	C	--	--
Hydroquinone	123-31-9	--	--	--	--	--	--	--	--	--	--	--	--	--
Indeno[1,2,3-cd]pyrene (PAHs)	193-39-5	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead	7439-92-1	--	--	--	--	--	--	--	--	--	--	--	--	--
Lead compounds (inorganic)	1128	--	--	--	--	--	--	--	--	--	--	--	--	--
Manganese	7439-96-5	--	--	--	--	--	--	--	--	--	8 C	--	--	--
Mercury	7439-97-6	--	--	--	A 8 C	--	--	--	--	8C	A 8 C	--	--	--
Methanol	67-56-1	--	--	--	C	--	--	--	--	--	A	--	--	--
Methyl bromide {Bromomethane}	74-83-9	--	--	--	A C	--	--	--	--	--	A C	A C	A	--
Methyl chloroform {1,1,1-TCA}	71-55-6	--	--	--	--	--	--	--	--	--	A C	--	--	--
Methyl ethyl ketone	78-93-3	--	--	--	--	--	A	--	--	--	--	A	--	--
Methyl tert-butyl ether	1634-04-4	C	--	--	--	--	C	--	--	C	--	--	--	--
Molybdenum trioxide	1313-27-5	--	--	--	--	--	--	--	--	--	--	--	--	--
Naphthalene	91-20-3	--	--	--	--	--	--	--	--	--	--	C	--	--
n-Butyl alcohol	71-36-3	--	--	--	--	--	--	--	--	--	--	--	--	--
Nickel	7440-02-0	--	--	--	C	--	--	C	A 8	--	--	8 C	--	--
o-Xylene	95-47-6	--	--	--	--	--	A	--	--	--	A	A	--	--
PAHs, w/o ind. Components	1151	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3-3 Target Organs Table

Pollutants	CAS	AT	BO	CV	DV	EN	EY	HE	IM	KI	NE	RE	RP	SK
Phenanthrene (PAHs)	85-01-8	--	--	--	--	--	--	--	--	--	--	--	--	--
Phenol	108-95-2	C	--	C	--	--	A	--	--	C	C	A	--	--
Phosphorus	7723-14-0	--	--	--	--	--	--	--	--	--	--	C	--	--
Propylene	115-07-1	--	--	--	--	--	--	--	--	--	--	C	--	--
p-Xylene	106-42-3	--	--	--	--	--	A	--	--	--	A	A	--	--
Pyrene	129-00-0	--	--	--	--	--	--	--	--	--	--	--	--	--
Selenium	7782-49-2	C	--	C	--	--	--	--	--	--	C	--	--	--
Silver	7440-22-4	--	--	--	--	--	--	--	--	--	--	--	--	--
Styrene	100-42-5	--	--	--	A	--	A	--	--	--	C	A	A	--
Sulfuric acid	7664-93-9	--	--	--	--	--	--	--	--	--	--	A C	--	--
Thallium	7440-28-0	--	--	--	--	--	--	--	--	--	--	--	--	--
Toluene	108-88-3	--	--	--	A C	--	A	--	--	--	A C	A C	A	--
Trichlorofluoromethane {Freon 11}	75-69-4	--	--	--	--	--	--	--	--	--	--	--	--	--
Vanadium (fume or dust)	7440-62-2	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (mixed)	1330-20-7	--	--	--	--	--	A	--	--	--	A	A	--	--
Zinc	7440-66-6	--	--	--	--	--	--	--	--	--	--	--	--	--

Note: AT = Alimentary, BO = Bone, CV = Cardiovascular, DV = Developmental, EN = Endocrine, EY = Eyes, HE = Hematologic, IM = Immune, KI = Kidney, NE = Nervous, RE = Respiratory, RP = Reproductive, SK = Skin

Note:
A = acute exposure
8 = 8-hour exposure
C = chronic exposure
-- = not applicable

4.0 EXPOSURE ASSESSMENT

The exposure assessment for this HRA began with a thorough evaluation of facility operations to identify all emission sources, their annual and maximum hourly emission quantities, and release characteristics. The offsite use of land in the surrounding communities was also evaluated.

4.1 Land Use

The Phillips 66 Los Angeles Refinery - Wilmington Plant is located near the intersection of Anaheim Street and the 110 Freeway. The topography of the facility is relatively flat, with a slight elevation increase in the southwest corner. The immediate area surrounding the facility is zoned for industrial, commercial, and residential uses within an approximate 0.5 mile distance. A facility plot plan is presented in Figure 2-1.

Activities that may lead to exposure are different for workers and residents in the vicinity of the facility. Off-site workers might reasonably be expected to be exposed via inhalation, dermal contact, and soil ingestion. Other exposure pathways, while reasonable for residential populations, are not likely for worker populations and so could reasonably be excluded from the evaluation. An example of this is plant ingestion. This pathway was excluded from worker exposure calculations because crops are not grown and subsequently consumed by onsite workers in the industrial areas surrounding the facility.

4.2 Human Exposure Pathways

To identify potential exposure pathways for this HRA, three things were considered: 1) the type of pollutants, 2) land use in the area, and 3) lifestyle (i.e., urban versus rural or agricultural). Exposure pathways considered include inhalation, soil ingestion, dermal contact, plant ingestion (vegetation), fish ingestion, drinking water ingestion, human milk ingestion, and dairy and beef/chicken/pork ingestion.

Fish ingestion, drinking water ingestion, and dairy and beef/chicken/pork ingestion were evaluated in the previous AB 2588 health risk assessment by identifying any sources of edible fish bearing waters, drinking water sources, and dairy and beef/chicken/pork production located within the study area which could be impacted by facility emissions and expose the human population. None of these sources of ingestion was identified within the study area. Hence these pathways were excluded from further consideration in both past and present health risk assessments.

4.3 Dose Response

The human response to any given level of an exposure is measured with a dose-response assessment. A dose-response assessment produces three factors for use in evaluating potential adverse health effects: cancer potency factors (CPFs) for carcinogens, chronic non-cancer reference exposure levels (RELs) for substances not considered to be carcinogenic or for the noncarcinogenic toxicity of carcinogens, and acute noncancer reference exposure levels (acute RELs) for acutely toxic compounds.

4.4 Emissions Inventory

Table 4-1 presents facility-wide chemical emissions associated with this health risk assessment. Specifically, Table 4-1 summarizes all AB 2588 pollutants in Appendix A-I of the OEHHA guidelines that were emitted from the facility during calendar year 2015. A total of ninety-one (91) emitted chemicals were identified for this health risk assessment, fifty-eight (58) of which were also reported in the 2015 AER.

Summarized below are emission source types represented at the facility. Refer to Appendix B for a listing of individual emission sources, their respective modeling parameters, and plots, which identify their respective locations within the facility boundary. Chemical emissions for each modeled emission source are included in Appendix D.

- Heaters, Boilers & Cogeneration Unit
- Fluid Catalytic Cracking
- Selective Catalytic Reduction Unit Ammonia Slip
- Flares
- Incinerators
- Internal Combustion Engines
- Process Vents
- Cooling Towers
- Storage Tanks
- Wastewater Treatment
- Component Fugitives
- Fuel Dispensing
- Maintenance Activities
- Painting & Use of Solvents
- Asbestos Abatement
- Spills & Releases
- Tank Degassing

Table 4-1 2015 Facility-Wide AB 2588 Quantifiable Emissions
[Emission Rates By Substance]

Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Annual Average (g/s)	Maximum Hourly (g/s)
1,2,4-Trimethylbenzene	95-63-6	609.03	0.07	8.76E-03	8.82E-03
1,2-Dichlorobenzene	95-50-1	0.00	0.00	3.90E-08	1.88E-06
1,3-Butadiene	106-99-0	203.93	0.11	2.93E-03	1.40E-02
2-Methyl naphthalene (PAHs)	91-57-6	0.18	0.00	2.53E-06	2.75E-06
Acenaphthene (PAHs)	83-32-9	0.05	0.00	7.21E-07	7.81E-07
Acenaphthylene (PAHs)	208-96-8	0.86	0.00	1.24E-05	1.35E-05
Acetaldehyde	75-07-0	3,939.85	2.53	5.67E-02	3.19E-01
Acrolein	107-02-8	888.71	2.16	1.28E-02	2.72E-01
Aluminum	7429-90-5	1,544.82	0.21	2.22E-02	2.61E-02
Ammonia	7664-41-7	64,709.06	12.55	9.31E-01	1.58E+00
Anthracene	120-12-7	2.23	0.01	3.21E-05	1.45E-03
Antimony	7440-36-0	1.56	0.00	2.25E-05	2.67E-05
Arsenic	7440-38-2	2.59	0.01	3.73E-05	1.22E-03
Barium	7440-39-3	73.47	0.01	1.06E-03	1.16E-03
Benz(a)anthracene (PAHs)	56-55-3	0.40	0.00	5.75E-06	6.23E-06
Benzene	71-43-2	568.67	0.10	8.18E-03	1.21E-02
Benzidine	92-87-5	0.05	0.00	6.62E-07	6.62E-07
Benzo(a)pyrene	50-32-8	0.88	0.00	1.26E-05	1.38E-05
Benzo(b)fluoranthene (PAHs)	205-99-2	0.52	0.00	7.46E-06	8.07E-06
Benzo(g,h,i)perylene (PAHs)	191-24-2	0.23	0.01	3.26E-06	1.42E-03
Benzo(k)fluoranthene (PAHs)	207-08-9	0.26	0.00	3.73E-06	4.07E-06
Beryllium	7440-41-7	2.04	0.00	2.94E-05	3.25E-05
Biphenyl	92-52-4	0.14	0.00	1.97E-06	1.97E-06
Bromoform	75-25-2	0.08	0.00	1.19E-06	1.19E-06
Cadmium	7440-43-9	7.95	0.01	1.14E-04	1.24E-03
Carbon disulfide	75-15-0	3,293.55	0.38	4.74E-02	4.78E-02
Carbonyl sulfide	463-58-1	2,315.25	0.27	3.33E-02	3.36E-02
Chlorine	7782-50-5	3.16	0.00	4.54E-05	4.54E-05
Chlorobenzene	108-90-7	0.01	0.00	1.03E-07	1.47E-04
Chlorodifluoromethane {Freon 22}	75-45-6	100.00	0.05	1.44E-03	6.06E-03
Chloroform	67-66-3	1.83	0.00	2.63E-05	2.63E-05
Chromium compounds	7440-47-3	15.23	0.01	2.19E-04	8.26E-04

Table 4-1 2015 Facility-Wide AB 2588 Quantifiable Emissions
[Emission Rates By Substance]

Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Annual Average (g/s)	Maximum Hourly (g/s)
Chromium, hexavalent	18540-29-9	0.39	0.00	5.60E-06	8.56E-05
Chrysene (PAHs)	218-01-9	0.49	0.00	7.12E-06	7.46E-06
Cobalt compounds	7440-48-4	5.78	0.00	8.32E-05	8.77E-05
Copper compounds	7440-50-8	82.77	0.03	1.19E-03	4.32E-03
Cresol (mixed isomers)	1319-77-3	5.65	0.00	8.12E-05	8.23E-05
Cumene	98-82-8	44.92	0.01	6.46E-04	6.50E-04
Cumene hydroperoxide	80-15-9	0.00	0.00	1.91E-08	1.91E-08
Cyclohexane	110-82-7	603.33	0.07	8.68E-03	8.80E-03
Di(2-ethylhexyl) phthalate	117-81-7	0.00	0.00	5.04E-08	5.04E-08
Dibenz(a,h)anthracene (PAHs)	53-70-3	0.02	0.00	3.29E-07	3.59E-07
Dibenzofuran	132-64-9	0.00	0.00	6.16E-12	6.16E-12
Dichlorobenzenes (mixed isomers)	25321-22-6	0.10	0.00	1.51E-06	1.51E-06
Diesel PM exhaust	9901	866.01	5.05	1.25E-02	6.36E-01
Diethanolamine	111-42-2	0.00	0.00	1.91E-08	1.91E-08
Dioxins, total, w/o ind. isomers	1086	0.00	0.00	2.78E-12	3.50E-12
Ethyl benzene	100-41-4	547.81	0.07	7.88E-03	8.32E-03
Ethylene	74-85-1	1,044.87	0.12	1.50E-02	1.50E-02
Ethylene glycol	107-21-1	0.00	0.00	1.91E-08	1.91E-08
Fluoranthene (PAHs)	206-44-0	0.22	0.00	3.18E-06	3.46E-06
Fluorene (PAHs)	86-73-7	0.09	0.00	1.26E-06	1.35E-06
Fluorocarbons (chlorinated)	1104	7.76	0.00	1.12E-04	4.70E-04
Formaldehyde	50-00-0	2,429.71	2.36	3.49E-02	2.98E-01
Hexane	110-54-3	3,626.30	0.48	5.22E-02	6.01E-02
Hydrochloric acid	7647-01-0	369.02	1.13	5.31E-03	1.43E-01
Hydrocyanic acid	74-90-8	154,782.37	20.97	2.23E+00	2.64E+00
Hydrogen sulfide	7783-06-4	1,474.55	0.17	2.12E-02	2.19E-02
Hydroquinone	123-31-9	0.00	0.00	1.91E-08	1.91E-08
Indeno(1,2,3-cd) pyrene (PAHs)	193-39-5	1.08	0.00	1.56E-05	1.70E-05
Lead	7439-92-1	0.01	0.00	1.69E-07	7.12E-07
Lead compounds	1128	22.02	0.05	3.17E-04	6.44E-03
Manganese compounds	7439-96-5	472.79	0.08	6.80E-03	9.69E-03
Mercury compounds	7439-97-6	3.13	0.01	4.51E-05	1.51E-03

Table 4-1 2015 Facility-Wide AB 2588 Quantifiable Emissions
[Emission Rates By Substance]

Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Annual Average (g/s)	Maximum Hourly (g/s)
Methanol	67-56-1	5,071.12	0.61	7.29E-02	7.67E-02
Methyl bromide	74-83-9	0.00	0.00	1.91E-08	1.91E-08
Methyl chloroform	71-55-6	0.18	0.00	2.53E-06	2.53E-06
Methyl ethyl ketone	78-93-3	0.08	0.00	1.18E-06	1.18E-06
Methyl tert-butyl ether	1634-04-4	38.48	0.00	5.53E-04	5.57E-04
Molybdenum trioxide	1313-27-5	70.94	0.01	1.02E-03	1.02E-03
Naphthalene	91-20-3	490.85	0.09	7.06E-03	1.12E-02
n-Butyl alcohol	71-36-3	0.00	0.00	1.91E-08	1.91E-08
Nickel compounds	7440-02-0	176.86	0.05	2.54E-03	5.99E-03
o-Xylene	95-47-6	1.88	0.00	2.70E-05	2.70E-05
PAHs, total, w/o ind. comp.	1151	1.38	0.00	1.99E-05	2.66E-05
Phenanthrene (PAHs)	85-01-8	0.53	0.01	7.60E-06	1.43E-03
Phenol	108-95-2	158.25	0.02	2.28E-03	2.44E-03
Phosphorus	7723-14-0	26.50	0.00	3.81E-04	4.15E-04
Propylene	115-07-1	6,880.25	0.89	9.90E-02	1.12E-01
p-Xylene	106-42-3	4.58	0.00	6.58E-05	6.58E-05
Pyrene	129-00-0	0.23	0.00	3.28E-06	3.56E-06
Selenium compounds	7782-49-2	1.10	0.01	1.58E-05	1.63E-03
Silver compounds	7440-22-4	2.14	0.00	3.08E-05	4.13E-05
Styrene	100-42-5	24.25	0.00	3.49E-04	3.55E-04
Sulfuric acid	7664-93-9	8,278.28	1.06	1.19E-01	1.34E-01
Thallium	7440-28-0	89.32	0.01	1.28E-03	1.40E-03
Toluene	108-88-3	2,563.04	0.33	3.69E-02	4.21E-02
Trichlorofluoromethane	75-69-4	0.00	0.00	1.91E-08	1.91E-08
Vanadium compounds	7440-62-2	18.69	0.00	2.69E-04	3.21E-04
Xylenes (mixed isomers)	1330-20-7	2,949.37	0.36	4.24E-02	4.53E-02
Zinc compounds	7440-66-6	287.27	0.17	4.13E-03	2.10E-02

5.0 AIR DISPERSION MODELING

Emissions from the facility are released into the atmosphere through point and area sources. Using the publicly available ADMRT module of the HARP database, toxic air pollutants from these sources were modeled following SCAQMD and OEHHA guidelines. Table 5.1 below outlines the basic inputs and assumptions utilized in this model per these guidelines:

Table 5-1 Basic Inputs to Dispersion Model

Modeling Option	Selection
ADMRT Version:	19121
Coordinate System:	Universal Transverse Mercator (UTM)
Datum	WGS84 – World Geodetic System 1984
UTM Zone:	11 N
Use Regulatory Default?	Yes
Urban or Rural?	Urban
Flagpole Height	0 m
Meteorological Data	SCAQMD KLGB Version 9 Data (10 m elev.)
Include Building Downwash?	Yes

The meteorological data used in this risk assessment was available online from SCAQMD. In addition to the above mentioned modeling parameters, a total of 3,215 receptors were chosen to accurately assess full health risk impacts of facility emissions in the model, as summarized in Table 5.2 below. A more detailed list of receptors can be found in Appendix C.

Table 5-2 Summary of Receptors

Receptor Type	Receptor Quantity
Grid Receptors	529
Sensitive Receptors	181
Census Receptors	2,387
Property Boundary Receptors	118
Total Receptors	3,215

5.1 Model Selection

Terrain in the vicinity of the refinery is generally flat, but does include some complex terrain to the west and south. Experience with AB 2588 modeling suggests that maximum off-site impacts are often attributed to near ground-level sources, and therefore not usually impacted by complex terrain. As a result, the appropriate dispersion model for use with this assessment is U.S. EPA's current AMS/EPA Regulatory Model (AERMOD) which is an imbedded module of the HARP

database program. Terrain elevation data was obtained in the format of DEM (Digital Elevation Model) files from the United States Geological Survey (USGS). This data was electronically referenced by the HARP database program, thereby simplifying the determination of source and receptor elevations, and eliminating steps of manual data entry.

To determine the effects of aerodynamic building wakes, the HARP database program allows the user to run the imbedded BPIP Prime algorithm. The BPIP Prime model was used to ensure that building downwash effects were considered in the air dispersion model.

The OEHHA guidelines and ARB recommend a default settling velocity of 2 centimeters per second for non-inhalation pathways. The 2 centimeters per second value is ideal for controlled sources and was used in HARP modeling since particulate matter sources are either controlled or result from gas-fired combustion sources which would lead to fine aerosol emissions more representative of the lower settling velocity.

The source-specific input requirements for the HARP database program air dispersion module are 1) definition of sources, 2) release characteristics, 3) meteorological data, and 4) receptor locations. Release characteristics for point sources include stack height, diameter, exit temperature, and velocity. The data requirements for area sources include release height and physical dimensions of the area.

5.2 Modeled Sources

A total of 247 individual emission sources were identified for modeling purposes. Storage tanks, cooling towers, and other non-combustion emission sources were modeled as area sources, and stacks were modeled as point sources. A listing of individual sources, source coordinates, source types, and source groupings is provided in Appendix B.

5.3 Building Downwash

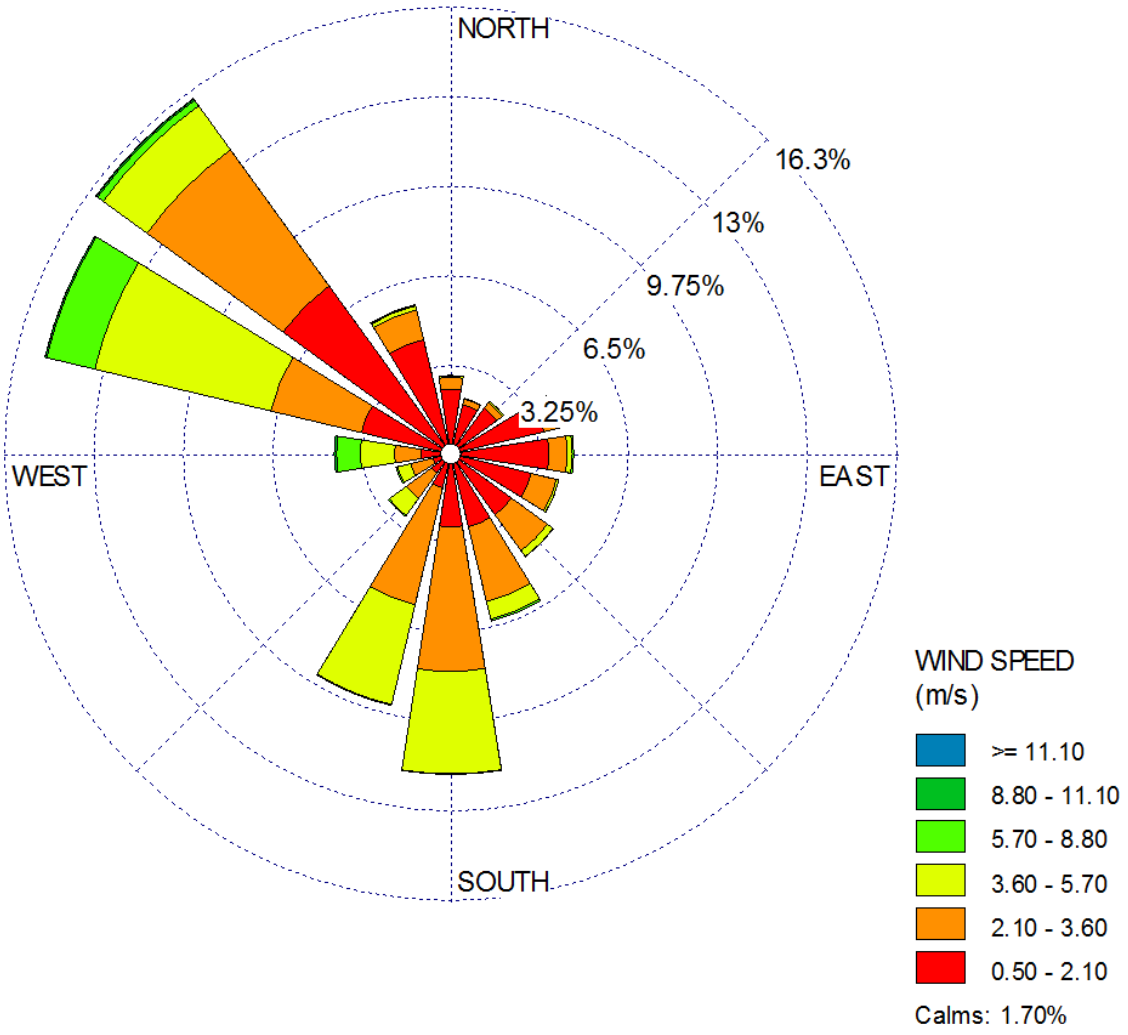
U.S. EPA's Building Profile Input Program (BPIP), also an imbedded module of the HARP database program, was used to identify point sources for which downwash calculations should be considered and to calculate direction-dependent downwash parameters for such sources. These data were produced by HARP in AERMOD-required input format and automatically inserted into the AERMOD model input files. The AERMOD building downwash algorithm was used to account for downwash effects on the dispersion of emissions from point sources.

5.4 Meteorological Data

SCAQMD requires all facilities to use five years of daily meteorological data from a local meteorological station provided via its website (https://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/data-for-aermod). Version 9 of the Long Beach (KLGB) meteorological station was determined to be the closest, best available, and most representative

data for the facility at the time of SCAQMD's request for this HRA. The meteorological data spans 5 years (2012-2016), collected from a location approximately 8 miles from the facility with no major interfering terrain elements in between. A wind rose for this met data is provided in Figure 5-1.

Figure 5-1 KLGB Wind Rose



This data set includes measurements of wind speed and direction, surface temperature, and stability. The AERMOD dispersion model runs a separate dispersion for every day of meteorological data within this 5-year span and interpolates an average dispersion of the daily dispersion results.

5.5 Receptor Modeling Grids

Multiple air dispersion modeling grids (arrays of offsite receptor locations) were used in this health risk assessment. A fine grid with receptor spacing of 100 meters, and surrounding the entire facility was used to define the points of highest residential and worker exposure. Appendix C contains tables and Google Earth plots which collectively show the location of all grid receptors and property boundary receptors relative to the facility fenceline.

A third group of modeled receptors was used for the cancer burden analysis, and location of census tract centroids was automatically determined by the HARP database program. For each census tract within the zone of impact (i.e., 1 x 10^{-6} cancer risk isopleth for 70-year exposure), HARP identified and located a representative receptor. Risks were then determined for each census tract receptor. Appendix C includes a plot of the census tract centroids located within the zone of impact.

A fourth group of modeled receptors was used to estimate potential health risks at sensitive receptors - hospitals, schools, day care facilities, and convalescent homes. Appendix C includes a plot of the sensitive receptors located within the zone of impact and a corresponding table of sensitive receptor information.

6.0 RISK CHARACTERIZATION

Human exposure to toxic substances in the environment can occur through a variety of different mechanisms or exposure pathways. An exposure pathway is defined as any activity through which an individual receives some level of exposure to a substance. The first step in assessing exposure is to identify all relevant exposure pathways for the study area as well as the types of substances emitted. The second step is to quantify the daily intake rate of each substance through each potential pathway.

The OEHHA guidelines for AB 2588 health risk assessments provide a detailed and specific framework to be used when calculating human exposure. The types of pathways considered, the mathematical equations for each pathway, and default data for the many assumptions are specified by OEHHA and pre-programmed in the HARP database program. Default parameters and exposure equations are such that the end result of the exposure calculations is a worst-case estimate of the daily intake rate of each pollutant or substance.

6.1 Study Area

For the purposes of this health risk assessment, the study area (i.e., zone of impact) as defined in the OEHHA guidelines is the geographical area represented by the calculated hypothetical individual excess lifetime cancer risk of 1 x 10^{-6} or greater over a 70 year exposure period. For this facility, the study area is shown in Figure 6-1.

6.2 Risk Characterization

Risk characterization is the final step in the risk assessment process where the results of the exposure and dose-response assessments are combined to determine the potential for health risk. Health effects evaluated include:

- An estimate of the lifetime incremental risk of developing cancer
- Increased number of cancer cases in the exposed population (burden)
- Potential for chronic or long-term noncancer effects, and
- Potential for acute or short-term noncancer effects.

OEHHA requires risk assessments to include the exposure and risk calculations for a hypothetical residential maximally exposed individual, or resident MEI. This individual is assumed to live at the point of highest concentration of facility emissions, in a residentially zoned area, for up to 24 hours per day (fraction of time at home assumed to differ for ages >16), 365 days per year, for 30 continuous years. The MEI concept ensures that exposure will not be underestimated because time spent at work, on vacation, commuting locally, or moving from one residence to another would otherwise reduce the actual exposure to emissions.

Also calculated in this risk assessment is the exposure and risk to a hypothetical occupational maximally exposed individual, or worker MEI. This individual is assumed to work at the point of highest impact in nonresidential areas, for 8 hours per day, 240 days per year, for 25 years.

Following is a discussion of summary risks for all risk categories.

6.3 Cancer Risk

Carcinogenic risks in this 2015-based health risk assessment were determined for the residential MEI, worker MEI, and a Point of Maximum Impact (PMI). MEIs and the PMI were identified from a dense set of fine grid model receptors, but excluded those receptors located on the facility boundary.

The lifetime risk of developing cancer at the residential MEI was estimated to be 33.8 in one million (33.8×10^{-6}). The residential MEI is located east of the facility at UTM coordinates 381343E, 3737980N. Table 6-1 presents cancer risk at the residential MEI by substance and exposure pathway. Diesel PM exhaust, polycyclic aromatic hydrocarbons (PAHs), hexavalent chromium, and benzene account for the majority of cancer risk at the residential MEI. Rental portable diesel ICEs account for approximately 78% of the residential MEI cancer risk (Table 6-2).

The lifetime risk of developing cancer at the worker MEI was estimated to be 2.9 in one million (2.9×10^{-6}). The worker MEI is located east of the facility at UTM coordinates 381500E, 3737300N. Table 6-3 presents cancer risk at the worker MEI by substance and exposure pathway. Diesel PM exhaust, hexavalent chromium, naphthalene, and benzene account for the majority of cancer risk at the worker MEI. Rental portable diesel ICEs account for approximately 65% of the worker MEI cancer risk (Table 6-4).

Estimated residential and worker cancer risks at other locations surrounding the facility will be lower than risks identified at the respective MEIs. The distance from the facility to the farthest edge of the 1×10^{-6} 70-year cancer risk isopleth is an estimated 8,000 meters in a northern direction from the refinery, into the city of Torrance.

Figure 6-1 at the end of the section presents the 1 in one million (1×10^{-6}) cancer risk isopleth (i.e., zone of impact). Figure 6-2 shows distinct locations of the cancer risk residential MEI, the cancer risk worker MEI, and the cancer risk PMI. Figures 6-3 and 6-4 display cancer risk isopleths as required by AB 2588 and the SCAQMD.

6.4 Cancer Burden

In addition to the individual cancer risks for the residential MEI, the maximum increased number of cancer cases that might be expected to occur within the zone of impact was evaluated (called cancer burden or population risk). Census tract boundaries and population data for each census tract located within the zone of impact is contained within the HARP database program. Total cancer burden for the facility was estimated to be 0.64. This means less than one additional cancer case is estimated from among the exposed population, assuming that all inhabitants within the zone of impact will reside there for a continuous 70-year period. Appendix C includes details associated with the cancer burden analysis.

6.5 Sensitive Receptors

Sensitive receptors were also identified within the zone of impact and consisted of schools, day care centers, convalescent homes, and hospitals. These receptors were identified by reviewing data collected for the previous health risk assessment, as well as by searching various internet resources. Appendix C includes a list of all sensitive receptors located within the study area.

6.6 Chronic Noncancer Effects

Residential and worker chronic noncancer hazard indices for each target organ or system are summarized in Table 6-5 and Table 6-6, respectively. As shown in the tables, the chronic noncancer hazard index value for each target organ or system is below 1.0, which indicates that chronic noncancer effects from exposure to facility emissions are unlikely. The highest residential chronic hazard index (HI) is 0.17 (respiratory tract), and the highest worker chronic HI is 0.19 (respiratory tract). The maximum residential chronic HI is located east of the facility at UTM coordinates 381343E, 3737980N. The maximum worker chronic HI is located east of the facility at UTM coordinates 381500E, 3737300N. Figure 6-5 shows distinct locations of the chronic HI residential MEI, the chronic HI worker MEI, and the chronic HI PMI. Figures 6-6 and 6-7 display the non-cancer chronic HI isopleth as required by AB 2588 and the SCAQMD.

6.7 Acute Effects

Results of the acute analysis, which compares acceptable ambient concentrations with maximum one-hour concentrations from facility emissions, are shown in Table 6-7 and Table 6-8. The maximum residential acute HI was determined to be 0.32. The maximum residential acute HI is located east of the facility at UTM coordinates 381343E, 3737980N. The maximum worker acute HI was determined to be 0.40. The maximum worker acute HI is located south of the facility at UTM coordinates 380800E, 3737000N. Figure 6-8 shows distinct locations of the acute HI residential MEI, the acute HI worker MEI, and the acute HI PMI. Figure 6-9 displays the non-cancer acute HI isopleths as required by AB 2588 and the SCAQMD.

Table 6-1 Cancer Risk at the Residential MEI

Substance	Inhalation	Soil Ingestion	Plant Ingestion	Dermal Absorption	Mother's Milk	Total
Diesel PM	2.72E-05					2.72E-05
PAHs - w/o ind. comp.	3.27E-08	1.22E-07	5.97E-07	3.03E-08	2.90E-07	1.07E-06
Chromium, hexavalent	6.56E-07	1.16E-08	3.80E-07	4.45E-10		1.05E-06
Benzene	8.27E-07					8.27E-07
Naphthalene	7.38E-07					7.38E-07
Arsenic	5.06E-08	3.81E-07	2.46E-07	1.86E-08		6.96E-07
Benzidine	6.21E-07					6.21E-07
1,3-Butadiene	4.54E-07					4.54E-07
Nickel	4.06E-07					4.06E-07
Formaldehyde	2.17E-07					2.17E-07
Cadmium	1.41E-07					1.41E-07
Other Carcinogens	1.74E-07	2.47E-08	7.91E-08	4.16E-09	3.83E-08	3.21E-07
Total	3.16E-05	5.39E-07	1.30E-06	5.35E-08	3.28E-07	3.38E-05

Table 6-2 Top 25 Sources Contributing to Cancer Risk at the Residential MEI

Modeling Source No.	Rank	Percent of Total Risk	Cancer Risk	Source Description
Multiple	1	77.94%	2.63E-05	Rental Portable ICEs (Total)
221	2	2.41%	8.15E-07	Welding
40	3	1.52%	5.15E-07	U118 HTR-H401 (HLNX, SCR)
161	4	1.30%	4.39E-07	Blk 14 Fugitives
157	5	1.25%	4.22E-07	Blk 7 Fugitives
224	6	1.07%	3.60E-07	Rental Thermal Oxidizer - Propane
51	7	1.06%	3.58E-07	GW Thermal Oxidizer
25	8	0.92%	3.12E-07	FCC Stack
57	9	0.90%	3.03E-07	ORU Backup Generator
156	10	0.80%	2.71E-07	Blk 6 Fugitives
178	11	0.72%	2.42E-07	Blk 37 Fugitives
150	12	0.65%	2.19E-07	API Separator 1
42	13	0.61%	2.05E-07	U141 HRT - Acid Plant Stack
213	14	0.55%	1.87E-07	Spills and Releases, Asbestos, Catalyst
44	15	0.50%	1.70E-07	Emergency Firewater #1-3 [TK 210]
45	16	0.47%	1.60E-07	Fire Water Pump, #3621-3622 [RD 14]
183	17	0.42%	1.42E-07	Blk 45 Fugitives
43	18	0.36%	1.20E-07	Cogen Start-Up Engine
122	19	0.33%	1.11E-07	Tank 351
207	20	0.28%	9.54E-08	Gasoline Dispensing
38	21	0.26%	8.74E-08	U152 E-650 CT
6	22	0.25%	8.51E-08	90-B-401
121	23	0.24%	8.05E-08	Tank 350
154	24	0.21%	7.10E-08	Blk 4 Fugitives
56	25	0.21%	7.02E-08	Cogen Plant Backup Generator

Table 6-3 Cancer Risk at the Worker MEI

Substance	Inhalation	Soil Ingestion	Plant Ingestion[1]	Dermal Absorption	Mother's Milk[1]	Total
Diesel PM	1.96E-06					1.96E-06
Chromium, hexavalent	1.64E-07	3.42E-09		2.37E-10		1.67E-07
Naphthalene	1.55E-07					1.55E-07
Benzene	1.35E-07					1.35E-07
Benzidine	1.18E-07					1.18E-07
1,3-Butadiene	9.24E-08					9.24E-08
Nickel	8.82E-08					8.82E-08
PAHs - w/o ind. comp.	5.93E-09	2.32E-08		2.01E-08		4.92E-08
Formaldehyde	2.53E-08					2.53E-08
Arsenic	3.22E-09	1.08E-08		4.33E-09		1.84E-08
Ethyl Benzene	1.77E-08					1.77E-08
Other Carcinogens	2.15E-08	2.69E-09		1.94E-09		2.61E-08
Total	2.79E-06	4.01E-08		2.66E-08		2.85E-06

[1] The Plant Ingestion and Mother's Milk pathways are not considered for work exposure and risk

Table 6-4 Top 25 Sources Contributing to Cancer Risk at the Worker MEI

Modeling Source No.	Rank	Percent of Total Risk	Cancer Risk[1]	Source Description
Multiple	1	64.64%	1.84E-06	Rental Portable ICEs (Total)
161	2	6.29%	1.80E-07	Blk 14 Fugitives
221	3	6.17%	1.76E-07	Welding
183	4	2.47%	7.04E-08	Blk 45 Fugitives
213	5	1.74%	4.96E-08	Spills and Releases, Asbestos, Catalyst
224	6	1.26%	3.60E-08	Rental Thermal Oxidizer - Propane
45	7	1.10%	3.14E-08	Fire Water Pump, #3621-3622 [RD 14]
176	8	1.04%	2.98E-08	Blk 35 Fugitives
43	9	1.02%	2.91E-08	Cogen Start-Up Engine
175	10	0.93%	2.64E-08	Blk 34 Fugitives
178	11	0.75%	2.14E-08	Blk 37 Fugitives
44	12	0.70%	2.00E-08	Emergency Firewater #1-3 [TK 210]
57	13	0.62%	1.77E-08	ORU Backup Generator
174	14	0.62%	1.77E-08	Blk 33 Fugitives
154	15	0.57%	1.63E-08	Blk 4 Fugitives
122	16	0.52%	1.47E-08	Tank 351
121	17	0.37%	1.06E-08	Tank 350
217	18	0.37%	1.06E-08	Tank 349
40	19	0.36%	1.02E-08	U118 HTR-H401 (HLNX, SCR)
162	20	0.35%	9.99E-09	Blk 15 Fugitives
25	21	0.34%	9.80E-09	FCC Stack
150	22	0.31%	8.72E-09	API Separator 1
56	23	0.28%	8.05E-09	Cogen Plant Backup Generator
105	24	0.27%	7.73E-09	Tank 277
156	25	0.26%	7.42E-09	Blk 6 Fugitives

[1] The Plant Ingestion and Mother's Milk pathways are not considered for work exposure and risk

Table 6-5 Chronic HIs by Target Organ at the Residential MEI

Target Organ/System	Substance	Organ-Specific Hazard Index
Central Nervous System	1,1,1-TCA	1.39E-10
	Arsenic	5.18E-02
	Carbon disulfide	5.79E-06
	Carbonyl sulfide	3.25E-04
	Cresols	2.54E-07
	Hexane	1.17E-05
	Hydrocyanic acid	2.96E-02
	Manganese	4.22E-03
	Mercury	3.89E-04
	Methyl bromide	4.69E-09
	o-Xylene	3.73E-07
	Phenol	1.14E-06
	p-Xylene	9.07E-07
	Selenium	7.80E-05
	Styrene	6.28E-07
	Toluene	1.61E-04
	Xylenes	9.20E-05
	Total	**8.66E-02**
Circulatory System	Benzene	4.08E-03
	Chromium, hexavalent	2.32E-05
	Diethanolamine	7.82E-09
	Dioxins	3.73E-06
	Nickel	4.71E-02
	Total	**5.12E-02**
Cardiovascular System	Arsenic	5.18E-02
	Hydrocyanic acid	2.96E-02
	Phenol	1.14E-06
	Selenium	7.80E-05
	Total	**8.14E-02**
Endocrine System	Dioxins	3.73E-06
	Ethylbenzene	6.66E-06
	Hydrocyanic acid	2.96E-02
	Total	**2.96E-02**
Vision	Methyl t-butyl ether	2.03E-07
	o-Xylene	3.73E-07
	p-Xylene	9.07E-07
	Xylenes	9.20E-05
	Total	**9.35E-05**

Table 6-5
(Continued)

Target Organ/System	Substance	Organ-Specific Hazard Index
Gastrointestinal Liver	Beryllium	2.88E-05
	Chlorobenzene	3.45E-11
	Chloroform	8.45E-07
	Dioxins	3.73E-06
	Ethylbenzene	6.66E-06
	Methyl t-butyl ether	2.03E-07
	Phenol	1.14E-06
	Selenium	7.80E-05
	Total	**1.19E-04**
Immune System	Beryllium	6.79E-04
	Total	**6.79E-04**
Kidney	Cadmium	1.37E-03
	Chlorobenzene	3.45E-11
	Chloroform	8.45E-07
	Ethylbenzene	6.66E-06
	Ethylene glycol	5.87E-11
	Mercury	3.89E-04
	Methyl t-butyl ether	2.03E-07
	Phenol	1.14E-06
	Total	**1.77E-03**
Reproductive/Developmental Systems	1,3-Butadiene	5.59E-04
	Arsenic	5.18E-02
	Carbon disulfide	5.79E-06
	Chlorobenzene	3.45E-11
	Chloroform	8.45E-07
	Dioxins	3.73E-06
	Ethylbenzene	6.66E-06
	Ethylene glycol	5.87E-11
	Mercury	3.89E-04
	Methanol	1.89E-05
	Methyl bromide	4.69E-09
	Nickel	8.79E-04
	Toluene	1.61E-04
	Total	**5.38E-02**

Table 6-5
(Continued)

Target Organ/System	Substance	Organ-Specific Hazard Index
Respiratory System	Acetaldehyde	6.21E-05
	Acrolein	7.63E-03
	Ammonia	3.65E-04
	Arsenic	5.18E-02
	Beryllium	6.79E-04
	Cadmium	6.95E-04
	Chlorine	2.80E-04
	Chromium, hexavalent	9.51E-06
	Diesel PM	7.32E-03
	Diethanolamine	7.82E-09
	Dioxins	3.73E-06
	Ethylene glycol	5.87E-11
	Formaldehyde	1.69E-03
	Hydrochloric acid	7.06E-05
	Hydrogen sulfide	1.36E-03
	Methyl bromide	4.69E-09
	Naphthalene	1.01E-03
	Nickel	4.71E-02
	o-Xylene	3.73E-07
	Propylene	1.48E-05
	p-Xylene	9.07E-07
	Sulfuric acid	5.15E-02
	Toluene	1.61E-04
	Xylenes	9.20E-05
	Total	**1.72E-01**
Skin	Arsenic	5.18E-02
	Total	**5.18E-02**

Table 6-6 Chronic HIs By Target Organ at the Worker MEI

Target Organ/System	Substance	Organ-Specific Hazard Index
Cardiovascular System	Arsenic	1.12E-02
	Hydrocyanic acid	1.46E-02
	Phenol	1.91E-06
	Selenium	5.18E-06
	Total	**2.58E-02**
Central Nervous System	1,1,1-TCA	1.40E-10
	Arsenic	1.12E-02
	Carbon disulfide	3.09E-06
	Carbonyl sulfide	1.74E-04
	Cresols	7.22E-07
	Hexane	2.62E-05
	Hydrocyanic acid	1.46E-02
	Manganese	6.87E-03
	Mercury	2.14E-04
	Methyl bromide	9.82E-09
	o-Xylene	1.87E-07
	Phenol	1.91E-06
	p-Xylene	4.55E-07
	Selenium	5.18E-06
	Styrene	1.94E-06
	Toluene	4.73E-04
	Xylenes	2.40E-04
	Total	**3.38E-02**
Circulatory System	Benzene	7.88E-03
	Chromium, hexavalent	1.53E-06
	Diethanolamine	1.64E-08
	Dioxins	1.03E-07
	Nickel	1.21E-01
	Total	**1.29E-01**
Endocrine System	Dioxins	1.03E-07
	Ethylbenzene	1.79E-05
	Hydrocyanic acid	1.46E-02
	Total	**1.46E-02**
Vision	Methyl t-butyl ether	3.27E-07
	o-Xylene	1.87E-07
	p-Xylene	4.55E-07
	Xylenes	2.40E-04
	Total	**2.40E-04**

Table 6-6
(Continued)

Target Organ/System	Substance	Organ-Specific Hazard Index
Gastrointestinal/Liver	Beryllium	1.70E-05
	Chlorobenzene	5.44E-11
	Chloroform	4.23E-07
	Dioxins	1.03E-07
	Ethylbenzene	1.79E-05
	Methyl t-butyl ether	3.27E-07
	Phenol	1.91E-06
	Selenium	5.18E-06
	Total	**4.28E-05**
Immune System	Beryllium	8.57E-04
	Total	**8.57E-04**
Kidney	Cadmium	7.04E-04
	Chlorobenzene	5.44E-11
	Chloroform	4.23E-07
	Ethylbenzene	1.79E-05
	Ethylene glycol	1.23E-10
	Mercury	2.14E-04
	Methyl t-butyl ether	3.27E-07
	Phenol	1.91E-06
	Total	**9.38E-04**
Reproductive/ Developmental Systems	1,3-Butadiene	1.35E-03
	Arsenic	1.12E-02
	Carbon disulfide	3.09E-06
	Chlorobenzene	5.44E-11
	Chloroform	4.23E-07
	Dioxins	1.03E-07
	Ethylbenzene	1.79E-05
	Ethylene glycol	1.23E-10
	Mercury	2.14E-04
	Methanol	4.92E-05
	Methyl bromide	9.82E-09
	Nickel	8.41E-04
	Toluene	4.73E-04
	Total	**1.42E-02**

Table 6-6
(Continued)

Target Organ/System	Substance	Organ-Specific Hazard Index
Respiratory System	Acetaldehyde	9.35E-05
	Acrolein	8.04E-03
	Ammonia	3.22E-04
	Arsenic	1.12E-02
	Beryllium	8.57E-04
	Cadmium	5.87E-04
	Chlorine	5.85E-04
	Chromium, hexavalent	2.82E-05
	Diesel PM	6.26E-03
	Diethanolamine	1.64E-08
	Dioxins	1.03E-07
	Ethylene glycol	1.23E-10
	Formaldehyde	2.35E-03
	Hydrochloric acid	3.50E-05
	Hydrogen sulfide	3.36E-03
	Methyl bromide	9.82E-09
	Naphthalene	2.52E-03
	Nickel	1.21E-01
	o-Xylene	1.87E-07
	Propylene	3.24E-05
	p-Xylene	4.55E-07
	Sulfuric acid	2.90E-02
	Toluene	4.73E-04
	Xylenes	2.40E-04
	Total	**1.87E-01**
Skin	Arsenic	1.12E-02
	Total	**1.12E-02**

Table 6-7 Acute HIs By Target Organ at the Residential MEI

Target Organ/System	Substance	Organ-Specific Hazard Index
Cardiovascular System	Arsenic	1.69E-02
	Total	**1.69E-02**
Central Nervous System	1,1,1-TCA	5.05E-11
	Arsenic	1.69E-02
	Carbon disulfide	1.94E-05
	Carbonyl Sulfide	1.28E-04
	Chloroform	7.57E-05
	Hydrocyanic acid	1.75E-02
	Hydrogen sulfide	1.64E-02
	Mercury	6.57E-03
	Methanol	1.18E-04
	Methyl Bromide	1.91E-10
	o-Xylene	5.31E-07
	p-Xylene	1.29E-06
	Toluene	5.39E-05
	Xylenes	1.26E-04
	Total	**5.79E-02**
Circulatory System	Benzene	1.94E-02
	Total	**1.94E-02**
Vision	Acetaldehyde	2.00E-03
	Acrolein	2.98E-01
	Ammonia	1.27E-03
	Chlorine	8.50E-06
	Formaldehyde	2.14E-02
	Hydrochloric acid	1.76E-04
	Methyl ethyl ketone	3.56E-09
	o-Xylene	5.31E-07
	Phenol	1.54E-06
	p-Xylene	1.29E-06
	Styrene	1.25E-06
	Toluene	5.39E-05
	Vanadium	2.61E-05
	Xylenes	1.26E-04
	Total	**3.23E-01**

Table 6-7
(Continued)

Target Organ/System	Substance	Organ-Specific Hazard Index
Immune System	Benzene	1.94E-02
	Nickel	1.91E-01
	Total	**2.11E-01**
Reproductive/ Developmental Systems	1,3-Butadiene	1.30E-04
	Arsenic	1.69E-02
	Benzene	1.94E-02
	Carbon disulfide	1.94E-05
	Chloroform	7.57E-05
	Mercury	6.57E-03
	Methyl Bromide	1.91E-10
	Styrene	1.25E-06
	Toluene	5.39E-05
	Total	**4.32E-02**
Respiratory System	Acetaldehyde	2.00E-03
	Acrolein	2.98E-01
	Ammonia	1.27E-03
	Chlorine	8.50E-06
	Chloroform	7.57E-05
	Copper	1.25E-04
	Hydrochloric acid	1.76E-04
	Methyl ethyl ketone	3.56E-09
	Methyl Bromide	1.91E-10
	o-Xylene	5.31E-07
	Phenol	1.54E-06
	p-Xylene	1.29E-06
	Styrene	1.25E-06
	Sulfuric Acid	1.39E-02
	Toluene	5.39E-05
	Vanadium	2.61E-05
	Xylenes	1.26E-04
	Total	**3.16E-01**

Table 6-8 Acute HIs By Target Organ at the Worker MEI

Target Organ/System	Substance	Organ-Specific Hazard Index
Cardiovascular System	Arsenic	8.02E-03
	Total	**8.02E-03**
Central Nervous System	1,1,1-TCA	6.93E-11
	Arsenic	8.02E-03
	Carbon disulfide	7.86E-06
	Carbonyl Sulfide	5.19E-05
	Chloroform	1.29E-05
	Hydrocyanic acid	8.55E-03
	Hydrogen sulfide	1.15E-02
	Mercury	3.07E-03
	Methanol	7.27E-05
	Methyl Bromide	1.18E-10
	o-Xylene	9.09E-08
	p-Xylene	2.21E-07
	Toluene	5.80E-05
	Xylenes	1.24E-04
	Total	**3.15E-02**
Circulatory System	Benzene	1.61E-02
	Total	**1.61E-02**
Vision	Acetaldehyde	1.14E-03
	Acrolein	1.42E-01
	Ammonia	6.13E-04
	Chlorine	5.31E-06
	Formaldehyde	1.12E-02
	Hydrochloric acid	8.16E-05
	Methyl ethyl ketone	2.22E-09
	o-Xylene	9.09E-08
	Phenol	1.30E-06
	p-Xylene	2.21E-07
	Styrene	1.42E-06
	Toluene	5.80E-05
	Vanadium	1.50E-05
	Xylenes	1.24E-04
	Total	**1.56E-01**

Table 6-8
(Continued)

Target Organ/System	Substance	Organ-Specific Hazard Index
Immune System	Benzene	1.61E-02
	Nickel	3.80E-01
	Total	**3.96E-01**
Reproductive/ Developmental Systems	1,3-Butadiene	1.20E-04
	Arsenic	8.02E-03
	Benzene	1.61E-02
	Carbon disulfide	7.86E-06
	Chloroform	1.29E-05
	Mercury	3.07E-03
	Methyl Bromide	1.18E-10
	Styrene	1.42E-06
	Toluene	5.80E-05
	Total	**2.74E-02**
Respiratory System	Acetaldehyde	1.14E-03
	Acrolein	1.42E-01
	Ammonia	6.13E-04
	Chlorine	5.31E-06
	Chloroform	1.29E-05
	Copper	8.67E-05
	Hydrochloric acid	8.16E-05
	Methyl ethyl ketone	2.22E-09
	Methyl Bromide	1.18E-10
	o-Xylene	9.09E-08
	Phenol	1.30E-06
	p-Xylene	2.21E-07
	Styrene	1.42E-06
	Sulfuric Acid	4.67E-03
	Toluene	5.80E-05
	Vanadium	1.50E-05
	Xylenes	1.24E-04
	Total	**1.49E-01**

Figure 6-1 Zone of Impact

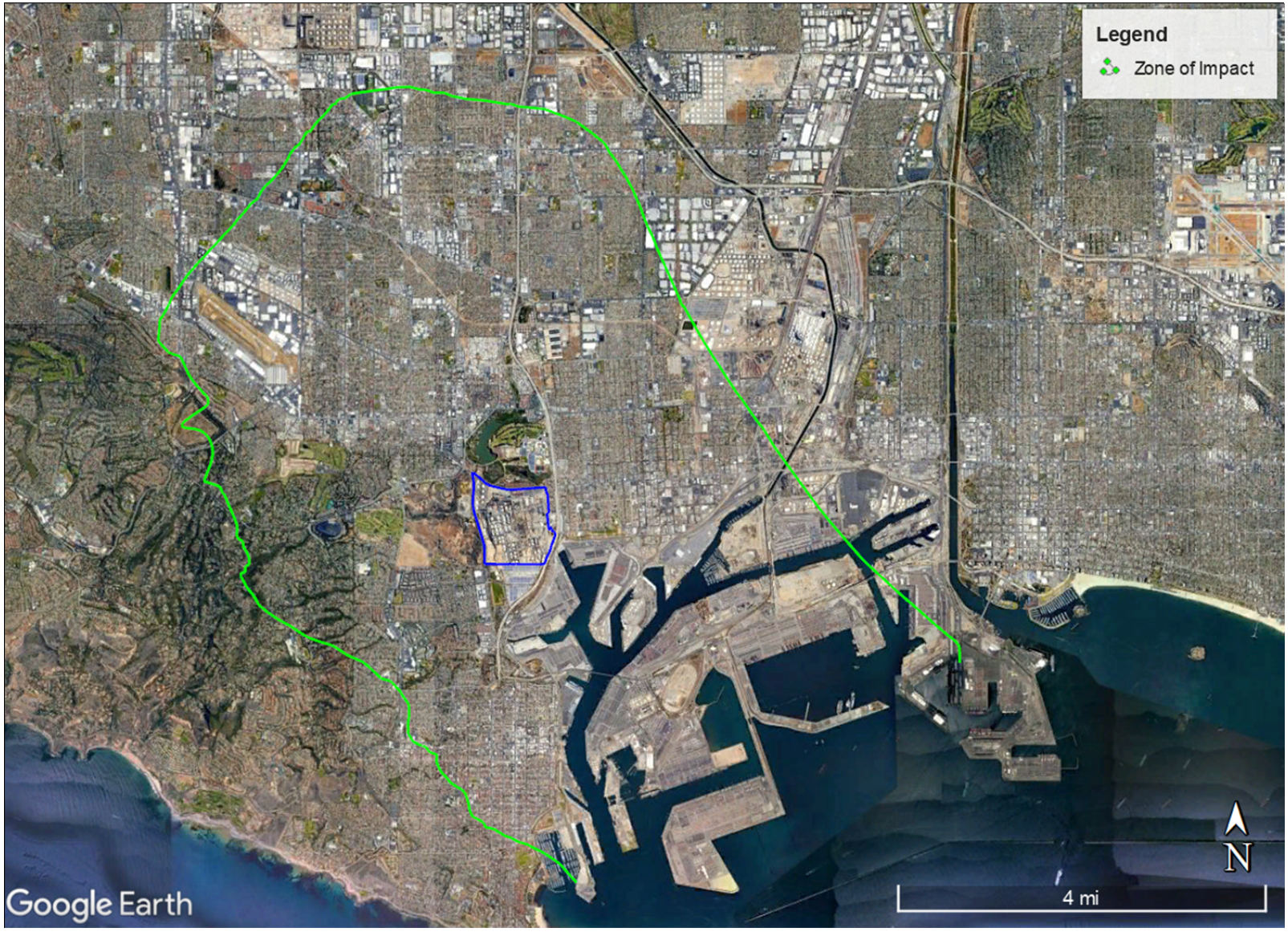


Figure 6-2 Location of Cancer Risk MEIs and PMI

Figure 6-3 Cancer Risk Isopleths for Residential MEI

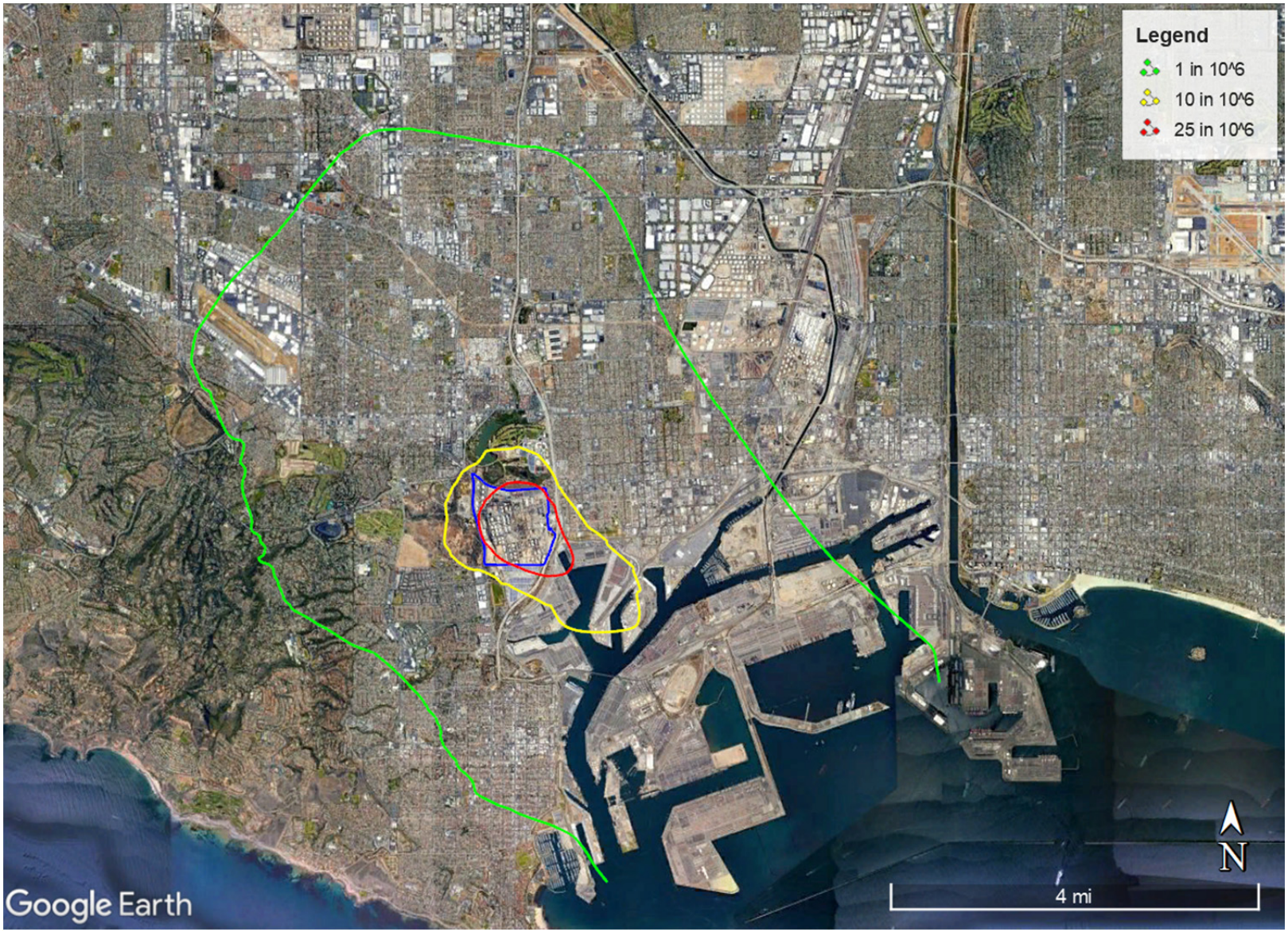


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Figure 6-4 Cancer Risk Isopleths for Worker MEI

Figure 6-5 Location of Chronic HI Risk MEIs and PMI

Figure 6-6 Chronic HI Risk Isopleths for Residential MEI

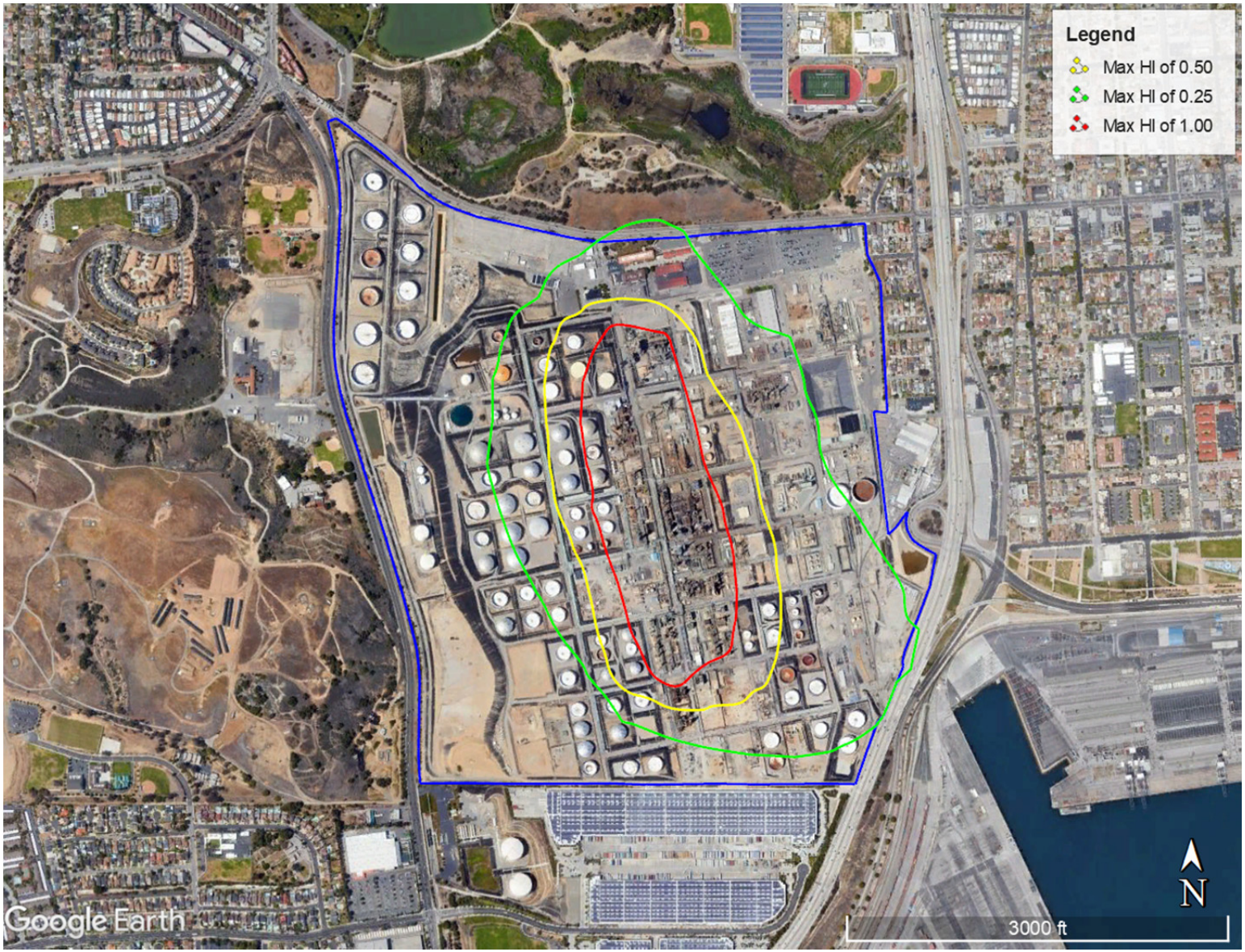

Figure 6-7 Chronic HI Risk Isopleths for Worker MEI

Figure 6-8 Location of Acute HI Risk MEIs and PMI

Figure 6-9 Acute HI Risk Isopleths for MEIs and PMI

Appendix A
Alternative Analysis

Alternative Analysis

In 2015, the Wilmington Plant facility experienced a major turnaround, resulting in abnormally high DPM emissions for that year. Consequently, Phillips 66 contends that 2015 was not a representative operating year for estimating long-term health impacts. Given that cancer risk is estimated based on a 30 and 25 year lifetime exposure period for residents and workers, respectively, Phillips 66 found the lower risk results in this alternative analysis to be noteworthy and important to address in this HRA report.

DPM is the primary risk driver for the facility. Consequently, use of rented and contracted diesel engines during plant turnarounds can impact HRA results significantly. The diesel engine usage in a turnaround year is typically much higher than a normal operating year. Because major plant turnarounds generally occur every five years, Phillips 66 believes DPM emissions associated with a five (5) year averaging period are more representative of "routine and predictable" emissions as defined in AB 2588 guidelines.

Phillips 66 began implementing risk reduction measures as a direct result of its previous AB 2588 HRA experience and related public meeting on March 21, 2013. For example, two refinery-owned diesel engines, the cogen start-up engine and the ORU backup generator, were each fitted with a DPM filter in 2016 to control emissions. Also, a propane-fueled thermal oxidizer was replaced with a cleaner burning natural gas fired thermal oxidizer. Lastly, in very recent years, the facility has improved its recordkeeping to better document when control equipment is used for certain welding activities, resulting in lower emission estimates. All of these source emission reductions are permanent and verifiable, and have therefore been included in this alternative HRA analysis to estimate more representative risks over a 30 year exposure period.

In summary, emission reductions in this alternative HRA analysis are based on the following:

- 5-year average DPM emissions for all rented and contracted diesel engines; based on averaging diesel fuel consumption between 2011 and 2015
- DPM filters applied to two refinery-owned diesel engines
- Replacement of propane thermal oxidizer with natural gas thermal oxidizer
- Controlled emissions for a subset of welding activities

A full risk analysis was performed on the scenario of emissions described above. Cancer, chronic, and acute risks are summarized below in Table A-1 for the residential MEI, worker MEI, and PMI.

Given the significance of residential MEI cancer risk, additional risk details are provided in Tables A-2 and A-3 and Figures A-1 and A-2.

Table A-1 Summary of Risks

Maximally Exposed Individual (MEI)	Risk	Public Notice	Risk Reduction
Residential Cancer Risk	17.0×10^{-6}	10×10^{-6}	25×10^{-6}
Worker Cancer Risk	1.6×10^{-6}	10×10^{-6}	25×10^{-6}
Point of Maximum Impact (PMI)	27.7×10^{-6}		
Residential Chronic HI {RESP}	0.16	1	3
Worker Chronic HI {RESP}	0.18	1	3
PMI Chronic HI {RESP}	0.23		
Residential Acute HI {IMMUNE}	0.12	1	3
Worker Acute HI {IMMUNE}	0.24	1	3
PMI Acute HI {IMMUNE}	0.24		
Cancer Burden [143,233 population]	0.28	--	0.5

Table A-2 Cancer Risk at Residential MEI - Alternative Analysis

Substance	Inhalation	Soil Ingestion	Plant Ingestion	Dermal Absorption	Mother's Milk	Total
Diesel PM	1.11E-05					1.11E-05
PAHs - w/o ind. comp.	2.61E-08	9.71E-08	4.76E-07	2.42E-08	2.31E-07	8.54E-07
Benzene	8.23E-07					8.23E-07
Chromium, hexavalent	4.87E-07	8.60E-09	2.81E-07	3.30E-10		7.77E-07
Naphthalene	7.37E-07					7.37E-07
Arsenic	5.07E-08	3.82E-07	2.46E-07	1.86E-08		6.98E-07
Benzidine	6.13E-07					6.13E-07
1,3-Butadiene	4.38E-07					4.38E-07
Nickel	4.01E-07					4.01E-07
Cadmium	1.41E-07					1.41E-07
Benzo(a)pyrene	3.38E-09	1.26E-08	6.17E-08	3.14E-09	2.99E-08	1.11E-07
Other Carcinogens	2.74E-07	1.21E-08	1.74E-08	1.03E-09	8.35E-09	3.13E-07
Total	1.51E-05	5.13E-07	1.08E-06	4.73E-08	2.69E-07	1.70E-05

Table A-3 Top 25 Sources Contributing to Cancer Risk at the Residential MEI - Alternative Analysis

Modeling Source No.	Rank	Percent of Total Risk	Cancer Risk	Source Description
Multiple	1	62.42%	1.06E-05	Rental Portable ICEs (Total)
221	2	3.16%	5.38E-07	Welding
178	3	3.02%	5.15E-07	Blk 37 Fugitives
213	4	2.57%	4.39E-07	Spills And Releases, Asbestos, Catalyst
40	5	2.48%	4.22E-07	U118 HTR-H401 (HLNX, SCR)
25	6	2.10%	3.58E-07	FCC Stack
156	7	1.83%	3.12E-07	Blk 6 Fugitives
183	8	1.59%	2.71E-07	Blk 45 Fugitives
45	9	1.42%	2.42E-07	Fire Water Pump, #3621-3622 [RD 14]
161	10	1.28%	2.19E-07	Blk 14 Fugitives
150	11	1.20%	2.05E-07	API Separator 1
157	12	1.10%	1.70E-07	Blk 7 Fugitives
51	13	0.99%	1.60E-07	GW Thermal Oxidizer
176	14	0.94%	1.42E-07	Blk 35 Fugitives
42	15	0.84%	1.11E-07	U141 HTR - Acid Plant Stack
56	16	0.65%	9.54E-08	Cogen Plant Backup Generator
44	17	0.56%	8.74E-08	Emergency Firewater #1-3 [Tk 210]
6	18	0.51%	8.51E-08	90-B-401
38	19	0.50%	8.05E-08	U152 E-650 CT
122	20	0.47%	7.10E-08	Tank 351
27	21	0.42%	7.02E-08	Utility Boiler B-7
109	22	0.41%	6.25E-08	Tank 329
175	23	0.37%	5.64E-08	Blk 34 Fugitives
105	24	0.33%	5.42E-08	Tank 277
28	25	0.32%	4.55E-08	Utility Boiler B-8

Figure A-1 Zone of Impact - Alternative Analysis

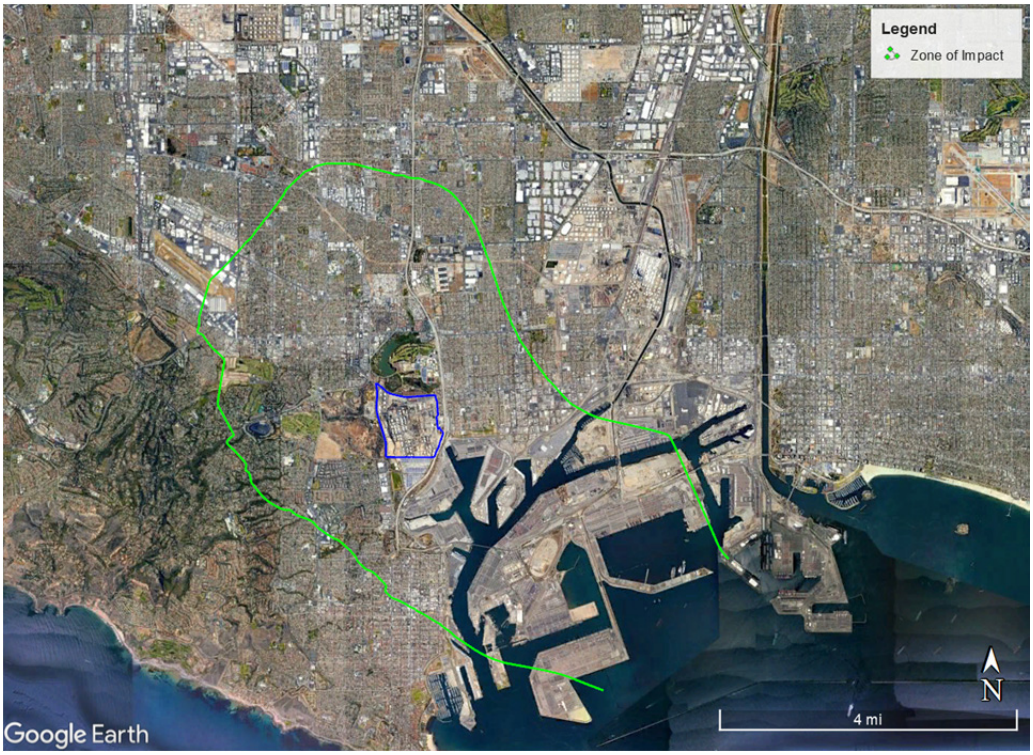

Figure A-2 MEIR Cancer Risk Isopleths - Alternative Analysis

Appendix B
Source Information

Figure B-1 - Facility Point Sources

Figure B-2 - Diesel Rental Engine Source Blocks

Table B-1 - Point Source Modeling Parameters

Source Name	HARP Source ID	Center Point Coordinates		Stk Ht. (m)	Stk Dia. (m)	Stack Exit Vel. (m/s)	Stk gas Vol. flow rate (ACFM)	Stack Temp. (K)	Operating Time		
		UTM E	UTM N						Days per week	Hours per day	Weeks per year
U60 B-101 HTR	1	380810	3737390	37	2.0	2.3	58,933	620	7	24	52
U60 B-201 HTR	2	380808	3737400	37	1.4	1.1	14,250	641	7	24	52
U80 B-101-105 East Stack	3	380931	3737431	38	2.1	1.9	57,840	655	7	24	52
79 B-201	4	380952	3737351	38	1.3	2.6	27,875	671	7	24	52
U89 B-101 HTR (HLNX, RE)	5	380897	3737615	38	1.0	1.7	10,520	541	7	24	52
90-B-401	6	380870	3737606	46	1.4	1.1	14,921	691	7	24	52
U90 B-202 HTR	7	380825	3737565	39	1.8	2.4	54,061	571	7	24	52
U90 B-203 HTR	8	380818	3737564	46	1.1	1.9	15,956	603	7	24	52
U100 H-1 HTR	9	380904	3737530	35	1.0	3.3	22,272	650	7	24	52
U100 H-2 HTR	10	380924	3737534	35	1.0	3.3	22,272	650	7	24	52
U100 H-100-104 Htr North Stack	11	380915	3737501	48	2.5	1.7	71,080	489	7	24	52
U100 H-105 HTR	12	380918	3737533	35	1.1	3.0	25,805	580	7	24	52
U100 H-107 HTR	13	380922	3737540	35	0.7	1.8	6,279	607	7	24	52
U110 B-211 HTR	14	380691	3737812	29	1.1	1.9	14,680	586	7	24	52
U120 B-101 HTR (HLNX-RF), SRC	15	380889	3737648	52	3.2	2.8	194,000	516	7	24	52
U120 B-201 HTR	16	380832	3737647	40	1.2	4.7	44,000	722	7	24	52
U120 B-202 HTR (HLNX-RF)	17	380832	3737647	40	1.2	1.4	13,618	715	7	24	52
U120 B-203 HTR (HLNX-RF)	18	380859	3737655	40	1.2	4.0	37,960	722	7	24	52
U120 B-204 HTR	19	380817	3737640	61	1.9	2.9	68,473	426	7	24	52
U138 SRU, B-108	20	381050	3737979	61	1.5	38.8	599,966	339	7	24	52
U138 SRU, B-208	21	381079	3737984	61	1.5	38.8	599,966	339	7	24	52
U152 B-201-202 HTR	22	380753	3738020	38	2.8	0.4	20,379	643	7	24	52
U152 B-602 HTR	23	380764	3738038	34	1.4	1.0	12,680	566	7	24	52
U152 B-703 HTR	24	380771	3738040	38	0.5	11.7	20,855	579	7	24	52

Table B-1 - Point Source Modeling Parameters

Source Name	HARP Source ID	Center Point Coordinates		Stk Ht. (m)	Stk Dia. (m)	Stack Exit Vel. (m/s)	Stk gas Vol. flow rate (ACFM)	Stack Temp. (K)	Operating Time		
		UTM E	UTM N						Days per week	Hours per day	Weeks per year
FCC Stack	25	380735	3738069	61	2.9	8.7	482,849	328	7	24	52
Boiler 6	26	380699	3737852	30	2.0	5.0	130,680	472	7	24	52
Utility Boiler B-7	27	380703	3737902	43	3.0	1.9	112,000	394	7	24	52
Utility Boiler B-8	28	380685	3737852	30	1.8	4.4	98,680	464	7	24	52
Cogeneration Unit, Duct-Burner	29	380852	3737856	20	4.1	18.8	2,123,607	444	7	24	52
U60 E-119 CT	30	380877	3737285	24	5.5	2.1	427,508	301	7	24	52
U80 E-110 CT	31	380852	3737437	15	4.3	11.5	1,394,679	309	7	24	52
U90 E-221 CT	32	380950	3737614	11	4.9	8.2	1,293,230	305	7	24	52
U100 CT-600	33	380857	3737417	9	4.9	8.8	1,391,349	305	7	24	52
U110CT	34	380782	3737797	15	4.9	7.7	1,212,001	302	7	24	52
U120 E-121 CT	35	380873	3737751	12	4.9	3.3	515,523	311	7	24	52
U138 E-7 CT	36	380964	3737958	7	7.0	5.5	1,799,840	308	7	24	52
U138 E-700 CT	37	381048	3737933	11	4.9	14.5	2,300,148	293	7	24	52
U152 E-650 CT	38	380875	3738066	9	4.9	8.5	1,344,702	312	7	24	52
U152 E-652 CT	39	380862	3738024	7	4.3	10.6	1,287,538	311	7	24	52
U118 HTR-H401 (HLNX, 5CR)	40	381147	3737751	50	2.4	7.0	278,400	430	7	24	52
U118 CT-118	41	381081	3737688	15	4.9	4.2	665,917	306	7	24	52
U141 HRT - Acid Plant Stack	42	381193	3738124	18	1.2	7.6	68,047	300	2	12	2
Cogen Start-Up Engine	43	380839	3737868	2	0.2	80.4	24,351	825	7	24	52
Emergency Firewater #1-3 [TK 210]	44	381054	3737172	3	0.2	37.7	5,835	922	7	24	52
Fire Water Pump, #3621-3622 [RD 14]	45	380283	3737900	3	0.2	37.7	5,835	922	7	24	52
Industrial Water Pump, Caterpillar	46	380283	3737900	3	0.2	37.7	5,835	922	7	24	52
Portable Maintenance Welder	47	380738	3737676	2	0.1	36.7	2,045	864	7	24	52
U141 F-317CT, Cooling Tower	48	381172	3738099	11	5.5	8.5	1,699,853	303	7	24	52

Table B-1 - Point Source Modeling Parameters

Source Name	HARP Source ID	Center Point Coordinates		Stk Ht. (m)	Stk Dia. (m)	Stack Exit Vel. (m/s)	Stk gas Vol. flow rate (ACFM)	Stack Temp. (K)	Operating Time		
		UTM E	UTM N						Days per week	Hours per day	Weeks per year
Hydrogen Plant U-118	49	381097	3737745	15	0.2	1.3	204	1,455	7	24	52
Hydrogen Plant U-119	50	380878	3737688	23	0.6	1.3	3,267	289	7	24	52
GW Thermal Oxidizer	51	381051	3738245	4	0.1	36.7	2,045	616	7	24	6
Gb-151 (686), S. Vapor Recovery	52	381034	3737203	2	0.3	43.6	26,936	514	7	24	52
Non-Permitted ICEs - Gasoline	53	380738	3737676	2	0.1	36.7	2,045	864	7	24	52
Non-Permitted ICEs - Diesel - Center	54	380738	3737676	2	0.1	36.7	2,045	864	7	24	52
Boiler Plant Backup Generator	55	380677	3737906	2	0.1	36.7	2,045	864	7	24	52
Cogen Plant Backup Generator	56	380807	3737889	2	0.1	36.7	2,045	864	7	24	52
Oru Backup Generator	57	381185	3737758	2	0.1	36.7	2,045	864	7	24	52
Backup Generator For Hydro Area	58	380770	3737478	2	0.1	36.7	2,045	864	7	24	52
Flare - South HRRS	209	381007	3737104	53	1.5	31.0	480,035	811	7	24	52
Flare - North HRRS	210	380770	3737905	61	0.9	71.9	399,997	811	7	24	52
Flare - Unicracker HRRS	211	380813	3737954	61	1.0	91.9	618,620	811	7	24	52
Flare - Butane Recovery System	212	380282	3737495	46	2.4	2.0	80,023	433	7	24	52
Tank Degassing	216	380509	3737684	2	0.1	36.7	2,045	864	2	13	7
Peabody Heater	218	380735	3738069	61	2.9	6.5	360,000	328	1	5	1
U100 Cat Regen	219	380911	3737502	61	1.5	0.5	7,854	922	7	24	52
Non-Permitted ICE's - NG	223	380738	3737675	2	0.1	36.7	2,045	864	7	24	52
Non-Permitted ICE's - Propane	224	380738	3737675	2	0.1	36.7	2,045	864	7	24	52
Block 35 - Non-Permitted ICEs - Diesel	225	380847	3737689	2	0.1	36.7	2,045	864	7	24	52
Block 45 - Non-Permitted ICEs - Diesel	226	380736	3737677	2	0.1	36.7	2,045	864	7	24	52
Block 17 - Non-Permitted ICEs - Diesel	227	381008	3738124	2	0.1	36.7	2,045	864	7	24	52
Block 7 - Non-Permitted ICEs - Diesel	228	381178	3738157	2	0.1	36.7	2,045	864	7	24	52
Block 34 - Non-Permitted ICEs - Diesel	229	380869	3737544	2	0.1	36.7	2,045	864	7	24	52

Table B-1 - Point Source Modeling Parameters

Source Name	HARP Source ID	Center Point Coordinates		Stk Ht. (m)	Stk Dia. (m)	Stack Exit Vel. (m/s)	Stk gas Vol. flow rate (ACFM)	Stack Temp. (K)	Operating Time		
		UTM E	UTM N						Days per week	Hours per day	Weeks per year
Block 36 - Non-Permitted ICEs - Diesel	230	380809	3737875	2	0.1	36.7	2,045	864	7	24	52
Block 15 - Non-Permitted ICEs - Diesel	231	381105	3737740	2	0.1	36.7	2,045	864	7	24	52
Block 33 - Non-Permitted ICEs - Diesel	232	380905	3737395	2	0.1	36.7	2,045	864	7	24	52
Block 26 - Non-Permitted ICEs - Diesel	233	380927	3737897	2	0.1	36.7	2,045	864	7	24	52
Block 43 - Non-Permitted ICEs - Diesel	234	380795	3737370	2	0.1	36.7	2,045	864	7	24	52
Block 66 - Non-Permitted ICEs - Diesel	235	380404	3737855	2	0.1	36.7	2,045	864	7	24	52
Block 5 - Non-Permitted ICEs - Diesel	236	381207	3737797	2	0.1	36.7	2,045	864	7	24	52
Block 44 - Non-Permitted ICEs - Diesel	237	380764	3737527	2	0.1	36.7	2,045	864	7	24	52
Block 46 - Non-Permitted ICEs - Diesel	238	380708	3737839	2	0.1	36.7	2,045	864	7	24	52
Block 11 - Non-Permitted ICEs - Diesel	239	381239	3737159	2	0.1	36.7	2,045	864	7	24	52
Block 56 - Non-Permitted ICEs - Diesel	240	380593	3737822	2	0.1	36.7	2,045	864	7	24	52
Block 16 - Non-Permitted ICEs - Diesel	241	381074	3737914	2	0.1	36.7	2,045	864	7	24	52
Block 78 - Non-Permitted ICEs - Diesel	242	380091	3738174	2	0.1	36.7	2,045	864	7	24	52
Block 37 - Non-Permitted ICEs - Diesel	243	380779	3738064	2	0.1	36.7	2,045	864	7	24	52
U80 B-101-105 West Stack	244	380923	3737429	38	2.1	1.7	50,280	664	7	24	52
U100 H-100-104 HTR South Stack	245	380915	3737490	48	2.5	1.7	71,080	489	7	24	52
Boiler 4	246	380724	3737866	15	1.4	4.7	58,680	428	7	24	52
U110 CT 310	247	380676	3737554	12	7.9	7.8	3,264,152	311	7	24	52

Figure B-3 - Storage Tanks and Other Area Sources

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Figure B-4 - Component Fugitive Area Sources

Table B-2 - Area Source Modeling Parameters

Description	HARP Source ID	SW Coordinates		Height (m)	yL (m)	xL (m)	Aspect Ratio (L:W)	Area (m^2)	Angle	Operating Time		
		UTM E	UTM N							Hours/ day	Days/ week	Weeks/ year
Tank 1	59	380645	3737291	15	22	22	1.00	467	0	24	7	52
Tank 2	60	380634	3737337	10	26	26	1.00	665	0	24	7	52
Tank 3	61	380627	3737370	10	26	26	1.00	665	0	24	7	52
Tank 5	62	380701	3737350	10	24	24	1.00	591	0	24	7	52
Tank 6	63	380712	3737303	15	23	23	1.00	527	0	24	7	52
Tank 7	64	380580	3737627	15	27	27	1.00	730	0	24	7	52
Tank 8	65	380571	3737672	15	27	27	1.00	730	0	24	7	52
Tank 9	66	380637	3737684	13	27	27	1.00	730	0	24	7	52
Tank 10	67	380646	3737639	13	27	27	1.00	730	0	24	7	52
Tank 25	68	380534	3737339	13	32	32	1.00	999	0	24	7	52
Tank 26	69	380544	3737276	16	32	32	1.00	1,051	0	24	7	52
Tank 27	70	381081	3737224	15	32	32	1.00	1,051	0	24	7	52
Tank 61	71	380988	3737359	12	16	16	1.00	263	0	24	7	52
Tank 62	72	380984	3737385	12	16	16	1.00	263	0	24	7	52
Tank 65	73	380594	3737062	13	32	32	1.00	999	0	24	7	52
Tank 66	74	380585	3737109	13	32	32	1.00	999	0	24	7	52
Tank 67	75	380576	3737155	14	32	32	1.00	1,002	0	24	7	52
Tank 68	76	380567	3737202	13	32	32	1.00	999	0	24	7	52
Tank 71	77	381043	3737375	15	27	27	1.00	730	0	24	7	52
Tank 72	78	381031	3737437	15	27	27	1.00	730	0	24	7	52
Tank 78	79	380578	3737592	12	16	16	1.00	263	0	24	7	52
Tank 79	80	380606	3737598	16	16	16	1.00	263	0	24	7	52
Tank 91	81	380665	3737147	13	32	32	1.00	1,051	0	24	7	52
Tank 92	82	380653	3737210	13	32	32	1.00	1,051	0	24	7	52
Tank 93	83	380719	3737222	16	32	32	1.00	1,051	0	24	7	52

