

**SOUTH COAST
AIR QUALITY MANAGEMENT DISTRICT**

21865 Copley Dr.
Diamond Bar, CA 91765-4178

**ALL AMERICAN ASPHALT
IRWINDALE HOT MIX ASPHALT PLANT
FACILITY ID #114264
REVISED HEALTH RISK ASSESSMENT REPORT
REPORTING YEAR 2021**

Prepared For:

All American Asphalt
400 E. 6th Street
Corona, California,
92879

Project No.: ALAMR-18-2284
Contact: Scott Taylor
Date: September 10, 2024



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Modified by South Coast AQMD

November 12, 2025

Executive Table: Required modifications made by South Coast AQMD

Section/Page	Modifications	Reason for modification
Throughout Document	Update with results of modeling performed by South Coast AQMD staff.	These changes were made to align the document with the modeling methods required by South Coast AQMD as outlined in the AB2588 and Rule 1402 Supplementary Guidelines and the results of said modeling.
List of Key Definition	Add definition of 8-hour chronic non-cancer health impacts.	Added to align the document with the requirement by South Coast AQMD as outlined in the AB2588 and Rule 1402 Supplementary Guidelines
PART III Section B(3)(g)	Update receptor totals.	These changes were made to align the document with the modeling methods required by South Coast AQMD as outlined in the AB2588 and Rule 1402 Supplementary Guidelines and ensure all sensitive receptors and census receptors within the zone of impact were evaluated.
PART III Section D(1)	Remove WAF from Worker Risk HARP Parameters.	These changes were made to align the document with the modeling methods required by South Coast AQMD as outlined in the AB2588 and Rule 1402 Supplementary Guidelines.
Attachment E	Update cancer burden table.	These changes were made to align the document with the modeling methods required by South Coast AQMD as outlined in the AB2588 and Rule 1402 Supplementary Guidelines.
Attachment F	Update the exposure pathways for certain compounds.	This change was made to align the document with OEHHA Guidelines.
Attachment G	Add Target Organ by TAC Table.	This change was made to align the document with OEHHA Guidelines.

**South Coast Air Quality Management District**

21865 Copley Drive, Diamond Bar, CA 91765-4182

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RISK SUMMARY FORM

All American Asphalt_Irwindale

114264

2021

Facility Name

Facility I.D.

Inventory Year

13646 Live Oak Ln

Irwindale

91706

Facility Address

City

Zip Code

Hot Mix Asphalt Facility

Type of Business

A. Cancer Risk:

Receptor Type	Cancer Risk (Per Million)	Receptor I.D.	UTME (m)	UTMN (m)
PMI	119.7	5468	410185.30	3775064.50
MEIR	0.7	9836	409720.30	3773564.50
MEIW	5.0	5467	410185.30	3774989.50

Substances Accounting for 90% of Cancer Risk:	Cobalt, Arsenic, Cadmium, Cr(VI), Benzene, Formaldehyde
Processes Accounting for 90% of Cancer Risk:	Storage Pile 1(AGG) and 2(RAP), Paved Roads
Cancer Burden (based on a 70-yr exposure):	0.00
Number of people exposed to >1 per million Cancer Risk:	50
Number of people exposed to >10 per million Cancer Risk:	50
Number of people exposed to >100 per million Cancer Risk:	0
Max distance from center of facility to the furthest edge of 70-yr, 1 per million isopleth (m):	2000

B. Maximum Chronic Hazard Indices:

Receptor Type	Hazard Index	Receptor I.D.	UTME (m)	UTMN (m)	Toxicological Endpoint
PMI	3.54	5468	410185.30	3775064.50	Respiratory
MEIR	0.03	9836	409720.30	3773564.50	Central Nervous System
MEIW	0.87	5467	410185.30	3774989.50	Respiratory

Substances Accounting for 90% of Chronic HI:	Arsenic, Silica, Chlorine, Nickel
Processes Accounting for 90% of Chronic HI:	Dryer Baghouse, Storage Pile 1(AGG) and 2(RAP), Paved Roads

C. Maximum 8-hour Chronic Hazard Index:

Receptor Type	Hazard Index	Receptor I.D.	UTME (m)	UTMN (m)	Toxicological Endpoint
MEIW	0.11	5467	410185.30	3774989.50	Central Nervous System

Substances Accounting for 90% of 8-hr Chronic HI:	Manganese, Arsenic
Processes Accounting for 90% of 8-hr Chronic HI:	Dryer Baghouse, Storage Pile 1(AGG) and 2(RAP), Paved Roads

D. Maximum Acute Hazard Indices:

Receptor Type	Hazard Index	Receptor I.D.	UTME (m)	UTMN (m)	Toxicological Endpoint
PMI	0.28	5382	410180.30	3775069.50	Immune system
MEIR	0.00	9836	409720.30	3773564.50	Immune system
MEIW	0.23	5467	410185.30	3774989.50	Immune system

Substances Accounting for 90% of Acute HI:	Nickel
Processes Accounting for 90% of Acute HI:	Dryer Baghouse, Paved Roads, Storage Pile 1(Aggregate)

Public Notification Required Risk Reduction Required

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List of Abbreviations / Acronyms

AB	Assembly Bill
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
APR	Application Policy Review
BLL	Blood Lead level
CARB	California Air Resources Board
CAS	Chemical Abstracts Service
DEM	Digital Elevation Models
GEP	Good Engineering Practice
HRA	Health Risk Assessment
HARP	Hot Spots Analysis and Reporting Program
HI	Hazard Index
MEIR	Maximum Exposed Individual Resident
MEIW	Maximum Exposed Individual Worker
MET	Meteorological
OEHHA	Office of Environmental Health Hazard Assessment
PM	Particulate Matter
PMI	Point of Maximum Impact
RAP	Recycled Asphalt Pavement
REL	Reference Exposure Limit
SB	Senate Bill
SOUTH COAST AQMD	South Coast Air Quality Management District
TEIR	Toxic Emissions Inventory Report
US EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compounds

List of Key Definitions

2015 OEHHA Guidelines - Office of Environmental Health Hazard Assessment (OEHHA), Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, February 2015

Action Risk Level - For Rule 1402, the action risk level is a MICR of twenty-five chances in-one-million (25×10^{-6}) total acute or chronic HI of three (3.0) for any target organ system at any receptor location, or the National Ambient Air Quality Standard (NAAQS) for lead.

Acute Health Impacts - An effect caused by initial exposure of a hazardous chemical on the body. The effects are generally severe but are often reversible after exposure stops.

Chronic Health Impacts - An effect caused by prolonged or repeated exposures over time. Symptoms may not be apparent immediately but develop over time and are often irreversible.

8-hr Chronic Health Impacts - It is a non-cancer health impacts from exposures that occur on a recurrent basis but only during a portion of each day. The 8-hour RELs are designed to protect against periodic exposure that could occur as often as daily and may share characteristics of both acute and chronic exposure. These RELs were developed because of concerns that applying the chronic REL in some cases was overly conservative. 8-hour RELs are “concentrations at or below which adverse health effects are not likely to occur in the general human population with intermittent exposures of eight hours per day, up to 7 days per week.” (OEHHA 2015)

Cancer Health Impacts - An exposure to a carcinogenic substance that causes an increase in the likelihood for cancer in the exposed individual.

Dose-Response Assessment - The process of characterizing the relationship between the exposure to an agent and the incidence of an adverse health effect in exposed populations. In the context of cancer, dose-response assessments estimate the risk of cancer from exposure to carcinogenic substances. This process involves determining the relationship between the level of exposure to a chemical and the probability of developing cancer. For non-cancer health impacts, dose-response assessments evaluate the relationship between exposure levels and the likelihood of adverse effects that do not lead to cancer which includes chronic effects and acute effects. Hot Spots Analysis and Reporting Program (HARP) software was used to perform the calculations for dose-response assessment.

Maximum Exposed Individual (MEI) - The receptor location having the highest cancer, 8-hour chronic, chronic, or acute health impact.

Multipathway Substances - A substance or chemical that once airborne from an emission source can, under environmental conditions, be taken into a human receptor by inhalation and by other non-inhalation exposure routes, such as deposition on skin or ingestion of soil contaminated by the emission.

Notification Risk Level - For Rule 1402, the notification risk level is a MICR of ten chances in-one-million (10×10^{-6}), a total acute or chronic HI of one (1.0) for any target organ system at any receptor location, or the more stringent of either the NAAQS for lead or ambient lead concentration limit in an applicable South Coast AQMD rule.

Risk Reduction Measure - A control measure which will reduce or eliminate the health risk associated with emissions of toxic air contaminants, is real, permanent, quantifiable, and enforceable through South Coast AQMD permit conditions if applicable. Risk reduction measures may include but are not limited to feedstock modification; product reformulations; production system modifications; system enclosure, emissions control, capture or conversion; operational standards or practices modifications; emissions collection and exhaust; source control; or alternative technologies.

Part I EXECUTIVE SUMMARY

On behalf of All American Asphalt, Taylor Environmental Services has prepared a Health Risk Assessment in accordance with AB2588 for All American Asphalt's facility (ID 114264) located at 13646 Live Oak Ln, Irwindale, CA 91706. All American Asphalt has prepared this revised Health Risk Assessment (HRA) in accordance with the South Coast Air Quality Management District (South Coast AQMD) letter dated July 12, 2024. This revised report was then modified by the South Coast AQMD to address deficiencies.

A. Project overview

The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588 or the "Act") was enacted in September 1987. Under the Act, stationary sources are required to report the types and quantities of certain toxic substances their facilities routinely release into the air. AB 2588 is designed to provide information to state and local agencies and to the general public on the extent of airborne emissions from stationary sources and the potential public health impacts of those emissions. The South Coast AQMD is mandated by the State to implement AB 2588.