Table B-2 - Area Source Modeling Parameters

Description	HARP Source ID	SW Coordinates		Height (m)	yL (m)	xL (m)	Aspect Ratio (L:W)	Area (m^2)	Angle	Operating Time		
		UTM E	UTM N							Hours/ day	Days/ week	Weeks/ year
Tank 331	84	380384	3737468	13	32	32	1.00	1,051	0	24	7	52
Tank 110	85	380421	3737563	16	41	41	1.00	1,642	0	24	7	52
Tank 123	86	380690	3737062	12	32	32	1.00	1,051	0	24	7	52
Tank 124	87	380752	3737070	14	32	32	1.00	1,002	0	24	7	52
Tank 146	88	380351	3737556	16	32	32	1.00	1,051	0	24	7	52
Tank 147	89	380475	3737636	16	41	41	1.00	1,642	0	24	7	52
Tank 148	90	380361	3737757	16	32	32	1.00	1,051	0	24	7	52
Tank 149	91	380463	3737776	15	32	32	1.00	1,051	0	24	7	52
Tank 160	92	380644	3737606	16	16	16	1.00	263	0	24	7	52
Tank 168	93	380410	3737623	16	41	41	1.00	1,642	0	24	7	52
Tank 169	94	380396	3737693	15	41	41	1.00	1,642	0	24	7	52
Tank 170	95	380334	3737819	15	41	41	1.00	1,642	0	24	7	52
Tank 171	96	380441	3737839	16	41	41	1.00	1,642	0	24	7	52
Tank 172	97	380342	3737613	16	32	32	1.00	1,051	0	24	7	52
Tank 198	98	381242	3737831	6	7	7	1.00	46	0	24	7	52
Tank 199	99	381253	3737833	6	7	7	1.00	46	0	24	7	52
Tank 204	100	380621	3737758	15	32	32	1.00	1,051	0	24	7	52
Tank 205	101	380611	3737816	13	32	32	1.00	1,002	0	24	7	52
Tank 206	102	380598	3737876	15	32	32	1.00	1,051	0	24	7	52
Tank 209	103	381042	3737071	13	32	32	1.00	1,051	0	24	7	52
Tank 211	104	381140	3737249	15	32	32	1.00	1,051	0	24	7	52
Tank 277	105	380554	3737745	15	32	32	1.00	1,051	0	24	7	52
Tank 278	106	380541	3737804	13	34	34	1.00	1,140	0	24	7	52
Tank 292	107	380531	3737864	12	32	32	1.00	1,051	0	24	7	52
Tank 326	108	380500	3738027	15	32	32	1.00	1,051	0	24	7	52

Table B-2 - Area Source Modeling Parameters

Description	HARP Source ID	SW Coordinates		Height (m)	yL (m)	xL (m)	Aspect Ratio (L:W)	Area (m^2)	Angle	Operating Time		
		UTM E	UTM N							Hours/ day	Days/ week	Weeks/ year
Tank 329	109	380570	3738080	12	32	32	1.00	1,051	0	24	7	52
Tank 330	110	380394	3737405	12	34	34	1.00	1,140	0	24	7	52
Tank 332	111	380461	3737418	13	32	32	1.00	1,051	0	24	7	52
Tank 333	112	380449	3737481	12	32	32	1.00	1,051	0	24	7	52
Tank 334	113	380522	3737429	12	32	32	1.00	1,051	0	24	7	52
Tank 370	114	381126	3737318	15	24	24	1.00	591	0	24	7	52
Tank 294	115	380512	3737965	12	32	32	1.00	1,051	0	24	7	52
Tank 327	116	380647	3737988	12	32	32	1.00	1,051	0	24	7	52
Tank 328	117	380579	3738015	12	32	32	1.00	1,051	0	24	7	52
Tank 336	118	381156	3737154	15	24	24	1.00	591	0	24	7	52
Tank 335	119	380510	3737492	12	32	32	1.00	1,051	0	24	7	52
Tank 337	120	381157	3737483	12	14	14	1.00	197	0	24	7	52
Tank 349	217	381103	3737407	12	15	15	1.00	235	0	24	7	52
Tank 350	121	381099	3737436	12	16	16	1.00	263	0	24	7	52
Tank 351	122	381094	3737463	12	16	16	1.00	263	0	24	7	52
Tank 352	123	380896	3737809	13	16	16	1.00	263	0	24	7	52
Tank 353	124	380892	3737836	13	16	16	1.00	263	0	24	7	52
Tank 389	125	381211	3737107	15	38	38	1.00	1,430	0	24	7	52
Tank 390	126	381232	3737167	15	38	38	1.00	1,430	0	24	7	52
Tank 391	127	380079	3738180	16	41	41	1.00	1,642	0	24	7	52
Tank 393	128	380090	3738364	16	41	41	1.00	1,642	0	24	7	52
Tank 394	129	380090	3738455	16	41	41	1.00	1,642	0	24	7	52
Tank 395	130	380165	3738102	16	41	41	1.00	1,642	0	24	7	52
Tank 396	131	380171	3738194	16	41	41	1.00	1,642	0	24	7	52
Tank 397	132	380177	3738286	16	41	41	1.00	1,642	0	24	7	52

Table B-2 - Area Source Modeling Parameters

Description	HARP Source ID	SW Coordinates		Height (m)	yL (m)	xL (m)	Aspect Ratio (L:W)	Area (m^2)	Angle	Operating Time		
		UTM E	UTM N							Hours/ day	Days/ week	Weeks/ year
Tank 398	133	380184	3738376	16	41	41	1.00	1,642	0	24	7	52
Tank 401	134	381145	3737546	6	7	7	1.00	53	0	24	7	52
Tank 402	135	381143	3737558	6	8	8	1.00	57	0	24	7	52
Tank 404	136	381160	3737548	6	7	7	1.00	54	0	24	7	52
Tank 406	137	381155	3737573	6	7	7	1.00	53	0	24	7	52
Tank 407	138	381132	3737607	6	8	8	1.00	66	0	24	7	52
Tank 408	139	381130	3737620	6	8	8	1.00	66	0	24	7	52
Tank 409	140	381127	3737634	6	8	8	1.00	66	0	24	7	52
Tank 410	141	381148	3737610	8	8	8	1.00	66	0	24	7	52
Tank 433	142	380885	3737872	15	16	16	1.00	263	0	24	7	52
Tank 445	143	380064	3738087	17	49	49	1.00	2,364	0	24	7	52
Tank 450	144	380916	3737890	8	6	6	1.00	42	0	24	7	52
Tank 451	145	380917	3737880	8	6	6	1.00	42	0	24	7	52
Tank 452	146	380325	3737678	16	41	41	1.00	1,642	0	24	7	52
Tank 453	147	380466	3737706	16	35	35	1.00	1,233	0	24	7	52
Tank 461	148	381251	3737706	24	50	50	1.00	2,497	0	24	7	52
Tank 462	149	381191	3737695	24	50	50	1.00	2,497	0	24	7	52
API Separator 1	150	381203	3737846	2	12	18	1.50	222	0	24	7	52
DAF Cell 1	151	381184	3737811	2	12	8	1.48	100	0	24	7	52
Blk 2 Fugitives	152	381275	3737235	2	142	50	2.82	7,127	-11	24	7	52
Blk 3 Fugitives	153	381248	3737376	2	153	57	2.70	8,667	-11	24	7	52
Blk 4 Fugitives	154	381218	3737531	2	147	87	1.69	12,764	-11	24	7	52
Blk 5 Fugitives	155	381178	3737743	2	84	101	1.21	8,501	-12	24	7	52
Blk 6 Fugitives	156	381162	3737828	2	75	120	1.61	8,973	-12	24	7	52
Blk 7 Fugitives	157	381118	3738051	2	189	149	1.27	28,239	-12	24	7	52

Table B-2 - Area Source Modeling Parameters

Description	HARP Source ID	SW Coordinates		Height (m)	yL (m)	xL (m)	Aspect Ratio (L:W)	Area (m^2)	Angle	Operating Time		
		UTM E	UTM N							Hours/ day	Days/ week	Weeks/ year
Blk 11 Fugitives	158	381200	3737111	2	111	50	2.22	5,576	17	24	7	52
Blk 12 Fugitives	159	381199	3737221	2	143	66	2.16	9,412	-11	24	7	52
Blk 13 Fugitives	160	381165	3737367	2	145	73	1.99	10,556	-11	24	7	52
Blk 14 Fugitives	161	381066	3737503	2	146	146	1.00	21,250	-12	24	7	52
Blk 15 Fugitives	162	381073	3737660	2	146	110	1.32	16,025	-11	24	7	52
Blk 16 Fugitives	163	381012	3737804	2	213	145	1.47	30,914	-12	24	7	52
Blk 17 Fugitives	164	380923	3738012	2	191	190	1.01	36,342	-11	24	7	52
Blk 21 Fugitives	165	381040	3737065	2	114	160	1.41	18,272	-11	24	7	52
Blk 22 Fugitives	166	381026	3737186	2	145	170	1.17	24,702	-11	24	7	52
Blk 23 Fugitives	167	380978	3737331	2	146	183	1.25	26,647	-11	24	7	52
Blk 24 Fugitives	168	380949	3737481	2	146	116	1.26	16,967	-12	24	7	52
Blk 25 Fugitives	169	380920	3737630	2	147	150	1.02	21,994	-11	24	7	52
Blk 26 Fugitives	170	380891	3737783	2	212	116	1.83	24,613	-11	24	7	52
Blk 27 Fugitives	171	380851	3737998	2	192	68	2.82	13,109	-11	24	7	52
Blk 31 Fugitives	172	380896	3737050	2	103	139	1.36	14,349	-10	24	7	52
Blk 32 Fugitives	173	380879	3737158	2	145	142	1.02	20,657	-12	24	7	52
Blk 33 Fugitives	174	380853	3737307	2	146	121	1.21	17,606	-11	24	7	52
Blk 34 Fugitives	175	380825	3737458	2	145	120	1.21	17,456	-11	24	7	52
Blk 35 Fugitives	176	380796	3737608	2	146	121	1.21	17,730	-12	24	7	52
Blk 36 Fugitives	177	380767	3737759	2	213	120	1.78	25,473	-11	24	7	52
Blk 37 Fugitives	178	380726	3737975	2	189	121	1.56	22,994	-11	24	7	52
Blk 41 Fugitives	179	380812	3737046	2	90	78	1.16	7,013	-11	24	7	52
Blk 42 Fugitives	180	380795	3737142	2	145	78	1.87	11,242	-12	24	7	52
Blk 43 Fugitives	181	380767	3737291	2	146	79	1.86	11,505	-12	24	7	52
Blk 44 Fugitives	182	380737	3737442	2	144	80	1.82	11,482	-11	24	7	52

Table B-2 - Area Source Modeling Parameters

Description	HARP Source ID	SW Coordinates		Height (m)	yL (m)	xL (m)	Aspect Ratio (L:W)	Area (m^2)	Angle	Operating Time		
		UTM E	UTM N							Hours/ day	Days/ week	Weeks/ year
Blk 45 Fugitives	183	380709	3737592	2	146	80	1.83	11,582	-12	24	7	52
Blk 46 Fugitives	184	380682	3737741	2	213	78	2.73	16,675	-11	24	7	52
Blk 47 Fugitives	185	380573	3737946	2	190	147	1.29	27,840	-13	24	7	52
Blk 51 Fugitives	186	380658	3737048	2	60	141	2.34	8,498	-11	24	7	52
Blk 52 Fugitives	187	380645	3737114	2	143	148	1.04	21,228	-11	24	7	52
Blk 53 Fugitives	188	380617	3737262	2	146	148	1.01	21,624	-11	24	7	52
Blk 54 Fugitives	189	380588	3737413	2	146	149	1.02	21,747	-11	24	7	52
Blk 55 Fugitives	190	380561	3737562	2	147	147	1.00	21,609	-11	24	7	52
Blk 56 Fugitives	191	380532	3737712	2	214	146	1.47	31,392	-11	24	7	52
Blk 57 Fugitives	192	380492	3737932	2	190	78	2.45	14,723	-11	24	7	52
Blk 62 Fugitives	193	380529	3737052	2	185	115	1.61	21,165	-12	24	7	52
Blk 63 Fugitives	194	380444	3737229	2	147	167	1.14	24,555	-13	24	7	52
Blk 64 Fugitives	195	380389	3737375	2	144	194	1.35	27,897	-11	24	7	52
Blk 65 Fugitives	196	380341	3737520	2	209	214	1.03	44,711	-11	24	7	52
Blk 66 Fugitives	197	380302	3737730	2	221	215	1.03	47,491	-11	24	7	52
Blk 67 Fugitives	198	380296	3737959	2	164	181	1.11	29,668	-11	24	7	52
Blk 68 Fugitives	199	380135	3738099	2	258	99	2.60	25,498	3	24	7	52
Blk 69 Fugitives	200	380152	3738359	2	71	100	1.41	7,160	3	24	7	52
Blk 75 Fugitives	201	380221	3737479	2	229	69	3.34	15,753	-11	24	7	52
Blk 76 Fugitives	202	380170	3737709	2	236	79	3.00	18,542	-11	24	7	52
Blk 77 Fugitives	203	380127	3737970	2	126	133	1.05	16,807	2	24	7	52
Blk 78 Fugitives	204	380050	3737991	2	353	70	5.05	24,612	4	24	7	52
Blk 79 Fugitives	205	380080	3738345	2	89	64	1.39	5,696	3	24	7	52
Blk 80 Fugitives	206	380082	3738436	2	73	69	1.05	5,045	2	24	7	52
Gasoline Dispens.	207	381112	3738233	1	3	3	1.00	9	0	8	5	52

Table B-2 - Area Source Modeling Parameters

Description	HARP Source ID	SW Coordinates		Height (m)	yL (m)	xL (m)	Aspect Ratio (L:W)	Area (m^2)	Angle	Operating Time		
		UTM E	UTM N							Hours/ day	Days/ week	Weeks/ year
Diesel Dispensing	208	381112	3738233	1	3	3	1.00	9	0	8	5	52
Spills, Asb, Catal.	213	380767	3737291	1	869	208	4.18	180,702	-11	7	24	52
Paint, Refrigerants	214	380412	3737372	1	615	651	1.06	400,454	0	5	8	52
Spent Acid Lding	215	381276	3738062	3	6	3	2.00	19	0	8	5	52
Cleanout Sumps	220	380690	3737204	1	869	208	4.18	180,702	-11	24	7	52
Welding	221	380690	3737204	1	869	208	4.18	180,702	-11	8	5	52
Abrasive Blasting	222	380948	3738038	1	6	6	1.00	35	-5	8	5	52

Appendix C
Model Receptors

Model Receptors

A wide swath of receptors was defined for this risk analysis. A total of 3,215 receptors were included in the dispersion model. A summary of receptors is listed in Table C-1. Specifications for the offsite receptor grid and property boundary receptors are summarized in Table C-2. A plot of grid and property boundary receptors is depicted in Figure C-1.

Census receptors were obtained using the HARP 2010 Census Database tool built into the HARP model. All census receptors with a population greater than zero within and just outside of the facility's Zone of Impact were identified and analyzed for risk. A map of all census receptors with a cancer risk over 1 in 1 million based on a 70-year exposure is represented in Figure C-2.

Sensitive receptor information was compiled using publicly available records and an internet search for schools, preschools, daycare facilities, hospitals, etc. within and just outside of the facility's Zone of Impact. A map of all sensitive receptors with a cancer risk over 1 in 1 million based on a 70-year exposure is represented in Figure C-3. A list of sensitive receptors with corresponding risks is included as Table C-3.

Table C-1 - Summary of Receptors

Receptor Type	Receptor Quantity
Grid Receptors	529
Sensitive Receptors	181
Census Receptors	2,387
Property Boundary Receptors	118
Total Receptors	3,215

Table C-2 - Receptor Grid Parameters

Receptor Parameter	Input
UTM Zone	11N
Bottom Left Grid Corner	379700 m E, 3736600 m N
No. of Points (x-direction)	23
No. of Points (y-direction)	23
Grid spacing	100 m
Property Boundary Spacing	100 m

Figure C-1 - Cartesian Grid and Boundary Receptor Plot

Figure C-2 - Census Receptors within Zone of Impact

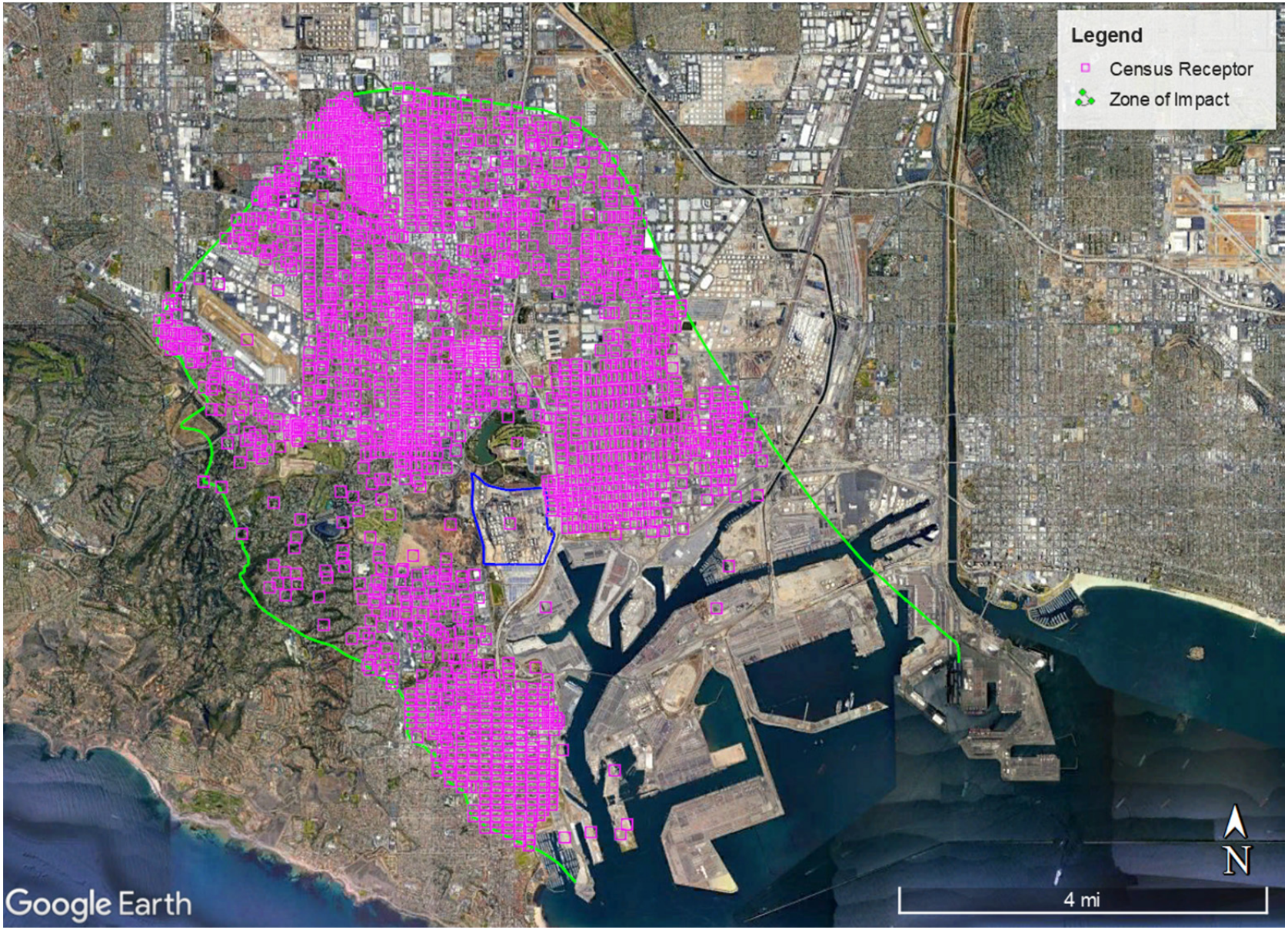

Figure C-3 - Sensitive Receptors within Zone of Impact

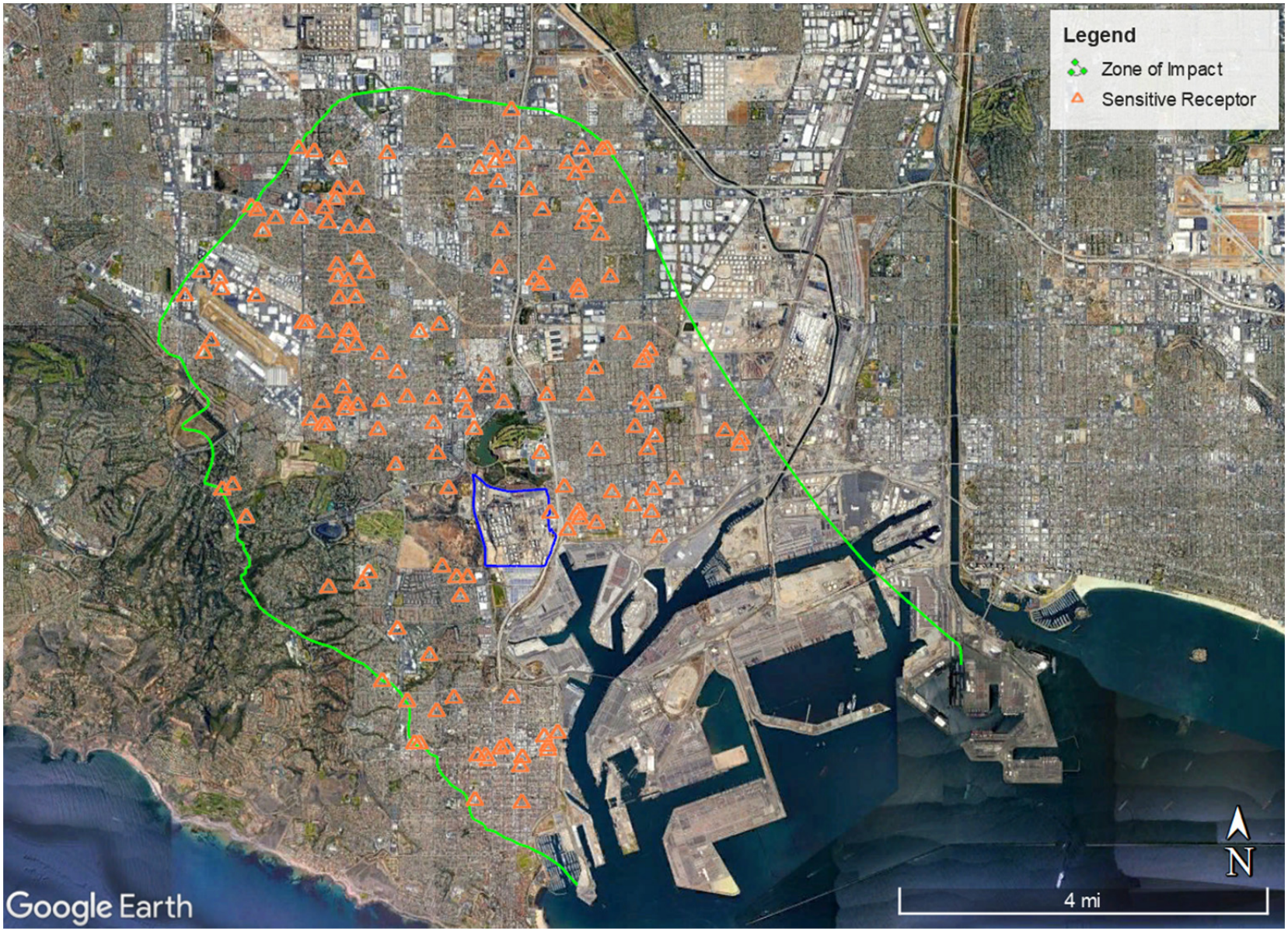

Table C-3 - List of Sensitive Receptors

Description	Type	Address	City	Zip Code	UTM E	UTM N	Cancer Risk	Chronic HI	Acute HI
15th Street Elementary School	School	1527 S Mesa St	San Pedro	90731	380784	3732976	1.08	0.01	0.11
232nd Place Elementary School	School	23240 Archibald Ave	Carson	90745	381335	3742286	1.60	0.02	0.11
A Gr8t Beginning Academy	Preschool	321 E Carson St	Carson	90745	382331	3744254	0.88	0.01	0.08
Accesa Health-Walk in Medical Clinic	Hospital	21730 S Vermont Avenue	Torrance	90502	380664	3744129	1.05	0.02	0.09
Alliance Alice M Baxter College Ready High School	School	461 W 9th St	San Pedro	90731	380768	3733605	1.33	0.02	0.11
Amber Elder Care	Convalescent	2248 W 233rd Street	Torrance	90501	377683	3742316	1.32	0.02	0.10
Andrew Carnegie Middle School	School	21820 Bonita St	Carson	90745	383558	3744007	0.67	0.01	0.08
Arlington Home Care	Convalescent	2209 Arlington Avenue	Torrance	90501	378034	3743629	1.14	0.02	0.09
Aunt Mona's Care Home	Convalescent	2522 Sunnyside Ridge Rd	Rancho Palos Verdes	90275	377467	3736740	1.46	0.02	0.14
Avalon Courtyard	Convalescent	22121 S Avalon Boulevard	Carson	90745	382992	3743583	0.83	0.01	0.09
Avalon High School	School	1425 N Avalon Blvd	Wilmington	90744	383011	3739798	1.55	0.02	0.12
Bandini Street Elementary School	School	425 N Bandini St	San Pedro	90731	379625	3734804	1.44	0.02	0.13
Banning Marine Avenue Adult Center	School	1468 N Marine Ave	Wilmington	90744	382948	3739922	1.55	0.02	0.12
Barton Hill Elementary School	School	423 N Pacific Ave	San Pedro	90731	380630	3734796	2.15	0.02	0.13
Bethel Estates	Convalescent	2252 Cersie Avenue	Torrance	90505	376626	3743135	0.95	0.02	0.09
Bonita Street Elementary School	School	21929 Bonita St	Carson	90745	383370	3743858	0.72	0.01	0.08
Brighter Beginnings Learning	Preschool	2332 Lomita Blvd	Lomita	90717	377485	3741156	1.57	0.02	0.12
Brighter Days Montessori School	School	1903 Summerland St	Rancho Palos Verdes	90275	378484	3734965	0.84	0.01	0.13
Brightwater International/Beautiful Homes for the Elderly	Convalescent	1820 W Carson Street	Torrance	90501	378584	3744238	1.08	0.02	0.09

Table C-3 - List of Sensitive Receptors

Description	Type	Address	City	Zip Code	UTM E	UTM N	Cancer Risk	Chronic HI	Acute HI
Broad Avenue Elementary School	School	24815 Broad Ave	Wilmington	90744	383111	3740770	1.21	0.01	0.12
Cabrillo Avenue Early Education Center	Preschool	741 W 8th St	San Pedro	90731	380206	3733716	1.25	0.01	0.11
Cabrillo Avenue Elementary School	School	732 S Cabrillo Ave	San Pedro	90731	380165	3733794	1.28	0.01	0.11
Carden Dominion Preschool	Preschool	25313 Narbonne Ave	Lomita	90717	377765	3740195	2.10	0.03	0.12
Caroldale Home	Convalescent	23453 Caroldale Avenue	Carson	90745	381119	3742023	1.76	0.03	0.11
Caroldale Learning Community School	School	22424 Caroldale Ave	Carson	90745	381268	3743221	1.26	0.02	0.10
Carson Gardens	Convalescent	21811 S Main St	Carson	80745	381722	3744024	1.01	0.02	0.09
Carson High School	School	22328 S Main St	Carson	90745	382048	3743274	1.12	0.02	0.09
Carson Montessori Academy	Preschool	812 E Carson St	Carson	90745	383307	3744170	0.70	0.01	0.08
Carson Senior Assisted Living	Convalescent	345 E Carson St	Carson	90745	382412	3744266	0.87	0.01	0.08
Carson Street Elementary	School	161 E Carson Street	Carson	90745	381975	3744270	0.93	0.02	0.09
Catskill Avenue Elementary	School	23536 Catskill Ave	Carson	90745	382434	3742047	1.26	0.02	0.11
Chabad of South Bay	School	24412 Narbonne Ave	Lomita	90717	377851	3741171	1.71	0.02	0.12
Child Care at Bread of Life Christian Center	Daycare	2780 Lomita Blvd	Torrance	90505	376274	3741796	1.11	0.02	0.09
Christ Lutheran Church and School	School	28850 S Western Ave	Rancho Palos Verdes	90275	378657	3736006	1.88	0.02	0.14
Coast Surgery Center	Hospital	3445 Pacific Coast Hwy Suite 110	Torrance	90505	375477	3741036	1.06	0.02	0.09
Coastal Academy	School	25501 Oak St	Lomita	90717	378017	3739883	2.45	0.03	0.12
Coastal Kids Preschool	Preschool	4172 Pacific Coast Hwy	Torrance	90505	374329	3741510	0.81	0.01	0.08
Coastal Recovery Methadone Treatment Center	Treatment Center	117 E W Harry Bridges Blvd	Wilmington	90744	383229	3737535	3.25	0.04	0.12
Crestwood Street Elementary School	School	1946 W Crestwood St	Rancho Palos Verdes	90275	378381	3735108	0.88	0.01	0.13
Dana Middle School	School	1501 S Cabrillo Ave	San Pedro	90731	379969	3733032	0.97	0.01	0.10

Table C-3 - List of Sensitive Receptors

Description	Type	Address	City	Zip Code	UTM E	UTM N	Cancer Risk	Chronic HI	Acute HI
Dapplegray Elementary School	School	3011 Palos Verdes Drive North	Rolling Hills Estates	90274	376048	3737967	0.94	0.02	0.11
Day Star Early Learning Center	School	631 W 6th St	San Pedro	90731	380427	3733916	1.41	0.02	0.11
Del Amo Hospital	Hospital	23700 Camino Del Sol	Torrance	90505	375665	3741919	0.98	0.02	0.09
Dolores Street Elementary School	School	22526 Dolores St	Carson	90745	382154	3743108	1.12	0.02	0.09
Eagle Tree High School	School	22628 S Main St	Carson	90745	381979	3742978	1.20	0.02	0.10
Emerald Isle Assisted Living	Convalescent	28016 Calzada Dr	Rancho Palos Verdes	90275	378056	3736807	2.70	0.03	0.15
Eshelman Avenue Elementary School	School	25902 Eshelman Ave	Lomita	90717	378362	3739457	3.10	0.03	0.13
Family Planning Associates	Clinic	24241 Hawthorne Blvd Unit 201	Torrance	90505	375156	3742463	0.84	0.01	0.08
Fern Elementary School Torrance	School	1314 Fern Ave	Torrance	90503	376784	3744653	0.80	0.01	0.08
First Baptist Christian School	School	26366 Hillcrest Ave	Lomita	90717	378663	3738847	3.95	0.04	0.13
Flemming Middle School	School	25425 Walnut St	Lomita	90717	378431	3739955	2.73	0.03	0.13
Fries Avenue Elementary School	School	1301 N Fries Ave	Wilmington	90744	382836	3739449	1.85	0.02	0.12
Future Stars Academy	Preschool	2320 Pacific Coast Hwy	Lomita	90717	377475	3739550	2.15	0.03	0.12
Garden of Wilmington Guest Home	Convalescent	1311 W Anaheim St	Wilmington	90744	381591	3738427	8.45	0.07	0.24
George De La Torre Elementary School	School	500 Island Ave	Wilmington	90744	382787	3738088	3.19	0.03	0.12
Golden Kids Preschool	Preschool	2320 Sepulveda Blvd	Torrance	90501	377536	3743049	1.14	0.02	0.10
Golden Living Care Home	Convalescent	2049 W 235th Street	Torrance	90501	378198	3742174	1.51	0.02	0.11
Greenwood Avenue KinderCare	Preschool	1520 Greenwood Ave	Torrance	90503	376642	3744462	0.80	0.01	0.08
Gulf Avenue Elementary School	School	828 W L St	Wilmington	90744	382165	3739057	3.19	0.03	0.12
Halldale Elementary School	School	21514 Halldale Ave	Torrance	90501	379618	3744416	1.02	0.02	0.09

Table C-3 - List of Sensitive Receptors

Description	Type	Address	City	Zip Code	UTM E	UTM N	Cancer Risk	Chronic HI	Acute HI
Happy Tots Montessori School	Preschool	1518 Pacific Coast Hwy	Harbor City	90710	379328	3739554	4.41	0.04	0.13
Harbor Church Schools	School	1716 254th St	Lomita	90717	378878	3740015	3.11	0.03	0.14
Harbor City Elementary School	School	1508 254th St	Harbor City	90710	379327	3739985	3.73	0.04	0.13
Harbor Day Preschool	Preschool	580 W 6th St	San Pedro	90731	380531	3733954	1.46	0.02	0.12
Harbor Post-Acute Care Center	Convalescent	21521 S Vermont Ave	Torrance	90502	380181	3743953	1.11	0.02	0.09
Harbor UCLA KinderCare	Preschool	975 W Carson St	Torrance	90502	380403	3744289	1.02	0.02	0.09
Harbor UCLA Medical Center	Hospital	1000 W Carson St	Torrance	90502	380471	3744060	1.07	0.02	0.09
Harry Bridges Span School	School	1235 Broad Ave	Wilmington	90744	383180	3739282	1.66	0.02	0.12
Hawaiian Avenue Children's Center	Preschool	501 Hawaiian Ave	Wilmington	90744	381800	3737947	10.60	0.10	0.20
Hawaiian Avenue Elementary School	School	540 Hawaiian Ave	Wilmington	90744	381838	3738000	9.22	0.08	0.19
Helping Hand Care Services	Convalescent	111 E 220th St	Carson	90745	381861	3743830	1.03	0.02	0.09
Hickory Elementary School	School	2800 W 227th St	Torrance	90505	376399	3742919	0.95	0.02	0.09
Hickory Tree School Torrance	School	21720 Madrona Ave	Torrance	90503	375604	3744168	0.71	0.01	0.08
Hi-Fi Preschool	Preschool	25533 Narbonne Avenue	Lomita	90717	377797	3739813	2.32	0.03	0.13
Himawari Preschool and Daycare	Preschool	23325 S Vermont Ave	Torrance	90502	380509	3742228	1.74	0.03	0.12
Holy Family School	School	1122 E Robidoux St	Wilmington	90744	384401	3739366	1.05	0.01	0.10
Holy Trinity School	School	1226 W Santa Cruz St	San Pedro	90732	379324	3734574	1.06	0.01	0.12
JH Hull Middle School	School	2080 231st St	Torrance	90501	378068	3742416	1.41	0.02	0.11
John Adams Elementary School	School	2121 238th St	Torrance	90501	378006	3741749	1.58	0.02	0.11
Judson Baptist Church Child Care	Daycare	451 E 223rd St	Carson	90745	382579	3743424	0.95	0.01	0.09
Kaiser Addiction Medicine	Hospital	12360 Main St	Carson	90745	381895	3741796	1.62	0.02	0.11
Kaiser Permanente Pavilion	Hospital	23621 S Main st	Carson	90745	381875	3741889	1.59	0.02	0.11

Table C-3 - List of Sensitive Receptors

Description	Type	Address	City	Zip Code	UTM E	UTM N	Cancer Risk	Chronic HI	Acute HI
Kaiser Permanente South Bay Medical Center	Hospital	25825 S Vermont Ave	Harbor City	90710	380036	3739448	6.19	0.06	0.13
Koguma Youchien Preschool	Preschool	2351 255th St	Lomita	90717	377389	3739946	1.99	0.03	0.12
La Primera North Preschool	Preschool	22902 Ocean Ave	Torrance	90505	374679	3742978	0.74	0.01	0.08
LePort Montessori Lomita	School	2342 Pacific Coast Hwy	Lomita	90717	377398	3739552	2.09	0.03	0.12
Lill Cowpoke Preschool	School	445 N Avalon Blvd	Wilmington	90744	383104	3737974	2.74	0.03	0.12
Lindora Medical Clinic	Hospital	24223 Crenshaw Blvd. #C	Torrance	90505	377077	3741320	1.40	0.02	0.11
Lin-Rose Best Home Care	Convalescent	254 E 228th Street	Carson	90745	382277	3742784	1.16	0.02	0.10
Little Company of Mary Sub-Acute Care Center	Acute Care Center	1322 W 6th St	San Pedro	90732	379017	3734020	0.91	0.01	0.11
Lomita Elementary School	School	2211 247th St	Lomita	90717	377741	3740894	1.76	0.02	0.12
Lomita Kiwanis Gardens	Convalescent	25109 Ebony Ln	Lomita	90717	378710	3740441	2.57	0.03	0.13
Lomita Post Acute Care Center	Convalescent	1955 Lomita Blvd	Lomita	90717	378409	3740770	2.16	0.03	0.13
Look Whos Learning Preschool San Pedro	Preschool	1491 W Ofarrell St	San Pedro	90732	378814	3734750	0.88	0.01	0.14
Los Angeles Harbor College	College	1111 Figueroa Pl	Wilmington	90744	381192	3739016	8.75	0.09	0.20
Los Angeles Kokusai Gakuen	School	23800 Hawthorne Blvd	Torrance	90505	375033	3741814	0.90	0.01	0.08
Los Palos Convalescent Hospital	Convalescent	1430 W 6th St	San Pedro	90732	378817	3734135	0.86	0.01	0.11
Mary Star of the Sea High School	School	2500 N Taper Ave	San Pedro	90731	379450	3737073	7.74	0.05	0.13
Mary Star The Sea Elementary	School	717 S Cabrillo Ave	San Pedro	90731	380023	3733799	1.20	0.01	0.11
Marymount California University Waterfront Campus	University	222 W 6th St	San Pedro	90731	381254	3733950	1.64	0.02	0.12
Merry-Go-Round Nursery School	Daycare	446 W 8th St	San Pedro	90731	380805	3733757	1.42	0.02	0.12
Meyler Elementary School	School	1123 W 223rd St	Torrance	90502	380094	3743499	1.24	0.02	0.10

Table C-3 - List of Sensitive Receptors

Description	Type	Address	City	Zip Code	UTM E	UTM N	Cancer Risk	Chronic HI	Acute HI
Miraleste Early Learning Academy	Preschool	6245 Via Canada	Rancho Palos Verdes	90275	377317	3735417	0.72	0.01	0.10
Miraleste Intermediate School	School	29323 Palos Verdes Dr E	Rancho Palos Verdes	90275	376805	3735650	0.73	0.01	0.08
Molina Medical Clinic	Hospital	445 E Anaheim St	Wilmington	90744	383519	3738540	1.78	0.02	0.14
Morning Star Guest Home	Convalescent	24436 Panama Ave	Carson	90745	382637	3741060	1.39	0.02	0.11
My First School	Preschool	25405 Normandie Ave	Harbor City	90710	379858	3740015	4.34	0.05	0.13
Narbonne High School	School	24300 S Western Ave	Harbor City	90710	379103	3741143	2.39	0.03	0.12
Nativity Catholic School	School	2371 W Carson St	Torrance	90501	377313	3744281	0.92	0.02	0.08
New Harbor Vista Child Development Center	Daycare	909 W D St	Wilmington	90744	382145	3737796	7.33	0.07	0.14
New Horizons Child Development Center	School	26945 Rolling Hills Rd	Rolling Hills Estates	90274	375593	3738259	0.83	0.01	0.11
Nishiyamato Academy of California	School	2458 Lomita Blvd	Lomita	90717	377155	3741316	1.42	0.02	0.11
Normont Elementary School	School	1001 W 253rd St	Harbor City	90710	380273	3740173	4.24	0.05	0.13
Normont Terrace Childrens Center	School	25028 Petroleum Ave	Harbor City	90710	380260	3740381	3.79	0.04	0.14
Olivia Isabel Manor	Convalescent	21515 South Figueroa Street	Carson	90745	380957	3744372	0.98	0.02	0.09
Pacific Harbor Elementary School and Happy Harbor Preschool	Preschool	1530 N Wilmington Blvd.	Wilmington	90744	381990	3740011	2.55	0.03	0.12
Pacific Lutheran High School	School	2150 Sepulveda Blvd	Torrance	90501	377895	3742958	1.24	0.02	0.10
Palos Verdes Hills Nursery School	Nursery School	6 Lariat Ln	Rolling Hills Estates	90274	375823	3738536	0.93	0.02	0.11
Palos Verdes Villa Inc	Convalescent	29661 S Western Ave	San Pedro	90275	378599	3734874	0.82	0.01	0.14
Park Western Place Elementary School	School	1214 Park Western Pl	San Pedro	90732	379210	3735544	1.67	0.02	0.14
Peninsula Heritage School	School	26944 Rolling Hills Rd	Rolling Hills Estates	90274	375657	3738222	0.85	0.01	0.11

Table C-3 - List of Sensitive Receptors

Description	Type	Address	City	Zip Code	UTM E	UTM N	Cancer Risk	Chronic HI	Acute HI
Phineas Banning Senior High School	School	1527 Lakme Ave	Wilmington	90744	383235	3740030	1.34	0.01	0.11
Pines Christian School	Preschool	1516 W Anaheim St	Harbor City	90710	379387	3739031	5.79	0.05	0.13
Play and Learn Family Daycare	Daycare	1000 Lomita Blvd.	Lomita	90717	378010	3740929	1.87	0.02	0.13
Port of Los Angeles High School	School	250 W 5th St	San Pedro	90731	381187	3734115	1.75	0.02	0.12
President Avenue Elementary School	School	1465 W 243rd St	Harbor City	90710	379456	3741257	2.47	0.03	0.13
Providence Little Company of Mary Wellness & Activity Center	Wellness Center	470 Hawaiian Ave	Wilmington	90744	381858	3737873	10.43	0.10	0.18
Regal in Home Care Services	Convalescent	22527 Crenshaw Blvd. #202	Torrance	90505	377050	3743140	1.02	0.02	0.09
Rolling Hills Montessori	School	26825 Rolling Hills Rd	Rolling Hills Estates	90274	375641	3738456	0.89	0.01	0.10
Rolling Hills Preparatory School	School	1 Rolling Hills Prep Way	San Pedro	90732	379578	3738428	9.03	0.06	0.18
Royalwood Convalescent Hospital	Convalescent	22520 Maple Avenue	Torrance	90505	376032	3743330	0.84	0.01	0.08
Rudecinda Sepulveda Dodson Middle School	School	28014 S Montereina Dr	Rancho Palos verdes	90275	378174	3736989	3.10	0.03	0.15
Saints Peter and Paul School	School	706 Bay View Ave	Wilmington	90744	382422	3738325	3.69	0.03	0.13
San Pedro Co Op Nursery School	Preschool	731 S Averill Ave	San Pedro	90732	378813	3733789	0.78	0.01	0.11
San Pedro High School	School	1001 W 15th St	San Pedro	90731	379602	3732950	0.76	0.01	0.10
San Pedro MST Center	School	2201 Barrywood Ave	San Pedro	90731	379891	3736887	7.99	0.05	0.13
San Pedro Peninsula Hospital	Hospital	1360 W 6th St	San Pedro	90732	378930	3734024	0.89	0.01	0.11
Seiai Preschool	Preschool	25506 Narbonne Ave	Lomita	90717	377821	3739901	2.30	0.03	0.12
Seventh Street Elementary School	School	1570 W 7th St	San Pedro	90732	378536	3733949	0.70	0.01	0.12
Shery High School	School	2600 Vine Avenue	Torrance	90501	377483	3743304	1.08	0.02	0.09

Table C-3 - List of Sensitive Receptors

Description	Type	Address	City	Zip Code	UTM E	UTM N	Cancer Risk	Chronic HI	Acute HI
Silver Spur Guest Home	Convalescent	22535 Crenshaw Blvd.	Torrance	90505	377051	3743131	1.03	0.02	0.09
Small World Learning Center	Preschool	1749 N Avalon Blvd	Wilmington	90744	382975	3740572	1.32	0.02	0.13
St Philomena School	School	21832 S Main St	Carson	90745	382031	3743957	0.98	0.02	0.09
Sunnyside Retirement	Convalescent	22711 S Vermont Ave	Torrance	90502	380542	3742883	1.42	0.02	0.11
Taper Avenue Elementary School	School	1824 N Taper Ave	San Pedro	90731	379761	3736560	5.45	0.04	0.13
Teach Love Connect Preschool	Preschool	2427 Pacific Coast Hwy	Lomita	90717	377191	3739643	1.93	0.02	0.11
The Children's Place	Daycare	1625 Crenshaw Blvd.	Torrance	90501	377043	3744341	0.87	0.01	0.08
The Childrens Place Montessori School	School	1215 Crenshaw Blvd	Torrance	90501	377025	3744737	0.82	0.01	0.08
The Guidance Center	Hospital	222 W 6th St	San Pedro	90731	381254	3733875	1.60	0.02	0.12
The Learning Garden	Preschool	2165 W 236th St	Torrance	90501	377874	3742040	1.44	0.02	0.10
The Learning Tree Preschool	Preschool	2157 245th St	Lomita	90717	377906	3741178	1.73	0.02	0.12
Torrance Adult School	School	2291 Washington Ave	Torrance	90501	377721	3743628	1.08	0.02	0.09
Torrance Elementary School	School	2125 Lincoln Ave	Torrance	90501	377684	3743455	1.10	0.02	0.09
Torrance High School	School	2200 W Carson St	Torrance	90501	377734	3744152	1.00	0.02	0.08
Torrance Memorial Medical Center	Hospital	3330 Lomita Blvd	Torrance	90505	375635	3742111	0.95	0.02	0.09
Torrance Montessori School	School	2747 Cabrillo Ave	Torrance	90501	378206	3742963	1.31	0.02	0.10
Torrance South Bay YMCA Child Care	Daycare	2900 Sepulveda Blvd	Torrance	90505	376203	3743342	0.87	0.01	0.09
Traditional Home Care	Convalescent	23518 Naffa Avenue	Carson	90745	381228	3741927	1.80	0.03	0.11
Tutor Time of Torrance	Daycare	2850 Sepulveda Blvd	Torrance	90505	376316	3743278	0.89	0.01	0.09
Van Deene Avenue Elementary School	School	826 Javelin St	Torrance	90502	380753	3744958	0.88	0.01	0.08
Vermont Care Center	Convalescent	22035 S Vermont Ave	Torrance	90502	380508	3743720	1.15	0.02	0.10
Vermont Christian School	School	25500 South Vermont Ave	Harbor City	90710	380556	3739901	4.88	0.05	0.12

Table C-3 - List of Sensitive Receptors

Description	Type	Address	City	Zip Code	UTM E	UTM N	Cancer Risk	Chronic HI	Acute HI
Villa Sorrento	Convalescent	23450 Madison St	Torrance	90505	375321	3742224	0.89	0.01	0.09
Volunteers of America Head Start Preschool	Preschool	1135 257th St	Harbor City	90710	379910	3739742	5.10	0.05	0.12
Walteria Elementary School	School	24456 Madison St	Torrance	90505	375348	3740822	1.05	0.02	0.09
White Middle School	School	22102 S Figueroa St	Carson	90745	381046	3743578	1.17	0.02	0.10
Willenberg Special Education Center	School	308 Weymouth Ave	San Pedro	90732	378733	3734045	0.81	0.01	0.11
William J Johnston Community Day	School	2210 N Taper Ave	San Pedro	90731	379700	3736889	7.29	0.05	0.13
Wilmington Boys and Girls Club	Daycare	1444 W Q St	Wilmington	90744	381308	3740018	3.85	0.05	0.13
Wilmington Christian School	School	24910 S Avalon Blvd	Wilmington	90744	383033	3740655	1.27	0.02	0.13
Wilmington Middle School	School	1700 Gulf Ave	Wilmington	90744	382151	3740473	2.02	0.03	0.12
Wilmington Park Early Education Center	Preschool	1419 E Young St	Wilmington	90744	384685	3739216	0.99	0.01	0.10
Wilmington Park Elementary School	School	1140 Mahar Ave	Wilmington	90744	384649	3739111	1.03	0.01	0.10
Wilmington Urgent Care & Family Clinic	Clinic	714 N Avalon Blvd	Wilmington	90744	383147	3738363	2.27	0.02	0.14
Wilmington YMCA	Daycare	1121 N Avalon Blvd	Wilmington	90744	383049	3739059	1.89	0.02	0.12
Wood Elementary School	School	2250 W 235th St	Torrance	90501	377696	3742117	1.37	0.02	0.10
World Tots LA	Preschool	100 W 5th St	San Pedro	90731	381423	3734175	1.87	0.02	0.12
YMCA Child Care and Preschool at Carr	Daycare	3420 W 229th Place	Torrance	90505	375662	3742822	0.86	0.01	0.09
YMCA Child Care at Adams	Daycare	2121 W 238th Street	Torrance	90501	377719	3741738	1.48	0.02	0.11

Appendix D
Detailed Air Toxic Emissions

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70001	U60 B-101 HTR	Lead compounds	1128	0.3148	0.000040	7,915	4.53E-06	5.01E-06
70001	U60 B-101 HTR	Formaldehyde	50-00-0	38.9128	0.004916	7,915	5.60E-04	6.19E-04
70001	U60 B-101 HTR	Benzo(a)pyrene	50-32-8	0.0210	0.000003	7,915	3.02E-07	3.34E-07
70001	U60 B-101 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0006	0.000000	7,915	7.95E-09	8.80E-09
70001	U60 B-101 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0081	0.000001	7,915	1.17E-07	1.29E-07
70001	U60 B-101 HTR	Benzene	71-43-2	5.3784	0.000680	7,915	7.74E-05	8.56E-05
70001	U60 B-101 HTR	Acetaldehyde	75-07-0	94.4317	0.011930	7,915	1.36E-03	1.50E-03
70001	U60 B-101 HTR	Acenaphthene (PAHs)	83-32-9	0.0012	0.000000	7,915	1.78E-08	1.97E-08
70001	U60 B-101 HTR	Phenanthrene (PAHs)	85-01-8	0.0095	0.000001	7,915	1.36E-07	1.51E-07
70001	U60 B-101 HTR	Fluorene (PAHs)	86-73-7	0.0018	0.000000	7,915	2.53E-08	2.81E-08
70001	U60 B-101 HTR	Naphthalene	91-20-3	0.1842	0.000023	7,915	2.65E-06	2.93E-06
70001	U60 B-101 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0045	0.000001	7,915	6.45E-08	7.14E-08
70001	U60 B-101 HTR	Ethyl benzene	100-41-4	1.5243	0.000193	7,915	2.19E-05	2.43E-05
70001	U60 B-101 HTR	Acrolein	107-02-8	6.2643	0.000791	7,915	9.01E-05	9.97E-05
70001	U60 B-101 HTR	Toluene	108-88-3	10.4249	0.001317	7,915	1.50E-04	1.66E-04
70001	U60 B-101 HTR	Phenol	108-95-2	1.4739	0.000186	7,915	2.12E-05	2.35E-05
70001	U60 B-101 HTR	Propylene	115-07-1	55.2731	0.006983	7,915	7.95E-04	8.80E-04
70001	U60 B-101 HTR	Anthracene	120-12-7	0.0009	0.000000	7,915	1.33E-08	1.47E-08
70001	U60 B-101 HTR	Pyrene	129-00-0	0.0061	0.000001	7,915	8.73E-08	9.67E-08
70001	U60 B-101 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0004	0.000000	7,915	5.88E-09	6.51E-09
70001	U60 B-101 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0262	0.000003	7,915	3.76E-07	4.16E-07
70001	U60 B-101 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0099	0.000001	7,915	1.43E-07	1.58E-07
70001	U60 B-101 HTR	Fluoranthene (PAHs)	206-44-0	0.0057	0.000001	7,915	8.20E-08	9.07E-08
70001	U60 B-101 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0063	0.000001	7,915	9.01E-08	9.97E-08
70001	U60 B-101 HTR	Acenaphthylene (PAHs)	208-96-8	0.0236	0.000003	7,915	3.40E-07	3.76E-07
70001	U60 B-101 HTR	Chrysene (PAHs)	218-01-9	0.0006	0.000000	7,915	8.48E-09	9.39E-09
70001	U60 B-101 HTR	Xylenes (mixed isomers)	1330-20-7	18.4898	0.002336	7,915	2.66E-04	2.94E-04
70001	U60 B-101 HTR	Aluminum	7429-90-5	5.4651	0.000690	7,915	7.86E-05	8.70E-05
70001	U60 B-101 HTR	Manganese compounds	7439-96-5	1.5392	0.000194	7,915	2.21E-05	2.45E-05
70001	U60 B-101 HTR	Mercury compounds	7439-97-6	0.0073	0.000001	7,915	1.04E-07	1.16E-07
70001	U60 B-101 HTR	Nickel compounds	7440-02-0	3.9656	0.000501	7,915	5.70E-05	6.31E-05
70001	U60 B-101 HTR	Silver compounds	7440-22-4	0.0092	0.000001	7,915	1.32E-07	1.46E-07
70001	U60 B-101 HTR	Thallium	7440-28-0	2.1372	0.000270	7,915	3.07E-05	3.40E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70001	U60 B-101 HTR	Antimony	7440-36-0	0.0031	0.000000	7,915	4.49E-08	4.97E-08
70001	U60 B-101 HTR	Arsenic	7440-38-2	0.0113	0.000001	7,915	1.63E-07	1.80E-07
70001	U60 B-101 HTR	Barium	7440-39-3	1.9952	0.000252	7,915	2.87E-05	3.18E-05
70001	U60 B-101 HTR	Beryllium	7440-41-7	0.0479	0.000006	7,915	6.89E-07	7.63E-07
70001	U60 B-101 HTR	Cadmium	7440-43-9	0.0273	0.000003	7,915	3.92E-07	4.34E-07
70001	U60 B-101 HTR	Chromium compounds	7440-47-3	0.0739	0.000009	7,915	1.06E-06	1.18E-06
70001	U60 B-101 HTR	Cobalt compounds	7440-48-4	0.0860	0.000011	7,915	1.24E-06	1.37E-06
70001	U60 B-101 HTR	Copper compounds	7440-50-8	0.9865	0.000125	7,915	1.42E-05	1.57E-05
70001	U60 B-101 HTR	Vanadium compounds	7440-62-2	0.0179	0.000002	7,915	2.57E-07	2.85E-07
70001	U60 B-101 HTR	Zinc compounds	7440-66-6	1.5119	0.000191	7,915	2.17E-05	2.41E-05
70001	U60 B-101 HTR	Ammonia	7664-41-7	90.2182	0.011398	7,915	1.30E-03	1.44E-03
70001	U60 B-101 HTR	Sulfuric acid	7664-93-9	84.8745	0.002681	8,760	1.22E-03	3.38E-04
70001	U60 B-101 HTR	Phosphorus	7723-14-0	0.7750	0.000098	7,915	1.11E-05	1.23E-05
70001	U60 B-101 HTR	Selenium compounds	7782-49-2	0.0100	0.000001	7,915	1.43E-07	1.59E-07
70001	U60 B-101 HTR	Hydrogen sulfide	7783-06-4	0.4439	0.000056	7,915	6.38E-06	7.07E-06
70002	U60 B-201 HTR	Lead compounds	1128	0.1154	0.000017	6,744	1.66E-06	2.16E-06
70002	U60 B-201 HTR	Formaldehyde	50-00-0	14.2715	0.002116	6,744	2.05E-04	2.67E-04
70002	U60 B-201 HTR	Benzo(a)pyrene	50-32-8	0.0077	0.000001	6,744	1.11E-07	1.44E-07
70002	U60 B-201 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	6,744	2.92E-09	3.79E-09
70002	U60 B-201 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0030	0.000000	6,744	4.28E-08	5.55E-08
70002	U60 B-201 HTR	Benzene	71-43-2	1.9726	0.000292	6,744	2.84E-05	3.69E-05
70002	U60 B-201 HTR	Acetaldehyde	75-07-0	34.6333	0.005135	6,744	4.98E-04	6.47E-04
70002	U60 B-201 HTR	Acenaphthene (PAHs)	83-32-9	0.0005	0.000000	6,744	6.54E-09	8.49E-09
70002	U60 B-201 HTR	Phenanthrene (PAHs)	85-01-8	0.0035	0.000001	6,744	4.99E-08	6.49E-08
70002	U60 B-201 HTR	Fluorene (PAHs)	86-73-7	0.0006	0.000000	6,744	9.30E-09	1.21E-08
70002	U60 B-201 HTR	Naphthalene	91-20-3	0.0675	0.000010	6,744	9.71E-07	1.26E-06
70002	U60 B-201 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0016	0.000000	6,744	2.37E-08	3.07E-08
70002	U60 B-201 HTR	Ethyl benzene	100-41-4	0.5590	0.000083	6,744	8.04E-06	1.04E-05
70002	U60 B-201 HTR	Acrolein	107-02-8	2.2975	0.000341	6,744	3.30E-05	4.29E-05
70002	U60 B-201 HTR	Toluene	108-88-3	3.8234	0.000567	6,744	5.50E-05	7.14E-05
70002	U60 B-201 HTR	Phenol	108-95-2	0.5406	0.000080	6,744	7.78E-06	1.01E-05
70002	U60 B-201 HTR	Propylene	115-07-1	20.2717	0.003006	6,744	2.92E-04	3.79E-04
70002	U60 B-201 HTR	Anthracene	120-12-7	0.0003	0.000000	6,744	4.86E-09	6.32E-09

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70002	U60 B-201 HTR	Pyrene	129-00-0	0.0022	0.000000	6,744	3.20E-08	4.16E-08
70002	U60 B-201 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	6,744	2.16E-09	2.80E-09
70002	U60 B-201 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0096	0.000001	6,744	1.38E-07	1.79E-07
70002	U60 B-201 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0036	0.000001	6,744	5.25E-08	6.82E-08
70002	U60 B-201 HTR	Fluoranthene (PAHs)	206-44-0	0.0021	0.000000	6,744	3.01E-08	3.91E-08
70002	U60 B-201 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0023	0.000000	6,744	3.30E-08	4.29E-08
70002	U60 B-201 HTR	Acenaphthylene (PAHs)	208-96-8	0.0087	0.000001	6,744	1.25E-07	1.62E-07
70002	U60 B-201 HTR	Chrysene (PAHs)	218-01-9	0.0002	0.000000	6,744	3.11E-09	4.04E-09
70002	U60 B-201 HTR	Xylenes (mixed isomers)	1330-20-7	6.7812	0.001006	6,744	9.75E-05	1.27E-04
70002	U60 B-201 HTR	Aluminum	7429-90-5	2.0044	0.000297	6,744	2.88E-05	3.74E-05
70002	U60 B-201 HTR	Manganese compounds	7439-96-5	0.5645	0.000084	6,744	8.12E-06	1.05E-05
70002	U60 B-201 HTR	Mercury compounds	7439-97-6	0.0027	0.000000	6,744	3.83E-08	4.98E-08
70002	U60 B-201 HTR	Nickel compounds	7440-02-0	1.4544	0.000216	6,744	2.09E-05	2.72E-05
70002	U60 B-201 HTR	Silver compounds	7440-22-4	0.0034	0.000001	6,744	4.85E-08	6.30E-08
70002	U60 B-201 HTR	Thallium	7440-28-0	0.7838	0.000116	6,744	1.13E-05	1.46E-05
70002	U60 B-201 HTR	Antimony	7440-36-0	0.0011	0.000000	6,744	1.65E-08	2.14E-08
70002	U60 B-201 HTR	Arsenic	7440-38-2	0.0041	0.000001	6,744	5.96E-08	7.74E-08
70002	U60 B-201 HTR	Barium	7440-39-3	0.7318	0.000109	6,744	1.05E-05	1.37E-05
70002	U60 B-201 HTR	Beryllium	7440-41-7	0.0176	0.000003	6,744	2.53E-07	3.28E-07
70002	U60 B-201 HTR	Cadmium	7440-43-9	0.0100	0.000001	6,744	1.44E-07	1.87E-07
70002	U60 B-201 HTR	Chromium compounds	7440-47-3	0.0271	0.000004	6,744	3.90E-07	5.06E-07
70002	U60 B-201 HTR	Cobalt compounds	7440-48-4	0.0315	0.000005	6,744	4.54E-07	5.89E-07
70002	U60 B-201 HTR	Copper compounds	7440-50-8	0.3618	0.000054	6,744	5.20E-06	6.76E-06
70002	U60 B-201 HTR	Vanadium compounds	7440-62-2	0.0066	0.000001	6,744	9.44E-08	1.23E-07
70002	U60 B-201 HTR	Zinc compounds	7440-66-6	0.5545	0.000082	6,744	7.98E-06	1.04E-05
70002	U60 B-201 HTR	Ammonia	7664-41-7	33.0880	0.004906	6,744	4.76E-04	6.18E-04
70002	U60 B-201 HTR	Sulfuric acid	7664-93-9	3.7216	0.000138	8,760	5.35E-05	1.74E-05
70002	U60 B-201 HTR	Phosphorus	7723-14-0	0.2842	0.000042	6,744	4.09E-06	5.31E-06
70002	U60 B-201 HTR	Selenium compounds	7782-49-2	0.0037	0.000001	6,744	5.26E-08	6.83E-08
70002	U60 B-201 HTR	Hydrogen sulfide	7783-06-4	0.1628	0.000024	6,744	2.34E-06	3.04E-06
70003	U80 B-101 (EAST)	Lead compounds	1128	0.2128	0.000026	8,165	3.06E-06	3.28E-06
70003	U80 B-101 (EAST)	Formaldehyde	50-00-0	26.3049	0.003222	8,165	3.78E-04	4.06E-04
70003	U80 B-101 (EAST)	Benzo(a)pyrene	50-32-8	0.0142	0.000002	8,165	2.04E-07	2.19E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70003	U80 B-101 (EAST)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0004	0.000000	8,165	5.37E-09	5.77E-09
70003	U80 B-101 (EAST)	Benz(a)anthracene (PAHs)	56-55-3	0.0055	0.000001	8,165	7.88E-08	8.46E-08
70003	U80 B-101 (EAST)	Benzene	71-43-2	3.6358	0.000445	8,165	5.23E-05	5.61E-05
70003	U80 B-101 (EAST)	Acetaldehyde	75-07-0	63.8354	0.007818	8,165	9.18E-04	9.85E-04
70003	U80 B-101 (EAST)	Acenaphthene (PAHs)	83-32-9	0.0008	0.000000	8,165	1.20E-08	1.29E-08
70003	U80 B-101 (EAST)	Phenanthrene (PAHs)	85-01-8	0.0064	0.000001	8,165	9.21E-08	9.88E-08
70003	U80 B-101 (EAST)	Fluorene (PAHs)	86-73-7	0.0012	0.000000	8,165	1.71E-08	1.84E-08
70003	U80 B-101 (EAST)	Naphthalene	91-20-3	0.1245	0.000015	8,165	1.79E-06	1.92E-06
70003	U80 B-101 (EAST)	2-Methyl naphthalene (PAHs)	91-57-6	0.0030	0.000000	8,165	4.36E-08	4.68E-08
70003	U80 B-101 (EAST)	Ethyl benzene	100-41-4	1.0304	0.000126	8,165	1.48E-05	1.59E-05
70003	U80 B-101 (EAST)	Acrolein	107-02-8	4.2346	0.000519	8,165	6.09E-05	6.53E-05
70003	U80 B-101 (EAST)	Toluene	108-88-3	7.0472	0.000863	8,165	1.01E-04	1.09E-04
70003	U80 B-101 (EAST)	Phenol	108-95-2	0.9964	0.000122	8,165	1.43E-05	1.54E-05
70003	U80 B-101 (EAST)	Propylene	115-07-1	37.3643	0.004576	8,165	5.37E-04	5.77E-04
70003	U80 B-101 (EAST)	Anthracene	120-12-7	0.0006	0.000000	8,165	8.96E-09	9.62E-09
70003	U80 B-101 (EAST)	Pyrene	129-00-0	0.0041	0.000001	8,165	5.90E-08	6.33E-08
70003	U80 B-101 (EAST)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0003	0.000000	8,165	3.98E-09	4.27E-09
70003	U80 B-101 (EAST)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0177	0.000002	8,165	2.54E-07	2.73E-07
70003	U80 B-101 (EAST)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0067	0.000001	8,165	9.67E-08	1.04E-07
70003	U80 B-101 (EAST)	Fluoranthene (PAHs)	206-44-0	0.0039	0.000000	8,165	5.54E-08	5.95E-08
70003	U80 B-101 (EAST)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0042	0.000001	8,165	6.09E-08	6.53E-08
70003	U80 B-101 (EAST)	Acenaphthylene (PAHs)	208-96-8	0.0160	0.000002	8,165	2.30E-07	2.47E-07
70003	U80 B-101 (EAST)	Chrysene (PAHs)	218-01-9	0.0004	0.000000	8,165	5.73E-09	6.15E-09
70003	U80 B-101 (EAST)	Xylenes (mixed isomers)	1330-20-7	12.4990	0.001531	8,165	1.80E-04	1.93E-04
70003	U80 B-101 (EAST)	Aluminum	7429-90-5	3.6944	0.000452	8,165	5.31E-05	5.70E-05
70003	U80 B-101 (EAST)	Manganese compounds	7439-96-5	1.0405	0.000127	8,165	1.50E-05	1.61E-05
70003	U80 B-101 (EAST)	Mercury compounds	7439-97-6	0.0049	0.000001	8,165	7.06E-08	7.58E-08
70003	U80 B-101 (EAST)	Nickel compounds	7440-02-0	2.6808	0.000328	8,165	3.86E-05	4.14E-05
70003	U80 B-101 (EAST)	Silver compounds	7440-22-4	0.0062	0.000001	8,165	8.94E-08	9.59E-08
70003	U80 B-101 (EAST)	Thallium	7440-28-0	1.4448	0.000177	8,165	2.08E-05	2.23E-05
70003	U80 B-101 (EAST)	Antimony	7440-36-0	0.0021	0.000000	8,165	3.04E-08	3.26E-08
70003	U80 B-101 (EAST)	Arsenic	7440-38-2	0.0076	0.000001	8,165	1.10E-07	1.18E-07
70003	U80 B-101 (EAST)	Barium	7440-39-3	1.3488	0.000165	8,165	1.94E-05	2.08E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70003	U80 B-101 (EAST)	Beryllium	7440-41-7	0.0324	0.000004	8,165	4.66E-07	5.00E-07
70003	U80 B-101 (EAST)	Cadmium	7440-43-9	0.0184	0.000002	8,165	2.65E-07	2.84E-07
70003	U80 B-101 (EAST)	Chromium compounds	7440-47-3	0.0499	0.000006	8,165	7.18E-07	7.70E-07
70003	U80 B-101 (EAST)	Cobalt compounds	7440-48-4	0.0581	0.000007	8,165	8.36E-07	8.97E-07
70003	U80 B-101 (EAST)	Copper compounds	7440-50-8	0.6668	0.000082	8,165	9.59E-06	1.03E-05
70003	U80 B-101 (EAST)	Vanadium compounds	7440-62-2	0.0121	0.000001	8,165	1.74E-07	1.87E-07
70003	U80 B-101 (EAST)	Zinc compounds	7440-66-6	1.0220	0.000125	8,165	1.47E-05	1.58E-05
70003	U80 B-101 (EAST)	Ammonia	7664-41-7	60.9871	0.007470	8,165	8.77E-04	9.41E-04
70003	U80 B-101 (EAST)	Sulfuric acid	7664-93-9	5.4502	0.000167	8,760	7.84E-05	2.10E-05
70003	U80 B-101 (EAST)	Phosphorus	7723-14-0	0.5239	0.000064	8,165	7.54E-06	8.08E-06
70003	U80 B-101 (EAST)	Selenium compounds	7782-49-2	0.0067	0.000001	8,165	9.69E-08	1.04E-07
70003	U80 B-101 (EAST)	Hydrogen sulfide	7783-06-4	0.3001	0.000037	8,165	4.32E-06	4.63E-06
70004	U80 B-102 (EAST)	Lead compounds	1128	0.0982	0.000012	8,165	1.41E-06	1.52E-06
70004	U80 B-102 (EAST)	Formaldehyde	50-00-0	12.1396	0.001487	8,165	1.75E-04	1.87E-04
70004	U80 B-102 (EAST)	Benzo(a)pyrene	50-32-8	0.0066	0.000001	8,165	9.42E-08	1.01E-07
70004	U80 B-102 (EAST)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	8,165	2.48E-09	2.66E-09
70004	U80 B-102 (EAST)	Benz(a)anthracene (PAHs)	56-55-3	0.0025	0.000000	8,165	3.64E-08	3.90E-08
70004	U80 B-102 (EAST)	Benzene	71-43-2	1.6779	0.000206	8,165	2.41E-05	2.59E-05
70004	U80 B-102 (EAST)	Acetaldehyde	75-07-0	29.4599	0.003608	8,165	4.24E-04	4.55E-04
70004	U80 B-102 (EAST)	Acenaphthene (PAHs)	83-32-9	0.0004	0.000000	8,165	5.56E-09	5.97E-09
70004	U80 B-102 (EAST)	Phenanthrene (PAHs)	85-01-8	0.0030	0.000000	8,165	4.25E-08	4.56E-08
70004	U80 B-102 (EAST)	Fluorene (PAHs)	86-73-7	0.0005	0.000000	8,165	7.91E-09	8.48E-09
70004	U80 B-102 (EAST)	Naphthalene	91-20-3	0.0575	0.000007	8,165	8.26E-07	8.87E-07
70004	U80 B-102 (EAST)	2-Methyl naphthalene (PAHs)	91-57-6	0.0014	0.000000	8,165	2.01E-08	2.16E-08
70004	U80 B-102 (EAST)	Ethyl benzene	100-41-4	0.4755	0.000058	8,165	6.84E-06	7.34E-06
70004	U80 B-102 (EAST)	Acrolein	107-02-8	1.9543	0.000239	8,165	2.81E-05	3.02E-05
70004	U80 B-102 (EAST)	Toluene	108-88-3	3.2523	0.000398	8,165	4.68E-05	5.02E-05
70004	U80 B-102 (EAST)	Phenol	108-95-2	0.4598	0.000056	8,165	6.61E-06	7.10E-06
70004	U80 B-102 (EAST)	Propylene	115-07-1	17.2436	0.002112	8,165	2.48E-04	2.66E-04
70004	U80 B-102 (EAST)	Anthracene	120-12-7	0.0003	0.000000	8,165	4.14E-09	4.44E-09
70004	U80 B-102 (EAST)	Pyrene	129-00-0	0.0019	0.000000	8,165	2.72E-08	2.92E-08
70004	U80 B-102 (EAST)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	8,165	1.83E-09	1.97E-09
70004	U80 B-102 (EAST)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0082	0.000001	8,165	1.17E-07	1.26E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70004	U80 B-102 (EAST)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0031	0.000000	8,165	4.46E-08	4.79E-08
70004	U80 B-102 (EAST)	Fluoranthene (PAHs)	206-44-0	0.0018	0.000000	8,165	2.56E-08	2.74E-08
70004	U80 B-102 (EAST)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0020	0.000000	8,165	2.81E-08	3.02E-08
70004	U80 B-102 (EAST)	Acenaphthylene (PAHs)	208-96-8	0.0074	0.000001	8,165	1.06E-07	1.14E-07
70004	U80 B-102 (EAST)	Chrysene (PAHs)	218-01-9	0.0002	0.000000	8,165	2.65E-09	2.84E-09
70004	U80 B-102 (EAST)	Xylenes (mixed isomers)	1330-20-7	5.7683	0.000706	8,165	8.30E-05	8.90E-05
70004	U80 B-102 (EAST)	Aluminum	7429-90-5	1.7050	0.000209	8,165	2.45E-05	2.63E-05
70004	U80 B-102 (EAST)	Manganese compounds	7439-96-5	0.4802	0.000059	8,165	6.91E-06	7.41E-06
70004	U80 B-102 (EAST)	Mercury compounds	7439-97-6	0.0023	0.000000	8,165	3.26E-08	3.50E-08
70004	U80 B-102 (EAST)	Nickel compounds	7440-02-0	1.2372	0.000152	8,165	1.78E-05	1.91E-05
70004	U80 B-102 (EAST)	Silver compounds	7440-22-4	0.0029	0.000000	8,165	4.13E-08	4.43E-08
70004	U80 B-102 (EAST)	Thallium	7440-28-0	0.6668	0.000082	8,165	9.59E-06	1.03E-05
70004	U80 B-102 (EAST)	Antimony	7440-36-0	0.0010	0.000000	8,165	1.40E-08	1.50E-08
70004	U80 B-102 (EAST)	Arsenic	7440-38-2	0.0035	0.000000	8,165	5.07E-08	5.44E-08
70004	U80 B-102 (EAST)	Barium	7440-39-3	0.6224	0.000076	8,165	8.95E-06	9.61E-06
70004	U80 B-102 (EAST)	Beryllium	7440-41-7	0.0149	0.000002	8,165	2.15E-07	2.31E-07
70004	U80 B-102 (EAST)	Cadmium	7440-43-9	0.0085	0.000001	8,165	1.22E-07	1.31E-07
70004	U80 B-102 (EAST)	Chromium compounds	7440-47-3	0.0230	0.000003	8,165	3.31E-07	3.56E-07
70004	U80 B-102 (EAST)	Cobalt compounds	7440-48-4	0.0268	0.000003	8,165	3.86E-07	4.14E-07
70004	U80 B-102 (EAST)	Copper compounds	7440-50-8	0.3077	0.000038	8,165	4.43E-06	4.75E-06
70004	U80 B-102 (EAST)	Vanadium compounds	7440-62-2	0.0056	0.000001	8,165	8.03E-08	8.62E-08
70004	U80 B-102 (EAST)	Zinc compounds	7440-66-6	0.4717	0.000058	8,165	6.78E-06	7.28E-06
70004	U80 B-102 (EAST)	Ammonia	7664-41-7	28.1454	0.003447	8,165	4.05E-04	4.34E-04
70004	U80 B-102 (EAST)	Sulfuric acid	7664-93-9	3.1627	0.000097	8,760	4.55E-05	1.22E-05
70004	U80 B-102 (EAST)	Phosphorus	7723-14-0	0.2418	0.000030	8,165	3.48E-06	3.73E-06
70004	U80 B-102 (EAST)	Selenium compounds	7782-49-2	0.0031	0.000000	8,165	4.47E-08	4.80E-08
70004	U80 B-102 (EAST)	Hydrogen sulfide	7783-06-4	0.1385	0.000017	8,165	1.99E-06	2.14E-06
70005	U80 B-103 (EAST)	Lead compounds	1128	0.1170	0.000014	8,165	1.68E-06	1.81E-06
70005	U80 B-103 (EAST)	Formaldehyde	50-00-0	14.4695	0.001772	8,165	2.08E-04	2.23E-04
70005	U80 B-103 (EAST)	Benzo(a)pyrene	50-32-8	0.0078	0.000001	8,165	1.12E-07	1.21E-07
70005	U80 B-103 (EAST)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	8,165	2.96E-09	3.17E-09
70005	U80 B-103 (EAST)	Benz(a)anthracene (PAHs)	56-55-3	0.0030	0.000000	8,165	4.34E-08	4.65E-08
70005	U80 B-103 (EAST)	Benzene	71-43-2	1.9999	0.000245	8,165	2.88E-05	3.09E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70005	U80 B-103 (EAST)	Acetaldehyde	75-07-0	35.1140	0.004301	8,165	5.05E-04	5.42E-04
70005	U80 B-103 (EAST)	Acenaphthene (PAHs)	83-32-9	0.0005	0.000000	8,165	6.63E-09	7.11E-09
70005	U80 B-103 (EAST)	Phenanthrene (PAHs)	85-01-8	0.0035	0.000000	8,165	5.06E-08	5.43E-08
70005	U80 B-103 (EAST)	Fluorene (PAHs)	86-73-7	0.0007	0.000000	8,165	9.43E-09	1.01E-08
70005	U80 B-103 (EAST)	Naphthalene	91-20-3	0.0685	0.000008	8,165	9.85E-07	1.06E-06
70005	U80 B-103 (EAST)	2-Methyl naphthalene (PAHs)	91-57-6	0.0017	0.000000	8,165	2.40E-08	2.57E-08
70005	U80 B-103 (EAST)	Ethyl benzene	100-41-4	0.5668	0.000069	8,165	8.15E-06	8.75E-06
70005	U80 B-103 (EAST)	Acrolein	107-02-8	2.3293	0.000285	8,165	3.35E-05	3.59E-05
70005	U80 B-103 (EAST)	Toluene	108-88-3	3.8765	0.000475	8,165	5.58E-05	5.98E-05
70005	U80 B-103 (EAST)	Phenol	108-95-2	0.5481	0.000067	8,165	7.88E-06	8.46E-06
70005	U80 B-103 (EAST)	Propylene	115-07-1	20.5530	0.002517	8,165	2.96E-04	3.17E-04
70005	U80 B-103 (EAST)	Anthracene	120-12-7	0.0003	0.000000	8,165	4.93E-09	5.29E-09
70005	U80 B-103 (EAST)	Pyrene	129-00-0	0.0023	0.000000	8,165	3.25E-08	3.48E-08
70005	U80 B-103 (EAST)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	8,165	2.19E-09	2.35E-09
70005	U80 B-103 (EAST)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0097	0.000001	8,165	1.40E-07	1.50E-07
70005	U80 B-103 (EAST)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0037	0.000000	8,165	5.32E-08	5.71E-08
70005	U80 B-103 (EAST)	Fluoranthene (PAHs)	206-44-0	0.0021	0.000000	8,165	3.05E-08	3.27E-08
70005	U80 B-103 (EAST)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0023	0.000000	8,165	3.35E-08	3.59E-08
70005	U80 B-103 (EAST)	Acenaphthylene (PAHs)	208-96-8	0.0088	0.000001	8,165	1.26E-07	1.36E-07
70005	U80 B-103 (EAST)	Chrysene (PAHs)	218-01-9	0.0002	0.000000	8,165	3.15E-09	3.38E-09
70005	U80 B-103 (EAST)	Xylenes (mixed isomers)	1330-20-7	6.8753	0.000842	8,165	9.89E-05	1.06E-04
70005	U80 B-103 (EAST)	Aluminum	7429-90-5	2.0322	0.000249	8,165	2.92E-05	3.14E-05
70005	U80 B-103 (EAST)	Manganese compounds	7439-96-5	0.5723	0.000070	8,165	8.23E-06	8.83E-06
70005	U80 B-103 (EAST)	Mercury compounds	7439-97-6	0.0027	0.000000	8,165	3.88E-08	4.17E-08
70005	U80 B-103 (EAST)	Nickel compounds	7440-02-0	1.4746	0.000181	8,165	2.12E-05	2.28E-05
70005	U80 B-103 (EAST)	Silver compounds	7440-22-4	0.0034	0.000000	8,165	4.92E-08	5.28E-08
70005	U80 B-103 (EAST)	Thallium	7440-28-0	0.7947	0.000097	8,165	1.14E-05	1.23E-05
70005	U80 B-103 (EAST)	Antimony	7440-36-0	0.0012	0.000000	8,165	1.67E-08	1.79E-08
70005	U80 B-103 (EAST)	Arsenic	7440-38-2	0.0042	0.000001	8,165	6.04E-08	6.49E-08
70005	U80 B-103 (EAST)	Barium	7440-39-3	0.7419	0.000091	8,165	1.07E-05	1.14E-05
70005	U80 B-103 (EAST)	Beryllium	7440-41-7	0.0178	0.000002	8,165	2.56E-07	2.75E-07
70005	U80 B-103 (EAST)	Cadmium	7440-43-9	0.0101	0.000001	8,165	1.46E-07	1.56E-07
70005	U80 B-103 (EAST)	Chromium compounds	7440-47-3	0.0275	0.000003	8,165	3.95E-07	4.24E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70005	U80 B-103 (EAST)	Cobalt compounds	7440-48-4	0.0320	0.000004	8,165	4.60E-07	4.94E-07
70005	U80 B-103 (EAST)	Copper compounds	7440-50-8	0.3668	0.000045	8,165	5.28E-06	5.66E-06
70005	U80 B-103 (EAST)	Vanadium compounds	7440-62-2	0.0067	0.000001	8,165	9.57E-08	1.03E-07
70005	U80 B-103 (EAST)	Zinc compounds	7440-66-6	0.5622	0.000069	8,165	8.09E-06	8.68E-06
70005	U80 B-103 (EAST)	Ammonia	7664-41-7	33.5472	0.004109	8,165	4.83E-04	5.18E-04
70005	U80 B-103 (EAST)	Sulfuric acid	7664-93-9	2.8848	0.000088	8,760	4.15E-05	1.11E-05
70005	U80 B-103 (EAST)	Phosphorus	7723-14-0	0.2882	0.000035	8,165	4.15E-06	4.45E-06
70005	U80 B-103 (EAST)	Selenium compounds	7782-49-2	0.0037	0.000000	8,165	5.33E-08	5.72E-08
70005	U80 B-103 (EAST)	Hydrogen sulfide	7783-06-4	0.1651	0.000020	8,165	2.37E-06	2.55E-06
70006	U80 B-104 (EAST)	Lead compounds	1128	0.1368	0.000017	8,165	1.97E-06	2.11E-06
70006	U80 B-104 (EAST)	Formaldehyde	50-00-0	16.9104	0.002071	8,165	2.43E-04	2.61E-04
70006	U80 B-104 (EAST)	Benzo(a)pyrene	50-32-8	0.0091	0.000001	8,165	1.31E-07	1.41E-07
70006	U80 B-104 (EAST)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	8,165	3.45E-09	3.71E-09
70006	U80 B-104 (EAST)	Benz(a)anthracene (PAHs)	56-55-3	0.0035	0.000000	8,165	5.07E-08	5.44E-08
70006	U80 B-104 (EAST)	Benzene	71-43-2	2.3373	0.000286	8,165	3.36E-05	3.61E-05
70006	U80 B-104 (EAST)	Acetaldehyde	75-07-0	41.0373	0.005026	8,165	5.90E-04	6.33E-04
70006	U80 B-104 (EAST)	Acenaphthene (PAHs)	83-32-9	0.0005	0.000000	8,165	7.75E-09	8.31E-09
70006	U80 B-104 (EAST)	Phenanthrene (PAHs)	85-01-8	0.0041	0.000001	8,165	5.92E-08	6.35E-08
70006	U80 B-104 (EAST)	Fluorene (PAHs)	86-73-7	0.0008	0.000000	8,165	1.10E-08	1.18E-08
70006	U80 B-104 (EAST)	Naphthalene	91-20-3	0.0800	0.000010	8,165	1.15E-06	1.23E-06
70006	U80 B-104 (EAST)	2-Methyl naphthalene (PAHs)	91-57-6	0.0019	0.000000	8,165	2.80E-08	3.01E-08
70006	U80 B-104 (EAST)	Ethyl benzene	100-41-4	0.6624	0.000081	8,165	9.53E-06	1.02E-05
70006	U80 B-104 (EAST)	Acrolein	107-02-8	2.7223	0.000333	8,165	3.92E-05	4.20E-05
70006	U80 B-104 (EAST)	Toluene	108-88-3	4.5304	0.000555	8,165	6.52E-05	6.99E-05
70006	U80 B-104 (EAST)	Phenol	108-95-2	0.6405	0.000078	8,165	9.21E-06	9.88E-06
70006	U80 B-104 (EAST)	Propylene	115-07-1	24.0201	0.002942	8,165	3.45E-04	3.71E-04
70006	U80 B-104 (EAST)	Anthracene	120-12-7	0.0004	0.000000	8,165	5.76E-09	6.18E-09
70006	U80 B-104 (EAST)	Pyrene	129-00-0	0.0026	0.000000	8,165	3.80E-08	4.07E-08
70006	U80 B-104 (EAST)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	8,165	2.56E-09	2.74E-09
70006	U80 B-104 (EAST)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0114	0.000001	8,165	1.64E-07	1.75E-07
70006	U80 B-104 (EAST)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0043	0.000001	8,165	6.22E-08	6.67E-08
70006	U80 B-104 (EAST)	Fluoranthene (PAHs)	206-44-0	0.0025	0.000000	8,165	3.56E-08	3.82E-08
70006	U80 B-104 (EAST)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0027	0.000000	8,165	3.92E-08	4.20E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70006	U80 B-104 (EAST)	Acenaphthylene (PAHs)	208-96-8	0.0103	0.000001	8,165	1.48E-07	1.59E-07
70006	U80 B-104 (EAST)	Chrysene (PAHs)	218-01-9	0.0003	0.000000	8,165	3.69E-09	3.95E-09
70006	U80 B-104 (EAST)	Xylenes (mixed isomers)	1330-20-7	8.0351	0.000984	8,165	1.16E-04	1.24E-04
70006	U80 B-104 (EAST)	Aluminum	7429-90-5	2.3750	0.000291	8,165	3.42E-05	3.67E-05
70006	U80 B-104 (EAST)	Manganese compounds	7439-96-5	0.6689	0.000082	8,165	9.62E-06	1.03E-05
70006	U80 B-104 (EAST)	Mercury compounds	7439-97-6	0.0032	0.000000	8,165	4.54E-08	4.87E-08
70006	U80 B-104 (EAST)	Nickel compounds	7440-02-0	1.7234	0.000211	8,165	2.48E-05	2.66E-05
70006	U80 B-104 (EAST)	Silver compounds	7440-22-4	0.0040	0.000000	8,165	5.75E-08	6.17E-08
70006	U80 B-104 (EAST)	Thallium	7440-28-0	0.9288	0.000114	8,165	1.34E-05	1.43E-05
70006	U80 B-104 (EAST)	Antimony	7440-36-0	0.0014	0.000000	8,165	1.95E-08	2.09E-08
70006	U80 B-104 (EAST)	Arsenic	7440-38-2	0.0049	0.000001	8,165	7.06E-08	7.58E-08
70006	U80 B-104 (EAST)	Barium	7440-39-3	0.8671	0.000106	8,165	1.25E-05	1.34E-05
70006	U80 B-104 (EAST)	Beryllium	7440-41-7	0.0208	0.000003	8,165	2.99E-07	3.21E-07
70006	U80 B-104 (EAST)	Cadmium	7440-43-9	0.0118	0.000001	8,165	1.70E-07	1.83E-07
70006	U80 B-104 (EAST)	Chromium compounds	7440-47-3	0.0321	0.000004	8,165	4.62E-07	4.95E-07
70006	U80 B-104 (EAST)	Cobalt compounds	7440-48-4	0.0374	0.000005	8,165	5.38E-07	5.77E-07
70006	U80 B-104 (EAST)	Copper compounds	7440-50-8	0.4287	0.000053	8,165	6.17E-06	6.62E-06
70006	U80 B-104 (EAST)	Vanadium compounds	7440-62-2	0.0078	0.000001	8,165	1.12E-07	1.20E-07
70006	U80 B-104 (EAST)	Zinc compounds	7440-66-6	0.6570	0.000080	8,165	9.45E-06	1.01E-05
70006	U80 B-104 (EAST)	Ammonia	7664-41-7	39.2062	0.004802	8,165	5.64E-04	6.05E-04
70006	U80 B-104 (EAST)	Sulfuric acid	7664-93-9	3.5515	0.000109	8,760	5.11E-05	1.37E-05
70006	U80 B-104 (EAST)	Phosphorus	7723-14-0	0.3368	0.000041	8,165	4.84E-06	5.20E-06
70006	U80 B-104 (EAST)	Selenium compounds	7782-49-2	0.0043	0.000001	8,165	6.23E-08	6.68E-08
70006	U80 B-104 (EAST)	Hydrogen sulfide	7783-06-4	0.1929	0.000024	8,165	2.77E-06	2.98E-06
70007	U80 B-105 (EAST)	Lead compounds	1128	0.0240	0.000003	8,165	3.46E-07	3.71E-07
70007	U80 B-105 (EAST)	Formaldehyde	50-00-0	2.9717	0.000364	8,165	4.27E-05	4.59E-05
70007	U80 B-105 (EAST)	Benzo(a)pyrene	50-32-8	0.0016	0.000000	8,165	2.31E-08	2.48E-08
70007	U80 B-105 (EAST)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0000	0.000000	8,165	6.07E-10	6.51E-10
70007	U80 B-105 (EAST)	Benz(a)anthracene (PAHs)	56-55-3	0.0006	0.000000	8,165	8.90E-09	9.55E-09
70007	U80 B-105 (EAST)	Benzene	71-43-2	0.4107	0.000050	8,165	5.91E-06	6.34E-06
70007	U80 B-105 (EAST)	Acetaldehyde	75-07-0	7.2117	0.000883	8,165	1.04E-04	1.11E-04
70007	U80 B-105 (EAST)	Acenaphthene (PAHs)	83-32-9	0.0001	0.000000	8,165	1.36E-09	1.46E-09
70007	U80 B-105 (EAST)	Phenanthrene (PAHs)	85-01-8	0.0007	0.000000	8,165	1.04E-08	1.12E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70007	U80 B-105 (EAST)	Fluorene (PAHs)	86-73-7	0.0001	0.000000	8,165	1.94E-09	2.08E-09
70007	U80 B-105 (EAST)	Naphthalene	91-20-3	0.0141	0.000002	8,165	2.02E-07	2.17E-07
70007	U80 B-105 (EAST)	2-Methyl naphthalene (PAHs)	91-57-6	0.0003	0.000000	8,165	4.93E-09	5.29E-09
70007	U80 B-105 (EAST)	Ethyl benzene	100-41-4	0.12	0.000014	8,165	1.67E-06	1.80E-06
70007	U80 B-105 (EAST)	Acrolein	107-02-8	0.4784	0.000059	8,165	6.88E-06	7.38E-06
70007	U80 B-105 (EAST)	Toluene	108-88-3	0.7961	0.000098	8,165	1.15E-05	1.23E-05
70007	U80 B-105 (EAST)	Phenol	108-95-2	0.1126	0.000014	8,165	1.62E-06	1.74E-06
70007	U80 B-105 (EAST)	Propylene	115-07-1	4.2212	0.000517	8,165	6.07E-05	6.51E-05
70007	U80 B-105 (EAST)	Anthracene	120-12-7	0.0001	0.000000	8,165	1.01E-09	1.09E-09
70007	U80 B-105 (EAST)	Pyrene	129-00-0	0.0005	0.000000	8,165	6.67E-09	7.16E-09
70007	U80 B-105 (EAST)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0000	0.000000	8,165	4.49E-10	4.82E-10
70007	U80 B-105 (EAST)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0020	0.000000	8,165	2.87E-08	3.08E-08
70007	U80 B-105 (EAST)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0008	0.000000	8,165	1.09E-08	1.17E-08
70007	U80 B-105 (EAST)	Fluoranthene (PAHs)	206-44-0	0.0004	0.000000	8,165	6.26E-09	6.72E-09
70007	U80 B-105 (EAST)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0005	0.000000	8,165	6.88E-09	7.38E-09
70007	U80 B-105 (EAST)	Acenaphthylene (PAHs)	208-96-8	0.0018	0.000000	8,165	2.60E-08	2.79E-08
70007	U80 B-105 (EAST)	Chrysene (PAHs)	218-01-9	0.0000	0.000000	8,165	6.48E-10	6.95E-10
70007	U80 B-105 (EAST)	Xylenes (mixed isomers)	1330-20-7	1.4121	0.000173	8,165	2.03E-05	2.18E-05
70007	U80 B-105 (EAST)	Aluminum	7429-90-5	0.4174	0.000051	8,165	6.00E-06	6.44E-06
70007	U80 B-105 (EAST)	Manganese compounds	7439-96-5	0.1175	0.000014	8,165	1.69E-06	1.81E-06
70007	U80 B-105 (EAST)	Mercury compounds	7439-97-6	0.0006	0.000000	8,165	7.98E-09	8.56E-09
70007	U80 B-105 (EAST)	Nickel compounds	7440-02-0	0.3029	0.000037	8,165	4.36E-06	4.67E-06
70007	U80 B-105 (EAST)	Silver compounds	7440-22-4	0.0007	0.000000	8,165	1.01E-08	1.08E-08
70007	U80 B-105 (EAST)	Thallium	7440-28-0	0.1632	0.000020	8,165	2.35E-06	2.52E-06
70007	U80 B-105 (EAST)	Antimony	7440-36-0	0.0002	0.000000	8,165	3.43E-09	3.68E-09
70007	U80 B-105 (EAST)	Arsenic	7440-38-2	0.0009	0.000000	8,165	1.24E-08	1.33E-08
70007	U80 B-105 (EAST)	Barium	7440-39-3	0.1524	0.000019	8,165	2.19E-06	2.35E-06
70007	U80 B-105 (EAST)	Beryllium	7440-41-7	0.0037	0.000000	8,165	5.26E-08	5.65E-08
70007	U80 B-105 (EAST)	Cadmium	7440-43-9	0.0021	0.000000	8,165	2.99E-08	3.21E-08
70007	U80 B-105 (EAST)	Chromium compounds	7440-47-3	0.0056	0.000001	8,165	8.11E-08	8.70E-08
70007	U80 B-105 (EAST)	Cobalt compounds	7440-48-4	0.0066	0.000001	8,165	9.45E-08	1.01E-07
70007	U80 B-105 (EAST)	Copper compounds	7440-50-8	0.0753	0.000009	8,165	1.08E-06	1.16E-06
70007	U80 B-105 (EAST)	Vanadium compounds	7440-62-2	0.0014	0.000000	8,165	1.97E-08	2.11E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70007	U80 B-105 (EAST)	Zinc compounds	7440-66-6	0.1155	0.000014	8,165	1.66E-06	1.78E-06
70007	U80 B-105 (EAST)	Ammonia	7664-41-7	6.8899	0.000844	8,165	9.91E-05	1.06E-04
70007	U80 B-105 (EAST)	Sulfuric acid	7664-93-9	0.7486	0.000023	8,760	1.08E-05	2.89E-06
70007	U80 B-105 (EAST)	Phosphorus	7723-14-0	0.0592	0.000007	8,165	8.51E-07	9.13E-07
70007	U80 B-105 (EAST)	Selenium compounds	7782-49-2	0.0008	0.000000	8,165	1.09E-08	1.17E-08
70007	U80 B-105 (EAST)	Hydrogen sulfide	7783-06-4	0.0339	0.000004	8,165	4.88E-07	5.23E-07
70008	79 B-201	Lead compounds	1128	0.1291	0.000016	8,165	1.86E-06	1.99E-06
70008	79 B-201	Formaldehyde	50-00-0	15.9628	0.001955	8,165	2.30E-04	2.46E-04
70008	79 B-201	Benzo(a)pyrene	50-32-8	0.0086	0.000001	8,165	1.24E-07	1.33E-07
70008	79 B-201	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	8,165	3.26E-09	3.50E-09
70008	79 B-201	Benz(a)anthracene (PAHs)	56-55-3	0.0033	0.000000	8,165	4.78E-08	5.13E-08
70008	79 B-201	Benzene	71-43-2	2.2063	0.000270	8,165	3.17E-05	3.40E-05
70008	79 B-201	Acetaldehyde	75-07-0	38.7377	0.004744	8,165	5.57E-04	5.98E-04
70008	79 B-201	Acenaphthene (PAHs)	83-32-9	0.0005	0.000000	8,165	7.31E-09	7.85E-09
70008	79 B-201	Phenanthrene (PAHs)	85-01-8	0.0039	0.000000	8,165	5.59E-08	5.99E-08
70008	79 B-201	Fluorene (PAHs)	86-73-7	0.0007	0.000000	8,165	1.04E-08	1.12E-08
70008	79 B-201	Naphthalene	91-20-3	0.0755	0.000009	8,165	1.09E-06	1.17E-06
70008	79 B-201	2-Methyl naphthalene (PAHs)	91-57-6	0.0018	0.000000	8,165	2.65E-08	2.84E-08
70008	79 B-201	Ethyl benzene	100-41-4	0.6253	0.000077	8,165	8.99E-06	9.65E-06
70008	79 B-201	Acrolein	107-02-8	2.5697	0.000315	8,165	3.70E-05	3.97E-05
70008	79 B-201	Toluene	108-88-3	4.2765	0.000524	8,165	6.15E-05	6.60E-05
70008	79 B-201	Phenol	108-95-2	0.6046	0.000074	8,165	8.70E-06	9.33E-06
70008	79 B-201	Propylene	115-07-1	22.6741	0.002777	8,165	3.26E-04	3.50E-04
70008	79 B-201	Anthracene	120-12-7	0.0004	0.000000	8,165	5.44E-09	5.84E-09
70008	79 B-201	Pyrene	129-00-0	0.0025	0.000000	8,165	3.58E-08	3.84E-08
70008	79 B-201	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	8,165	2.41E-09	2.59E-09
70008	79 B-201	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0107	0.000001	8,165	1.54E-07	1.66E-07
70008	79 B-201	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0041	0.000000	8,165	5.87E-08	6.30E-08
70008	79 B-201	Fluoranthene (PAHs)	206-44-0	0.0023	0.000000	8,165	3.36E-08	3.61E-08
70008	79 B-201	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0026	0.000000	8,165	3.70E-08	3.97E-08
70008	79 B-201	Acenaphthylene (PAHs)	208-96-8	0.0097	0.000001	8,165	1.40E-07	1.50E-07
70008	79 B-201	Chrysene (PAHs)	218-01-9	0.0002	0.000000	8,165	3.48E-09	3.73E-09
70008	79 B-201	Xylenes (mixed isomers)	1330-20-7	7.5849	0.000929	8,165	1.09E-04	1.17E-04