On March 6, 2015, The State Office of Environmental Health Hazard Assessment (OEHHA) adopted changes to the Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments. These revisions were designed to incorporate three technical support documents and to provide enhanced protection of children as required under state law (SB 25, Escutia, 1999). Due to these recent changes, and the corresponding potential increases in calculated health risk, South Coast AQMD notified All American Asphalt that a Health Risk Assessment (HRA) is required under AB 2588. The Health Risk Assessment was completed based on 2021 reporting year.

Pursuant to the Air Toxics "Hot Spots" Information and Assessment Act of 1987, we have prepared a Health Risk Assessment (HRA) Report following OEHHA "Air Toxic Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessment", February 2015.

All American Asphalt's Hot Mix Asphalt facility produces State of California Standard Specification asphalt concrete mixes, which typically consist of ¾", ½", ⅜" asphalt concrete mix. The emissions from this facility are from asphaltic concrete drum mix plant, aggregate handling, aggregate stockpiles, asphalt silo storage and loadout, recycled asphalt product handling and stockpiles, asphalt oil tanks and crumb rubber processing facility.

On November 6, 2023, All American Asphalt submitted an Air Toxics Inventory Report (ATIR) which was reviewed and approved by South Coast AQMD in a letter dated December 1, 2023.

On February 28, 2024, All American Asphalt submitted an HRA to South Coast AQMD. After review, South Coast AQMD requested further changes of the most recent revision submitted on May 17, 2024.

This modified HRA was prepared in accordance with the approved ATIR and addresses the deficiencies noted by South Coast AQMD staff.

B. Summary results

LAKES AERMOD v12.0.0 (AERMOD Version 23132) was used to run an air dispersion model to determine ground level concentrations from the facility. The California Air Resources Board Health Risk Assessment model (HARP2) model was used to process the data to complete the results for the various required HRAs. The HRA evaluated worker and residential receptor impacts from the site.

The listed substances predominantly driving the risk for the Maximum Exposed Individual Resident (MEIR) and Maximum Exposed Individual Worker (MEIW) are cobalt, arsenic, cadmium, hexavalent chromium, benzene, and formaldehyde. The main sources of these substances are the haul roads, dryer, and storage piles.

Table 1 below summarizes the cancer, non-cancer chronic, and acute results at the MEIR, MEIW, and Point of Maximum Impact (PMI).

Table 1 - Risk Summary Results

Risk Assessment ¹	Results	Coordinates		Receptor
		X (m)	Y (m)	Number
Cancer Risk at the MEIR (chances in-one-million)	0.7	409720.3	3773564.5	9836
Cancer Risk at the MEIW (chances in-one-million)	5.0	410185.3	3774989.5	5467
Non-Cancer Chronic Risk at the MEIR (Hazard Index)	0.03	409720.3	3773564.5	9836
Non-Cancer Chronic Risk at the MEIW (Hazard Index)	0.87	410185.3	3774989.5	5467
Acute Risk at the PMI (Hazard Index)	0.28	410180.3	3775069.5	5382

1. Residential cancer risk is based on 30-year exposure. Worker cancer risk is based on 25-year exposure.

The resulting impacts are below South Coast AQMD Rule 1402 Action Risk Levels of 25 chances in-one-million for cancer risks and hazard index of 3.0 for non-cancer risks.

The resulting impacts were also below South Coast AQMD's Rule 1402 Notification Risk Levels of 10 chances in-one-million for cancer risks and a hazard index of 1.0 for non-cancer risks.

South Coast AQMD's Rule 1402 also includes an Action Risk Level of 0.5 for cancer burden. The cancer burden estimated for the facility was well below the action risk level threshold.

Part II Project Description

A. Business Background

- | | | |
|----|----------------------|--|
| 1. | Name | All American Asphalt |
| 2. | Owner | All American Asphalt
400 E. 6th Street
Corona, California, 92879 |
| 3. | Contact | John Gardner
(951) 736-3844 |
| 4. | Entitlement | Equipment is owned and operated by
All American Asphalt |
| 5. | Business Description | Hot Mix Asphalt Facility |

- B. Type of Project Health Risk Assessment Report
(Reporting Year 2021)

C. Description of Facility

The facility is located at 13646 Live Oak Ln, Irwindale, CA 91706 (ID 114264). Refer to Figure 1 for a vicinity map detailing the location of the site.

D. Description of Process

1. Hot Mix Plant

This facility produces hot mix asphalt which is comprised of aggregate and asphalt oil. The facility receives aggregate at the plant by truck. The aggregate is stored in open stockpiles where water is used to control PM emissions. The stockpiles sit on top of a tunnel conveyor which directly feeds the plants. The 100 MMBTU/hr dryer fired on natural gas heats the aggregate. The materials from the dryer are then transferred to an external coater where the asphaltic oil is introduced, and the aggregate is mixed with it. The blended asphalt is transferred from the external coater to a drag slat conveyor, which is conveyed to silos. The finished product is then loaded out of the silos into trucks.