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70008	79 B-201	Aluminum	7429-90-5	2.2419	0.000275	8,165	3.22E-05	3.46E-05
70008	79 B-201	Manganese compounds	7439-96-5	0.6314	0.000077	8,165	9.08E-06	9.74E-06
70008	79 B-201	Mercury compounds	7439-97-6	0.0030	0.000000	8,165	4.28E-08	4.60E-08
70008	79 B-201	Nickel compounds	7440-02-0	1.6268	0.000199	8,165	2.34E-05	2.51E-05
70008	79 B-201	Silver compounds	7440-22-4	0.0038	0.000000	8,165	5.43E-08	5.82E-08
70008	79 B-201	Thallium	7440-28-0	0.8767	0.000107	8,165	1.26E-05	1.35E-05
70008	79 B-201	Antimony	7440-36-0	0.0013	0.000000	8,165	1.84E-08	1.98E-08
70008	79 B-201	Arsenic	7440-38-2	0.0046	0.000001	8,165	6.67E-08	7.15E-08
70008	79 B-201	Barium	7440-39-3	0.8185	0.000100	8,165	1.18E-05	1.26E-05
70008	79 B-201	Beryllium	7440-41-7	0.0197	0.000002	8,165	2.83E-07	3.03E-07
70008	79 B-201	Cadmium	7440-43-9	0.0112	0.000001	8,165	1.61E-07	1.73E-07
70008	79 B-201	Chromium compounds	7440-47-3	0.0303	0.000004	8,165	4.36E-07	4.68E-07
70008	79 B-201	Cobalt compounds	7440-48-4	0.0353	0.000004	8,165	5.07E-07	5.44E-07
70008	79 B-201	Copper compounds	7440-50-8	0.4047	0.000050	8,165	5.82E-06	6.24E-06
70008	79 B-201	Vanadium compounds	7440-62-2	0.0073	0.000001	8,165	1.06E-07	1.13E-07
70008	79 B-201	Zinc compounds	7440-66-6	0.6202	0.000076	8,165	8.92E-06	9.57E-06
70008	79 B-201	Ammonia	7664-41-7	37.0092	0.004533	8,165	5.32E-04	5.71E-04
70008	79 B-201	Sulfuric acid	7664-93-9	29.6870	0.000909	8,760	4.27E-04	1.15E-04
70008	79 B-201	Phosphorus	7723-14-0	0.3179	0.000039	8,165	4.57E-06	4.91E-06
70008	79 B-201	Selenium compounds	7782-49-2	0.0041	0.000001	8,165	5.88E-08	6.31E-08
70008	79 B-201	Hydrogen sulfide	7783-06-4	0.1821	0.000022	8,165	2.62E-06	2.81E-06
70009	U89 B-101 HTR (HLNX, RE)	Lead compounds	1128	0.1123	0.000014	8,208	1.62E-06	1.72E-06
70009	U89 B-101 HTR (HLNX, RE)	Formaldehyde	50-00-0	13.8822	0.001691	8,208	2.00E-04	2.13E-04
70009	U89 B-101 HTR (HLNX, RE)	Benzo(a)pyrene	50-32-8	0.0075	0.000001	8,208	1.08E-07	1.15E-07
70009	U89 B-101 HTR (HLNX, RE)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	8,208	2.84E-09	3.03E-09
70009	U89 B-101 HTR (HLNX, RE)	Benz(a)anthracene (PAHs)	56-55-3	0.0029	0.000000	8,208	4.16E-08	4.44E-08
70009	U89 B-101 HTR (HLNX, RE)	Benzene	71-43-2	1.9187	0.000234	8,208	2.76E-05	2.95E-05
70009	U89 B-101 HTR (HLNX, RE)	Acetaldehyde	75-07-0	33.6886	0.004104	8,208	4.85E-04	5.17E-04
70009	U89 B-101 HTR (HLNX, RE)	Acenaphthene (PAHs)	83-32-9	0.0004	0.000000	8,208	6.36E-09	6.79E-09
70009	U89 B-101 HTR (HLNX, RE)	Phenanthrene (PAHs)	85-01-8	0.0034	0.000000	8,208	4.86E-08	5.18E-08
70009	U89 B-101 HTR (HLNX, RE)	Fluorene (PAHs)	86-73-7	0.0006	0.000000	8,208	9.04E-09	9.65E-09
70009	U89 B-101 HTR (HLNX, RE)	Naphthalene	91-20-3	0.0657	0.000008	8,208	9.45E-07	1.01E-06
70009	U89 B-101 HTR (HLNX, RE)	2-Methyl naphthalene (PAHs)	91-57-6	0.0016	0.000000	8,208	2.30E-08	2.46E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70009	U89 B-101 HTR (HLNX, RE)	Ethyl benzene	100-41-4	0.5438	0.000066	8,208	7.82E-06	8.35E-06
70009	U89 B-101 HTR (HLNX, RE)	Acrolein	107-02-8	2.2348	0.000272	8,208	3.21E-05	3.43E-05
70009	U89 B-101 HTR (HLNX, RE)	Toluene	108-88-3	3.7191	0.000453	8,208	5.35E-05	5.71E-05
70009	U89 B-101 HTR (HLNX, RE)	Phenol	108-95-2	0.5258	0.000064	8,208	7.56E-06	8.07E-06
70009	U89 B-101 HTR (HLNX, RE)	Propylene	115-07-1	19.7187	0.002402	8,208	2.84E-04	3.03E-04
70009	U89 B-101 HTR (HLNX, RE)	Anthracene	120-12-7	0.0003	0.000000	8,208	4.73E-09	5.05E-09
70009	U89 B-101 HTR (HLNX, RE)	Pyrene	129-00-0	0.0022	0.000000	8,208	3.12E-08	3.33E-08
70009	U89 B-101 HTR (HLNX, RE)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	8,208	2.10E-09	2.24E-09
70009	U89 B-101 HTR (HLNX, RE)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0093	0.000001	8,208	1.34E-07	1.43E-07
70009	U89 B-101 HTR (HLNX, RE)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0035	0.000000	8,208	5.11E-08	5.45E-08
70009	U89 B-101 HTR (HLNX, RE)	Fluoranthene (PAHs)	206-44-0	0.0020	0.000000	8,208	2.93E-08	3.12E-08
70009	U89 B-101 HTR (HLNX, RE)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0022	0.000000	8,208	3.21E-08	3.43E-08
70009	U89 B-101 HTR (HLNX, RE)	Acenaphthylene (PAHs)	208-96-8	0.0084	0.000001	8,208	1.21E-07	1.29E-07
70009	U89 B-101 HTR (HLNX, RE)	Chrysene (PAHs)	218-01-9	0.0002	0.000000	8,208	3.03E-09	3.23E-09
70009	U89 B-101 HTR (HLNX, RE)	Xylenes (mixed isomers)	1330-20-7	6.5962	0.000804	8,208	9.49E-05	1.01E-04
70009	U89 B-101 HTR (HLNX, RE)	Aluminum	7429-90-5	1.9497	0.000238	8,208	2.80E-05	2.99E-05
70009	U89 B-101 HTR (HLNX, RE)	Manganese compounds	7439-96-5	0.5491	0.000067	8,208	7.90E-06	8.43E-06
70009	U89 B-101 HTR (HLNX, RE)	Mercury compounds	7439-97-6	0.0026	0.000000	8,208	3.73E-08	3.98E-08
70009	U89 B-101 HTR (HLNX, RE)	Nickel compounds	7440-02-0	1.4147	0.000172	8,208	2.03E-05	2.17E-05
70009	U89 B-101 HTR (HLNX, RE)	Silver compounds	7440-22-4	0.0033	0.000000	8,208	4.72E-08	5.04E-08
70009	U89 B-101 HTR (HLNX, RE)	Thallium	7440-28-0	0.7625	0.000093	8,208	1.10E-05	1.17E-05
70009	U89 B-101 HTR (HLNX, RE)	Antimony	7440-36-0	0.0011	0.000000	8,208	1.60E-08	1.71E-08
70009	U89 B-101 HTR (HLNX, RE)	Arsenic	7440-38-2	0.0040	0.000000	8,208	5.80E-08	6.19E-08
70009	U89 B-101 HTR (HLNX, RE)	Barium	7440-39-3	0.7118	0.000087	8,208	1.02E-05	1.09E-05
70009	U89 B-101 HTR (HLNX, RE)	Beryllium	7440-41-7	0.0171	0.000002	8,208	2.46E-07	2.62E-07
70009	U89 B-101 HTR (HLNX, RE)	Cadmium	7440-43-9	0.0097	0.000001	8,208	1.40E-07	1.49E-07
70009	U89 B-101 HTR (HLNX, RE)	Chromium compounds	7440-47-3	0.0263	0.000003	8,208	3.79E-07	4.04E-07
70009	U89 B-101 HTR (HLNX, RE)	Cobalt compounds	7440-48-4	0.0307	0.000004	8,208	4.41E-07	4.71E-07
70009	U89 B-101 HTR (HLNX, RE)	Copper compounds	7440-50-8	0.3519	0.000043	8,208	5.06E-06	5.40E-06
70009	U89 B-101 HTR (HLNX, RE)	Vanadium compounds	7440-62-2	0.0064	0.000001	8,208	9.18E-08	9.80E-08
70009	U89 B-101 HTR (HLNX, RE)	Zinc compounds	7440-66-6	0.5394	0.000066	8,208	7.76E-06	8.28E-06
70009	U89 B-101 HTR (HLNX, RE)	Ammonia	7664-41-7	32.1854	0.003921	8,208	4.63E-04	4.94E-04
70009	U89 B-101 HTR (HLNX, RE)	Sulfuric acid	7664-93-9	37.5665	0.001144	8,760	5.40E-04	1.44E-04

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70009	U89 B-101 HTR (HLNX, RE)	Phosphorus	7723-14-0	0.2765	0.000034	8,208	3.98E-06	4.24E-06
70009	U89 B-101 HTR (HLNX, RE)	Selenium compounds	7782-49-2	0.0036	0.000000	8,208	5.11E-08	5.46E-08
70009	U89 B-101 HTR (HLNX, RE)	Hydrogen sulfide	7783-06-4	0.1584	0.000019	8,208	2.28E-06	2.43E-06
70010	90-B-401	Lead compounds	1128	1.8492	0.000213	8,681	2.66E-05	2.68E-05
70010	90-B-401	Formaldehyde	50-00-0	5.7006	0.000657	8,681	8.20E-05	8.27E-05
70010	90-B-401	Benzo(a)pyrene	50-32-8	0.0277	0.000003	8,681	3.99E-07	4.03E-07
70010	90-B-401	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0007	0.000000	8,681	1.05E-08	1.06E-08
70010	90-B-401	Benz(a)anthracene (PAHs)	56-55-3	0.0107	0.000001	8,681	1.54E-07	1.55E-07
70010	90-B-401	Benzene	71-43-2	2.6881	0.000310	8,681	3.87E-05	3.90E-05
70010	90-B-401	Acetaldehyde	75-07-0	1.4367	0.000166	8,681	2.07E-05	2.09E-05
70010	90-B-401	Phenanthrene (PAHs)	85-01-8	0.0156	0.000002	8,681	2.24E-07	2.26E-07
70010	90-B-401	Naphthalene	91-20-3	0.1390	0.000016	8,681	2.00E-06	2.02E-06
70010	90-B-401	Ethyl benzene	100-41-4	3.1979	0.000368	8,681	4.60E-05	4.64E-05
70010	90-B-401	Acrolein	107-02-8	1.2514	0.000144	8,681	1.80E-05	1.82E-05
70010	90-B-401	Toluene	108-88-3	12.2818	0.001415	8,681	1.77E-04	1.78E-04
70010	90-B-401	Phenol	108-95-2	1.9465	0.000224	8,681	2.80E-05	2.83E-05
70010	90-B-401	Hexane	110-54-3	2.1319	0.000246	8,681	3.07E-05	3.09E-05
70010	90-B-401	Propylene	115-07-1	245.6354	0.028296	8,681	3.53E-03	3.57E-03
70010	90-B-401	Anthracene	120-12-7	0.0023	0.000000	8,681	3.29E-08	3.32E-08
70010	90-B-401	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0006	0.000000	8,681	9.10E-09	9.18E-09
70010	90-B-401	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0346	0.000004	8,681	4.97E-07	5.01E-07
70010	90-B-401	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0131	0.000002	8,681	1.89E-07	1.91E-07
70010	90-B-401	Fluoranthene (PAHs)	206-44-0	0.0042	0.000000	8,681	6.09E-08	6.15E-08
70010	90-B-401	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0083	0.000001	8,681	1.19E-07	1.20E-07
70010	90-B-401	Chrysene (PAHs)	218-01-9	0.0008	0.000000	8,681	1.12E-08	1.13E-08
70010	90-B-401	Xylenes (mixed isomers)	1330-20-7	9.1302	0.001052	8,681	1.31E-04	1.33E-04
70010	90-B-401	Manganese compounds	7439-96-5	2.3845	0.000275	8,681	3.43E-05	3.46E-05
70010	90-B-401	Mercury compounds	7439-97-6	0.0876	0.000010	8,681	1.26E-06	1.27E-06
70010	90-B-401	Nickel compounds	7440-02-0	3.6498	0.000420	8,681	5.25E-05	5.30E-05
70010	90-B-401	Silver compounds	7440-22-4	0.7786	0.000090	8,681	1.12E-05	1.13E-05
70010	90-B-401	Thallium	7440-28-0	2.8225	0.000325	8,681	4.06E-05	4.10E-05
70010	90-B-401	Antimony	7440-36-0	0.2531	0.000029	8,681	3.64E-06	3.67E-06
70010	90-B-401	Arsenic	7440-38-2	0.3504	0.000040	8,681	5.04E-06	5.09E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70010	90-B-401	Barium	7440-39-3	2.8225	0.000325	8,681	4.06E-05	4.10E-05
70010	90-B-401	Beryllium	7440-41-7	0.0633	0.000007	8,681	9.10E-07	9.18E-07
70010	90-B-401	Cadmium	7440-43-9	0.7300	0.000084	8,681	1.05E-05	1.06E-05
70010	90-B-401	Chromium compounds	7440-47-3	2.7738	0.000320	8,681	3.99E-05	4.03E-05
70010	90-B-401	Copper compounds	7440-50-8	2.2872	0.000263	8,681	3.29E-05	3.32E-05
70010	90-B-401	Zinc compounds	7440-66-6	25.7917	0.002971	8,681	3.71E-04	3.74E-04
70010	90-B-401	Ammonia	7664-41-7	1,483.0815	0.170846	8,681	2.13E-02	2.15E-02
70010	90-B-401	Sulfuric acid	7664-93-9	38.2508	0.001102	8,760	5.50E-04	1.39E-04
70010	90-B-401	Hydrogen sulfide	7783-06-4	41.3641	0.004765	8,681	5.95E-04	6.00E-04
70011	U90 B-202 HTR	Lead compounds	1128	0.5131	0.000059	8,681	7.38E-06	7.45E-06
70011	U90 B-202 HTR	Formaldehyde	50-00-0	63.4265	0.007307	8,681	9.12E-04	9.21E-04
70011	U90 B-202 HTR	Benzo(a)pyrene	50-32-8	0.0342	0.000004	8,681	4.92E-07	4.97E-07
70011	U90 B-202 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0009	0.000000	8,681	1.30E-08	1.31E-08
70011	U90 B-202 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0132	0.000002	8,681	1.90E-07	1.92E-07
70011	U90 B-202 HTR	Benzene	71-43-2	8.7666	0.001010	8,681	1.26E-04	1.27E-04
70011	U90 B-202 HTR	Acetaldehyde	75-07-0	153.9203	0.017731	8,681	2.21E-03	2.23E-03
70011	U90 B-202 HTR	Acenaphthene (PAHs)	83-32-9	0.0020	0.000000	8,681	2.91E-08	2.93E-08
70011	U90 B-202 HTR	Phenanthrene (PAHs)	85-01-8	0.0154	0.000002	8,681	2.22E-07	2.24E-07
70011	U90 B-202 HTR	Fluorene (PAHs)	86-73-7	0.0029	0.000000	8,681	4.13E-08	4.17E-08
70011	U90 B-202 HTR	Naphthalene	91-20-3	0.3002	0.000035	8,681	4.32E-06	4.36E-06
70011	U90 B-202 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0073	0.000001	8,681	1.05E-07	1.06E-07
70011	U90 B-202 HTR	Ethyl benzene	100-41-4	2.4845	0.000286	8,681	3.57E-05	3.61E-05
70011	U90 B-202 HTR	Acrolein	107-02-8	10.2106	0.001176	8,681	1.47E-04	1.48E-04
70011	U90 B-202 HTR	Toluene	108-88-3	16.9922	0.001957	8,681	2.44E-04	2.47E-04
70011	U90 B-202 HTR	Phenol	108-95-2	2.4025	0.000277	8,681	3.46E-05	3.49E-05
70011	U90 B-202 HTR	Propylene	115-07-1	90.0932	0.010378	8,681	1.30E-03	1.31E-03
70011	U90 B-202 HTR	Anthracene	120-12-7	0.0015	0.000000	8,681	2.16E-08	2.18E-08
70011	U90 B-202 HTR	Pyrene	129-00-0	0.0099	0.000001	8,681	1.42E-07	1.44E-07
70011	U90 B-202 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0007	0.000000	8,681	9.59E-09	9.67E-09
70011	U90 B-202 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0426	0.000005	8,681	6.13E-07	6.19E-07
70011	U90 B-202 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.02	0.000002	8,681	2.33E-07	2.35E-07
70011	U90 B-202 HTR	Fluoranthene (PAHs)	206-44-0	0.0093	0.000001	8,681	1.34E-07	1.35E-07
70011	U90 B-202 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0102	0.000001	8,681	1.47E-07	1.48E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70011	U90 B-202 HTR	Acenaphthylene (PAHs)	208-96-8	0.0385	0.000004	8,681	5.54E-07	5.59E-07
70011	U90 B-202 HTR	Chrysene (PAHs)	218-01-9	0.0010	0.000000	8,681	1.38E-08	1.39E-08
70011	U90 B-202 HTR	Xylenes (mixed isomers)	1330-20-7	30.1377	0.003472	8,681	4.33E-04	4.37E-04
70011	U90 B-202 HTR	Aluminum	7429-90-5	8.9080	0.001026	8,681	1.28E-04	1.29E-04
70011	U90 B-202 HTR	Manganese compounds	7439-96-5	2.5088	0.000289	8,681	3.61E-05	3.64E-05
70011	U90 B-202 HTR	Mercury compounds	7439-97-6	0.0118	0.000001	8,681	1.70E-07	1.72E-07
70011	U90 B-202 HTR	Nickel compounds	7440-02-0	6.4638	0.000745	8,681	9.30E-05	9.38E-05
70011	U90 B-202 HTR	Silver compounds	7440-22-4	0.0150	0.000002	8,681	2.16E-07	2.18E-07
70011	U90 B-202 HTR	Thallium	7440-28-0	3.48	0.000401	8,681	5.01E-05	5.06E-05
70011	U90 B-202 HTR	Antimony	7440-36-0	0.0051	0.000001	8,681	7.32E-08	7.39E-08
70011	U90 B-202 HTR	Arsenic	7440-38-2	0.0184	0.000002	8,681	2.65E-07	2.67E-07
70011	U90 B-202 HTR	Barium	7440-39-3	3.2521	0.000375	8,681	4.68E-05	4.72E-05
70011	U90 B-202 HTR	Beryllium	7440-41-7	0.0781	0.000009	8,681	1.12E-06	1.13E-06
70011	U90 B-202 HTR	Cadmium	7440-43-9	0.0444	0.000005	8,681	6.39E-07	6.45E-07
70011	U90 B-202 HTR	Chromium compounds	7440-47-3	0.1204	0.000014	8,681	1.73E-06	1.75E-06
70011	U90 B-202 HTR	Cobalt compounds	7440-48-4	0.1402	0.000016	8,681	2.02E-06	2.03E-06
70011	U90 B-202 HTR	Copper compounds	7440-50-8	1.6079	0.000185	8,681	2.31E-05	2.33E-05
70011	U90 B-202 HTR	Vanadium compounds	7440-62-2	0.0292	0.000003	8,681	4.20E-07	4.23E-07
70011	U90 B-202 HTR	Zinc compounds	7440-66-6	2.4643	0.000284	8,681	3.54E-05	3.58E-05
70011	U90 B-202 HTR	Ammonia	7664-41-7	147.0524	0.016940	8,681	2.12E-03	2.13E-03
70011	U90 B-202 HTR	Sulfuric acid	7664-93-9	67.5936	0.001947	8,760	9.72E-04	2.45E-04
70011	U90 B-202 HTR	Phosphorus	7723-14-0	1.2633	0.000146	8,681	1.82E-05	1.83E-05
70011	U90 B-202 HTR	Selenium compounds	7782-49-2	0.0162	0.000002	8,681	2.34E-07	2.36E-07
70011	U90 B-202 HTR	Hydrogen sulfide	7783-06-4	0.7235	0.000083	8,681	1.04E-05	1.05E-05
70012	U90 B-203 HTR	Lead compounds	1128	0.0988	0.000011	8,681	1.42E-06	1.43E-06
70012	U90 B-203 HTR	Formaldehyde	50-00-0	12.2132	0.001407	8,681	1.76E-04	1.77E-04
70012	U90 B-203 HTR	Benzo(a)pyrene	50-32-8	0.0066	0.000001	8,681	9.48E-08	9.57E-08
70012	U90 B-203 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	8,681	2.50E-09	2.52E-09
70012	U90 B-203 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0025	0.000000	8,681	3.66E-08	3.69E-08
70012	U90 B-203 HTR	Benzene	71-43-2	1.6881	0.000194	8,681	2.43E-05	2.45E-05
70012	U90 B-203 HTR	Acetaldehyde	75-07-0	29.6385	0.003414	8,681	4.26E-04	4.30E-04
70012	U90 B-203 HTR	Acenaphthene (PAHs)	83-32-9	0.0004	0.000000	8,681	5.59E-09	5.65E-09
70012	U90 B-203 HTR	Phenanthrene (PAHs)	85-01-8	0.0030	0.000000	8,681	4.27E-08	4.31E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70012	U90 B-203 HTR	Fluorene (PAHs)	86-73-7	0.0006	0.000000	8,681	7.96E-09	8.03E-09
70012	U90 B-203 HTR	Naphthalene	91-20-3	0.0578	0.000007	8,681	8.31E-07	8.39E-07
70012	U90 B-203 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0014	0.000000	8,681	2.03E-08	2.04E-08
70012	U90 B-203 HTR	Ethyl benzene	100-41-4	0.4784	0.000055	8,681	6.88E-06	6.94E-06
70012	U90 B-203 HTR	Acrolein	107-02-8	1.9661	0.000226	8,681	2.83E-05	2.85E-05
70012	U90 B-203 HTR	Toluene	108-88-3	3.2720	0.000377	8,681	4.71E-05	4.75E-05
70012	U90 B-203 HTR	Phenol	108-95-2	0.4626	0.000053	8,681	6.65E-06	6.71E-06
70012	U90 B-203 HTR	Propylene	115-07-1	17.3481	0.001998	8,681	2.50E-04	2.52E-04
70012	U90 B-203 HTR	Anthracene	120-12-7	0.0003	0.000000	8,681	4.16E-09	4.20E-09
70012	U90 B-203 HTR	Pyrene	129-00-0	0.0019	0.000000	8,681	2.74E-08	2.77E-08
70012	U90 B-203 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	8,681	1.85E-09	1.86E-09
70012	U90 B-203 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0082	0.000001	8,681	1.18E-07	1.19E-07
70012	U90 B-203 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0031	0.000000	8,681	4.49E-08	4.53E-08
70012	U90 B-203 HTR	Fluoranthene (PAHs)	206-44-0	0.0018	0.000000	8,681	2.57E-08	2.60E-08
70012	U90 B-203 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0020	0.000000	8,681	2.83E-08	2.85E-08
70012	U90 B-203 HTR	Acenaphthylene (PAHs)	208-96-8	0.0074	0.000001	8,681	1.07E-07	1.08E-07
70012	U90 B-203 HTR	Chrysene (PAHs)	218-01-9	0.0002	0.000000	8,681	2.66E-09	2.69E-09
70012	U90 B-203 HTR	Xylenes (mixed isomers)	1330-20-7	5.8032	0.000669	8,681	8.35E-05	8.42E-05
70012	U90 B-203 HTR	Aluminum	7429-90-5	1.7153	0.000198	8,681	2.47E-05	2.49E-05
70012	U90 B-203 HTR	Manganese compounds	7439-96-5	0.4831	0.000056	8,681	6.95E-06	7.01E-06
70012	U90 B-203 HTR	Mercury compounds	7439-97-6	0.0023	0.000000	8,681	3.28E-08	3.31E-08
70012	U90 B-203 HTR	Nickel compounds	7440-02-0	1.2447	0.000143	8,681	1.79E-05	1.81E-05
70012	U90 B-203 HTR	Silver compounds	7440-22-4	0.0029	0.000000	8,681	4.15E-08	4.19E-08
70012	U90 B-203 HTR	Thallium	7440-28-0	0.6708	0.000077	8,681	9.65E-06	9.74E-06
70012	U90 B-203 HTR	Antimony	7440-36-0	0.0010	0.000000	8,681	1.41E-08	1.42E-08
70012	U90 B-203 HTR	Arsenic	7440-38-2	0.0035	0.000000	8,681	5.10E-08	5.15E-08
70012	U90 B-203 HTR	Barium	7440-39-3	0.6262	0.000072	8,681	9.01E-06	9.09E-06
70012	U90 B-203 HTR	Beryllium	7440-41-7	0.0150	0.000002	8,681	2.16E-07	2.18E-07
70012	U90 B-203 HTR	Cadmium	7440-43-9	0.0086	0.000001	8,681	1.23E-07	1.24E-07
70012	U90 B-203 HTR	Chromium compounds	7440-47-3	0.0232	0.000003	8,681	3.33E-07	3.36E-07
70012	U90 B-203 HTR	Cobalt compounds	7440-48-4	0.0270	0.000003	8,681	3.88E-07	3.92E-07
70012	U90 B-203 HTR	Copper compounds	7440-50-8	0.3096	0.000036	8,681	4.45E-06	4.49E-06
70012	U90 B-203 HTR	Vanadium compounds	7440-62-2	0.0056	0.000001	8,681	8.08E-08	8.15E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70012	U90 B-203 HTR	Zinc compounds	7440-66-6	0.4745	0.000055	8,681	6.83E-06	6.89E-06
70012	U90 B-203 HTR	Ammonia	7664-41-7	28.3160	0.003262	8,681	4.07E-04	4.11E-04
70012	U90 B-203 HTR	Sulfuric acid	7664-93-9	1.3017	0.000037	8,760	1.87E-05	4.72E-06
70012	U90 B-203 HTR	Phosphorus	7723-14-0	0.2433	0.000028	8,681	3.50E-06	3.53E-06
70012	U90 B-203 HTR	Selenium compounds	7782-49-2	0.0031	0.000000	8,681	4.50E-08	4.54E-08
70012	U90 B-203 HTR	Hydrogen sulfide	7783-06-4	0.1393	0.000016	8,681	2.00E-06	2.02E-06
70013	U100 H-1 HTR	Lead compounds	1128	0.1656	0.000024	6,972	2.38E-06	2.99E-06
70013	U100 H-1 HTR	Formaldehyde	50-00-0	20.4669	0.002936	6,972	2.94E-04	3.70E-04
70013	U100 H-1 HTR	Benzo(a)pyrene	50-32-8	0.0110	0.000002	6,972	1.59E-07	2.00E-07
70013	U100 H-1 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0003	0.000000	6,972	4.18E-09	5.25E-09
70013	U100 H-1 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0043	0.000001	6,972	6.13E-08	7.71E-08
70013	U100 H-1 HTR	Benzene	71-43-2	2.8289	0.000406	6,972	4.07E-05	5.11E-05
70013	U100 H-1 HTR	Acetaldehyde	75-07-0	49.6680	0.007124	6,972	7.14E-04	8.98E-04
70013	U100 H-1 HTR	Acenaphthene (PAHs)	83-32-9	0.0007	0.000000	6,972	9.38E-09	1.18E-08
70013	U100 H-1 HTR	Phenanthrene (PAHs)	85-01-8	0.0050	0.000001	6,972	7.16E-08	9.00E-08
70013	U100 H-1 HTR	Fluorene (PAHs)	86-73-7	0.0009	0.000000	6,972	1.33E-08	1.68E-08
70013	U100 H-1 HTR	Naphthalene	91-20-3	0.0969	0.000014	6,972	1.39E-06	1.75E-06
70013	U100 H-1 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0024	0.000000	6,972	3.39E-08	4.26E-08
70013	U100 H-1 HTR	Ethyl benzene	100-41-4	0.8017	0.000115	6,972	1.15E-05	1.45E-05
70013	U100 H-1 HTR	Acrolein	107-02-8	3.2948	0.000473	6,972	4.74E-05	5.95E-05
70013	U100 H-1 HTR	Toluene	108-88-3	5.4832	0.000786	6,972	7.89E-05	9.91E-05
70013	U100 H-1 HTR	Phenol	108-95-2	0.78	0.000111	6,972	1.12E-05	1.40E-05
70013	U100 H-1 HTR	Propylene	115-07-1	29.0719	0.004170	6,972	4.18E-04	5.25E-04
70013	U100 H-1 HTR	Anthracene	120-12-7	0.0005	0.000000	6,972	6.98E-09	8.76E-09
70013	U100 H-1 HTR	Pyrene	129-00-0	0.0032	0.000000	6,972	4.59E-08	5.77E-08
70013	U100 H-1 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	6,972	3.09E-09	3.89E-09
70013	U100 H-1 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0138	0.000002	6,972	1.98E-07	2.49E-07
70013	U100 H-1 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0052	0.000001	6,972	7.53E-08	9.46E-08
70013	U100 H-1 HTR	Fluoranthene (PAHs)	206-44-0	0.0030	0.000000	6,972	4.31E-08	5.42E-08
70013	U100 H-1 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0033	0.000000	6,972	4.74E-08	5.95E-08
70013	U100 H-1 HTR	Acenaphthylene (PAHs)	208-96-8	0.0124	0.000002	6,972	1.79E-07	2.25E-07
70013	U100 H-1 HTR	Chrysene (PAHs)	218-01-9	0.0003	0.000000	6,972	4.46E-09	5.60E-09
70013	U100 H-1 HTR	Xylenes (mixed isomers)	1330-20-7	9.7250	0.001395	6,972	1.40E-04	1.76E-04

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70013	U100 H-1 HTR	Aluminum	7429-90-5	2.8745	0.000412	6,972	4.13E-05	5.19E-05
70013	U100 H-1 HTR	Manganese compounds	7439-96-5	0.8095	0.000116	6,972	1.16E-05	1.46E-05
70013	U100 H-1 HTR	Mercury compounds	7439-97-6	0.0038	0.000001	6,972	5.49E-08	6.90E-08
70013	U100 H-1 HTR	Nickel compounds	7440-02-0	2.0858	0.000299	6,972	3.00E-05	3.77E-05
70013	U100 H-1 HTR	Silver compounds	7440-22-4	0.0048	0.000001	6,972	6.96E-08	8.74E-08
70013	U100 H-1 HTR	Thallium	7440-28-0	1.1241	0.000161	6,972	1.62E-05	2.03E-05
70013	U100 H-1 HTR	Antimony	7440-36-0	0.0016	0.000000	6,972	2.36E-08	2.97E-08
70013	U100 H-1 HTR	Arsenic	7440-38-2	0.0059	0.000001	6,972	8.55E-08	1.07E-07
70013	U100 H-1 HTR	Barium	7440-39-3	1.0494	0.000151	6,972	1.51E-05	1.90E-05
70013	U100 H-1 HTR	Beryllium	7440-41-7	0.0252	0.000004	6,972	3.62E-07	4.55E-07
70013	U100 H-1 HTR	Cadmium	7440-43-9	0.0143	0.000002	6,972	2.06E-07	2.59E-07
70013	U100 H-1 HTR	Chromium compounds	7440-47-3	0.0388	0.000006	6,972	5.59E-07	7.02E-07
70013	U100 H-1 HTR	Cobalt compounds	7440-48-4	0.0452	0.000006	6,972	6.51E-07	8.17E-07
70013	U100 H-1 HTR	Copper compounds	7440-50-8	0.5188	0.000074	6,972	7.46E-06	9.38E-06
70013	U100 H-1 HTR	Vanadium compounds	7440-62-2	0.0094	0.000001	6,972	1.35E-07	1.70E-07
70013	U100 H-1 HTR	Zinc compounds	7440-66-6	0.7952	0.000114	6,972	1.14E-05	1.44E-05
70013	U100 H-1 HTR	Ammonia	7664-41-7	47.4519	0.006806	6,972	6.83E-04	8.58E-04
70013	U100 H-1 HTR	Sulfuric acid	7664-93-9	6.3821	0.000229	8,760	9.18E-05	2.88E-05
70013	U100 H-1 HTR	Phosphorus	7723-14-0	0.4076	0.000058	6,972	5.86E-06	7.37E-06
70013	U100 H-1 HTR	Selenium compounds	7782-49-2	0.0052	0.000001	6,972	7.54E-08	9.47E-08
70013	U100 H-1 HTR	Hydrogen sulfide	7783-06-4	0.2335	0.000033	6,972	3.36E-06	4.22E-06
70014	U100 H-2 HTR	Lead compounds	1128	0.1649	0.000024	6,972	2.37E-06	2.98E-06
70014	U100 H-2 HTR	Formaldehyde	50-00-0	20.3819	0.002923	6,972	2.93E-04	3.68E-04
70014	U100 H-2 HTR	Benzo(a)pyrene	50-32-8	0.0110	0.000002	6,972	1.58E-07	1.99E-07
70014	U100 H-2 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0003	0.000000	6,972	4.16E-09	5.23E-09
70014	U100 H-2 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0042	0.000001	6,972	6.11E-08	7.67E-08
70014	U100 H-2 HTR	Benzene	71-43-2	2.8171	0.000404	6,972	4.05E-05	5.09E-05
70014	U100 H-2 HTR	Acetaldehyde	75-07-0	49.4618	0.007094	6,972	7.11E-04	8.94E-04
70014	U100 H-2 HTR	Acenaphthene (PAHs)	83-32-9	0.0006	0.000000	6,972	9.34E-09	1.17E-08
70014	U100 H-2 HTR	Phenanthrene (PAHs)	85-01-8	0.0050	0.000001	6,972	7.13E-08	8.96E-08
70014	U100 H-2 HTR	Fluorene (PAHs)	86-73-7	0.0009	0.000000	6,972	1.33E-08	1.67E-08
70014	U100 H-2 HTR	Naphthalene	91-20-3	0.0965	0.000014	6,972	1.39E-06	1.74E-06
70014	U100 H-2 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0023	0.000000	6,972	3.38E-08	4.25E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70014	U100 H-2 HTR	Ethyl benzene	100-41-4	0.7984	0.000115	6,972	1.15E-05	1.44E-05
70014	U100 H-2 HTR	Acrolein	107-02-8	3.2811	0.000471	6,972	4.72E-05	5.93E-05
70014	U100 H-2 HTR	Toluene	108-88-3	5.4604	0.000783	6,972	7.85E-05	9.87E-05
70014	U100 H-2 HTR	Phenol	108-95-2	0.7720	0.000111	6,972	1.11E-05	1.40E-05
70014	U100 H-2 HTR	Propylene	115-07-1	28.9511	0.004152	6,972	4.16E-04	5.23E-04
70014	U100 H-2 HTR	Anthracene	120-12-7	0.0005	0.000000	6,972	6.95E-09	8.73E-09
70014	U100 H-2 HTR	Pyrene	129-00-0	0.0032	0.000000	6,972	4.57E-08	5.75E-08
70014	U100 H-2 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	6,972	3.08E-09	3.87E-09
70014	U100 H-2 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0137	0.000002	6,972	1.97E-07	2.48E-07
70014	U100 H-2 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0052	0.000001	6,972	7.50E-08	9.42E-08
70014	U100 H-2 HTR	Fluoranthene (PAHs)	206-44-0	0.0030	0.000000	6,972	4.29E-08	5.40E-08
70014	U100 H-2 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0033	0.000000	6,972	4.72E-08	5.93E-08
70014	U100 H-2 HTR	Acenaphthylene (PAHs)	208-96-8	0.0124	0.000002	6,972	1.78E-07	2.24E-07
70014	U100 H-2 HTR	Chrysene (PAHs)	218-01-9	0.0003	0.000000	6,972	4.44E-09	5.58E-09
70014	U100 H-2 HTR	Xylenes (mixed isomers)	1330-20-7	9.6846	0.001389	6,972	1.39E-04	1.75E-04
70014	U100 H-2 HTR	Aluminum	7429-90-5	2.8626	0.000411	6,972	4.12E-05	5.17E-05
70014	U100 H-2 HTR	Manganese compounds	7439-96-5	0.8062	0.000116	6,972	1.16E-05	1.46E-05
70014	U100 H-2 HTR	Mercury compounds	7439-97-6	0.0038	0.000001	6,972	5.47E-08	6.87E-08
70014	U100 H-2 HTR	Nickel compounds	7440-02-0	2.0771	0.000298	6,972	2.99E-05	3.75E-05
70014	U100 H-2 HTR	Silver compounds	7440-22-4	0.0048	0.000001	6,972	6.93E-08	8.70E-08
70014	U100 H-2 HTR	Thallium	7440-28-0	1.1194	0.000161	6,972	1.61E-05	2.02E-05
70014	U100 H-2 HTR	Antimony	7440-36-0	0.0016	0.000000	6,972	2.35E-08	2.96E-08
70014	U100 H-2 HTR	Arsenic	7440-38-2	0.0059	0.000001	6,972	8.51E-08	1.07E-07
70014	U100 H-2 HTR	Barium	7440-39-3	1.0451	0.000150	6,972	1.50E-05	1.89E-05
70014	U100 H-2 HTR	Beryllium	7440-41-7	0.0251	0.000004	6,972	3.61E-07	4.53E-07
70014	U100 H-2 HTR	Cadmium	7440-43-9	0.0143	0.000002	6,972	2.05E-07	2.58E-07
70014	U100 H-2 HTR	Chromium compounds	7440-47-3	0.0387	0.000006	6,972	5.56E-07	6.99E-07
70014	U100 H-2 HTR	Cobalt compounds	7440-48-4	0.0450	0.000006	6,972	6.48E-07	8.14E-07
70014	U100 H-2 HTR	Copper compounds	7440-50-8	0.5167	0.000074	6,972	7.43E-06	9.34E-06
70014	U100 H-2 HTR	Vanadium compounds	7440-62-2	0.0094	0.000001	6,972	1.35E-07	1.69E-07
70014	U100 H-2 HTR	Zinc compounds	7440-66-6	0.7919	0.000114	6,972	1.14E-05	1.43E-05
70014	U100 H-2 HTR	Ammonia	7664-41-7	47.2548	0.006778	6,972	6.80E-04	8.54E-04
70014	U100 H-2 HTR	Sulfuric acid	7664-93-9	10.3100	0.000370	8,760	1.48E-04	4.66E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70014	U100 H-2 HTR	Phosphorus	7723-14-0	0.4059	0.000058	6,972	5.84E-06	7.34E-06
70014	U100 H-2 HTR	Selenium compounds	7782-49-2	0.0052	0.000001	6,972	7.51E-08	9.43E-08
70014	U100 H-2 HTR	Hydrogen sulfide	7783-06-4	0.2325	0.000033	6,972	3.34E-06	4.20E-06
70015	U100 H-100 HTR NORTH	Lead compounds	1128	0.2047	0.000029	6,972	2.94E-06	3.70E-06
70015	U100 H-100 HTR NORTH	Formaldehyde	50-00-0	25.3076	0.003630	6,972	3.64E-04	4.57E-04
70015	U100 H-100 HTR NORTH	Benzo(a)pyrene	50-32-8	0.0137	0.000002	6,972	1.96E-07	2.47E-07
70015	U100 H-100 HTR NORTH	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0004	0.000000	6,972	5.17E-09	6.50E-09
70015	U100 H-100 HTR NORTH	Benz(a)anthracene (PAHs)	56-55-3	0.0053	0.000001	6,972	7.58E-08	9.53E-08
70015	U100 H-100 HTR NORTH	Benzene	71-43-2	3.4979	0.000502	6,972	5.03E-05	6.32E-05
70015	U100 H-100 HTR NORTH	Acetaldehyde	75-07-0	61.4152	0.008809	6,972	8.83E-04	1.11E-03
70015	U100 H-100 HTR NORTH	Acenaphthene (PAHs)	83-32-9	0.0008	0.000000	6,972	1.16E-08	1.46E-08
70015	U100 H-100 HTR NORTH	Phenanthrene (PAHs)	85-01-8	0.0062	0.000001	6,972	8.86E-08	1.11E-07
70015	U100 H-100 HTR NORTH	Fluorene (PAHs)	86-73-7	0.0011	0.000000	6,972	1.65E-08	2.07E-08
70015	U100 H-100 HTR NORTH	Naphthalene	91-20-3	0.1198	0.000017	6,972	1.72E-06	2.16E-06
70015	U100 H-100 HTR NORTH	2-Methyl naphthalene (PAHs)	91-57-6	0.0029	0.000000	6,972	4.20E-08	5.27E-08
70015	U100 H-100 HTR NORTH	Ethyl benzene	100-41-4	0.9913	0.000142	6,972	1.43E-05	1.79E-05
70015	U100 H-100 HTR NORTH	Acrolein	107-02-8	4.0741	0.000584	6,972	5.86E-05	7.36E-05
70015	U100 H-100 HTR NORTH	Toluene	108-88-3	6.7800	0.000972	6,972	9.75E-05	1.23E-04
70015	U100 H-100 HTR NORTH	Phenol	108-95-2	0.9586	0.000137	6,972	1.38E-05	1.73E-05
70015	U100 H-100 HTR NORTH	Propylene	115-07-1	35.9478	0.005156	6,972	5.17E-04	6.50E-04
70015	U100 H-100 HTR NORTH	Anthracene	120-12-7	0.0006	0.000000	6,972	8.62E-09	1.08E-08
70015	U100 H-100 HTR NORTH	Pyrene	129-00-0	0.0039	0.000001	6,972	5.68E-08	7.14E-08
70015	U100 H-100 HTR NORTH	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0003	0.000000	6,972	3.82E-09	4.81E-09
70015	U100 H-100 HTR NORTH	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0170	0.000002	6,972	2.45E-07	3.07E-07
70015	U100 H-100 HTR NORTH	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0065	0.000001	6,972	9.31E-08	1.17E-07
70015	U100 H-100 HTR NORTH	Fluoranthene (PAHs)	206-44-0	0.0037	0.000001	6,972	5.33E-08	6.70E-08
70015	U100 H-100 HTR NORTH	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0041	0.000001	6,972	5.86E-08	7.36E-08
70015	U100 H-100 HTR NORTH	Acenaphthylene (PAHs)	208-96-8	0.0154	0.000002	6,972	2.21E-07	2.78E-07
70015	U100 H-100 HTR NORTH	Chrysene (PAHs)	218-01-9	0.0004	0.000000	6,972	5.52E-09	6.93E-09
70015	U100 H-100 HTR NORTH	Xylenes (mixed isomers)	1330-20-7	12.0251	0.001725	6,972	1.73E-04	2.17E-04
70015	U100 H-100 HTR NORTH	Aluminum	7429-90-5	3.5543	0.000510	6,972	5.11E-05	6.42E-05
70015	U100 H-100 HTR NORTH	Manganese compounds	7439-96-5	1.0010	0.000144	6,972	1.44E-05	1.81E-05
70015	U100 H-100 HTR NORTH	Mercury compounds	7439-97-6	0.0047	0.000001	6,972	6.79E-08	8.54E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70015	U100 H-100 HTR NORTH	Nickel compounds	7440-02-0	2.5791	0.000370	6,972	3.71E-05	4.66E-05
70015	U100 H-100 HTR NORTH	Silver compounds	7440-22-4	0.0060	0.000001	6,972	8.60E-08	1.08E-07
70015	U100 H-100 HTR NORTH	Thallium	7440-28-0	1.3900	0.000199	6,972	2.00E-05	2.51E-05
70015	U100 H-100 HTR NORTH	Antimony	7440-36-0	0.0020	0.000000	6,972	2.92E-08	3.67E-08
70015	U100 H-100 HTR NORTH	Arsenic	7440-38-2	0.0074	0.000001	6,972	1.06E-07	1.33E-07
70015	U100 H-100 HTR NORTH	Barium	7440-39-3	1.2976	0.000186	6,972	1.87E-05	2.35E-05
70015	U100 H-100 HTR NORTH	Beryllium	7440-41-7	0.0312	0.000004	6,972	4.48E-07	5.63E-07
70015	U100 H-100 HTR NORTH	Cadmium	7440-43-9	0.0177	0.000003	6,972	2.55E-07	3.20E-07
70015	U100 H-100 HTR NORTH	Chromium compounds	7440-47-3	0.0480	0.000007	6,972	6.91E-07	8.68E-07
70015	U100 H-100 HTR NORTH	Cobalt compounds	7440-48-4	0.0559	0.000008	6,972	8.05E-07	1.01E-06
70015	U100 H-100 HTR NORTH	Copper compounds	7440-50-8	0.6416	0.000092	6,972	9.23E-06	1.16E-05
70015	U100 H-100 HTR NORTH	Vanadium compounds	7440-62-2	0.0116	0.000002	6,972	1.67E-07	2.10E-07
70015	U100 H-100 HTR NORTH	Zinc compounds	7440-66-6	0.9833	0.000141	6,972	1.41E-05	1.78E-05
70015	U100 H-100 HTR NORTH	Ammonia	7664-41-7	58.6749	0.008416	6,972	8.44E-04	1.06E-03
70015	U100 H-100 HTR NORTH	Sulfuric acid	7664-93-9	74.7224	0.002679	8,760	1.07E-03	3.38E-04
70015	U100 H-100 HTR NORTH	Phosphorus	7723-14-0	0.5041	0.000072	6,972	7.25E-06	9.11E-06
70015	U100 H-100 HTR NORTH	Selenium compounds	7782-49-2	0.0065	0.000001	6,972	9.32E-08	1.17E-07
70015	U100 H-100 HTR NORTH	Hydrogen sulfide	7783-06-4	0.2887	0.000041	6,972	4.15E-06	5.22E-06
70016	U100 H-101 HTR NORTH	Lead compounds	1128	0.1349	0.000019	6,972	1.94E-06	2.44E-06
70016	U100 H-101 HTR NORTH	Formaldehyde	50-00-0	16.6814	0.002393	6,972	2.40E-04	3.01E-04
70016	U100 H-101 HTR NORTH	Benzo(a)pyrene	50-32-8	0.0090	0.000001	6,972	1.30E-07	1.63E-07
70016	U100 H-101 HTR NORTH	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.00	0.000000	6,972	3.41E-09	4.28E-09
70016	U100 H-101 HTR NORTH	Benz(a)anthracene (PAHs)	56-55-3	0.0035	0.000000	6,972	5.00E-08	6.28E-08
70016	U100 H-101 HTR NORTH	Benzene	71-43-2	2.3056	0.000331	6,972	3.32E-05	4.17E-05
70016	U100 H-101 HTR NORTH	Acetaldehyde	75-07-0	40.4817	0.005806	6,972	5.82E-04	7.32E-04
70016	U100 H-101 HTR NORTH	Acenaphthene (PAHs)	83-32-9	0.0005	0.000000	6,972	7.64E-09	9.60E-09
70016	U100 H-101 HTR NORTH	Phenanthrene (PAHs)	85-01-8	0.0041	0.000001	6,972	5.84E-08	7.34E-08
70016	U100 H-101 HTR NORTH	Fluorene (PAHs)	86-73-7	0.0008	0.000000	6,972	1.09E-08	1.37E-08
70016	U100 H-101 HTR NORTH	Naphthalene	91-20-3	0.0789	0.000011	6,972	1.14E-06	1.43E-06
70016	U100 H-101 HTR NORTH	2-Methyl naphthalene (PAHs)	91-57-6	0.0019	0.000000	6,972	2.77E-08	3.48E-08
70016	U100 H-101 HTR NORTH	Ethyl benzene	100-41-4	0.6534	0.000094	6,972	9.40E-06	1.18E-05
70016	U100 H-101 HTR NORTH	Acrolein	107-02-8	2.6854	0.000385	6,972	3.86E-05	4.85E-05
70016	U100 H-101 HTR NORTH	Toluene	108-88-3	4.4690	0.000641	6,972	6.43E-05	8.08E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70016	U100 H-101 HTR NORTH	Phenol	108-95-2	0.6319	0.000091	6,972	9.09E-06	1.14E-05
70016	U100 H-101 HTR NORTH	Propylene	115-07-1	23.6949	0.003399	6,972	3.41E-04	4.28E-04
70016	U100 H-101 HTR NORTH	Anthracene	120-12-7	0.0004	0.000000	6,972	5.69E-09	7.14E-09
70016	U100 H-101 HTR NORTH	Pyrene	129-00-0	0.0026	0.000000	6,972	3.74E-08	4.70E-08
70016	U100 H-101 HTR NORTH	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	6,972	2.52E-09	3.17E-09
70016	U100 H-101 HTR NORTH	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0112	0.000002	6,972	1.61E-07	2.03E-07
70016	U100 H-101 HTR NORTH	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0043	0.000001	6,972	6.13E-08	7.71E-08
70016	U100 H-101 HTR NORTH	Fluoranthene (PAHs)	206-44-0	0.0024	0.000000	6,972	3.51E-08	4.42E-08
70016	U100 H-101 HTR NORTH	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0027	0.000000	6,972	3.86E-08	4.85E-08
70016	U100 H-101 HTR NORTH	Acenaphthylene (PAHs)	208-96-8	0.0101	0.000001	6,972	1.46E-07	1.83E-07
70016	U100 H-101 HTR NORTH	Chrysene (PAHs)	218-01-9	0.0003	0.000000	6,972	3.64E-09	4.57E-09
70016	U100 H-101 HTR NORTH	Xylenes (mixed isomers)	1330-20-7	7.9263	0.001137	6,972	1.14E-04	1.43E-04
70016	U100 H-101 HTR NORTH	Aluminum	7429-90-5	2.3428	0.000336	6,972	3.37E-05	4.23E-05
70016	U100 H-101 HTR NORTH	Manganese compounds	7439-96-5	0.6598	0.000095	6,972	9.49E-06	1.19E-05
70016	U100 H-101 HTR NORTH	Mercury compounds	7439-97-6	0.0031	0.000000	6,972	4.48E-08	5.63E-08
70016	U100 H-101 HTR NORTH	Nickel compounds	7440-02-0	1.7000	0.000244	6,972	2.45E-05	3.07E-05
70016	U100 H-101 HTR NORTH	Silver compounds	7440-22-4	0.0039	0.000001	6,972	5.67E-08	7.12E-08
70016	U100 H-101 HTR NORTH	Thallium	7440-28-0	0.9162	0.000131	6,972	1.32E-05	1.66E-05
70016	U100 H-101 HTR NORTH	Antimony	7440-36-0	0.0013	0.000000	6,972	1.93E-08	2.42E-08
70016	U100 H-101 HTR NORTH	Arsenic	7440-38-2	0.0048	0.000001	6,972	6.97E-08	8.76E-08
70016	U100 H-101 HTR NORTH	Barium	7440-39-3	0.8553	0.000123	6,972	1.23E-05	1.55E-05
70016	U100 H-101 HTR NORTH	Beryllium	7440-41-7	0.0205	0.000003	6,972	2.95E-07	3.71E-07
70016	U100 H-101 HTR NORTH	Cadmium	7440-43-9	0.0117	0.000002	6,972	1.68E-07	2.11E-07
70016	U100 H-101 HTR NORTH	Chromium compounds	7440-47-3	0.0317	0.000005	6,972	4.55E-07	5.72E-07
70016	U100 H-101 HTR NORTH	Cobalt compounds	7440-48-4	0.0369	0.000005	6,972	5.30E-07	6.66E-07
70016	U100 H-101 HTR NORTH	Copper compounds	7440-50-8	0.4229	0.000061	6,972	6.08E-06	7.64E-06
70016	U100 H-101 HTR NORTH	Vanadium compounds	7440-62-2	0.0077	0.000001	6,972	1.10E-07	1.39E-07
70016	U100 H-101 HTR NORTH	Zinc compounds	7440-66-6	0.6481	0.000093	6,972	9.32E-06	1.17E-05
70016	U100 H-101 HTR NORTH	Ammonia	7664-41-7	38.6754	0.005547	6,972	5.56E-04	6.99E-04
70016	U100 H-101 HTR NORTH	Sulfuric acid	7664-93-9	48.6662	0.001745	8,760	7.00E-04	2.20E-04
70016	U100 H-101 HTR NORTH	Phosphorus	7723-14-0	0.3322	0.000048	6,972	4.78E-06	6.00E-06
70016	U100 H-101 HTR NORTH	Selenium compounds	7782-49-2	0.0043	0.000001	6,972	6.14E-08	7.72E-08
70016	U100 H-101 HTR NORTH	Hydrogen sulfide	7783-06-4	0.1903	0.000027	6,972	2.74E-06	3.44E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70017	U100 H-102 HTR NORTH	Lead compounds	1128	0.1056	0.000015	6,972	1.52E-06	1.91E-06
70017	U100 H-102 HTR NORTH	Formaldehyde	50-00-0	13.06	0.001873	6,972	1.88E-04	2.36E-04
70017	U100 H-102 HTR NORTH	Benzo(a)pyrene	50-32-8	0.0070	0.000001	6,972	1.01E-07	1.27E-07
70017	U100 H-102 HTR NORTH	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	6,972	2.67E-09	3.35E-09
70017	U100 H-102 HTR NORTH	Benz(a)anthracene (PAHs)	56-55-3	0.0027	0.000000	6,972	3.91E-08	4.92E-08
70017	U100 H-102 HTR NORTH	Benzene	71-43-2	1.8051	0.000259	6,972	2.60E-05	3.26E-05
70017	U100 H-102 HTR NORTH	Acetaldehyde	75-07-0	31.6925	0.004546	6,972	4.56E-04	5.73E-04
70017	U100 H-102 HTR NORTH	Acenaphthene (PAHs)	83-32-9	0.0004	0.000000	6,972	5.98E-09	7.52E-09
70017	U100 H-102 HTR NORTH	Phenanthrene (PAHs)	85-01-8	0.0032	0.000000	6,972	4.57E-08	5.74E-08
70017	U100 H-102 HTR NORTH	Fluorene (PAHs)	86-73-7	0.0006	0.000000	6,972	8.51E-09	1.07E-08
70017	U100 H-102 HTR NORTH	Naphthalene	91-20-3	0.0618	0.000009	6,972	8.89E-07	1.12E-06
70017	U100 H-102 HTR NORTH	2-Methyl naphthalene (PAHs)	91-57-6	0.0015	0.000000	6,972	2.17E-08	2.72E-08
70017	U100 H-102 HTR NORTH	Ethyl benzene	100-41-4	0.5116	0.000073	6,972	7.36E-06	9.25E-06
70017	U100 H-102 HTR NORTH	Acrolein	107-02-8	2.1024	0.000302	6,972	3.02E-05	3.80E-05
70017	U100 H-102 HTR NORTH	Toluene	108-88-3	3.4987	0.000502	6,972	5.03E-05	6.32E-05
70017	U100 H-102 HTR NORTH	Phenol	108-95-2	0.4947	0.000071	6,972	7.12E-06	8.94E-06
70017	U100 H-102 HTR NORTH	Propylene	115-07-1	18.5504	0.002661	6,972	2.67E-04	3.35E-04
70017	U100 H-102 HTR NORTH	Anthracene	120-12-7	0.0003	0.000000	6,972	4.45E-09	5.59E-09
70017	U100 H-102 HTR NORTH	Pyrene	129-00-0	0.0020	0.000000	6,972	2.93E-08	3.68E-08
70017	U100 H-102 HTR NORTH	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	6,972	1.97E-09	2.48E-09
70017	U100 H-102 HTR NORTH	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0088	0.000001	6,972	1.26E-07	1.59E-07
70017	U100 H-102 HTR NORTH	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0033	0.000000	6,972	4.80E-08	6.03E-08
70017	U100 H-102 HTR NORTH	Fluoranthene (PAHs)	206-44-0	0.0019	0.000000	6,972	2.75E-08	3.46E-08
70017	U100 H-102 HTR NORTH	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0021	0.000000	6,972	3.02E-08	3.80E-08
70017	U100 H-102 HTR NORTH	Acenaphthylene (PAHs)	208-96-8	0.0079	0.000001	6,972	1.14E-07	1.43E-07
70017	U100 H-102 HTR NORTH	Chrysene (PAHs)	218-01-9	0.0002	0.000000	6,972	2.85E-09	3.58E-09
70017	U100 H-102 HTR NORTH	Xylenes (mixed isomers)	1330-20-7	6.2054	0.000890	6,972	8.93E-05	1.12E-04
70017	U100 H-102 HTR NORTH	Aluminum	7429-90-5	1.8342	0.000263	6,972	2.64E-05	3.31E-05
70017	U100 H-102 HTR NORTH	Manganese compounds	7439-96-5	0.5166	0.000074	6,972	7.43E-06	9.34E-06
70017	U100 H-102 HTR NORTH	Mercury compounds	7439-97-6	0.0024	0.000000	6,972	3.51E-08	4.40E-08
70017	U100 H-102 HTR NORTH	Nickel compounds	7440-02-0	1.3309	0.000191	6,972	1.91E-05	2.41E-05
70017	U100 H-102 HTR NORTH	Silver compounds	7440-22-4	0.0031	0.000000	6,972	4.44E-08	5.58E-08
70017	U100 H-102 HTR NORTH	Thallium	7440-28-0	0.7173	0.000103	6,972	1.03E-05	1.30E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70017	U100 H-102 HTR NORTH	Antimony	7440-36-0	0.0010	0.000000	6,972	1.51E-08	1.89E-08
70017	U100 H-102 HTR NORTH	Arsenic	7440-38-2	0.0038	0.000001	6,972	5.46E-08	6.85E-08
70017	U100 H-102 HTR NORTH	Barium	7440-39-3	0.6696	0.000096	6,972	9.63E-06	1.21E-05
70017	U100 H-102 HTR NORTH	Beryllium	7440-41-7	0.0161	0.000002	6,972	2.31E-07	2.91E-07
70017	U100 H-102 HTR NORTH	Cadmium	7440-43-9	0.0092	0.000001	6,972	1.32E-07	1.65E-07
70017	U100 H-102 HTR NORTH	Chromium compounds	7440-47-3	0.0248	0.000004	6,972	3.57E-07	4.48E-07
70017	U100 H-102 HTR NORTH	Cobalt compounds	7440-48-4	0.0289	0.000004	6,972	4.15E-07	5.22E-07
70017	U100 H-102 HTR NORTH	Copper compounds	7440-50-8	0.3311	0.000047	6,972	4.76E-06	5.98E-06
70017	U100 H-102 HTR NORTH	Vanadium compounds	7440-62-2	0.0060	0.000001	6,972	8.64E-08	1.09E-07
70017	U100 H-102 HTR NORTH	Zinc compounds	7440-66-6	0.5074	0.000073	6,972	7.30E-06	9.17E-06
70017	U100 H-102 HTR NORTH	Ammonia	7664-41-7	30.2784	0.004343	6,972	4.36E-04	5.47E-04
70017	U100 H-102 HTR NORTH	Sulfuric acid	7664-93-9	39.2483	0.001407	8,760	5.65E-04	1.77E-04
70017	U100 H-102 HTR NORTH	Phosphorus	7723-14-0	0.2601	0.000037	6,972	3.74E-06	4.70E-06
70017	U100 H-102 HTR NORTH	Selenium compounds	7782-49-2	0.0033	0.000000	6,972	4.81E-08	6.04E-08
70017	U100 H-102 HTR NORTH	Hydrogen sulfide	7783-06-4	0.1490	0.000021	6,972	2.14E-06	2.69E-06
70018	U100 H-103 HTR NORTH	Lead compounds	1128	0.0738	0.000011	6,972	1.06E-06	1.33E-06
70018	U100 H-103 HTR NORTH	Formaldehyde	50-00-0	9.1201	0.001308	6,972	1.31E-04	1.65E-04
70018	U100 H-103 HTR NORTH	Benzo(a)pyrene	50-32-8	0.0049	0.000001	6,972	7.08E-08	8.90E-08
70018	U100 H-103 HTR NORTH	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0001	0.000000	6,972	1.86E-09	2.34E-09
70018	U100 H-103 HTR NORTH	Benz(a)anthracene (PAHs)	56-55-3	0.0019	0.000000	6,972	2.73E-08	3.43E-08
70018	U100 H-103 HTR NORTH	Benzene	71-43-2	1.2605	0.000181	6,972	1.81E-05	2.28E-05
70018	U100 H-103 HTR NORTH	Acetaldehyde	75-07-0	22.1322	0.003174	6,972	3.18E-04	4.00E-04
70018	U100 H-103 HTR NORTH	Acenaphthene (PAHs)	83-32-9	0.0003	0.000000	6,972	4.18E-09	5.25E-09
70018	U100 H-103 HTR NORTH	Phenanthrene (PAHs)	85-01-8	0.0022	0.000000	6,972	3.19E-08	4.01E-08
70018	U100 H-103 HTR NORTH	Fluorene (PAHs)	86-73-7	0.0004	0.000000	6,972	5.94E-09	7.46E-09
70018	U100 H-103 HTR NORTH	Naphthalene	91-20-3	0.0432	0.000006	6,972	6.21E-07	7.80E-07
70018	U100 H-103 HTR NORTH	2-Methyl naphthalene (PAHs)	91-57-6	0.0011	0.000000	6,972	1.51E-08	1.90E-08
70018	U100 H-103 HTR NORTH	Ethyl benzene	100-41-4	0.3573	0.000051	6,972	5.14E-06	6.46E-06
70018	U100 H-103 HTR NORTH	Acrolein	107-02-8	1.4682	0.000211	6,972	2.11E-05	2.65E-05
70018	U100 H-103 HTR NORTH	Toluene	108-88-3	2.4433	0.000350	6,972	3.51E-05	4.42E-05
70018	U100 H-103 HTR NORTH	Phenol	108-95-2	0.3455	0.000050	6,972	4.97E-06	6.24E-06
70018	U100 H-103 HTR NORTH	Propylene	115-07-1	12.9545	0.001858	6,972	1.86E-04	2.34E-04
70018	U100 H-103 HTR NORTH	Anthracene	120-12-7	0.0002	0.000000	6,972	3.11E-09	3.91E-09