2. Recycle Crushing and RAP Feed System

The facility also can receive and process Recycled Asphalt Pavement (RAP) through one of two crushing systems. The crushing system is fed using an end loader and the material is processed by a horizontal shaft impactor where material is crushed and fed via conveyor to a screen where the material is either fed back to the crusher or fed to the aggregate receiving system for the asphalt plant where the processed material is conveyed to the dedicated recycle silo for storage. Once the plant requires RAP, the material is fed via conveyor to the dryer and blended with the aggregate and asphalt oil. Note, when RAP is added, the virgin aggregate is reduced by a like amount.

3. Process Flow Diagram and Plant Location

Attached you will find the process flow diagram shows the interaction between equipment and process lines, transfer of materials and basic control equipment (Refer to Attachment "D").

4. Production Data

The plant production for 2021 is as follows:

Sand and Aggregate Used (tons/yr)		
Hot Mix Asphalt Produced (tons/yr)		
RAP (tons/yr)		
AC oil (tons/year)		
Stockpile Tons		

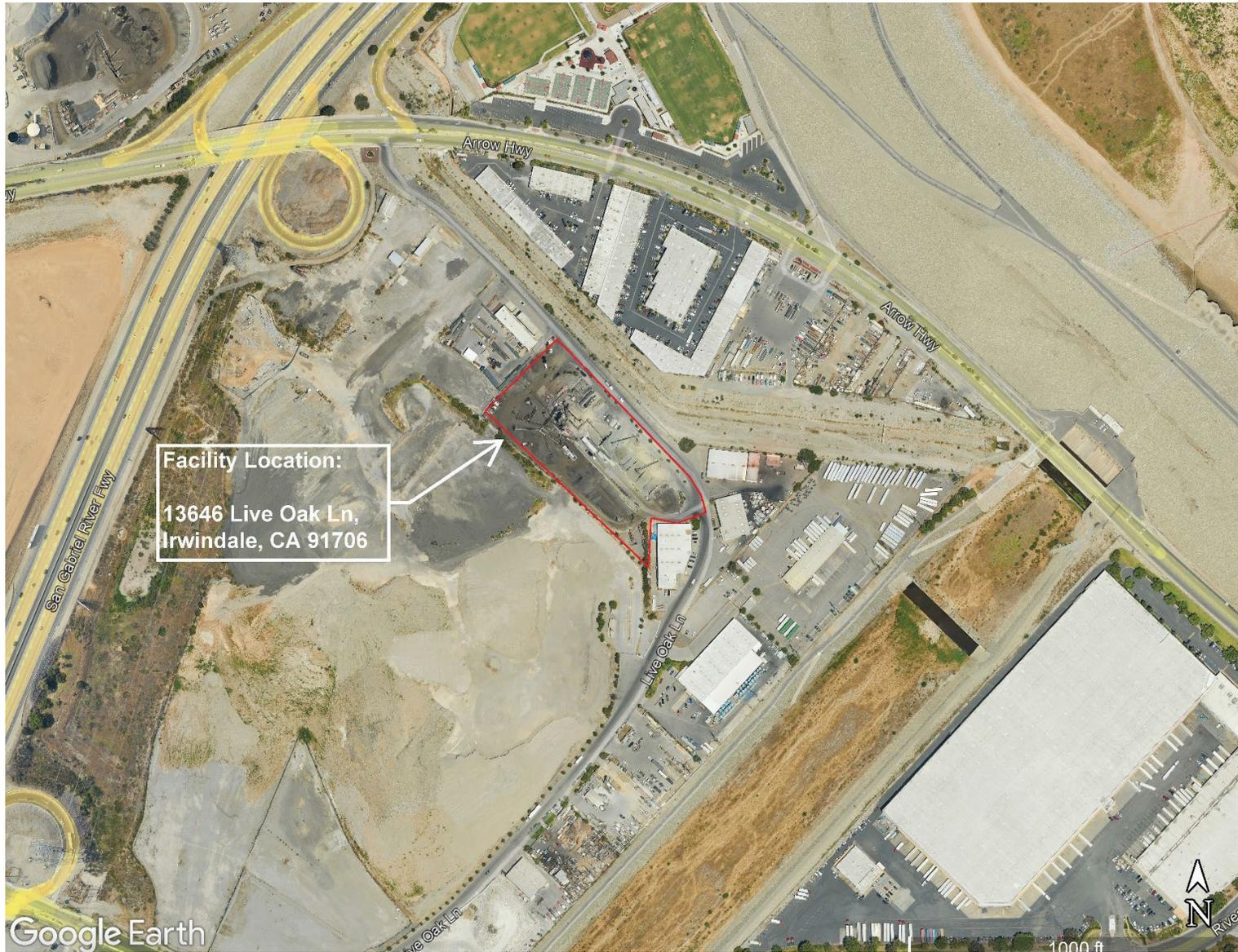


Figure 1 - Vicinity Map

Part III Risk Assessment Procedures

A. Hazard Identification

For air toxic source, hazard identification involves the pollutant(s) of concern emitted by a facility, and the types of adverse health effects associated with exposure to the chemical(s), including whether a pollutant is a potential human carcinogen or is associated with other types of adverse health effects.

Table 2 below describes the sources of the toxic emissions at the facility. The emission sources used in the HRA were imported directly from the EIM database that was prepared for the ATIR. Table 2 links the source IDs used in this HRA with the associated devices and processes found in the approved ATIR.

Table 2- Toxic Emissions Source Summary

HRA Source ID	HRA Source Description	ATIR Source ID		ATIR Source Description
		ES/Device No.	Process No.	
S0001	DRYER BAGHOUSE	1	1	DRYER COMBUSTION
		1	2	DRYER BAGHOUSE
S0003	RUBBER PLANT BURNER	92	1	RUBBER PLANT
S0004	BLUE SMOKE CONTROL	1	3	SILO FILLING
		1	4	SILO LOADOUT
S0005	AC OIL TANKS	2	1	ASPHALT OIL TANK
		3	1	ASPHALT OIL TANK
		4	1	ASPHALT OIL TANK
		5	1	ASPHALT OIL TANK
		6	1	ASPHALT OIL TANK
S0006	AGG HANDLING	90	1	AGGREGATE HANDLING
S0007	STORAGE PILE 2 (RAP)	83	2	STORAGE PILE 2 (RAP)
S0008	MAINTENANCE EQUIPMENT	84	1	E7018 WELDING
		84	2	E6011 WELDING
		102	1	PROPANE TORCH
S0009	DIESEL ENGINES	96	1	AIR COMPRESSOR
		101	1	LIGHT TOWERS
S0010	HSI D106 BAGHOUSE	90	2	HSI D106
S0011	HSI D59 BAGHOUSE	90	3	HSI D59
S0012	HAUL ROAD 1	87	1	PAVED ROADS 1

S0013	HAUL ROAD 2	87	2	PAVED ROADS 2
S0014	HAUL ROAD 3	87	3	PAVED ROADS 3
S0015	HAUL ROAD 4	87	4	PAVED ROADS 4
S0016	HAUL ROAD 5	87	5	PAVED ROADS 5
S0017	HAUL ROAD 6	87	6	PAVED ROADS 6
S0018	HAUL ROAD 7	87	7	PAVED ROADS 7
S0019	HAUL ROAD 8	87	8	PAVED ROADS 8
S0020	DIESEL FUELING	91	1	DIESEL STORAGE
S0021	STORAGE PILE 1 (AGGREGATE)	83	1	STORAGE PILE 1 (AGG)
S0022	STORAGE PILE 3 (RAP)	83	3	STORAGE PILE 3 (RAP)
S0023	STORAGE PILE 4 (RAP)	83	4	STORAGE PILE 4 (RAP)
S0024	INDEPENDENT RAP PLANT HANDLING	90	5	INDEPENDENT RAP PLANT HANDLING
S0025	RAP HANDLING FEEDING PLANT	90	4	RAP HANDLING FEEDING PLANT

Attached you will find a table identifying all substances that were evaluated for cancer risk, noncancer acute, 8-hour and chronic health impacts. (Refer to Attachment "A", Table 1). In addition, you will find the toxic emissions table found in Attachment "A", Table 2 for the toxic emissions table summed by substance.

The emissions inventory for the facility was based on production data from the facility for reporting year 2021.

B. Exposure Assessment

1. Facility Information

All American Asphalt owns and operates a Hot Mix Asphalt Facility located at 13646 Live Oak Ln, Irwindale, CA 91706 (UTM 410123.9 m E, 3775059 m N, Zone 11). Figure 1 in Part II Section D 4 is a vicinity map which details the location of the facility and the surrounding area. Refer to Figure 2, 3, and 4 in Part III Section B 2 of this report for a facility plot plan detailing the emission source locations and property boundary lines. Refer to Figure 5 for a map detailing the locations of the receptors.

2. Toxic Emission Inventory Report – Reporting Year 2021

The following tables detail the toxic emissions for each source for the 2021 reporting year.