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70018	U100 H-103 HTR NORTH	Pyrene	129-00-0	0.0014	0.000000	6,972	2.05E-08	2.57E-08
70018	U100 H-103 HTR NORTH	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	6,972	1.38E-09	1.73E-09
70018	U100 H-103 HTR NORTH	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0061	0.000001	6,972	8.82E-08	1.11E-07
70018	U100 H-103 HTR NORTH	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0023	0.000000	6,972	3.35E-08	4.21E-08
70018	U100 H-103 HTR NORTH	Fluoranthene (PAHs)	206-44-0	0.0013	0.000000	6,972	1.92E-08	2.41E-08
70018	U100 H-103 HTR NORTH	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0015	0.000000	6,972	2.11E-08	2.65E-08
70018	U100 H-103 HTR NORTH	Acenaphthylene (PAHs)	208-96-8	0.0055	0.000001	6,972	7.97E-08	1.00E-07
70018	U100 H-103 HTR NORTH	Chrysene (PAHs)	218-01-9	0.0001	0.000000	6,972	1.99E-09	2.50E-09
70018	U100 H-103 HTR NORTH	Xylenes (mixed isomers)	1330-20-7	4.3335	0.000622	6,972	6.23E-05	7.83E-05
70018	U100 H-103 HTR NORTH	Aluminum	7429-90-5	1.2809	0.000184	6,972	1.84E-05	2.31E-05
70018	U100 H-103 HTR NORTH	Manganese compounds	7439-96-5	0.3607	0.000052	6,972	5.19E-06	6.52E-06
70018	U100 H-103 HTR NORTH	Mercury compounds	7439-97-6	0.0017	0.000000	6,972	2.45E-08	3.08E-08
70018	U100 H-103 HTR NORTH	Nickel compounds	7440-02-0	0.9294	0.000133	6,972	1.34E-05	1.68E-05
70018	U100 H-103 HTR NORTH	Silver compounds	7440-22-4	0.0022	0.000000	6,972	3.10E-08	3.89E-08
70018	U100 H-103 HTR NORTH	Thallium	7440-28-0	0.5009	0.000072	6,972	7.20E-06	9.05E-06
70018	U100 H-103 HTR NORTH	Antimony	7440-36-0	0.0007	0.000000	6,972	1.05E-08	1.32E-08
70018	U100 H-103 HTR NORTH	Arsenic	7440-38-2	0.0026	0.000000	6,972	3.81E-08	4.79E-08
70018	U100 H-103 HTR NORTH	Barium	7440-39-3	0.4676	0.000067	6,972	6.73E-06	8.45E-06
70018	U100 H-103 HTR NORTH	Beryllium	7440-41-7	0.0112	0.000002	6,972	1.61E-07	2.03E-07
70018	U100 H-103 HTR NORTH	Cadmium	7440-43-9	0.0064	0.000001	6,972	9.19E-08	1.15E-07
70018	U100 H-103 HTR NORTH	Chromium compounds	7440-47-3	0.0173	0.000002	6,972	2.49E-07	3.13E-07
70018	U100 H-103 HTR NORTH	Cobalt compounds	7440-48-4	0.0202	0.000003	6,972	2.90E-07	3.64E-07
70018	U100 H-103 HTR NORTH	Copper compounds	7440-50-8	0.2312	0.000033	6,972	3.33E-06	4.18E-06
70018	U100 H-103 HTR NORTH	Vanadium compounds	7440-62-2	0.0042	0.000001	6,972	6.03E-08	7.58E-08
70018	U100 H-103 HTR NORTH	Zinc compounds	7440-66-6	0.3543	0.000051	6,972	5.10E-06	6.40E-06
70018	U100 H-103 HTR NORTH	Ammonia	7664-41-7	21.1447	0.003033	6,972	3.04E-04	3.82E-04
70018	U100 H-103 HTR NORTH	Sulfuric acid	7664-93-9	26.7569	0.000959	8,760	3.85E-04	1.21E-04
70018	U100 H-103 HTR NORTH	Phosphorus	7723-14-0	0.1816	0.000026	6,972	2.61E-06	3.28E-06
70018	U100 H-103 HTR NORTH	Selenium compounds	7782-49-2	0.0023	0.000000	6,972	3.36E-08	4.22E-08
70018	U100 H-103 HTR NORTH	Hydrogen sulfide	7783-06-4	0.1040	0.000015	6,972	1.50E-06	1.88E-06
70019	U100 H-104 HTR NORTH	Lead compounds	1128	0.0416	0.000006	6,972	5.98E-07	7.51E-07
70019	U100 H-104 HTR NORTH	Formaldehyde	50-00-0	5.1378	0.000737	6,972	7.39E-05	9.28E-05
70019	U100 H-104 HTR NORTH	Benzo(a)pyrene	50-32-8	0.0028	0.000000	6,972	3.99E-08	5.01E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70019	U100 H-104 HTR NORTH	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0001	0.000000	6,972	1.05E-09	1.32E-09
70019	U100 H-104 HTR NORTH	Benz(a)anthracene (PAHs)	56-55-3	0.0011	0.000000	6,972	1.54E-08	1.93E-08
70019	U100 H-104 HTR NORTH	Benzene	71-43-2	0.7101	0.000102	6,972	1.02E-05	1.28E-05
70019	U100 H-104 HTR NORTH	Acetaldehyde	75-07-0	12.4681	0.001788	6,972	1.79E-04	2.25E-04
70019	U100 H-104 HTR NORTH	Acenaphthene (PAHs)	83-32-9	0.0002	0.000000	6,972	2.35E-09	2.96E-09
70019	U100 H-104 HTR NORTH	Phenanthrene (PAHs)	85-01-8	0.0013	0.000000	6,972	1.80E-08	2.26E-08
70019	U100 H-104 HTR NORTH	Fluorene (PAHs)	86-73-7	0.0002	0.000000	6,972	3.35E-09	4.20E-09
70019	U100 H-104 HTR NORTH	Naphthalene	91-20-3	0.0243	0.000003	6,972	3.50E-07	4.39E-07
70019	U100 H-104 HTR NORTH	2-Methyl naphthalene (PAHs)	91-57-6	0.0006	0.000000	6,972	8.52E-09	1.07E-08
70019	U100 H-104 HTR NORTH	Ethyl benzene	100-41-4	0.2013	0.000029	6,972	2.89E-06	3.64E-06
70019	U100 H-104 HTR NORTH	Acrolein	107-02-8	0.8271	0.000119	6,972	1.19E-05	1.49E-05
70019	U100 H-104 HTR NORTH	Toluene	108-88-3	1.3764	0.000197	6,972	1.98E-05	2.49E-05
70019	U100 H-104 HTR NORTH	Phenol	108-95-2	0.1946	0.000028	6,972	2.80E-06	3.52E-06
70019	U100 H-104 HTR NORTH	Propylene	115-07-1	7.2979	0.001047	6,972	1.05E-04	1.32E-04
70019	U100 H-104 HTR NORTH	Anthracene	120-12-7	0.0001	0.000000	6,972	1.75E-09	2.20E-09
70019	U100 H-104 HTR NORTH	Pyrene	129-00-0	0.0008	0.000000	6,972	1.15E-08	1.45E-08
70019	U100 H-104 HTR NORTH	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	6,972	7.76E-10	9.76E-10
70019	U100 H-104 HTR NORTH	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0035	0.000000	6,972	4.97E-08	6.24E-08
70019	U100 H-104 HTR NORTH	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0013	0.000000	6,972	1.89E-08	2.37E-08
70019	U100 H-104 HTR NORTH	Fluoranthene (PAHs)	206-44-0	0.0008	0.000000	6,972	1.08E-08	1.36E-08
70019	U100 H-104 HTR NORTH	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0008	0.000000	6,972	1.19E-08	1.49E-08
70019	U100 H-104 HTR NORTH	Acenaphthylene (PAHs)	208-96-8	0.0031	0.000000	6,972	4.49E-08	5.64E-08
70019	U100 H-104 HTR NORTH	Chrysene (PAHs)	218-01-9	0.0001	0.000000	6,972	1.12E-09	1.41E-09
70019	U100 H-104 HTR NORTH	Xylenes (mixed isomers)	1330-20-7	2.4413	0.000350	6,972	3.51E-05	4.41E-05
70019	U100 H-104 HTR NORTH	Aluminum	7429-90-5	0.7216	0.000103	6,972	1.04E-05	1.30E-05
70019	U100 H-104 HTR NORTH	Manganese compounds	7439-96-5	0.2032	0.000029	6,972	2.92E-06	3.67E-06
70019	U100 H-104 HTR NORTH	Mercury compounds	7439-97-6	0.0010	0.000000	6,972	1.38E-08	1.73E-08
70019	U100 H-104 HTR NORTH	Nickel compounds	7440-02-0	0.5236	0.000075	6,972	7.53E-06	9.46E-06
70019	U100 H-104 HTR NORTH	Silver compounds	7440-22-4	0.0012	0.000000	6,972	1.75E-08	2.19E-08
70019	U100 H-104 HTR NORTH	Thallium	7440-28-0	0.2822	0.000040	6,972	4.06E-06	5.10E-06
70019	U100 H-104 HTR NORTH	Antimony	7440-36-0	0.0004	0.000000	6,972	5.93E-09	7.45E-09
70019	U100 H-104 HTR NORTH	Arsenic	7440-38-2	0.0015	0.000000	6,972	2.15E-08	2.70E-08
70019	U100 H-104 HTR NORTH	Barium	7440-39-3	0.2634	0.000038	6,972	3.79E-06	4.76E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70019	U100 H-104 HTR NORTH	Beryllium	7440-41-7	0.0063	0.000001	6,972	9.10E-08	1.14E-07
70019	U100 H-104 HTR NORTH	Cadmium	7440-43-9	0.0036	0.000001	6,972	5.18E-08	6.51E-08
70019	U100 H-104 HTR NORTH	Chromium compounds	7440-47-3	0.0098	0.000001	6,972	1.40E-07	1.76E-07
70019	U100 H-104 HTR NORTH	Cobalt compounds	7440-48-4	0.0114	0.000002	6,972	1.63E-07	2.05E-07
70019	U100 H-104 HTR NORTH	Copper compounds	7440-50-8	0.1302	0.000019	6,972	1.87E-06	2.35E-06
70019	U100 H-104 HTR NORTH	Vanadium compounds	7440-62-2	0.0024	0.000000	6,972	3.40E-08	4.27E-08
70019	U100 H-104 HTR NORTH	Zinc compounds	7440-66-6	0.1996	0.000029	6,972	2.87E-06	3.61E-06
70019	U100 H-104 HTR NORTH	Ammonia	7664-41-7	11.9118	0.001709	6,972	1.71E-04	2.15E-04
70019	U100 H-104 HTR NORTH	Sulfuric acid	7664-93-9	15.2388	0.000546	8,760	2.19E-04	6.88E-05
70019	U100 H-104 HTR NORTH	Phosphorus	7723-14-0	0.1023	0.000015	6,972	1.47E-06	1.85E-06
70019	U100 H-104 HTR NORTH	Selenium compounds	7782-49-2	0.0013	0.000000	6,972	1.89E-08	2.38E-08
70019	U100 H-104 HTR NORTH	Hydrogen sulfide	7783-06-4	0.0586	0.000008	6,972	8.43E-07	1.06E-06
70020	U100 H-105 HTR	Lead compounds	1128	0.1389	0.000020	6,972	2.00E-06	2.51E-06
70020	U100 H-105 HTR	Formaldehyde	50-00-0	17.1703	0.002463	6,972	2.47E-04	3.10E-04
70020	U100 H-105 HTR	Benzo(a)pyrene	50-32-8	0.0093	0.000001	6,972	1.33E-07	1.67E-07
70020	U100 H-105 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	6,972	3.51E-09	4.41E-09
70020	U100 H-105 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0036	0.000001	6,972	5.15E-08	6.46E-08
70020	U100 H-105 HTR	Benzene	71-43-2	2.3732	0.000340	6,972	3.41E-05	4.29E-05
70020	U100 H-105 HTR	Acetaldehyde	75-07-0	41.6679	0.005976	6,972	5.99E-04	7.53E-04
70020	U100 H-105 HTR	Acenaphthene (PAHs)	83-32-9	0.0005	0.000000	6,972	7.87E-09	9.88E-09
70020	U100 H-105 HTR	Phenanthrene (PAHs)	85-01-8	0.0042	0.000001	6,972	6.01E-08	7.55E-08
70020	U100 H-105 HTR	Fluorene (PAHs)	86-73-7	0.0008	0.000000	6,972	1.12E-08	1.41E-08
70020	U100 H-105 HTR	Naphthalene	91-20-3	0.0813	0.000012	6,972	1.17E-06	1.47E-06
70020	U100 H-105 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0020	0.000000	6,972	2.85E-08	3.58E-08
70020	U100 H-105 HTR	Ethyl benzene	100-41-4	0.6726	0.000096	6,972	9.67E-06	1.22E-05
70020	U100 H-105 HTR	Acrolein	107-02-8	2.7641	0.000396	6,972	3.98E-05	5.00E-05
70020	U100 H-105 HTR	Toluene	108-88-3	4.6000	0.000660	6,972	6.62E-05	8.31E-05
70020	U100 H-105 HTR	Phenol	108-95-2	0.6504	0.000093	6,972	9.35E-06	1.18E-05
70020	U100 H-105 HTR	Propylene	115-07-1	24.3892	0.003498	6,972	3.51E-04	4.41E-04
70020	U100 H-105 HTR	Anthracene	120-12-7	0.0004	0.000000	6,972	5.85E-09	7.35E-09
70020	U100 H-105 HTR	Pyrene	129-00-0	0.0027	0.000000	6,972	3.85E-08	4.84E-08
70020	U100 H-105 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	6,972	2.59E-09	3.26E-09
70020	U100 H-105 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0115	0.000002	6,972	1.66E-07	2.09E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70020	U100 H-105 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0044	0.000001	6,972	6.31E-08	7.93E-08
70020	U100 H-105 HTR	Fluoranthene (PAHs)	206-44-0	0.0025	0.000000	6,972	3.62E-08	4.55E-08
70020	U100 H-105 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0028	0.000000	6,972	3.98E-08	5.00E-08
70020	U100 H-105 HTR	Acenaphthylene (PAHs)	208-96-8	0.0104	0.000001	6,972	1.50E-07	1.89E-07
70020	U100 H-105 HTR	Chrysene (PAHs)	218-01-9	0.0003	0.000000	6,972	3.74E-09	4.70E-09
70020	U100 H-105 HTR	Xylenes (mixed isomers)	1330-20-7	8.1586	0.001170	6,972	1.17E-04	1.47E-04
70020	U100 H-105 HTR	Aluminum	7429-90-5	2.4115	0.000346	6,972	3.47E-05	4.36E-05
70020	U100 H-105 HTR	Manganese compounds	7439-96-5	0.6792	0.000097	6,972	9.77E-06	1.23E-05
70020	U100 H-105 HTR	Mercury compounds	7439-97-6	0.0032	0.000000	6,972	4.61E-08	5.79E-08
70020	U100 H-105 HTR	Nickel compounds	7440-02-0	1.7498	0.000251	6,972	2.52E-05	3.16E-05
70020	U100 H-105 HTR	Silver compounds	7440-22-4	0.0041	0.000001	6,972	5.84E-08	7.33E-08
70020	U100 H-105 HTR	Thallium	7440-28-0	0.9431	0.000135	6,972	1.36E-05	1.70E-05
70020	U100 H-105 HTR	Antimony	7440-36-0	0.0014	0.000000	6,972	1.98E-08	2.49E-08
70020	U100 H-105 HTR	Arsenic	7440-38-2	0.0050	0.000001	6,972	7.17E-08	9.01E-08
70020	U100 H-105 HTR	Barium	7440-39-3	0.8804	0.000126	6,972	1.27E-05	1.59E-05
70020	U100 H-105 HTR	Beryllium	7440-41-7	0.0211	0.000003	6,972	3.04E-07	3.82E-07
70020	U100 H-105 HTR	Cadmium	7440-43-9	0.0120	0.000002	6,972	1.73E-07	2.17E-07
70020	U100 H-105 HTR	Chromium compounds	7440-47-3	0.0326	0.000005	6,972	4.69E-07	5.89E-07
70020	U100 H-105 HTR	Cobalt compounds	7440-48-4	0.0379	0.000005	6,972	5.46E-07	6.86E-07
70020	U100 H-105 HTR	Copper compounds	7440-50-8	0.4353	0.000062	6,972	6.26E-06	7.87E-06
70020	U100 H-105 HTR	Vanadium compounds	7440-62-2	0.0079	0.000001	6,972	1.14E-07	1.43E-07
70020	U100 H-105 HTR	Zinc compounds	7440-66-6	0.6671	0.000096	6,972	9.60E-06	1.21E-05
70020	U100 H-105 HTR	Ammonia	7664-41-7	39.8087	0.005710	6,972	5.73E-04	7.19E-04
70020	U100 H-105 HTR	Sulfuric acid	7664-93-9	29.5185	0.001058	8,760	4.25E-04	1.33E-04
70020	U100 H-105 HTR	Phosphorus	7723-14-0	0.3420	0.000049	6,972	4.92E-06	6.18E-06
70020	U100 H-105 HTR	Selenium compounds	7782-49-2	0.0044	0.000001	6,972	6.32E-08	7.95E-08
70020	U100 H-105 HTR	Hydrogen sulfide	7783-06-4	0.1959	0.000028	6,972	2.82E-06	3.54E-06
70021	U100 H-107 HTR	Lead compounds	1128	0.0557	0.000008	6,972	8.02E-07	1.01E-06
70021	U100 H-107 HTR	Formaldehyde	50-00-0	6.8912	0.000988	6,972	9.91E-05	1.25E-04
70021	U100 H-107 HTR	Benzo(a)pyrene	50-32-8	0.0037	0.000001	6,972	5.35E-08	6.72E-08
70021	U100 H-107 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0001	0.000000	6,972	1.41E-09	1.77E-09
70021	U100 H-107 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0014	0.000000	6,972	2.06E-08	2.59E-08
70021	U100 H-107 HTR	Benzene	71-43-2	0.9525	0.000137	6,972	1.37E-05	1.72E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70021	U100 H-107 HTR	Acetaldehyde	75-07-0	16.7232	0.002399	6,972	2.41E-04	3.02E-04
70021	U100 H-107 HTR	Acenaphthene (PAHs)	83-32-9	0.0002	0.000000	6,972	3.16E-09	3.97E-09
70021	U100 H-107 HTR	Phenanthrene (PAHs)	85-01-8	0.0017	0.000000	6,972	2.41E-08	3.03E-08
70021	U100 H-107 HTR	Fluorene (PAHs)	86-73-7	0.0003	0.000000	6,972	4.49E-09	5.64E-09
70021	U100 H-107 HTR	Naphthalene	91-20-3	0.0326	0.000005	6,972	4.69E-07	5.89E-07
70021	U100 H-107 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0008	0.000000	6,972	1.14E-08	1.44E-08
70021	U100 H-107 HTR	Ethyl benzene	100-41-4	0.2699	0.000039	6,972	3.88E-06	4.88E-06
70021	U100 H-107 HTR	Acrolein	107-02-8	1.1094	0.000159	6,972	1.60E-05	2.00E-05
70021	U100 H-107 HTR	Toluene	108-88-3	1.8462	0.000265	6,972	2.66E-05	3.34E-05
70021	U100 H-107 HTR	Phenol	108-95-2	0.2610	0.000037	6,972	3.75E-06	4.72E-06
70021	U100 H-107 HTR	Propylene	115-07-1	9.7885	0.001404	6,972	1.41E-04	1.77E-04
70021	U100 H-107 HTR	Anthracene	120-12-7	0.0002	0.000000	6,972	2.35E-09	2.95E-09
70021	U100 H-107 HTR	Pyrene	129-00-0	0.0011	0.000000	6,972	1.55E-08	1.94E-08
70021	U100 H-107 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	6,972	1.04E-09	1.31E-09
70021	U100 H-107 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0046	0.000001	6,972	6.66E-08	8.37E-08
70021	U100 H-107 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0018	0.000000	6,972	2.53E-08	3.18E-08
70021	U100 H-107 HTR	Fluoranthene (PAHs)	206-44-0	0.0010	0.000000	6,972	1.45E-08	1.82E-08
70021	U100 H-107 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0011	0.000000	6,972	1.60E-08	2.00E-08
70021	U100 H-107 HTR	Acenaphthylene (PAHs)	208-96-8	0.0042	0.000001	6,972	6.02E-08	7.57E-08
70021	U100 H-107 HTR	Chrysene (PAHs)	218-01-9	0.0001	0.000000	6,972	1.50E-09	1.89E-09
70021	U100 H-107 HTR	Xylenes (mixed isomers)	1330-20-7	3.2744	0.000470	6,972	4.71E-05	5.92E-05
70021	U100 H-107 HTR	Aluminum	7429-90-5	0.9678	0.000139	6,972	1.39E-05	1.75E-05
70021	U100 H-107 HTR	Manganese compounds	7439-96-5	0.2726	0.000039	6,972	3.92E-06	4.93E-06
70021	U100 H-107 HTR	Mercury compounds	7439-97-6	0.0013	0.000000	6,972	1.85E-08	2.32E-08
70021	U100 H-107 HTR	Nickel compounds	7440-02-0	0.7023	0.000101	6,972	1.01E-05	1.27E-05
70021	U100 H-107 HTR	Silver compounds	7440-22-4	0.0016	0.000000	6,972	2.34E-08	2.94E-08
70021	U100 H-107 HTR	Thallium	7440-28-0	0.3785	0.000054	6,972	5.44E-06	6.84E-06
70021	U100 H-107 HTR	Antimony	7440-36-0	0.0006	0.000000	6,972	7.95E-09	9.99E-09
70021	U100 H-107 HTR	Arsenic	7440-38-2	0.0020	0.000000	6,972	2.88E-08	3.62E-08
70021	U100 H-107 HTR	Barium	7440-39-3	0.3533	0.000051	6,972	5.08E-06	6.39E-06
70021	U100 H-107 HTR	Beryllium	7440-41-7	0.0085	0.000001	6,972	1.22E-07	1.53E-07
70021	U100 H-107 HTR	Cadmium	7440-43-9	0.0048	0.000001	6,972	6.94E-08	8.73E-08
70021	U100 H-107 HTR	Chromium compounds	7440-47-3	0.0131	0.000002	6,972	1.88E-07	2.36E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70021	U100 H-107 HTR	Cobalt compounds	7440-48-4	0.0152	0.000002	6,972	2.19E-07	2.75E-07
70021	U100 H-107 HTR	Copper compounds	7440-50-8	0.1747	0.000025	6,972	2.51E-06	3.16E-06
70021	U100 H-107 HTR	Vanadium compounds	7440-62-2	0.0032	0.000000	6,972	4.56E-08	5.73E-08
70021	U100 H-107 HTR	Zinc compounds	7440-66-6	0.2677	0.000038	6,972	3.85E-06	4.84E-06
70021	U100 H-107 HTR	Ammonia	7664-41-7	15.9771	0.002292	6,972	2.30E-04	2.89E-04
70021	U100 H-107 HTR	Sulfuric acid	7664-93-9	14.1950	0.000509	8,760	2.04E-04	6.41E-05
70021	U100 H-107 HTR	Phosphorus	7723-14-0	0.1373	0.000020	6,972	1.97E-06	2.48E-06
70021	U100 H-107 HTR	Selenium compounds	7782-49-2	0.0018	0.000000	6,972	2.54E-08	3.19E-08
70021	U100 H-107 HTR	Hydrogen sulfide	7783-06-4	0.0786	0.000011	6,972	1.13E-06	1.42E-06
70022	U110 B-211 HTR	Lead compounds	1128	0.1087	0.000015	7,224	1.56E-06	1.90E-06
70022	U110 B-211 HTR	Formaldehyde	50-00-0	13.4391	0.001860	7,224	1.93E-04	2.34E-04
70022	U110 B-211 HTR	Benzo(a)pyrene	50-32-8	0.0073	0.000001	7,224	1.04E-07	1.27E-07
70022	U110 B-211 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	7,224	2.75E-09	3.33E-09
70022	U110 B-211 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0028	0.000000	7,224	4.03E-08	4.88E-08
70022	U110 B-211 HTR	Benzene	71-43-2	1.8575	0.000257	7,224	2.67E-05	3.24E-05
70022	U110 B-211 HTR	Acetaldehyde	75-07-0	32.6134	0.004515	7,224	4.69E-04	5.69E-04
70022	U110 B-211 HTR	Acenaphthene (PAHs)	83-32-9	0.0004	0.000000	7,224	6.16E-09	7.46E-09
70022	U110 B-211 HTR	Phenanthrene (PAHs)	85-01-8	0.0033	0.000000	7,224	4.70E-08	5.70E-08
70022	U110 B-211 HTR	Fluorene (PAHs)	86-73-7	0.0006	0.000000	7,224	8.75E-09	1.06E-08
70022	U110 B-211 HTR	Naphthalene	91-20-3	0.0636	0.000009	7,224	9.15E-07	1.11E-06
70022	U110 B-211 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0015	0.000000	7,224	2.23E-08	2.70E-08
70022	U110 B-211 HTR	Ethyl benzene	100-41-4	0.5264	0.000073	7,224	7.57E-06	9.18E-06
70022	U110 B-211 HTR	Acrolein	107-02-8	2.1635	0.000299	7,224	3.11E-05	3.77E-05
70022	U110 B-211 HTR	Toluene	108-88-3	3.6004	0.000498	7,224	5.18E-05	6.28E-05
70022	U110 B-211 HTR	Phenol	108-95-2	0.5090	0.000070	7,224	7.32E-06	8.88E-06
70022	U110 B-211 HTR	Propylene	115-07-1	19.0894	0.002642	7,224	2.75E-04	3.33E-04
70022	U110 B-211 HTR	Anthracene	120-12-7	0.0003	0.000000	7,224	4.58E-09	5.55E-09
70022	U110 B-211 HTR	Pyrene	129-00-0	0.0021	0.000000	7,224	3.02E-08	3.66E-08
70022	U110 B-211 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	7,224	2.03E-09	2.46E-09
70022	U110 B-211 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0090	0.000001	7,224	1.30E-07	1.58E-07
70022	U110 B-211 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0034	0.000000	7,224	4.94E-08	5.99E-08
70022	U110 B-211 HTR	Fluoranthene (PAHs)	206-44-0	0.0020	0.000000	7,224	2.83E-08	3.43E-08
70022	U110 B-211 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0022	0.000000	7,224	3.11E-08	3.77E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70022	U110 B-211 HTR	Acenaphthylene (PAHs)	208-96-8	0.0082	0.000001	7,224	1.17E-07	1.42E-07
70022	U110 B-211 HTR	Chrysene (PAHs)	218-01-9	0.0002	0.000000	7,224	2.93E-09	3.55E-09
70022	U110 B-211 HTR	Xylenes (mixed isomers)	1330-20-7	6.3857	0.000884	7,224	9.18E-05	1.11E-04
70022	U110 B-211 HTR	Aluminum	7429-90-5	1.8875	0.000261	7,224	2.71E-05	3.29E-05
70022	U110 B-211 HTR	Manganese compounds	7439-96-5	0.5316	0.000074	7,224	7.65E-06	9.27E-06
70022	U110 B-211 HTR	Mercury compounds	7439-97-6	0.0025	0.000000	7,224	3.61E-08	4.37E-08
70022	U110 B-211 HTR	Nickel compounds	7440-02-0	1.3696	0.000190	7,224	1.97E-05	2.39E-05
70022	U110 B-211 HTR	Silver compounds	7440-22-4	0.0032	0.000000	7,224	4.57E-08	5.54E-08
70022	U110 B-211 HTR	Thallium	7440-28-0	0.7381	0.000102	7,224	1.06E-05	1.29E-05
70022	U110 B-211 HTR	Antimony	7440-36-0	0.0011	0.000000	7,224	1.55E-08	1.88E-08
70022	U110 B-211 HTR	Arsenic	7440-38-2	0.0039	0.000001	7,224	5.61E-08	6.81E-08
70022	U110 B-211 HTR	Barium	7440-39-3	0.6891	0.000095	7,224	9.91E-06	1.20E-05
70022	U110 B-211 HTR	Beryllium	7440-41-7	0.0165	0.000002	7,224	2.38E-07	2.89E-07
70022	U110 B-211 HTR	Cadmium	7440-43-9	0.0094	0.000001	7,224	1.35E-07	1.64E-07
70022	U110 B-211 HTR	Chromium compounds	7440-47-3	0.0255	0.000004	7,224	3.67E-07	4.45E-07
70022	U110 B-211 HTR	Cobalt compounds	7440-48-4	0.0297	0.000004	7,224	4.27E-07	5.18E-07
70022	U110 B-211 HTR	Copper compounds	7440-50-8	0.3407	0.000047	7,224	4.90E-06	5.94E-06
70022	U110 B-211 HTR	Vanadium compounds	7440-62-2	0.0062	0.000001	7,224	8.89E-08	1.08E-07
70022	U110 B-211 HTR	Zinc compounds	7440-66-6	0.5222	0.000072	7,224	7.51E-06	9.11E-06
70022	U110 B-211 HTR	Ammonia	7664-41-7	31.1582	0.004313	7,224	4.48E-04	5.43E-04
70022	U110 B-211 HTR	Sulfuric acid	7664-93-9	46.2670	0.001601	8,760	6.65E-04	2.02E-04
70022	U110 B-211 HTR	Phosphorus	7723-14-0	0.2677	0.000037	7,224	3.85E-06	4.67E-06
70022	U110 B-211 HTR	Selenium compounds	7782-49-2	0.0034	0.000000	7,224	4.95E-08	6.00E-08
70022	U110 B-211 HTR	Hydrogen sulfide	7783-06-4	0.1533	0.000021	7,224	2.20E-06	2.67E-06
70023	U120 B-101 HTR (HLNX-RF), SRC	Lead compounds	1128	1.4254	0.000180	7,920	2.05E-05	2.27E-05
70023	U120 B-101 HTR (HLNX-RF), SRC	Formaldehyde	50-00-0	176.2119	0.022249	7,920	2.53E-03	2.80E-03
70023	U120 B-101 HTR (HLNX-RF), SRC	Benzo(a)pyrene	50-32-8	0.0951	0.000012	7,920	1.37E-06	1.51E-06
70023	U120 B-101 HTR (HLNX-RF), SRC	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0025	0.000000	7,920	3.60E-08	3.98E-08
70023	U120 B-101 HTR (HLNX-RF), SRC	Benz(a)anthracene (PAHs)	56-55-3	0.0367	0.000005	7,920	5.28E-07	5.84E-07
70023	U120 B-101 HTR (HLNX-RF), SRC	Benzene	71-43-2	24.3554	0.003075	7,920	3.50E-04	3.87E-04
70023	U120 B-101 HTR (HLNX-RF), SRC	Acetaldehyde	75-07-0	427.6226	0.053993	7,920	6.15E-03	6.80E-03
70023	U120 B-101 HTR (HLNX-RF), SRC	Acenaphthene (PAHs)	83-32-9	0.0056	0.000001	7,920	8.07E-08	8.93E-08
70023	U120 B-101 HTR (HLNX-RF), SRC	Phenanthrene (PAHs)	85-01-8	0.0429	0.000005	7,920	6.17E-07	6.82E-07

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Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70023	U120 B-101 HTR (HLNX-RF), SRC	Fluorene (PAHs)	86-73-7	0.0080	0.000001	7,920	1.15E-07	1.27E-07
70023	U120 B-101 HTR (HLNX-RF), SRC	Naphthalene	91-20-3	0.8339	0.000105	7,920	1.20E-05	1.33E-05
70023	U120 B-101 HTR (HLNX-RF), SRC	2-Methyl naphthalene (PAHs)	91-57-6	0.0203	0.000003	7,920	2.92E-07	3.23E-07
70023	U120 B-101 HTR (HLNX-RF), SRC	Ethyl benzene	100-41-4	6.9026	0.000872	7,920	9.93E-05	1.10E-04
70023	U120 B-101 HTR (HLNX-RF), SRC	Acrolein	107-02-8	28.3671	0.003582	7,920	4.08E-04	4.51E-04
70023	U120 B-101 HTR (HLNX-RF), SRC	Toluene	108-88-3	47.2080	0.005961	7,920	6.79E-04	7.51E-04
70023	U120 B-101 HTR (HLNX-RF), SRC	Phenol	108-95-2	6.6746	0.000843	7,920	9.60E-05	1.06E-04
70023	U120 B-101 HTR (HLNX-RF), SRC	Propylene	115-07-1	250.2976	0.031603	7,920	3.60E-03	3.98E-03
70023	U120 B-101 HTR (HLNX-RF), SRC	Anthracene	120-12-7	0.0042	0.000001	7,920	6.01E-08	6.64E-08
70023	U120 B-101 HTR (HLNX-RF), SRC	Pyrene	129-00-0	0.0275	0.000003	7,920	3.96E-07	4.37E-07
70023	U120 B-101 HTR (HLNX-RF), SRC	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0019	0.000000	7,920	2.66E-08	2.95E-08
70023	U120 B-101 HTR (HLNX-RF), SRC	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.1185	0.000015	7,920	1.70E-06	1.88E-06
70023	U120 B-101 HTR (HLNX-RF), SRC	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0451	0.000006	7,920	6.48E-07	7.17E-07
70023	U120 B-101 HTR (HLNX-RF), SRC	Fluoranthene (PAHs)	206-44-0	0.0258	0.000003	7,920	3.71E-07	4.11E-07
70023	U120 B-101 HTR (HLNX-RF), SRC	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0284	0.000004	7,920	4.08E-07	4.51E-07
70023	U120 B-101 HTR (HLNX-RF), SRC	Acenaphthylene (PAHs)	208-96-8	0.1071	0.000014	7,920	1.54E-06	1.70E-06
70023	U120 B-101 HTR (HLNX-RF), SRC	Chrysene (PAHs)	218-01-9	0.0027	0.000000	7,920	3.84E-08	4.25E-08
70023	U120 B-101 HTR (HLNX-RF), SRC	Xylenes (mixed isomers)	1330-20-7	83.7287	0.010572	7,920	1.20E-03	1.33E-03
70023	U120 B-101 HTR (HLNX-RF), SRC	Aluminum	7429-90-5	24.7482	0.003125	7,920	3.56E-04	3.94E-04
70023	U120 B-101 HTR (HLNX-RF), SRC	Manganese compounds	7439-96-5	6.9699	0.000880	7,920	1.00E-04	1.11E-04
70023	U120 B-101 HTR (HLNX-RF), SRC	Mercury compounds	7439-97-6	0.0329	0.000004	7,920	4.73E-07	5.23E-07
70023	U120 B-101 HTR (HLNX-RF), SRC	Nickel compounds	7440-02-0	17.9579	0.002267	7,920	2.58E-04	2.86E-04
70023	U120 B-101 HTR (HLNX-RF), SRC	Silver compounds	7440-22-4	0.0416	0.000005	7,920	5.99E-07	6.62E-07
70023	U120 B-101 HTR (HLNX-RF), SRC	Thallium	7440-28-0	9.6782	0.001222	7,920	1.39E-04	1.54E-04
70023	U120 B-101 HTR (HLNX-RF), SRC	Antimony	7440-36-0	0.0141	0.000002	7,920	2.03E-07	2.25E-07
70023	U120 B-101 HTR (HLNX-RF), SRC	Arsenic	7440-38-2	0.0512	0.000006	7,920	7.36E-07	8.14E-07
70023	U120 B-101 HTR (HLNX-RF), SRC	Barium	7440-39-3	9.0351	0.001141	7,920	1.30E-04	1.44E-04
70023	U120 B-101 HTR (HLNX-RF), SRC	Beryllium	7440-41-7	0.2169	0.000027	7,920	3.12E-06	3.45E-06
70023	U120 B-101 HTR (HLNX-RF), SRC	Cadmium	7440-43-9	0.1235	0.000016	7,920	1.78E-06	1.96E-06
70023	U120 B-101 HTR (HLNX-RF), SRC	Chromium compounds	7440-47-3	0.3345	0.000042	7,920	4.81E-06	5.32E-06
70023	U120 B-101 HTR (HLNX-RF), SRC	Cobalt compounds	7440-48-4	0.3895	0.000049	7,920	5.60E-06	6.20E-06
70023	U120 B-101 HTR (HLNX-RF), SRC	Copper compounds	7440-50-8	4.4670	0.000564	7,920	6.43E-05	7.11E-05
70023	U120 B-101 HTR (HLNX-RF), SRC	Vanadium compounds	7440-62-2	0.0810	0.000010	7,920	1.17E-06	1.29E-06

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Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70023	U120 B-101 HTR (HLNX-RF), SRC	Zinc compounds	7440-66-6	6.8465	0.000864	7,920	9.85E-05	1.09E-04
70023	U120 B-101 HTR (HLNX-RF), SRC	Ammonia	7664-41-7	408.5423	0.051584	7,920	5.88E-03	6.50E-03
70023	U120 B-101 HTR (HLNX-RF), SRC	Sulfuric acid	7664-93-9	478.3209	0.015099	8,760	6.88E-03	1.90E-03
70023	U120 B-101 HTR (HLNX-RF), SRC	Phosphorus	7723-14-0	3.5096	0.000443	7,920	5.05E-05	5.58E-05
70023	U120 B-101 HTR (HLNX-RF), SRC	Selenium compounds	7782-49-2	0.0451	0.000006	7,920	6.49E-07	7.18E-07
70023	U120 B-101 HTR (HLNX-RF), SRC	Hydrogen sulfide	7783-06-4	2.0100	0.000254	7,920	2.89E-05	3.20E-05
70024	U120 B-201 HTR	Lead compounds	1128	0.1900	0.000024	7,920	2.73E-06	3.02E-06
70024	U120 B-201 HTR	Formaldehyde	50-00-0	23.4829	0.002965	7,920	3.38E-04	3.74E-04
70024	U120 B-201 HTR	Benzo(a)pyrene	50-32-8	0.0127	0.000002	7,920	1.82E-07	2.02E-07
70024	U120 B-201 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0003	0.000000	7,920	4.80E-09	5.31E-09
70024	U120 B-201 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0049	0.000001	7,920	7.04E-08	7.78E-08
70024	U120 B-201 HTR	Benzene	71-43-2	3.2457	0.000410	7,920	4.67E-05	5.16E-05
70024	U120 B-201 HTR	Acetaldehyde	75-07-0	56.9871	0.007195	7,920	8.20E-04	9.07E-04
70024	U120 B-201 HTR	Acenaphthene (PAHs)	83-32-9	0.0007	0.000000	7,920	1.08E-08	1.19E-08
70024	U120 B-201 HTR	Phenanthrene (PAHs)	85-01-8	0.0057	0.000001	7,920	8.22E-08	9.09E-08
70024	U120 B-201 HTR	Fluorene (PAHs)	86-73-7	0.0011	0.000000	7,920	1.53E-08	1.69E-08
70024	U120 B-201 HTR	Naphthalene	91-20-3	0.1111	0.000014	7,920	1.60E-06	1.77E-06
70024	U120 B-201 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0027	0.000000	7,920	3.89E-08	4.31E-08
70024	U120 B-201 HTR	Ethyl benzene	100-41-4	0.9199	0.000116	7,920	1.32E-05	1.46E-05
70024	U120 B-201 HTR	Acrolein	107-02-8	3.7803	0.000477	7,920	5.44E-05	6.01E-05
70024	U120 B-201 HTR	Toluene	108-88-3	6.2912	0.000794	7,920	9.05E-05	1.00E-04
70024	U120 B-201 HTR	Phenol	108-95-2	0.8895	0.000112	7,920	1.28E-05	1.42E-05
70024	U120 B-201 HTR	Propylene	115-07-1	33.3559	0.004212	7,920	4.80E-04	5.31E-04
70024	U120 B-201 HTR	Anthracene	120-12-7	0.0006	0.000000	7,920	8.00E-09	8.85E-09
70024	U120 B-201 HTR	Pyrene	129-00-0	0.0037	0.000000	7,920	5.27E-08	5.83E-08
70024	U120 B-201 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	7,920	3.55E-09	3.93E-09
70024	U120 B-201 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0158	0.000002	7,920	2.27E-07	2.51E-07
70024	U120 B-201 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0060	0.000001	7,920	8.64E-08	9.55E-08
70024	U120 B-201 HTR	Fluoranthene (PAHs)	206-44-0	0.0034	0.000000	7,920	4.95E-08	5.47E-08
70024	U120 B-201 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0038	0.000000	7,920	5.44E-08	6.01E-08
70024	U120 B-201 HTR	Acenaphthylene (PAHs)	208-96-8	0.0143	0.000002	7,920	2.05E-07	2.27E-07
70024	U120 B-201 HTR	Chrysene (PAHs)	218-01-9	0.0004	0.000000	7,920	5.12E-09	5.66E-09
70024	U120 B-201 HTR	Xylenes (mixed isomers)	1330-20-7	11.1581	0.001409	7,920	1.60E-04	1.78E-04

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70024	U120 B-201 HTR	Aluminum	7429-90-5	3.2981	0.000416	7,920	4.74E-05	5.25E-05
70024	U120 B-201 HTR	Manganese compounds	7439-96-5	0.9288	0.000117	7,920	1.34E-05	1.48E-05
70024	U120 B-201 HTR	Mercury compounds	7439-97-6	0.0044	0.000001	7,920	6.30E-08	6.97E-08
70024	U120 B-201 HTR	Nickel compounds	7440-02-0	2.3932	0.000302	7,920	3.44E-05	3.81E-05
70024	U120 B-201 HTR	Silver compounds	7440-22-4	0.0055	0.000001	7,920	7.98E-08	8.83E-08
70024	U120 B-201 HTR	Thallium	7440-28-0	1.2898	0.000163	7,920	1.86E-05	2.05E-05
70024	U120 B-201 HTR	Antimony	7440-36-0	0.0019	0.000000	7,920	2.71E-08	3.00E-08
70024	U120 B-201 HTR	Arsenic	7440-38-2	0.0068	0.000001	7,920	9.81E-08	1.09E-07
70024	U120 B-201 HTR	Barium	7440-39-3	1.2041	0.000152	7,920	1.73E-05	1.92E-05
70024	U120 B-201 HTR	Beryllium	7440-41-7	0.0289	0.000004	7,920	4.16E-07	4.60E-07
70024	U120 B-201 HTR	Cadmium	7440-43-9	0.0165	0.000002	7,920	2.37E-07	2.62E-07
70024	U120 B-201 HTR	Chromium compounds	7440-47-3	0.0446	0.000006	7,920	6.41E-07	7.09E-07
70024	U120 B-201 HTR	Cobalt compounds	7440-48-4	0.0519	0.000007	7,920	7.47E-07	8.26E-07
70024	U120 B-201 HTR	Copper compounds	7440-50-8	0.5953	0.000075	7,920	8.56E-06	9.47E-06
70024	U120 B-201 HTR	Vanadium compounds	7440-62-2	0.0108	0.000001	7,920	1.55E-07	1.72E-07
70024	U120 B-201 HTR	Zinc compounds	7440-66-6	0.9124	0.000115	7,920	1.31E-05	1.45E-05
70024	U120 B-201 HTR	Ammonia	7664-41-7	54.4444	0.006874	7,920	7.83E-04	8.66E-04
70024	U120 B-201 HTR	Sulfuric acid	7664-93-9	2.4761	0.000078	8,760	3.56E-05	9.85E-06
70024	U120 B-201 HTR	Phosphorus	7723-14-0	0.4677	0.000059	7,920	6.73E-06	7.44E-06
70024	U120 B-201 HTR	Selenium compounds	7782-49-2	0.0060	0.000001	7,920	8.65E-08	9.57E-08
70024	U120 B-201 HTR	Hydrogen sulfide	7783-06-4	0.2679	0.000034	7,920	3.85E-06	4.26E-06
70025	U120 B-202 HTR (HLNX-RF)	Lead compounds	1128	0.0500	0.000006	7,920	7.19E-07	7.95E-07
70025	U120 B-202 HTR (HLNX-RF)	Formaldehyde	50-00-0	6.1765	0.000780	7,920	8.88E-05	9.83E-05
70025	U120 B-202 HTR (HLNX-RF)	Benzo(a)pyrene	50-32-8	0.0033	0.000000	7,920	4.80E-08	5.30E-08
70025	U120 B-202 HTR (HLNX-RF)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0001	0.000000	7,920	1.26E-09	1.40E-09
70025	U120 B-202 HTR (HLNX-RF)	Benz(a)anthracene (PAHs)	56-55-3	0.0013	0.000000	7,920	1.85E-08	2.05E-08
70025	U120 B-202 HTR (HLNX-RF)	Benzene	71-43-2	0.8537	0.000108	7,920	1.23E-05	1.36E-05
70025	U120 B-202 HTR (HLNX-RF)	Acetaldehyde	75-07-0	14.9888	0.001893	7,920	2.16E-04	2.38E-04
70025	U120 B-202 HTR (HLNX-RF)	Acenaphthene (PAHs)	83-32-9	0.0002	0.000000	7,920	2.83E-09	3.13E-09
70025	U120 B-202 HTR (HLNX-RF)	Phenanthrene (PAHs)	85-01-8	0.0015	0.000000	7,920	2.16E-08	2.39E-08
70025	U120 B-202 HTR (HLNX-RF)	Fluorene (PAHs)	86-73-7	0.0003	0.000000	7,920	4.02E-09	4.45E-09
70025	U120 B-202 HTR (HLNX-RF)	Naphthalene	91-20-3	0.0292	0.000004	7,920	4.20E-07	4.65E-07
70025	U120 B-202 HTR (HLNX-RF)	2-Methyl naphthalene (PAHs)	91-57-6	0.0007	0.000000	7,920	1.02E-08	1.13E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70025	U120 B-202 HTR (HLNX-RF)	Ethyl benzene	100-41-4	0.2419	0.000031	7,920	3.48E-06	3.85E-06
70025	U120 B-202 HTR (HLNX-RF)	Acrolein	107-02-8	0.9943	0.000126	7,920	1.43E-05	1.58E-05
70025	U120 B-202 HTR (HLNX-RF)	Toluene	108-88-3	1.6547	0.000209	7,920	2.38E-05	2.63E-05
70025	U120 B-202 HTR (HLNX-RF)	Phenol	108-95-2	0.2340	0.000030	7,920	3.37E-06	3.72E-06
70025	U120 B-202 HTR (HLNX-RF)	Propylene	115-07-1	8.7733	0.001108	7,920	1.26E-04	1.40E-04
70025	U120 B-202 HTR (HLNX-RF)	Anthracene	120-12-7	0.0001	0.000000	7,920	2.10E-09	2.33E-09
70025	U120 B-202 HTR (HLNX-RF)	Pyrene	129-00-0	0.0010	0.000000	7,920	1.39E-08	1.53E-08
70025	U120 B-202 HTR (HLNX-RF)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	7,920	9.33E-10	1.03E-09
70025	U120 B-202 HTR (HLNX-RF)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0042	0.000001	7,920	5.97E-08	6.61E-08
70025	U120 B-202 HTR (HLNX-RF)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0016	0.000000	7,920	2.27E-08	2.51E-08
70025	U120 B-202 HTR (HLNX-RF)	Fluoranthene (PAHs)	206-44-0	0.0009	0.000000	7,920	1.30E-08	1.44E-08
70025	U120 B-202 HTR (HLNX-RF)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0010	0.000000	7,920	1.43E-08	1.58E-08
70025	U120 B-202 HTR (HLNX-RF)	Acenaphthylene (PAHs)	208-96-8	0.0038	0.000000	7,920	5.40E-08	5.97E-08
70025	U120 B-202 HTR (HLNX-RF)	Chrysene (PAHs)	218-01-9	0.0001	0.000000	7,920	1.35E-09	1.49E-09
70025	U120 B-202 HTR (HLNX-RF)	Xylenes (mixed isomers)	1330-20-7	2.9348	0.000371	7,920	4.22E-05	4.67E-05
70025	U120 B-202 HTR (HLNX-RF)	Aluminum	7429-90-5	0.8675	0.000110	7,920	1.25E-05	1.38E-05
70025	U120 B-202 HTR (HLNX-RF)	Manganese compounds	7439-96-5	0.2443	0.000031	7,920	3.51E-06	3.89E-06
70025	U120 B-202 HTR (HLNX-RF)	Mercury compounds	7439-97-6	0.0012	0.000000	7,920	1.66E-08	1.83E-08
70025	U120 B-202 HTR (HLNX-RF)	Nickel compounds	7440-02-0	0.6295	0.000079	7,920	9.05E-06	1.00E-05
70025	U120 B-202 HTR (HLNX-RF)	Silver compounds	7440-22-4	0.0015	0.000000	7,920	2.10E-08	2.32E-08
70025	U120 B-202 HTR (HLNX-RF)	Thallium	7440-28-0	0.3392	0.000043	7,920	4.88E-06	5.40E-06
70025	U120 B-202 HTR (HLNX-RF)	Antimony	7440-36-0	0.0005	0.000000	7,920	7.13E-09	7.89E-09
70025	U120 B-202 HTR (HLNX-RF)	Arsenic	7440-38-2	0.0018	0.000000	7,920	2.58E-08	2.85E-08
70025	U120 B-202 HTR (HLNX-RF)	Barium	7440-39-3	0.3167	0.000040	7,920	4.56E-06	5.04E-06
70025	U120 B-202 HTR (HLNX-RF)	Beryllium	7440-41-7	0.0076	0.000001	7,920	1.09E-07	1.21E-07
70025	U120 B-202 HTR (HLNX-RF)	Cadmium	7440-43-9	0.0043	0.000001	7,920	6.22E-08	6.88E-08
70025	U120 B-202 HTR (HLNX-RF)	Chromium compounds	7440-47-3	0.0117	0.000001	7,920	1.69E-07	1.87E-07
70025	U120 B-202 HTR (HLNX-RF)	Cobalt compounds	7440-48-4	0.0137	0.000002	7,920	1.96E-07	2.17E-07
70025	U120 B-202 HTR (HLNX-RF)	Copper compounds	7440-50-8	0.1566	0.000020	7,920	2.25E-06	2.49E-06
70025	U120 B-202 HTR (HLNX-RF)	Vanadium compounds	7440-62-2	0.0028	0.000000	7,920	4.09E-08	4.52E-08
70025	U120 B-202 HTR (HLNX-RF)	Zinc compounds	7440-66-6	0.2400	0.000030	7,920	3.45E-06	3.82E-06
70025	U120 B-202 HTR (HLNX-RF)	Ammonia	7664-41-7	14.3200	0.001808	7,920	2.06E-04	2.28E-04
70025	U120 B-202 HTR (HLNX-RF)	Sulfuric acid	7664-93-9	9.7590	0.000308	8,760	1.40E-04	3.88E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70025	U120 B-202 HTR (HLNX-RF)	Phosphorus	7723-14-0	0.1230	0.000016	7,920	1.77E-06	1.96E-06
70025	U120 B-202 HTR (HLNX-RF)	Selenium compounds	7782-49-2	0.0016	0.000000	7,920	2.27E-08	2.52E-08
70025	U120 B-202 HTR (HLNX-RF)	Hydrogen sulfide	7783-06-4	0.0705	0.000009	7,920	1.01E-06	1.12E-06
70026	U120 B-203 HTR (HLNX-RF)	Lead compounds	1128	0.1282	0.000016	7,920	1.84E-06	2.04E-06
70026	U120 B-203 HTR (HLNX-RF)	Formaldehyde	50-00-0	15.8450	0.002001	7,920	2.28E-04	2.52E-04
70026	U120 B-203 HTR (HLNX-RF)	Benzo(a)pyrene	50-32-8	0.0086	0.000001	7,920	1.23E-07	1.36E-07
70026	U120 B-203 HTR (HLNX-RF)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	7,920	3.24E-09	3.58E-09
70026	U120 B-203 HTR (HLNX-RF)	Benz(a)anthracene (PAHs)	56-55-3	0.0033	0.000000	7,920	4.75E-08	5.25E-08
70026	U120 B-203 HTR (HLNX-RF)	Benzene	71-43-2	2.1900	0.000277	7,920	3.15E-05	3.48E-05
70026	U120 B-203 HTR (HLNX-RF)	Acetaldehyde	75-07-0	38.4519	0.004855	7,920	5.53E-04	6.12E-04
70026	U120 B-203 HTR (HLNX-RF)	Acenaphthene (PAHs)	83-32-9	0.0005	0.000000	7,920	7.26E-09	8.03E-09
70026	U120 B-203 HTR (HLNX-RF)	Phenanthrene (PAHs)	85-01-8	0.0039	0.000000	7,920	5.55E-08	6.13E-08
70026	U120 B-203 HTR (HLNX-RF)	Fluorene (PAHs)	86-73-7	0.0007	0.000000	7,920	1.03E-08	1.14E-08
70026	U120 B-203 HTR (HLNX-RF)	Naphthalene	91-20-3	0.0750	0.000009	7,920	1.08E-06	1.19E-06
70026	U120 B-203 HTR (HLNX-RF)	2-Methyl naphthalene (PAHs)	91-57-6	0.0018	0.000000	7,920	2.63E-08	2.91E-08
70026	U120 B-203 HTR (HLNX-RF)	Ethyl benzene	100-41-4	0.6207	0.000078	7,920	8.93E-06	9.87E-06
70026	U120 B-203 HTR (HLNX-RF)	Acrolein	107-02-8	2.5508	0.000322	7,920	3.67E-05	4.06E-05
70026	U120 B-203 HTR (HLNX-RF)	Toluene	108-88-3	4.2449	0.000536	7,920	6.11E-05	6.75E-05
70026	U120 B-203 HTR (HLNX-RF)	Phenol	108-95-2	0.6002	0.000076	7,920	8.63E-06	9.55E-06
70026	U120 B-203 HTR (HLNX-RF)	Propylene	115-07-1	22.5068	0.002842	7,920	3.24E-04	3.58E-04
70026	U120 B-203 HTR (HLNX-RF)	Anthracene	120-12-7	0.0004	0.000000	7,920	5.40E-09	5.97E-09
70026	U120 B-203 HTR (HLNX-RF)	Pyrene	129-00-0	0.0025	0.000000	7,920	3.56E-08	3.93E-08
70026	U120 B-203 HTR (HLNX-RF)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	7,920	2.39E-09	2.65E-09
70026	U120 B-203 HTR (HLNX-RF)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0107	0.000001	7,920	1.53E-07	1.69E-07
70026	U120 B-203 HTR (HLNX-RF)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0041	0.000001	7,920	5.83E-08	6.44E-08
70026	U120 B-203 HTR (HLNX-RF)	Fluoranthene (PAHs)	206-44-0	0.0023	0.000000	7,920	3.34E-08	3.69E-08
70026	U120 B-203 HTR (HLNX-RF)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0026	0.000000	7,920	3.67E-08	4.06E-08
70026	U120 B-203 HTR (HLNX-RF)	Acenaphthylene (PAHs)	208-96-8	0.0096	0.000001	7,920	1.38E-07	1.53E-07
70026	U120 B-203 HTR (HLNX-RF)	Chrysene (PAHs)	218-01-9	0.0002	0.000000	7,920	3.45E-09	3.82E-09
70026	U120 B-203 HTR (HLNX-RF)	Xylenes (mixed isomers)	1330-20-7	7.5289	0.000951	7,920	1.08E-04	1.20E-04
70026	U120 B-203 HTR (HLNX-RF)	Aluminum	7429-90-5	2.2254	0.000281	7,920	3.20E-05	3.54E-05
70026	U120 B-203 HTR (HLNX-RF)	Manganese compounds	7439-96-5	0.6267	0.000079	7,920	9.01E-06	9.97E-06
70026	U120 B-203 HTR (HLNX-RF)	Mercury compounds	7439-97-6	0.0030	0.000000	7,920	4.25E-08	4.70E-08

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Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70026	U120 B-203 HTR (HLNX-RF)	Nickel compounds	7440-02-0	1.6148	0.000204	7,920	2.32E-05	2.57E-05
70026	U120 B-203 HTR (HLNX-RF)	Silver compounds	7440-22-4	0.0037	0.000000	7,920	5.39E-08	5.96E-08
70026	U120 B-203 HTR (HLNX-RF)	Thallium	7440-28-0	0.8703	0.000110	7,920	1.25E-05	1.38E-05
70026	U120 B-203 HTR (HLNX-RF)	Antimony	7440-36-0	0.0013	0.000000	7,920	1.83E-08	2.02E-08
70026	U120 B-203 HTR (HLNX-RF)	Arsenic	7440-38-2	0.0046	0.000001	7,920	6.62E-08	7.32E-08
70026	U120 B-203 HTR (HLNX-RF)	Barium	7440-39-3	0.8124	0.000103	7,920	1.17E-05	1.29E-05
70026	U120 B-203 HTR (HLNX-RF)	Beryllium	7440-41-7	0.0195	0.000002	7,920	2.81E-07	3.10E-07
70026	U120 B-203 HTR (HLNX-RF)	Cadmium	7440-43-9	0.0111	0.000001	7,920	1.60E-07	1.77E-07
70026	U120 B-203 HTR (HLNX-RF)	Chromium compounds	7440-47-3	0.0301	0.000004	7,920	4.33E-07	4.78E-07
70026	U120 B-203 HTR (HLNX-RF)	Cobalt compounds	7440-48-4	0.0350	0.000004	7,920	5.04E-07	5.57E-07
70026	U120 B-203 HTR (HLNX-RF)	Copper compounds	7440-50-8	0.4017	0.000051	7,920	5.78E-06	6.39E-06
70026	U120 B-203 HTR (HLNX-RF)	Vanadium compounds	7440-62-2	0.0073	0.000001	7,920	1.05E-07	1.16E-07
70026	U120 B-203 HTR (HLNX-RF)	Zinc compounds	7440-66-6	0.6156	0.000078	7,920	8.85E-06	9.79E-06
70026	U120 B-203 HTR (HLNX-RF)	Ammonia	7664-41-7	36.7362	0.004638	7,920	5.28E-04	5.84E-04
70026	U120 B-203 HTR (HLNX-RF)	Sulfuric acid	7664-93-9	3.9481	0.000125	8,760	5.68E-05	1.57E-05
70026	U120 B-203 HTR (HLNX-RF)	Phosphorus	7723-14-0	0.3156	0.000040	7,920	4.54E-06	5.02E-06
70026	U120 B-203 HTR (HLNX-RF)	Selenium compounds	7782-49-2	0.0041	0.000001	7,920	5.84E-08	6.45E-08
70026	U120 B-203 HTR (HLNX-RF)	Hydrogen sulfide	7783-06-4	0.1807	0.000023	7,920	2.60E-06	2.88E-06
70027	U120 B-204 HTR	Lead compounds	1128	0.5323	0.000067	7,920	7.66E-06	8.47E-06
70027	U120 B-204 HTR	Formaldehyde	50-00-0	65.7989	0.008308	7,920	9.46E-04	1.05E-03
70027	U120 B-204 HTR	Benzo(a)pyrene	50-32-8	0.0355	0.000004	7,920	5.11E-07	5.65E-07
70027	U120 B-204 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0009	0.000000	7,920	1.34E-08	1.49E-08
70027	U120 B-204 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0137	0.000002	7,920	1.97E-07	2.18E-07
70027	U120 B-204 HTR	Benzene	71-43-2	9.0945	0.001148	7,920	1.31E-04	1.45E-04
70027	U120 B-204 HTR	Acetaldehyde	75-07-0	159.6776	0.020161	7,920	2.30E-03	2.54E-03
70027	U120 B-204 HTR	Acenaphthene (PAHs)	83-32-9	0.0021	0.000000	7,920	3.01E-08	3.33E-08
70027	U120 B-204 HTR	Phenanthrene (PAHs)	85-01-8	0.0160	0.000002	7,920	2.30E-07	2.55E-07
70027	U120 B-204 HTR	Fluorene (PAHs)	86-73-7	0.0030	0.000000	7,920	4.29E-08	4.74E-08
70027	U120 B-204 HTR	Naphthalene	91-20-3	0.3114	0.000039	7,920	4.48E-06	4.95E-06
70027	U120 B-204 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0076	0.000001	7,920	1.09E-07	1.21E-07
70027	U120 B-204 HTR	Ethyl benzene	100-41-4	2.5775	0.000325	7,920	3.71E-05	4.10E-05
70027	U120 B-204 HTR	Acrolein	107-02-8	10.5925	0.001337	7,920	1.52E-04	1.69E-04
70027	U120 B-204 HTR	Toluene	108-88-3	17.6278	0.002226	7,920	2.54E-04	2.80E-04

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70027	U120 B-204 HTR	Phenol	108-95-2	2.4923	0.000315	7,920	3.58E-05	3.97E-05
70027	U120 B-204 HTR	Propylene	115-07-1	93.4631	0.011801	7,920	1.34E-03	1.49E-03
70027	U120 B-204 HTR	Anthracene	120-12-7	0.0016	0.000000	7,920	2.24E-08	2.48E-08
70027	U120 B-204 HTR	Pyrene	129-00-0	0.0103	0.000001	7,920	1.48E-07	1.63E-07
70027	U120 B-204 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0007	0.000000	7,920	9.94E-09	1.10E-08
70027	U120 B-204 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0442	0.000006	7,920	6.36E-07	7.04E-07
70027	U120 B-204 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0168	0.000002	7,920	2.42E-07	2.68E-07
70027	U120 B-204 HTR	Fluoranthene (PAHs)	206-44-0	0.0096	0.000001	7,920	1.39E-07	1.53E-07
70027	U120 B-204 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0106	0.000001	7,920	1.52E-07	1.69E-07
70027	U120 B-204 HTR	Acenaphthylene (PAHs)	208-96-8	0.0400	0.000005	7,920	5.75E-07	6.36E-07
70027	U120 B-204 HTR	Chrysene (PAHs)	218-01-9	0.0010	0.000000	7,920	1.43E-08	1.59E-08
70027	U120 B-204 HTR	Xylenes (mixed isomers)	1330-20-7	31.2650	0.003948	7,920	4.50E-04	4.97E-04
70027	U120 B-204 HTR	Aluminum	7429-90-5	9.2412	0.001167	7,920	1.33E-04	1.47E-04
70027	U120 B-204 HTR	Manganese compounds	7439-96-5	2.6026	0.000329	7,920	3.74E-05	4.14E-05
70027	U120 B-204 HTR	Mercury compounds	7439-97-6	0.0123	0.000002	7,920	1.77E-07	1.95E-07
70027	U120 B-204 HTR	Nickel compounds	7440-02-0	6.7056	0.000847	7,920	9.64E-05	1.07E-04
70027	U120 B-204 HTR	Silver compounds	7440-22-4	0.0155	0.000002	7,920	2.24E-07	2.47E-07
70027	U120 B-204 HTR	Thallium	7440-28-0	3.6139	0.000456	7,920	5.20E-05	5.75E-05
70027	U120 B-204 HTR	Antimony	7440-36-0	0.0053	0.000001	7,920	7.60E-08	8.40E-08
70027	U120 B-204 HTR	Arsenic	7440-38-2	0.0191	0.000002	7,920	2.75E-07	3.04E-07
70027	U120 B-204 HTR	Barium	7440-39-3	3.3738	0.000426	7,920	4.85E-05	5.37E-05
70027	U120 B-204 HTR	Beryllium	7440-41-7	0.0810	0.000010	7,920	1.17E-06	1.29E-06
70027	U120 B-204 HTR	Cadmium	7440-43-9	0.0461	0.000006	7,920	6.63E-07	7.33E-07
70027	U120 B-204 HTR	Chromium compounds	7440-47-3	0.1249	0.000016	7,920	1.80E-06	1.99E-06
70027	U120 B-204 HTR	Cobalt compounds	7440-48-4	0.1454	0.000018	7,920	2.09E-06	2.31E-06
70027	U120 B-204 HTR	Copper compounds	7440-50-8	1.6680	0.000211	7,920	2.40E-05	2.65E-05
70027	U120 B-204 HTR	Vanadium compounds	7440-62-2	0.0303	0.000004	7,920	4.35E-07	4.81E-07
70027	U120 B-204 HTR	Zinc compounds	7440-66-6	2.5565	0.000323	7,920	3.68E-05	4.07E-05
70027	U120 B-204 HTR	Ammonia	7664-41-7	152.5529	0.019262	7,920	2.19E-03	2.43E-03
70027	U120 B-204 HTR	Sulfuric acid	7664-93-9	189.0396	0.005967	8,760	2.72E-03	7.52E-04
70027	U120 B-204 HTR	Phosphorus	7723-14-0	1.3105	0.000165	7,920	1.88E-05	2.08E-05
70027	U120 B-204 HTR	Selenium compounds	7782-49-2	0.0168	0.000002	7,920	2.42E-07	2.68E-07
70027	U120 B-204 HTR	Hydrogen sulfide	7783-06-4	0.7506	0.000095	7,920	1.08E-05	1.19E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70029	U138 INCINERATOR B-108	Lead compounds	1128	0.0294	0.000003	8,688	4.23E-07	4.27E-07
70029	U138 INCINERATOR B-108	Formaldehyde	50-00-0	0.0008	0.000000	8,688	1.21E-08	1.22E-08
70029	U138 INCINERATOR B-108	Benzo(a)pyrene	50-32-8	0.0016	0.000000	8,688	2.30E-08	2.32E-08
70029	U138 INCINERATOR B-108	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0000	0.000000	8,688	3.15E-12	3.17E-12
70029	U138 INCINERATOR B-108	Benz(a)anthracene (PAHs)	56-55-3	0.0000	0.000000	8,688	2.19E-11	2.21E-11
70029	U138 INCINERATOR B-108	Benzene	71-43-2	1.6834	0.000194	8,688	2.42E-05	2.44E-05
70029	U138 INCINERATOR B-108	Acetaldehyde	75-07-0	0.0001	0.000000	8,688	1.97E-09	1.98E-09
70029	U138 INCINERATOR B-108	Carbon disulfide	75-15-0	649.2139	0.074725	8,688	9.34E-03	9.42E-03
70029	U138 INCINERATOR B-108	Acenaphthene (PAHs)	83-32-9	0.0002	0.000000	8,688	2.46E-09	2.49E-09
70029	U138 INCINERATOR B-108	Phenanthrene (PAHs)	85-01-8	0.0005	0.000000	8,688	7.19E-09	7.25E-09
70029	U138 INCINERATOR B-108	Fluorene (PAHs)	86-73-7	0.0002	0.000000	8,688	2.59E-09	2.61E-09
70029	U138 INCINERATOR B-108	Naphthalene	91-20-3	0.0170	0.000002	8,688	2.45E-07	2.47E-07
70029	U138 INCINERATOR B-108	Ethyl benzene	100-41-4	0.4489	0.000052	8,688	6.46E-06	6.51E-06
70029	U138 INCINERATOR B-108	Acrolein	107-02-8	0.4770	0.000055	8,688	6.86E-06	6.92E-06
70029	U138 INCINERATOR B-108	Toluene	108-88-3	4.2085	0.000484	8,688	6.05E-05	6.10E-05
70029	U138 INCINERATOR B-108	Phenol	108-95-2	0.1122	0.000013	8,688	1.61E-06	1.63E-06
70029	U138 INCINERATOR B-108	Propylene	115-07-1	4.2085	0.000484	8,688	6.05E-05	6.10E-05
70029	U138 INCINERATOR B-108	Anthracene	120-12-7	0.0000	0.000000	8,688	1.40E-10	1.41E-10
70029	U138 INCINERATOR B-108	Pyrene	129-00-0	0.0004	0.000000	8,688	5.16E-09	5.20E-09
70029	U138 INCINERATOR B-108	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0000	0.000000	8,688	4.70E-10	4.73E-10
70029	U138 INCINERATOR B-108	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0000	0.000000	8,688	9.28E-11	9.36E-11
70029	U138 INCINERATOR B-108	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0000	0.000000	8,688	9.72E-11	9.80E-11
70029	U138 INCINERATOR B-108	Fluoranthene (PAHs)	206-44-0	0.0002	0.000000	8,688	3.23E-09	3.26E-09
70029	U138 INCINERATOR B-108	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0000	0.000000	8,688	2.61E-11	2.63E-11
70029	U138 INCINERATOR B-108	Acenaphthylene (PAHs)	208-96-8	0.0007	0.000000	8,688	9.58E-09	9.66E-09
70029	U138 INCINERATOR B-108	Chrysene (PAHs)	218-01-9	0.0000	0.000000	8,688	8.55E-11	8.62E-11
70029	U138 INCINERATOR B-108	Carbonyl sulfide	463-58-1	456.3751	0.052529	8,688	6.56E-03	6.62E-03
70029	U138 INCINERATOR B-108	Xylenes (mixed isomers)	1330-20-7	0.7014	0.000081	8,688	1.01E-05	1.02E-05
70029	U138 INCINERATOR B-108	Manganese compounds	7439-96-5	0.1375	0.000016	8,688	1.98E-06	1.99E-06
70029	U138 INCINERATOR B-108	Mercury compounds	7439-97-6	0.0086	0.000001	8,688	1.24E-07	1.25E-07
70029	U138 INCINERATOR B-108	Nickel compounds	7440-02-0	0.2104	0.000024	8,688	3.03E-06	3.05E-06
70029	U138 INCINERATOR B-108	Silver compounds	7440-22-4	0.0449	0.000005	8,688	6.46E-07	6.51E-07
70029	U138 INCINERATOR B-108	Thallium	7440-28-0	0.1627	0.000019	8,688	2.34E-06	2.36E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70029	U138 INCINERATOR B-108	Antimony	7440-36-0	0.0146	0.000002	8,688	2.10E-07	2.12E-07
70029	U138 INCINERATOR B-108	Arsenic	7440-38-2	0.0202	0.000002	8,688	2.91E-07	2.93E-07
70029	U138 INCINERATOR B-108	Barium	7440-39-3	0.1627	0.000019	8,688	2.34E-06	2.36E-06
70029	U138 INCINERATOR B-108	Beryllium	7440-41-7	0.0036	0.000000	8,688	5.25E-08	5.29E-08
70029	U138 INCINERATOR B-108	Cadmium	7440-43-9	0.0421	0.000005	8,688	6.05E-07	6.10E-07
70029	U138 INCINERATOR B-108	Chromium compounds	7440-47-3	0.1599	0.000018	8,688	2.30E-06	2.32E-06
70029	U138 INCINERATOR B-108	Copper compounds	7440-50-8	0.5039	0.000058	8,688	7.25E-06	7.31E-06
70029	U138 INCINERATOR B-108	Zinc compounds	7440-66-6	0.6888	0.000079	8,688	9.91E-06	9.99E-06
70029	U138 INCINERATOR B-108	Ammonia	7664-41-7	0.0004	0.000000	8,688	6.08E-09	6.13E-09
70029	U138 INCINERATOR B-108	Sulfuric acid	7664-93-9	203.0507	0.005843	8,760	2.92E-03	7.36E-04
70029	U138 INCINERATOR B-108	Selenium compounds	7782-49-2	0.0247	0.000003	8,688	3.55E-07	3.58E-07
70029	U138 INCINERATOR B-108	Hydrogen sulfide	7783-06-4	56.3637	0.006488	8,688	8.11E-04	8.17E-04
70031	U138 INCINERATOR B-208	Lead compounds	1128	0.1199	0.000014	8,688	1.72E-06	1.74E-06
70031	U138 INCINERATOR B-208	Formaldehyde	50-00-0	0.0034	0.000000	8,688	4.92E-08	4.96E-08
70031	U138 INCINERATOR B-208	Benzo(a)pyrene	50-32-8	0.0065	0.000001	8,688	9.37E-08	9.45E-08
70031	U138 INCINERATOR B-208	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0000	0.000000	8,688	1.28E-11	1.29E-11
70031	U138 INCINERATOR B-208	Benz(a)anthracene (PAHs)	56-55-3	0.0000	0.000000	8,688	8.93E-11	9.01E-11
70031	U138 INCINERATOR B-208	Benzene	71-43-2	6.8568	0.000789	8,688	9.86E-05	9.94E-05
70031	U138 INCINERATOR B-208	Acetaldehyde	75-07-0	0.0006	0.000000	8,688	8.02E-09	8.08E-09
70031	U138 INCINERATOR B-208	Carbon disulfide	75-15-0	2,644.3353	0.304366	8,688	3.80E-02	3.83E-02
70031	U138 INCINERATOR B-208	Acenaphthene (PAHs)	83-32-9	0.0007	0.000000	8,688	1.00E-08	1.01E-08
70031	U138 INCINERATOR B-208	Phenanthrene (PAHs)	85-01-8	0.0020	0.000000	8,688	2.93E-08	2.95E-08
70031	U138 INCINERATOR B-208	Fluorene (PAHs)	86-73-7	0.0007	0.000000	8,688	1.05E-08	1.06E-08
70031	U138 INCINERATOR B-208	Naphthalene	91-20-3	0.0693	0.000008	8,688	9.96E-07	1.00E-06
70031	U138 INCINERATOR B-208	Ethyl benzene	100-41-4	1.8285	0.000210	8,688	2.63E-05	2.65E-05
70031	U138 INCINERATOR B-208	Acrolein	107-02-8	1.9428	0.000224	8,688	2.79E-05	2.82E-05
70031	U138 INCINERATOR B-208	Toluene	108-88-3	17.1419	0.001973	8,688	2.47E-04	2.49E-04
70031	U138 INCINERATOR B-208	Phenol	108-95-2	0.4571	0.000053	8,688	6.57E-06	6.63E-06
70031	U138 INCINERATOR B-208	Propylene	115-07-1	17.1419	0.001973	8,688	2.47E-04	2.49E-04
70031	U138 INCINERATOR B-208	Anthracene	120-12-7	0.0000	0.000000	8,688	5.70E-10	5.75E-10
70031	U138 INCINERATOR B-208	Pyrene	129-00-0	0.0015	0.000000	8,688	2.10E-08	2.12E-08
70031	U138 INCINERATOR B-208	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	8,688	1.91E-09	1.93E-09
70031	U138 INCINERATOR B-208	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0000	0.000000	8,688	3.78E-10	3.81E-10

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70031	U138 INCINERATOR B-208	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0000	0.000000	8,688	3.96E-10	3.99E-10
70031	U138 INCINERATOR B-208	Fluoranthene (PAHs)	206-44-0	0.0009	0.000000	8,688	1.32E-08	1.33E-08
70031	U138 INCINERATOR B-208	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0000	0.000000	8,688	1.06E-10	1.07E-10
70031	U138 INCINERATOR B-208	Acenaphthylene (PAHs)	208-96-8	0.0027	0.000000	8,688	3.90E-08	3.94E-08
70031	U138 INCINERATOR B-208	Chrysene (PAHs)	218-01-9	0.0000	0.000000	8,688	3.48E-10	3.51E-10
70031	U138 INCINERATOR B-208	Carbonyl sulfide	463-58-1	1,858.8770	0.213959	8,688	2.67E-02	2.70E-02
70031	U138 INCINERATOR B-208	Xylenes (mixed isomers)	1330-20-7	2.8570	0.000329	8,688	4.11E-05	4.14E-05
70031	U138 INCINERATOR B-208	Manganese compounds	7439-96-5	0.5600	0.000064	8,688	8.05E-06	8.12E-06
70031	U138 INCINERATOR B-208	Mercury compounds	7439-97-6	0.0350	0.000004	8,688	5.03E-07	5.07E-07
70031	U138 INCINERATOR B-208	Nickel compounds	7440-02-0	0.8571	0.000099	8,688	1.23E-05	1.24E-05
70031	U138 INCINERATOR B-208	Silver compounds	7440-22-4	0.1828	0.000021	8,688	2.63E-06	2.65E-06
70031	U138 INCINERATOR B-208	Thallium	7440-28-0	0.6628	0.000076	8,688	9.53E-06	9.61E-06
70031	U138 INCINERATOR B-208	Antimony	7440-36-0	0.0594	0.000007	8,688	8.55E-07	8.62E-07
70031	U138 INCINERATOR B-208	Arsenic	7440-38-2	0.0823	0.000009	8,688	1.18E-06	1.19E-06
70031	U138 INCINERATOR B-208	Barium	7440-39-3	0.6628	0.000076	8,688	9.53E-06	9.61E-06
70031	U138 INCINERATOR B-208	Beryllium	7440-41-7	0.0149	0.000002	8,688	2.14E-07	2.15E-07
70031	U138 INCINERATOR B-208	Cadmium	7440-43-9	0.1714	0.000020	8,688	2.47E-06	2.49E-06
70031	U138 INCINERATOR B-208	Chromium compounds	7440-47-3	0.6514	0.000075	8,688	9.37E-06	9.45E-06
70031	U138 INCINERATOR B-208	Copper compounds	7440-50-8	2.0523	0.000236	8,688	2.95E-05	2.98E-05
70031	U138 INCINERATOR B-208	Zinc compounds	7440-66-6	2.8056	0.000323	8,688	4.04E-05	4.07E-05
70031	U138 INCINERATOR B-208	Ammonia	7664-41-7	0.0017	0.000000	8,688	2.48E-08	2.50E-08
70031	U138 INCINERATOR B-208	Sulfuric acid	7664-93-9	11.9499	0.000344	8,760	1.72E-04	4.33E-05
70031	U138 INCINERATOR B-208	Selenium compounds	7782-49-2	0.1006	0.000012	8,688	1.45E-06	1.46E-06
70031	U138 INCINERATOR B-208	Hydrogen sulfide	7783-06-4	239.3599	0.027551	8,688	3.44E-03	3.47E-03
70032	U152 B-201 HTR	Lead compounds	1128	0.1931	0.000026	7,380	2.78E-06	3.30E-06
70032	U152 B-201 HTR	Formaldehyde	50-00-0	23.8762	0.003235	7,380	3.43E-04	4.08E-04
70032	U152 B-201 HTR	Benzo(a)pyrene	50-32-8	0.0129	0.000002	7,380	1.85E-07	2.20E-07
70032	U152 B-201 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0003	0.000000	7,380	4.88E-09	5.79E-09
70032	U152 B-201 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0050	0.000001	7,380	7.15E-08	8.49E-08
70032	U152 B-201 HTR	Benzene	71-43-2	3.3001	0.000447	7,380	4.75E-05	5.63E-05
70032	U152 B-201 HTR	Acetaldehyde	75-07-0	57.9417	0.007851	7,380	8.33E-04	9.89E-04
70032	U152 B-201 HTR	Acenaphthene (PAHs)	83-32-9	0.0008	0.000000	7,380	1.09E-08	1.30E-08
70032	U152 B-201 HTR	Phenanthrene (PAHs)	85-01-8	0.0058	0.000001	7,380	8.36E-08	9.92E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70032	U152 B-201 HTR	Fluorene (PAHs)	86-73-7	0.0011	0.000000	7,380	1.56E-08	1.85E-08
70032	U152 B-201 HTR	Naphthalene	91-20-3	0.1130	0.000015	7,380	1.63E-06	1.93E-06
70032	U152 B-201 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0028	0.000000	7,380	3.96E-08	4.70E-08
70032	U152 B-201 HTR	Ethyl benzene	100-41-4	0.9353	0.000127	7,380	1.35E-05	1.60E-05
70032	U152 B-201 HTR	Acrolein	107-02-8	3.8437	0.000521	7,380	5.53E-05	6.56E-05
70032	U152 B-201 HTR	Toluene	108-88-3	6.3966	0.000867	7,380	9.20E-05	1.09E-04
70032	U152 B-201 HTR	Phenol	108-95-2	0.9044	0.000123	7,380	1.30E-05	1.54E-05
70032	U152 B-201 HTR	Propylene	115-07-1	33.9147	0.004595	7,380	4.88E-04	5.79E-04
70032	U152 B-201 HTR	Anthracene	120-12-7	0.0006	0.000000	7,380	8.14E-09	9.66E-09
70032	U152 B-201 HTR	Pyrene	129-00-0	0.0037	0.000001	7,380	5.36E-08	6.36E-08
70032	U152 B-201 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0003	0.000000	7,380	3.61E-09	4.28E-09
70032	U152 B-201 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0161	0.000002	7,380	2.31E-07	2.74E-07
70032	U152 B-201 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0061	0.000001	7,380	8.78E-08	1.04E-07
70032	U152 B-201 HTR	Fluoranthene (PAHs)	206-44-0	0.0035	0.000000	7,380	5.03E-08	5.97E-08
70032	U152 B-201 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0038	0.000001	7,380	5.53E-08	6.56E-08
70032	U152 B-201 HTR	Acenaphthylene (PAHs)	208-96-8	0.0145	0.000002	7,380	2.09E-07	2.48E-07
70032	U152 B-201 HTR	Chrysene (PAHs)	218-01-9	0.0004	0.000000	7,380	5.20E-09	6.18E-09
70032	U152 B-201 HTR	Xylenes (mixed isomers)	1330-20-7	11.3450	0.001537	7,380	1.63E-04	1.94E-04
70032	U152 B-201 HTR	Aluminum	7429-90-5	3.3533	0.000454	7,380	4.82E-05	5.73E-05
70032	U152 B-201 HTR	Manganese compounds	7439-96-5	0.9444	0.000128	7,380	1.36E-05	1.61E-05
70032	U152 B-201 HTR	Mercury compounds	7439-97-6	0.0045	0.000001	7,380	6.41E-08	7.61E-08
70032	U152 B-201 HTR	Nickel compounds	7440-02-0	2.4332	0.000330	7,380	3.50E-05	4.15E-05
70032	U152 B-201 HTR	Silver compounds	7440-22-4	0.0056	0.000001	7,380	8.12E-08	9.63E-08
70032	U152 B-201 HTR	Thallium	7440-28-0	1.3114	0.000178	7,380	1.89E-05	2.24E-05
70032	U152 B-201 HTR	Antimony	7440-36-0	0.0019	0.000000	7,380	2.76E-08	3.27E-08
70032	U152 B-201 HTR	Arsenic	7440-38-2	0.0069	0.000001	7,380	9.97E-08	1.18E-07
70032	U152 B-201 HTR	Barium	7440-39-3	1.2242	0.000166	7,380	1.76E-05	2.09E-05
70032	U152 B-201 HTR	Beryllium	7440-41-7	0.0294	0.000004	7,380	4.23E-07	5.02E-07
70032	U152 B-201 HTR	Cadmium	7440-43-9	0.0167	0.000002	7,380	2.41E-07	2.86E-07
70032	U152 B-201 HTR	Chromium compounds	7440-47-3	0.0453	0.000006	7,380	6.52E-07	7.74E-07
70032	U152 B-201 HTR	Cobalt compounds	7440-48-4	0.0528	0.000007	7,380	7.59E-07	9.01E-07
70032	U152 B-201 HTR	Copper compounds	7440-50-8	0.6053	0.000082	7,380	8.71E-06	1.03E-05
70032	U152 B-201 HTR	Vanadium compounds	7440-62-2	0.0110	0.000001	7,380	1.58E-07	1.87E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70032	U152 B-201 HTR	Zinc compounds	7440-66-6	0.9277	0.000126	7,380	1.33E-05	1.58E-05
70032	U152 B-201 HTR	Ammonia	7664-41-7	55.3564	0.007501	7,380	7.96E-04	9.45E-04
70032	U152 B-201 HTR	Sulfuric acid	7664-93-9	17.3981	0.000589	8,760	2.50E-04	7.43E-05
70032	U152 B-201 HTR	Phosphorus	7723-14-0	0.4755	0.000064	7,380	6.84E-06	8.12E-06
70032	U152 B-201 HTR	Selenium compounds	7782-49-2	0.0061	0.000001	7,380	8.79E-08	1.04E-07
70032	U152 B-201 HTR	Hydrogen sulfide	7783-06-4	0.2724	0.000037	7,380	3.92E-06	4.65E-06
70033	U152 B-202 HTR	Lead compounds	1128	0.1340	0.000018	7,380	1.93E-06	2.29E-06
70033	U152 B-202 HTR	Formaldehyde	50-00-0	16.5715	0.002245	7,380	2.38E-04	2.83E-04
70033	U152 B-202 HTR	Benzo(a)pyrene	50-32-8	0.0089	0.000001	7,380	1.29E-07	1.53E-07
70033	U152 B-202 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	7,380	3.39E-09	4.02E-09
70033	U152 B-202 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0035	0.000000	7,380	4.97E-08	5.89E-08
70033	U152 B-202 HTR	Benzene	71-43-2	2.2905	0.000310	7,380	3.29E-05	3.91E-05
70033	U152 B-202 HTR	Acetaldehyde	75-07-0	40.2150	0.005449	7,380	5.78E-04	6.87E-04
70033	U152 B-202 HTR	Acenaphthene (PAHs)	83-32-9	0.0005	0.000000	7,380	7.59E-09	9.01E-09
70033	U152 B-202 HTR	Phenanthrene (PAHs)	85-01-8	0.0040	0.000001	7,380	5.80E-08	6.88E-08
70033	U152 B-202 HTR	Fluorene (PAHs)	86-73-7	0.0008	0.000000	7,380	1.08E-08	1.28E-08
70033	U152 B-202 HTR	Naphthalene	91-20-3	0.0784	0.000011	7,380	1.13E-06	1.34E-06
70033	U152 B-202 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0019	0.000000	7,380	2.75E-08	3.26E-08
70033	U152 B-202 HTR	Ethyl benzene	100-41-4	0.6491	0.000088	7,380	9.34E-06	1.11E-05
70033	U152 B-202 HTR	Acrolein	107-02-8	2.6677	0.000361	7,380	3.84E-05	4.55E-05
70033	U152 B-202 HTR	Toluene	108-88-3	4.4396	0.000602	7,380	6.39E-05	7.58E-05
70033	U152 B-202 HTR	Phenol	108-95-2	0.6277	0.000085	7,380	9.03E-06	1.07E-05
70033	U152 B-202 HTR	Propylene	115-07-1	23.5388	0.003190	7,380	3.39E-04	4.02E-04
70033	U152 B-202 HTR	Anthracene	120-12-7	0.0004	0.000000	7,380	5.65E-09	6.70E-09
70033	U152 B-202 HTR	Pyrene	129-00-0	0.0026	0.000000	7,380	3.72E-08	4.42E-08
70033	U152 B-202 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	7,380	2.50E-09	2.97E-09
70033	U152 B-202 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0111	0.000002	7,380	1.60E-07	1.90E-07
70033	U152 B-202 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0042	0.000001	7,380	6.09E-08	7.23E-08
70033	U152 B-202 HTR	Fluoranthene (PAHs)	206-44-0	0.0024	0.000000	7,380	3.49E-08	4.14E-08
70033	U152 B-202 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0027	0.000000	7,380	3.84E-08	4.55E-08
70033	U152 B-202 HTR	Acenaphthylene (PAHs)	208-96-8	0.0101	0.000001	7,380	1.45E-07	1.72E-07
70033	U152 B-202 HTR	Chrysene (PAHs)	218-01-9	0.0003	0.000000	7,380	3.61E-09	4.29E-09
70033	U152 B-202 HTR	Xylenes (mixed isomers)	1330-20-7	7.8741	0.001067	7,380	1.13E-04	1.34E-04

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70033	U152 B-202 HTR	Aluminum	7429-90-5	2.3274	0.000315	7,380	3.35E-05	3.97E-05
70033	U152 B-202 HTR	Manganese compounds	7439-96-5	0.6555	0.000089	7,380	9.43E-06	1.12E-05
70033	U152 B-202 HTR	Mercury compounds	7439-97-6	0.0031	0.000000	7,380	4.45E-08	5.28E-08
70033	U152 B-202 HTR	Nickel compounds	7440-02-0	1.6888	0.000229	7,380	2.43E-05	2.88E-05
70033	U152 B-202 HTR	Silver compounds	7440-22-4	0.0039	0.000001	7,380	5.63E-08	6.69E-08
70033	U152 B-202 HTR	Thallium	7440-28-0	0.9102	0.000123	7,380	1.31E-05	1.55E-05
70033	U152 B-202 HTR	Antimony	7440-36-0	0.0013	0.000000	7,380	1.91E-08	2.27E-08
70033	U152 B-202 HTR	Arsenic	7440-38-2	0.0048	0.000001	7,380	6.92E-08	8.22E-08
70033	U152 B-202 HTR	Barium	7440-39-3	0.8497	0.000115	7,380	1.22E-05	1.45E-05
70033	U152 B-202 HTR	Beryllium	7440-41-7	0.0204	0.000003	7,380	2.93E-07	3.48E-07
70033	U152 B-202 HTR	Cadmium	7440-43-9	0.0116	0.000002	7,380	1.67E-07	1.98E-07
70033	U152 B-202 HTR	Chromium compounds	7440-47-3	0.0315	0.000004	7,380	4.52E-07	5.37E-07
70033	U152 B-202 HTR	Cobalt compounds	7440-48-4	0.0366	0.000005	7,380	5.27E-07	6.25E-07
70033	U152 B-202 HTR	Copper compounds	7440-50-8	0.4201	0.000057	7,380	6.04E-06	7.17E-06
70033	U152 B-202 HTR	Vanadium compounds	7440-62-2	0.0076	0.000001	7,380	1.10E-07	1.30E-07
70033	U152 B-202 HTR	Zinc compounds	7440-66-6	0.6439	0.000087	7,380	9.26E-06	1.10E-05
70033	U152 B-202 HTR	Ammonia	7664-41-7	38.4206	0.005206	7,380	5.53E-04	6.56E-04
70033	U152 B-202 HTR	Sulfuric acid	7664-93-9	44.6592	0.001513	8,760	6.42E-04	1.91E-04
70033	U152 B-202 HTR	Phosphorus	7723-14-0	0.3301	0.000045	7,380	4.75E-06	5.64E-06
70033	U152 B-202 HTR	Selenium compounds	7782-49-2	0.0042	0.000001	7,380	6.10E-08	7.24E-08
70033	U152 B-202 HTR	Hydrogen sulfide	7783-06-4	0.1890	0.000026	7,380	2.72E-06	3.23E-06
70034	U152 B-602 HTR	Lead compounds	1128	0.1702	0.000023	7,380	2.45E-06	2.91E-06
70034	U152 B-602 HTR	Formaldehyde	50-00-0	21.0446	0.002852	7,380	3.03E-04	3.59E-04
70034	U152 B-602 HTR	Benzo(a)pyrene	50-32-8	0.0114	0.000002	7,380	1.63E-07	1.94E-07
70034	U152 B-602 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0003	0.000000	7,380	4.30E-09	5.10E-09
70034	U152 B-602 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0044	0.000001	7,380	6.31E-08	7.49E-08
70034	U152 B-602 HTR	Benzene	71-43-2	2.9087	0.000394	7,380	4.18E-05	4.97E-05
70034	U152 B-602 HTR	Acetaldehyde	75-07-0	51.0699	0.006920	7,380	7.35E-04	8.72E-04
70034	U152 B-602 HTR	Acenaphthene (PAHs)	83-32-9	0.0007	0.000000	7,380	9.64E-09	1.14E-08
70034	U152 B-602 HTR	Phenanthrene (PAHs)	85-01-8	0.0051	0.000001	7,380	7.36E-08	8.74E-08
70034	U152 B-602 HTR	Fluorene (PAHs)	86-73-7	0.0010	0.000000	7,380	1.37E-08	1.63E-08
70034	U152 B-602 HTR	Naphthalene	91-20-3	0.0996	0.000013	7,380	1.43E-06	1.70E-06
70034	U152 B-602 HTR	2-Methyl naphthalene (PAHs)	91-57-6	0.0024	0.000000	7,380	3.49E-08	4.14E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70034	U152 B-602 HTR	Ethyl benzene	100-41-4	0.8244	0.000112	7,380	1.19E-05	1.41E-05
70034	U152 B-602 HTR	Acrolein	107-02-8	3.3878	0.000459	7,380	4.87E-05	5.78E-05
70034	U152 B-602 HTR	Toluene	108-88-3	5.6379	0.000764	7,380	8.11E-05	9.63E-05
70034	U152 B-602 HTR	Phenol	108-95-2	0.7971	0.000108	7,380	1.15E-05	1.36E-05
70034	U152 B-602 HTR	Propylene	115-07-1	29.8924	0.004050	7,380	4.30E-04	5.10E-04
70034	U152 B-602 HTR	Anthracene	120-12-7	0.0005	0.000000	7,380	7.17E-09	8.51E-09
70034	U152 B-602 HTR	Pyrene	129-00-0	0.0033	0.000000	7,380	4.72E-08	5.61E-08
70034	U152 B-602 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	7,380	3.18E-09	3.78E-09
70034	U152 B-602 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0141	0.000002	7,380	2.04E-07	2.42E-07
70034	U152 B-602 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0054	0.000001	7,380	7.74E-08	9.19E-08
70034	U152 B-602 HTR	Fluoranthene (PAHs)	206-44-0	0.0031	0.000000	7,380	4.43E-08	5.26E-08
70034	U152 B-602 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0034	0.000000	7,380	4.87E-08	5.78E-08
70034	U152 B-602 HTR	Acenaphthylene (PAHs)	208-96-8	0.0128	0.000002	7,380	1.84E-07	2.18E-07
70034	U152 B-602 HTR	Chrysene (PAHs)	218-01-9	0.0003	0.000000	7,380	4.59E-09	5.44E-09
70034	U152 B-602 HTR	Xylenes (mixed isomers)	1330-20-7	9.9995	0.001355	7,380	1.44E-04	1.71E-04
70034	U152 B-602 HTR	Aluminum	7429-90-5	2.9556	0.000400	7,380	4.25E-05	5.05E-05
70034	U152 B-602 HTR	Manganese compounds	7439-96-5	0.8324	0.000113	7,380	1.20E-05	1.42E-05
70034	U152 B-602 HTR	Mercury compounds	7439-97-6	0.0039	0.000001	7,380	5.65E-08	6.71E-08
70034	U152 B-602 HTR	Nickel compounds	7440-02-0	2.1447	0.000291	7,380	3.08E-05	3.66E-05
70034	U152 B-602 HTR	Silver compounds	7440-22-4	0.0050	0.000001	7,380	7.15E-08	8.49E-08
70034	U152 B-602 HTR	Thallium	7440-28-0	1.1558	0.000157	7,380	1.66E-05	1.97E-05
70034	U152 B-602 HTR	Antimony	7440-36-0	0.0017	0.000000	7,380	2.43E-08	2.88E-08
70034	U152 B-602 HTR	Arsenic	7440-38-2	0.0061	0.000001	7,380	8.79E-08	1.04E-07
70034	U152 B-602 HTR	Barium	7440-39-3	1.0790	0.000146	7,380	1.55E-05	1.84E-05
70034	U152 B-602 HTR	Beryllium	7440-41-7	0.0259	0.000004	7,380	3.73E-07	4.42E-07
70034	U152 B-602 HTR	Cadmium	7440-43-9	0.0147	0.000002	7,380	2.12E-07	2.52E-07
70034	U152 B-602 HTR	Chromium compounds	7440-47-3	0.0399	0.000005	7,380	5.75E-07	6.82E-07
70034	U152 B-602 HTR	Cobalt compounds	7440-48-4	0.0465	0.000006	7,380	6.69E-07	7.94E-07
70034	U152 B-602 HTR	Copper compounds	7440-50-8	0.5335	0.000072	7,380	7.67E-06	9.11E-06
70034	U152 B-602 HTR	Vanadium compounds	7440-62-2	0.0097	0.000001	7,380	1.39E-07	1.65E-07
70034	U152 B-602 HTR	Zinc compounds	7440-66-6	0.8177	0.000111	7,380	1.18E-05	1.40E-05
70034	U152 B-602 HTR	Ammonia	7664-41-7	48.7912	0.006611	7,380	7.02E-04	8.33E-04
70034	U152 B-602 HTR	Sulfuric acid	7664-93-9	26.7863	0.000907	8,760	3.85E-04	1.14E-04

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70034	U152 B-602 HTR	Phosphorus	7723-14-0	0.4191	0.000057	7,380	6.03E-06	7.16E-06
70034	U152 B-602 HTR	Selenium compounds	7782-49-2	0.0054	0.000001	7,380	7.75E-08	9.20E-08
70034	U152 B-602 HTR	Hydrogen sulfide	7783-06-4	0.2401	0.000033	7,380	3.45E-06	4.10E-06
70035	U152 B-703 HTR	Lead compounds	1128	0.2012	0.000027	7,380	2.89E-06	3.44E-06
70035	U152 B-703 HTR	Formaldehyde	50-00-0	0.6204	0.000084	7,380	8.92E-06	1.06E-05
70035	U152 B-703 HTR	Benzo(a)pyrene	50-32-8	0.0030	0.000000	7,380	4.34E-08	5.15E-08
70035	U152 B-703 HTR	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0001	0.000000	7,380	1.14E-09	1.36E-09
70035	U152 B-703 HTR	Benz(a)anthracene (PAHs)	56-55-3	0.0012	0.000000	7,380	1.68E-08	1.99E-08
70035	U152 B-703 HTR	Benzene	71-43-2	0.2925	0.000040	7,380	4.21E-06	4.99E-06
70035	U152 B-703 HTR	Acetaldehyde	75-07-0	0.1563	0.000021	7,380	2.25E-06	2.67E-06
70035	U152 B-703 HTR	Phenanthrene (PAHs)	85-01-8	0.0017	0.000000	7,380	2.44E-08	2.89E-08
70035	U152 B-703 HTR	Naphthalene	91-20-3	0.0151	0.000002	7,380	2.18E-07	2.58E-07
70035	U152 B-703 HTR	Ethyl benzene	100-41-4	0.3480	0.000047	7,380	5.01E-06	5.94E-06
70035	U152 B-703 HTR	Acrolein	107-02-8	0.1362	0.000018	7,380	1.96E-06	2.32E-06
70035	U152 B-703 HTR	Toluene	108-88-3	1.3365	0.000181	7,380	1.92E-05	2.28E-05
70035	U152 B-703 HTR	Phenol	108-95-2	0.2118	0.000029	7,380	3.05E-06	3.62E-06
70035	U152 B-703 HTR	Hexane	110-54-3	0.2320	0.000031	7,380	3.34E-06	3.96E-06
70035	U152 B-703 HTR	Propylene	115-07-1	26.7308	0.003622	7,380	3.84E-04	4.56E-04
70035	U152 B-703 HTR	Anthracene	120-12-7	0.0002	0.000000	7,380	3.58E-09	4.25E-09
70035	U152 B-703 HTR	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	7,380	9.90E-10	1.18E-09
70035	U152 B-703 HTR	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0038	0.000001	7,380	5.41E-08	6.42E-08
70035	U152 B-703 HTR	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0014	0.000000	7,380	2.06E-08	2.44E-08
70035	U152 B-703 HTR	Fluoranthene (PAHs)	206-44-0	0.0005	0.000000	7,380	6.63E-09	7.87E-09
70035	U152 B-703 HTR	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0009	0.000000	7,380	1.29E-08	1.54E-08
70035	U152 B-703 HTR	Chrysene (PAHs)	218-01-9	0.0001	0.000000	7,380	1.22E-09	1.45E-09
70035	U152 B-703 HTR	Xylenes (mixed isomers)	1330-20-7	0.9936	0.000135	7,380	1.43E-05	1.70E-05
70035	U152 B-703 HTR	Manganese compounds	7439-96-5	0.2595	0.000035	7,380	3.73E-06	4.43E-06
70035	U152 B-703 HTR	Mercury compounds	7439-97-6	0.0095	0.000001	7,380	1.37E-07	1.63E-07
70035	U152 B-703 HTR	Nickel compounds	7440-02-0	0.3972	0.000054	7,380	5.71E-06	6.78E-06
70035	U152 B-703 HTR	Silver compounds	7440-22-4	0.0847	0.000011	7,380	1.22E-06	1.45E-06
70035	U152 B-703 HTR	Thallium	7440-28-0	0.3072	0.000042	7,380	4.42E-06	5.24E-06
70035	U152 B-703 HTR	Antimony	7440-36-0	0.0275	0.000004	7,380	3.96E-07	4.70E-07
70035	U152 B-703 HTR	Arsenic	7440-38-2	0.0381	0.000005	7,380	5.48E-07	6.51E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70035	U152 B-703 HTR	Barium	7440-39-3	0.3072	0.000042	7,380	4.42E-06	5.24E-06
70035	U152 B-703 HTR	Beryllium	7440-41-7	0.0069	0.000001	7,380	9.90E-08	1.18E-07
70035	U152 B-703 HTR	Cadmium	7440-43-9	0.0794	0.000011	7,380	1.14E-06	1.36E-06
70035	U152 B-703 HTR	Chromium compounds	7440-47-3	0.3019	0.000041	7,380	4.34E-06	5.15E-06
70035	U152 B-703 HTR	Copper compounds	7440-50-8	0.2489	0.000034	7,380	3.58E-06	4.25E-06
70035	U152 B-703 HTR	Zinc compounds	7440-66-6	2.8067	0.000380	7,380	4.04E-05	4.79E-05
70035	U152 B-703 HTR	Ammonia	7664-41-7	161.3933	0.021869	7,380	2.32E-03	2.76E-03
70035	U152 B-703 HTR	Hydrogen sulfide	7783-06-4	4.5014	0.000610	7,380	6.47E-05	7.69E-05
70037	FCC STACK	Lead compounds	1128	1.1418	0.000155	7,380	1.64E-05	1.95E-05
70037	FCC STACK	PAHs, total, w/o indiv. comp.	1151	0.0932	0.000013	7,380	1.34E-06	1.59E-06
70037	FCC STACK	Formaldehyde	50-00-0	347.7833	0.047125	7,380	5.00E-03	5.94E-03
70037	FCC STACK	Hydrocyanic acid	74-90-8	154,782.3677	20.973221	7,380	2.23E+00	2.64E+00
70037	FCC STACK	Acetaldehyde	75-07-0	18.2202	0.002469	7,380	2.62E-04	3.11E-04
70037	FCC STACK	Phenanthrene (PAHs)	85-01-8	0.0163	0.000002	7,380	2.34E-07	2.77E-07
70037	FCC STACK	Naphthalene	91-20-3	0.2262	0.000031	7,380	3.25E-06	3.86E-06
70037	FCC STACK	1,3-Butadiene	106-99-0	48.0239	0.006507	7,380	6.91E-04	8.20E-04
70037	FCC STACK	Acrolein	107-02-8	579.0348	0.078460	7,380	8.33E-03	9.89E-03
70037	FCC STACK	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0225	0.000003	7,380	3.23E-07	3.84E-07
70037	FCC STACK	Aluminum	7429-90-5	1,357.9200	0.184000	7,380	1.95E-02	2.32E-02
70037	FCC STACK	Manganese compounds	7439-96-5	12.4814	0.001691	7,380	1.80E-04	2.13E-04
70037	FCC STACK	Mercury compounds	7439-97-6	0.4773	0.000065	7,380	6.87E-06	8.15E-06
70037	FCC STACK	Nickel compounds	7440-02-0	3.4619	0.000469	7,380	4.98E-05	5.91E-05
70037	FCC STACK	Cadmium	7440-43-9	3.7010	0.000501	7,380	5.32E-05	6.32E-05
70037	FCC STACK	Chromium compounds	7440-47-3	1.4900	0.000202	7,380	2.14E-05	2.54E-05
70037	FCC STACK	Cobalt compounds	7440-48-4	0.1149	0.000016	7,380	1.65E-06	1.96E-06
70037	FCC STACK	Copper compounds	7440-50-8	3.5477	0.000481	7,380	5.10E-05	6.06E-05
70037	FCC STACK	Vanadium compounds	7440-62-2	17.5644	0.002380	7,380	2.53E-04	3.00E-04
70037	FCC STACK	Zinc compounds	7440-66-6	71.0398	0.009626	7,380	1.02E-03	1.21E-03
70037	FCC STACK	Hydrochloric acid	7647-01-0	361.6200	0.049000	7,380	5.20E-03	6.17E-03
70037	FCC STACK	Ammonia	7664-41-7	7,084.8000	0.960000	7,380	1.02E-01	1.21E-01
70037	FCC STACK	Sulfuric acid	7664-93-9	2,594.0804	0.344560	7,529	3.73E-02	4.34E-02
70037	FCC STACK	Chromium, hexavalent	18540-29-9	0.2023	0.000027	7,380	2.91E-06	3.45E-06
70038	BOILER 4	Lead compounds	1128	0.4587	0.000052	8,760	6.60E-06	6.60E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70038	BOILER 4	Formaldehyde	50-00-0	56.7010	0.006473	8,760	8.16E-04	8.16E-04
70038	BOILER 4	Benzo(a)pyrene	50-32-8	0.0306	0.000003	8,760	4.40E-07	4.40E-07
70038	BOILER 4	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0008	0.000000	8,760	1.16E-08	1.16E-08
70038	BOILER 4	Benz(a)anthracene (PAHs)	56-55-3	0.0118	0.000001	8,760	1.70E-07	1.70E-07
70038	BOILER 4	Benzene	71-43-2	7.8370	0.000895	8,760	1.13E-04	1.13E-04
70038	BOILER 4	Acetaldehyde	75-07-0	137.5993	0.015708	8,760	1.98E-03	1.98E-03
70038	BOILER 4	Acenaphthene (PAHs)	83-32-9	0.0018	0.000000	8,760	2.60E-08	2.60E-08
70038	BOILER 4	Phenanthrene (PAHs)	85-01-8	0.0138	0.000002	8,760	1.98E-07	1.98E-07
70038	BOILER 4	Fluorene (PAHs)	86-73-7	0.0026	0.000000	8,760	3.69E-08	3.69E-08
70038	BOILER 4	Naphthalene	91-20-3	0.2683	0.000031	8,760	3.86E-06	3.86E-06
70038	BOILER 4	2-Methyl naphthalene (PAHs)	91-57-6	0.0065	0.000001	8,760	9.40E-08	9.40E-08
70038	BOILER 4	Ethyl benzene	100-41-4	2.2211	0.000254	8,760	3.19E-05	3.19E-05
70038	BOILER 4	Acrolein	107-02-8	9.1279	0.001042	8,760	1.31E-04	1.31E-04
70038	BOILER 4	Toluene	108-88-3	15.1905	0.001734	8,760	2.18E-04	2.18E-04
70038	BOILER 4	Phenol	108-95-2	2.1477	0.000245	8,760	3.09E-05	3.09E-05
70038	BOILER 4	Propylene	115-07-1	80.5401	0.009194	8,760	1.16E-03	1.16E-03
70038	BOILER 4	Anthracene	120-12-7	0.0013	0.000000	8,760	1.93E-08	1.93E-08
70038	BOILER 4	Pyrene	129-00-0	0.0088	0.000001	8,760	1.27E-07	1.27E-07
70038	BOILER 4	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0006	0.000000	8,760	8.57E-09	8.57E-09
70038	BOILER 4	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0381	0.000004	8,760	5.48E-07	5.48E-07
70038	BOILER 4	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0145	0.000002	8,760	2.09E-07	2.09E-07
70038	BOILER 4	Fluoranthene (PAHs)	206-44-0	0.0083	0.000001	8,760	1.19E-07	1.19E-07
70038	BOILER 4	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0091	0.000001	8,760	1.31E-07	1.31E-07
70038	BOILER 4	Acenaphthylene (PAHs)	208-96-8	0.0345	0.000004	8,760	4.96E-07	4.96E-07
70038	BOILER 4	Chrysene (PAHs)	218-01-9	0.0009	0.000000	8,760	1.24E-08	1.24E-08
70038	BOILER 4	Xylenes (mixed isomers)	1330-20-7	26.9420	0.003076	8,760	3.88E-04	3.88E-04
70038	BOILER 4	Aluminum	7429-90-5	7.9634	0.000909	8,760	1.15E-04	1.15E-04
70038	BOILER 4	Manganese compounds	7439-96-5	2.2428	0.000256	8,760	3.23E-05	3.23E-05
70038	BOILER 4	Mercury compounds	7439-97-6	0.0106	0.000001	8,760	1.52E-07	1.52E-07
70038	BOILER 4	Nickel compounds	7440-02-0	5.7784	0.000660	8,760	8.31E-05	8.31E-05
70038	BOILER 4	Silver compounds	7440-22-4	0.0134	0.000002	8,760	1.93E-07	1.93E-07
70038	BOILER 4	Thallium	7440-28-0	3.1142	0.000356	8,760	4.48E-05	4.48E-05
70038	BOILER 4	Antimony	7440-36-0	0.0046	0.000001	8,760	6.55E-08	6.55E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70038	BOILER 4	Arsenic	7440-38-2	0.0165	0.000002	8,760	2.37E-07	2.37E-07
70038	BOILER 4	Barium	7440-39-3	2.9073	0.000332	8,760	4.18E-05	4.18E-05
70038	BOILER 4	Beryllium	7440-41-7	0.0698	0.000008	8,760	1.00E-06	1.00E-06
70038	BOILER 4	Cadmium	7440-43-9	0.0397	0.000005	8,760	5.71E-07	5.71E-07
70038	BOILER 4	Chromium compounds	7440-47-3	0.1076	0.000012	8,760	1.55E-06	1.55E-06
70038	BOILER 4	Cobalt compounds	7440-48-4	0.1253	0.000014	8,760	1.80E-06	1.80E-06
70038	BOILER 4	Copper compounds	7440-50-8	1.4374	0.000164	8,760	2.07E-05	2.07E-05
70038	BOILER 4	Vanadium compounds	7440-62-2	0.0261	0.000003	8,760	3.75E-07	3.75E-07
70038	BOILER 4	Zinc compounds	7440-66-6	2.2030	0.000251	8,760	3.17E-05	3.17E-05
70038	BOILER 4	Ammonia	7664-41-7	131.4597	0.015007	8,760	1.89E-03	1.89E-03
70038	BOILER 4	Sulfuric acid	7664-93-9	103.3831	0.002950	8,760	1.49E-03	3.72E-04
70038	BOILER 4	Phosphorus	7723-14-0	1.1293	0.000129	8,760	1.62E-05	1.62E-05
70038	BOILER 4	Selenium compounds	7782-49-2	0.0145	0.000002	8,760	2.09E-07	2.09E-07
70038	BOILER 4	Hydrogen sulfide	7783-06-4	0.6468	0.000074	8,760	9.30E-06	9.30E-06
70039	UTILITY BOILER B-6	Lead compounds	1128	1.1308	0.000129	8,760	1.63E-05	1.63E-05
70039	UTILITY BOILER B-6	Formaldehyde	50-00-0	139.7928	0.015958	8,760	2.01E-03	2.01E-03
70039	UTILITY BOILER B-6	Benzo(a)pyrene	50-32-8	0.0755	0.000009	8,760	1.09E-06	1.09E-06
70039	UTILITY BOILER B-6	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0020	0.000000	8,760	2.86E-08	2.86E-08
70039	UTILITY BOILER B-6	Benz(a)anthracene (PAHs)	56-55-3	0.0291	0.000003	8,760	4.19E-07	4.19E-07
70039	UTILITY BOILER B-6	Benzene	71-43-2	19.3217	0.002206	8,760	2.78E-04	2.78E-04
70039	UTILITY BOILER B-6	Acetaldehyde	75-07-0	339.2425	0.038726	8,760	4.88E-03	4.88E-03
70039	UTILITY BOILER B-6	Acenaphthene (PAHs)	83-32-9	0.0045	0.000001	8,760	6.40E-08	6.40E-08
70039	UTILITY BOILER B-6	Phenanthrene (PAHs)	85-01-8	0.0340	0.000004	8,760	4.89E-07	4.89E-07
70039	UTILITY BOILER B-6	Fluorene (PAHs)	86-73-7	0.0063	0.000001	8,760	9.11E-08	9.11E-08
70039	UTILITY BOILER B-6	Naphthalene	91-20-3	0.6616	0.000076	8,760	9.52E-06	9.52E-06
70039	UTILITY BOILER B-6	2-Methyl naphthalene (PAHs)	91-57-6	0.0161	0.000002	8,760	2.32E-07	2.32E-07
70039	UTILITY BOILER B-6	Ethyl benzene	100-41-4	5.4760	0.000625	8,760	7.88E-05	7.88E-05
70039	UTILITY BOILER B-6	Acrolein	107-02-8	22.5042	0.002569	8,760	3.24E-04	3.24E-04
70039	UTILITY BOILER B-6	Toluene	108-88-3	37.4511	0.004275	8,760	5.39E-04	5.39E-04
70039	UTILITY BOILER B-6	Phenol	108-95-2	5.2951	0.000604	8,760	7.62E-05	7.62E-05
70039	UTILITY BOILER B-6	Propylene	115-07-1	198.5667	0.022667	8,760	2.86E-03	2.86E-03
70039	UTILITY BOILER B-6	Anthracene	120-12-7	0.0033	0.000000	8,760	4.76E-08	4.76E-08
70039	UTILITY BOILER B-6	Pyrene	129-00-0	0.0218	0.000002	8,760	3.14E-07	3.14E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70039	UTILITY BOILER B-6	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0015	0.000000	8,760	2.11E-08	2.11E-08
70039	UTILITY BOILER B-6	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0940	0.000011	8,760	1.35E-06	1.35E-06
70039	UTILITY BOILER B-6	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0357	0.000004	8,760	5.14E-07	5.14E-07
70039	UTILITY BOILER B-6	Fluoranthene (PAHs)	206-44-0	0.0205	0.000002	8,760	2.95E-07	2.95E-07
70039	UTILITY BOILER B-6	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0225	0.000003	8,760	3.24E-07	3.24E-07
70039	UTILITY BOILER B-6	Acenaphthylene (PAHs)	208-96-8	0.0849	0.000010	8,760	1.22E-06	1.22E-06
70039	UTILITY BOILER B-6	Chrysene (PAHs)	218-01-9	0.0021	0.000000	8,760	3.05E-08	3.05E-08
70039	UTILITY BOILER B-6	Xylenes (mixed isomers)	1330-20-7	66.4239	0.007583	8,760	9.55E-04	9.55E-04
70039	UTILITY BOILER B-6	Aluminum	7429-90-5	19.6333	0.002241	8,760	2.82E-04	2.82E-04
70039	UTILITY BOILER B-6	Manganese compounds	7439-96-5	5.5294	0.000631	8,760	7.95E-05	7.95E-05
70039	UTILITY BOILER B-6	Mercury compounds	7439-97-6	0.0261	0.000003	8,760	3.75E-07	3.75E-07
70039	UTILITY BOILER B-6	Nickel compounds	7440-02-0	14.2464	0.001626	8,760	2.05E-04	2.05E-04
70039	UTILITY BOILER B-6	Silver compounds	7440-22-4	0.0330	0.000004	8,760	4.75E-07	4.75E-07
70039	UTILITY BOILER B-6	Thallium	7440-28-0	7.6779	0.000876	8,760	1.10E-04	1.10E-04
70039	UTILITY BOILER B-6	Antimony	7440-36-0	0.0112	0.000001	8,760	1.61E-07	1.61E-07
70039	UTILITY BOILER B-6	Arsenic	7440-38-2	0.0406	0.000005	8,760	5.84E-07	5.84E-07
70039	UTILITY BOILER B-6	Barium	7440-39-3	7.1677	0.000818	8,760	1.03E-04	1.03E-04
70039	UTILITY BOILER B-6	Beryllium	7440-41-7	0.1721	0.000020	8,760	2.48E-06	2.48E-06
70039	UTILITY BOILER B-6	Cadmium	7440-43-9	0.0979	0.000011	8,760	1.41E-06	1.41E-06
70039	UTILITY BOILER B-6	Chromium compounds	7440-47-3	0.2653	0.000030	8,760	3.82E-06	3.82E-06
70039	UTILITY BOILER B-6	Cobalt compounds	7440-48-4	0.3090	0.000035	8,760	4.44E-06	4.44E-06
70039	UTILITY BOILER B-6	Copper compounds	7440-50-8	3.5438	0.000405	8,760	5.10E-05	5.10E-05
70039	UTILITY BOILER B-6	Vanadium compounds	7440-62-2	0.0643	0.000007	8,760	9.25E-07	9.25E-07
70039	UTILITY BOILER B-6	Zinc compounds	7440-66-6	5.4314	0.000620	8,760	7.81E-05	7.81E-05
70039	UTILITY BOILER B-6	Ammonia	7664-41-7	324.1057	0.036998	8,760	4.66E-03	4.66E-03
70039	UTILITY BOILER B-6	Sulfuric acid	7664-93-9	367.1002	0.010477	8,760	5.28E-03	1.32E-03
70039	UTILITY BOILER B-6	Phosphorus	7723-14-0	2.7843	0.000318	8,760	4.00E-05	4.00E-05
70039	UTILITY BOILER B-6	Selenium compounds	7782-49-2	0.0358	0.000004	8,760	5.15E-07	5.15E-07
70039	UTILITY BOILER B-6	Hydrogen sulfide	7783-06-4	1.5946	0.000182	8,760	2.29E-05	2.29E-05
70040	UTILITY BOILER B-7	Lead compounds	1128	1.1573	0.000132	8,760	1.66E-05	1.66E-05
70040	UTILITY BOILER B-7	Formaldehyde	50-00-0	143.0651	0.016332	8,760	2.06E-03	2.06E-03
70040	UTILITY BOILER B-7	Benzo(a)pyrene	50-32-8	0.0772	0.000009	8,760	1.11E-06	1.11E-06
70040	UTILITY BOILER B-7	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0020	0.000000	8,760	2.92E-08	2.92E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70040	UTILITY BOILER B-7	Benz(a)anthracene (PAHs)	56-55-3	0.0298	0.000003	8,760	4.29E-07	4.29E-07
70040	UTILITY BOILER B-7	Benzene	71-43-2	19.7740	0.002257	8,760	2.84E-04	2.84E-04
70040	UTILITY BOILER B-7	Acetaldehyde	75-07-0	347.1834	0.039633	8,760	4.99E-03	4.99E-03
70040	UTILITY BOILER B-7	Acenaphthene (PAHs)	83-32-9	0.0046	0.000001	8,760	6.55E-08	6.55E-08
70040	UTILITY BOILER B-7	Phenanthrene (PAHs)	85-01-8	0.0348	0.000004	8,760	5.01E-07	5.01E-07
70040	UTILITY BOILER B-7	Fluorene (PAHs)	86-73-7	0.0065	0.000001	8,760	9.32E-08	9.32E-08
70040	UTILITY BOILER B-7	Naphthalene	91-20-3	0.6771	0.000077	8,760	9.74E-06	9.74E-06
70040	UTILITY BOILER B-7	2-Methyl naphthalene (PAHs)	91-57-6	0.0165	0.000002	8,760	2.37E-07	2.37E-07
70040	UTILITY BOILER B-7	Ethyl benzene	100-41-4	5.6041	0.000640	8,760	8.06E-05	8.06E-05
70040	UTILITY BOILER B-7	Acrolein	107-02-8	23.0310	0.002629	8,760	3.31E-04	3.31E-04
70040	UTILITY BOILER B-7	Toluene	108-88-3	38.3278	0.004375	8,760	5.51E-04	5.51E-04
70040	UTILITY BOILER B-7	Phenol	108-95-2	5.4191	0.000619	8,760	7.79E-05	7.79E-05
70040	UTILITY BOILER B-7	Propylene	115-07-1	203.2147	0.023198	8,760	2.92E-03	2.92E-03
70040	UTILITY BOILER B-7	Anthracene	120-12-7	0.0034	0.000000	8,760	4.88E-08	4.88E-08
70040	UTILITY BOILER B-7	Pyrene	129-00-0	0.0223	0.000003	8,760	3.21E-07	3.21E-07
70040	UTILITY BOILER B-7	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0015	0.000000	8,760	2.16E-08	2.16E-08
70040	UTILITY BOILER B-7	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0962	0.000011	8,760	1.38E-06	1.38E-06
70040	UTILITY BOILER B-7	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0366	0.000004	8,760	5.26E-07	5.26E-07
70040	UTILITY BOILER B-7	Fluoranthene (PAHs)	206-44-0	0.0210	0.000002	8,760	3.01E-07	3.01E-07
70040	UTILITY BOILER B-7	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0230	0.000003	8,760	3.31E-07	3.31E-07
70040	UTILITY BOILER B-7	Acenaphthylene (PAHs)	208-96-8	0.0869	0.000010	8,760	1.25E-06	1.25E-06
70040	UTILITY BOILER B-7	Chrysene (PAHs)	218-01-9	0.0022	0.000000	8,760	3.12E-08	3.12E-08
70040	UTILITY BOILER B-7	Xylenes (mixed isomers)	1330-20-7	67.9787	0.007760	8,760	9.78E-04	9.78E-04
70040	UTILITY BOILER B-7	Aluminum	7429-90-5	20.0929	0.002294	8,760	2.89E-04	2.89E-04
70040	UTILITY BOILER B-7	Manganese compounds	7439-96-5	5.6588	0.000646	8,760	8.14E-05	8.14E-05
70040	UTILITY BOILER B-7	Mercury compounds	7439-97-6	0.0267	0.000003	8,760	3.84E-07	3.84E-07
70040	UTILITY BOILER B-7	Nickel compounds	7440-02-0	14.5799	0.001664	8,760	2.10E-04	2.10E-04
70040	UTILITY BOILER B-7	Silver compounds	7440-22-4	0.0338	0.000004	8,760	4.86E-07	4.86E-07
70040	UTILITY BOILER B-7	Thallium	7440-28-0	7.8576	0.000897	8,760	1.13E-04	1.13E-04
70040	UTILITY BOILER B-7	Antimony	7440-36-0	0.0115	0.000001	8,760	1.65E-07	1.65E-07
70040	UTILITY BOILER B-7	Arsenic	7440-38-2	0.0416	0.000005	8,760	5.98E-07	5.98E-07
70040	UTILITY BOILER B-7	Barium	7440-39-3	7.3355	0.000837	8,760	1.06E-04	1.06E-04
70040	UTILITY BOILER B-7	Beryllium	7440-41-7	0.1761	0.000020	8,760	2.53E-06	2.53E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70040	UTILITY BOILER B-7	Cadmium	7440-43-9	0.1002	0.000011	8,760	1.44E-06	1.44E-06
70040	UTILITY BOILER B-7	Chromium compounds	7440-47-3	0.2716	0.000031	8,760	3.91E-06	3.91E-06
70040	UTILITY BOILER B-7	Cobalt compounds	7440-48-4	0.3162	0.000036	8,760	4.55E-06	4.55E-06
70040	UTILITY BOILER B-7	Copper compounds	7440-50-8	3.6267	0.000414	8,760	5.22E-05	5.22E-05
70040	UTILITY BOILER B-7	Vanadium compounds	7440-62-2	0.0658	0.000008	8,760	9.46E-07	9.46E-07
70040	UTILITY BOILER B-7	Zinc compounds	7440-66-6	5.5586	0.000635	8,760	8.00E-05	8.00E-05
70040	UTILITY BOILER B-7	Ammonia	7664-41-7	2,670.7000	0.304874	8,760	3.84E-02	3.84E-02
70040	UTILITY BOILER B-7	Sulfuric acid	7664-93-9	322.5167	0.009204	8,760	4.64E-03	1.16E-03
70040	UTILITY BOILER B-7	Phosphorus	7723-14-0	2.8495	0.000325	8,760	4.10E-05	4.10E-05
70040	UTILITY BOILER B-7	Selenium compounds	7782-49-2	0.0366	0.000004	8,760	5.27E-07	5.27E-07
70040	UTILITY BOILER B-7	Hydrogen sulfide	7783-06-4	1.6319	0.000186	8,760	2.35E-05	2.35E-05
70041	UTILITY BOILER B-8	Lead compounds	1128	1.0553	0.000120	8,760	1.52E-05	1.52E-05
70041	UTILITY BOILER B-8	Formaldehyde	50-00-0	130.4549	0.014892	8,760	1.88E-03	1.88E-03
70041	UTILITY BOILER B-8	Benzo(a)pyrene	50-32-8	0.0704	0.000008	8,760	1.01E-06	1.01E-06
70041	UTILITY BOILER B-8	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0019	0.000000	8,760	2.67E-08	2.67E-08
70041	UTILITY BOILER B-8	Benz(a)anthracene (PAHs)	56-55-3	0.0272	0.000003	8,760	3.91E-07	3.91E-07
70041	UTILITY BOILER B-8	Benzene	71-43-2	18.0310	0.002058	8,760	2.59E-04	2.59E-04
70041	UTILITY BOILER B-8	Acetaldehyde	75-07-0	316.5816	0.036139	8,760	4.55E-03	4.55E-03
70041	UTILITY BOILER B-8	Acenaphthene (PAHs)	83-32-9	0.0042	0.000000	8,760	5.98E-08	5.98E-08
70041	UTILITY BOILER B-8	Phenanthrene (PAHs)	85-01-8	0.0317	0.000004	8,760	4.57E-07	4.57E-07
70041	UTILITY BOILER B-8	Fluorene (PAHs)	86-73-7	0.0059	0.000001	8,760	8.50E-08	8.50E-08
70041	UTILITY BOILER B-8	Naphthalene	91-20-3	0.6174	0.000070	8,760	8.88E-06	8.88E-06
70041	UTILITY BOILER B-8	2-Methyl naphthalene (PAHs)	91-57-6	0.0150	0.000002	8,760	2.16E-07	2.16E-07
70041	UTILITY BOILER B-8	Ethyl benzene	100-41-4	5.1102	0.000583	8,760	7.35E-05	7.35E-05
70041	UTILITY BOILER B-8	Acrolein	107-02-8	21.0010	0.002397	8,760	3.02E-04	3.02E-04
70041	UTILITY BOILER B-8	Toluene	108-88-3	34.9494	0.003990	8,760	5.03E-04	5.03E-04
70041	UTILITY BOILER B-8	Phenol	108-95-2	4.9414	0.000564	8,760	7.11E-05	7.11E-05
70041	UTILITY BOILER B-8	Propylene	115-07-1	185.3027	0.021153	8,760	2.67E-03	2.67E-03
70041	UTILITY BOILER B-8	Anthracene	120-12-7	0.0031	0.000000	8,760	4.45E-08	4.45E-08
70041	UTILITY BOILER B-8	Pyrene	129-00-0	0.0204	0.000002	8,760	2.93E-07	2.93E-07
70041	UTILITY BOILER B-8	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0014	0.000000	8,760	1.97E-08	1.97E-08
70041	UTILITY BOILER B-8	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0877	0.000010	8,760	1.26E-06	1.26E-06
70041	UTILITY BOILER B-8	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0334	0.000004	8,760	4.80E-07	4.80E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70041	UTILITY BOILER B-8	Fluoranthene (PAHs)	206-44-0	0.0191	0.000002	8,760	2.75E-07	2.75E-07
70041	UTILITY BOILER B-8	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0210	0.000002	8,760	3.02E-07	3.02E-07
70041	UTILITY BOILER B-8	Acenaphthylene (PAHs)	208-96-8	0.0793	0.000009	8,760	1.14E-06	1.14E-06
70041	UTILITY BOILER B-8	Chrysene (PAHs)	218-01-9	0.0020	0.000000	8,760	2.84E-08	2.84E-08
70041	UTILITY BOILER B-8	Xylenes (mixed isomers)	1330-20-7	61.9868	0.007076	8,760	8.92E-04	8.92E-04
70041	UTILITY BOILER B-8	Aluminum	7429-90-5	18.3218	0.002092	8,760	2.64E-04	2.64E-04
70041	UTILITY BOILER B-8	Manganese compounds	7439-96-5	5.1600	0.000589	8,760	7.42E-05	7.42E-05
70041	UTILITY BOILER B-8	Mercury compounds	7439-97-6	0.0243	0.000003	8,760	3.50E-07	3.50E-07
70041	UTILITY BOILER B-8	Nickel compounds	7440-02-0	13.2948	0.001518	8,760	1.91E-04	1.91E-04
70041	UTILITY BOILER B-8	Silver compounds	7440-22-4	0.0308	0.000004	8,760	4.43E-07	4.43E-07
70041	UTILITY BOILER B-8	Thallium	7440-28-0	7.1650	0.000818	8,760	1.03E-04	1.03E-04
70041	UTILITY BOILER B-8	Antimony	7440-36-0	0.0105	0.000001	8,760	1.51E-07	1.51E-07
70041	UTILITY BOILER B-8	Arsenic	7440-38-2	0.0379	0.000004	8,760	5.45E-07	5.45E-07
70041	UTILITY BOILER B-8	Barium	7440-39-3	6.6889	0.000764	8,760	9.62E-05	9.62E-05
70041	UTILITY BOILER B-8	Beryllium	7440-41-7	0.1606	0.000018	8,760	2.31E-06	2.31E-06
70041	UTILITY BOILER B-8	Cadmium	7440-43-9	0.0914	0.000010	8,760	1.31E-06	1.31E-06
70041	UTILITY BOILER B-8	Chromium compounds	7440-47-3	0.2476	0.000028	8,760	3.56E-06	3.56E-06
70041	UTILITY BOILER B-8	Cobalt compounds	7440-48-4	0.2883	0.000033	8,760	4.15E-06	4.15E-06
70041	UTILITY BOILER B-8	Copper compounds	7440-50-8	3.3071	0.000378	8,760	4.76E-05	4.76E-05
70041	UTILITY BOILER B-8	Vanadium compounds	7440-62-2	0.0600	0.000007	8,760	8.63E-07	8.63E-07
70041	UTILITY BOILER B-8	Zinc compounds	7440-66-6	5.0686	0.000579	8,760	7.29E-05	7.29E-05
70041	UTILITY BOILER B-8	Ammonia	7664-41-7	302.4559	0.034527	8,760	4.35E-03	4.35E-03
70041	UTILITY BOILER B-8	Sulfuric acid	7664-93-9	341.6648	0.009751	8,760	4.91E-03	1.23E-03
70041	UTILITY BOILER B-8	Phosphorus	7723-14-0	2.5983	0.000297	8,760	3.74E-05	3.74E-05
70041	UTILITY BOILER B-8	Selenium compounds	7782-49-2	0.0334	0.000004	8,760	4.80E-07	4.80E-07
70041	UTILITY BOILER B-8	Hydrogen sulfide	7783-06-4	1.4881	0.000170	8,760	2.14E-05	2.14E-05
70042	COGENERATION UNIT (HLNX, SCR)	Lead compounds	1128	6.1554	0.000735	8,376	8.85E-05	9.26E-05
70042	COGENERATION UNIT (HLNX, SCR)	Formaldehyde	50-00-0	137.9399	0.016468	8,376	1.98E-03	2.07E-03
70042	COGENERATION UNIT (HLNX, SCR)	Benz(a)anthracene (PAHs)	56-55-3	0.0604	0.000007	8,376	8.68E-07	9.08E-07
70042	COGENERATION UNIT (HLNX, SCR)	Acetaldehyde	75-07-0	437.5512	0.052239	8,376	6.29E-03	6.58E-03
70042	COGENERATION UNIT (HLNX, SCR)	Acenaphthene (PAHs)	83-32-9	0.0036	0.000000	8,376	5.18E-08	5.42E-08
70042	COGENERATION UNIT (HLNX, SCR)	Phenanthrene (PAHs)	85-01-8	0.0541	0.000006	8,376	7.79E-07	8.14E-07
70042	COGENERATION UNIT (HLNX, SCR)	Fluorene (PAHs)	86-73-7	0.0158	0.000002	8,376	2.27E-07	2.38E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70042	COGENERATION UNIT (HLNX, SCR)	Naphthalene	91-20-3	148.9369	0.017781	8,376	2.14E-03	2.24E-03
70042	COGENERATION UNIT (HLNX, SCR)	Ethyl benzene	100-41-4	7.1936	0.000859	8,376	1.03E-04	1.08E-04
70042	COGENERATION UNIT (HLNX, SCR)	Toluene	108-88-3	44.8527	0.005355	8,376	6.45E-04	6.75E-04
70042	COGENERATION UNIT (HLNX, SCR)	Phenol	108-95-2	88.5571	0.010573	8,376	1.27E-03	1.33E-03
70042	COGENERATION UNIT (HLNX, SCR)	Anthracene	120-12-7	0.0133	0.000002	8,376	1.91E-07	2.00E-07
70042	COGENERATION UNIT (HLNX, SCR)	Pyrene	129-00-0	0.0135	0.000002	8,376	1.94E-07	2.02E-07
70042	COGENERATION UNIT (HLNX, SCR)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0027	0.000000	8,376	3.94E-08	4.12E-08
70042	COGENERATION UNIT (HLNX, SCR)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.1006	0.000012	8,376	1.45E-06	1.51E-06
70042	COGENERATION UNIT (HLNX, SCR)	Fluoranthene (PAHs)	206-44-0	0.0099	0.000001	8,376	1.42E-07	1.48E-07
70042	COGENERATION UNIT (HLNX, SCR)	Acenaphthylene (PAHs)	208-96-8	0.0443	0.000005	8,376	6.37E-07	6.66E-07
70042	COGENERATION UNIT (HLNX, SCR)	Chrysene (PAHs)	218-01-9	0.4428	0.000053	8,376	6.37E-06	6.66E-06
70042	COGENERATION UNIT (HLNX, SCR)	Xylenes (mixed isomers)	1330-20-7	42.2719	0.005047	8,376	6.08E-04	6.36E-04
70042	COGENERATION UNIT (HLNX, SCR)	Manganese compounds	7439-96-5	374.5142	0.044713	8,376	5.39E-03	5.63E-03
70042	COGENERATION UNIT (HLNX, SCR)	Mercury compounds	7439-97-6	2.0357	0.000243	8,376	2.93E-05	3.06E-05
70042	COGENERATION UNIT (HLNX, SCR)	Nickel compounds	7440-02-0	3.5857	0.000428	8,376	5.16E-05	5.39E-05
70042	COGENERATION UNIT (HLNX, SCR)	Silver compounds	7440-22-4	0.4858	0.000058	8,376	6.99E-06	7.31E-06
70042	COGENERATION UNIT (HLNX, SCR)	Cadmium	7440-43-9	1.7465	0.000209	8,376	2.51E-05	2.63E-05
70042	COGENERATION UNIT (HLNX, SCR)	Chromium compounds	7440-47-3	3.4522	0.000412	8,376	4.97E-05	5.19E-05
70042	COGENERATION UNIT (HLNX, SCR)	Cobalt compounds	7440-48-4	0.5747	0.000069	8,376	8.27E-06	8.65E-06
70042	COGENERATION UNIT (HLNX, SCR)	Copper compounds	7440-50-8	36.4132	0.004347	8,376	5.24E-04	5.48E-04
70042	COGENERATION UNIT (HLNX, SCR)	Zinc compounds	7440-66-6	55.6209	0.006641	8,376	8.00E-04	8.37E-04
70042	COGENERATION UNIT (HLNX, SCR)	Ammonia	7664-41-7	39,305.4494	4.692628	8,376	5.65E-01	5.91E-01
70042	COGENERATION UNIT (HLNX, SCR)	Sulfuric acid	7664-93-9	1,109.9504	0.033129	8,760	1.60E-02	4.17E-03
70042	COGENERATION UNIT (HLNX, SCR)	Hydrogen sulfide	7783-06-4	125.2736	0.014956	8,376	1.80E-03	1.88E-03
70043	U60 E-119 CT	PAHs, total, w/o indiv. comp.	1151	0.0142	0.000002	8,232	2.04E-07	2.17E-07
70043	U60 E-119 CT	Benzene	71-43-2	0.2900	0.000035	8,232	4.17E-06	4.44E-06
70043	U60 E-119 CT	Ethylene	74-85-1	0.0611	0.000007	8,232	8.79E-07	9.35E-07
70043	U60 E-119 CT	Naphthalene	91-20-3	0.2841	0.000035	8,232	4.09E-06	4.35E-06
70043	U60 E-119 CT	1,2,4-Trimethylbenzene	95-63-6	0.0376	0.000005	8,232	5.41E-07	5.75E-07
70043	U60 E-119 CT	Cumene	98-82-8	0.0284	0.000003	8,232	4.09E-07	4.35E-07
70043	U60 E-119 CT	Ethyl benzene	100-41-4	0.0369	0.000004	8,232	5.31E-07	5.65E-07
70043	U60 E-119 CT	Styrene	100-42-5	0.0441	0.000005	8,232	6.35E-07	6.76E-07
70043	U60 E-119 CT	1,3-Butadiene	106-99-0	0.3886	0.000047	8,232	5.59E-06	5.95E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70043	U60 E-119 CT	Toluene	108-88-3	0.0350	0.000004	8,232	5.03E-07	5.35E-07
70043	U60 E-119 CT	Phenol	108-95-2	0.0028	0.000000	8,232	4.09E-08	4.35E-08
70043	U60 E-119 CT	Hexane	110-54-3	14.3484	0.001743	8,232	2.06E-04	2.20E-04
70043	U60 E-119 CT	Cyclohexane	110-82-7	24.4292	0.002968	8,232	3.51E-04	3.74E-04
70043	U60 E-119 CT	Propylene	115-07-1	7.2452	0.000880	8,232	1.04E-04	1.11E-04
70043	U60 E-119 CT	Cresol (mixed isomers)	1319-77-3	0.0085	0.000001	8,232	1.23E-07	1.30E-07
70043	U60 E-119 CT	Xylenes (mixed isomers)	1330-20-7	0.0824	0.000010	8,232	1.18E-06	1.26E-06
70043	U60 E-119 CT	Methyl tert-butyl ether	1634-04-4	0.0284	0.000003	8,232	4.09E-07	4.35E-07
70043	U60 E-119 CT	Hydrogen sulfide	7783-06-4	0.5026	0.000061	8,232	7.23E-06	7.69E-06
70044	U80 E-110 CT	PAHs, total, w/o indiv. comp.	1151	0.0037	0.000000	8,760	5.35E-08	5.35E-08
70044	U80 E-110 CT	Benzene	71-43-2	0.6100	0.000070	8,760	8.77E-06	8.77E-06
70044	U80 E-110 CT	Ethylene	74-85-1	0.0113	0.000001	8,760	1.62E-07	1.62E-07
70044	U80 E-110 CT	Naphthalene	91-20-3	0.9995	0.000114	8,760	1.44E-05	1.44E-05
70044	U80 E-110 CT	1,2,4-Trimethylbenzene	95-63-6	6.9828	0.000797	8,760	1.00E-04	1.00E-04
70044	U80 E-110 CT	Cumene	98-82-8	0.2392	0.000027	8,760	3.44E-06	3.44E-06
70044	U80 E-110 CT	Ethyl benzene	100-41-4	3.5799	0.000409	8,760	5.15E-05	5.15E-05
70044	U80 E-110 CT	Styrene	100-42-5	0.0151	0.000002	8,760	2.17E-07	2.17E-07
70044	U80 E-110 CT	1,3-Butadiene	106-99-0	0.1349	0.000015	8,760	1.94E-06	1.94E-06
70044	U80 E-110 CT	Toluene	108-88-3	14.2235	0.001624	8,760	2.05E-04	2.05E-04
70044	U80 E-110 CT	Phenol	108-95-2	0.0007	0.000000	8,760	1.07E-08	1.07E-08
70044	U80 E-110 CT	Hexane	110-54-3	4.8561	0.000554	8,760	6.98E-05	6.98E-05
70044	U80 E-110 CT	Cyclohexane	110-82-7	6.4011	0.000731	8,760	9.21E-05	9.21E-05
70044	U80 E-110 CT	Propylene	115-07-1	3.4727	0.000396	8,760	4.99E-05	4.99E-05
70044	U80 E-110 CT	Cresol (mixed isomers)	1319-77-3	0.0022	0.000000	8,760	3.21E-08	3.21E-08
70044	U80 E-110 CT	Xylenes (mixed isomers)	1330-20-7	18.4933	0.002111	8,760	2.66E-04	2.66E-04
70044	U80 E-110 CT	Methyl tert-butyl ether	1634-04-4	0.0074	0.000001	8,760	1.07E-07	1.07E-07
70044	U80 E-110 CT	Hydrogen sulfide	7783-06-4	0.1212	0.000014	8,760	1.74E-06	1.74E-06
70045	U90 E-221 CT	PAHs, total, w/o indiv. comp.	1151	0.0513	0.000006	8,760	7.38E-07	7.42E-07
70045	U90 E-221 CT	Benzene	71-43-2	2.0001	0.000230	8,760	2.88E-05	2.89E-05
70045	U90 E-221 CT	Ethylene	74-85-1	0.1337	0.000015	8,760	1.92E-06	1.93E-06
70045	U90 E-221 CT	Naphthalene	91-20-3	5.1308	0.000589	8,760	7.38E-05	7.42E-05
70045	U90 E-221 CT	1,2,4-Trimethylbenzene	95-63-6	4.3477	0.000499	8,760	6.25E-05	6.29E-05
70045	U90 E-221 CT	Cumene	98-82-8	1.3178	0.000151	8,760	1.90E-05	1.91E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70045	U90 E-221 CT	Ethyl benzene	100-41-4	5.8077	0.000667	8,760	8.35E-05	8.40E-05
70045	U90 E-221 CT	Styrene	100-42-5	0.5131	0.000059	8,760	7.38E-06	7.42E-06
70045	U90 E-221 CT	1,3-Butadiene	106-99-0	0.1337	0.000015	8,760	1.92E-06	1.93E-06
70045	U90 E-221 CT	Toluene	108-88-3	10.7044	0.001229	8,760	1.54E-04	1.55E-04
70045	U90 E-221 CT	Phenol	108-95-2	0.0103	0.000001	8,760	1.48E-07	1.48E-07
70045	U90 E-221 CT	Hexane	110-54-3	69.5651	0.007985	8,760	1.00E-03	1.01E-03
70045	U90 E-221 CT	Cyclohexane	110-82-7	7.7880	0.000894	8,760	1.12E-04	1.13E-04
70045	U90 E-221 CT	Propylene	115-07-1	0.1337	0.000015	8,760	1.92E-06	1.93E-06
70045	U90 E-221 CT	Cresol (mixed isomers)	1319-77-3	0.0308	0.000004	8,760	4.43E-07	4.45E-07
70045	U90 E-221 CT	Xylenes (mixed isomers)	1330-20-7	19.7904	0.002272	8,760	2.85E-04	2.86E-04
70045	U90 E-221 CT	Methyl tert-butyl ether	1634-04-4	0.5131	0.000059	8,760	7.38E-06	7.42E-06
70045	U90 E-221 CT	Hydrogen sulfide	7783-06-4	0.0005	0.000000	8,760	7.77E-09	7.81E-09
70046	U100 CT-600	PAHs, total, w/o indiv. comp.	1151	0.0089	0.000001	8,760	1.29E-07	1.29E-07
70046	U100 CT-600	Benzene	71-43-2	1.4657	0.000167	8,760	2.11E-05	2.11E-05
70046	U100 CT-600	Ethylene	74-85-1	0.0271	0.000003	8,760	3.90E-07	3.90E-07
70046	U100 CT-600	Naphthalene	91-20-3	2.4015	0.000274	8,760	3.45E-05	3.45E-05
70046	U100 CT-600	1,2,4-Trimethylbenzene	95-63-6	16.7781	0.001915	8,760	2.41E-04	2.41E-04
70046	U100 CT-600	Cumene	98-82-8	0.5748	0.000066	8,760	8.27E-06	8.27E-06
70046	U100 CT-600	Ethyl benzene	100-41-4	8.6018	0.000982	8,760	1.24E-04	1.24E-04
70046	U100 CT-600	Styrene	100-42-5	0.0363	0.000004	8,760	5.22E-07	5.22E-07
70046	U100 CT-600	1,3-Butadiene	106-99-0	0.3241	0.000037	8,760	4.66E-06	4.66E-06
70046	U100 CT-600	Toluene	108-88-3	34.1759	0.003901	8,760	4.92E-04	4.92E-04
70046	U100 CT-600	Phenol	108-95-2	0.0018	0.000000	8,760	2.57E-08	2.57E-08
70046	U100 CT-600	Hexane	110-54-3	11.6683	0.001332	8,760	1.68E-04	1.68E-04
70046	U100 CT-600	Cyclohexane	110-82-7	15.3804	0.001756	8,760	2.21E-04	2.21E-04
70046	U100 CT-600	Propylene	115-07-1	8.3442	0.000953	8,760	1.20E-04	1.20E-04
70046	U100 CT-600	Cresol (mixed isomers)	1319-77-3	0.0054	0.000001	8,760	7.72E-08	7.72E-08
70046	U100 CT-600	Xylenes (mixed isomers)	1330-20-7	44.4353	0.005073	8,760	6.39E-04	6.39E-04
70046	U100 CT-600	Methyl tert-butyl ether	1634-04-4	0.0179	0.000002	8,760	2.57E-07	2.57E-07
70046	U100 CT-600	Hydrogen sulfide	7783-06-4	0.2913	0.000033	8,760	4.19E-06	4.19E-06
70047	U110CT	Benzene	71-43-2	0.0914	0.000012	7,608	1.31E-06	1.51E-06
70047	U110CT	Ethylene	74-85-1	0.0860	0.000011	7,608	1.24E-06	1.42E-06
70047	U110CT	1,2,4-Trimethylbenzene	95-63-6	0.2393	0.000031	7,608	3.44E-06	3.96E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70047	U110CT	Ethyl benzene	100-41-4	0.1694	0.000022	7,608	2.44E-06	2.80E-06
70047	U110CT	Styrene	100-42-5	0.0645	0.000008	7,608	9.28E-07	1.07E-06
70047	U110CT	1,3-Butadiene	106-99-0	1.4664	0.000193	7,608	2.11E-05	2.43E-05
70047	U110CT	Toluene	108-88-3	0.6989	0.000092	7,608	1.01E-05	1.16E-05
70047	U110CT	Hexane	110-54-3	0.2851	0.000037	7,608	4.10E-06	4.72E-06
70047	U110CT	Cyclohexane	110-82-7	0.0685	0.000009	7,608	9.86E-07	1.14E-06
70047	U110CT	Propylene	115-07-1	29.5837	0.003889	7,608	4.26E-04	4.90E-04
70047	U110CT	Xylenes (mixed isomers)	1330-20-7	0.9113	0.000120	7,608	1.31E-05	1.51E-05
70047	U110CT	Hydrogen sulfide	7783-06-4	2.1909	0.000288	7,608	3.15E-05	3.63E-05
70048	U120 E-121 CT	PAHs, total, w/o indiv. comp.	1151	0.0118	0.000001	8,760	1.69E-07	1.69E-07
70048	U120 E-121 CT	Benzene	71-43-2	0.0251	0.000003	8,760	3.62E-07	3.62E-07
70048	U120 E-121 CT	Ethylene	74-85-1	0.0216	0.000002	8,760	3.11E-07	3.11E-07
70048	U120 E-121 CT	Naphthalene	91-20-3	0.2853	0.000033	8,760	4.10E-06	4.10E-06
70048	U120 E-121 CT	1,2,4-Trimethylbenzene	95-63-6	0.5764	0.000066	8,760	8.29E-06	8.29E-06
70048	U120 E-121 CT	Cumene	98-82-8	0.0131	0.000001	8,760	1.88E-07	1.88E-07
70048	U120 E-121 CT	Ethyl benzene	100-41-4	0.9744	0.000111	8,760	1.40E-05	1.40E-05
70048	U120 E-121 CT	Styrene	100-42-5	0.0235	0.000003	8,760	3.38E-07	3.38E-07
70048	U120 E-121 CT	1,3-Butadiene	106-99-0	0.2634	0.000030	8,760	3.79E-06	3.79E-06
70048	U120 E-121 CT	Toluene	108-88-3	0.1982	0.000023	8,760	2.85E-06	2.85E-06
70048	U120 E-121 CT	Phenol	108-95-2	0.0034	0.000000	8,760	4.86E-08	4.86E-08
70048	U120 E-121 CT	Hexane	110-54-3	0.0066	0.000001	8,760	9.46E-08	9.46E-08
70048	U120 E-121 CT	Cyclohexane	110-82-7	0.0034	0.000000	8,760	4.83E-08	4.83E-08
70048	U120 E-121 CT	Propylene	115-07-1	4.8145	0.000550	8,760	6.92E-05	6.92E-05
70048	U120 E-121 CT	Anthracene	120-12-7	0.0040	0.000000	8,760	5.78E-08	5.78E-08
70048	U120 E-121 CT	Cresol (mixed isomers)	1319-77-3	0.0088	0.000001	8,760	1.26E-07	1.26E-07
70048	U120 E-121 CT	Xylenes (mixed isomers)	1330-20-7	4.9136	0.000561	8,760	7.07E-05	7.07E-05
70048	U120 E-121 CT	Methyl tert-butyl ether	1634-04-4	0.0131	0.000001	8,760	1.88E-07	1.88E-07
70048	U120 E-121 CT	Hydrogen sulfide	7783-06-4	0.4179	0.000048	8,760	6.01E-06	6.01E-06
70051	U152 E-650 CT	PAHs, total, w/o indiv. comp.	1151	0.2064	0.000032	6,552	2.97E-06	3.97E-06
70051	U152 E-650 CT	Benzene	71-43-2	14.2084	0.002169	6,552	2.04E-04	2.73E-04
70051	U152 E-650 CT	Ethylene	74-85-1	0.2999	0.000046	6,552	4.31E-06	5.77E-06
70051	U152 E-650 CT	Naphthalene	91-20-3	19.3845	0.002959	6,552	2.79E-04	3.73E-04
70051	U152 E-650 CT	1,2,4-Trimethylbenzene	95-63-6	8.2906	0.001265	6,552	1.19E-04	1.59E-04

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70051	U152 E-650 CT	Cumene	98-82-8	0.5780	0.000088	6,552	8.31E-06	1.11E-05
70051	U152 E-650 CT	Ethyl benzene	100-41-4	22.0792	0.003370	6,552	3.18E-04	4.25E-04
70051	U152 E-650 CT	Styrene	100-42-5	0.7762	0.000118	6,552	1.12E-05	1.49E-05
70051	U152 E-650 CT	1,3-Butadiene	106-99-0	3.8465	0.000587	6,552	5.53E-05	7.40E-05
70051	U152 E-650 CT	Toluene	108-88-3	75.5907	0.011537	6,552	1.09E-03	1.45E-03
70051	U152 E-650 CT	Phenol	108-95-2	0.0413	0.000006	6,552	5.94E-07	7.94E-07
70051	U152 E-650 CT	Hexane	110-54-3	395.4589	0.060357	6,552	5.69E-03	7.60E-03
70051	U152 E-650 CT	Cyclohexane	110-82-7	4.2883	0.000655	6,552	6.17E-05	8.25E-05
70051	U152 E-650 CT	Propylene	115-07-1	90.2409	0.013773	6,552	1.30E-03	1.74E-03
70051	U152 E-650 CT	Cresol (mixed isomers)	1319-77-3	0.1858	0.000028	6,552	2.67E-06	3.57E-06
70051	U152 E-650 CT	Xylenes (mixed isomers)	1330-20-7	118.6661	0.018111	6,552	1.71E-03	2.28E-03
70051	U152 E-650 CT	Methyl tert-butyl ether	1634-04-4	0.5780	0.000088	6,552	8.31E-06	1.11E-05
70051	U152 E-650 CT	Nickel compounds	7440-02-0	0.0001	0.000000	6,552	9.50E-10	1.27E-09
70051	U152 E-650 CT	Hydrogen sulfide	7783-06-4	4.3360	0.000662	6,552	6.24E-05	8.34E-05
70052	U152 E-652 CT	PAHs, total, w/o indiv. comp.	1151	0.1216	0.000015	7,896	1.75E-06	1.94E-06
70052	U152 E-652 CT	Benzene	71-43-2	8.3706	0.001060	7,896	1.20E-04	1.34E-04
70052	U152 E-652 CT	Ethylene	74-85-1	0.1812	0.000023	7,896	2.61E-06	2.89E-06
70052	U152 E-652 CT	Naphthalene	91-20-3	11.2010	0.001419	7,896	1.61E-04	1.79E-04
70052	U152 E-652 CT	1,2,4-Trimethylbenzene	95-63-6	5.1761	0.000656	7,896	7.44E-05	8.26E-05
70052	U152 E-652 CT	Cumene	98-82-8	0.3405	0.000043	7,896	4.90E-06	5.43E-06
70052	U152 E-652 CT	Ethyl benzene	100-41-4	13.0805	0.001657	7,896	1.88E-04	2.09E-04
70052	U152 E-652 CT	Styrene	100-42-5	0.4573	0.000058	7,896	6.58E-06	7.30E-06
70052	U152 E-652 CT	1,3-Butadiene	106-99-0	2.2706	0.000288	7,896	3.27E-05	3.62E-05
70052	U152 E-652 CT	Toluene	108-88-3	44.7150	0.005663	7,896	6.43E-04	7.14E-04
70052	U152 E-652 CT	Phenol	108-95-2	0.0243	0.000003	7,896	3.50E-07	3.88E-07
70052	U152 E-652 CT	Hexane	110-54-3	233.8129	0.029612	7,896	3.36E-03	3.73E-03
70052	U152 E-652 CT	Cyclohexane	110-82-7	2.6445	0.000335	7,896	3.80E-05	4.22E-05
70052	U152 E-652 CT	Propylene	115-07-1	53.1679	0.006734	7,896	7.65E-04	8.48E-04
70052	U152 E-652 CT	Cresol (mixed isomers)	1319-77-3	0.1095	0.000014	7,896	1.57E-06	1.75E-06
70052	U152 E-652 CT	Xylenes (mixed isomers)	1330-20-7	70.2743	0.008900	7,896	1.01E-03	1.12E-03
70052	U152 E-652 CT	Methyl tert-butyl ether	1634-04-4	0.3405	0.000043	7,896	4.90E-06	5.43E-06
70052	U152 E-652 CT	Hydrogen sulfide	7783-06-4	2.5545	0.000324	7,896	3.67E-05	4.08E-05
70053	U118 HTR-H401 (HLNX, 5CR)	Lead compounds	1128	0.7067	0.000085	8,287	1.02E-05	1.07E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70053	U118 HTR-H401 (HLNX, 5CR)	Formaldehyde	50-00-0	122.6159	0.014796	8,287	1.76E-03	1.86E-03
70053	U118 HTR-H401 (HLNX, 5CR)	Benzo(a)pyrene	50-32-8	0.1204	0.000015	8,287	1.73E-06	1.83E-06
70053	U118 HTR-H401 (HLNX, 5CR)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0032	0.000000	8,287	4.56E-08	4.82E-08
70053	U118 HTR-H401 (HLNX, 5CR)	Benz(a)anthracene (PAHs)	56-55-3	0.0465	0.000006	8,287	6.68E-07	7.07E-07
70053	U118 HTR-H401 (HLNX, 5CR)	Methanol	67-56-1	8.2195	0.000992	8,287	1.18E-04	1.25E-04
70053	U118 HTR-H401 (HLNX, 5CR)	Benzene	71-43-2	3.3459	0.000404	8,287	4.81E-05	5.09E-05
70053	U118 HTR-H401 (HLNX, 5CR)	Acetaldehyde	75-07-0	141.5248	0.017078	8,287	2.04E-03	2.15E-03
70053	U118 HTR-H401 (HLNX, 5CR)	Acenaphthene (PAHs)	83-32-9	0.0031	0.000000	8,287	4.43E-08	4.68E-08
70053	U118 HTR-H401 (HLNX, 5CR)	Phenanthrene (PAHs)	85-01-8	0.0517	0.000006	8,287	7.44E-07	7.87E-07
70053	U118 HTR-H401 (HLNX, 5CR)	Fluorene (PAHs)	86-73-7	0.0093	0.000001	8,287	1.34E-07	1.42E-07
70053	U118 HTR-H401 (HLNX, 5CR)	Naphthalene	91-20-3	0.0469	0.000006	8,287	6.75E-07	7.13E-07
70053	U118 HTR-H401 (HLNX, 5CR)	2-Methyl naphthalene (PAHs)	91-57-6	0.0227	0.000003	8,287	3.26E-07	3.45E-07
70053	U118 HTR-H401 (HLNX, 5CR)	Ethyl benzene	100-41-4	0.8938	0.000108	8,287	1.29E-05	1.36E-05
70053	U118 HTR-H401 (HLNX, 5CR)	1,3-Butadiene	106-99-0	0.4544	0.000055	8,287	6.54E-06	6.91E-06
70053	U118 HTR-H401 (HLNX, 5CR)	Acrolein	107-02-8	35.9113	0.004333	8,287	5.17E-04	5.46E-04
70053	U118 HTR-H401 (HLNX, 5CR)	Toluene	108-88-3	316.8644	0.038235	8,287	4.56E-03	4.82E-03
70053	U118 HTR-H401 (HLNX, 5CR)	Phenol	108-95-2	8.4497	0.001020	8,287	1.22E-04	1.28E-04
70053	U118 HTR-H401 (HLNX, 5CR)	Hexane	110-54-3	10.6849	0.001289	8,287	1.54E-04	1.62E-04
70053	U118 HTR-H401 (HLNX, 5CR)	Propylene	115-07-1	316.8644	0.038235	8,287	4.56E-03	4.82E-03
70053	U118 HTR-H401 (HLNX, 5CR)	Anthracene	120-12-7	0.0041	0.000000	8,287	5.95E-08	6.29E-08
70053	U118 HTR-H401 (HLNX, 5CR)	Pyrene	129-00-0	0.0041	0.000000	8,287	5.85E-08	6.18E-08
70053	U118 HTR-H401 (HLNX, 5CR)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0024	0.000000	8,287	3.51E-08	3.71E-08
70053	U118 HTR-H401 (HLNX, 5CR)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.1500	0.000018	8,287	2.16E-06	2.28E-06
70053	U118 HTR-H401 (HLNX, 5CR)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0570	0.000007	8,287	8.20E-07	8.67E-07
70053	U118 HTR-H401 (HLNX, 5CR)	Fluoranthene (PAHs)	206-44-0	0.0096	0.000001	8,287	1.38E-07	1.46E-07
70053	U118 HTR-H401 (HLNX, 5CR)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0359	0.000004	8,287	5.17E-07	5.46E-07
70053	U118 HTR-H401 (HLNX, 5CR)	Acenaphthylene (PAHs)	208-96-8	0.0021	0.000000	8,287	2.95E-08	3.12E-08
70053	U118 HTR-H401 (HLNX, 5CR)	Chrysene (PAHs)	218-01-9	0.0034	0.000000	8,287	4.86E-08	5.14E-08
70053	U118 HTR-H401 (HLNX, 5CR)	Xylenes (mixed isomers)	1330-20-7	7.0125	0.000846	8,287	1.01E-04	1.07E-04
70053	U118 HTR-H401 (HLNX, 5CR)	Manganese compounds	7439-96-5	0.6429	0.000078	8,287	9.25E-06	9.77E-06
70053	U118 HTR-H401 (HLNX, 5CR)	Mercury compounds	7439-97-6	0.0245	0.000003	8,287	3.53E-07	3.73E-07
70053	U118 HTR-H401 (HLNX, 5CR)	Nickel compounds	7440-02-0	2.3192	0.000280	8,287	3.34E-05	3.53E-05
70053	U118 HTR-H401 (HLNX, 5CR)	Silver compounds	7440-22-4	0.0342	0.000004	8,287	4.92E-07	5.20E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70053	U118 HTR-H401 (HLNX, 5CR)	Thallium	7440-28-0	12.2521	0.001478	8,287	1.76E-04	1.86E-04
70053	U118 HTR-H401 (HLNX, 5CR)	Antimony	7440-36-0	1.0985	0.000133	8,287	1.58E-05	1.67E-05
70053	U118 HTR-H401 (HLNX, 5CR)	Arsenic	7440-38-2	1.5209	0.000184	8,287	2.19E-05	2.31E-05
70053	U118 HTR-H401 (HLNX, 5CR)	Barium	7440-39-3	0.7858	0.000095	8,287	1.13E-05	1.19E-05
70053	U118 HTR-H401 (HLNX, 5CR)	Beryllium	7440-41-7	0.2746	0.000033	8,287	3.95E-06	4.18E-06
70053	U118 HTR-H401 (HLNX, 5CR)	Cadmium	7440-43-9	0.2429	0.000029	8,287	3.49E-06	3.69E-06
70053	U118 HTR-H401 (HLNX, 5CR)	Chromium compounds	7440-47-3	0.7948	0.000096	8,287	1.14E-05	1.21E-05
70053	U118 HTR-H401 (HLNX, 5CR)	Copper compounds	7440-50-8	0.8675	0.000105	8,287	1.25E-05	1.32E-05
70053	U118 HTR-H401 (HLNX, 5CR)	Vanadium compounds	7440-62-2	0.3470	0.000042	8,287	4.99E-06	5.28E-06
70053	U118 HTR-H401 (HLNX, 5CR)	Zinc compounds	7440-66-6	12.9101	0.001558	8,287	1.86E-04	1.96E-04
70053	U118 HTR-H401 (HLNX, 5CR)	Ammonia	7664-41-7	8,731.7946	1.053648	8,287	1.26E-01	1.33E-01
70053	U118 HTR-H401 (HLNX, 5CR)	Sulfuric acid	7664-93-9	107.0506	0.003229	8,760	1.54E-03	4.07E-04
70053	U118 HTR-H401 (HLNX, 5CR)	Selenium compounds	7782-49-2	0.3546	0.000043	8,287	5.10E-06	5.39E-06
70053	U118 HTR-H401 (HLNX, 5CR)	Hydrogen sulfide	7783-06-4	11.2542	0.001358	8,287	1.62E-04	1.71E-04
70053	U118 HTR-H401 (HLNX, 5CR)	Chromium, hexavalent	18540-29-9	0.0516	0.000006	8,287	7.42E-07	7.84E-07
70055	U141 HRT - ACID PLANT STACK	Lead compounds	1128	0.0028	0.000059	48	4.07E-08	7.44E-06
70055	U141 HRT - ACID PLANT STACK	Formaldehyde	50-00-0	0.0087	0.000182	48	1.26E-07	2.29E-05
70055	U141 HRT - ACID PLANT STACK	Benzo(a)pyrene	50-32-8	0.0000	0.000001	48	6.11E-10	1.12E-07
70055	U141 HRT - ACID PLANT STACK	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0000	0.000000	48	1.61E-11	2.94E-09
70055	U141 HRT - ACID PLANT STACK	Benz(a)anthracene (PAHs)	56-55-3	0.0000	0.000000	48	2.36E-10	4.31E-08
70055	U141 HRT - ACID PLANT STACK	Benzene	71-43-2	0.0041	0.000086	48	5.92E-08	1.08E-05
70055	U141 HRT - ACID PLANT STACK	Acetaldehyde	75-07-0	0.0022	0.000046	48	3.17E-08	5.78E-06
70055	U141 HRT - ACID PLANT STACK	Phenanthrene (PAHs)	85-01-8	0.0000	0.000000	48	3.43E-10	6.26E-08
70055	U141 HRT - ACID PLANT STACK	Naphthalene	91-20-3	0.0002	0.000004	48	3.06E-09	5.59E-07
70055	U141 HRT - ACID PLANT STACK	Ethyl benzene	100-41-4	0.0049	0.000102	48	7.05E-08	1.29E-05
70055	U141 HRT - ACID PLANT STACK	Acrolein	107-02-8	0.0019	0.000040	48	2.76E-08	5.03E-06
70055	U141 HRT - ACID PLANT STACK	Toluene	108-88-3	0.0188	0.000392	48	2.71E-07	4.94E-05
70055	U141 HRT - ACID PLANT STACK	Phenol	108-95-2	0.0030	0.000062	48	4.29E-08	7.83E-06
70055	U141 HRT - ACID PLANT STACK	Hexane	110-54-3	0.0033	0.000068	48	4.70E-08	8.57E-06
70055	U141 HRT - ACID PLANT STACK	Propylene	115-07-1	0.3763	0.007840	48	5.41E-06	9.88E-04
70055	U141 HRT - ACID PLANT STACK	Anthracene	120-12-7	0.0000	0.000000	48	5.04E-11	9.20E-09
70055	U141 HRT - ACID PLANT STACK	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0000	0.000000	48	1.39E-11	2.54E-09
70055	U141 HRT - ACID PLANT STACK	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0001	0.000001	48	7.61E-10	1.39E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70055	U141 HRT - ACID PLANT STACK	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0000	0.000000	48	2.90E-10	5.28E-08
70055	U141 HRT - ACID PLANT STACK	Fluoranthene (PAHs)	206-44-0	0.0000	0.000000	48	9.33E-11	1.70E-08
70055	U141 HRT - ACID PLANT STACK	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0000	0.000000	48	1.82E-10	3.33E-08
70055	U141 HRT - ACID PLANT STACK	Chrysene (PAHs)	218-01-9	0.0000	0.000000	48	1.72E-11	3.13E-09
70055	U141 HRT - ACID PLANT STACK	Xylenes (mixed isomers)	1330-20-7	0.0140	0.000291	48	2.01E-07	3.67E-05
70055	U141 HRT - ACID PLANT STACK	Manganese compounds	7439-96-5	0.0037	0.000076	48	5.25E-08	9.59E-06
70055	U141 HRT - ACID PLANT STACK	Mercury compounds	7439-97-6	0.0001	0.000003	48	1.93E-09	3.52E-07
70055	U141 HRT - ACID PLANT STACK	Nickel compounds	7440-02-0	0.0056	0.000116	48	8.04E-08	1.47E-05
70055	U141 HRT - ACID PLANT STACK	Silver compounds	7440-22-4	0.0012	0.000025	48	1.72E-08	3.13E-06
70055	U141 HRT - ACID PLANT STACK	Thallium	7440-28-0	0.0043	0.000090	48	6.22E-08	1.13E-05
70055	U141 HRT - ACID PLANT STACK	Antimony	7440-36-0	0.0004	0.000008	48	5.58E-09	1.02E-06
70055	U141 HRT - ACID PLANT STACK	Arsenic	7440-38-2	0.0005	0.000011	48	7.72E-09	1.41E-06
70055	U141 HRT - ACID PLANT STACK	Barium	7440-39-3	0.0043	0.000090	48	6.22E-08	1.13E-05
70055	U141 HRT - ACID PLANT STACK	Beryllium	7440-41-7	0.0001	0.000002	48	1.39E-09	2.54E-07
70055	U141 HRT - ACID PLANT STACK	Cadmium	7440-43-9	0.0011	0.000023	48	1.61E-08	2.94E-06
70055	U141 HRT - ACID PLANT STACK	Chromium compounds	7440-47-3	0.0042	0.000089	48	6.11E-08	1.12E-05
70055	U141 HRT - ACID PLANT STACK	Copper compounds	7440-50-8	0.0035	0.000073	48	5.04E-08	9.20E-06
70055	U141 HRT - ACID PLANT STACK	Zinc compounds	7440-66-6	0.0395	0.000823	48	5.68E-07	1.04E-04
70055	U141 HRT - ACID PLANT STACK	Ammonia	7664-41-7	2.2720	0.047333	48	3.27E-05	5.96E-03
70055	U141 HRT - ACID PLANT STACK	Hydrogen sulfide	7783-06-4	0.0634	0.001320	48	9.11E-07	1.66E-04
70056	ACID PLANT STACK	PAHs, total, w/o indiv. comp.	1151	0.0060	0.000001	7,776	8.65E-08	9.75E-08
70056	ACID PLANT STACK	Benzene	71-43-2	1.0233	0.000132	7,776	1.47E-05	1.66E-05
70056	ACID PLANT STACK	Acetaldehyde	75-07-0	0.7752	0.000100	7,776	1.11E-05	1.26E-05
70056	ACID PLANT STACK	Naphthalene	91-20-3	0.0253	0.000003	7,776	3.63E-07	4.09E-07
70056	ACID PLANT STACK	Toluene	108-88-3	1.2248	0.000158	7,776	1.76E-05	1.98E-05
70056	ACID PLANT STACK	Phenol	108-95-2	0.0602	0.000008	7,776	8.66E-07	9.76E-07
70056	ACID PLANT STACK	Manganese compounds	7439-96-5	0.3411	0.000044	7,776	4.91E-06	5.53E-06
70056	ACID PLANT STACK	Mercury compounds	7439-97-6	0.0078	0.000001	7,776	1.13E-07	1.27E-07
70056	ACID PLANT STACK	Silver compounds	7440-22-4	0.0416	0.000005	7,776	5.99E-07	6.75E-07
70056	ACID PLANT STACK	Arsenic	7440-38-2	0.0775	0.000010	7,776	1.11E-06	1.26E-06
70056	ACID PLANT STACK	Beryllium	7440-41-7	0.0209	0.000003	7,776	3.00E-07	3.38E-07
70056	ACID PLANT STACK	Cadmium	7440-43-9	0.0511	0.000007	7,776	7.35E-07	8.28E-07
70056	ACID PLANT STACK	Chromium compounds	7440-47-3	0.0416	0.000005	7,776	5.99E-07	6.75E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70056	ACID PLANT STACK	Zinc compounds	7440-66-6	1.0388	0.000134	7,776	1.49E-05	1.68E-05
70056	ACID PLANT STACK	Sulfuric acid	7664-93-9	1,458.5172	0.187567	7,776	2.10E-02	2.36E-02
70056	ACID PLANT STACK	Selenium compounds	7782-49-2	0.2085	0.000027	7,776	3.00E-06	3.38E-06
70057	COGEN START-UP ENGINE	Diesel exhaust particulates	9901	36.6131	1.641843	22	5.27E-04	2.07E-01
70058	COGEN-DUCT BURNER	Lead compounds	1128	0.3841	0.000046	8,376	5.52E-06	5.78E-06
70058	COGEN-DUCT BURNER	Formaldehyde	50-00-0	8.6069	0.001028	8,376	1.24E-04	1.29E-04
70058	COGEN-DUCT BURNER	Benz(a)anthracene (PAHs)	56-55-3	0.0038	0.000000	8,376	5.42E-08	5.67E-08
70058	COGEN-DUCT BURNER	Acetaldehyde	75-07-0	27.3016	0.003260	8,376	3.93E-04	4.11E-04
70058	COGEN-DUCT BURNER	Acenaphthene (PAHs)	83-32-9	0.0002	0.000000	8,376	3.23E-09	3.38E-09
70058	COGEN-DUCT BURNER	Phenanthrene (PAHs)	85-01-8	0.0034	0.000000	8,376	4.86E-08	5.08E-08
70058	COGEN-DUCT BURNER	Fluorene (PAHs)	86-73-7	0.0010	0.000000	8,376	1.42E-08	1.48E-08
70058	COGEN-DUCT BURNER	Naphthalene	91-20-3	9.2931	0.001109	8,376	1.34E-04	1.40E-04
70058	COGEN-DUCT BURNER	Ethyl benzene	100-41-4	0.4489	0.000054	8,376	6.46E-06	6.75E-06
70058	COGEN-DUCT BURNER	Toluene	108-88-3	2.7986	0.000334	8,376	4.03E-05	4.21E-05
70058	COGEN-DUCT BURNER	Phenol	108-95-2	5.5256	0.000660	8,376	7.95E-05	8.31E-05
70058	COGEN-DUCT BURNER	Anthracene	120-12-7	0.0008	0.000000	8,376	1.19E-08	1.25E-08
70058	COGEN-DUCT BURNER	Pyrene	129-00-0	0.0008	0.000000	8,376	1.21E-08	1.26E-08
70058	COGEN-DUCT BURNER	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	8,376	2.46E-09	2.57E-09
70058	COGEN-DUCT BURNER	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0063	0.000001	8,376	9.03E-08	9.45E-08
70058	COGEN-DUCT BURNER	Fluoranthene (PAHs)	206-44-0	0.0006	0.000000	8,376	8.85E-09	9.26E-09
70058	COGEN-DUCT BURNER	Acenaphthylene (PAHs)	208-96-8	0.0028	0.000000	8,376	3.97E-08	4.16E-08
70058	COGEN-DUCT BURNER	Chrysene (PAHs)	218-01-9	0.0276	0.000003	8,376	3.97E-07	4.16E-07
70058	COGEN-DUCT BURNER	Xylenes (mixed isomers)	1330-20-7	2.6376	0.000315	8,376	3.79E-05	3.97E-05
70058	COGEN-DUCT BURNER	Manganese compounds	7439-96-5	23.3683	0.002790	8,376	3.36E-04	3.52E-04
70058	COGEN-DUCT BURNER	Mercury compounds	7439-97-6	0.1270	0.000015	8,376	1.83E-06	1.91E-06
70058	COGEN-DUCT BURNER	Nickel compounds	7440-02-0	0.2237	0.000027	8,376	3.22E-06	3.37E-06
70058	COGEN-DUCT BURNER	Silver compounds	7440-22-4	0.0303	0.000004	8,376	4.36E-07	4.56E-07
70058	COGEN-DUCT BURNER	Cadmium	7440-43-9	0.1090	0.000013	8,376	1.57E-06	1.64E-06
70058	COGEN-DUCT BURNER	Chromium compounds	7440-47-3	0.2154	0.000026	8,376	3.10E-06	3.24E-06
70058	COGEN-DUCT BURNER	Cobalt compounds	7440-48-4	0.0359	0.000004	8,376	5.16E-07	5.39E-07
70058	COGEN-DUCT BURNER	Copper compounds	7440-50-8	2.2720	0.000271	8,376	3.27E-05	3.42E-05
70058	COGEN-DUCT BURNER	Zinc compounds	7440-66-6	3.4705	0.000414	8,376	4.99E-05	5.22E-05
70058	COGEN-DUCT BURNER	Ammonia	7664-41-7	2,452.5155	0.292803	8,376	3.53E-02	3.69E-02