S0001 (Dryer Baghouse)

ES1P1 Dryer Combustion										
Pollutant	CAS	MMscf/yr ¹	x	EF ² (lbs/MMscf)	=	Annual Emissions (lb/yr)	÷	hours/hr	=	Hourly Emissions (lb/hr)
Acrolein	107028					0.0637784				2.93504E-05
Ammonia	7664417					255.1136				0.117401565
1. Gas Bill 2. SOUTH COAST AQMD, General Instructions Book, Appendix A										

S0001 (Dryer Baghouse) Continued

ES1P2 Dryer Baghouse						
Pollutant	CAS	Asphalt Produced (ktons/yr)	x	EF ¹ (lbs/kton)	=	Annual Emissions (lb/yr) ÷ hours = Hourly Emissions (lb/hr)
Formaldehyde	50000					3.034E+02 1.396E-01
Benzo(a)pyrene	50328					6.289E-04 2.894E-07
Dibenz(a,h)anthracene	53703					6.830E-04 3.143E-07
Benzo(a)anthracene	56553					6.058E-03 2.788E-06
Benzene	71432					1.280E+02 5.892E-02
Methyl chloroform	71556					1.350E+00 6.215E-04
Acetaldehyde	75070					2.466E+01 1.135E-02
Acenaphthene	83329					4.746E-01 2.184E-04
Phenanthrene	85018					2.990E+00 1.376E-03
Fluorene	86737					1.023E+00 4.706E-04
Naphthalene	91203					2.493E+01 1.147E-02
2-Methylnaphthalene	91576					2.855E+01 1.314E-02
Ethylbenzene	100414					1.289E+01 5.931E-03
Toluene	108883					2.049E+01 9.420E-03
Hexane	110543					3.550E+02 1.634E-01
Anthracene	120127					3.731E-01 1.717E-04
Pyrene	129000					2.716E+00 1.250E-03
Benzo(g,h,i)perylene	191242					7.871E-04 3.622E-07
Benzo(e)pyrene	192972					1.597E-03 7.351E-07
Indeno(1,2,3-cd)pyrene	193395					8.412E-04 3.871E-07
Perylene	198550					3.396E-03 1.563E-06
Benzo(b)fluoranthene	205992					1.439E-03 6.623E-07
Fluoranthene	206440					1.389E+00 6.392E-04
Benzo(k)fluoranthene	207089					1.682E-03 7.742E-07
Acenaphthylene	208968					4.090E+00 1.882E-03
Chrysene	218019					1.242E-03 5.718E-07
Isooctane (2,2,4-trimethylpentane)	540841					1.543E+01 7.103E-03
Xylene (Total)	1330207					2.037E+01 9.363E-03
Lead	7439921					8.103E+00 3.729E-03
Manganese	7439965					1.721E+01 7.920E-03
Mercury	7439976					1.181E+01 5.434E-03
Nickel	7440020					3.936E+00 1.811E-03
Silver	7440224					1.852E-01 8.523E-05
Thallium	7440280					1.582E-03 7.277E-07
Antimony	7440360					6.945E-02 3.196E-05
Arsenic	7440382					7.717E-01 3.551E-04
Barium	7440393					2.238E+00 1.030E-03
Beryllium	7440417					7.717E-01 3.551E-04
Cadmium	7440439					3.083E+00 1.419E-03
Chromium (Total)	7440473					5.981E-01 2.752E-04
Cobalt	7440484					1.003E-02 4.617E-06
Copper	7440508					1.883E+00 8.665E-04
Zinc	7440666					9.878E+00 4.537E-03
Phosphorus	7723140					1.080E+01 4.972E-03
Selenium	7782492					7.678E-01 3.534E-04
Hydrogen Sulfide	7783064					3.453E+02 1.589E-01
Chromium (Hex)	18540299					1.482E-03 6.819E-07

1. Emission factors are a combination of CATEF and AP-42 Chapter 11.1 provided by SOUTH COAST AQMD

S0003 (Rubber Plant Burner)

ES92P1 Rubber Plant										
Pollutant	CAS	MMscf/yr ¹	x	EF ² (lbs/MMscf)	=	Annual Emissions (lb/yr)	÷	hours/hr	=	Hourly Emissions (lb/hr)
Total PAHs	1151					0.00088159				1.00638E-07
Formaldehyde	50000					0.1498703				1.71085E-05
Benzene	71432					0.0705272				8.05105E-06
Acetaldehyde	75070					0.03790837				4.32744E-06
Napthalene	91203					0.00264477				3.01914E-07
Ethyl benzene	100414					0.08375105				9.56062E-06
Acrolein	107028					0.02380293				2.71723E-06
Toluene	108883					0.32266194				3.68336E-05
Hexane	110543					0.05554017				6.3402E-06
Xylenes	1330207					0.23979248				2.73736E-05
Ammonia	7664417					28.21088				0.00322042
1. Gas Bill										
2. SOUTH COAST AQMD, General Instructions Book, Appendix A										

S0004 (Blue Smoke Control)

ES1P3 SILO FILLING														
Pollutant	CAS	Production (ktons/yr)	x	AP42 Proportion ¹ (%)	x	Filter Efficiency	x	Organic PM EF ² (lbs/kton)	=	Toxic Emissions (lbs/yr)	÷	hours/yr	=	Toxic Emissions (lbs/hr)
2-Methylnaphthalene	91576			0.0527000		0.1				0.516496193				2.377E-04
Acenaphthene	83329			0.0047000		0.1				0.046063228				2.120E-05
Acenaphthylene	208968			0.0001400		0.1				0.001372096				6.314E-07
Anthracene	120127			0.0013000		0.1				0.012740893				5.863E-06
Benzene*	71432			0.0003200		1				1.504644649				6.924E-04
Benzo(a) anthracene	56553			0.0005600		0.1				0.005488385				2.526E-06
Benzo(e) pyrene	192972			0.0000950		0.1				0.000931065				4.285E-07
Chrysene	218019			0.0021000		0.1				0.020581442				9.471E-06
Ethylbenzene	100414			0.0003800		1				1.786765521				8.223E-04
Fluoranthene	206440			0.0015000		0.1				0.01470103				6.765E-06
Fluorene	86737			0.0101000		0.1				0.098986936				4.555E-05
Formaldehyde	50000			0.0069000		1				32.44390025				1.493E-02
m-,p-Xylene	1330207			0.0020000		1				9.404029057				4.328E-03
n-hexane	110543			0.0010000		1				4.702014529				2.164E-03
Naphthalene	91203			0.0182000		0.1				0.178372499				8.209E-05
o-Xylene	95476			0.0005700		1				2.680148281				1.233E-03
Perylene	198550			0.0003000		0.1				0.002940206				1.353E-06
Phenanthrene	85018			0.0180000		0.1				0.176412362				8.118E-05
Pyrene	129000			0.0044000		0.1				0.043123022				1.984E-05
Styrene	100425			0.0000540		1				0.253908785				1.168E-04
Toluene	108883			0.0006200		1				2.915249008				1.342E-03
1. AP-42 Table 11.1-15 and 11.1-16														
2. AP-42 Table 11.1-14														

S0004 (Blue Smoke Control) Continued

ES1P4 SILO LOADOUT														
Pollutant	CAS	Production (ktons/yr)	x	AP42 Proportion ¹ (%)	x	Filter Efficiency	x	Organic PM EF ² (lbs/kton)	=	Toxic Emissions (lbs/yr)	÷	hours/yr	=	Toxic Emissions (lbs/hr)
2-Methylnaphthalene	91576			0.023800		0.1				0.313093				1.441E-04
Acenaphthene	83329			0.002600		0.1				0.034203				1.574E-05
Acenaphthylene	208968			0.000280		0.1				0.003683				1.695E-06
Anthracene	120127			0.000700		0.1				0.009209				4.238E-06
Benzene	71432			0.000520		1				0.834458				3.840E-04
Benzo(a) anthracene	56553			0.000190		0.1				0.002499				1.150E-06
Benzo(a) pyrene	50328			0.000023		0.1				0.000303				1.392E-07
Benzo(b) fluoranthene	205992			0.000076		0.1				0.001000				4.601E-07
Benzo(e) pyrene	192972			0.000078		0.1				0.001026				4.722E-07
Benzo(g,h,i) perylene	191242			0.000019		0.1				0.000250				1.150E-07
Benzo(k) fluoranthene	207089			0.000022		0.1				0.000289				1.332E-07
Chrysene	218019			0.001030		0.1				0.013550				6.236E-06
Dibenz(a,h) anthracene	53703			0.000004		0.1				0.000049				2.240E-08
Ethylbenzene	100414			0.002800		1				4.493237				2.068E-03
Fluoranthene	206440			0.000500		0.1				0.006578				3.027E-06
Fluorene	86737			0.007700		0.1				0.101295				4.662E-05
Formaldehyde	50000			0.000880		1				1.412160				6.499E-04
Indeno(1,2,3-cd)pyrene	193395			0.000005		0.1				0.000062				2.845E-08
m-,p-Xylene	1330207			0.004100		1				0.539363				2.482E-04
n-hexane	110543			0.001500		1				2.407091				1.108E-03
Naphthalene	91203			0.012500		0.1				0.164440				7.567E-05
o-Xylene	95476			0.000800		1				1.283782				5.908E-04
Perylene	198550			0.000220		0.1				0.002894				1.332E-06
Phenanthrene	85018			0.008100		0.1				0.106557				4.904E-05
Pyrene	129000			0.001500		0.1				0.019733				9.081E-06
Styrene	100425			0.000073		1				0.117145				5.391E-05
Toluene	108883			0.002100		1				3.369928				1.551E-03
Trichlorofluoromethan	75694			0.000013		1				0.020861				9.600E-06
1. AP-42 Table 11.1-15 and 11.1-16 2. AP-42 Table 11.1-14														

S0005 (AC Oil Tanks)