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70058	COGEN-DUCT BURNER	Sulfuric acid	7664-93-9	70.1245	0.002093	8,760	1.01E-03	2.64E-04
70058	COGEN-DUCT BURNER	Hydrogen sulfide	7783-06-4	0.4144	0.000049	8,376	5.96E-06	6.23E-06
70059	EMERGENCY FIREWATER #1 [TK 210]	Diesel exhaust particulates	9901	9.6691	0.235259	41	1.39E-04	2.96E-02
70060	EMERGENCY FIREWATER #2 [TK 210]	Diesel exhaust particulates	9901	8.7516	0.235259	37	1.26E-04	2.96E-02
70062	FIRE WATER PUMP, #3622 [RD 14]	Diesel exhaust particulates	9901	13.6707	0.510102	27	1.97E-04	6.43E-02
70063	FIRE WATER PUMP, #3621 [RD 14]	Diesel exhaust particulates	9901	16.8844	0.510102	33	2.43E-04	6.43E-02
70064	INDUSTRIAL W PUMP, CATERPILLAR	Diesel exhaust particulates	9901	1.2205	0.358974	3	1.76E-05	4.52E-02
70070	HYDROGEN PLANT U-119	Methanol	67-56-1	5,040.0346	0.604321	8,340	7.25E-02	7.61E-02
70071	GW THERMAL OXIDIZER	PAHs, total, w/o indiv. comp.	1151	0.0294	0.000029	1,008	4.23E-07	3.68E-06
70071	GW THERMAL OXIDIZER	Formaldehyde	50-00-0	25.5081	0.025306	1,008	3.67E-04	3.19E-03
70071	GW THERMAL OXIDIZER	Methanol	67-56-1	1.2068	0.001197	1,008	1.74E-05	1.51E-04
70071	GW THERMAL OXIDIZER	Benzene	71-43-2	0.2125	0.000211	1,008	3.06E-06	2.66E-05
70071	GW THERMAL OXIDIZER	Acetaldehyde	75-07-0	4.0368	0.004005	1,008	5.81E-05	5.05E-04
70071	GW THERMAL OXIDIZER	Phenanthrene (PAHs)	85-01-8	0.0004	0.000000	1,008	6.08E-09	5.28E-08
70071	GW THERMAL OXIDIZER	Naphthalene	91-20-3	0.0359	0.000036	1,008	5.17E-07	4.49E-06
70071	GW THERMAL OXIDIZER	1,2,4-Trimethylbenzene	95-63-6	0.0069	0.000007	1,008	9.94E-08	8.64E-07
70071	GW THERMAL OXIDIZER	Ethyl benzene	100-41-4	0.0192	0.000019	1,008	2.76E-07	2.40E-06
70071	GW THERMAL OXIDIZER	Styrene	100-42-5	0.0114	0.000011	1,008	1.64E-07	1.43E-06
70071	GW THERMAL OXIDIZER	1,3-Butadiene	106-99-0	0.1287	0.000128	1,008	1.85E-06	1.61E-05
70071	GW THERMAL OXIDIZER	Acrolein	107-02-8	2.4798	0.002460	1,008	3.57E-05	3.10E-04
70071	GW THERMAL OXIDIZER	Toluene	108-88-3	0.1969	0.000195	1,008	2.83E-06	2.46E-05
70071	GW THERMAL OXIDIZER	Phenol	108-95-2	0.0119	0.000012	1,008	1.72E-07	1.49E-06
70071	GW THERMAL OXIDIZER	Hexane	110-54-3	0.5348	0.000531	1,008	7.69E-06	6.68E-05
70071	GW THERMAL OXIDIZER	Propylene	115-07-1	8.4475	0.008380	1,008	1.22E-04	1.06E-03
70071	GW THERMAL OXIDIZER	Xylenes (mixed isomers)	1330-20-7	0.0890	0.000088	1,008	1.28E-06	1.11E-05
70071	GW THERMAL OXIDIZER	Ammonia	7664-41-7	1.5144	0.001502	1,008	2.18E-05	1.89E-04
70073	NON-PERMITTED ICES - GASOLINE	Formaldehyde	50-00-0	7.0307	0.000803	8,760	1.01E-04	1.01E-04
70073	NON-PERMITTED ICES - GASOLINE	Methanol	67-56-1	1.6760	0.000191	8,760	2.41E-05	2.41E-05
70073	NON-PERMITTED ICES - GASOLINE	Benzene	71-43-2	10.9135	0.001246	8,760	1.57E-04	1.57E-04
70073	NON-PERMITTED ICES - GASOLINE	Acetaldehyde	75-07-0	1.0222	0.000117	8,760	1.47E-05	1.47E-05
70073	NON-PERMITTED ICES - GASOLINE	Methyl ethyl ketone	78-93-3	0.0819	0.000009	8,760	1.18E-06	1.18E-06
70073	NON-PERMITTED ICES - GASOLINE	Naphthalene	91-20-3	0.2047	0.000023	8,760	2.94E-06	2.94E-06
70073	NON-PERMITTED ICES - GASOLINE	1,2,4-Trimethylbenzene	95-63-6	4.0875	0.000467	8,760	5.88E-05	5.88E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70073	NON-PERMITTED ICES - GASOLINE	Ethyl benzene	100-41-4	4.4553	0.000509	8,760	6.41E-05	6.41E-05
70073	NON-PERMITTED ICES - GASOLINE	Styrene	100-42-5	0.4906	0.000056	8,760	7.06E-06	7.06E-06
70073	NON-PERMITTED ICES - GASOLINE	1,3-Butadiene	106-99-0	2.2485	0.000257	8,760	3.23E-05	3.23E-05
70073	NON-PERMITTED ICES - GASOLINE	Acrolein	107-02-8	0.5725	0.000065	8,760	8.23E-06	8.23E-06
70073	NON-PERMITTED ICES - GASOLINE	Toluene	108-88-3	24.3212	0.002776	8,760	3.50E-04	3.50E-04
70073	NON-PERMITTED ICES - GASOLINE	Hexane	110-54-3	6.5401	0.000747	8,760	9.41E-05	9.41E-05
70073	NON-PERMITTED ICES - GASOLINE	Xylenes (mixed isomers)	1330-20-7	20.3149	0.002319	8,760	2.92E-04	2.92E-04
70073	NON-PERMITTED ICES - GASOLINE	Methyl tert-butyl ether	1634-04-4	8.0113	0.000915	8,760	1.15E-04	1.15E-04
70073	NON-PERMITTED ICES - GASOLINE	Manganese compounds	7439-96-5	0.0229	0.000003	8,760	3.29E-07	3.29E-07
70073	NON-PERMITTED ICES - GASOLINE	Nickel compounds	7440-02-0	0.0229	0.000003	8,760	3.29E-07	3.29E-07
70073	NON-PERMITTED ICES - GASOLINE	Copper compounds	7440-50-8	0.0229	0.000003	8,760	3.29E-07	3.29E-07
70073	NON-PERMITTED ICES - GASOLINE	Chlorine	7782-50-5	3.1576	0.000360	8,760	4.54E-05	4.54E-05
70074	NON-PERMITTED ICES - DIESEL	Diesel exhaust particulates	9901	432.1761	0.049335	8,760	6.22E-03	6.22E-03
70075	BOILER PLANT BACKUP GENERATOR	Diesel exhaust particulates	9901	2.8770	0.248018	12	4.14E-05	3.12E-02
70076	COGEN PLANT BACKUP GENERATOR	Diesel exhaust particulates	9901	3.3604	0.482118	7	4.83E-05	6.07E-02
70077	ORU BACKUP GENERATOR	Diesel exhaust particulates	9901	3.9422	0.492773	8	5.67E-05	6.21E-02
70078	BACKUP GENER FOR HYDRO AREA	Diesel exhaust particulates	9901	1.9345	0.248018	8	2.78E-05	3.12E-02
70079	TANK 1	Benzene	71-43-2	0.6226	0.000071	8,760	8.96E-06	8.96E-06
70079	TANK 1	Naphthalene	91-20-3	0.0788	0.000009	8,760	1.13E-06	1.13E-06
70079	TANK 1	1,2,4-Trimethylbenzene	95-63-6	0.6434	0.000073	8,760	9.25E-06	9.25E-06
70079	TANK 1	Cumene	98-82-8	0.0303	0.000003	8,760	4.36E-07	4.36E-07
70079	TANK 1	Ethyl benzene	100-41-4	0.3444	0.000039	8,760	4.95E-06	4.95E-06
70079	TANK 1	Toluene	108-88-3	1.4782	0.000169	8,760	2.13E-05	2.13E-05
70079	TANK 1	Hexane	110-54-3	7.9000	0.000902	8,760	1.14E-04	1.14E-04
70079	TANK 1	Cyclohexane	110-82-7	3.1260	0.000357	8,760	4.50E-05	4.50E-05
70079	TANK 1	Propylene	115-07-1	4.4525	0.000508	8,760	6.40E-05	6.40E-05
70079	TANK 1	Xylenes (mixed isomers)	1330-20-7	1.6667	0.000190	8,760	2.40E-05	2.40E-05
70079	TANK 1	Methyl tert-butyl ether	1634-04-4	0.0525	0.000006	8,760	7.55E-07	7.55E-07
70081	TANK 3	Benzene	71-43-2	1.0537	0.000120	8,760	1.52E-05	1.52E-05
70081	TANK 3	Naphthalene	91-20-3	0.0069	0.000001	8,760	9.97E-08	9.97E-08
70081	TANK 3	1,2,4-Trimethylbenzene	95-63-6	0.1960	0.000022	8,760	2.82E-06	2.82E-06
70081	TANK 3	Cumene	98-82-8	0.0179	0.000002	8,760	2.57E-07	2.57E-07
70081	TANK 3	Ethyl benzene	100-41-4	0.3124	0.000036	8,760	4.49E-06	4.49E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70081	TANK 3	Toluene	108-88-3	2.0282	0.000232	8,760	2.92E-05	2.92E-05
70081	TANK 3	Hexane	110-54-3	13.8795	0.001584	8,760	2.00E-04	2.00E-04
70081	TANK 3	Cyclohexane	110-82-7	5.3060	0.000606	8,760	7.63E-05	7.63E-05
70081	TANK 3	Propylene	115-07-1	8.3340	0.000951	8,760	1.20E-04	1.20E-04
70081	TANK 3	Xylenes (mixed isomers)	1330-20-7	1.3153	0.000150	8,760	1.89E-05	1.89E-05
70081	TANK 3	Methyl tert-butyl ether	1634-04-4	0.0010	0.000000	8,760	1.43E-08	1.43E-08
70083	TANK 6	Benzene	71-43-2	2.3967	0.000274	8,760	3.45E-05	3.45E-05
70083	TANK 6	Naphthalene	91-20-3	0.1166	0.000013	8,760	1.68E-06	1.68E-06
70083	TANK 6	1,2,4-Trimethylbenzene	95-63-6	1.1573	0.000132	8,760	1.66E-05	1.66E-05
70083	TANK 6	Cumene	98-82-8	0.0673	0.000008	8,760	9.68E-07	9.68E-07
70083	TANK 6	Ethyl benzene	100-41-4	0.9260	0.000106	8,760	1.33E-05	1.33E-05
70083	TANK 6	Toluene	108-88-3	4.9906	0.000570	8,760	7.18E-05	7.18E-05
70083	TANK 6	Hexane	110-54-3	31.1631	0.003557	8,760	4.48E-04	4.48E-04
70083	TANK 6	Cyclohexane	110-82-7	12.0562	0.001376	8,760	1.73E-04	1.73E-04
70083	TANK 6	Propylene	115-07-1	18.3196	0.002091	8,760	2.63E-04	2.63E-04
70083	TANK 6	Xylenes (mixed isomers)	1330-20-7	4.1912	0.000478	8,760	6.03E-05	6.03E-05
70083	TANK 6	Methyl tert-butyl ether	1634-04-4	0.0722	0.000008	8,760	1.04E-06	1.04E-06
70084	TANK 7	PAHs, total, w/o indiv. comp.	1151	0.0036	0.000000	8,760	5.19E-08	5.19E-08
70084	TANK 7	Benzene	71-43-2	0.8923	0.000102	8,760	1.28E-05	1.28E-05
70084	TANK 7	Ethylene	74-85-1	0.0101	0.000001	8,760	1.46E-07	1.46E-07
70084	TANK 7	Naphthalene	91-20-3	0.3966	0.000045	8,760	5.70E-06	5.70E-06
70084	TANK 7	1,2,4-Trimethylbenzene	95-63-6	0.7097	0.000081	8,760	1.02E-05	1.02E-05
70084	TANK 7	Cumene	98-82-8	0.1545	0.000018	8,760	2.22E-06	2.22E-06
70084	TANK 7	Ethyl benzene	100-41-4	0.3154	0.000036	8,760	4.54E-06	4.54E-06
70084	TANK 7	Styrene	100-42-5	0.0926	0.000011	8,760	1.33E-06	1.33E-06
70084	TANK 7	1,3-Butadiene	106-99-0	0.0101	0.000001	8,760	1.46E-07	1.46E-07
70084	TANK 7	Toluene	108-88-3	0.4581	0.000052	8,760	6.59E-06	6.59E-06
70084	TANK 7	Phenol	108-95-2	0.0009	0.000000	8,760	1.22E-08	1.22E-08
70084	TANK 7	Hexane	110-54-3	0.3491	0.000040	8,760	5.02E-06	5.02E-06
70084	TANK 7	Cyclohexane	110-82-7	0.2266	0.000026	8,760	3.26E-06	3.26E-06
70084	TANK 7	Propylene	115-07-1	0.0101	0.000001	8,760	1.46E-07	1.46E-07
70084	TANK 7	Xylenes (mixed isomers)	1330-20-7	1.1216	0.000128	8,760	1.61E-05	1.61E-05
70084	TANK 7	Methyl tert-butyl ether	1634-04-4	0.0361	0.000004	8,760	5.19E-07	5.19E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70084	TANK 7	Hydrogen sulfide	7783-06-4	0.3025	0.000035	8,760	4.35E-06	4.35E-06
70085	TANK 8	Benzene	71-43-2	0.3862	0.000044	8,760	5.55E-06	5.55E-06
70085	TANK 8	Naphthalene	91-20-3	0.0227	0.000003	8,760	3.27E-07	3.27E-07
70085	TANK 8	Ethyl benzene	100-41-4	1.1132	0.000127	8,760	1.60E-05	1.60E-05
70085	TANK 8	Toluene	108-88-3	2.4933	0.000285	8,760	3.59E-05	3.59E-05
70085	TANK 8	Hexane	110-54-3	1.7891	0.000204	8,760	2.57E-05	2.57E-05
70085	TANK 8	Cyclohexane	110-82-7	1.2893	0.000147	8,760	1.85E-05	1.85E-05
70085	TANK 8	Xylenes (mixed isomers)	1330-20-7	4.9469	0.000565	8,760	7.12E-05	7.12E-05
70085	TANK 8	Hydrogen sulfide	7783-06-4	0.0002	0.000000	8,760	2.45E-09	2.45E-09
70086	TANK 9	Benzene	71-43-2	0.3674	0.000042	8,760	5.28E-06	5.28E-06
70086	TANK 9	Naphthalene	91-20-3	0.0216	0.000002	8,760	3.11E-07	3.11E-07
70086	TANK 9	Ethyl benzene	100-41-4	1.0589	0.000121	8,760	1.52E-05	1.52E-05
70086	TANK 9	Toluene	108-88-3	2.3718	0.000271	8,760	3.41E-05	3.41E-05
70086	TANK 9	Hexane	110-54-3	1.7018	0.000194	8,760	2.45E-05	2.45E-05
70086	TANK 9	Cyclohexane	110-82-7	1.2264	0.000140	8,760	1.76E-05	1.76E-05
70086	TANK 9	Xylenes (mixed isomers)	1330-20-7	4.7057	0.000537	8,760	6.77E-05	6.77E-05
70086	TANK 9	Hydrogen sulfide	7783-06-4	0.0002	0.000000	8,760	2.33E-09	2.33E-09
70087	TANK 10	PAHs, total, w/o indiv. comp.	1151	0.0054	0.000001	8,760	7.80E-08	7.80E-08
70087	TANK 10	Hexane	110-54-3	0.0212	0.000002	8,760	3.04E-07	3.04E-07
70087	TANK 10	Cyclohexane	110-82-7	0.0254	0.000003	8,760	3.65E-07	3.65E-07
70087	TANK 10	Anthracene	120-12-7	0.0007	0.000000	8,760	1.02E-08	1.02E-08
70087	TANK 10	Hydrogen sulfide	7783-06-4	0.0970	0.000011	8,760	1.40E-06	1.40E-06
70088	TANK 25	PAHs, total, w/o indiv. comp.	1151	0.0032	0.000000	8,760	4.62E-08	4.62E-08
70088	TANK 25	Benzene	71-43-2	0.7765	0.000089	8,760	1.12E-05	1.12E-05
70088	TANK 25	Naphthalene	91-20-3	0.1192	0.000014	8,760	1.71E-06	1.71E-06
70088	TANK 25	1,2,4-Trimethylbenzene	95-63-6	0.7334	0.000084	8,760	1.05E-05	1.05E-05
70088	TANK 25	Ethyl benzene	100-41-4	0.3663	0.000042	8,760	5.27E-06	5.27E-06
70088	TANK 25	Toluene	108-88-3	0.7911	0.000090	8,760	1.14E-05	1.14E-05
70088	TANK 25	Phenol	108-95-2	0.0027	0.000000	8,760	3.95E-08	3.95E-08
70088	TANK 25	Anthracene	120-12-7	0.0025	0.000000	8,760	3.54E-08	3.54E-08
70088	TANK 25	Xylenes (mixed isomers)	1330-20-7	1.6332	0.000186	8,760	2.35E-05	2.35E-05
70088	TANK 25	Hydrogen sulfide	7783-06-4	1.9846	0.000227	8,760	2.85E-05	2.85E-05
70089	TANK 26	PAHs, total, w/o indiv. comp.	1151	0.0422	0.000005	8,760	6.07E-07	6.07E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70089	TANK 26	Benzene	71-43-2	5.0692	0.000579	8,760	7.29E-05	7.29E-05
70089	TANK 26	Ethylene	74-85-1	0.0274	0.000003	8,760	3.95E-07	3.95E-07
70089	TANK 26	Naphthalene	91-20-3	1.0529	0.000120	8,760	1.51E-05	1.51E-05
70089	TANK 26	1,2,4-Trimethylbenzene	95-63-6	2.4490	0.000280	8,760	3.52E-05	3.52E-05
70089	TANK 26	Cumene	98-82-8	0.3243	0.000037	8,760	4.66E-06	4.66E-06
70089	TANK 26	Ethyl benzene	100-41-4	1.1615	0.000133	8,760	1.67E-05	1.67E-05
70089	TANK 26	Styrene	100-42-5	0.4138	0.000047	8,760	5.95E-06	5.95E-06
70089	TANK 26	1,3-Butadiene	106-99-0	0.0274	0.000003	8,760	3.95E-07	3.95E-07
70089	TANK 26	Toluene	108-88-3	1.8495	0.000211	8,760	2.66E-05	2.66E-05
70089	TANK 26	Phenol	108-95-2	0.0122	0.000001	8,760	1.75E-07	1.75E-07
70089	TANK 26	Hexane	110-54-3	1.9642	0.000224	8,760	2.83E-05	2.83E-05
70089	TANK 26	Cyclohexane	110-82-7	1.2639	0.000144	8,760	1.82E-05	1.82E-05
70089	TANK 26	Propylene	115-07-1	0.0274	0.000003	8,760	3.95E-07	3.95E-07
70089	TANK 26	Xylenes (mixed isomers)	1330-20-7	4.4927	0.000513	8,760	6.46E-05	6.46E-05
70089	TANK 26	Methyl tert-butyl ether	1634-04-4	0.0844	0.000010	8,760	1.21E-06	1.21E-06
70089	TANK 26	Hydrogen sulfide	7783-06-4	0.0464	0.000005	8,760	6.68E-07	6.68E-07
70090	TANK 27	PAHs, total, w/o indiv. comp.	1151	0.0090	0.000001	8,760	1.29E-07	1.29E-07
70090	TANK 27	Hexane	110-54-3	0.0281	0.000003	8,760	4.04E-07	4.04E-07
70090	TANK 27	Cyclohexane	110-82-7	0.0349	0.000004	8,760	5.02E-07	5.02E-07
70090	TANK 27	Anthracene	120-12-7	0.0012	0.000000	8,760	1.69E-08	1.69E-08
70090	TANK 27	Hydrogen sulfide	7783-06-4	0.1151	0.000013	8,760	1.66E-06	1.66E-06
70091	TANK 61	PAHs, total, w/o indiv. comp.	1151	0.0402	0.000005	8,760	5.79E-07	5.79E-07
70091	TANK 61	Benzene	71-43-2	2.6263	0.000300	8,760	3.78E-05	3.78E-05
70091	TANK 61	Ethylene	74-85-1	0.0231	0.000003	8,760	3.32E-07	3.32E-07
70091	TANK 61	Naphthalene	91-20-3	0.9112	0.000104	8,760	1.31E-05	1.31E-05
70091	TANK 61	1,2,4-Trimethylbenzene	95-63-6	1.7511	0.000200	8,760	2.52E-05	2.52E-05
70091	TANK 61	Cumene	98-82-8	0.2029	0.000023	8,760	2.92E-06	2.92E-06
70091	TANK 61	Ethyl benzene	100-41-4	0.6679	0.000076	8,760	9.61E-06	9.61E-06
70091	TANK 61	Styrene	100-42-5	0.2487	0.000028	8,760	3.58E-06	3.58E-06
70091	TANK 61	1,3-Butadiene	106-99-0	0.0231	0.000003	8,760	3.32E-07	3.32E-07
70091	TANK 61	Toluene	108-88-3	0.9894	0.000113	8,760	1.42E-05	1.42E-05
70091	TANK 61	Phenol	108-95-2	0.0100	0.000001	8,760	1.43E-07	1.43E-07
70091	TANK 61	Hexane	110-54-3	1.0122	0.000116	8,760	1.46E-05	1.46E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70091	TANK 61	Cyclohexane	110-82-7	0.6545	0.000075	8,760	9.41E-06	9.41E-06
70091	TANK 61	Propylene	115-07-1	0.0231	0.000003	8,760	3.32E-07	3.32E-07
70091	TANK 61	Xylenes (mixed isomers)	1330-20-7	2.6530	0.000303	8,760	3.82E-05	3.82E-05
70091	TANK 61	Methyl tert-butyl ether	1634-04-4	0.0805	0.000009	8,760	1.16E-06	1.16E-06
70091	TANK 61	Hydrogen sulfide	7783-06-4	0.0238	0.000003	8,760	3.42E-07	3.42E-07
70092	TANK 62	PAHs, total, w/o indiv. comp.	1151	0.0242	0.000003	8,760	3.48E-07	3.48E-07
70092	TANK 62	Benzene	71-43-2	0.4137	0.000047	8,760	5.95E-06	5.95E-06
70092	TANK 62	Ethylene	74-85-1	0.0122	0.000001	8,760	1.76E-07	1.76E-07
70092	TANK 62	Naphthalene	91-20-3	0.4987	0.000057	8,760	7.17E-06	7.17E-06
70092	TANK 62	1,2,4-Trimethylbenzene	95-63-6	0.7444	0.000085	8,760	1.07E-05	1.07E-05
70092	TANK 62	Cumene	98-82-8	0.0659	0.000008	8,760	9.48E-07	9.48E-07
70092	TANK 62	Ethyl benzene	100-41-4	0.1694	0.000019	8,760	2.44E-06	2.44E-06
70092	TANK 62	Styrene	100-42-5	0.0725	0.000008	8,760	1.04E-06	1.04E-06
70092	TANK 62	1,3-Butadiene	106-99-0	0.0122	0.000001	8,760	1.76E-07	1.76E-07
70092	TANK 62	Toluene	108-88-3	0.1861	0.000021	8,760	2.68E-06	2.68E-06
70092	TANK 62	Phenol	108-95-2	0.0051	0.000001	8,760	7.35E-08	7.35E-08
70092	TANK 62	Hexane	110-54-3	0.1542	0.000018	8,760	2.22E-06	2.22E-06
70092	TANK 62	Cyclohexane	110-82-7	0.1028	0.000012	8,760	1.48E-06	1.48E-06
70092	TANK 62	Propylene	115-07-1	0.0122	0.000001	8,760	1.76E-07	1.76E-07
70092	TANK 62	Xylenes (mixed isomers)	1330-20-7	0.7340	0.000084	8,760	1.06E-05	1.06E-05
70092	TANK 62	Methyl tert-butyl ether	1634-04-4	0.0483	0.000006	8,760	6.95E-07	6.95E-07
70092	TANK 62	Hydrogen sulfide	7783-06-4	0.0035	0.000000	8,760	5.02E-08	5.02E-08
70093	TANK 65	PAHs, total, w/o indiv. comp.	1151	0.0167	0.000002	8,760	2.40E-07	2.40E-07
70093	TANK 65	Benzene	71-43-2	1.0336	0.000118	8,760	1.49E-05	1.49E-05
70093	TANK 65	Naphthalene	91-20-3	0.4379	0.000050	8,760	6.30E-06	6.30E-06
70093	TANK 65	1,2,4-Trimethylbenzene	95-63-6	1.6649	0.000190	8,760	2.39E-05	2.39E-05
70093	TANK 65	Ethyl benzene	100-41-4	0.5657	0.000065	8,760	8.14E-06	8.14E-06
70093	TANK 65	Toluene	108-88-3	1.1001	0.000126	8,760	1.58E-05	1.58E-05
70093	TANK 65	Phenol	108-95-2	0.0085	0.000001	8,760	1.23E-07	1.23E-07
70093	TANK 65	Anthracene	120-12-7	0.0128	0.000001	8,760	1.84E-07	1.84E-07
70093	TANK 65	Xylenes (mixed isomers)	1330-20-7	2.6276	0.000300	8,760	3.78E-05	3.78E-05
70093	TANK 65	Hydrogen sulfide	7783-06-4	2.5921	0.000296	8,760	3.73E-05	3.73E-05
70094	TANK 66	Benzene	71-43-2	5.1115	0.000584	8,760	7.35E-05	7.35E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70094	TANK 66	Naphthalene	91-20-3	0.1473	0.000017	8,760	2.12E-06	2.12E-06
70094	TANK 66	1,2,4-Trimethylbenzene	95-63-6	1.7529	0.000200	8,760	2.52E-05	2.52E-05
70094	TANK 66	Cumene	98-82-8	0.1167	0.000013	8,760	1.68E-06	1.68E-06
70094	TANK 66	Ethyl benzene	100-41-4	1.7582	0.000201	8,760	2.53E-05	2.53E-05
70094	TANK 66	Toluene	108-88-3	10.2642	0.001172	8,760	1.48E-04	1.48E-04
70094	TANK 66	Hexane	110-54-3	66.8708	0.007634	8,760	9.62E-04	9.62E-04
70094	TANK 66	Cyclohexane	110-82-7	25.7250	0.002937	8,760	3.70E-04	3.70E-04
70094	TANK 66	Propylene	115-07-1	39.7106	0.004533	8,760	5.71E-04	5.71E-04
70094	TANK 66	Xylenes (mixed isomers)	1330-20-7	7.7327	0.000883	8,760	1.11E-04	1.11E-04
70094	TANK 66	Methyl tert-butyl ether	1634-04-4	0.0837	0.000010	8,760	1.20E-06	1.20E-06
70095	TANK 67	Benzene	71-43-2	1.2204	0.000139	8,760	1.76E-05	1.76E-05
70095	TANK 67	Naphthalene	91-20-3	0.1080	0.000012	8,760	1.55E-06	1.55E-06
70095	TANK 67	1,2,4-Trimethylbenzene	95-63-6	0.9326	0.000106	8,760	1.34E-05	1.34E-05
70095	TANK 67	Cumene	98-82-8	0.0471	0.000005	8,760	6.78E-07	6.78E-07
70095	TANK 67	Ethyl benzene	100-41-4	0.5755	0.000066	8,760	8.28E-06	8.28E-06
70095	TANK 67	Toluene	108-88-3	2.7233	0.000311	8,760	3.92E-05	3.92E-05
70095	TANK 67	Hexane	110-54-3	15.6723	0.001789	8,760	2.25E-04	2.25E-04
70095	TANK 67	Cyclohexane	110-82-7	6.1330	0.000700	8,760	8.82E-05	8.82E-05
70095	TANK 67	Propylene	115-07-1	9.0213	0.001030	8,760	1.30E-04	1.30E-04
70095	TANK 67	Xylenes (mixed isomers)	1330-20-7	2.7129	0.000310	8,760	3.90E-05	3.90E-05
70095	TANK 67	Methyl tert-butyl ether	1634-04-4	0.0705	0.000008	8,760	1.01E-06	1.01E-06
70096	TANK 68	PAHs, total, w/o indiv. comp.	1151	0.0005	0.000000	8,760	6.84E-09	6.84E-09
70096	TANK 68	Benzene	71-43-2	0.0878	0.000010	8,760	1.26E-06	1.26E-06
70096	TANK 68	Naphthalene	91-20-3	0.0160	0.000002	8,760	2.30E-07	2.30E-07
70096	TANK 68	1,2,4-Trimethylbenzene	95-63-6	0.0892	0.000010	8,760	1.28E-06	1.28E-06
70096	TANK 68	Ethyl benzene	100-41-4	0.0421	0.000005	8,760	6.06E-07	6.06E-07
70096	TANK 68	Toluene	108-88-3	0.0899	0.000010	8,760	1.29E-06	1.29E-06
70096	TANK 68	Phenol	108-95-2	0.0004	0.000000	8,760	5.10E-09	5.10E-09
70096	TANK 68	Anthracene	120-12-7	0.0004	0.000000	8,760	5.25E-09	5.25E-09
70096	TANK 68	Xylenes (mixed isomers)	1330-20-7	0.1889	0.000022	8,760	2.72E-06	2.72E-06
70096	TANK 68	Hydrogen sulfide	7783-06-4	0.2241	0.000026	8,760	3.22E-06	3.22E-06
70097	TANK 71	PAHs, total, w/o indiv. comp.	1151	0.0029	0.000000	8,760	4.15E-08	4.15E-08
70097	TANK 71	Hexane	110-54-3	0.0181	0.000002	8,760	2.61E-07	2.61E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70097	TANK 71	Cyclohexane	110-82-7	0.0205	0.000002	8,760	2.95E-07	2.95E-07
70097	TANK 71	Anthracene	120-12-7	0.0004	0.000000	8,760	5.43E-09	5.43E-09
70097	TANK 71	Hydrogen sulfide	7783-06-4	0.0970	0.000011	8,760	1.40E-06	1.40E-06
70098	TANK 72	PAHs, total, w/o indiv. comp.	1151	0.0022	0.000000	8,760	3.16E-08	3.16E-08
70098	TANK 72	Hexane	110-54-3	0.0173	0.000002	8,760	2.49E-07	2.49E-07
70098	TANK 72	Cyclohexane	110-82-7	0.0192	0.000002	8,760	2.76E-07	2.76E-07
70098	TANK 72	Anthracene	120-12-7	0.0003	0.000000	8,760	4.14E-09	4.14E-09
70098	TANK 72	Hydrogen sulfide	7783-06-4	0.0969	0.000011	8,760	1.39E-06	1.39E-06
70099	TANK 78	PAHs, total, w/o indiv. comp.	1151	0.0003	0.000000	8,760	4.90E-09	4.90E-09
70099	TANK 78	Benzene	71-43-2	0.0007	0.000000	8,760	9.80E-09	9.80E-09
70099	TANK 78	Ethylene	74-85-1	0.0002	0.000000	8,760	2.36E-09	2.36E-09
70099	TANK 78	Naphthalene	91-20-3	0.0068	0.000001	8,760	9.80E-08	9.80E-08
70099	TANK 78	1,2,4-Trimethylbenzene	95-63-6	0.0143	0.000002	8,760	2.06E-07	2.06E-07
70099	TANK 78	Cumene	98-82-8	0.0007	0.000000	8,760	9.80E-09	9.80E-09
70099	TANK 78	Ethyl benzene	100-41-4	0.0080	0.000001	8,760	1.16E-07	1.16E-07
70099	TANK 78	Styrene	100-42-5	0.0007	0.000000	8,760	9.80E-09	9.80E-09
70099	TANK 78	1,3-Butadiene	106-99-0	0.0002	0.000000	8,760	2.36E-09	2.36E-09
70099	TANK 78	Toluene	108-88-3	0.0046	0.000001	8,760	6.57E-08	6.57E-08
70099	TANK 78	Phenol	108-95-2	0.0001	0.000000	8,760	9.80E-10	9.80E-10
70099	TANK 78	Hexane	110-54-3	0.0002	0.000000	8,760	2.36E-09	2.36E-09
70099	TANK 78	Cyclohexane	110-82-7	0.0002	0.000000	8,760	2.36E-09	2.36E-09
70099	TANK 78	Propylene	115-07-1	0.0002	0.000000	8,760	2.36E-09	2.36E-09
70099	TANK 78	Xylenes (mixed isomers)	1330-20-7	0.0365	0.000004	8,760	5.25E-07	5.25E-07
70099	TANK 78	Methyl tert-butyl ether	1634-04-4	0.0007	0.000000	8,760	9.80E-09	9.80E-09
70100	TANK 79	Naphthalene	91-20-3	0.0098	0.000001	8,760	1.41E-07	1.41E-07
70100	TANK 79	Ethyl benzene	100-41-4	0.7573	0.000086	8,760	1.09E-05	1.09E-05
70100	TANK 79	Toluene	108-88-3	0.1878	0.000021	8,760	2.70E-06	2.70E-06
70100	TANK 79	Xylenes (mixed isomers)	1330-20-7	3.2158	0.000367	8,760	4.63E-05	4.63E-05
70101	TANK 91	PAHs, total, w/o indiv. comp.	1151	0.0006	0.000000	8,760	8.62E-09	8.62E-09
70101	TANK 91	Benzene	71-43-2	0.3677	0.000042	8,760	5.29E-06	5.29E-06
70101	TANK 91	Ethylene	74-85-1	28.5821	0.003263	8,760	4.11E-04	4.11E-04
70101	TANK 91	Naphthalene	91-20-3	0.0135	0.000002	8,760	1.94E-07	1.94E-07
70101	TANK 91	1,2,4-Trimethylbenzene	95-63-6	0.0019	0.000000	8,760	2.73E-08	2.73E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70101	TANK 91	Cumene	98-82-8	0.0029	0.000000	8,760	4.19E-08	4.19E-08
70101	TANK 91	Ethyl benzene	100-41-4	0.0047	0.000001	8,760	6.82E-08	6.82E-08
70101	TANK 91	Styrene	100-42-5	0.0035	0.000000	8,760	5.11E-08	5.11E-08
70101	TANK 91	1,3-Butadiene	106-99-0	1.3025	0.000149	8,760	1.87E-05	1.87E-05
70101	TANK 91	Toluene	108-88-3	0.0116	0.000001	8,760	1.67E-07	1.67E-07
70101	TANK 91	Phenol	108-95-2	0.0001	0.000000	8,760	2.11E-09	2.11E-09
70101	TANK 91	Hexane	110-54-3	29.5509	0.003373	8,760	4.25E-04	4.25E-04
70101	TANK 91	Cyclohexane	110-82-7	32.5665	0.003718	8,760	4.68E-04	4.68E-04
70101	TANK 91	Propylene	115-07-1	5.2316	0.000597	8,760	7.52E-05	7.52E-05
70101	TANK 91	Xylenes (mixed isomers)	1330-20-7	0.0079	0.000001	8,760	1.13E-07	1.13E-07
70101	TANK 91	Methyl tert-butyl ether	1634-04-4	0.0012	0.000000	8,760	1.72E-08	1.72E-08
70102	TANK 92	Benzene	71-43-2	9.7613	0.001114	8,760	1.40E-04	1.40E-04
70102	TANK 92	Naphthalene	91-20-3	0.2425	0.000028	8,760	3.49E-06	3.49E-06
70102	TANK 92	1,2,4-Trimethylbenzene	95-63-6	3.7922	0.000433	8,760	5.45E-05	5.45E-05
70102	TANK 92	Cumene	98-82-8	0.2454	0.000028	8,760	3.53E-06	3.53E-06
70102	TANK 92	Ethyl benzene	100-41-4	7.1084	0.000811	8,760	1.02E-04	1.02E-04
70102	TANK 92	Toluene	108-88-3	77.9848	0.008902	8,760	1.12E-03	1.12E-03
70102	TANK 92	Hexane	110-54-3	32.2735	0.003684	8,760	4.64E-04	4.64E-04
70102	TANK 92	Xylenes (mixed isomers)	1330-20-7	29.2107	0.003335	8,760	4.20E-04	4.20E-04
70103	TANK 93	Benzene	71-43-2	3.5613	0.000407	8,760	5.12E-05	5.12E-05
70103	TANK 93	Naphthalene	91-20-3	0.4446	0.000051	8,760	6.40E-06	6.40E-06
70103	TANK 93	Ethyl benzene	100-41-4	1.8579	0.000212	8,760	2.67E-05	2.67E-05
70103	TANK 93	Toluene	108-88-3	12.0661	0.001377	8,760	1.74E-04	1.74E-04
70103	TANK 93	Hexane	110-54-3	1.9298	0.000220	8,760	2.78E-05	2.78E-05
70103	TANK 93	Cyclohexane	110-82-7	0.8069	0.000092	8,760	1.16E-05	1.16E-05
70103	TANK 93	Xylenes (mixed isomers)	1330-20-7	8.4361	0.000963	8,760	1.21E-04	1.21E-04
70105	TANK 110	Benzene	71-43-2	2.5610	0.000292	8,760	3.68E-05	3.68E-05
70105	TANK 110	Naphthalene	91-20-3	0.0043	0.000000	8,760	6.20E-08	6.20E-08
70105	TANK 110	Ethyl benzene	100-41-4	0.8760	0.000100	8,760	1.26E-05	1.26E-05
70105	TANK 110	Toluene	108-88-3	4.3886	0.000501	8,760	6.31E-05	6.31E-05
70105	TANK 110	Hexane	110-54-3	31.1993	0.003562	8,760	4.49E-04	4.49E-04
70105	TANK 110	Cyclohexane	110-82-7	7.9463	0.000907	8,760	1.14E-04	1.14E-04
70105	TANK 110	Xylenes (mixed isomers)	1330-20-7	3.6050	0.000412	8,760	5.19E-05	5.19E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70107	TANK 124	PAHs, total, w/o indiv. comp.	1151	0.0015	0.000000	8,760	2.15E-08	2.15E-08
70107	TANK 124	Benzene	71-43-2	1.0126	0.000116	8,760	1.46E-05	1.46E-05
70107	TANK 124	Naphthalene	91-20-3	0.0949	0.000011	8,760	1.36E-06	1.36E-06
70107	TANK 124	1,2,4-Trimethylbenzene	95-63-6	0.8071	0.000092	8,760	1.16E-05	1.16E-05
70107	TANK 124	Ethyl benzene	100-41-4	0.4608	0.000053	8,760	6.63E-06	6.63E-06
70107	TANK 124	Toluene	108-88-3	1.0215	0.000117	8,760	1.47E-05	1.47E-05
70107	TANK 124	Phenol	108-95-2	0.0025	0.000000	8,760	3.62E-08	3.62E-08
70107	TANK 124	Anthracene	120-12-7	0.0011	0.000000	8,760	1.65E-08	1.65E-08
70107	TANK 124	Xylenes (mixed isomers)	1330-20-7	2.0314	0.000232	8,760	2.92E-05	2.92E-05
70107	TANK 124	Hydrogen sulfide	7783-06-4	2.5987	0.000297	8,760	3.74E-05	3.74E-05
70108	TANK 146	Benzene	71-43-2	5.0006	0.000571	8,760	7.19E-05	7.19E-05
70108	TANK 146	Naphthalene	91-20-3	0.0325	0.000004	8,760	4.67E-07	4.67E-07
70108	TANK 146	1,2,4-Trimethylbenzene	95-63-6	0.8174	0.000093	8,760	1.18E-05	1.18E-05
70108	TANK 146	Ethyl benzene	100-41-4	1.2816	0.000146	8,760	1.84E-05	1.84E-05
70108	TANK 146	1,3-Butadiene	106-99-0	1.8249	0.000208	8,760	2.62E-05	2.62E-05
70108	TANK 146	Toluene	108-88-3	12.5568	0.001433	8,760	1.81E-04	1.81E-04
70108	TANK 146	Hexane	110-54-3	15.6307	0.001784	8,760	2.25E-04	2.25E-04
70108	TANK 146	Cyclohexane	110-82-7	5.9598	0.000680	8,760	8.57E-05	8.57E-05
70108	TANK 146	Xylenes (mixed isomers)	1330-20-7	5.9388	0.000678	8,760	8.54E-05	8.54E-05
70109	TANK 147	1,2,4-Trimethylbenzene	95-63-6	1.8357	0.000210	8,760	2.64E-05	2.64E-05
70109	TANK 147	Cumene	98-82-8	0.2027	0.000023	8,760	2.92E-06	2.92E-06
70109	TANK 147	Ethyl benzene	100-41-4	2.3112	0.000264	8,760	3.32E-05	3.32E-05
70109	TANK 147	Styrene	100-42-5	0.2251	0.000026	8,760	3.24E-06	3.24E-06
70109	TANK 147	Toluene	108-88-3	8.6035	0.000982	8,760	1.24E-04	1.24E-04
70109	TANK 147	Hexane	110-54-3	0.0614	0.000007	8,760	8.82E-07	8.82E-07
70109	TANK 147	Cyclohexane	110-82-7	0.2003	0.000023	8,760	2.88E-06	2.88E-06
70109	TANK 147	Xylenes (mixed isomers)	1330-20-7	8.5218	0.000973	8,760	1.23E-04	1.23E-04
70110	TANK 148	Benzene	71-43-2	10.1782	0.001162	8,760	1.46E-04	1.46E-04
70110	TANK 148	Naphthalene	91-20-3	0.8480	0.000097	8,760	1.22E-05	1.22E-05
70110	TANK 148	1,2,4-Trimethylbenzene	95-63-6	8.3689	0.000955	8,760	1.20E-04	1.20E-04
70110	TANK 148	Cumene	98-82-8	0.3985	0.000045	8,760	5.73E-06	5.73E-06
70110	TANK 148	Ethyl benzene	100-41-4	9.4878	0.001083	8,760	1.36E-04	1.36E-04
70110	TANK 148	Toluene	108-88-3	87.8141	0.010024	8,760	1.26E-03	1.26E-03

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70110	TANK 148	Hexane	110-54-3	33.2185	0.003792	8,760	4.78E-04	4.78E-04
70110	TANK 148	Xylenes (mixed isomers)	1330-20-7	41.4703	0.004734	8,760	5.96E-04	5.96E-04
70111	TANK 149	Benzene	71-43-2	4.3993	0.000502	8,760	6.33E-05	6.33E-05
70111	TANK 149	Naphthalene	91-20-3	0.0574	0.000007	8,760	8.26E-07	8.26E-07
70111	TANK 149	1,2,4-Trimethylbenzene	95-63-6	1.2867	0.000147	8,760	1.85E-05	1.85E-05
70111	TANK 149	Ethyl benzene	100-41-4	1.5240	0.000174	8,760	2.19E-05	2.19E-05
70111	TANK 149	1,3-Butadiene	106-99-0	1.5124	0.000173	8,760	2.18E-05	2.18E-05
70111	TANK 149	Toluene	108-88-3	12.4083	0.001416	8,760	1.78E-04	1.78E-04
70111	TANK 149	Hexane	110-54-3	13.4459	0.001535	8,760	1.93E-04	1.93E-04
70111	TANK 149	Cyclohexane	110-82-7	5.2341	0.000598	8,760	7.53E-05	7.53E-05
70111	TANK 149	Xylenes (mixed isomers)	1330-20-7	7.4298	0.000848	8,760	1.07E-04	1.07E-04
70112	TANK 160	Naphthalene	91-20-3	0.0275	0.000003	8,760	3.96E-07	3.96E-07
70112	TANK 160	Ethyl benzene	100-41-4	3.0482	0.000348	8,760	4.38E-05	4.38E-05
70112	TANK 160	Toluene	108-88-3	0.8077	0.000092	8,760	1.16E-05	1.16E-05
70112	TANK 160	Xylenes (mixed isomers)	1330-20-7	12.6355	0.001442	8,760	1.82E-04	1.82E-04
70113	TANK 168	Benzene	71-43-2	2.0496	0.000234	8,760	2.95E-05	2.95E-05
70113	TANK 168	Naphthalene	91-20-3	0.0014	0.000000	8,760	2.04E-08	2.04E-08
70113	TANK 168	Ethyl benzene	100-41-4	0.4098	0.000047	8,760	5.89E-06	5.89E-06
70113	TANK 168	Toluene	108-88-3	2.7158	0.000310	8,760	3.91E-05	3.91E-05
70113	TANK 168	Hexane	110-54-3	26.5498	0.003031	8,760	3.82E-04	3.82E-04
70113	TANK 168	Cyclohexane	110-82-7	6.3884	0.000729	8,760	9.19E-05	9.19E-05
70113	TANK 168	Xylenes (mixed isomers)	1330-20-7	1.5892	0.000181	8,760	2.29E-05	2.29E-05
70114	TANK 169	Benzene	71-43-2	0.2203	0.000025	8,760	3.17E-06	3.17E-06
70114	TANK 169	1,2,4-Trimethylbenzene	95-63-6	0.0247	0.000003	8,760	3.55E-07	3.55E-07
70114	TANK 169	Ethyl benzene	100-41-4	0.0510	0.000006	8,760	7.34E-07	7.34E-07
70114	TANK 169	Toluene	108-88-3	0.6720	0.000077	8,760	9.67E-06	9.67E-06
70114	TANK 169	Hexane	110-54-3	1.4104	0.000161	8,760	2.03E-05	2.03E-05
70114	TANK 169	Cyclohexane	110-82-7	0.2270	0.000026	8,760	3.27E-06	3.27E-06
70114	TANK 169	Xylenes (mixed isomers)	1330-20-7	0.2474	0.000028	8,760	3.56E-06	3.56E-06
70115	TANK 170	Benzene	71-43-2	3.3631	0.000384	8,760	4.84E-05	4.84E-05
70115	TANK 170	Naphthalene	91-20-3	0.0210	0.000002	8,760	3.02E-07	3.02E-07
70115	TANK 170	1,2,4-Trimethylbenzene	95-63-6	0.5277	0.000060	8,760	7.59E-06	7.59E-06
70115	TANK 170	Ethyl benzene	100-41-4	0.8502	0.000097	8,760	1.22E-05	1.22E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70115	TANK 170	1,3-Butadiene	106-99-0	1.1823	0.000135	8,760	1.70E-05	1.70E-05
70115	TANK 170	Toluene	108-88-3	8.2838	0.000946	8,760	1.19E-04	1.19E-04
70115	TANK 170	Hexane	110-54-3	11.7528	0.001342	8,760	1.69E-04	1.69E-04
70115	TANK 170	Cyclohexane	110-82-7	4.2476	0.000485	8,760	6.11E-05	6.11E-05
70115	TANK 170	Xylenes (mixed isomers)	1330-20-7	3.9203	0.000448	8,760	5.64E-05	5.64E-05
70116	TANK 171	PAHs, total, w/o indiv. comp.	1151	0.0028	0.000000	8,760	4.01E-08	4.01E-08
70116	TANK 171	Benzene	71-43-2	4.9499	0.000565	8,760	7.12E-05	7.12E-05
70116	TANK 171	Ethylene	74-85-1	32.1977	0.003676	8,760	4.63E-04	4.63E-04
70116	TANK 171	Naphthalene	91-20-3	0.2877	0.000033	8,760	4.14E-06	4.14E-06
70116	TANK 171	1,2,4-Trimethylbenzene	95-63-6	0.4618	0.000053	8,760	6.64E-06	6.64E-06
70116	TANK 171	Cumene	98-82-8	0.0381	0.000004	8,760	5.48E-07	5.48E-07
70116	TANK 171	Ethyl benzene	100-41-4	0.7158	0.000082	8,760	1.03E-05	1.03E-05
70116	TANK 171	Styrene	100-42-5	0.0419	0.000005	8,760	6.03E-07	6.03E-07
70116	TANK 171	1,3-Butadiene	106-99-0	1.4729	0.000168	8,760	2.12E-05	2.12E-05
70116	TANK 171	Toluene	108-88-3	6.6385	0.000758	8,760	9.55E-05	9.55E-05
70116	TANK 171	Phenol	108-95-2	0.0006	0.000000	8,760	8.48E-09	8.48E-09
70116	TANK 171	Hexane	110-54-3	282.7153	0.032273	8,760	4.07E-03	4.07E-03
70116	TANK 171	Cyclohexane	110-82-7	1.6565	0.000189	8,760	2.38E-05	2.38E-05
70116	TANK 171	Propylene	115-07-1	5.8982	0.000673	8,760	8.48E-05	8.48E-05
70116	TANK 171	Xylenes (mixed isomers)	1330-20-7	3.3254	0.000380	8,760	4.78E-05	4.78E-05
70116	TANK 171	Methyl tert-butyl ether	1634-04-4	0.0279	0.000003	8,760	4.01E-07	4.01E-07
70117	TANK 172	Benzene	71-43-2	11.6117	0.001326	8,760	1.67E-04	1.67E-04
70117	TANK 172	Naphthalene	91-20-3	0.9326	0.000106	8,760	1.34E-05	1.34E-05
70117	TANK 172	1,2,4-Trimethylbenzene	95-63-6	9.2896	0.001060	8,760	1.34E-04	1.34E-04
70117	TANK 172	Cumene	98-82-8	0.4463	0.000051	8,760	6.42E-06	6.42E-06
70117	TANK 172	Ethyl benzene	100-41-4	10.7028	0.001222	8,760	1.54E-04	1.54E-04
70117	TANK 172	Toluene	108-88-3	99.8027	0.011393	8,760	1.44E-03	1.44E-03
70117	TANK 172	Hexane	110-54-3	37.9225	0.004329	8,760	5.45E-04	5.45E-04
70117	TANK 172	Xylenes (mixed isomers)	1330-20-7	46.6678	0.005327	8,760	6.71E-04	6.71E-04
70118	TANK 198	Benzene	71-43-2	0.8649	0.000099	8,760	1.24E-05	1.24E-05
70118	TANK 198	Naphthalene	91-20-3	0.0062	0.000001	8,760	8.91E-08	8.91E-08
70118	TANK 198	1,2,4-Trimethylbenzene	95-63-6	0.1644	0.000019	8,760	2.36E-06	2.36E-06
70118	TANK 198	Cumene	98-82-8	0.0148	0.000002	8,760	2.13E-07	2.13E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70118	TANK 198	Ethyl benzene	100-41-4	0.2575	0.000029	8,760	3.70E-06	3.70E-06
70118	TANK 198	Toluene	108-88-3	1.6667	0.000190	8,760	2.40E-05	2.40E-05
70118	TANK 198	Hexane	110-54-3	11.3903	0.001300	8,760	1.64E-04	1.64E-04
70118	TANK 198	Cyclohexane	110-82-7	4.3551	0.000497	8,760	6.26E-05	6.26E-05
70118	TANK 198	Propylene	115-07-1	6.8374	0.000781	8,760	9.83E-05	9.83E-05
70118	TANK 198	Xylenes (mixed isomers)	1330-20-7	1.0856	0.000124	8,760	1.56E-05	1.56E-05
70118	TANK 198	Methyl tert-butyl ether	1634-04-4	0.0012	0.000000	8,760	1.67E-08	1.67E-08
70119	TANK 199	Benzene	71-43-2	0.8640	0.000099	8,760	1.24E-05	1.24E-05
70119	TANK 199	Naphthalene	91-20-3	0.0051	0.000001	8,760	7.39E-08	7.39E-08
70119	TANK 199	1,2,4-Trimethylbenzene	95-63-6	0.1568	0.000018	8,760	2.26E-06	2.26E-06
70119	TANK 199	Cumene	98-82-8	0.0145	0.000002	8,760	2.09E-07	2.09E-07
70119	TANK 199	Ethyl benzene	100-41-4	0.2550	0.000029	8,760	3.67E-06	3.67E-06
70119	TANK 199	Toluene	108-88-3	1.6611	0.000190	8,760	2.39E-05	2.39E-05
70119	TANK 199	Hexane	110-54-3	11.3834	0.001299	8,760	1.64E-04	1.64E-04
70119	TANK 199	Cyclohexane	110-82-7	4.3510	0.000497	8,760	6.26E-05	6.26E-05
70119	TANK 199	Propylene	115-07-1	6.8374	0.000781	8,760	9.83E-05	9.83E-05
70119	TANK 199	Xylenes (mixed isomers)	1330-20-7	1.0720	0.000122	8,760	1.54E-05	1.54E-05
70119	TANK 199	Methyl tert-butyl ether	1634-04-4	0.0004	0.000000	8,760	6.26E-09	6.26E-09
70121	TANK 205	PAHs, total, w/o indiv. comp.	1151	0.0070	0.000001	8,760	1.01E-07	1.01E-07
70121	TANK 205	Benzene	71-43-2	1.0212	0.000117	8,760	1.47E-05	1.47E-05
70121	TANK 205	Naphthalene	91-20-3	0.2196	0.000025	8,760	3.16E-06	3.16E-06
70121	TANK 205	1,2,4-Trimethylbenzene	95-63-6	1.1195	0.000128	8,760	1.61E-05	1.61E-05
70121	TANK 205	Ethyl benzene	100-41-4	0.4993	0.000057	8,760	7.18E-06	7.18E-06
70121	TANK 205	Toluene	108-88-3	1.0510	0.000120	8,760	1.51E-05	1.51E-05
70121	TANK 205	Phenol	108-95-2	0.0047	0.000001	8,760	6.77E-08	6.77E-08
70121	TANK 205	Anthracene	120-12-7	0.0054	0.000001	8,760	7.75E-08	7.75E-08
70121	TANK 205	Xylenes (mixed isomers)	1330-20-7	2.2499	0.000257	8,760	3.24E-05	3.24E-05
70121	TANK 205	Hydrogen sulfide	7783-06-4	2.5988	0.000297	8,760	3.74E-05	3.74E-05
70122	TANK 206	PAHs, total, w/o indiv. comp.	1151	0.0009	0.000000	8,760	1.26E-08	1.26E-08
70122	TANK 206	Benzene	71-43-2	0.5757	0.000066	8,760	8.28E-06	8.28E-06
70122	TANK 206	Naphthalene	91-20-3	0.0216	0.000002	8,760	3.10E-07	3.10E-07
70122	TANK 206	1,2,4-Trimethylbenzene	95-63-6	0.0658	0.000008	8,760	9.47E-07	9.47E-07
70122	TANK 206	Ethyl benzene	100-41-4	0.1328	0.000015	8,760	1.91E-06	1.91E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70122	TANK 206	Toluene	108-88-3	0.7753	0.000089	8,760	1.12E-05	1.12E-05
70122	TANK 206	Phenol	108-95-2	0.0004	0.000000	8,760	5.60E-09	5.60E-09
70122	TANK 206	Hexane	110-54-3	7.1106	0.000812	8,760	1.02E-04	1.02E-04
70122	TANK 206	Cyclohexane	110-82-7	1.7184	0.000196	8,760	2.47E-05	2.47E-05
70122	TANK 206	Anthracene	120-12-7	0.0007	0.000000	8,760	9.66E-09	9.66E-09
70122	TANK 206	Xylenes (mixed isomers)	1330-20-7	0.5344	0.000061	8,760	7.69E-06	7.69E-06
70122	TANK 206	Hydrogen sulfide	7783-06-4	0.0588	0.000007	8,760	8.46E-07	8.46E-07
70124	TANK 211	PAHs, total, w/o indiv. comp.	1151	0.0106	0.000001	8,760	1.52E-07	1.52E-07
70124	TANK 211	Hexane	110-54-3	0.0301	0.000003	8,760	4.33E-07	4.33E-07
70124	TANK 211	Cyclohexane	110-82-7	0.0381	0.000004	8,760	5.48E-07	5.48E-07
70124	TANK 211	Anthracene	120-12-7	0.0014	0.000000	8,760	2.00E-08	2.00E-08
70124	TANK 211	Hydrogen sulfide	7783-06-4	0.1156	0.000013	8,760	1.66E-06	1.66E-06
70125	TANK 277	Benzene	71-43-2	13.2173	0.001509	8,760	1.90E-04	1.90E-04
70125	TANK 277	Naphthalene	91-20-3	0.0522	0.000006	8,760	7.51E-07	7.51E-07
70125	TANK 277	1,2,4-Trimethylbenzene	95-63-6	1.5009	0.000171	8,760	2.16E-05	2.16E-05
70125	TANK 277	Ethyl benzene	100-41-4	2.9267	0.000334	8,760	4.21E-05	4.21E-05
70125	TANK 277	1,3-Butadiene	106-99-0	4.9315	0.000563	8,760	7.09E-05	7.09E-05
70125	TANK 277	Toluene	108-88-3	31.6072	0.003608	8,760	4.55E-04	4.55E-04
70125	TANK 277	Hexane	110-54-3	41.6693	0.004757	8,760	5.99E-04	5.99E-04
70125	TANK 277	Cyclohexane	110-82-7	15.7630	0.001799	8,760	2.27E-04	2.27E-04
70125	TANK 277	Xylenes (mixed isomers)	1330-20-7	13.1343	0.001499	8,760	1.89E-04	1.89E-04
70126	TANK 278	PAHs, total, w/o indiv. comp.	1151	0.0059	0.000001	8,760	8.46E-08	8.46E-08
70126	TANK 278	Benzene	71-43-2	6.8129	0.000778	8,760	9.80E-05	9.80E-05
70126	TANK 278	Ethylene	74-85-1	0.0242	0.000003	8,760	3.48E-07	3.48E-07
70126	TANK 278	Naphthalene	91-20-3	0.8707	0.000099	8,760	1.25E-05	1.25E-05
70126	TANK 278	1,2,4-Trimethylbenzene	95-63-6	2.5732	0.000294	8,760	3.70E-05	3.70E-05
70126	TANK 278	Cumene	98-82-8	0.7675	0.000088	8,760	1.10E-05	1.10E-05
70126	TANK 278	Ethyl benzene	100-41-4	1.9012	0.000217	8,760	2.73E-05	2.73E-05
70126	TANK 278	Styrene	100-42-5	0.5050	0.000058	8,760	7.26E-06	7.26E-06
70126	TANK 278	1,3-Butadiene	106-99-0	0.0242	0.000003	8,760	3.48E-07	3.48E-07
70126	TANK 278	Toluene	108-88-3	3.2522	0.000371	8,760	4.68E-05	4.68E-05
70126	TANK 278	Phenol	108-95-2	0.0022	0.000000	8,760	3.15E-08	3.15E-08
70126	TANK 278	Hexane	110-54-3	2.6982	0.000308	8,760	3.88E-05	3.88E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70126	TANK 278	Cyclohexane	110-82-7	1.7314	0.000198	8,760	2.49E-05	2.49E-05
70126	TANK 278	Propylene	115-07-1	0.0242	0.000003	8,760	3.48E-07	3.48E-07
70126	TANK 278	Xylenes (mixed isomers)	1330-20-7	6.3636	0.000726	8,760	9.15E-05	9.15E-05
70126	TANK 278	Methyl tert-butyl ether	1634-04-4	0.0588	0.000007	8,760	8.46E-07	8.46E-07
70126	TANK 278	Hydrogen sulfide	7783-06-4	2.3859	0.000272	8,760	3.43E-05	3.43E-05
70127	TANK 292	Benzene	71-43-2	3.2777	0.000374	8,760	4.71E-05	4.71E-05
70127	TANK 292	Naphthalene	91-20-3	0.0373	0.000004	8,760	5.36E-07	5.36E-07
70127	TANK 292	1,2,4-Trimethylbenzene	95-63-6	0.8501	0.000097	8,760	1.22E-05	1.22E-05
70127	TANK 292	Ethyl benzene	100-41-4	1.0596	0.000121	8,760	1.52E-05	1.52E-05
70127	TANK 292	1,3-Butadiene	106-99-0	1.1446	0.000131	8,760	1.65E-05	1.65E-05
70127	TANK 292	Toluene	108-88-3	8.9844	0.001026	8,760	1.29E-04	1.29E-04
70127	TANK 292	Hexane	110-54-3	10.0762	0.001150	8,760	1.45E-04	1.45E-04
70127	TANK 292	Cyclohexane	110-82-7	3.9014	0.000445	8,760	5.61E-05	5.61E-05
70127	TANK 292	Xylenes (mixed isomers)	1330-20-7	5.1138	0.000584	8,760	7.36E-05	7.36E-05
70128	TANK 326	PAHs, total, w/o indiv. comp.	1151	0.0110	0.000001	8,760	1.59E-07	1.59E-07
70128	TANK 326	Hexane	110-54-3	0.0306	0.000003	8,760	4.41E-07	4.41E-07
70128	TANK 326	Cyclohexane	110-82-7	0.0389	0.000004	8,760	5.60E-07	5.60E-07
70128	TANK 326	Anthracene	120-12-7	0.0014	0.000000	8,760	2.08E-08	2.08E-08
70128	TANK 326	Hydrogen sulfide	7783-06-4	0.1156	0.000013	8,760	1.66E-06	1.66E-06
70129	TANK 329	PAHs, total, w/o indiv. comp.	1151	0.0200	0.000002	8,760	2.88E-07	2.88E-07
70129	TANK 329	Hexane	110-54-3	0.0412	0.000005	8,760	5.92E-07	5.92E-07
70129	TANK 329	Cyclohexane	110-82-7	0.0559	0.000006	8,760	8.04E-07	8.04E-07
70129	TANK 329	Anthracene	120-12-7	0.0026	0.000000	8,760	3.77E-08	3.77E-08
70129	TANK 329	Hydrogen sulfide	7783-06-4	0.1147	0.000013	8,760	1.65E-06	1.65E-06
70130	TANK 330	Benzene	71-43-2	1.8338	0.000209	8,760	2.64E-05	2.64E-05
70130	TANK 330	Naphthalene	91-20-3	0.0039	0.000000	8,760	5.68E-08	5.68E-08
70130	TANK 330	Ethyl benzene	100-41-4	0.7516	0.000086	8,760	1.08E-05	1.08E-05
70130	TANK 330	Toluene	108-88-3	3.4823	0.000398	8,760	5.01E-05	5.01E-05
70130	TANK 330	Hexane	110-54-3	21.6648	0.002473	8,760	3.12E-04	3.12E-04
70130	TANK 330	Cyclohexane	110-82-7	5.6774	0.000648	8,760	8.17E-05	8.17E-05
70130	TANK 330	Xylenes (mixed isomers)	1330-20-7	3.1345	0.000358	8,760	4.51E-05	4.51E-05
70131	TANK 332	PAHs, total, w/o indiv. comp.	1151	0.0463	0.000005	8,760	6.65E-07	6.65E-07
70131	TANK 332	Benzene	71-43-2	1.0959	0.000125	8,760	1.58E-05	1.58E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70131	TANK 332	Ethylene	74-85-1	0.0238	0.000003	8,760	3.42E-07	3.42E-07
70131	TANK 332	Naphthalene	91-20-3	0.9672	0.000110	8,760	1.39E-05	1.39E-05
70131	TANK 332	1,2,4-Trimethylbenzene	95-63-6	1.5050	0.000172	8,760	2.16E-05	2.16E-05
70131	TANK 332	Cumene	98-82-8	0.1408	0.000016	8,760	2.03E-06	2.03E-06
70131	TANK 332	Ethyl benzene	100-41-4	0.3848	0.000044	8,760	5.54E-06	5.54E-06
70131	TANK 332	Styrene	100-42-5	0.1588	0.000018	8,760	2.28E-06	2.28E-06
70131	TANK 332	1,3-Butadiene	106-99-0	0.0238	0.000003	8,760	3.42E-07	3.42E-07
70131	TANK 332	Toluene	108-88-3	0.4629	0.000053	8,760	6.66E-06	6.66E-06
70131	TANK 332	Phenol	108-95-2	0.0100	0.000001	8,760	1.44E-07	1.44E-07
70131	TANK 332	Hexane	110-54-3	0.4136	0.000047	8,760	5.95E-06	5.95E-06
70131	TANK 332	Cyclohexane	110-82-7	0.2727	0.000031	8,760	3.92E-06	3.92E-06
70131	TANK 332	Propylene	115-07-1	0.0238	0.000003	8,760	3.42E-07	3.42E-07
70131	TANK 332	Xylenes (mixed isomers)	1330-20-7	1.6294	0.000186	8,760	2.34E-05	2.34E-05
70131	TANK 332	Methyl tert-butyl ether	1634-04-4	0.0925	0.000011	8,760	1.33E-06	1.33E-06
70131	TANK 332	Hydrogen sulfide	7783-06-4	0.0095	0.000001	8,760	1.37E-07	1.37E-07
70132	TANK 333	PAHs, total, w/o indiv. comp.	1151	0.0738	0.000008	8,760	1.06E-06	1.06E-06
70132	TANK 333	Benzene	71-43-2	1.1199	0.000128	8,760	1.61E-05	1.61E-05
70132	TANK 333	Ethylene	74-85-1	0.0371	0.000004	8,760	5.34E-07	5.34E-07
70132	TANK 333	Naphthalene	91-20-3	1.5176	0.000173	8,760	2.18E-05	2.18E-05
70132	TANK 333	1,2,4-Trimethylbenzene	95-63-6	2.2360	0.000255	8,760	3.22E-05	3.22E-05
70132	TANK 333	Cumene	98-82-8	0.1945	0.000022	8,760	2.80E-06	2.80E-06
70132	TANK 333	Ethyl benzene	100-41-4	0.4890	0.000056	8,760	7.03E-06	7.03E-06
70132	TANK 333	Styrene	100-42-5	0.2119	0.000024	8,760	3.05E-06	3.05E-06
70132	TANK 333	1,3-Butadiene	106-99-0	0.0371	0.000004	8,760	5.34E-07	5.34E-07
70132	TANK 333	Toluene	108-88-3	0.5182	0.000059	8,760	7.45E-06	7.45E-06
70132	TANK 333	Phenol	108-95-2	0.0155	0.000002	8,760	2.23E-07	2.23E-07
70132	TANK 333	Hexane	110-54-3	0.4148	0.000047	8,760	5.97E-06	5.97E-06
70132	TANK 333	Cyclohexane	110-82-7	0.2783	0.000032	8,760	4.00E-06	4.00E-06
70132	TANK 333	Propylene	115-07-1	0.0371	0.000004	8,760	5.34E-07	5.34E-07
70132	TANK 333	Xylenes (mixed isomers)	1330-20-7	2.1360	0.000244	8,760	3.07E-05	3.07E-05
70132	TANK 333	Methyl tert-butyl ether	1634-04-4	0.1477	0.000017	8,760	2.12E-06	2.12E-06
70132	TANK 333	Hydrogen sulfide	7783-06-4	0.0093	0.000001	8,760	1.34E-07	1.34E-07
70133	TANK 334	PAHs, total, w/o indiv. comp.	1151	0.0684	0.000008	8,760	9.83E-07	9.83E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70133	TANK 334	Benzene	71-43-2	0.9275	0.000106	8,760	1.33E-05	1.33E-05
70133	TANK 334	Ethylene	74-85-1	108.6751	0.012406	8,760	1.56E-03	1.56E-03
70133	TANK 334	Naphthalene	91-20-3	0.3792	0.000043	8,760	5.45E-06	5.45E-06
70133	TANK 334	1,2,4-Trimethylbenzene	95-63-6	0.2072	0.000024	8,760	2.98E-06	2.98E-06
70133	TANK 334	Cumene	98-82-8	0.0772	0.000009	8,760	1.11E-06	1.11E-06
70133	TANK 334	Ethyl benzene	100-41-4	0.1231	0.000014	8,760	1.77E-06	1.77E-06
70133	TANK 334	Styrene	100-42-5	0.0932	0.000011	8,760	1.34E-06	1.34E-06
70133	TANK 334	1,3-Butadiene	106-99-0	4.9534	0.000565	8,760	7.12E-05	7.12E-05
70133	TANK 334	Toluene	108-88-3	0.2952	0.000034	8,760	4.25E-06	4.25E-06
70133	TANK 334	Phenol	108-95-2	0.0164	0.000002	8,760	2.35E-07	2.35E-07
70133	TANK 334	Hexane	110-54-3	0.3333	0.000038	8,760	4.79E-06	4.79E-06
70133	TANK 334	Cyclohexane	110-82-7	0.2160	0.000025	8,760	3.11E-06	3.11E-06
70133	TANK 334	Propylene	115-07-1	19.8925	0.002271	8,760	2.86E-04	2.86E-04
70133	TANK 334	Xylenes (mixed isomers)	1330-20-7	0.2058	0.000023	8,760	2.96E-06	2.96E-06
70133	TANK 334	Methyl tert-butyl ether	1634-04-4	0.0342	0.000004	8,760	4.92E-07	4.92E-07
70134	TANK 370	PAHs, total, w/o indiv. comp.	1151	0.0000	0.000000	8,760	1.82E-12	1.82E-12
70134	TANK 370	Benzene	71-43-2	0.1246	0.000014	8,760	1.79E-06	1.79E-06
70134	TANK 370	Naphthalene	91-20-3	0.0075	0.000001	8,760	1.09E-07	1.09E-07
70134	TANK 370	1,2,4-Trimethylbenzene	95-63-6	0.0891	0.000010	8,760	1.28E-06	1.28E-06
70134	TANK 370	Ethyl benzene	100-41-4	0.0555	0.000006	8,760	7.99E-07	7.99E-07
70134	TANK 370	Toluene	108-88-3	0.1250	0.000014	8,760	1.80E-06	1.80E-06
70134	TANK 370	Phenol	108-95-2	0.0002	0.000000	8,760	3.42E-09	3.42E-09
70134	TANK 370	Anthracene	120-12-7	0.0000	0.000000	8,760	1.82E-12	1.82E-12
70134	TANK 370	Xylenes (mixed isomers)	1330-20-7	0.2432	0.000028	8,760	3.50E-06	3.50E-06
70134	TANK 370	Hydrogen sulfide	7783-06-4	0.3204	0.000037	8,760	4.61E-06	4.61E-06
70135	TANK 294	Benzene	71-43-2	0.3070	0.000035	8,760	4.42E-06	4.42E-06
70135	TANK 294	Ethylene	74-85-1	0.0013	0.000000	8,760	1.85E-08	1.85E-08
70135	TANK 294	Naphthalene	91-20-3	0.0231	0.000003	8,760	3.33E-07	3.33E-07
70135	TANK 294	1,2,4-Trimethylbenzene	95-63-6	0.0727	0.000008	8,760	1.05E-06	1.05E-06
70135	TANK 294	Cumene	98-82-8	0.0148	0.000002	8,760	2.12E-07	2.12E-07
70135	TANK 294	Ethyl benzene	100-41-4	0.0611	0.000007	8,760	8.79E-07	8.79E-07
70135	TANK 294	Styrene	100-42-5	0.0203	0.000002	8,760	2.92E-07	2.92E-07
70135	TANK 294	1,3-Butadiene	106-99-0	0.0013	0.000000	8,760	1.85E-08	1.85E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70135	TANK 294	Toluene	108-88-3	0.1794	0.000020	8,760	2.58E-06	2.58E-06
70135	TANK 294	Phenol	108-95-2	0.0012	0.000000	8,760	1.66E-08	1.66E-08
70135	TANK 294	Hexane	110-54-3	0.5085	0.000058	8,760	7.31E-06	7.31E-06
70135	TANK 294	Cyclohexane	110-82-7	0.3253	0.000037	8,760	4.68E-06	4.68E-06
70135	TANK 294	Propylene	115-07-1	0.0013	0.000000	8,760	1.85E-08	1.85E-08
70135	TANK 294	Xylenes (mixed isomers)	1330-20-7	0.2835	0.000032	8,760	4.08E-06	4.08E-06
70135	TANK 294	Hydrogen sulfide	7783-06-4	3.2746	0.000374	8,760	4.71E-05	4.71E-05
70136	TANK 327	PAHs, total, w/o indiv. comp.	1151	0.0000	0.000000	8,760	2.00E-12	2.00E-12
70136	TANK 327	Hexane	110-54-3	0.9885	0.000113	8,760	1.42E-05	1.42E-05
70136	TANK 327	Cyclohexane	110-82-7	1.0119	0.000116	8,760	1.46E-05	1.46E-05
70136	TANK 327	Anthracene	120-12-7	0.0000	0.000000	8,760	2.00E-12	2.00E-12
70136	TANK 327	Hydrogen sulfide	7783-06-4	6.5234	0.000745	8,760	9.38E-05	9.38E-05
70137	TANK 328	PAHs, total, w/o indiv. comp.	1151	0.0000	0.000000	8,760	2.69E-12	2.69E-12
70137	TANK 328	Hexane	110-54-3	1.3289	0.000152	8,760	1.91E-05	1.91E-05
70137	TANK 328	Cyclohexane	110-82-7	1.3602	0.000155	8,760	1.96E-05	1.96E-05
70137	TANK 328	Anthracene	120-12-7	0.0000	0.000000	8,760	2.69E-12	2.69E-12
70137	TANK 328	Hydrogen sulfide	7783-06-4	8.7692	0.001001	8,760	1.26E-04	1.26E-04
70138	TANK 336	Benzene	71-43-2	0.1746	0.000020	8,760	2.51E-06	2.51E-06
70138	TANK 336	Ethylene	74-85-1	0.0007	0.000000	8,760	1.05E-08	1.05E-08
70138	TANK 336	Naphthalene	91-20-3	0.0132	0.000002	8,760	1.89E-07	1.89E-07
70138	TANK 336	1,2,4-Trimethylbenzene	95-63-6	0.0413	0.000005	8,760	5.94E-07	5.94E-07
70138	TANK 336	Cumene	98-82-8	0.0084	0.000001	8,760	1.21E-07	1.21E-07
70138	TANK 336	Ethyl benzene	100-41-4	0.0348	0.000004	8,760	5.00E-07	5.00E-07
70138	TANK 336	Styrene	100-42-5	0.0115	0.000001	8,760	1.66E-07	1.66E-07
70138	TANK 336	1,3-Butadiene	106-99-0	0.0007	0.000000	8,760	1.05E-08	1.05E-08
70138	TANK 336	Toluene	108-88-3	0.1020	0.000012	8,760	1.47E-06	1.47E-06
70138	TANK 336	Phenol	108-95-2	0.0007	0.000000	8,760	9.45E-09	9.45E-09
70138	TANK 336	Hexane	110-54-3	0.2892	0.000033	8,760	4.16E-06	4.16E-06
70138	TANK 336	Cyclohexane	110-82-7	0.1850	0.000021	8,760	2.66E-06	2.66E-06
70138	TANK 336	Propylene	115-07-1	0.0007	0.000000	8,760	1.05E-08	1.05E-08
70138	TANK 336	Xylenes (mixed isomers)	1330-20-7	0.1612	0.000018	8,760	2.32E-06	2.32E-06
70138	TANK 336	Hydrogen sulfide	7783-06-4	1.8621	0.000213	8,760	2.68E-05	2.68E-05
70139	TANK 335	PAHs, total, w/o indiv. comp.	1151	0.0459	0.000005	8,760	6.60E-07	6.60E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70139	TANK 335	Benzene	71-43-2	1.0951	0.000125	8,760	1.58E-05	1.58E-05
70139	TANK 335	Ethylene	74-85-1	0.0236	0.000003	8,760	3.40E-07	3.40E-07
70139	TANK 335	Naphthalene	91-20-3	0.9594	0.000110	8,760	1.38E-05	1.38E-05
70139	TANK 335	1,2,4-Trimethylbenzene	95-63-6	1.4945	0.000171	8,760	2.15E-05	2.15E-05
70139	TANK 335	Cumene	98-82-8	0.1400	0.000016	8,760	2.01E-06	2.01E-06
70139	TANK 335	Ethyl benzene	100-41-4	0.3833	0.000044	8,760	5.51E-06	5.51E-06
70139	TANK 335	Styrene	100-42-5	0.1580	0.000018	8,760	2.27E-06	2.27E-06
70139	TANK 335	1,3-Butadiene	106-99-0	0.0236	0.000003	8,760	3.40E-07	3.40E-07
70139	TANK 335	Toluene	108-88-3	0.4620	0.000053	8,760	6.64E-06	6.64E-06
70139	TANK 335	Phenol	108-95-2	0.0099	0.000001	8,760	1.43E-07	1.43E-07
70139	TANK 335	Hexane	110-54-3	0.4134	0.000047	8,760	5.95E-06	5.95E-06
70139	TANK 335	Cyclohexane	110-82-7	0.2725	0.000031	8,760	3.92E-06	3.92E-06
70139	TANK 335	Propylene	115-07-1	0.0236	0.000003	8,760	3.40E-07	3.40E-07
70139	TANK 335	Xylenes (mixed isomers)	1330-20-7	1.6219	0.000185	8,760	2.33E-05	2.33E-05
70139	TANK 335	Methyl tert-butyl ether	1634-04-4	0.0917	0.000010	8,760	1.32E-06	1.32E-06
70139	TANK 335	Hydrogen sulfide	7783-06-4	0.0095	0.000001	8,760	1.37E-07	1.37E-07
70141	TANK 350	PAHs, total, w/o indiv. comp.	1151	0.0491	0.000006	8,760	7.06E-07	7.06E-07
70141	TANK 350	Benzene	71-43-2	2.6607	0.000304	8,760	3.83E-05	3.83E-05
70141	TANK 350	Ethylene	74-85-1	0.0274	0.000003	8,760	3.94E-07	3.94E-07
70141	TANK 350	Naphthalene	91-20-3	1.0892	0.000124	8,760	1.57E-05	1.57E-05
70141	TANK 350	1,2,4-Trimethylbenzene	95-63-6	1.9932	0.000228	8,760	2.87E-05	2.87E-05
70141	TANK 350	Cumene	98-82-8	0.2215	0.000025	8,760	3.19E-06	3.19E-06
70141	TANK 350	Ethyl benzene	100-41-4	0.7066	0.000081	8,760	1.02E-05	1.02E-05
70141	TANK 350	Styrene	100-42-5	0.2675	0.000031	8,760	3.85E-06	3.85E-06
70141	TANK 350	1,3-Butadiene	106-99-0	0.0274	0.000003	8,760	3.94E-07	3.94E-07
70141	TANK 350	Toluene	108-88-3	1.0165	0.000116	8,760	1.46E-05	1.46E-05
70141	TANK 350	Phenol	108-95-2	0.0117	0.000001	8,760	1.69E-07	1.69E-07
70141	TANK 350	Hexane	110-54-3	1.0230	0.000117	8,760	1.47E-05	1.47E-05
70141	TANK 350	Cyclohexane	110-82-7	0.6630	0.000076	8,760	9.54E-06	9.54E-06
70141	TANK 350	Propylene	115-07-1	0.0274	0.000003	8,760	3.94E-07	3.94E-07
70141	TANK 350	Xylenes (mixed isomers)	1330-20-7	2.8356	0.000324	8,760	4.08E-05	4.08E-05
70141	TANK 350	Methyl tert-butyl ether	1634-04-4	0.0982	0.000011	8,760	1.41E-06	1.41E-06
70141	TANK 350	Hydrogen sulfide	7783-06-4	0.0240	0.000003	8,760	3.45E-07	3.45E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70142	TANK 351	PAHs, total, w/o indiv. comp.	1151	0.0672	0.000008	8,760	9.67E-07	9.67E-07
70142	TANK 351	Benzene	71-43-2	2.6942	0.000308	8,760	3.88E-05	3.88E-05
70142	TANK 351	Ethylene	74-85-1	0.0361	0.000004	8,760	5.20E-07	5.20E-07
70142	TANK 351	Naphthalene	91-20-3	1.4519	0.000166	8,760	2.09E-05	2.09E-05
70142	TANK 351	1,2,4-Trimethylbenzene	95-63-6	2.4786	0.000283	8,760	3.57E-05	3.57E-05
70142	TANK 351	Cumene	98-82-8	0.2576	0.000029	8,760	3.71E-06	3.71E-06
70142	TANK 351	Ethyl benzene	100-41-4	0.7787	0.000089	8,760	1.12E-05	1.12E-05
70142	TANK 351	Styrene	100-42-5	0.3036	0.000035	8,760	4.37E-06	4.37E-06
70142	TANK 351	1,3-Butadiene	106-99-0	0.0361	0.000004	8,760	5.20E-07	5.20E-07
70142	TANK 351	Toluene	108-88-3	1.0590	0.000121	8,760	1.52E-05	1.52E-05
70142	TANK 351	Phenol	108-95-2	0.0154	0.000002	8,760	2.21E-07	2.21E-07
70142	TANK 351	Hexane	110-54-3	1.0306	0.000118	8,760	1.48E-05	1.48E-05
70142	TANK 351	Cyclohexane	110-82-7	0.6711	0.000077	8,760	9.65E-06	9.65E-06
70142	TANK 351	Propylene	115-07-1	0.0361	0.000004	8,760	5.20E-07	5.20E-07
70142	TANK 351	Xylenes (mixed isomers)	1330-20-7	3.1818	0.000363	8,760	4.58E-05	4.58E-05
70142	TANK 351	Methyl tert-butyl ether	1634-04-4	0.1345	0.000015	8,760	1.93E-06	1.93E-06
70142	TANK 351	Hydrogen sulfide	7783-06-4	0.0240	0.000003	8,760	3.46E-07	3.46E-07
70143	TANK 352	Benzene	71-43-2	0.4025	0.000046	8,760	5.79E-06	5.79E-06
70143	TANK 352	Naphthalene	91-20-3	0.0291	0.000003	8,760	4.19E-07	4.19E-07
70143	TANK 352	1,2,4-Trimethylbenzene	95-63-6	0.2619	0.000030	8,760	3.77E-06	3.77E-06
70143	TANK 352	Cumene	98-82-8	0.0138	0.000002	8,760	1.99E-07	1.99E-07
70143	TANK 352	Ethyl benzene	100-41-4	0.1760	0.000020	8,760	2.53E-06	2.53E-06
70143	TANK 352	Toluene	108-88-3	0.8739	0.000100	8,760	1.26E-05	1.26E-05
70143	TANK 352	Hexane	110-54-3	5.1949	0.000593	8,760	7.47E-05	7.47E-05
70143	TANK 352	Cyclohexane	110-82-7	2.0235	0.000231	8,760	2.91E-05	2.91E-05
70143	TANK 352	Propylene	115-07-1	3.0161	0.000344	8,760	4.34E-05	4.34E-05
70143	TANK 352	Xylenes (mixed isomers)	1330-20-7	0.8177	0.000093	8,760	1.18E-05	1.18E-05
70143	TANK 352	Methyl tert-butyl ether	1634-04-4	0.0188	0.000002	8,760	2.70E-07	2.70E-07
70143	TANK 352	Hydrogen sulfide	7783-06-4	79.2710	0.009049	8,760	1.14E-03	1.14E-03
70144	TANK 353	Benzene	71-43-2	0.3983	0.000045	8,760	5.73E-06	5.73E-06
70144	TANK 353	Naphthalene	91-20-3	0.0240	0.000003	8,760	3.45E-07	3.45E-07
70144	TANK 353	1,2,4-Trimethylbenzene	95-63-6	0.2248	0.000026	8,760	3.23E-06	3.23E-06
70144	TANK 353	Cumene	98-82-8	0.0124	0.000001	8,760	1.78E-07	1.78E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70144	TANK 353	Ethyl benzene	100-41-4	0.1637	0.000019	8,760	2.35E-06	2.35E-06
70144	TANK 353	Toluene	108-88-3	0.8467	0.000097	8,760	1.22E-05	1.22E-05
70144	TANK 353	Hexane	110-54-3	5.1610	0.000589	8,760	7.42E-05	7.42E-05
70144	TANK 353	Cyclohexane	110-82-7	2.0033	0.000229	8,760	2.88E-05	2.88E-05
70144	TANK 353	Propylene	115-07-1	3.0158	0.000344	8,760	4.34E-05	4.34E-05
70144	TANK 353	Xylenes (mixed isomers)	1330-20-7	0.7513	0.000086	8,760	1.08E-05	1.08E-05
70144	TANK 353	Methyl tert-butyl ether	1634-04-4	0.0152	0.000002	8,760	2.19E-07	2.19E-07
70144	TANK 353	Hydrogen sulfide	7783-06-4	79.2532	0.009047	8,760	1.14E-03	1.14E-03
70145	TANK 389	PAHs, total, w/o indiv. comp.	1151	0.0131	0.000001	8,760	1.88E-07	1.88E-07
70145	TANK 389	Hexane	110-54-3	0.0359	0.000004	8,760	5.16E-07	5.16E-07
70145	TANK 389	Cyclohexane	110-82-7	0.0457	0.000005	8,760	6.57E-07	6.57E-07
70145	TANK 389	Anthracene	120-12-7	0.0017	0.000000	8,760	2.46E-08	2.46E-08
70145	TANK 389	Hydrogen sulfide	7783-06-4	0.1343	0.000015	8,760	1.93E-06	1.93E-06
70146	TANK 390	PAHs, total, w/o indiv. comp.	1151	0.0000	0.000000	8,760	4.11E-14	4.11E-14
70146	TANK 390	Hexane	110-54-3	0.0203	0.000002	8,760	2.92E-07	2.92E-07
70146	TANK 390	Cyclohexane	110-82-7	0.0208	0.000002	8,760	2.99E-07	2.99E-07
70146	TANK 390	Anthracene	120-12-7	0.0000	0.000000	8,760	4.11E-14	4.11E-14
70146	TANK 390	Hydrogen sulfide	7783-06-4	0.1341	0.000015	8,760	1.93E-06	1.93E-06
70148	TANK 393	PAHs, total, w/o indiv. comp.	1151	0.0031	0.000000	8,760	4.41E-08	4.41E-08
70148	TANK 393	Hexane	110-54-3	0.0256	0.000003	8,760	3.68E-07	3.68E-07
70148	TANK 393	Cyclohexane	110-82-7	0.0283	0.000003	8,760	4.07E-07	4.07E-07
70148	TANK 393	Anthracene	120-12-7	0.0004	0.000000	8,760	5.78E-09	5.78E-09
70148	TANK 393	Hydrogen sulfide	7783-06-4	0.1450	0.000017	8,760	2.08E-06	2.08E-06
70149	TANK 394	PAHs, total, w/o indiv. comp.	1151	0.0041	0.000000	8,760	5.87E-08	5.87E-08
70149	TANK 394	Hexane	110-54-3	0.0268	0.000003	8,760	3.86E-07	3.86E-07
70149	TANK 394	Cyclohexane	110-82-7	0.0303	0.000003	8,760	4.35E-07	4.35E-07
70149	TANK 394	Anthracene	120-12-7	0.0005	0.000000	8,760	7.69E-09	7.69E-09
70149	TANK 394	Hydrogen sulfide	7783-06-4	0.1450	0.000017	8,760	2.09E-06	2.09E-06
70150	TANK 395	PAHs, total, w/o indiv. comp.	1151	0.0009	0.000000	8,760	1.25E-08	1.25E-08
70150	TANK 395	Benzene	71-43-2	0.9945	0.000114	8,760	1.43E-05	1.43E-05
70150	TANK 395	Naphthalene	91-20-3	0.0798	0.000009	8,760	1.15E-06	1.15E-06
70150	TANK 395	1,2,4-Trimethylbenzene	95-63-6	0.7597	0.000087	8,760	1.09E-05	1.09E-05
70150	TANK 395	Ethyl benzene	100-41-4	0.4488	0.000051	8,760	6.46E-06	6.46E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70150	TANK 395	Toluene	108-88-3	1.0010	0.000114	8,760	1.44E-05	1.44E-05
70150	TANK 395	Phenol	108-95-2	0.0022	0.000000	8,760	3.22E-08	3.22E-08
70150	TANK 395	Anthracene	120-12-7	0.0007	0.000000	8,760	9.62E-09	9.62E-09
70150	TANK 395	Xylenes (mixed isomers)	1330-20-7	1.9734	0.000225	8,760	2.84E-05	2.84E-05
70150	TANK 395	Hydrogen sulfide	7783-06-4	2.5546	0.000292	8,760	3.67E-05	3.67E-05
70151	TANK 396	PAHs, total, w/o indiv. comp.	1151	0.0038	0.000000	8,760	5.44E-08	5.44E-08
70151	TANK 396	Hexane	110-54-3	0.0263	0.000003	8,760	3.78E-07	3.78E-07
70151	TANK 396	Cyclohexane	110-82-7	0.0295	0.000003	8,760	4.24E-07	4.24E-07
70151	TANK 396	Anthracene	120-12-7	0.0005	0.000000	8,760	7.13E-09	7.13E-09
70151	TANK 396	Hydrogen sulfide	7783-06-4	0.1437	0.000016	8,760	2.07E-06	2.07E-06
70152	TANK 397	PAHs, total, w/o indiv. comp.	1151	0.0027	0.000000	8,760	3.86E-08	3.86E-08
70152	TANK 397	Hexane	110-54-3	0.0249	0.000003	8,760	3.58E-07	3.58E-07
70152	TANK 397	Cyclohexane	110-82-7	0.0273	0.000003	8,760	3.93E-07	3.93E-07
70152	TANK 397	Anthracene	120-12-7	0.0004	0.000000	8,760	5.06E-09	5.06E-09
70152	TANK 397	Hydrogen sulfide	7783-06-4	0.1432	0.000016	8,760	2.06E-06	2.06E-06
70153	TANK 398	PAHs, total, w/o indiv. comp.	1151	0.0038	0.000000	8,760	5.49E-08	5.49E-08
70153	TANK 398	Hexane	110-54-3	0.0265	0.000003	8,760	3.81E-07	3.81E-07
70153	TANK 398	Cyclohexane	110-82-7	0.0298	0.000003	8,760	4.28E-07	4.28E-07
70153	TANK 398	Anthracene	120-12-7	0.0005	0.000000	8,760	7.19E-09	7.19E-09
70153	TANK 398	Hydrogen sulfide	7783-06-4	0.1450	0.000017	8,760	2.09E-06	2.09E-06
70154	TANK 401	Benzene	71-43-2	4.4273	0.000505	8,760	6.37E-05	6.37E-05
70154	TANK 401	Naphthalene	91-20-3	0.0338	0.000004	8,760	4.86E-07	4.86E-07
70154	TANK 401	1,2,4-Trimethylbenzene	95-63-6	1.1547	0.000132	8,760	1.66E-05	1.66E-05
70154	TANK 401	Cumene	98-82-8	0.0931	0.000011	8,760	1.34E-06	1.34E-06
70154	TANK 401	Ethyl benzene	100-41-4	2.9582	0.000338	8,760	4.25E-05	4.25E-05
70154	TANK 401	Toluene	108-88-3	34.5384	0.003943	8,760	4.97E-04	4.97E-04
70154	TANK 401	Hexane	110-54-3	14.6934	0.001677	8,760	2.11E-04	2.11E-04
70154	TANK 401	Xylenes (mixed isomers)	1330-20-7	11.8387	0.001351	8,760	1.70E-04	1.70E-04
70155	TANK 402	Benzene	71-43-2	4.5823	0.000523	8,760	6.59E-05	6.59E-05
70155	TANK 402	Naphthalene	91-20-3	0.0351	0.000004	8,760	5.04E-07	5.04E-07
70155	TANK 402	1,2,4-Trimethylbenzene	95-63-6	1.1958	0.000137	8,760	1.72E-05	1.72E-05
70155	TANK 402	Cumene	98-82-8	0.0964	0.000011	8,760	1.39E-06	1.39E-06
70155	TANK 402	Ethyl benzene	100-41-4	3.0621	0.000350	8,760	4.40E-05	4.40E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70155	TANK 402	Toluene	108-88-3	35.7483	0.004081	8,760	5.14E-04	5.14E-04
70155	TANK 402	Hexane	110-54-3	15.2076	0.001736	8,760	2.19E-04	2.19E-04
70155	TANK 402	Xylenes (mixed isomers)	1330-20-7	12.2549	0.001399	8,760	1.76E-04	1.76E-04
70156	TANK 404	Benzene	71-43-2	4.4246	0.000505	8,760	6.36E-05	6.36E-05
70156	TANK 404	Naphthalene	91-20-3	0.0345	0.000004	8,760	4.96E-07	4.96E-07
70156	TANK 404	1,2,4-Trimethylbenzene	95-63-6	1.1595	0.000132	8,760	1.67E-05	1.67E-05
70156	TANK 404	Cumene	98-82-8	0.0932	0.000011	8,760	1.34E-06	1.34E-06
70156	TANK 404	Ethyl benzene	100-41-4	2.9590	0.000338	8,760	4.26E-05	4.26E-05
70156	TANK 404	Toluene	108-88-3	34.5253	0.003941	8,760	4.97E-04	4.97E-04
70156	TANK 404	Hexane	110-54-3	14.6838	0.001676	8,760	2.11E-04	2.11E-04
70156	TANK 404	Xylenes (mixed isomers)	1330-20-7	11.8452	0.001352	8,760	1.70E-04	1.70E-04
70157	TANK 406	Benzene	71-43-2	4.4583	0.000509	8,760	6.41E-05	6.41E-05
70157	TANK 406	Naphthalene	91-20-3	0.0341	0.000004	8,760	4.91E-07	4.91E-07
70157	TANK 406	1,2,4-Trimethylbenzene	95-63-6	1.1636	0.000133	8,760	1.67E-05	1.67E-05
70157	TANK 406	Cumene	98-82-8	0.0937	0.000011	8,760	1.35E-06	1.35E-06
70157	TANK 406	Ethyl benzene	100-41-4	2.9793	0.000340	8,760	4.29E-05	4.29E-05
70157	TANK 406	Toluene	108-88-3	34.7813	0.003970	8,760	5.00E-04	5.00E-04
70157	TANK 406	Hexane	110-54-3	14.7961	0.001689	8,760	2.13E-04	2.13E-04
70157	TANK 406	Xylenes (mixed isomers)	1330-20-7	11.9236	0.001361	8,760	1.71E-04	1.71E-04
70158	TANK 407	Benzene	71-43-2	4.8617	0.000555	8,760	6.99E-05	6.99E-05
70158	TANK 407	Naphthalene	91-20-3	0.0382	0.000004	8,760	5.50E-07	5.50E-07
70158	TANK 407	1,2,4-Trimethylbenzene	95-63-6	1.2766	0.000146	8,760	1.84E-05	1.84E-05
70158	TANK 407	Cumene	98-82-8	0.1025	0.000012	8,760	1.47E-06	1.47E-06
70158	TANK 407	Ethyl benzene	100-41-4	3.2526	0.000371	8,760	4.68E-05	4.68E-05
70158	TANK 407	Toluene	108-88-3	37.9402	0.004331	8,760	5.46E-04	5.46E-04
70158	TANK 407	Hexane	110-54-3	16.1344	0.001842	8,760	2.32E-04	2.32E-04
70158	TANK 407	Xylenes (mixed isomers)	1330-20-7	13.0218	0.001487	8,760	1.87E-04	1.87E-04
70159	TANK 408	Benzene	71-43-2	4.8300	0.000551	8,760	6.95E-05	6.95E-05
70159	TANK 408	Naphthalene	91-20-3	0.0365	0.000004	8,760	5.26E-07	5.26E-07
70159	TANK 408	1,2,4-Trimethylbenzene	95-63-6	1.2574	0.000144	8,760	1.81E-05	1.81E-05
70159	TANK 408	Cumene	98-82-8	0.1015	0.000012	8,760	1.46E-06	1.46E-06
70159	TANK 408	Ethyl benzene	100-41-4	3.2263	0.000368	8,760	4.64E-05	4.64E-05
70159	TANK 408	Toluene	108-88-3	37.6765	0.004301	8,760	5.42E-04	5.42E-04

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70159	TANK 408	Hexane	110-54-3	16.0300	0.001830	8,760	2.31E-04	2.31E-04
70159	TANK 408	Xylenes (mixed isomers)	1330-20-7	12.9098	0.001474	8,760	1.86E-04	1.86E-04
70161	TANK 410	Benzene	71-43-2	4.7988	0.000548	8,760	6.90E-05	6.90E-05
70161	TANK 410	Naphthalene	91-20-3	0.0358	0.000004	8,760	5.15E-07	5.15E-07
70161	TANK 410	1,2,4-Trimethylbenzene	95-63-6	1.2455	0.000142	8,760	1.79E-05	1.79E-05
70161	TANK 410	Cumene	98-82-8	0.1007	0.000011	8,760	1.45E-06	1.45E-06
70161	TANK 410	Ethyl benzene	100-41-4	3.2036	0.000366	8,760	4.61E-05	4.61E-05
70161	TANK 410	Toluene	108-88-3	37.4276	0.004273	8,760	5.38E-04	5.38E-04
70161	TANK 410	Hexane	110-54-3	15.9269	0.001818	8,760	2.29E-04	2.29E-04
70161	TANK 410	Xylenes (mixed isomers)	1330-20-7	12.8170	0.001463	8,760	1.84E-04	1.84E-04
70162	TANK 433	Benzene	71-43-2	0.4011	0.000046	8,760	5.77E-06	5.77E-06
70162	TANK 433	Naphthalene	91-20-3	0.0274	0.000003	8,760	3.95E-07	3.95E-07
70162	TANK 433	1,2,4-Trimethylbenzene	95-63-6	0.2497	0.000028	8,760	3.59E-06	3.59E-06
70162	TANK 433	Cumene	98-82-8	0.0134	0.000002	8,760	1.92E-07	1.92E-07
70162	TANK 433	Ethyl benzene	100-41-4	0.1719	0.000020	8,760	2.47E-06	2.47E-06
70162	TANK 433	Toluene	108-88-3	0.8649	0.000099	8,760	1.24E-05	1.24E-05
70162	TANK 433	Hexane	110-54-3	5.1837	0.000592	8,760	7.46E-05	7.46E-05
70162	TANK 433	Cyclohexane	110-82-7	2.0168	0.000230	8,760	2.90E-05	2.90E-05
70162	TANK 433	Propylene	115-07-1	3.0160	0.000344	8,760	4.34E-05	4.34E-05
70162	TANK 433	Xylenes (mixed isomers)	1330-20-7	0.7958	0.000091	8,760	1.14E-05	1.14E-05
70162	TANK 433	Methyl tert-butyl ether	1634-04-4	0.0176	0.000002	8,760	2.53E-07	2.53E-07
70162	TANK 433	Hydrogen sulfide	7783-06-4	79.2651	0.009049	8,760	1.14E-03	1.14E-03
70163	TANK 445	PAHs, total, w/o indiv. comp.	1151	0.0080	0.000001	8,760	1.15E-07	1.15E-07
70163	TANK 445	Hexane	110-54-3	0.0357	0.000004	8,760	5.14E-07	5.14E-07
70163	TANK 445	Cyclohexane	110-82-7	0.0421	0.000005	8,760	6.05E-07	6.05E-07
70163	TANK 445	Anthracene	120-12-7	0.0010	0.000000	8,760	1.51E-08	1.51E-08
70163	TANK 445	Hydrogen sulfide	7783-06-4	0.1729	0.000020	8,760	2.49E-06	2.49E-06
70164	TANK 450	Benzene	71-43-2	0.4511	0.000051	8,760	6.49E-06	6.49E-06
70164	TANK 450	Naphthalene	91-20-3	0.0081	0.000001	8,760	1.16E-07	1.16E-07
70164	TANK 450	1,2,4-Trimethylbenzene	95-63-6	0.1200	0.000014	8,760	1.73E-06	1.73E-06
70164	TANK 450	Cumene	98-82-8	0.0090	0.000001	8,760	1.29E-07	1.29E-07
70164	TANK 450	Ethyl benzene	100-41-4	0.1446	0.000017	8,760	2.08E-06	2.08E-06
70164	TANK 450	Toluene	108-88-3	0.8874	0.000101	8,760	1.28E-05	1.28E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70164	TANK 450	Hexane	110-54-3	5.9209	0.000676	8,760	8.52E-05	8.52E-05
70164	TANK 450	Cyclohexane	110-82-7	2.2708	0.000259	8,760	3.27E-05	3.27E-05
70164	TANK 450	Propylene	115-07-1	3.5354	0.000404	8,760	5.08E-05	5.08E-05
70164	TANK 450	Xylenes (mixed isomers)	1330-20-7	0.6239	0.000071	8,760	8.97E-06	8.97E-06
70164	TANK 450	Methyl tert-butyl ether	1634-04-4	0.0040	0.000000	8,760	5.72E-08	5.72E-08
70164	TANK 450	Hydrogen sulfide	7783-06-4	123.8281	0.014136	8,760	1.78E-03	1.78E-03
70165	TANK 451	Benzene	71-43-2	0.4507	0.000051	8,760	6.48E-06	6.48E-06
70165	TANK 451	Naphthalene	91-20-3	0.0076	0.000001	8,760	1.09E-07	1.09E-07
70165	TANK 451	1,2,4-Trimethylbenzene	95-63-6	0.1163	0.000013	8,760	1.67E-06	1.67E-06
70165	TANK 451	Cumene	98-82-8	0.0089	0.000001	8,760	1.27E-07	1.27E-07
70165	TANK 451	Ethyl benzene	100-41-4	0.1434	0.000016	8,760	2.06E-06	2.06E-06
70165	TANK 451	Toluene	108-88-3	0.8846	0.000101	8,760	1.27E-05	1.27E-05
70165	TANK 451	Hexane	110-54-3	5.9175	0.000676	8,760	8.51E-05	8.51E-05
70165	TANK 451	Cyclohexane	110-82-7	2.2687	0.000259	8,760	3.26E-05	3.26E-05
70165	TANK 451	Propylene	115-07-1	3.5353	0.000404	8,760	5.08E-05	5.08E-05
70165	TANK 451	Xylenes (mixed isomers)	1330-20-7	0.6172	0.000070	8,760	8.88E-06	8.88E-06
70165	TANK 451	Methyl tert-butyl ether	1634-04-4	0.0036	0.000000	8,760	5.20E-08	5.20E-08
70165	TANK 451	Hydrogen sulfide	7783-06-4	123.8257	0.014135	8,760	1.78E-03	1.78E-03
70166	TANK 452	Benzene	71-43-2	0.1797	0.000021	8,760	2.58E-06	2.58E-06
70166	TANK 452	1,2,4-Trimethylbenzene	95-63-6	0.0355	0.000004	8,760	5.10E-07	5.10E-07
70166	TANK 452	Ethyl benzene	100-41-4	0.0510	0.000006	8,760	7.33E-07	7.33E-07
70166	TANK 452	Toluene	108-88-3	0.5848	0.000067	8,760	8.41E-06	8.41E-06
70166	TANK 452	Hexane	110-54-3	1.1374	0.000130	8,760	1.64E-05	1.64E-05
70166	TANK 452	Cyclohexane	110-82-7	0.1849	0.000021	8,760	2.66E-06	2.66E-06
70166	TANK 452	Xylenes (mixed isomers)	1330-20-7	0.2594	0.000030	8,760	3.73E-06	3.73E-06
70167	TANK 453	Benzene	71-43-2	1.7858	0.000204	8,760	2.57E-05	2.57E-05
70167	TANK 453	Ethyl benzene	100-41-4	3.9468	0.000451	8,760	5.68E-05	5.68E-05
70167	TANK 453	Toluene	108-88-3	16.8587	0.001925	8,760	2.42E-04	2.42E-04
70167	TANK 453	Hexane	110-54-3	4.0772	0.000465	8,760	5.86E-05	5.86E-05
70167	TANK 453	Cyclohexane	110-82-7	2.3514	0.000268	8,760	3.38E-05	3.38E-05
70167	TANK 453	Xylenes (mixed isomers)	1330-20-7	12.8147	0.001463	8,760	1.84E-04	1.84E-04
70168	TANK 461	Benzene	71-43-2	2.6394	0.000301	8,760	3.80E-05	3.80E-05
70168	TANK 461	Naphthalene	91-20-3	0.0401	0.000005	8,760	5.77E-07	5.77E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70168	TANK 461	1,2,4-Trimethylbenzene	95-63-6	0.6515	0.000074	8,760	9.37E-06	9.37E-06
70168	TANK 461	Cumene	98-82-8	0.0508	0.000006	8,760	7.30E-07	7.30E-07
70168	TANK 461	Ethyl benzene	100-41-4	0.8311	0.000095	8,760	1.20E-05	1.20E-05
70168	TANK 461	Toluene	108-88-3	5.1656	0.000590	8,760	7.43E-05	7.43E-05
70168	TANK 461	Hexane	110-54-3	34.6745	0.003958	8,760	4.99E-04	4.99E-04
70168	TANK 461	Cyclohexane	110-82-7	13.2879	0.001517	8,760	1.91E-04	1.91E-04
70168	TANK 461	Propylene	115-07-1	20.7320	0.002367	8,760	2.98E-04	2.98E-04
70168	TANK 461	Xylenes (mixed isomers)	1330-20-7	3.5653	0.000407	8,760	5.13E-05	5.13E-05
70168	TANK 461	Methyl tert-butyl ether	1634-04-4	0.0183	0.000002	8,760	2.63E-07	2.63E-07
70169	TANK 462	Benzene	71-43-2	2.7289	0.000312	8,760	3.93E-05	3.93E-05
70169	TANK 462	Naphthalene	91-20-3	0.1517	0.000017	8,760	2.18E-06	2.18E-06
70169	TANK 462	1,2,4-Trimethylbenzene	95-63-6	1.4520	0.000166	8,760	2.09E-05	2.09E-05
70169	TANK 462	Cumene	98-82-8	0.0816	0.000009	8,760	1.17E-06	1.17E-06
70169	TANK 462	Ethyl benzene	100-41-4	1.0950	0.000125	8,760	1.57E-05	1.57E-05
70169	TANK 462	Toluene	108-88-3	5.7536	0.000657	8,760	8.28E-05	8.28E-05
70169	TANK 462	Hexane	110-54-3	35.4065	0.004042	8,760	5.09E-04	5.09E-04
70169	TANK 462	Cyclohexane	110-82-7	13.7252	0.001567	8,760	1.97E-04	1.97E-04
70169	TANK 462	Propylene	115-07-1	20.7392	0.002367	8,760	2.98E-04	2.98E-04
70169	TANK 462	Xylenes (mixed isomers)	1330-20-7	4.9985	0.000571	8,760	7.19E-05	7.19E-05
70169	TANK 462	Methyl tert-butyl ether	1634-04-4	0.0954	0.000011	8,760	1.37E-06	1.37E-06
70170	API SEPARATOR 1	Chloroform	67-66-3	1.6269	0.000186	8,760	2.34E-05	2.34E-05
70170	API SEPARATOR 1	Benzene	71-43-2	21.9288	0.002503	8,760	3.15E-04	3.15E-04
70170	API SEPARATOR 1	Bromoform	75-25-2	0.0736	0.000008	8,760	1.06E-06	1.06E-06
70170	API SEPARATOR 1	Naphthalene	91-20-3	0.1627	0.000019	8,760	2.34E-06	2.34E-06
70170	API SEPARATOR 1	o-Xylene	95-47-6	1.6742	0.000191	8,760	2.41E-05	2.41E-05
70170	API SEPARATOR 1	1,2,4-Trimethylbenzene	95-63-6	1.5615	0.000178	8,760	2.25E-05	2.25E-05
70170	API SEPARATOR 1	Cumene	98-82-8	0.7924	0.000090	8,760	1.14E-05	1.14E-05
70170	API SEPARATOR 1	Ethyl benzene	100-41-4	1.0676	0.000122	8,760	1.54E-05	1.54E-05
70170	API SEPARATOR 1	p-Xylene	106-42-3	4.0769	0.000465	8,760	5.86E-05	5.86E-05
70170	API SEPARATOR 1	Toluene	108-88-3	3.8577	0.000440	8,760	5.55E-05	5.55E-05
70171	DAF CELL 1	Chloroform	67-66-3	0.1988	0.000023	8,760	2.86E-06	2.86E-06
70171	DAF CELL 1	Benzene	71-43-2	2.6785	0.000306	8,760	3.85E-05	3.85E-05
70171	DAF CELL 1	Bromoform	75-25-2	0.0091	0.000001	8,760	1.30E-07	1.30E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70171	DAF CELL 1	Naphthalene	91-20-3	0.0200	0.000002	8,760	2.87E-07	2.87E-07
70171	DAF CELL 1	o-Xylene	95-47-6	0.2052	0.000023	8,760	2.95E-06	2.95E-06
70171	DAF CELL 1	1,2,4-Trimethylbenzene	95-63-6	0.1915	0.000022	8,760	2.75E-06	2.75E-06
70171	DAF CELL 1	Cumene	98-82-8	0.0971	0.000011	8,760	1.40E-06	1.40E-06
70171	DAF CELL 1	Ethyl benzene	100-41-4	0.1308	0.000015	8,760	1.88E-06	1.88E-06
70171	DAF CELL 1	p-Xylene	106-42-3	0.4996	0.000057	8,760	7.19E-06	7.19E-06
70171	DAF CELL 1	Toluene	108-88-3	0.4724	0.000054	8,760	6.79E-06	6.79E-06
70174	BLK 4 FUGITIVES	Benzene	71-43-2	2.0044	0.000229	8,760	2.88E-05	2.88E-05
70174	BLK 4 FUGITIVES	Ethylene	74-85-1	23.5511	0.002688	8,760	3.39E-04	3.39E-04
70174	BLK 4 FUGITIVES	Naphthalene	91-20-3	5.9489	0.000679	8,760	8.56E-05	8.56E-05
70174	BLK 4 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	4.4530	0.000508	8,760	6.40E-05	6.40E-05
70174	BLK 4 FUGITIVES	Cumene	98-82-8	0.6469	0.000074	8,760	9.30E-06	9.30E-06
70174	BLK 4 FUGITIVES	Ethyl benzene	100-41-4	3.9317	0.000449	8,760	5.66E-05	5.66E-05
70174	BLK 4 FUGITIVES	Styrene	100-42-5	0.3994	0.000046	8,760	5.74E-06	5.74E-06
70174	BLK 4 FUGITIVES	1,3-Butadiene	106-99-0	0.4917	0.000056	8,760	7.07E-06	7.07E-06
70174	BLK 4 FUGITIVES	Toluene	108-88-3	7.1700	0.000818	8,760	1.03E-04	1.03E-04
70174	BLK 4 FUGITIVES	Phenol	108-95-2	0.0494	0.000006	8,760	7.10E-07	7.10E-07
70174	BLK 4 FUGITIVES	Hexane	110-54-3	32.7596	0.003740	8,760	4.71E-04	4.71E-04
70174	BLK 4 FUGITIVES	Cyclohexane	110-82-7	5.8687	0.000670	8,760	8.44E-05	8.44E-05
70174	BLK 4 FUGITIVES	Propylene	115-07-1	21.4006	0.002443	8,760	3.08E-04	3.08E-04
70174	BLK 4 FUGITIVES	Anthracene	120-12-7	0.0313	0.000004	8,760	4.50E-07	4.50E-07
70174	BLK 4 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	8,760	1.02E-09	1.02E-09
70174	BLK 4 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.1466	0.000017	8,760	2.11E-06	2.11E-06
70174	BLK 4 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	17.4900	0.001997	8,760	2.52E-04	2.52E-04
70174	BLK 4 FUGITIVES	Methyl tert-butyl ether	1634-04-4	0.4110	0.000047	8,760	5.91E-06	5.91E-06
70174	BLK 4 FUGITIVES	Hydrogen sulfide	7783-06-4	0.6342	0.000072	8,760	9.12E-06	9.12E-06
70176	BLK 6 FUGITIVES	Benzene	71-43-2	5.7820	0.000660	8,760	8.32E-05	8.32E-05
70176	BLK 6 FUGITIVES	Ethylene	74-85-1	0.4639	0.000053	8,760	6.67E-06	6.67E-06
70176	BLK 6 FUGITIVES	Naphthalene	91-20-3	10.8289	0.001236	8,760	1.56E-04	1.56E-04
70176	BLK 6 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	49.2237	0.005619	8,760	7.08E-04	7.08E-04
70176	BLK 6 FUGITIVES	Cumene	98-82-8	2.2523	0.000257	8,760	3.24E-05	3.24E-05
70176	BLK 6 FUGITIVES	Ethyl benzene	100-41-4	17.1975	0.001963	8,760	2.47E-04	2.47E-04
70176	BLK 6 FUGITIVES	Styrene	100-42-5	0.2836	0.000032	8,760	4.08E-06	4.08E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70176	BLK 6 FUGITIVES	1,3-Butadiene	106-99-0	0.1435	0.000016	8,760	2.06E-06	2.06E-06
70176	BLK 6 FUGITIVES	Toluene	108-88-3	36.0170	0.004112	8,760	5.18E-04	5.18E-04
70176	BLK 6 FUGITIVES	Phenol	108-95-2	0.0368	0.000004	8,760	5.29E-07	5.29E-07
70176	BLK 6 FUGITIVES	Hexane	110-54-3	59.4492	0.006786	8,760	8.55E-04	8.55E-04
70176	BLK 6 FUGITIVES	Cyclohexane	110-82-7	26.9557	0.003077	8,760	3.88E-04	3.88E-04
70176	BLK 6 FUGITIVES	Propylene	115-07-1	1.2076	0.000138	8,760	1.74E-05	1.74E-05
70176	BLK 6 FUGITIVES	Anthracene	120-12-7	0.0233	0.000003	8,760	3.35E-07	3.35E-07
70176	BLK 6 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	8,760	7.62E-10	7.62E-10
70176	BLK 6 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.1092	0.000012	8,760	1.57E-06	1.57E-06
70176	BLK 6 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	91.4283	0.010437	8,760	1.32E-03	1.32E-03
70176	BLK 6 FUGITIVES	Methyl tert-butyl ether	1634-04-4	4.7325	0.000540	8,760	6.81E-05	6.81E-05
70176	BLK 6 FUGITIVES	Hydrogen sulfide	7783-06-4	0.0232	0.000003	8,760	3.34E-07	3.34E-07
70177	BLK 7 FUGITIVES	Benzene	71-43-2	0.3717	0.000042	8,760	5.35E-06	5.35E-06
70177	BLK 7 FUGITIVES	Ethylene	74-85-1	20.2750	0.002314	8,760	2.92E-04	2.92E-04
70177	BLK 7 FUGITIVES	Naphthalene	91-20-3	0.9907	0.000113	8,760	1.42E-05	1.42E-05
70177	BLK 7 FUGITIVES	Benzidine	92-87-5	0.0017	0.000000	8,760	2.51E-08	2.51E-08
70177	BLK 7 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	1.6258	0.000186	8,760	2.34E-05	2.34E-05
70177	BLK 7 FUGITIVES	Cumene	98-82-8	0.1451	0.000017	8,760	2.09E-06	2.09E-06
70177	BLK 7 FUGITIVES	Ethyl benzene	100-41-4	1.1276	0.000129	8,760	1.62E-05	1.62E-05
70177	BLK 7 FUGITIVES	Styrene	100-42-5	0.1149	0.000013	8,760	1.65E-06	1.65E-06
70177	BLK 7 FUGITIVES	1,3-Butadiene	106-99-0	0.1132	0.000013	8,760	1.63E-06	1.63E-06
70177	BLK 7 FUGITIVES	Toluene	108-88-3	3.0917	0.000353	8,760	4.45E-05	4.45E-05
70177	BLK 7 FUGITIVES	Phenol	108-95-2	0.0095	0.000001	8,760	1.36E-07	1.36E-07
70177	BLK 7 FUGITIVES	Hexane	110-54-3	5.7662	0.000658	8,760	8.29E-05	8.29E-05
70177	BLK 7 FUGITIVES	Cyclohexane	110-82-7	1.0874	0.000124	8,760	1.56E-05	1.56E-05
70177	BLK 7 FUGITIVES	Propylene	115-07-1	18.2564	0.002084	8,760	2.63E-04	2.63E-04
70177	BLK 7 FUGITIVES	Di(2-ethylhexyl) phthalate	117-81-7	0.0001	0.000000	8,760	1.97E-09	1.97E-09
70177	BLK 7 FUGITIVES	Anthracene	120-12-7	0.0443	0.000005	8,760	6.37E-07	6.37E-07
70177	BLK 7 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0048	0.000001	8,760	6.97E-08	6.97E-08
70177	BLK 7 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.0287	0.000003	8,760	4.13E-07	4.13E-07
70177	BLK 7 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	5.2154	0.000595	8,760	7.50E-05	7.50E-05
70177	BLK 7 FUGITIVES	Methyl tert-butyl ether	1634-04-4	0.0911	0.000010	8,760	1.31E-06	1.31E-06
70177	BLK 7 FUGITIVES	Hydrogen sulfide	7783-06-4	0.2055	0.000023	8,760	2.96E-06	2.96E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70177	BLK 7 FUGITIVES	Dichlorobenzenes (mixed isomers)	25321-22-6	0.0008	0.000000	8,760	1.16E-08	1.16E-08
70181	BLK 14 FUGITIVES	Benzene	71-43-2	21.4672	0.002451	8,760	3.09E-04	3.09E-04
70181	BLK 14 FUGITIVES	Ethylene	74-85-1	14.8464	0.001695	8,760	2.14E-04	2.14E-04
70181	BLK 14 FUGITIVES	Naphthalene	91-20-3	49.2676	0.005624	8,760	7.09E-04	7.09E-04
70181	BLK 14 FUGITIVES	Benzidine	92-87-5	0.0141	0.000002	8,760	2.03E-07	2.03E-07
70181	BLK 14 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	123.7676	0.014129	8,760	1.78E-03	1.78E-03
70181	BLK 14 FUGITIVES	Cumene	98-82-8	7.7747	0.000888	8,760	1.12E-04	1.12E-04
70181	BLK 14 FUGITIVES	Ethyl benzene	100-41-4	76.0563	0.008682	8,760	1.09E-03	1.09E-03
70181	BLK 14 FUGITIVES	Styrene	100-42-5	3.8245	0.000437	8,760	5.50E-05	5.50E-05
70181	BLK 14 FUGITIVES	1,3-Butadiene	106-99-0	1.4716	0.000168	8,760	2.12E-05	2.12E-05
70181	BLK 14 FUGITIVES	Toluene	108-88-3	237.8231	0.027149	8,760	3.42E-03	3.42E-03
70181	BLK 14 FUGITIVES	Phenol	108-95-2	0.3340	0.000038	8,760	4.80E-06	4.80E-06
70181	BLK 14 FUGITIVES	Hexane	110-54-3	314.1444	0.035861	8,760	4.52E-03	4.52E-03
70181	BLK 14 FUGITIVES	Cyclohexane	110-82-7	35.9428	0.004103	8,760	5.17E-04	5.17E-04
70181	BLK 14 FUGITIVES	Propylene	115-07-1	18.6047	0.002124	8,760	2.68E-04	2.68E-04
70181	BLK 14 FUGITIVES	Di(2-ethylhexyl) phthalate	117-81-7	0.0011	0.000000	8,760	1.59E-08	1.59E-08
70181	BLK 14 FUGITIVES	Anthracene	120-12-7	0.5161	0.000059	8,760	7.42E-06	7.42E-06
70181	BLK 14 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0394	0.000005	8,760	5.67E-07	5.67E-07
70181	BLK 14 FUGITIVES	Cresol (mixed isomers)	1319-77-3	1.0143	0.000116	8,760	1.46E-05	1.46E-05
70181	BLK 14 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	369.0160	0.042125	8,760	5.31E-03	5.31E-03
70181	BLK 14 FUGITIVES	Methyl tert-butyl ether	1634-04-4	3.6290	0.000414	8,760	5.22E-05	5.22E-05
70181	BLK 14 FUGITIVES	Hydrogen sulfide	7783-06-4	1.8489	0.000211	8,760	2.66E-05	2.66E-05
70181	BLK 14 FUGITIVES	Dichlorobenzenes (mixed isomers)	25321-22-6	0.0065	0.000001	8,760	9.35E-08	9.35E-08
70182	BLK 15 FUGITIVES	Benzene	71-43-2	12.1871	0.001391	8,760	1.75E-04	1.75E-04
70182	BLK 15 FUGITIVES	Ethylene	74-85-1	5.3243	0.000608	8,760	7.66E-05	7.66E-05
70182	BLK 15 FUGITIVES	Naphthalene	91-20-3	0.8303	0.000095	8,760	1.19E-05	1.19E-05
70182	BLK 15 FUGITIVES	Biphenyl	92-52-4	0.1366	0.000016	8,760	1.97E-06	1.97E-06
70182	BLK 15 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	1.6645	0.000190	8,760	2.39E-05	2.39E-05
70182	BLK 15 FUGITIVES	Cumene	98-82-8	0.1085	0.000012	8,760	1.56E-06	1.56E-06
70182	BLK 15 FUGITIVES	Ethyl benzene	100-41-4	1.5238	0.000174	8,760	2.19E-05	2.19E-05
70182	BLK 15 FUGITIVES	Styrene	100-42-5	0.0353	0.000004	8,760	5.07E-07	5.07E-07
70182	BLK 15 FUGITIVES	1,3-Butadiene	106-99-0	0.1210	0.000014	8,760	1.74E-06	1.74E-06
70182	BLK 15 FUGITIVES	Toluene	108-88-3	6.7184	0.000767	8,760	9.66E-05	9.66E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70182	BLK 15 FUGITIVES	Phenol	108-95-2	0.0046	0.000001	8,760	6.62E-08	6.62E-08
70182	BLK 15 FUGITIVES	Hexane	110-54-3	12.0455	0.001375	8,760	1.73E-04	1.73E-04
70182	BLK 15 FUGITIVES	Cyclohexane	110-82-7	0.9176	0.000105	8,760	1.32E-05	1.32E-05
70182	BLK 15 FUGITIVES	Propylene	115-07-1	6.9523	0.000794	8,760	1.00E-04	1.00E-04
70182	BLK 15 FUGITIVES	Anthracene	120-12-7	0.0029	0.000000	8,760	4.19E-08	4.19E-08
70182	BLK 15 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0000	0.000000	8,760	9.53E-11	9.53E-11
70182	BLK 15 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.0137	0.000002	8,760	1.96E-07	1.96E-07
70182	BLK 15 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	3.3918	0.000387	8,760	4.88E-05	4.88E-05
70182	BLK 15 FUGITIVES	Methyl tert-butyl ether	1634-04-4	0.1589	0.000018	8,760	2.29E-06	2.29E-06
70182	BLK 15 FUGITIVES	Hydrogen sulfide	7783-06-4	0.0001	0.000000	8,760	1.56E-09	1.56E-09
70190	BLK 26 FUGITIVES	Benzene	71-43-2	0.6667	0.000076	8,760	9.59E-06	9.59E-06
70190	BLK 26 FUGITIVES	Ethylene	74-85-1	12.7794	0.001459	8,760	1.84E-04	1.84E-04
70190	BLK 26 FUGITIVES	Naphthalene	91-20-3	2.3724	0.000271	8,760	3.41E-05	3.41E-05
70190	BLK 26 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	4.6574	0.000532	8,760	6.70E-05	6.70E-05
70190	BLK 26 FUGITIVES	Cumene	98-82-8	0.3329	0.000038	8,760	4.79E-06	4.79E-06
70190	BLK 26 FUGITIVES	Ethyl benzene	100-41-4	1.9715	0.000225	8,760	2.84E-05	2.84E-05
70190	BLK 26 FUGITIVES	Styrene	100-42-5	0.1643	0.000019	8,760	2.36E-06	2.36E-06
70190	BLK 26 FUGITIVES	1,3-Butadiene	106-99-0	0.5933	0.000068	8,760	8.53E-06	8.53E-06
70190	BLK 26 FUGITIVES	Toluene	108-88-3	3.3960	0.000388	8,760	4.88E-05	4.88E-05
70190	BLK 26 FUGITIVES	Phenol	108-95-2	0.0160	0.000002	8,760	2.30E-07	2.30E-07
70190	BLK 26 FUGITIVES	Hexane	110-54-3	10.5598	0.001205	8,760	1.52E-04	1.52E-04
70190	BLK 26 FUGITIVES	Cyclohexane	110-82-7	2.5608	0.000292	8,760	3.68E-05	3.68E-05
70190	BLK 26 FUGITIVES	Propylene	115-07-1	25.1722	0.002874	8,760	3.62E-04	3.62E-04
70190	BLK 26 FUGITIVES	Anthracene	120-12-7	0.0102	0.000001	8,760	1.46E-07	1.46E-07
70190	BLK 26 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0000	0.000000	8,760	3.32E-10	3.32E-10
70190	BLK 26 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.0476	0.000005	8,760	6.84E-07	6.84E-07
70190	BLK 26 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	9.8329	0.001122	8,760	1.41E-04	1.41E-04
70190	BLK 26 FUGITIVES	Methyl tert-butyl ether	1634-04-4	0.4411	0.000050	8,760	6.34E-06	6.34E-06
70190	BLK 26 FUGITIVES	Hydrogen sulfide	7783-06-4	0.4779	0.000055	8,760	6.87E-06	6.87E-06
70192	BLK 31 FUGITIVES	Benzene	71-43-2	0.8817	0.000101	8,760	1.27E-05	1.27E-05
70192	BLK 31 FUGITIVES	Ethylene	74-85-1	39.7800	0.004541	8,760	5.72E-04	5.72E-04
70192	BLK 31 FUGITIVES	Naphthalene	91-20-3	3.7569	0.000429	8,760	5.40E-05	5.40E-05
70192	BLK 31 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	5.5748	0.000636	8,760	8.02E-05	8.02E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70192	BLK 31 FUGITIVES	Cumene	98-82-8	0.4806	0.000055	8,760	6.91E-06	6.91E-06
70192	BLK 31 FUGITIVES	Ethyl benzene	100-41-4	2.5784	0.000294	8,760	3.71E-05	3.71E-05
70192	BLK 31 FUGITIVES	Styrene	100-42-5	0.2474	0.000028	8,760	3.56E-06	3.56E-06
70192	BLK 31 FUGITIVES	1,3-Butadiene	106-99-0	0.2541	0.000029	8,760	3.65E-06	3.65E-06
70192	BLK 31 FUGITIVES	Toluene	108-88-3	4.1043	0.000469	8,760	5.90E-05	5.90E-05
70192	BLK 31 FUGITIVES	Phenol	108-95-2	0.0277	0.000003	8,760	3.98E-07	3.98E-07
70192	BLK 31 FUGITIVES	Hexane	110-54-3	16.0537	0.001833	8,760	2.31E-04	2.31E-04
70192	BLK 31 FUGITIVES	Cyclohexane	110-82-7	3.0846	0.000352	8,760	4.44E-05	4.44E-05
70192	BLK 31 FUGITIVES	Propylene	115-07-1	35.8500	0.004092	8,760	5.16E-04	5.16E-04
70192	BLK 31 FUGITIVES	Anthracene	120-12-7	0.0175	0.000002	8,760	2.52E-07	2.52E-07
70192	BLK 31 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0000	0.000000	8,760	5.74E-10	5.74E-10
70192	BLK 31 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.0822	0.000009	8,760	1.18E-06	1.18E-06
70192	BLK 31 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	12.5924	0.001437	8,760	1.81E-04	1.81E-04
70192	BLK 31 FUGITIVES	Methyl tert-butyl ether	1634-04-4	0.5256	0.000060	8,760	7.56E-06	7.56E-06
70192	BLK 31 FUGITIVES	Hydrogen sulfide	7783-06-4	0.0010	0.000000	8,760	1.50E-08	1.50E-08
70194	BLK 33 FUGITIVES	Benzene	71-43-2	9.4075	0.001074	8,760	1.35E-04	1.35E-04
70194	BLK 33 FUGITIVES	Ethylene	74-85-1	74.3271	0.008485	8,760	1.07E-03	1.07E-03
70194	BLK 33 FUGITIVES	Naphthalene	91-20-3	26.7019	0.003048	8,760	3.84E-04	3.84E-04
70194	BLK 33 FUGITIVES	Benzidine	92-87-5	0.0061	0.000001	8,760	8.75E-08	8.75E-08
70194	BLK 33 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	45.9462	0.005245	8,760	6.61E-04	6.61E-04
70194	BLK 33 FUGITIVES	Cumene	98-82-8	3.1260	0.000357	8,760	4.50E-05	4.50E-05
70194	BLK 33 FUGITIVES	Ethyl benzene	100-41-4	34.5965	0.003949	8,760	4.98E-04	4.98E-04
70194	BLK 33 FUGITIVES	Styrene	100-42-5	1.3836	0.000158	8,760	1.99E-05	1.99E-05
70194	BLK 33 FUGITIVES	1,3-Butadiene	106-99-0	1.8898	0.000216	8,760	2.72E-05	2.72E-05
70194	BLK 33 FUGITIVES	Toluene	108-88-3	101.3803	0.011573	8,760	1.46E-03	1.46E-03
70194	BLK 33 FUGITIVES	Phenol	108-95-2	0.1600	0.000018	8,760	2.30E-06	2.30E-06
70194	BLK 33 FUGITIVES	Hexane	110-54-3	106.4982	0.012157	8,760	1.53E-03	1.53E-03
70194	BLK 33 FUGITIVES	Cyclohexane	110-82-7	18.2701	0.002086	8,760	2.63E-04	2.63E-04
70194	BLK 33 FUGITIVES	Propylene	115-07-1	67.7991	0.007740	8,760	9.75E-04	9.75E-04
70194	BLK 33 FUGITIVES	Di(2-ethylhexyl) phthalate	117-81-7	0.0005	0.000000	8,760	6.86E-09	6.86E-09
70194	BLK 33 FUGITIVES	Anthracene	120-12-7	0.2345	0.000027	8,760	3.37E-06	3.37E-06
70194	BLK 33 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0171	0.000002	8,760	2.45E-07	2.45E-07
70194	BLK 33 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.4772	0.000054	8,760	6.86E-06	6.86E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70194	BLK 33 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	168.7748	0.019267	8,760	2.43E-03	2.43E-03
70194	BLK 33 FUGITIVES	Methyl tert-butyl ether	1634-04-4	1.3814	0.000158	8,760	1.99E-05	1.99E-05
70194	BLK 33 FUGITIVES	Hydrogen sulfide	7783-06-4	3.6117	0.000412	8,760	5.19E-05	5.19E-05
70194	BLK 33 FUGITIVES	Dichlorobenzenes (mixed isomers)	25321-22-6	0.0028	0.000000	8,760	4.04E-08	4.04E-08
70195	BLK 34 FUGITIVES	Benzene	71-43-2	21.6830	0.002475	8,760	3.12E-04	3.12E-04
70195	BLK 34 FUGITIVES	Ethylene	74-85-1	246.9647	0.028192	8,760	3.55E-03	3.55E-03
70195	BLK 34 FUGITIVES	Naphthalene	91-20-3	30.7246	0.003507	8,760	4.42E-04	4.42E-04
70195	BLK 34 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	68.1117	0.007775	8,760	9.80E-04	9.80E-04
70195	BLK 34 FUGITIVES	Cumene	98-82-8	4.2326	0.000483	8,760	6.09E-05	6.09E-05
70195	BLK 34 FUGITIVES	Ethyl benzene	100-41-4	53.6855	0.006128	8,760	7.72E-04	7.72E-04
70195	BLK 34 FUGITIVES	Styrene	100-42-5	1.8157	0.000207	8,760	2.61E-05	2.61E-05
70195	BLK 34 FUGITIVES	1,3-Butadiene	106-99-0	1.7747	0.000203	8,760	2.55E-05	2.55E-05
70195	BLK 34 FUGITIVES	Toluene	108-88-3	160.8549	0.018362	8,760	2.31E-03	2.31E-03
70195	BLK 34 FUGITIVES	Phenol	108-95-2	0.1965	0.000022	8,760	2.83E-06	2.83E-06
70195	BLK 34 FUGITIVES	Hexane	110-54-3	147.9789	0.016893	8,760	2.13E-03	2.13E-03
70195	BLK 34 FUGITIVES	Cyclohexane	110-82-7	27.7086	0.003163	8,760	3.99E-04	3.99E-04
70195	BLK 34 FUGITIVES	Propylene	115-07-1	222.4801	0.025397	8,760	3.20E-03	3.20E-03
70195	BLK 34 FUGITIVES	Anthracene	120-12-7	0.1226	0.000014	8,760	1.76E-06	1.76E-06
70195	BLK 34 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0003	0.000000	8,760	4.01E-09	4.01E-09
70195	BLK 34 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.5834	0.000067	8,760	8.39E-06	8.39E-06
70195	BLK 34 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	258.4440	0.029503	8,760	3.72E-03	3.72E-03
70195	BLK 34 FUGITIVES	Methyl tert-butyl ether	1634-04-4	1.7235	0.000197	8,760	2.48E-05	2.48E-05
70195	BLK 34 FUGITIVES	Hydrogen sulfide	7783-06-4	0.2686	0.000031	8,760	3.86E-06	3.86E-06
70196	BLK 35 FUGITIVES	Benzene	71-43-2	3.0269	0.000346	8,760	4.35E-05	4.35E-05
70196	BLK 35 FUGITIVES	Ethylene	74-85-1	136.7347	0.015609	8,760	1.97E-03	1.97E-03
70196	BLK 35 FUGITIVES	Naphthalene	91-20-3	19.2490	0.002197	8,760	2.77E-04	2.77E-04
70196	BLK 35 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	34.0958	0.003892	8,760	4.90E-04	4.90E-04
70196	BLK 35 FUGITIVES	Cumene	98-82-8	3.2846	0.000375	8,760	4.72E-05	4.72E-05
70196	BLK 35 FUGITIVES	Ethyl benzene	100-41-4	34.3790	0.003925	8,760	4.94E-04	4.94E-04
70196	BLK 35 FUGITIVES	Styrene	100-42-5	2.9980	0.000342	8,760	4.31E-05	4.31E-05
70196	BLK 35 FUGITIVES	1,3-Butadiene	106-99-0	6.5105	0.000743	8,760	9.36E-05	9.36E-05
70196	BLK 35 FUGITIVES	Toluene	108-88-3	71.3761	0.008148	8,760	1.03E-03	1.03E-03
70196	BLK 35 FUGITIVES	Phenol	108-95-2	0.1453	0.000017	8,760	2.09E-06	2.09E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70196	BLK 35 FUGITIVES	Hexane	110-54-3	67.7740	0.007737	8,760	9.75E-04	9.75E-04
70196	BLK 35 FUGITIVES	Cyclohexane	110-82-7	7.7436	0.000884	8,760	1.11E-04	1.11E-04
70196	BLK 35 FUGITIVES	Propylene	115-07-1	269.1905	0.030730	8,760	3.87E-03	3.87E-03
70196	BLK 35 FUGITIVES	Anthracene	120-12-7	0.0892	0.000010	8,760	1.28E-06	1.28E-06
70196	BLK 35 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	8,760	2.90E-09	2.90E-09
70196	BLK 35 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.4314	0.000049	8,760	6.20E-06	6.20E-06
70196	BLK 35 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	139.7361	0.015952	8,760	2.01E-03	2.01E-03
70196	BLK 35 FUGITIVES	Methyl tert-butyl ether	1634-04-4	1.4043	0.000160	8,760	2.02E-05	2.02E-05
70196	BLK 35 FUGITIVES	Hydrogen sulfide	7783-06-4	5.6872	0.000649	8,760	8.18E-05	8.18E-05
70197	BLK 36 FUGITIVES	Benzene	71-43-2	0.9926	0.000113	8,760	1.43E-05	1.43E-05
70197	BLK 36 FUGITIVES	Ethylene	74-85-1	55.9803	0.006390	8,760	8.05E-04	8.05E-04
70197	BLK 36 FUGITIVES	Naphthalene	91-20-3	3.6322	0.000415	8,760	5.22E-05	5.22E-05
70197	BLK 36 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	6.5438	0.000747	8,760	9.41E-05	9.41E-05
70197	BLK 36 FUGITIVES	Cumene	98-82-8	0.4945	0.000056	8,760	7.11E-06	7.11E-06
70197	BLK 36 FUGITIVES	Ethyl benzene	100-41-4	2.8396	0.000324	8,760	4.08E-05	4.08E-05
70197	BLK 36 FUGITIVES	Styrene	100-42-5	0.2435	0.000028	8,760	3.50E-06	3.50E-06
70197	BLK 36 FUGITIVES	1,3-Butadiene	106-99-0	0.3110	0.000036	8,760	4.47E-06	4.47E-06
70197	BLK 36 FUGITIVES	Toluene	108-88-3	4.8731	0.000556	8,760	7.01E-05	7.01E-05
70197	BLK 36 FUGITIVES	Phenol	108-95-2	0.0253	0.000003	8,760	3.64E-07	3.64E-07
70197	BLK 36 FUGITIVES	Hexane	110-54-3	16.0380	0.001831	8,760	2.31E-04	2.31E-04
70197	BLK 36 FUGITIVES	Cyclohexane	110-82-7	3.6051	0.000412	8,760	5.19E-05	5.19E-05
70197	BLK 36 FUGITIVES	Propylene	115-07-1	50.4445	0.005759	8,760	7.26E-04	7.26E-04
70197	BLK 36 FUGITIVES	Anthracene	120-12-7	0.0160	0.000002	8,760	2.31E-07	2.31E-07
70197	BLK 36 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0000	0.000000	8,760	5.24E-10	5.24E-10
70197	BLK 36 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.0750	0.000009	8,760	1.08E-06	1.08E-06
70197	BLK 36 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	14.1676	0.001617	8,760	2.04E-04	2.04E-04
70197	BLK 36 FUGITIVES	Methyl tert-butyl ether	1634-04-4	0.6189	0.000071	8,760	8.90E-06	8.90E-06
70197	BLK 36 FUGITIVES	Hydrogen sulfide	7783-06-4	0.0011	0.000000	8,760	1.65E-08	1.65E-08
70198	BLK 37 FUGITIVES	Benzene	71-43-2	14.2038	0.001621	8,760	2.04E-04	2.04E-04
70198	BLK 37 FUGITIVES	Ethylene	74-85-1	0.8274	0.000094	8,760	1.19E-05	1.19E-05
70198	BLK 37 FUGITIVES	Naphthalene	91-20-3	38.9437	0.004446	8,760	5.60E-04	5.60E-04
70198	BLK 37 FUGITIVES	Benzidine	92-87-5	0.0002	0.000000	8,760	3.22E-09	3.22E-09
70198	BLK 37 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	21.0843	0.002407	8,760	3.03E-04	3.03E-04

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70198	BLK 37 FUGITIVES	Cumene	98-82-8	2.6640	0.000304	8,760	3.83E-05	3.83E-05
70198	BLK 37 FUGITIVES	Ethyl benzene	100-41-4	30.6865	0.003503	8,760	4.41E-04	4.41E-04
70198	BLK 37 FUGITIVES	Styrene	100-42-5	1.7764	0.000203	8,760	2.56E-05	2.56E-05
70198	BLK 37 FUGITIVES	1,3-Butadiene	106-99-0	2.4140	0.000276	8,760	3.47E-05	3.47E-05
70198	BLK 37 FUGITIVES	Toluene	108-88-3	78.0212	0.008907	8,760	1.12E-03	1.12E-03
70198	BLK 37 FUGITIVES	Phenol	108-95-2	0.1834	0.000021	8,760	2.64E-06	2.64E-06
70198	BLK 37 FUGITIVES	Hexane	110-54-3	356.7409	0.040724	8,760	5.13E-03	5.13E-03
70198	BLK 37 FUGITIVES	Cyclohexane	110-82-7	12.2574	0.001399	8,760	1.76E-04	1.76E-04
70198	BLK 37 FUGITIVES	Propylene	115-07-1	31.8650	0.003638	8,760	4.58E-04	4.58E-04
70198	BLK 37 FUGITIVES	Di(2-ethylhexyl) phthalate	117-81-7	0.0000	0.000000	8,760	2.52E-10	2.52E-10
70198	BLK 37 FUGITIVES	Anthracene	120-12-7	0.1172	0.000013	8,760	1.69E-06	1.69E-06
70198	BLK 37 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0009	0.000000	8,760	1.25E-08	1.25E-08
70198	BLK 37 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.5875	0.000067	8,760	8.45E-06	8.45E-06
70198	BLK 37 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	156.7923	0.017899	8,760	2.26E-03	2.26E-03
70198	BLK 37 FUGITIVES	Methyl tert-butyl ether	1634-04-4	1.8221	0.000208	8,760	2.62E-05	2.62E-05
70198	BLK 37 FUGITIVES	Hydrogen sulfide	7783-06-4	2.8108	0.000321	8,760	4.04E-05	4.04E-05
70198	BLK 37 FUGITIVES	Dichlorobenzenes (mixed isomers)	25321-22-6	0.0001	0.000000	8,760	1.49E-09	1.49E-09
70201	BLK 43 FUGITIVES	Benzene	71-43-2	4.8454	0.000553	8,760	6.97E-05	6.97E-05
70201	BLK 43 FUGITIVES	Ethylene	74-85-1	119.1380	0.013600	8,760	1.71E-03	1.71E-03
70201	BLK 43 FUGITIVES	Naphthalene	91-20-3	19.8348	0.002264	8,760	2.85E-04	2.85E-04
70201	BLK 43 FUGITIVES	Benzidine	92-87-5	0.0026	0.000000	8,760	3.78E-08	3.78E-08
70201	BLK 43 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	14.8603	0.001696	8,760	2.14E-04	2.14E-04
70201	BLK 43 FUGITIVES	Cumene	98-82-8	2.0445	0.000233	8,760	2.94E-05	2.94E-05
70201	BLK 43 FUGITIVES	Ethyl benzene	100-41-4	11.6801	0.001333	8,760	1.68E-04	1.68E-04
70201	BLK 43 FUGITIVES	Styrene	100-42-5	1.3319	0.000152	8,760	1.92E-05	1.92E-05
70201	BLK 43 FUGITIVES	1,3-Butadiene	106-99-0	1.6359	0.000187	8,760	2.35E-05	2.35E-05
70201	BLK 43 FUGITIVES	Toluene	108-88-3	19.0789	0.002178	8,760	2.74E-04	2.74E-04
70201	BLK 43 FUGITIVES	Phenol	108-95-2	0.1544	0.000018	8,760	2.22E-06	2.22E-06
70201	BLK 43 FUGITIVES	Hexane	110-54-3	100.9859	0.011528	8,760	1.45E-03	1.45E-03
70201	BLK 43 FUGITIVES	Cyclohexane	110-82-7	38.0022	0.004338	8,760	5.47E-04	5.47E-04
70201	BLK 43 FUGITIVES	Propylene	115-07-1	107.7879	0.012305	8,760	1.55E-03	1.55E-03
70201	BLK 43 FUGITIVES	Di(2-ethylhexyl) phthalate	117-81-7	0.0002	0.000000	8,760	2.97E-09	2.97E-09
70201	BLK 43 FUGITIVES	Anthracene	120-12-7	0.1536	0.000018	8,760	2.21E-06	2.21E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70201	BLK 43 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0075	0.000001	8,760	1.08E-07	1.08E-07
70201	BLK 43 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.4592	0.000052	8,760	6.61E-06	6.61E-06
70201	BLK 43 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	54.5317	0.006225	8,760	7.84E-04	7.84E-04
70201	BLK 43 FUGITIVES	Methyl tert-butyl ether	1634-04-4	1.3079	0.000149	8,760	1.88E-05	1.88E-05
70201	BLK 43 FUGITIVES	Hydrogen sulfide	7783-06-4	1.9699	0.000225	8,760	2.83E-05	2.83E-05
70201	BLK 43 FUGITIVES	Dichlorobenzenes (mixed isomers)	25321-22-6	0.0012	0.000000	8,760	1.75E-08	1.75E-08
70203	BLK 45 FUGITIVES	Benzene	71-43-2	9.0720	0.001036	8,760	1.30E-04	1.30E-04
70203	BLK 45 FUGITIVES	Ethylene	74-85-1	27.7584	0.003169	8,760	3.99E-04	3.99E-04
70203	BLK 45 FUGITIVES	Naphthalene	91-20-3	43.1766	0.004929	8,760	6.21E-04	6.21E-04
70203	BLK 45 FUGITIVES	Benzidine	92-87-5	0.0199	0.000002	8,760	2.86E-07	2.86E-07
70203	BLK 45 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	43.2084	0.004932	8,760	6.21E-04	6.21E-04
70203	BLK 45 FUGITIVES	Cumene	98-82-8	5.1249	0.000585	8,760	7.37E-05	7.37E-05
70203	BLK 45 FUGITIVES	Ethyl benzene	100-41-4	28.3273	0.003234	8,760	4.07E-04	4.07E-04
70203	BLK 45 FUGITIVES	Styrene	100-42-5	3.7777	0.000431	8,760	5.43E-05	5.43E-05
70203	BLK 45 FUGITIVES	1,3-Butadiene	106-99-0	10.9501	0.001250	8,760	1.57E-04	1.57E-04
70203	BLK 45 FUGITIVES	Toluene	108-88-3	53.3703	0.006092	8,760	7.68E-04	7.68E-04
70203	BLK 45 FUGITIVES	Phenol	108-95-2	0.3728	0.000043	8,760	5.36E-06	5.36E-06
70203	BLK 45 FUGITIVES	Hexane	110-54-3	191.7286	0.021887	8,760	2.76E-03	2.76E-03
70203	BLK 45 FUGITIVES	Cyclohexane	110-82-7	26.0925	0.002979	8,760	3.75E-04	3.75E-04
70203	BLK 45 FUGITIVES	Propylene	115-07-1	285.4868	0.032590	8,760	4.11E-03	4.11E-03
70203	BLK 45 FUGITIVES	Di(2-ethylhexyl) phthalate	117-81-7	0.0016	0.000000	8,760	2.25E-08	2.25E-08
70203	BLK 45 FUGITIVES	Anthracene	120-12-7	0.6722	0.000077	8,760	9.67E-06	9.67E-06
70203	BLK 45 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0556	0.000006	8,760	8.00E-07	8.00E-07
70203	BLK 45 FUGITIVES	Cresol (mixed isomers)	1319-77-3	1.1139	0.000127	8,760	1.60E-05	1.60E-05
70203	BLK 45 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	128.4149	0.014659	8,760	1.85E-03	1.85E-03
70203	BLK 45 FUGITIVES	Methyl tert-butyl ether	1634-04-4	3.2440	0.000370	8,760	4.67E-05	4.67E-05
70203	BLK 45 FUGITIVES	Hydrogen sulfide	7783-06-4	12.2114	0.001394	8,760	1.76E-04	1.76E-04
70203	BLK 45 FUGITIVES	Dichlorobenzenes (mixed isomers)	25321-22-6	0.0092	0.000001	8,760	1.32E-07	1.32E-07
70204	BLK 46 FUGITIVES	Benzene	71-43-2	0.1085	0.000012	8,760	1.56E-06	1.56E-06
70204	BLK 46 FUGITIVES	Ethylene	74-85-1	42.2992	0.004829	8,760	6.08E-04	6.08E-04
70204	BLK 46 FUGITIVES	Naphthalene	91-20-3	0.3572	0.000041	8,760	5.14E-06	5.14E-06
70204	BLK 46 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	0.2920	0.000033	8,760	4.20E-06	4.20E-06
70204	BLK 46 FUGITIVES	Cumene	98-82-8	0.0389	0.000004	8,760	5.59E-07	5.59E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70204	BLK 46 FUGITIVES	Ethyl benzene	100-41-4	0.1870	0.000021	8,760	2.69E-06	2.69E-06
70204	BLK 46 FUGITIVES	Styrene	100-42-5	0.0603	0.000007	8,760	8.68E-07	8.68E-07
70204	BLK 46 FUGITIVES	1,3-Butadiene	106-99-0	0.1801	0.000021	8,760	2.59E-06	2.59E-06
70204	BLK 46 FUGITIVES	Toluene	108-88-3	0.3273	0.000037	8,760	4.71E-06	4.71E-06
70204	BLK 46 FUGITIVES	Phenol	108-95-2	0.0030	0.000000	8,760	4.27E-08	4.27E-08
70204	BLK 46 FUGITIVES	Hexane	110-54-3	1.5344	0.000175	8,760	2.21E-05	2.21E-05
70204	BLK 46 FUGITIVES	Cyclohexane	110-82-7	0.1533	0.000017	8,760	2.20E-06	2.20E-06
70204	BLK 46 FUGITIVES	Propylene	115-07-1	38.0820	0.004347	8,760	5.48E-04	5.48E-04
70204	BLK 46 FUGITIVES	Anthracene	120-12-7	0.0019	0.000000	8,760	2.71E-08	2.71E-08
70204	BLK 46 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0000	0.000000	8,760	6.15E-11	6.15E-11
70204	BLK 46 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.0088	0.000001	8,760	1.27E-07	1.27E-07
70204	BLK 46 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	0.9315	0.000106	8,760	1.34E-05	1.34E-05
70204	BLK 46 FUGITIVES	Methyl tert-butyl ether	1634-04-4	0.0247	0.000003	8,760	3.55E-07	3.55E-07
70204	BLK 46 FUGITIVES	Hydrogen sulfide	7783-06-4	0.0005	0.000000	8,760	7.01E-09	7.01E-09
70222	BLK 76 FUGITIVES	Benzene	71-43-2	1.3462	0.000154	8,760	1.94E-05	1.94E-05
70222	BLK 76 FUGITIVES	Ethylene	74-85-1	0.2330	0.000027	8,760	3.35E-06	3.35E-06
70222	BLK 76 FUGITIVES	Naphthalene	91-20-3	5.3481	0.000611	8,760	7.69E-05	7.69E-05
70222	BLK 76 FUGITIVES	1,2,4-Trimethylbenzene	95-63-6	9.5314	0.001088	8,760	1.37E-04	1.37E-04
70222	BLK 76 FUGITIVES	Cumene	98-82-8	0.7267	0.000083	8,760	1.05E-05	1.05E-05
70222	BLK 76 FUGITIVES	Ethyl benzene	100-41-4	4.1241	0.000471	8,760	5.93E-05	5.93E-05
70222	BLK 76 FUGITIVES	Styrene	100-42-5	0.2859	0.000033	8,760	4.11E-06	4.11E-06
70222	BLK 76 FUGITIVES	1,3-Butadiene	106-99-0	0.6550	0.000075	8,760	9.42E-06	9.42E-06
70222	BLK 76 FUGITIVES	Toluene	108-88-3	6.8566	0.000783	8,760	9.86E-05	9.86E-05
70222	BLK 76 FUGITIVES	Phenol	108-95-2	0.0373	0.000004	8,760	5.36E-07	5.36E-07
70222	BLK 76 FUGITIVES	Hexane	110-54-3	23.3667	0.002667	8,760	3.36E-04	3.36E-04
70222	BLK 76 FUGITIVES	Cyclohexane	110-82-7	5.2743	0.000602	8,760	7.59E-05	7.59E-05
70222	BLK 76 FUGITIVES	Propylene	115-07-1	0.6955	0.000079	8,760	1.00E-05	1.00E-05
70222	BLK 76 FUGITIVES	Anthracene	120-12-7	0.0236	0.000003	8,760	3.40E-07	3.40E-07
70222	BLK 76 FUGITIVES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	8,760	7.73E-10	7.73E-10
70222	BLK 76 FUGITIVES	Cresol (mixed isomers)	1319-77-3	0.1107	0.000013	8,760	1.59E-06	1.59E-06
70222	BLK 76 FUGITIVES	Xylenes (mixed isomers)	1330-20-7	20.4027	0.002329	8,760	2.93E-04	2.93E-04
70222	BLK 76 FUGITIVES	Methyl tert-butyl ether	1634-04-4	0.9060	0.000103	8,760	1.30E-05	1.30E-05
70222	BLK 76 FUGITIVES	Hydrogen sulfide	7783-06-4	1.4580	0.000166	8,760	2.10E-05	2.10E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70227	GASOLINE DISPENSING	Benzene	71-43-2	1.2719	0.000611	2,080	1.83E-05	7.70E-05
70227	GASOLINE DISPENSING	Naphthalene	91-20-3	0.0006	0.000000	2,080	8.79E-09	3.70E-08
70227	GASOLINE DISPENSING	1,2,4-Trimethylbenzene	95-63-6	0.0576	0.000028	2,080	8.28E-07	3.49E-06
70227	GASOLINE DISPENSING	Ethyl benzene	100-41-4	0.2209	0.000106	2,080	3.18E-06	1.34E-05
70227	GASOLINE DISPENSING	1,3-Butadiene	106-99-0	0.4888	0.000235	2,080	7.03E-06	2.96E-05
70227	GASOLINE DISPENSING	Toluene	108-88-3	2.8331	0.001362	2,080	4.07E-05	1.72E-04
70227	GASOLINE DISPENSING	Hexane	110-54-3	4.0564	0.001950	2,080	5.83E-05	2.46E-04
70227	GASOLINE DISPENSING	Cyclohexane	110-82-7	1.5182	0.000730	2,080	2.18E-05	9.20E-05
70227	GASOLINE DISPENSING	Xylenes (mixed isomers)	1330-20-7	0.9264	0.000445	2,080	1.33E-05	5.61E-05
70228	DIESEL DISPENSING	Benzene	71-43-2	0.2452	0.000118	2,080	3.53E-06	1.49E-05
70228	DIESEL DISPENSING	Naphthalene	91-20-3	0.0149	0.000007	2,080	2.14E-07	9.00E-07
70228	DIESEL DISPENSING	1,2,4-Trimethylbenzene	95-63-6	0.1754	0.000084	2,080	2.52E-06	1.06E-05
70228	DIESEL DISPENSING	Ethyl benzene	100-41-4	0.1093	0.000053	2,080	1.57E-06	6.62E-06
70228	DIESEL DISPENSING	Toluene	108-88-3	0.2460	0.000118	2,080	3.54E-06	1.49E-05
70228	DIESEL DISPENSING	Phenol	108-95-2	0.0005	0.000000	2,080	6.74E-09	2.84E-08
70228	DIESEL DISPENSING	Cresol (mixed isomers)	1319-77-3	0.0002	0.000000	2,080	2.67E-09	1.13E-08
70228	DIESEL DISPENSING	Xylenes (mixed isomers)	1330-20-7	0.4787	0.000230	2,080	6.88E-06	2.90E-05
70228	DIESEL DISPENSING	Hydrogen sulfide	7783-06-4	0.6307	0.000303	2,080	9.07E-06	3.82E-05
70229	FLARE - SOUTH HRRS	Lead compounds	1128	0.1002	0.000011	8,760	1.44E-06	1.44E-06
70229	FLARE - SOUTH HRRS	PAHs, total, w/o indiv. comp.	1151	0.0068	0.000001	8,760	9.85E-08	9.85E-08
70229	FLARE - SOUTH HRRS	Formaldehyde	50-00-0	2.7560	0.000315	8,760	3.96E-05	3.96E-05
70229	FLARE - SOUTH HRRS	Benzene	71-43-2	1.5368	0.000175	8,760	2.21E-05	2.21E-05
70229	FLARE - SOUTH HRRS	Methyl chloroform	71-55-6	0.0458	0.000005	8,760	6.59E-07	6.59E-07
70229	FLARE - SOUTH HRRS	Ethylene	74-85-1	0.0729	0.000008	8,760	1.05E-06	1.05E-06
70229	FLARE - SOUTH HRRS	Acetaldehyde	75-07-0	0.3559	0.000041	8,760	5.12E-06	5.12E-06
70229	FLARE - SOUTH HRRS	Phenanthrene (PAHs)	85-01-8	0.0003	0.000000	8,760	3.78E-09	3.78E-09
70229	FLARE - SOUTH HRRS	Naphthalene	91-20-3	0.0055	0.000001	8,760	7.93E-08	7.93E-08
70229	FLARE - SOUTH HRRS	Ethyl benzene	100-41-4	0.5548	0.000063	8,760	7.98E-06	7.98E-06
70229	FLARE - SOUTH HRRS	1,3-Butadiene	106-99-0	0.2109	0.000024	8,760	3.03E-06	3.03E-06
70229	FLARE - SOUTH HRRS	Acrolein	107-02-8	0.3351	0.000038	8,760	4.82E-06	4.82E-06
70229	FLARE - SOUTH HRRS	Toluene	108-88-3	2.5004	0.000285	8,760	3.60E-05	3.60E-05
70229	FLARE - SOUTH HRRS	Phenol	108-95-2	0.1270	0.000015	8,760	1.83E-06	1.83E-06
70229	FLARE - SOUTH HRRS	Hexane	110-54-3	32.8524	0.003750	8,760	4.73E-04	4.73E-04

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70229	FLARE - SOUTH HRRS	Propylene	115-07-1	0.2187	0.000025	8,760	3.15E-06	3.15E-06
70229	FLARE - SOUTH HRRS	Anthracene	120-12-7	0.0001	0.000000	8,760	7.38E-10	7.38E-10
70229	FLARE - SOUTH HRRS	Dibenzofuran	132-64-9	0.0000	0.000000	8,760	1.60E-12	1.60E-12
70229	FLARE - SOUTH HRRS	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0000	0.000000	8,760	3.07E-10	3.07E-10
70229	FLARE - SOUTH HRRS	Xylenes (mixed isomers)	1330-20-7	0.6826	0.000078	8,760	9.82E-06	9.82E-06
70229	FLARE - SOUTH HRRS	Manganese compounds	7439-96-5	0.1396	0.000016	8,760	2.01E-06	2.01E-06
70229	FLARE - SOUTH HRRS	Mercury compounds	7439-97-6	0.0037	0.000000	8,760	5.30E-08	5.30E-08
70229	FLARE - SOUTH HRRS	Nickel compounds	7440-02-0	0.1935	0.000022	8,760	2.78E-06	2.78E-06
70229	FLARE - SOUTH HRRS	Silver compounds	7440-22-4	0.0330	0.000004	8,760	4.75E-07	4.75E-07
70229	FLARE - SOUTH HRRS	Arsenic	7440-38-2	0.0174	0.000002	8,760	2.50E-07	2.50E-07
70229	FLARE - SOUTH HRRS	Barium	7440-39-3	0.1185	0.000014	8,760	1.70E-06	1.70E-06
70229	FLARE - SOUTH HRRS	Beryllium	7440-41-7	0.0053	0.000001	8,760	7.56E-08	7.56E-08
70229	FLARE - SOUTH HRRS	Cadmium	7440-43-9	0.0203	0.000002	8,760	2.91E-07	2.91E-07
70229	FLARE - SOUTH HRRS	Chromium compounds	7440-47-3	0.0219	0.000003	8,760	3.15E-07	3.15E-07
70229	FLARE - SOUTH HRRS	Cobalt compounds	7440-48-4	0.0015	0.000000	8,760	2.21E-08	2.21E-08
70229	FLARE - SOUTH HRRS	Copper compounds	7440-50-8	0.0863	0.000010	8,760	1.24E-06	1.24E-06
70229	FLARE - SOUTH HRRS	Vanadium compounds	7440-62-2	0.0420	0.000005	8,760	6.04E-07	6.04E-07
70229	FLARE - SOUTH HRRS	Zinc compounds	7440-66-6	0.4271	0.000049	8,760	6.14E-06	6.14E-06
70229	FLARE - SOUTH HRRS	Hydrochloric acid	7647-01-0	0.2308	0.000026	8,760	3.32E-06	3.32E-06
70229	FLARE - SOUTH HRRS	Hydrogen sulfide	7783-06-4	106.2187	0.012125	8,760	1.53E-03	1.53E-03
70229	FLARE - SOUTH HRRS	Dichlorobenzenes (mixed isomers)	25321-22-6	0.0219	0.000003	8,760	3.15E-07	3.15E-07
70230	FLARE - NORTH HRRS	Lead compounds	1128	0.1435	0.000016	8,760	2.06E-06	2.06E-06
70230	FLARE - NORTH HRRS	PAHs, total, w/o indiv. comp.	1151	0.0098	0.000001	8,760	1.41E-07	1.41E-07
70230	FLARE - NORTH HRRS	Formaldehyde	50-00-0	3.9482	0.000451	8,760	5.68E-05	5.68E-05
70230	FLARE - NORTH HRRS	Benzene	71-43-2	2.2016	0.000251	8,760	3.17E-05	3.17E-05
70230	FLARE - NORTH HRRS	Methyl chloroform	71-55-6	0.0656	0.000007	8,760	9.44E-07	9.44E-07
70230	FLARE - NORTH HRRS	Ethylene	74-85-1	47.1244	0.005379	8,760	6.78E-04	6.78E-04
70230	FLARE - NORTH HRRS	Acetaldehyde	75-07-0	0.5099	0.000058	8,760	7.33E-06	7.33E-06
70230	FLARE - NORTH HRRS	Phenanthrene (PAHs)	85-01-8	0.0004	0.000000	8,760	5.42E-09	5.42E-09
70230	FLARE - NORTH HRRS	Naphthalene	91-20-3	0.0079	0.000001	8,760	1.14E-07	1.14E-07
70230	FLARE - NORTH HRRS	Ethyl benzene	100-41-4	0.7949	0.000091	8,760	1.14E-05	1.14E-05
70230	FLARE - NORTH HRRS	1,3-Butadiene	106-99-0	0.0909	0.000010	8,760	1.31E-06	1.31E-06
70230	FLARE - NORTH HRRS	Acrolein	107-02-8	0.4801	0.000055	8,760	6.90E-06	6.90E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70230	FLARE - NORTH HRRS	Toluene	108-88-3	3.5821	0.000409	8,760	5.15E-05	5.15E-05
70230	FLARE - NORTH HRRS	Phenol	108-95-2	0.1820	0.000021	8,760	2.62E-06	2.62E-06
70230	FLARE - NORTH HRRS	Hexane	110-54-3	47.0647	0.005373	8,760	6.77E-04	6.77E-04
70230	FLARE - NORTH HRRS	Propylene	115-07-1	39.7306	0.004535	8,760	5.71E-04	5.71E-04
70230	FLARE - NORTH HRRS	Anthracene	120-12-7	0.0001	0.000000	8,760	1.06E-09	1.06E-09
70230	FLARE - NORTH HRRS	Dibenzofuran	132-64-9	0.0000	0.000000	8,760	2.30E-12	2.30E-12
70230	FLARE - NORTH HRRS	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0000	0.000000	8,760	4.40E-10	4.40E-10
70230	FLARE - NORTH HRRS	Xylenes (mixed isomers)	1330-20-7	0.9779	0.000112	8,760	1.41E-05	1.41E-05
70230	FLARE - NORTH HRRS	Manganese compounds	7439-96-5	0.2000	0.000023	8,760	2.88E-06	2.88E-06
70230	FLARE - NORTH HRRS	Mercury compounds	7439-97-6	0.0053	0.000001	8,760	7.60E-08	7.60E-08
70230	FLARE - NORTH HRRS	Nickel compounds	7440-02-0	0.2772	0.000032	8,760	3.99E-06	3.99E-06
70230	FLARE - NORTH HRRS	Silver compounds	7440-22-4	0.0473	0.000005	8,760	6.81E-07	6.81E-07
70230	FLARE - NORTH HRRS	Arsenic	7440-38-2	0.0249	0.000003	8,760	3.59E-07	3.59E-07
70230	FLARE - NORTH HRRS	Barium	7440-39-3	0.1697	0.000019	8,760	2.44E-06	2.44E-06
70230	FLARE - NORTH HRRS	Beryllium	7440-41-7	0.0075	0.000001	8,760	1.08E-07	1.08E-07
70230	FLARE - NORTH HRRS	Cadmium	7440-43-9	0.0290	0.000003	8,760	4.17E-07	4.17E-07
70230	FLARE - NORTH HRRS	Chromium compounds	7440-47-3	0.0314	0.000004	8,760	4.51E-07	4.51E-07
70230	FLARE - NORTH HRRS	Cobalt compounds	7440-48-4	0.0022	0.000000	8,760	3.16E-08	3.16E-08
70230	FLARE - NORTH HRRS	Copper compounds	7440-50-8	0.1237	0.000014	8,760	1.78E-06	1.78E-06
70230	FLARE - NORTH HRRS	Vanadium compounds	7440-62-2	0.0601	0.000007	8,760	8.65E-07	8.65E-07
70230	FLARE - NORTH HRRS	Zinc compounds	7440-66-6	0.6118	0.000070	8,760	8.80E-06	8.80E-06
70230	FLARE - NORTH HRRS	Hydrochloric acid	7647-01-0	0.3307	0.000038	8,760	4.76E-06	4.76E-06
70230	FLARE - NORTH HRRS	Hydrogen sulfide	7783-06-4	218.8478	0.024983	8,760	3.15E-03	3.15E-03
70230	FLARE - NORTH HRRS	Dichlorobenzenes (mixed isomers)	25321-22-6	0.0314	0.000004	8,760	4.51E-07	4.51E-07
70231	FLARE - UNICRACKER HRRS	Lead compounds	1128	0.0421	0.000005	8,760	6.06E-07	6.06E-07
70231	FLARE - UNICRACKER HRRS	PAHs, total, w/o indiv. comp.	1151	0.0029	0.000000	8,760	4.14E-08	4.14E-08
70231	FLARE - UNICRACKER HRRS	Formaldehyde	50-00-0	1.1590	0.000132	8,760	1.67E-05	1.67E-05
70231	FLARE - UNICRACKER HRRS	Benzene	71-43-2	0.6463	0.000074	8,760	9.30E-06	9.30E-06
70231	FLARE - UNICRACKER HRRS	Methyl chloroform	71-55-6	0.0193	0.000002	8,760	2.77E-07	2.77E-07
70231	FLARE - UNICRACKER HRRS	Ethylene	74-85-1	5.6148	0.000641	8,760	8.08E-05	8.08E-05
70231	FLARE - UNICRACKER HRRS	Acetaldehyde	75-07-0	0.1497	0.000017	8,760	2.15E-06	2.15E-06
70231	FLARE - UNICRACKER HRRS	Phenanthrene (PAHs)	85-01-8	0.0001	0.000000	8,760	1.59E-09	1.59E-09
70231	FLARE - UNICRACKER HRRS	Naphthalene	91-20-3	0.0023	0.000000	8,760	3.33E-08	3.33E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70231	FLARE - UNICRACKER HRRS	Ethyl benzene	100-41-4	0.2333	0.000027	8,760	3.36E-06	3.36E-06
70231	FLARE - UNICRACKER HRRS	1,3-Butadiene	106-99-0	0.1094	0.000012	8,760	1.57E-06	1.57E-06
70231	FLARE - UNICRACKER HRRS	Acrolein	107-02-8	0.1409	0.000016	8,760	2.03E-06	2.03E-06
70231	FLARE - UNICRACKER HRRS	Toluene	108-88-3	1.0515	0.000120	8,760	1.51E-05	1.51E-05
70231	FLARE - UNICRACKER HRRS	Phenol	108-95-2	0.0534	0.000006	8,760	7.68E-07	7.68E-07
70231	FLARE - UNICRACKER HRRS	Hexane	110-54-3	13.8155	0.001577	8,760	1.99E-04	1.99E-04
70231	FLARE - UNICRACKER HRRS	Propylene	115-07-1	20.1222	0.002297	8,760	2.89E-04	2.89E-04
70231	FLARE - UNICRACKER HRRS	Anthracene	120-12-7	0.0000	0.000000	8,760	3.10E-10	3.10E-10
70231	FLARE - UNICRACKER HRRS	Dibenzofuran	132-64-9	0.0000	0.000000	8,760	6.74E-13	6.74E-13
70231	FLARE - UNICRACKER HRRS	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0000	0.000000	8,760	1.29E-10	1.29E-10
70231	FLARE - UNICRACKER HRRS	Xylenes (mixed isomers)	1330-20-7	0.2871	0.000033	8,760	4.13E-06	4.13E-06
70231	FLARE - UNICRACKER HRRS	Manganese compounds	7439-96-5	0.0587	0.000007	8,760	8.45E-07	8.45E-07
70231	FLARE - UNICRACKER HRRS	Mercury compounds	7439-97-6	0.0016	0.000000	8,760	2.23E-08	2.23E-08
70231	FLARE - UNICRACKER HRRS	Nickel compounds	7440-02-0	0.0814	0.000009	8,760	1.17E-06	1.17E-06
70231	FLARE - UNICRACKER HRRS	Silver compounds	7440-22-4	0.0139	0.000002	8,760	2.00E-07	2.00E-07
70231	FLARE - UNICRACKER HRRS	Arsenic	7440-38-2	0.0073	0.000001	8,760	1.05E-07	1.05E-07
70231	FLARE - UNICRACKER HRRS	Barium	7440-39-3	0.0498	0.000006	8,760	7.16E-07	7.16E-07
70231	FLARE - UNICRACKER HRRS	Beryllium	7440-41-7	0.0022	0.000000	8,760	3.18E-08	3.18E-08
70231	FLARE - UNICRACKER HRRS	Cadmium	7440-43-9	0.0085	0.000001	8,760	1.23E-07	1.23E-07
70231	FLARE - UNICRACKER HRRS	Chromium compounds	7440-47-3	0.0092	0.000001	8,760	1.32E-07	1.32E-07
70231	FLARE - UNICRACKER HRRS	Cobalt compounds	7440-48-4	0.0006	0.000000	8,760	9.27E-09	9.27E-09
70231	FLARE - UNICRACKER HRRS	Copper compounds	7440-50-8	0.0363	0.000004	8,760	5.22E-07	5.22E-07
70231	FLARE - UNICRACKER HRRS	Vanadium compounds	7440-62-2	0.0177	0.000002	8,760	2.54E-07	2.54E-07
70231	FLARE - UNICRACKER HRRS	Zinc compounds	7440-66-6	0.1796	0.000021	8,760	2.58E-06	2.58E-06
70231	FLARE - UNICRACKER HRRS	Hydrochloric acid	7647-01-0	0.0971	0.000011	8,760	1.40E-06	1.40E-06
70231	FLARE - UNICRACKER HRRS	Hydrogen sulfide	7783-06-4	72.5405	0.008281	8,760	1.04E-03	1.04E-03
70231	FLARE - UNICRACKER HRRS	Dichlorobenzenes (mixed isomers)	25321-22-6	0.0092	0.000001	8,760	1.32E-07	1.32E-07
70232	FLARE - BUTANE RECOV SYS	Lead compounds	1128	0.0990	0.000011	8,760	1.42E-06	1.42E-06
70232	FLARE - BUTANE RECOV SYS	PAHs, total, w/o indiv. comp.	1151	0.0068	0.000001	8,760	9.73E-08	9.73E-08
70232	FLARE - BUTANE RECOV SYS	Formaldehyde	50-00-0	2.7237	0.000311	8,760	3.92E-05	3.92E-05
70232	FLARE - BUTANE RECOV SYS	Benzene	71-43-2	1.5188	0.000173	8,760	2.18E-05	2.18E-05
70232	FLARE - BUTANE RECOV SYS	Methyl chloroform	71-55-6	0.0453	0.000005	8,760	6.51E-07	6.51E-07
70232	FLARE - BUTANE RECOV SYS	Ethylene	74-85-1	0.1181	0.000013	8,760	1.70E-06	1.70E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70232	FLARE - BUTANE RECOV SYS	Acetaldehyde	75-07-0	0.3517	0.000040	8,760	5.06E-06	5.06E-06
70232	FLARE - BUTANE RECOV SYS	Phenanthrene (PAHs)	85-01-8	0.0003	0.000000	8,760	3.74E-09	3.74E-09
70232	FLARE - BUTANE RECOV SYS	Naphthalene	91-20-3	0.0054	0.000001	8,760	7.84E-08	7.84E-08
70232	FLARE - BUTANE RECOV SYS	Ethyl benzene	100-41-4	0.5483	0.000063	8,760	7.89E-06	7.89E-06
70232	FLARE - BUTANE RECOV SYS	1,3-Butadiene	106-99-0	91.6430	0.010462	8,760	1.32E-03	1.32E-03
70232	FLARE - BUTANE RECOV SYS	Acrolein	107-02-8	0.3312	0.000038	8,760	4.76E-06	4.76E-06
70232	FLARE - BUTANE RECOV SYS	Toluene	108-88-3	2.4711	0.000282	8,760	3.55E-05	3.55E-05
70232	FLARE - BUTANE RECOV SYS	Phenol	108-95-2	0.1255	0.000014	8,760	1.81E-06	1.81E-06
70232	FLARE - BUTANE RECOV SYS	Hexane	110-54-3	32.4675	0.003706	8,760	4.67E-04	4.67E-04
70232	FLARE - BUTANE RECOV SYS	Propylene	115-07-1	2,563.1690	0.292599	8,760	3.69E-02	3.69E-02
70232	FLARE - BUTANE RECOV SYS	Anthracene	120-12-7	0.0001	0.000000	8,760	7.29E-10	7.29E-10
70232	FLARE - BUTANE RECOV SYS	Dibenzofuran	132-64-9	0.0000	0.000000	8,760	1.59E-12	1.59E-12
70232	FLARE - BUTANE RECOV SYS	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0000	0.000000	8,760	3.04E-10	3.04E-10
70232	FLARE - BUTANE RECOV SYS	Xylenes (mixed isomers)	1330-20-7	0.6746	0.000077	8,760	9.70E-06	9.70E-06
70232	FLARE - BUTANE RECOV SYS	Manganese compounds	7439-96-5	0.1380	0.000016	8,760	1.98E-06	1.98E-06
70232	FLARE - BUTANE RECOV SYS	Mercury compounds	7439-97-6	0.0036	0.000000	8,760	5.24E-08	5.24E-08
70232	FLARE - BUTANE RECOV SYS	Nickel compounds	7440-02-0	0.1912	0.000022	8,760	2.75E-06	2.75E-06
70232	FLARE - BUTANE RECOV SYS	Silver compounds	7440-22-4	0.0326	0.000004	8,760	4.70E-07	4.70E-07
70232	FLARE - BUTANE RECOV SYS	Arsenic	7440-38-2	0.0172	0.000002	8,760	2.48E-07	2.48E-07
70232	FLARE - BUTANE RECOV SYS	Barium	7440-39-3	0.1171	0.000013	8,760	1.68E-06	1.68E-06
70232	FLARE - BUTANE RECOV SYS	Beryllium	7440-41-7	0.0052	0.000001	8,760	7.47E-08	7.47E-08
70232	FLARE - BUTANE RECOV SYS	Cadmium	7440-43-9	0.0200	0.000002	8,760	2.88E-07	2.88E-07
70232	FLARE - BUTANE RECOV SYS	Chromium compounds	7440-47-3	0.0216	0.000002	8,760	3.11E-07	3.11E-07
70232	FLARE - BUTANE RECOV SYS	Cobalt compounds	7440-48-4	0.0015	0.000000	8,760	2.18E-08	2.18E-08
70232	FLARE - BUTANE RECOV SYS	Copper compounds	7440-50-8	0.0853	0.000010	8,760	1.23E-06	1.23E-06
70232	FLARE - BUTANE RECOV SYS	Vanadium compounds	7440-62-2	0.0415	0.000005	8,760	5.97E-07	5.97E-07
70232	FLARE - BUTANE RECOV SYS	Zinc compounds	7440-66-6	0.4221	0.000048	8,760	6.07E-06	6.07E-06
70232	FLARE - BUTANE RECOV SYS	Hydrochloric acid	7647-01-0	0.2281	0.000026	8,760	3.28E-06	3.28E-06
70232	FLARE - BUTANE RECOV SYS	Hydrogen sulfide	7783-06-4	15.1816	0.001733	8,760	2.18E-04	2.18E-04
70232	FLARE - BUTANE RECOV SYS	Dichlorobenzenes (mixed isomers)	25321-22-6	0.0216	0.000002	8,760	3.11E-07	3.11E-07
70233	SPILLS AND RELEASES	Lead compounds	1128	0.0000	0.000000	8,760	1.23E-11	1.23E-11
70233	SPILLS AND RELEASES	PAHs, total, w/o indiv. comp.	1151	0.0056	0.000001	8,760	8.11E-08	8.11E-08
70233	SPILLS AND RELEASES	Benzene	71-43-2	0.0462	0.000005	8,760	6.64E-07	6.64E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70233	SPILLS AND RELEASES	Ethylene	74-85-1	0.0718	0.000008	8,760	1.03E-06	1.03E-06
70233	SPILLS AND RELEASES	Naphthalene	91-20-3	0.1853	0.000021	8,760	2.67E-06	2.67E-06
70233	SPILLS AND RELEASES	Benzidine	92-87-5	0.0000	0.000000	8,760	3.20E-10	3.20E-10
70233	SPILLS AND RELEASES	1,2,4-Trimethylbenzene	95-63-6	0.1504	0.000017	8,760	2.16E-06	2.16E-06
70233	SPILLS AND RELEASES	Cumene	98-82-8	0.0207	0.000002	8,760	2.98E-07	2.98E-07
70233	SPILLS AND RELEASES	Ethyl benzene	100-41-4	0.1016	0.000012	8,760	1.46E-06	1.46E-06
70233	SPILLS AND RELEASES	Styrene	100-42-5	0.0123	0.000001	8,760	1.77E-07	1.77E-07
70233	SPILLS AND RELEASES	1,3-Butadiene	106-99-0	0.0088	0.000001	8,760	1.26E-07	1.26E-07
70233	SPILLS AND RELEASES	Toluene	108-88-3	0.1859	0.000021	8,760	2.67E-06	2.67E-06
70233	SPILLS AND RELEASES	Phenol	108-95-2	0.0016	0.000000	8,760	2.24E-08	2.24E-08
70233	SPILLS AND RELEASES	Hexane	110-54-3	0.9021	0.000103	8,760	1.30E-05	1.30E-05
70233	SPILLS AND RELEASES	Cyclohexane	110-82-7	0.1430	0.000016	8,760	2.06E-06	2.06E-06
70233	SPILLS AND RELEASES	Propylene	115-07-1	0.0199	0.000002	8,760	2.86E-07	2.86E-07
70233	SPILLS AND RELEASES	Di(2-ethylhexyl) phthalate	117-81-7	0.0000	0.000000	8,760	2.51E-11	2.51E-11
70233	SPILLS AND RELEASES	Anthracene	120-12-7	0.0015	0.000000	8,760	2.12E-08	2.12E-08
70233	SPILLS AND RELEASES	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	8,760	9.16E-10	9.16E-10
70233	SPILLS AND RELEASES	Cresol (mixed isomers)	1319-77-3	0.0046	0.000001	8,760	6.65E-08	6.65E-08
70233	SPILLS AND RELEASES	Xylenes (mixed isomers)	1330-20-7	0.4493	0.000051	8,760	6.46E-06	6.46E-06
70233	SPILLS AND RELEASES	Methyl tert-butyl ether	1634-04-4	0.0131	0.000001	8,760	1.88E-07	1.88E-07
70233	SPILLS AND RELEASES	Manganese compounds	7439-96-5	0.0000	0.000000	8,760	3.51E-11	3.51E-11
70233	SPILLS AND RELEASES	Mercury compounds	7439-97-6	0.0000	0.000000	8,760	1.30E-10	1.30E-10
70233	SPILLS AND RELEASES	Nickel compounds	7440-02-0	0.0000	0.000000	8,760	5.74E-10	5.74E-10
70233	SPILLS AND RELEASES	Cobalt compounds	7440-48-4	0.0000	0.000000	8,760	7.93E-12	7.93E-12
70233	SPILLS AND RELEASES	Copper compounds	7440-50-8	0.0000	0.000000	8,760	2.14E-11	2.14E-11
70233	SPILLS AND RELEASES	Zinc compounds	7440-66-6	0.0000	0.000000	8,760	2.49E-10	2.49E-10
70233	SPILLS AND RELEASES	Hydrogen sulfide	7783-06-4	0.1224	0.000014	8,760	1.76E-06	1.76E-06
70233	SPILLS AND RELEASES	Dichlorobenzenes (mixed isomers)	25321-22-6	0.0000	0.000000	8,760	1.48E-10	1.48E-10
70236	REFRIGERANT USAGE	Fluorocarbons (chlorinated)	1104	7.7600	0.003731	2,080	1.12E-04	4.70E-04
70236	REFRIGERANT USAGE	Chlorodifluoromethane {Freon 22}	75-45-6	100.0000	0.048077	2,080	1.44E-03	6.06E-03
70237	SPENT ACID LOADING	Benzene	71-43-2	0.0003	0.000000	2,080	4.01E-09	1.69E-08
70237	SPENT ACID LOADING	1,2,4-Trimethylbenzene	95-63-6	0.0000	0.000000	2,080	2.37E-10	9.99E-10
70237	SPENT ACID LOADING	Ethyl benzene	100-41-4	0.0001	0.000000	2,080	7.98E-10	3.36E-09
70237	SPENT ACID LOADING	Toluene	108-88-3	0.0008	0.000000	2,080	1.17E-08	4.93E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70237	SPENT ACID LOADING	Hexane	110-54-3	0.0018	0.000001	2,080	2.58E-08	1.09E-07
70237	SPENT ACID LOADING	Cyclohexane	110-82-7	0.0003	0.000000	2,080	4.13E-09	1.74E-08
70237	SPENT ACID LOADING	Xylenes (mixed isomers)	1330-20-7	0.0003	0.000000	2,080	3.70E-09	1.56E-08
70238	TANK DEGASSING	Lead compounds	1128	0.0216	0.000119	182	3.11E-07	1.49E-05
70238	TANK DEGASSING	PAHs, total, w/o indiv. comp.	1151	0.0029	0.000016	182	4.17E-08	2.01E-06
70238	TANK DEGASSING	Formaldehyde	50-00-0	0.2955	0.001624	182	4.25E-06	2.05E-04
70238	TANK DEGASSING	Benzene	71-43-2	0.3409	0.001873	182	4.90E-06	2.36E-04
70238	TANK DEGASSING	Acetaldehyde	75-07-0	0.0682	0.000375	182	9.81E-07	4.72E-05
70238	TANK DEGASSING	Naphthalene	91-20-3	0.0022	0.000012	182	3.19E-08	1.53E-06
70238	TANK DEGASSING	1,2-Dichlorobenzene	95-50-1	0.0027	0.000015	182	3.90E-08	1.88E-06
70238	TANK DEGASSING	Ethyl benzene	100-41-4	0.0909	0.000500	182	1.31E-06	6.29E-05
70238	TANK DEGASSING	Acrolein	107-02-8	0.0966	0.000531	182	1.39E-06	6.69E-05
70238	TANK DEGASSING	Toluene	108-88-3	0.8524	0.004683	182	1.23E-05	5.90E-04
70238	TANK DEGASSING	Phenol	108-95-2	0.0227	0.000125	182	3.27E-07	1.57E-05
70238	TANK DEGASSING	Hexane	110-54-3	4.0690	0.022357	182	5.85E-05	2.82E-03
70238	TANK DEGASSING	Propylene	115-07-1	0.8524	0.004683	182	1.23E-05	5.90E-04
70238	TANK DEGASSING	Xylenes (mixed isomers)	1330-20-7	0.1421	0.000781	182	2.04E-06	9.83E-05
70238	TANK DEGASSING	Manganese compounds	7439-96-5	0.0278	0.000153	182	4.00E-07	1.93E-05
70238	TANK DEGASSING	Mercury compounds	7439-97-6	0.0010	0.000006	182	1.47E-08	7.08E-07
70238	TANK DEGASSING	Nickel compounds	7440-02-0	0.0426	0.000234	182	6.13E-07	2.95E-05
70238	TANK DEGASSING	Silver compounds	7440-22-4	0.0091	0.000050	182	1.31E-07	6.29E-06
70238	TANK DEGASSING	Antimony	7440-36-0	0.0030	0.000016	182	4.25E-08	2.05E-06
70238	TANK DEGASSING	Arsenic	7440-38-2	0.0041	0.000022	182	5.88E-08	2.83E-06
70238	TANK DEGASSING	Barium	7440-39-3	0.0099	0.000055	182	1.43E-07	6.89E-06
70238	TANK DEGASSING	Beryllium	7440-41-7	0.0007	0.000004	182	1.06E-08	5.11E-07
70238	TANK DEGASSING	Cadmium	7440-43-9	0.0085	0.000047	182	1.23E-07	5.90E-06
70238	TANK DEGASSING	Chromium compounds	7440-47-3	0.0324	0.000178	182	4.66E-07	2.24E-05
70238	TANK DEGASSING	Copper compounds	7440-50-8	0.0267	0.000147	182	3.84E-07	1.85E-05
70238	TANK DEGASSING	Vanadium compounds	7440-62-2	0.0052	0.000029	182	7.48E-08	3.60E-06
70238	TANK DEGASSING	Zinc compounds	7440-66-6	0.0656	0.000360	182	9.43E-07	4.54E-05
70238	TANK DEGASSING	Selenium compounds	7782-49-2	0.0050	0.000027	182	7.19E-08	3.46E-06
70238	TANK DEGASSING	Hydrogen sulfide	7783-06-4	0.4830	0.002654	182	6.95E-06	3.34E-04
70239	CATALYST	Molybdenum trioxide	1313-27-5	70.9367	0.008098	8,760	1.02E-03	1.02E-03

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70239	CATALYST	Nickel compounds	7440-02-0	17.9685	0.002051	8,760	2.58E-04	2.58E-04
70239	CATALYST	Cobalt compounds	7440-48-4	2.1053	0.000240	8,760	3.03E-05	3.03E-05
70239	CATALYST	Zinc compounds	7440-66-6	56.7868	0.006483	8,760	8.17E-04	8.17E-04
70240	TANK 349	Benzene	71-43-2	8.1633	0.000932	8,760	1.17E-04	1.17E-04
70240	TANK 349	Naphthalene	91-20-3	7.4531	0.000851	8,760	1.07E-04	1.07E-04
70240	TANK 349	1,2,4-Trimethylbenzene	95-63-6	53.7474	0.006136	8,760	7.73E-04	7.73E-04
70240	TANK 349	Cumene	98-82-8	2.0940	0.000239	8,760	3.01E-05	3.01E-05
70240	TANK 349	Ethyl benzene	100-41-4	18.2370	0.002082	8,760	2.62E-04	2.62E-04
70240	TANK 349	Toluene	108-88-3	43.4133	0.004956	8,760	6.24E-04	6.24E-04
70240	TANK 349	Hexane	110-54-3	77.7405	0.008874	8,760	1.12E-03	1.12E-03
70240	TANK 349	Cyclohexane	110-82-7	40.2088	0.004590	8,760	5.78E-04	5.78E-04
70240	TANK 349	Propylene	115-07-1	17.8699	0.002040	8,760	2.57E-04	2.57E-04
70240	TANK 349	Xylenes (mixed isomers)	1330-20-7	98.2463	0.011215	8,760	1.41E-03	1.41E-03
70240	TANK 349	Methyl tert-butyl ether	1634-04-4	5.1440	0.000587	8,760	7.40E-05	7.40E-05
70241	PEABODY HEATER	Lead compounds	1128	0.2415	0.048302	5	3.47E-06	6.09E-03
70241	PEABODY HEATER	Formaldehyde	50-00-0	10.2015	2.040308	5	1.47E-04	2.57E-01
70241	PEABODY HEATER	Benzene	71-43-2	0.1280	0.025606	5	1.84E-06	3.23E-03
70241	PEABODY HEATER	Acetaldehyde	75-07-0	10.2015	2.040308	5	1.47E-04	2.57E-01
70241	PEABODY HEATER	Phenanthrene (PAHs)	85-01-8	0.0563	0.011259	5	8.10E-07	1.42E-03
70241	PEABODY HEATER	Naphthalene	91-20-3	0.1542	0.030843	5	2.22E-06	3.89E-03
70241	PEABODY HEATER	Ethyl benzene	100-41-4	0.0058	0.001164	5	8.37E-08	1.47E-04
70241	PEABODY HEATER	1,3-Butadiene	106-99-0	0.4306	0.086128	5	6.19E-06	1.09E-02
70241	PEABODY HEATER	Acrolein	107-02-8	10.2015	2.040308	5	1.47E-04	2.57E-01
70241	PEABODY HEATER	Toluene	108-88-3	0.1280	0.025606	5	1.84E-06	3.23E-03
70241	PEABODY HEATER	Chlorobenzene	108-90-7	0.0058	0.001164	5	8.37E-08	1.47E-04
70241	PEABODY HEATER	Hexane	110-54-3	0.1018	0.020368	5	1.46E-06	2.57E-03
70241	PEABODY HEATER	Propylene	115-07-1	0.2910	0.058195	5	4.19E-06	7.33E-03
70241	PEABODY HEATER	Anthracene	120-12-7	0.0563	0.011259	5	8.10E-07	1.42E-03
70241	PEABODY HEATER	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0563	0.011259	5	8.10E-07	1.42E-03
70241	PEABODY HEATER	Xylenes (mixed isomers)	1330-20-7	0.0466	0.009311	5	6.70E-07	1.17E-03
70241	PEABODY HEATER	Manganese compounds	7439-96-5	0.0902	0.018040	5	1.30E-06	2.27E-03
70241	PEABODY HEATER	Mercury compounds	7439-97-6	0.0582	0.011639	5	8.37E-07	1.47E-03
70241	PEABODY HEATER	Nickel compounds	7440-02-0	0.1135	0.022696	5	1.63E-06	2.86E-03

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70241	PEABODY HEATER	Arsenic	7440-38-2	0.0466	0.009311	5	6.70E-07	1.17E-03
70241	PEABODY HEATER	Cadmium	7440-43-9	0.0436	0.008729	5	6.28E-07	1.10E-03
70241	PEABODY HEATER	Chromium compounds	7440-47-3	0.0175	0.003492	5	2.51E-07	4.40E-04
70241	PEABODY HEATER	Copper compounds	7440-50-8	0.1193	0.023860	5	1.72E-06	3.01E-03
70241	PEABODY HEATER	Zinc compounds	7440-66-6	0.6518	0.130356	5	9.37E-06	1.64E-02
70241	PEABODY HEATER	Hydrochloric acid	7647-01-0	5.4208	1.084168	5	7.80E-05	1.37E-01
70241	PEABODY HEATER	Ammonia	7664-41-7	23.2779	4.655580	5	3.35E-04	5.87E-01
70241	PEABODY HEATER	Sulfuric acid	7664-93-9	8.0414	0.402068	20	1.16E-04	5.07E-02
70241	PEABODY HEATER	Selenium compounds	7782-49-2	0.0640	0.012803	5	9.21E-07	1.61E-03
70241	PEABODY HEATER	Chromium, hexavalent	18540-29-9	0.0029	0.000582	5	4.19E-08	7.33E-05
70242	U100 CAT REGEN	Dioxins, total, w/o Inc. isomers	1086	0.0000	0.000000	6,972	2.78E-12	3.50E-12
70242	U100 CAT REGEN	Hydrochloric acid	7647-01-0	1.0927	0.000157	6,972	1.57E-05	1.97E-05
70243	CLEANOUT SUMPS	Benzene	71-43-2	15.7219	0.001795	8,760	2.26E-04	2.26E-04
70243	CLEANOUT SUMPS	Naphthalene	91-20-3	0.0821	0.000009	8,760	1.18E-06	1.18E-06
70243	CLEANOUT SUMPS	1,2,4-Trimethylbenzene	95-63-6	2.7735	0.000317	8,760	3.99E-05	3.99E-05
70243	CLEANOUT SUMPS	Cumene	98-82-8	0.2608	0.000030	8,760	3.75E-06	3.75E-06
70243	CLEANOUT SUMPS	Ethyl benzene	100-41-4	4.6150	0.000527	8,760	6.64E-05	6.64E-05
70243	CLEANOUT SUMPS	Toluene	108-88-3	30.1822	0.003445	8,760	4.34E-04	4.34E-04
70243	CLEANOUT SUMPS	Hexane	110-54-3	207.1743	0.023650	8,760	2.98E-03	2.98E-03
70243	CLEANOUT SUMPS	Cyclohexane	110-82-7	79.1700	0.009038	8,760	1.14E-03	1.14E-03
70243	CLEANOUT SUMPS	Propylene	115-07-1	124.4825	0.014210	8,760	1.79E-03	1.79E-03
70243	CLEANOUT SUMPS	Xylenes (mixed isomers)	1330-20-7	19.3701	0.002211	8,760	2.79E-04	2.79E-04
70244	WELDING	Manganese compounds	7439-96-5	4.7587	0.002288	2,080	6.84E-05	2.88E-04
70244	WELDING	Nickel compounds	7440-02-0	7.6101	0.003659	2,080	1.09E-04	4.61E-04
70244	WELDING	Chromium compounds	7440-47-3	2.6536	0.001276	2,080	3.82E-05	1.61E-04
70244	WELDING	Cobalt compounds	7440-48-4	0.0021	0.000001	2,080	3.02E-08	1.27E-07
70244	WELDING	Copper compounds	7440-50-8	0.3221	0.000155	2,080	4.63E-06	1.95E-05
70244	WELDING	Chromium, hexavalent	18540-29-9	0.1326	0.000064	2,080	1.91E-06	8.03E-06
70245	ABRASIVE BLASTING	Lead	7439-92-1	0.0117	0.000006	2,080	1.69E-07	7.12E-07
70245	ABRASIVE BLASTING	Manganese compounds	7439-96-5	0.0049	0.000002	2,080	7.01E-08	2.95E-07
70245	ABRASIVE BLASTING	Nickel compounds	7440-02-0	0.0049	0.000002	2,080	7.01E-08	2.95E-07
70245	ABRASIVE BLASTING	Cadmium	7440-43-9	0.0025	0.000001	2,080	3.64E-08	1.53E-07
70245	ABRASIVE BLASTING	Chromium compounds	7440-47-3	0.0075	0.000004	2,080	1.07E-07	4.51E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70246	NON-PERMITTED ICE'S - NG	Lead compounds	1128	0.0152	0.000002	8,760	2.19E-07	2.19E-07
70246	NON-PERMITTED ICE'S - NG	Formaldehyde	50-00-0	0.0469	0.000005	8,760	6.74E-07	6.74E-07
70246	NON-PERMITTED ICE'S - NG	Benzene	71-43-2	0.0221	0.000003	8,760	3.18E-07	3.18E-07
70246	NON-PERMITTED ICE'S - NG	Acetaldehyde	75-07-0	0.0118	0.000001	8,760	1.70E-07	1.70E-07
70246	NON-PERMITTED ICE'S - NG	Ethyl benzene	100-41-4	0.0263	0.000003	8,760	3.78E-07	3.78E-07
70246	NON-PERMITTED ICE'S - NG	Acrolein	107-02-8	0.0103	0.000001	8,760	1.48E-07	1.48E-07
70246	NON-PERMITTED ICE'S - NG	Toluene	108-88-3	0.1010	0.000012	8,760	1.45E-06	1.45E-06
70246	NON-PERMITTED ICE'S - NG	Phenol	108-95-2	0.0160	0.000002	8,760	2.30E-07	2.30E-07
70246	NON-PERMITTED ICE'S - NG	Hexane	110-54-3	0.0175	0.000002	8,760	2.52E-07	2.52E-07
70246	NON-PERMITTED ICE'S - NG	Propylene	115-07-1	2.0196	0.000231	8,760	2.90E-05	2.90E-05
70246	NON-PERMITTED ICE'S - NG	Xylenes (mixed isomers)	1330-20-7	0.0751	0.000009	8,760	1.08E-06	1.08E-06
70246	NON-PERMITTED ICE'S - NG	Manganese compounds	7439-96-5	0.0196	0.000002	8,760	2.82E-07	2.82E-07
70246	NON-PERMITTED ICE'S - NG	Nickel compounds	7440-02-0	0.0300	0.000003	8,760	4.32E-07	4.32E-07
70246	NON-PERMITTED ICE'S - NG	Silver compounds	7440-22-4	0.0064	0.000001	8,760	9.21E-08	9.21E-08
70246	NON-PERMITTED ICE'S - NG	Thallium	7440-28-0	0.0232	0.000003	8,760	3.34E-07	3.34E-07
70246	NON-PERMITTED ICE'S - NG	Barium	7440-39-3	0.0232	0.000003	8,760	3.34E-07	3.34E-07
70246	NON-PERMITTED ICE'S - NG	Cadmium	7440-43-9	0.0060	0.000001	8,760	8.63E-08	8.63E-08
70246	NON-PERMITTED ICE'S - NG	Chromium compounds	7440-47-3	0.0228	0.000003	8,760	3.28E-07	3.28E-07
70246	NON-PERMITTED ICE'S - NG	Copper compounds	7440-50-8	0.0188	0.000002	8,760	2.70E-07	2.70E-07
70246	NON-PERMITTED ICE'S - NG	Zinc compounds	7440-66-6	0.2121	0.000024	8,760	3.05E-06	3.05E-06
70246	NON-PERMITTED ICE'S - NG	Ammonia	7664-41-7	12.1939	0.001392	8,760	1.75E-04	1.75E-04
70247	NON-PERMITTED ICE'S - PROPANE	Fluorocarbons (chlorinated)	1104	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	PAHs, total, w/o indiv. comp.	1151	0.2015	0.000023	8,760	2.90E-06	2.90E-06
70247	NON-PERMITTED ICE'S - PROPANE	Formaldehyde	50-00-0	422.0331	0.048177	8,760	6.07E-03	6.07E-03
70247	NON-PERMITTED ICE'S - PROPANE	Methanol	67-56-1	19.9826	0.002281	8,760	2.87E-04	2.87E-04
70247	NON-PERMITTED ICE'S - PROPANE	n-Butyl alcohol	71-36-3	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Benzene	71-43-2	3.5169	0.000401	8,760	5.06E-05	5.06E-05
70247	NON-PERMITTED ICE'S - PROPANE	Methyl bromide	74-83-9	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Ethylene	74-85-1	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Hydrocyanic acid	74-90-8	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Acetaldehyde	75-07-0	66.8219	0.007628	8,760	9.61E-04	9.61E-04
70247	NON-PERMITTED ICE'S - PROPANE	Carbon disulfide	75-15-0	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Trichlorofluoromethane {Freon 11}	75-69-4	0.0013	0.000000	8,760	1.91E-08	1.91E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70247	NON-PERMITTED ICE'S - PROPANE	Cumene hydroperoxide	80-15-9	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Phenanthrene (PAHs)	85-01-8	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Naphthalene	91-20-3	0.5947	0.000068	8,760	8.55E-06	8.55E-06
70247	NON-PERMITTED ICE'S - PROPANE	Benzidine	92-87-5	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	1,2,4-Trimethylbenzene	95-63-6	0.1143	0.000013	8,760	1.64E-06	1.64E-06
70247	NON-PERMITTED ICE'S - PROPANE	Cumene	98-82-8	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Ethyl benzene	100-41-4	0.3173	0.000036	8,760	4.56E-06	4.56E-06
70247	NON-PERMITTED ICE'S - PROPANE	Styrene	100-42-5	0.1886	0.000022	8,760	2.71E-06	2.71E-06
70247	NON-PERMITTED ICE'S - PROPANE	1,3-Butadiene	106-99-0	2.1341	0.000244	8,760	3.07E-05	3.07E-05
70247	NON-PERMITTED ICE'S - PROPANE	Acrolein	107-02-8	41.0843	0.004690	8,760	5.91E-04	5.91E-04
70247	NON-PERMITTED ICE'S - PROPANE	Ethylene glycol	107-21-1	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Toluene	108-88-3	3.2612	0.000372	8,760	4.69E-05	4.69E-05
70247	NON-PERMITTED ICE'S - PROPANE	Chlorobenzene	108-90-7	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Phenol	108-95-2	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Hexane	110-54-3	8.8723	0.001013	8,760	1.28E-04	1.28E-04
70247	NON-PERMITTED ICE'S - PROPANE	Cyclohexane	110-82-7	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Diethanolamine	111-42-2	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Propylene	115-07-1	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Anthracene	120-12-7	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Hydroquinone	123-31-9	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Molybdenum trioxide	1313-27-5	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Cresol (mixed isomers)	1319-77-3	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Xylenes (mixed isomers)	1330-20-7	1.4707	0.000168	8,760	2.12E-05	2.12E-05
70247	NON-PERMITTED ICE'S - PROPANE	Aluminum	7429-90-5	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Silver compounds	7440-22-4	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Thallium	7440-28-0	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Antimony	7440-36-0	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Barium	7440-39-3	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Chromium compounds	7440-47-3	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Cobalt compounds	7440-48-4	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Vanadium compounds	7440-62-2	0.0013	0.000000	8,760	1.91E-08	1.91E-08
70247	NON-PERMITTED ICE'S - PROPANE	Zinc compounds	7440-66-6	0.0013	0.000000	8,760	1.91E-08	1.91E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70247	NON-PERMITTED ICE'S - PROPANE	Ammonia	7664-41-7	26.4963	0.003025	8,760	3.81E-04	3.81E-04
70248	BLOCK 35 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	170.0349	0.019410	8,760	2.45E-03	2.45E-03
70249	BLOCK 45 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	14.7972	0.001689	8,760	2.13E-04	2.13E-04
70250	BLOCK 17 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	30.6209	0.003496	8,760	4.40E-04	4.40E-04
70251	BLOCK 7 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	47.2428	0.005393	8,760	6.80E-04	6.80E-04
70252	BLOCK 34 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	5.3589	0.000612	8,760	7.71E-05	7.71E-05
70253	BLOCK 36 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	5.1243	0.000585	8,760	7.37E-05	7.37E-05
70255	BLOCK 33 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	3.1316	0.000357	8,760	4.50E-05	4.50E-05
70256	BLOCK 26 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	0.3123	0.000036	8,760	4.49E-06	4.49E-06
70257	BLOCK 43 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	4.6812	0.000534	8,760	6.73E-05	6.73E-05
70258	BLOCK 66 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	0.0666	0.000008	8,760	9.58E-07	9.58E-07
70259	BLOCK 5 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	8.3000	0.000947	8,760	1.19E-04	1.19E-04
70260	BLOCK 44 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	23.7587	0.002712	8,760	3.42E-04	3.42E-04
70261	BLOCK 46 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	5.2170	0.000596	8,760	7.50E-05	7.50E-05
70262	BLOCK 11 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	0.8459	0.000097	8,760	1.22E-05	1.22E-05
70263	BLOCK 56 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	0.9114	0.000104	8,760	1.31E-05	1.31E-05
70264	BLOCK 16 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	12.5400	0.001432	8,760	1.80E-04	1.80E-04
70265	BLOCK 78 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	0.8459	0.000097	8,760	1.22E-05	1.22E-05
70266	BLOCK 37 - NON-PER ICES - DIESEL	Diesel exhaust particulates	9901	1.1165	0.000127	8,760	1.61E-05	1.61E-05
70267	U100 H-100 HTR SOUTH	Lead compounds	1128	0.2047	0.000029	6,972	2.94E-06	3.70E-06
70267	U100 H-100 HTR SOUTH	Formaldehyde	50-00-0	25.3076	0.003630	6,972	3.64E-04	4.57E-04
70267	U100 H-100 HTR SOUTH	Benzo(a)pyrene	50-32-8	0.0137	0.000002	6,972	1.96E-07	2.47E-07
70267	U100 H-100 HTR SOUTH	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0004	0.000000	6,972	5.17E-09	6.50E-09
70267	U100 H-100 HTR SOUTH	Benz(a)anthracene (PAHs)	56-55-3	0.0053	0.000001	6,972	7.58E-08	9.53E-08
70267	U100 H-100 HTR SOUTH	Benzene	71-43-2	3.4979	0.000502	6,972	5.03E-05	6.32E-05
70267	U100 H-100 HTR SOUTH	Acetaldehyde	75-07-0	61.4152	0.008809	6,972	8.83E-04	1.11E-03
70267	U100 H-100 HTR SOUTH	Acenaphthene (PAHs)	83-32-9	0.0008	0.000000	6,972	1.16E-08	1.46E-08
70267	U100 H-100 HTR SOUTH	Phenanthrene (PAHs)	85-01-8	0.0062	0.000001	6,972	8.86E-08	1.11E-07
70267	U100 H-100 HTR SOUTH	Fluorene (PAHs)	86-73-7	0.0011	0.000000	6,972	1.65E-08	2.07E-08
70267	U100 H-100 HTR SOUTH	Naphthalene	91-20-3	0.1198	0.000017	6,972	1.72E-06	2.16E-06
70267	U100 H-100 HTR SOUTH	2-Methyl naphthalene (PAHs)	91-57-6	0.0029	0.000000	6,972	4.20E-08	5.27E-08
70267	U100 H-100 HTR SOUTH	Ethyl benzene	100-41-4	0.9913	0.000142	6,972	1.43E-05	1.79E-05
70267	U100 H-100 HTR SOUTH	Acrolein	107-02-8	4.0741	0.000584	6,972	5.86E-05	7.36E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70267	U100 H-100 HTR SOUTH	Toluene	108-88-3	6.7800	0.000972	6,972	9.75E-05	1.23E-04
70267	U100 H-100 HTR SOUTH	Phenol	108-95-2	0.9586	0.000137	6,972	1.38E-05	1.73E-05
70267	U100 H-100 HTR SOUTH	Propylene	115-07-1	35.9478	0.005156	6,972	5.17E-04	6.50E-04
70267	U100 H-100 HTR SOUTH	Anthracene	120-12-7	0.0006	0.000000	6,972	8.62E-09	1.08E-08
70267	U100 H-100 HTR SOUTH	Pyrene	129-00-0	0.0039	0.000001	6,972	5.68E-08	7.14E-08
70267	U100 H-100 HTR SOUTH	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0003	0.000000	6,972	3.82E-09	4.81E-09
70267	U100 H-100 HTR SOUTH	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0170	0.000002	6,972	2.45E-07	3.07E-07
70267	U100 H-100 HTR SOUTH	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0065	0.000001	6,972	9.31E-08	1.17E-07
70267	U100 H-100 HTR SOUTH	Fluoranthene (PAHs)	206-44-0	0.0037	0.000001	6,972	5.33E-08	6.70E-08
70267	U100 H-100 HTR SOUTH	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0041	0.000001	6,972	5.86E-08	7.36E-08
70267	U100 H-100 HTR SOUTH	Acenaphthylene (PAHs)	208-96-8	0.0154	0.000002	6,972	2.21E-07	2.78E-07
70267	U100 H-100 HTR SOUTH	Chrysene (PAHs)	218-01-9	0.0004	0.000000	6,972	5.52E-09	6.93E-09
70267	U100 H-100 HTR SOUTH	Xylenes (mixed isomers)	1330-20-7	12.0251	0.001725	6,972	1.73E-04	2.17E-04
70267	U100 H-100 HTR SOUTH	Aluminum	7429-90-5	3.5543	0.000510	6,972	5.11E-05	6.42E-05
70267	U100 H-100 HTR SOUTH	Manganese compounds	7439-96-5	1.0010	0.000144	6,972	1.44E-05	1.81E-05
70267	U100 H-100 HTR SOUTH	Mercury compounds	7439-97-6	0.0047	0.000001	6,972	6.79E-08	8.54E-08
70267	U100 H-100 HTR SOUTH	Nickel compounds	7440-02-0	2.5791	0.000370	6,972	3.71E-05	4.66E-05
70267	U100 H-100 HTR SOUTH	Silver compounds	7440-22-4	0.0060	0.000001	6,972	8.60E-08	1.08E-07
70267	U100 H-100 HTR SOUTH	Thallium	7440-28-0	1.3900	0.000199	6,972	2.00E-05	2.51E-05
70267	U100 H-100 HTR SOUTH	Antimony	7440-36-0	0.0020	0.000000	6,972	2.92E-08	3.67E-08
70267	U100 H-100 HTR SOUTH	Arsenic	7440-38-2	0.0074	0.000001	6,972	1.06E-07	1.33E-07
70267	U100 H-100 HTR SOUTH	Barium	7440-39-3	1.2976	0.000186	6,972	1.87E-05	2.35E-05
70267	U100 H-100 HTR SOUTH	Beryllium	7440-41-7	0.0312	0.000004	6,972	4.48E-07	5.63E-07
70267	U100 H-100 HTR SOUTH	Cadmium	7440-43-9	0.0177	0.000003	6,972	2.55E-07	3.20E-07
70267	U100 H-100 HTR SOUTH	Chromium compounds	7440-47-3	0.0480	0.000007	6,972	6.91E-07	8.68E-07
70267	U100 H-100 HTR SOUTH	Cobalt compounds	7440-48-4	0.0559	0.000008	6,972	8.05E-07	1.01E-06
70267	U100 H-100 HTR SOUTH	Copper compounds	7440-50-8	0.6416	0.000092	6,972	9.23E-06	1.16E-05
70267	U100 H-100 HTR SOUTH	Vanadium compounds	7440-62-2	0.0116	0.000002	6,972	1.67E-07	2.10E-07
70267	U100 H-100 HTR SOUTH	Zinc compounds	7440-66-6	0.9833	0.000141	6,972	1.41E-05	1.78E-05
70267	U100 H-100 HTR SOUTH	Ammonia	7664-41-7	58.6749	0.008416	6,972	8.44E-04	1.06E-03
70267	U100 H-100 HTR SOUTH	Sulfuric acid	7664-93-9	74.7224	0.002679	8,760	1.07E-03	3.38E-04
70267	U100 H-100 HTR SOUTH	Phosphorus	7723-14-0	0.5041	0.000072	6,972	7.25E-06	9.11E-06
70267	U100 H-100 HTR SOUTH	Selenium compounds	7782-49-2	0.0065	0.000001	6,972	9.32E-08	1.17E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70267	U100 H-100 HTR SOUTH	Hydrogen sulfide	7783-06-4	0.2887	0.000041	6,972	4.15E-06	5.22E-06
70268	U100 H-101 HTR SOUTH	Lead compounds	1128	0.1349	0.000019	6,972	1.94E-06	2.44E-06
70268	U100 H-101 HTR SOUTH	Formaldehyde	50-00-0	16.6814	0.002393	6,972	2.40E-04	3.01E-04
70268	U100 H-101 HTR SOUTH	Benzo(a)pyrene	50-32-8	0.0090	0.000001	6,972	1.30E-07	1.63E-07
70268	U100 H-101 HTR SOUTH	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	6,972	3.41E-09	4.28E-09
70268	U100 H-101 HTR SOUTH	Benz(a)anthracene (PAHs)	56-55-3	0.0035	0.000000	6,972	5.00E-08	6.28E-08
70268	U100 H-101 HTR SOUTH	Benzene	71-43-2	2.3056	0.000331	6,972	3.32E-05	4.17E-05
70268	U100 H-101 HTR SOUTH	Acetaldehyde	75-07-0	40.4817	0.005806	6,972	5.82E-04	7.32E-04
70268	U100 H-101 HTR SOUTH	Acenaphthene (PAHs)	83-32-9	0.0005	0.000000	6,972	7.64E-09	9.60E-09
70268	U100 H-101 HTR SOUTH	Phenanthrene (PAHs)	85-01-8	0.0041	0.000001	6,972	5.84E-08	7.34E-08
70268	U100 H-101 HTR SOUTH	Fluorene (PAHs)	86-73-7	0.0008	0.000000	6,972	1.09E-08	1.37E-08
70268	U100 H-101 HTR SOUTH	Naphthalene	91-20-3	0.0789	0.000011	6,972	1.14E-06	1.43E-06
70268	U100 H-101 HTR SOUTH	2-Methyl naphthalene (PAHs)	91-57-6	0.0019	0.000000	6,972	2.77E-08	3.48E-08
70268	U100 H-101 HTR SOUTH	Ethyl benzene	100-41-4	0.6534	0.000094	6,972	9.40E-06	1.18E-05
70268	U100 H-101 HTR SOUTH	Acrolein	107-02-8	2.6854	0.000385	6,972	3.86E-05	4.85E-05
70268	U100 H-101 HTR SOUTH	Toluene	108-88-3	4.4690	0.000641	6,972	6.43E-05	8.08E-05
70268	U100 H-101 HTR SOUTH	Phenol	108-95-2	0.6319	0.000091	6,972	9.09E-06	1.14E-05
70268	U100 H-101 HTR SOUTH	Propylene	115-07-1	23.6949	0.003399	6,972	3.41E-04	4.28E-04
70268	U100 H-101 HTR SOUTH	Anthracene	120-12-7	0.0004	0.000000	6,972	5.69E-09	7.14E-09
70268	U100 H-101 HTR SOUTH	Pyrene	129-00-0	0.0026	0.000000	6,972	3.74E-08	4.70E-08
70268	U100 H-101 HTR SOUTH	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	6,972	2.52E-09	3.17E-09
70268	U100 H-101 HTR SOUTH	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0112	0.000002	6,972	1.61E-07	2.03E-07
70268	U100 H-101 HTR SOUTH	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0043	0.000001	6,972	6.13E-08	7.71E-08
70268	U100 H-101 HTR SOUTH	Fluoranthene (PAHs)	206-44-0	0.0024	0.000000	6,972	3.51E-08	4.42E-08
70268	U100 H-101 HTR SOUTH	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0027	0.000000	6,972	3.86E-08	4.85E-08
70268	U100 H-101 HTR SOUTH	Acenaphthylene (PAHs)	208-96-8	0.0101	0.000001	6,972	1.46E-07	1.83E-07
70268	U100 H-101 HTR SOUTH	Chrysene (PAHs)	218-01-9	0.0003	0.000000	6,972	3.64E-09	4.57E-09
70268	U100 H-101 HTR SOUTH	Xylenes (mixed isomers)	1330-20-7	7.9263	0.001137	6,972	1.14E-04	1.43E-04
70268	U100 H-101 HTR SOUTH	Aluminum	7429-90-5	2.3428	0.000336	6,972	3.37E-05	4.23E-05
70268	U100 H-101 HTR SOUTH	Manganese compounds	7439-96-5	0.6598	0.000095	6,972	9.49E-06	1.19E-05
70268	U100 H-101 HTR SOUTH	Mercury compounds	7439-97-6	0.0031	0.000000	6,972	4.48E-08	5.63E-08
70268	U100 H-101 HTR SOUTH	Nickel compounds	7440-02-0	1.7000	0.000244	6,972	2.45E-05	3.07E-05
70268	U100 H-101 HTR SOUTH	Silver compounds	7440-22-4	0.0039	0.000001	6,972	5.67E-08	7.12E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70268	U100 H-101 HTR SOUTH	Thallium	7440-28-0	0.9162	0.000131	6,972	1.32E-05	1.66E-05
70268	U100 H-101 HTR SOUTH	Antimony	7440-36-0	0.0013	0.000000	6,972	1.93E-08	2.42E-08
70268	U100 H-101 HTR SOUTH	Arsenic	7440-38-2	0.0048	0.000001	6,972	6.97E-08	8.76E-08
70268	U100 H-101 HTR SOUTH	Barium	7440-39-3	0.8553	0.000123	6,972	1.23E-05	1.55E-05
70268	U100 H-101 HTR SOUTH	Beryllium	7440-41-7	0.0205	0.000003	6,972	2.95E-07	3.71E-07
70268	U100 H-101 HTR SOUTH	Cadmium	7440-43-9	0.0117	0.000002	6,972	1.68E-07	2.11E-07
70268	U100 H-101 HTR SOUTH	Chromium compounds	7440-47-3	0.0317	0.000005	6,972	4.55E-07	5.72E-07
70268	U100 H-101 HTR SOUTH	Cobalt compounds	7440-48-4	0.0369	0.000005	6,972	5.30E-07	6.66E-07
70268	U100 H-101 HTR SOUTH	Copper compounds	7440-50-8	0.4229	0.000061	6,972	6.08E-06	7.64E-06
70268	U100 H-101 HTR SOUTH	Vanadium compounds	7440-62-2	0.0077	0.000001	6,972	1.10E-07	1.39E-07
70268	U100 H-101 HTR SOUTH	Zinc compounds	7440-66-6	0.6481	0.000093	6,972	9.32E-06	1.17E-05
70268	U100 H-101 HTR SOUTH	Ammonia	7664-41-7	38.6754	0.005547	6,972	5.56E-04	6.99E-04
70268	U100 H-101 HTR SOUTH	Sulfuric acid	7664-93-9	48.6662	0.001745	8,760	7.00E-04	2.20E-04
70268	U100 H-101 HTR SOUTH	Phosphorus	7723-14-0	0.3322	0.000048	6,972	4.78E-06	6.00E-06
70268	U100 H-101 HTR SOUTH	Selenium compounds	7782-49-2	0.0043	0.000001	6,972	6.14E-08	7.72E-08
70268	U100 H-101 HTR SOUTH	Hydrogen sulfide	7783-06-4	0.1903	0.000027	6,972	2.74E-06	3.44E-06
70269	U100 H-102 HTR SOUTH	Lead compounds	1128	0.1056	0.000015	6,972	1.52E-06	1.91E-06
70269	U100 H-102 HTR SOUTH	Formaldehyde	50-00-0	13.0596	0.001873	6,972	1.88E-04	2.36E-04
70269	U100 H-102 HTR SOUTH	Benzo(a)pyrene	50-32-8	0.0070	0.000001	6,972	1.01E-07	1.27E-07
70269	U100 H-102 HTR SOUTH	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	6,972	2.67E-09	3.35E-09
70269	U100 H-102 HTR SOUTH	Benz(a)anthracene (PAHs)	56-55-3	0.0027	0.000000	6,972	3.91E-08	4.92E-08
70269	U100 H-102 HTR SOUTH	Benzene	71-43-2	1.8051	0.000259	6,972	2.60E-05	3.26E-05
70269	U100 H-102 HTR SOUTH	Acetaldehyde	75-07-0	31.6925	0.004546	6,972	4.56E-04	5.73E-04
70269	U100 H-102 HTR SOUTH	Acenaphthene (PAHs)	83-32-9	0.0004	0.000000	6,972	5.98E-09	7.52E-09
70269	U100 H-102 HTR SOUTH	Phenanthrene (PAHs)	85-01-8	0.0032	0.000000	6,972	4.57E-08	5.74E-08
70269	U100 H-102 HTR SOUTH	Fluorene (PAHs)	86-73-7	0.0006	0.000000	6,972	8.51E-09	1.07E-08
70269	U100 H-102 HTR SOUTH	Naphthalene	91-20-3	0.0618	0.000009	6,972	8.89E-07	1.12E-06
70269	U100 H-102 HTR SOUTH	2-Methyl naphthalene (PAHs)	91-57-6	0.0015	0.000000	6,972	2.17E-08	2.72E-08
70269	U100 H-102 HTR SOUTH	Ethyl benzene	100-41-4	0.5116	0.000073	6,972	7.36E-06	9.25E-06
70269	U100 H-102 HTR SOUTH	Acrolein	107-02-8	2.1024	0.000302	6,972	3.02E-05	3.80E-05
70269	U100 H-102 HTR SOUTH	Toluene	108-88-3	3.4987	0.000502	6,972	5.03E-05	6.32E-05
70269	U100 H-102 HTR SOUTH	Phenol	108-95-2	0.4947	0.000071	6,972	7.12E-06	8.94E-06
70269	U100 H-102 HTR SOUTH	Propylene	115-07-1	18.5504	0.002661	6,972	2.67E-04	3.35E-04

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70269	U100 H-102 HTR SOUTH	Anthracene	120-12-7	0.0003	0.000000	6,972	4.45E-09	5.59E-09
70269	U100 H-102 HTR SOUTH	Pyrene	129-00-0	0.0020	0.000000	6,972	2.93E-08	3.68E-08
70269	U100 H-102 HTR SOUTH	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	6,972	1.97E-09	2.48E-09
70269	U100 H-102 HTR SOUTH	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0088	0.000001	6,972	1.26E-07	1.59E-07
70269	U100 H-102 HTR SOUTH	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0033	0.000000	6,972	4.80E-08	6.03E-08
70269	U100 H-102 HTR SOUTH	Fluoranthene (PAHs)	206-44-0	0.0019	0.000000	6,972	2.75E-08	3.46E-08
70269	U100 H-102 HTR SOUTH	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0021	0.000000	6,972	3.02E-08	3.80E-08
70269	U100 H-102 HTR SOUTH	Acenaphthylene (PAHs)	208-96-8	0.0079	0.000001	6,972	1.14E-07	1.43E-07
70269	U100 H-102 HTR SOUTH	Chrysene (PAHs)	218-01-9	0.0002	0.000000	6,972	2.85E-09	3.58E-09
70269	U100 H-102 HTR SOUTH	Xylenes (mixed isomers)	1330-20-7	6.2054	0.000890	6,972	8.93E-05	1.12E-04
70269	U100 H-102 HTR SOUTH	Aluminum	7429-90-5	1.8342	0.000263	6,972	2.64E-05	3.31E-05
70269	U100 H-102 HTR SOUTH	Manganese compounds	7439-96-5	0.5166	0.000074	6,972	7.43E-06	9.34E-06
70269	U100 H-102 HTR SOUTH	Mercury compounds	7439-97-6	0.0024	0.000000	6,972	3.51E-08	4.40E-08
70269	U100 H-102 HTR SOUTH	Nickel compounds	7440-02-0	1.3309	0.000191	6,972	1.91E-05	2.41E-05
70269	U100 H-102 HTR SOUTH	Silver compounds	7440-22-4	0.0031	0.000000	6,972	4.44E-08	5.58E-08
70269	U100 H-102 HTR SOUTH	Thallium	7440-28-0	0.7173	0.000103	6,972	1.03E-05	1.30E-05
70269	U100 H-102 HTR SOUTH	Antimony	7440-36-0	0.0010	0.000000	6,972	1.51E-08	1.89E-08
70269	U100 H-102 HTR SOUTH	Arsenic	7440-38-2	0.0038	0.000001	6,972	5.46E-08	6.85E-08
70269	U100 H-102 HTR SOUTH	Barium	7440-39-3	0.6696	0.000096	6,972	9.63E-06	1.21E-05
70269	U100 H-102 HTR SOUTH	Beryllium	7440-41-7	0.0161	0.000002	6,972	2.31E-07	2.91E-07
70269	U100 H-102 HTR SOUTH	Cadmium	7440-43-9	0.0092	0.000001	6,972	1.32E-07	1.65E-07
70269	U100 H-102 HTR SOUTH	Chromium compounds	7440-47-3	0.0248	0.000004	6,972	3.57E-07	4.48E-07
70269	U100 H-102 HTR SOUTH	Cobalt compounds	7440-48-4	0.0289	0.000004	6,972	4.15E-07	5.22E-07
70269	U100 H-102 HTR SOUTH	Copper compounds	7440-50-8	0.3311	0.000047	6,972	4.76E-06	5.98E-06
70269	U100 H-102 HTR SOUTH	Vanadium compounds	7440-62-2	0.0060	0.000001	6,972	8.64E-08	1.09E-07
70269	U100 H-102 HTR SOUTH	Zinc compounds	7440-66-6	0.5074	0.000073	6,972	7.30E-06	9.17E-06
70269	U100 H-102 HTR SOUTH	Ammonia	7664-41-7	30.2784	0.004343	6,972	4.36E-04	5.47E-04
70269	U100 H-102 HTR SOUTH	Sulfuric acid	7664-93-9	39.2483	0.001407	8,760	5.65E-04	1.77E-04
70269	U100 H-102 HTR SOUTH	Phosphorus	7723-14-0	0.2601	0.000037	6,972	3.74E-06	4.70E-06
70269	U100 H-102 HTR SOUTH	Selenium compounds	7782-49-2	0.0033	0.000000	6,972	4.81E-08	6.04E-08
70269	U100 H-102 HTR SOUTH	Hydrogen sulfide	7783-06-4	0.1490	0.000021	6,972	2.14E-06	2.69E-06
70270	U100 H-103 HTR SOUTH	Lead compounds	1128	0.0738	0.000011	6,972	1.06E-06	1.33E-06
70270	U100 H-103 HTR SOUTH	Formaldehyde	50-00-0	9.1201	0.001308	6,972	1.31E-04	1.65E-04

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70270	U100 H-103 HTR SOUTH	Benzo(a)pyrene	50-32-8	0.0049	0.000001	6,972	7.08E-08	8.90E-08
70270	U100 H-103 HTR SOUTH	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0001	0.000000	6,972	1.86E-09	2.34E-09
70270	U100 H-103 HTR SOUTH	Benz(a)anthracene (PAHs)	56-55-3	0.0019	0.000000	6,972	2.73E-08	3.43E-08
70270	U100 H-103 HTR SOUTH	Benzene	71-43-2	1.2605	0.000181	6,972	1.81E-05	2.28E-05
70270	U100 H-103 HTR SOUTH	Acetaldehyde	75-07-0	22.1322	0.003174	6,972	3.18E-04	4.00E-04
70270	U100 H-103 HTR SOUTH	Acenaphthene (PAHs)	83-32-9	0.0003	0.000000	6,972	4.18E-09	5.25E-09
70270	U100 H-103 HTR SOUTH	Phenanthrene (PAHs)	85-01-8	0.0022	0.000000	6,972	3.19E-08	4.01E-08
70270	U100 H-103 HTR SOUTH	Fluorene (PAHs)	86-73-7	0.0004	0.000000	6,972	5.94E-09	7.46E-09
70270	U100 H-103 HTR SOUTH	Naphthalene	91-20-3	0.0432	0.000006	6,972	6.21E-07	7.80E-07
70270	U100 H-103 HTR SOUTH	2-Methyl naphthalene (PAHs)	91-57-6	0.0011	0.000000	6,972	1.51E-08	1.90E-08
70270	U100 H-103 HTR SOUTH	Ethyl benzene	100-41-4	0.3573	0.000051	6,972	5.14E-06	6.46E-06
70270	U100 H-103 HTR SOUTH	Acrolein	107-02-8	1.4682	0.000211	6,972	2.11E-05	2.65E-05
70270	U100 H-103 HTR SOUTH	Toluene	108-88-3	2.4433	0.000350	6,972	3.51E-05	4.42E-05
70270	U100 H-103 HTR SOUTH	Phenol	108-95-2	0.3455	0.000050	6,972	4.97E-06	6.24E-06
70270	U100 H-103 HTR SOUTH	Propylene	115-07-1	12.9545	0.001858	6,972	1.86E-04	2.34E-04
70270	U100 H-103 HTR SOUTH	Anthracene	120-12-7	0.0002	0.000000	6,972	3.11E-09	3.91E-09
70270	U100 H-103 HTR SOUTH	Pyrene	129-00-0	0.0014	0.000000	6,972	2.05E-08	2.57E-08
70270	U100 H-103 HTR SOUTH	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	6,972	1.38E-09	1.73E-09
70270	U100 H-103 HTR SOUTH	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0061	0.000001	6,972	8.82E-08	1.11E-07
70270	U100 H-103 HTR SOUTH	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0023	0.000000	6,972	3.35E-08	4.21E-08
70270	U100 H-103 HTR SOUTH	Fluoranthene (PAHs)	206-44-0	0.0013	0.000000	6,972	1.92E-08	2.41E-08
70270	U100 H-103 HTR SOUTH	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0015	0.000000	6,972	2.11E-08	2.65E-08
70270	U100 H-103 HTR SOUTH	Acenaphthylene (PAHs)	208-96-8	0.0055	0.000001	6,972	7.97E-08	1.00E-07
70270	U100 H-103 HTR SOUTH	Chrysene (PAHs)	218-01-9	0.0001	0.000000	6,972	1.99E-09	2.50E-09
70270	U100 H-103 HTR SOUTH	Xylenes (mixed isomers)	1330-20-7	4.3335	0.000622	6,972	6.23E-05	7.83E-05
70270	U100 H-103 HTR SOUTH	Aluminum	7429-90-5	1.2809	0.000184	6,972	1.84E-05	2.31E-05
70270	U100 H-103 HTR SOUTH	Manganese compounds	7439-96-5	0.3607	0.000052	6,972	5.19E-06	6.52E-06
70270	U100 H-103 HTR SOUTH	Mercury compounds	7439-97-6	0.0017	0.000000	6,972	2.45E-08	3.08E-08
70270	U100 H-103 HTR SOUTH	Nickel compounds	7440-02-0	0.9294	0.000133	6,972	1.34E-05	1.68E-05
70270	U100 H-103 HTR SOUTH	Silver compounds	7440-22-4	0.0022	0.000000	6,972	3.10E-08	3.89E-08
70270	U100 H-103 HTR SOUTH	Thallium	7440-28-0	0.5009	0.000072	6,972	7.20E-06	9.05E-06
70270	U100 H-103 HTR SOUTH	Antimony	7440-36-0	0.0007	0.000000	6,972	1.05E-08	1.32E-08
70270	U100 H-103 HTR SOUTH	Arsenic	7440-38-2	0.0026	0.000000	6,972	3.81E-08	4.79E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70270	U100 H-103 HTR SOUTH	Barium	7440-39-3	0.4676	0.000067	6,972	6.73E-06	8.45E-06
70270	U100 H-103 HTR SOUTH	Beryllium	7440-41-7	0.0112	0.000002	6,972	1.61E-07	2.03E-07
70270	U100 H-103 HTR SOUTH	Cadmium	7440-43-9	0.0064	0.000001	6,972	9.19E-08	1.15E-07
70270	U100 H-103 HTR SOUTH	Chromium compounds	7440-47-3	0.0173	0.000002	6,972	2.49E-07	3.13E-07
70270	U100 H-103 HTR SOUTH	Cobalt compounds	7440-48-4	0.0202	0.000003	6,972	2.90E-07	3.64E-07
70270	U100 H-103 HTR SOUTH	Copper compounds	7440-50-8	0.2312	0.000033	6,972	3.33E-06	4.18E-06
70270	U100 H-103 HTR SOUTH	Vanadium compounds	7440-62-2	0.0042	0.000001	6,972	6.03E-08	7.58E-08
70270	U100 H-103 HTR SOUTH	Zinc compounds	7440-66-6	0.3543	0.000051	6,972	5.10E-06	6.40E-06
70270	U100 H-103 HTR SOUTH	Ammonia	7664-41-7	21.1447	0.003033	6,972	3.04E-04	3.82E-04
70270	U100 H-103 HTR SOUTH	Sulfuric acid	7664-93-9	26.7569	0.000959	8,760	3.85E-04	1.21E-04
70270	U100 H-103 HTR SOUTH	Phosphorus	7723-14-0	0.1816	0.000026	6,972	2.61E-06	3.28E-06
70270	U100 H-103 HTR SOUTH	Selenium compounds	7782-49-2	0.0023	0.000000	6,972	3.36E-08	4.22E-08
70270	U100 H-103 HTR SOUTH	Hydrogen sulfide	7783-06-4	0.1040	0.000015	6,972	1.50E-06	1.88E-06
70271	U100 H-104 HTR SOUTH	Lead compounds	1128	0.0416	0.000006	6,972	5.98E-07	7.51E-07
70271	U100 H-104 HTR SOUTH	Formaldehyde	50-00-0	5.1378	0.000737	6,972	7.39E-05	9.28E-05
70271	U100 H-104 HTR SOUTH	Benzo(a)pyrene	50-32-8	0.0028	0.000000	6,972	3.99E-08	5.01E-08
70271	U100 H-104 HTR SOUTH	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0001	0.000000	6,972	1.05E-09	1.32E-09
70271	U100 H-104 HTR SOUTH	Benz(a)anthracene (PAHs)	56-55-3	0.0011	0.000000	6,972	1.54E-08	1.93E-08
70271	U100 H-104 HTR SOUTH	Benzene	71-43-2	0.7101	0.000102	6,972	1.02E-05	1.28E-05
70271	U100 H-104 HTR SOUTH	Acetaldehyde	75-07-0	12.4681	0.001788	6,972	1.79E-04	2.25E-04
70271	U100 H-104 HTR SOUTH	Acenaphthene (PAHs)	83-32-9	0.0002	0.000000	6,972	2.35E-09	2.96E-09
70271	U100 H-104 HTR SOUTH	Phenanthrene (PAHs)	85-01-8	0.0013	0.000000	6,972	1.80E-08	2.26E-08
70271	U100 H-104 HTR SOUTH	Fluorene (PAHs)	86-73-7	0.0002	0.000000	6,972	3.35E-09	4.20E-09
70271	U100 H-104 HTR SOUTH	Naphthalene	91-20-3	0.0243	0.000003	6,972	3.50E-07	4.39E-07
70271	U100 H-104 HTR SOUTH	2-Methyl naphthalene (PAHs)	91-57-6	0.0006	0.000000	6,972	8.52E-09	1.07E-08
70271	U100 H-104 HTR SOUTH	Ethyl benzene	100-41-4	0.2013	0.000029	6,972	2.89E-06	3.64E-06
70271	U100 H-104 HTR SOUTH	Acrolein	107-02-8	0.8271	0.000119	6,972	1.19E-05	1.49E-05
70271	U100 H-104 HTR SOUTH	Toluene	108-88-3	1.3764	0.000197	6,972	1.98E-05	2.49E-05
70271	U100 H-104 HTR SOUTH	Phenol	108-95-2	0.1946	0.000028	6,972	2.80E-06	3.52E-06
70271	U100 H-104 HTR SOUTH	Propylene	115-07-1	7.2979	0.001047	6,972	1.05E-04	1.32E-04
70271	U100 H-104 HTR SOUTH	Anthracene	120-12-7	0.0001	0.000000	6,972	1.75E-09	2.20E-09
70271	U100 H-104 HTR SOUTH	Pyrene	129-00-0	0.0008	0.000000	6,972	1.15E-08	1.45E-08
70271	U100 H-104 HTR SOUTH	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	6,972	7.76E-10	9.76E-10

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70271	U100 H-104 HTR SOUTH	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0035	0.000000	6,972	4.97E-08	6.24E-08
70271	U100 H-104 HTR SOUTH	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0013	0.000000	6,972	1.89E-08	2.37E-08
70271	U100 H-104 HTR SOUTH	Fluoranthene (PAHs)	206-44-0	0.0008	0.000000	6,972	1.08E-08	1.36E-08
70271	U100 H-104 HTR SOUTH	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0008	0.000000	6,972	1.19E-08	1.49E-08
70271	U100 H-104 HTR SOUTH	Acenaphthylene (PAHs)	208-96-8	0.0031	0.000000	6,972	4.49E-08	5.64E-08
70271	U100 H-104 HTR SOUTH	Chrysene (PAHs)	218-01-9	0.0001	0.000000	6,972	1.12E-09	1.41E-09
70271	U100 H-104 HTR SOUTH	Xylenes (mixed isomers)	1330-20-7	2.4413	0.000350	6,972	3.51E-05	4.41E-05
70271	U100 H-104 HTR SOUTH	Aluminum	7429-90-5	0.7216	0.000103	6,972	1.04E-05	1.30E-05
70271	U100 H-104 HTR SOUTH	Manganese compounds	7439-96-5	0.2032	0.000029	6,972	2.92E-06	3.67E-06
70271	U100 H-104 HTR SOUTH	Mercury compounds	7439-97-6	0.0010	0.000000	6,972	1.38E-08	1.73E-08
70271	U100 H-104 HTR SOUTH	Nickel compounds	7440-02-0	0.5236	0.000075	6,972	7.53E-06	9.46E-06
70271	U100 H-104 HTR SOUTH	Silver compounds	7440-22-4	0.0012	0.000000	6,972	1.75E-08	2.19E-08
70271	U100 H-104 HTR SOUTH	Thallium	7440-28-0	0.2822	0.000040	6,972	4.06E-06	5.10E-06
70271	U100 H-104 HTR SOUTH	Antimony	7440-36-0	0.0004	0.000000	6,972	5.93E-09	7.45E-09
70271	U100 H-104 HTR SOUTH	Arsenic	7440-38-2	0.0015	0.000000	6,972	2.15E-08	2.70E-08
70271	U100 H-104 HTR SOUTH	Barium	7440-39-3	0.2634	0.000038	6,972	3.79E-06	4.76E-06
70271	U100 H-104 HTR SOUTH	Beryllium	7440-41-7	0.0063	0.000001	6,972	9.10E-08	1.14E-07
70271	U100 H-104 HTR SOUTH	Cadmium	7440-43-9	0.0036	0.000001	6,972	5.18E-08	6.51E-08
70271	U100 H-104 HTR SOUTH	Chromium compounds	7440-47-3	0.0098	0.000001	6,972	1.40E-07	1.76E-07
70271	U100 H-104 HTR SOUTH	Cobalt compounds	7440-48-4	0.0114	0.000002	6,972	1.63E-07	2.05E-07
70271	U100 H-104 HTR SOUTH	Copper compounds	7440-50-8	0.1302	0.000019	6,972	1.87E-06	2.35E-06
70271	U100 H-104 HTR SOUTH	Vanadium compounds	7440-62-2	0.0024	0.000000	6,972	3.40E-08	4.27E-08
70271	U100 H-104 HTR SOUTH	Zinc compounds	7440-66-6	0.1996	0.000029	6,972	2.87E-06	3.61E-06
70271	U100 H-104 HTR SOUTH	Ammonia	7664-41-7	11.9118	0.001709	6,972	1.71E-04	2.15E-04
70271	U100 H-104 HTR SOUTH	Sulfuric acid	7664-93-9	15.2388	0.000546	8,760	2.19E-04	6.88E-05
70271	U100 H-104 HTR SOUTH	Phosphorus	7723-14-0	0.1023	0.000015	6,972	1.47E-06	1.85E-06
70271	U100 H-104 HTR SOUTH	Selenium compounds	7782-49-2	0.0013	0.000000	6,972	1.89E-08	2.38E-08
70271	U100 H-104 HTR SOUTH	Hydrogen sulfide	7783-06-4	0.0586	0.000008	6,972	8.43E-07	1.06E-06
70272	U80 B-101 (WEST)	Lead compounds	1128	0.1850	0.000023	8,165	2.66E-06	2.85E-06
70272	U80 B-101 (WEST)	Formaldehyde	50-00-0	22.8667	0.002801	8,165	3.29E-04	3.53E-04
70272	U80 B-101 (WEST)	Benzo(a)pyrene	50-32-8	0.0123	0.000002	8,165	1.78E-07	1.90E-07
70272	U80 B-101 (WEST)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0003	0.000000	8,165	4.67E-09	5.01E-09
70272	U80 B-101 (WEST)	Benz(a)anthracene (PAHs)	56-55-3	0.0048	0.000001	8,165	6.85E-08	7.35E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70272	U80 B-101 (WEST)	Benzene	71-43-2	3.1606	0.000387	8,165	4.55E-05	4.88E-05
70272	U80 B-101 (WEST)	Acetaldehyde	75-07-0	55.4918	0.006796	8,165	7.98E-04	8.56E-04
70272	U80 B-101 (WEST)	Acenaphthene (PAHs)	83-32-9	0.0007	0.000000	8,165	1.05E-08	1.12E-08
70272	U80 B-101 (WEST)	Phenanthrene (PAHs)	85-01-8	0.0056	0.000001	8,165	8.00E-08	8.59E-08
70272	U80 B-101 (WEST)	Fluorene (PAHs)	86-73-7	0.0010	0.000000	8,165	1.49E-08	1.60E-08
70272	U80 B-101 (WEST)	Naphthalene	91-20-3	0.1082	0.000013	8,165	1.56E-06	1.67E-06
70272	U80 B-101 (WEST)	2-Methyl naphthalene (PAHs)	91-57-6	0.0026	0.000000	8,165	3.79E-08	4.07E-08
70272	U80 B-101 (WEST)	Ethyl benzene	100-41-4	0.8957	0.000110	8,165	1.29E-05	1.38E-05
70272	U80 B-101 (WEST)	Acrolein	107-02-8	3.6811	0.000451	8,165	5.29E-05	5.68E-05
70272	U80 B-101 (WEST)	Toluene	108-88-3	6.1261	0.000750	8,165	8.81E-05	9.45E-05
70272	U80 B-101 (WEST)	Phenol	108-95-2	0.8662	0.000106	8,165	1.25E-05	1.34E-05
70272	U80 B-101 (WEST)	Propylene	115-07-1	32.4806	0.003978	8,165	4.67E-04	5.01E-04
70272	U80 B-101 (WEST)	Anthracene	120-12-7	0.0005	0.000000	8,165	7.79E-09	8.36E-09
70272	U80 B-101 (WEST)	Pyrene	129-00-0	0.0036	0.000000	8,165	5.13E-08	5.51E-08
70272	U80 B-101 (WEST)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	8,165	3.46E-09	3.71E-09
70272	U80 B-101 (WEST)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0154	0.000002	8,165	2.21E-07	2.37E-07
70272	U80 B-101 (WEST)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0058	0.000001	8,165	8.41E-08	9.02E-08
70272	U80 B-101 (WEST)	Fluoranthene (PAHs)	206-44-0	0.0033	0.000000	8,165	4.82E-08	5.17E-08
70272	U80 B-101 (WEST)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0037	0.000000	8,165	5.29E-08	5.68E-08
70272	U80 B-101 (WEST)	Acenaphthylene (PAHs)	208-96-8	0.0139	0.000002	8,165	2.00E-07	2.14E-07
70272	U80 B-101 (WEST)	Chrysene (PAHs)	218-01-9	0.0003	0.000000	8,165	4.98E-09	5.35E-09
70272	U80 B-101 (WEST)	Xylenes (mixed isomers)	1330-20-7	10.8653	0.001331	8,165	1.56E-04	1.68E-04
70272	U80 B-101 (WEST)	Aluminum	7429-90-5	3.2115	0.000393	8,165	4.62E-05	4.96E-05
70272	U80 B-101 (WEST)	Manganese compounds	7439-96-5	0.9045	0.000111	8,165	1.30E-05	1.40E-05
70272	U80 B-101 (WEST)	Mercury compounds	7439-97-6	0.0043	0.000001	8,165	6.14E-08	6.59E-08
70272	U80 B-101 (WEST)	Nickel compounds	7440-02-0	2.3304	0.000285	8,165	3.35E-05	3.60E-05
70272	U80 B-101 (WEST)	Silver compounds	7440-22-4	0.0054	0.000001	8,165	7.77E-08	8.34E-08
70272	U80 B-101 (WEST)	Thallium	7440-28-0	1.2559	0.000154	8,165	1.81E-05	1.94E-05
70272	U80 B-101 (WEST)	Antimony	7440-36-0	0.0018	0.000000	8,165	2.64E-08	2.83E-08
70272	U80 B-101 (WEST)	Arsenic	7440-38-2	0.0066	0.000001	8,165	9.55E-08	1.02E-07
70272	U80 B-101 (WEST)	Barium	7440-39-3	1.1725	0.000144	8,165	1.69E-05	1.81E-05
70272	U80 B-101 (WEST)	Beryllium	7440-41-7	0.0281	0.000003	8,165	4.05E-07	4.34E-07
70272	U80 B-101 (WEST)	Cadmium	7440-43-9	0.0160	0.000002	8,165	2.30E-07	2.47E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70272	U80 B-101 (WEST)	Chromium compounds	7440-47-3	0.0434	0.000005	8,165	6.24E-07	6.70E-07
70272	U80 B-101 (WEST)	Cobalt compounds	7440-48-4	0.0505	0.000006	8,165	7.27E-07	7.80E-07
70272	U80 B-101 (WEST)	Copper compounds	7440-50-8	0.5797	0.000071	8,165	8.34E-06	8.95E-06
70272	U80 B-101 (WEST)	Vanadium compounds	7440-62-2	0.0105	0.000001	8,165	1.51E-07	1.62E-07
70272	U80 B-101 (WEST)	Zinc compounds	7440-66-6	0.8885	0.000109	8,165	1.28E-05	1.37E-05
70272	U80 B-101 (WEST)	Ammonia	7664-41-7	53.0158	0.006493	8,165	7.63E-04	8.18E-04
70272	U80 B-101 (WEST)	Sulfuric acid	7664-93-9	4.7378	0.000145	8,760	6.81E-05	1.83E-05
70272	U80 B-101 (WEST)	Phosphorus	7723-14-0	0.4554	0.000056	8,165	6.55E-06	7.03E-06
70272	U80 B-101 (WEST)	Selenium compounds	7782-49-2	0.0059	0.000001	8,165	8.42E-08	9.04E-08
70272	U80 B-101 (WEST)	Hydrogen sulfide	7783-06-4	0.2608	0.000032	8,165	3.75E-06	4.03E-06
70273	U80 B-102 (WEST)	Lead compounds	1128	0.0854	0.000010	8,165	1.23E-06	1.32E-06
70273	U80 B-102 (WEST)	Formaldehyde	50-00-0	10.5529	0.001292	8,165	1.52E-04	1.63E-04
70273	U80 B-102 (WEST)	Benzo(a)pyrene	50-32-8	0.0057	0.000001	8,165	8.19E-08	8.79E-08
70273	U80 B-102 (WEST)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0001	0.000000	8,165	2.16E-09	2.31E-09
70273	U80 B-102 (WEST)	Benz(a)anthracene (PAHs)	56-55-3	0.0022	0.000000	8,165	3.16E-08	3.39E-08
70273	U80 B-102 (WEST)	Benzene	71-43-2	1.4586	0.000179	8,165	2.10E-05	2.25E-05
70273	U80 B-102 (WEST)	Acetaldehyde	75-07-0	25.6094	0.003137	8,165	3.68E-04	3.95E-04
70273	U80 B-102 (WEST)	Acenaphthene (PAHs)	83-32-9	0.0003	0.000000	8,165	4.83E-09	5.19E-09
70273	U80 B-102 (WEST)	Phenanthrene (PAHs)	85-01-8	0.0026	0.000000	8,165	3.69E-08	3.96E-08
70273	U80 B-102 (WEST)	Fluorene (PAHs)	86-73-7	0.0005	0.000000	8,165	6.87E-09	7.37E-09
70273	U80 B-102 (WEST)	Naphthalene	91-20-3	0.0499	0.000006	8,165	7.18E-07	7.71E-07
70273	U80 B-102 (WEST)	2-Methyl naphthalene (PAHs)	91-57-6	0.0012	0.000000	8,165	1.75E-08	1.88E-08
70273	U80 B-102 (WEST)	Ethyl benzene	100-41-4	0.4134	0.000051	8,165	5.95E-06	6.38E-06
70273	U80 B-102 (WEST)	Acrolein	107-02-8	1.6988	0.000208	8,165	2.44E-05	2.62E-05
70273	U80 B-102 (WEST)	Toluene	108-88-3	2.8272	0.000346	8,165	4.07E-05	4.36E-05
70273	U80 B-102 (WEST)	Phenol	108-95-2	0.3997	0.000049	8,165	5.75E-06	6.17E-06
70273	U80 B-102 (WEST)	Propylene	115-07-1	14.9898	0.001836	8,165	2.16E-04	2.31E-04
70273	U80 B-102 (WEST)	Anthracene	120-12-7	0.0003	0.000000	8,165	3.60E-09	3.86E-09
70273	U80 B-102 (WEST)	Pyrene	129-00-0	0.0016	0.000000	8,165	2.37E-08	2.54E-08
70273	U80 B-102 (WEST)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	8,165	1.59E-09	1.71E-09
70273	U80 B-102 (WEST)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0071	0.000001	8,165	1.02E-07	1.09E-07
70273	U80 B-102 (WEST)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0027	0.000000	8,165	3.88E-08	4.16E-08
70273	U80 B-102 (WEST)	Fluoranthene (PAHs)	206-44-0	0.0015	0.000000	8,165	2.22E-08	2.39E-08

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70273	U80 B-102 (WEST)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0017	0.000000	8,165	2.44E-08	2.62E-08
70273	U80 B-102 (WEST)	Acenaphthylene (PAHs)	208-96-8	0.0064	0.000001	8,165	9.22E-08	9.90E-08
70273	U80 B-102 (WEST)	Chrysene (PAHs)	218-01-9	0.0002	0.000000	8,165	2.30E-09	2.47E-09
70273	U80 B-102 (WEST)	Xylenes (mixed isomers)	1330-20-7	5.0143	0.000614	8,165	7.21E-05	7.74E-05
70273	U80 B-102 (WEST)	Aluminum	7429-90-5	1.4821	0.000182	8,165	2.13E-05	2.29E-05
70273	U80 B-102 (WEST)	Manganese compounds	7439-96-5	0.4174	0.000051	8,165	6.00E-06	6.44E-06
70273	U80 B-102 (WEST)	Mercury compounds	7439-97-6	0.0020	0.000000	8,165	2.83E-08	3.04E-08
70273	U80 B-102 (WEST)	Nickel compounds	7440-02-0	1.0755	0.000132	8,165	1.55E-05	1.66E-05
70273	U80 B-102 (WEST)	Silver compounds	7440-22-4	0.0025	0.000000	8,165	3.59E-08	3.85E-08
70273	U80 B-102 (WEST)	Thallium	7440-28-0	0.5796	0.000071	8,165	8.34E-06	8.94E-06
70273	U80 B-102 (WEST)	Antimony	7440-36-0	0.0008	0.000000	8,165	1.22E-08	1.31E-08
70273	U80 B-102 (WEST)	Arsenic	7440-38-2	0.0031	0.000000	8,165	4.41E-08	4.73E-08
70273	U80 B-102 (WEST)	Barium	7440-39-3	0.5411	0.000066	8,165	7.78E-06	8.35E-06
70273	U80 B-102 (WEST)	Beryllium	7440-41-7	0.0130	0.000002	8,165	1.87E-07	2.00E-07
70273	U80 B-102 (WEST)	Cadmium	7440-43-9	0.0074	0.000001	8,165	1.06E-07	1.14E-07
70273	U80 B-102 (WEST)	Chromium compounds	7440-47-3	0.0200	0.000002	8,165	2.88E-07	3.09E-07
70273	U80 B-102 (WEST)	Cobalt compounds	7440-48-4	0.0233	0.000003	8,165	3.35E-07	3.60E-07
70273	U80 B-102 (WEST)	Copper compounds	7440-50-8	0.2675	0.000033	8,165	3.85E-06	4.13E-06
70273	U80 B-102 (WEST)	Vanadium compounds	7440-62-2	0.0049	0.000001	8,165	6.98E-08	7.49E-08
70273	U80 B-102 (WEST)	Zinc compounds	7440-66-6	0.4100	0.000050	8,165	5.90E-06	6.33E-06
70273	U80 B-102 (WEST)	Ammonia	7664-41-7	24.4667	0.002997	8,165	3.52E-04	3.78E-04
70273	U80 B-102 (WEST)	Sulfuric acid	7664-93-9	2.7493	0.000084	8,760	3.95E-05	1.06E-05
70273	U80 B-102 (WEST)	Phosphorus	7723-14-0	0.2102	0.000026	8,165	3.02E-06	3.24E-06
70273	U80 B-102 (WEST)	Selenium compounds	7782-49-2	0.0027	0.000000	8,165	3.89E-08	4.17E-08
70273	U80 B-102 (WEST)	Hydrogen sulfide	7783-06-4	0.1204	0.000015	8,165	1.73E-06	1.86E-06
70274	U80 B-103 (WEST)	Lead compounds	1128	0.1017	0.000012	8,165	1.46E-06	1.57E-06
70274	U80 B-103 (WEST)	Formaldehyde	50-00-0	12.5783	0.001541	8,165	1.81E-04	1.94E-04
70274	U80 B-103 (WEST)	Benzo(a)pyrene	50-32-8	0.0068	0.000001	8,165	9.77E-08	1.05E-07
70274	U80 B-103 (WEST)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	8,165	2.57E-09	2.76E-09
70274	U80 B-103 (WEST)	Benz(a)anthracene (PAHs)	56-55-3	0.0026	0.000000	8,165	3.77E-08	4.04E-08
70274	U80 B-103 (WEST)	Benzene	71-43-2	1.7385	0.000213	8,165	2.50E-05	2.68E-05
70274	U80 B-103 (WEST)	Acetaldehyde	75-07-0	30.5244	0.003739	8,165	4.39E-04	4.71E-04
70274	U80 B-103 (WEST)	Acenaphthene (PAHs)	83-32-9	0.0004	0.000000	8,165	5.76E-09	6.18E-09

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70274	U80 B-103 (WEST)	Phenanthrene (PAHs)	85-01-8	0.0031	0.000000	8,165	4.40E-08	4.72E-08
70274	U80 B-103 (WEST)	Fluorene (PAHs)	86-73-7	0.0006	0.000000	8,165	8.19E-09	8.79E-09
70274	U80 B-103 (WEST)	Naphthalene	91-20-3	0.0595	0.000007	8,165	8.56E-07	9.19E-07
70274	U80 B-103 (WEST)	2-Methyl naphthalene (PAHs)	91-57-6	0.0015	0.000000	8,165	2.09E-08	2.24E-08
70274	U80 B-103 (WEST)	Ethyl benzene	100-41-4	0.4927	0.000060	8,165	7.09E-06	7.60E-06
70274	U80 B-103 (WEST)	Acrolein	107-02-8	2.0249	0.000248	8,165	2.91E-05	3.12E-05
70274	U80 B-103 (WEST)	Toluene	108-88-3	3.3698	0.000413	8,165	4.85E-05	5.20E-05
70274	U80 B-103 (WEST)	Phenol	108-95-2	0.4764	0.000058	8,165	6.85E-06	7.35E-06
70274	U80 B-103 (WEST)	Propylene	115-07-1	17.8667	0.002188	8,165	2.57E-04	2.76E-04
70274	U80 B-103 (WEST)	Anthracene	120-12-7	0.0003	0.000000	8,165	4.29E-09	4.60E-09
70274	U80 B-103 (WEST)	Pyrene	129-00-0	0.0020	0.000000	8,165	2.82E-08	3.03E-08
70274	U80 B-103 (WEST)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0001	0.000000	8,165	1.90E-09	2.04E-09
70274	U80 B-103 (WEST)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0085	0.000001	8,165	1.22E-07	1.31E-07
70274	U80 B-103 (WEST)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0032	0.000000	8,165	4.63E-08	4.96E-08
70274	U80 B-103 (WEST)	Fluoranthene (PAHs)	206-44-0	0.0018	0.000000	8,165	2.65E-08	2.84E-08
70274	U80 B-103 (WEST)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0020	0.000000	8,165	2.91E-08	3.12E-08
70274	U80 B-103 (WEST)	Acenaphthylene (PAHs)	208-96-8	0.0076	0.000001	8,165	1.10E-07	1.18E-07
70274	U80 B-103 (WEST)	Chrysene (PAHs)	218-01-9	0.0002	0.000000	8,165	2.74E-09	2.94E-09
70274	U80 B-103 (WEST)	Xylenes (mixed isomers)	1330-20-7	5.9767	0.000732	8,165	8.60E-05	9.22E-05
70274	U80 B-103 (WEST)	Aluminum	7429-90-5	1.7666	0.000216	8,165	2.54E-05	2.73E-05
70274	U80 B-103 (WEST)	Manganese compounds	7439-96-5	0.4975	0.000061	8,165	7.16E-06	7.68E-06
70274	U80 B-103 (WEST)	Mercury compounds	7439-97-6	0.0023	0.000000	8,165	3.38E-08	3.62E-08
70274	U80 B-103 (WEST)	Nickel compounds	7440-02-0	1.2819	0.000157	8,165	1.84E-05	1.98E-05
70274	U80 B-103 (WEST)	Silver compounds	7440-22-4	0.0030	0.000000	8,165	4.28E-08	4.59E-08
70274	U80 B-103 (WEST)	Thallium	7440-28-0	0.6908	0.000085	8,165	9.94E-06	1.07E-05
70274	U80 B-103 (WEST)	Antimony	7440-36-0	0.0010	0.000000	8,165	1.45E-08	1.56E-08
70274	U80 B-103 (WEST)	Arsenic	7440-38-2	0.0037	0.000000	8,165	5.25E-08	5.64E-08
70274	U80 B-103 (WEST)	Barium	7440-39-3	0.6449	0.000079	8,165	9.28E-06	9.95E-06
70274	U80 B-103 (WEST)	Beryllium	7440-41-7	0.0155	0.000002	8,165	2.23E-07	2.39E-07
70274	U80 B-103 (WEST)	Cadmium	7440-43-9	0.0088	0.000001	8,165	1.27E-07	1.36E-07
70274	U80 B-103 (WEST)	Chromium compounds	7440-47-3	0.0239	0.000003	8,165	3.43E-07	3.68E-07
70274	U80 B-103 (WEST)	Cobalt compounds	7440-48-4	0.0278	0.000003	8,165	4.00E-07	4.29E-07
70274	U80 B-103 (WEST)	Copper compounds	7440-50-8	0.3189	0.000039	8,165	4.59E-06	4.92E-06

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70274	U80 B-103 (WEST)	Vanadium compounds	7440-62-2	0.0058	0.000001	8,165	8.32E-08	8.93E-08
70274	U80 B-103 (WEST)	Zinc compounds	7440-66-6	0.4887	0.000060	8,165	7.03E-06	7.54E-06
70274	U80 B-103 (WEST)	Ammonia	7664-41-7	29.1624	0.003572	8,165	4.19E-04	4.50E-04
70274	U80 B-103 (WEST)	Sulfuric acid	7664-93-9	2.5077	0.000077	8,760	3.61E-05	9.67E-06
70274	U80 B-103 (WEST)	Phosphorus	7723-14-0	0.2505	0.000031	8,165	3.60E-06	3.87E-06
70274	U80 B-103 (WEST)	Selenium compounds	7782-49-2	0.0032	0.000000	8,165	4.63E-08	4.97E-08
70274	U80 B-103 (WEST)	Hydrogen sulfide	7783-06-4	0.1435	0.000018	8,165	2.06E-06	2.21E-06
70275	U80 B-104 (WEST)	Lead compounds	1128	0.1189	0.000015	8,165	1.71E-06	1.84E-06
70275	U80 B-104 (WEST)	Formaldehyde	50-00-0	14.7001	0.001800	8,165	2.11E-04	2.27E-04
70275	U80 B-104 (WEST)	Benzo(a)pyrene	50-32-8	0.0079	0.000001	8,165	1.14E-07	1.22E-07
70275	U80 B-104 (WEST)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0002	0.000000	8,165	3.00E-09	3.22E-09
70275	U80 B-104 (WEST)	Benz(a)anthracene (PAHs)	56-55-3	0.0031	0.000000	8,165	4.40E-08	4.73E-08
70275	U80 B-104 (WEST)	Benzene	71-43-2	2.0318	0.000249	8,165	2.92E-05	3.14E-05
70275	U80 B-104 (WEST)	Acetaldehyde	75-07-0	35.6735	0.004369	8,165	5.13E-04	5.51E-04
70275	U80 B-104 (WEST)	Acenaphthene (PAHs)	83-32-9	0.0005	0.000000	8,165	6.73E-09	7.22E-09
70275	U80 B-104 (WEST)	Phenanthrene (PAHs)	85-01-8	0.0036	0.000000	8,165	5.14E-08	5.52E-08
70275	U80 B-104 (WEST)	Fluorene (PAHs)	86-73-7	0.0007	0.000000	8,165	9.58E-09	1.03E-08
70275	U80 B-104 (WEST)	Naphthalene	91-20-3	0.0696	0.000009	8,165	1.00E-06	1.07E-06
70275	U80 B-104 (WEST)	2-Methyl naphthalene (PAHs)	91-57-6	0.0017	0.000000	8,165	2.44E-08	2.62E-08
70275	U80 B-104 (WEST)	Ethyl benzene	100-41-4	0.5758	0.000071	8,165	8.28E-06	8.89E-06
70275	U80 B-104 (WEST)	Acrolein	107-02-8	2.3665	0.000290	8,165	3.40E-05	3.65E-05
70275	U80 B-104 (WEST)	Toluene	108-88-3	3.9382	0.000482	8,165	5.66E-05	6.08E-05
70275	U80 B-104 (WEST)	Phenol	108-95-2	0.5568	0.000068	8,165	8.01E-06	8.59E-06
70275	U80 B-104 (WEST)	Propylene	115-07-1	20.8806	0.002557	8,165	3.00E-04	3.22E-04
70275	U80 B-104 (WEST)	Anthracene	120-12-7	0.0003	0.000000	8,165	5.01E-09	5.38E-09
70275	U80 B-104 (WEST)	Pyrene	129-00-0	0.0023	0.000000	8,165	3.30E-08	3.54E-08
70275	U80 B-104 (WEST)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0002	0.000000	8,165	2.22E-09	2.38E-09
70275	U80 B-104 (WEST)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0099	0.000001	8,165	1.42E-07	1.53E-07
70275	U80 B-104 (WEST)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0038	0.000000	8,165	5.41E-08	5.80E-08
70275	U80 B-104 (WEST)	Fluoranthene (PAHs)	206-44-0	0.0022	0.000000	8,165	3.10E-08	3.32E-08
70275	U80 B-104 (WEST)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0024	0.000000	8,165	3.40E-08	3.65E-08
70275	U80 B-104 (WEST)	Acenaphthylene (PAHs)	208-96-8	0.0089	0.000001	8,165	1.28E-07	1.38E-07
70275	U80 B-104 (WEST)	Chrysene (PAHs)	218-01-9	0.0002	0.000000	8,165	3.20E-09	3.44E-09

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70275	U80 B-104 (WEST)	Xylenes (mixed isomers)	1330-20-7	6.9849	0.000855	8,165	1.00E-04	1.08E-04
70275	U80 B-104 (WEST)	Aluminum	7429-90-5	2.0646	0.000253	8,165	2.97E-05	3.19E-05
70275	U80 B-104 (WEST)	Manganese compounds	7439-96-5	0.5815	0.000071	8,165	8.36E-06	8.97E-06
70275	U80 B-104 (WEST)	Mercury compounds	7439-97-6	0.0027	0.000000	8,165	3.95E-08	4.23E-08
70275	U80 B-104 (WEST)	Nickel compounds	7440-02-0	1.4981	0.000183	8,165	2.15E-05	2.31E-05
70275	U80 B-104 (WEST)	Silver compounds	7440-22-4	0.0035	0.000000	8,165	5.00E-08	5.36E-08
70275	U80 B-104 (WEST)	Thallium	7440-28-0	0.8074	0.000099	8,165	1.16E-05	1.25E-05
70275	U80 B-104 (WEST)	Antimony	7440-36-0	0.0012	0.000000	8,165	1.70E-08	1.82E-08
70275	U80 B-104 (WEST)	Arsenic	7440-38-2	0.0043	0.000001	8,165	6.14E-08	6.59E-08
70275	U80 B-104 (WEST)	Barium	7440-39-3	0.7537	0.000092	8,165	1.08E-05	1.16E-05
70275	U80 B-104 (WEST)	Beryllium	7440-41-7	0.0181	0.000002	8,165	2.60E-07	2.79E-07
70275	U80 B-104 (WEST)	Cadmium	7440-43-9	0.0103	0.000001	8,165	1.48E-07	1.59E-07
70275	U80 B-104 (WEST)	Chromium compounds	7440-47-3	0.0279	0.000003	8,165	4.01E-07	4.31E-07
70275	U80 B-104 (WEST)	Cobalt compounds	7440-48-4	0.0325	0.000004	8,165	4.67E-07	5.01E-07
70275	U80 B-104 (WEST)	Copper compounds	7440-50-8	0.3727	0.000046	8,165	5.36E-06	5.75E-06
70275	U80 B-104 (WEST)	Vanadium compounds	7440-62-2	0.0068	0.000001	8,165	9.72E-08	1.04E-07
70275	U80 B-104 (WEST)	Zinc compounds	7440-66-6	0.5712	0.000070	8,165	8.22E-06	8.81E-06
70275	U80 B-104 (WEST)	Ammonia	7664-41-7	34.0818	0.004174	8,165	4.90E-04	5.26E-04
70275	U80 B-104 (WEST)	Sulfuric acid	7664-93-9	3.0873	0.000095	8,760	4.44E-05	1.19E-05
70275	U80 B-104 (WEST)	Phosphorus	7723-14-0	0.2928	0.000036	8,165	4.21E-06	4.52E-06
70275	U80 B-104 (WEST)	Selenium compounds	7782-49-2	0.0038	0.000000	8,165	5.41E-08	5.81E-08
70275	U80 B-104 (WEST)	Hydrogen sulfide	7783-06-4	0.1677	0.000021	8,165	2.41E-06	2.59E-06
70276	U80 B-105 (WEST)	Lead compounds	1128	0.0209	0.000003	8,165	3.01E-07	3.22E-07
70276	U80 B-105 (WEST)	Formaldehyde	50-00-0	2.5833	0.000316	8,165	3.72E-05	3.99E-05
70276	U80 B-105 (WEST)	Benzo(a)pyrene	50-32-8	0.0014	0.000000	8,165	2.01E-08	2.15E-08
70276	U80 B-105 (WEST)	Dibenz(a,h)anthracene (PAHs)	53-70-3	0.0000	0.000000	8,165	5.28E-10	5.66E-10
70276	U80 B-105 (WEST)	Benz(a)anthracene (PAHs)	56-55-3	0.0005	0.000000	8,165	7.74E-09	8.31E-09
70276	U80 B-105 (WEST)	Benzene	71-43-2	0.3571	0.000044	8,165	5.14E-06	5.51E-06
70276	U80 B-105 (WEST)	Acetaldehyde	75-07-0	6.2691	0.000768	8,165	9.02E-05	9.67E-05
70276	U80 B-105 (WEST)	Acenaphthene (PAHs)	83-32-9	0.0001	0.000000	8,165	1.18E-09	1.27E-09
70276	U80 B-105 (WEST)	Phenanthrene (PAHs)	85-01-8	0.0006	0.000000	8,165	9.04E-09	9.70E-09
70276	U80 B-105 (WEST)	Fluorene (PAHs)	86-73-7	0.0001	0.000000	8,165	1.68E-09	1.81E-09
70276	U80 B-105 (WEST)	Naphthalene	91-20-3	0.0122	0.000001	8,165	1.76E-07	1.89E-07

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70276	U80 B-105 (WEST)	2-Methyl naphthalene (PAHs)	91-57-6	0.0003	0.000000	8,165	4.28E-09	4.60E-09
70276	U80 B-105 (WEST)	Ethyl benzene	100-41-4	0.1012	0.000012	8,165	1.46E-06	1.56E-06
70276	U80 B-105 (WEST)	Acrolein	107-02-8	0.4159	0.000051	8,165	5.98E-06	6.42E-06
70276	U80 B-105 (WEST)	Toluene	108-88-3	0.6921	0.000085	8,165	9.95E-06	1.07E-05
70276	U80 B-105 (WEST)	Phenol	108-95-2	0.0979	0.000012	8,165	1.41E-06	1.51E-06
70276	U80 B-105 (WEST)	Propylene	115-07-1	3.6694	0.000449	8,165	5.28E-05	5.66E-05
70276	U80 B-105 (WEST)	Anthracene	120-12-7	0.0001	0.000000	8,165	8.80E-10	9.45E-10
70276	U80 B-105 (WEST)	Pyrene	129-00-0	0.0004	0.000000	8,165	5.80E-09	6.22E-09
70276	U80 B-105 (WEST)	Benzo(g,h,i)perylene (PAHs)	191-24-2	0.0000	0.000000	8,165	3.90E-10	4.19E-10
70276	U80 B-105 (WEST)	Indeno(1,2,3-cd)pyrene (PAHs)	193-39-5	0.0017	0.000000	8,165	2.50E-08	2.68E-08
70276	U80 B-105 (WEST)	Benzo(b)fluoranthene (PAHs)	205-99-2	0.0007	0.000000	8,165	9.50E-09	1.02E-08
70276	U80 B-105 (WEST)	Fluoranthene (PAHs)	206-44-0	0.0004	0.000000	8,165	5.44E-09	5.84E-09
70276	U80 B-105 (WEST)	Benzo(k)fluoranthene (PAHs)	207-08-9	0.0004	0.000000	8,165	5.98E-09	6.42E-09
70276	U80 B-105 (WEST)	Acenaphthylene (PAHs)	208-96-8	0.0016	0.000000	8,165	2.26E-08	2.42E-08
70276	U80 B-105 (WEST)	Chrysene (PAHs)	218-01-9	0.0000	0.000000	8,165	5.63E-10	6.04E-10
70276	U80 B-105 (WEST)	Xylenes (mixed isomers)	1330-20-7	1.2275	0.000150	8,165	1.77E-05	1.89E-05
70276	U80 B-105 (WEST)	Aluminum	7429-90-5	0.3628	0.000044	8,165	5.22E-06	5.60E-06
70276	U80 B-105 (WEST)	Manganese compounds	7439-96-5	0.1022	0.000013	8,165	1.47E-06	1.58E-06
70276	U80 B-105 (WEST)	Mercury compounds	7439-97-6	0.0005	0.000000	8,165	6.93E-09	7.44E-09
70276	U80 B-105 (WEST)	Nickel compounds	7440-02-0	0.2633	0.000032	8,165	3.79E-06	4.06E-06
70276	U80 B-105 (WEST)	Silver compounds	7440-22-4	0.0006	0.000000	8,165	8.78E-09	9.42E-09
70276	U80 B-105 (WEST)	Thallium	7440-28-0	0.1419	0.000017	8,165	2.04E-06	2.19E-06
70276	U80 B-105 (WEST)	Antimony	7440-36-0	0.0002	0.000000	8,165	2.98E-09	3.20E-09
70276	U80 B-105 (WEST)	Arsenic	7440-38-2	0.0008	0.000000	8,165	1.08E-08	1.16E-08
70276	U80 B-105 (WEST)	Barium	7440-39-3	0.1325	0.000016	8,165	1.91E-06	2.04E-06
70276	U80 B-105 (WEST)	Beryllium	7440-41-7	0.0032	0.000000	8,165	4.57E-08	4.91E-08
70276	U80 B-105 (WEST)	Cadmium	7440-43-9	0.0018	0.000000	8,165	2.60E-08	2.79E-08
70276	U80 B-105 (WEST)	Chromium compounds	7440-47-3	0.0049	0.000001	8,165	7.05E-08	7.57E-08
70276	U80 B-105 (WEST)	Cobalt compounds	7440-48-4	0.0057	0.000001	8,165	8.21E-08	8.81E-08
70276	U80 B-105 (WEST)	Copper compounds	7440-50-8	0.0655	0.000008	8,165	9.42E-07	1.01E-06
70276	U80 B-105 (WEST)	Vanadium compounds	7440-62-2	0.0012	0.000000	8,165	1.71E-08	1.83E-08
70276	U80 B-105 (WEST)	Zinc compounds	7440-66-6	0.1004	0.000012	8,165	1.44E-06	1.55E-06
70276	U80 B-105 (WEST)	Ammonia	7664-41-7	5.9894	0.000734	8,165	8.61E-05	9.24E-05

Table D-1 - Emission Rates By Source and Substance

Release ID No.	Source Name	Substance Name	CAS No.	Annual Average (lb/yr)	Maximum Hourly (lb/hr)	Op Hours	Annual Average (g/s)	Maximum Hourly (g/s)
70276	U80 B-105 (WEST)	Sulfuric acid	7664-93-9	0.6507	0.000020	8,760	9.36E-06	2.51E-06
70276	U80 B-105 (WEST)	Phosphorus	7723-14-0	0.0515	0.000006	8,165	7.40E-07	7.94E-07
70276	U80 B-105 (WEST)	Selenium compounds	7782-49-2	0.0007	0.000000	8,165	9.51E-09	1.02E-08
70276	U80 B-105 (WEST)	Hydrogen sulfide	7783-06-4	0.0295	0.000004	8,165	4.24E-07	4.55E-07
70277	U110 CT-310	Benzene	71-43-2	0.0655	0.000008	8,160	9.42E-07	1.01E-06
70277	U110 CT-310	Ethylene	74-85-1	0.0617	0.000008	8,160	8.87E-07	9.52E-07
70277	U110 CT-310	1,2,4-Trimethylbenzene	95-63-6	0.1715	0.000021	8,160	2.47E-06	2.65E-06
70277	U110 CT-310	Ethyl benzene	100-41-4	0.1214	0.000015	8,160	1.75E-06	1.87E-06
70277	U110 CT-310	Styrene	100-42-5	0.0462	0.000006	8,160	6.65E-07	7.14E-07
70277	U110 CT-310	1,3-Butadiene	106-99-0	1.0510	0.000129	8,160	1.51E-05	1.62E-05
70277	U110 CT-310	Toluene	108-88-3	0.5009	0.000061	8,160	7.21E-06	7.74E-06
70277	U110 CT-310	Hexane	110-54-3	0.2043	0.000025	8,160	2.94E-06	3.16E-06
70277	U110 CT-310	Cyclohexane	110-82-7	0.0491	0.000006	8,160	7.07E-07	7.59E-07
70277	U110 CT-310	Propylene	115-07-1	21.2037	0.002598	8,160	3.05E-04	3.27E-04
70277	U110 CT-310	Xylenes (mixed isomers)	1330-20-7	0.6532	0.000080	8,160	9.39E-06	1.01E-05
70277	U110 CT-310	Hydrogen sulfide	7783-06-4	1.5703	0.000192	8,160	2.26E-05	2.42E-05