ES2-6 AC Oil Tank														
PM Pollutants														
Chemical	CAS #	Per Tank Loss/Year ¹	x	AP-42 Percent Present Compound/ Organic PM ²	x	Proportion PM	x	Control Efficiency	=	Controlled Toxic PM Emission (lbs/yr)	÷	Hours/yr	=	Controlled Toxic PM Emissions (lb/hr)
2-Methyl naphthalene	91576			5.27				0.1		0.744728996				0.000342719
Acenaphthene	83329			0.47				0.1		0.066417956				3.05651E-05
Acenaphthylene	208968			0.014				0.1		0.001978407				9.1045E-07
Anthracene	120127			0.13				0.1		0.018370924				8.45418E-06
Benz(a) anthracene	56553			0.056				0.1		0.007913629				3.6418E-06
Benzo(e)pyrene	192972			0.0095				0.1		0.001342491				6.17805E-07
Chrysene	218019			0.21				0.1		0.029676108				1.36567E-05
Perylene	198550			0.03				0.1		0.004239444				1.95096E-06
Phenanthrene	85018			1.8				0.1		0.25436664				0.000117058
Pyrene	129000			0.44				0.1		0.062178512				2.86141E-05
Fluoranthene	206440			0.15				0.1		0.02119722				9.75482E-06
Fluorene	86737			1.01				0.1		0.142727948				6.56824E-05
Naphthalene	91203			1.82				0.1		0.257192936				0.000118358
VOC Pollutants														
Chemical	CAS #	Per Tank Loss/Year ¹	x	AP-42 Percent Present Compound/ VOC ²	x	Proportion VOC		Control Efficiency	=	Toxic VOC Emission (lbs/yr)	÷	Hours/yr	=	Controlled Toxic VOC Emissions (lb/hr)
2-Butanone	78933			0.039				1		0.195399828				8.99217E-05
Benzene	71432			0.032				1		0.160328064				7.37819E-05
Bromomethane	74839			0.0049				1		0.024550235				1.12979E-05
Carbon Disulfide	75150			0.016				1		0.080164032				3.68909E-05
Chloroethane	75003			0.004				1		0.020041008				9.22274E-06
Chloromethane	74873			0.023				1		0.115235796				5.30307E-05
Ethyl benzene	100414			0.038				1		0.190389576				8.7616E-05
Ethylene	74851			1.1				1		5.5112772				0.002536253
Formaldehyde	50000			0.69				1		3.45707388				0.001590922
Isooctane	540841			0.00031				1		0.001553178				7.14762E-07
m-,p-Xylene	1330207			0.2				1		1.0020504				0.000461137
Methylene chloride	75092			0.00027				1		0.001352768				6.22535E-07
n-Hexane	110543			0.1				1		0.5010252				0.000230568
o-Xylene	95476			0.057				1		0.285584364				0.000131424
Styrene	100425			0.0054				1		0.027055361				1.24507E-05
Toluene	108883			0.062				1		0.310635624				0.000142952
1. TANKS														
2. AP-42 Section 11.1-15 and 11.1-16														

S0006 (Agg Handling)

ES90P1 Aggregate Handling										
Pollutant	CAS	PM ¹ (lbs/yr)	x	EF ² (lb/lb PM)	=	Annual Emissions (lb/yr)	÷	hours	=	Hourly Emissions (lb/hr)
Arsenic	7440382					0.004347				2E-06
Beryllium	7440417					0.0002656				1.223E-07
Cadmium	7440439					0.0004629				2.13E-07
Chrystaline Silica ³	1175					18.404508				0.0084696
Copper	7440508					0.0301874				1.389E-05
Hex Chrome	18540299					0.0005474				2.519E-07
Lead	7439921					0.0140875				6.483E-06
Mercury	7439976					4.508E-05				2.075E-08
Nickel	7440020					0.01449				6.668E-06
Barium	7440393					0.0287384				1.323E-05
Chromium	7440473					0.0330049				1.519E-05
Cobalt	7440484					0.0100625				4.631E-06
Zinc	7440666					0.2535744				0.0001167
Molybdenum	7439987					0.0007567				3.482E-07
Vanadium	7440622					0.0607773				2.797E-05
1. AP-42, Table 11.19.2-2										
2. RMA Group Materials Test Report from All American, Irvine, August 18, 2021										
3. CRNOS-PM4 Crystalline Silica Emissions Factors and Ambient Concentrations November 2009										

S0007 (Storage Pile 2: RAP)

ES83P2 Storage Pile 2 (RAP)										
Pollutant	CAS	PM ¹ (lbs/yr)	x	EF ² (lb/lb PM)	=	Annual Emissions (lb/yr)	÷	hours	=	Hourly Emissions (lb/hr)
Arsenic	7440382					0.0045823				2.109E-06
Beryllium	7440417					0.000212				9.757E-08
Cadmium	7440439					0.0005403				2.486E-07
Chrystaline Silica ³	7631869					20.217632				0.009304
Copper	7440508					0.0225697				1.039E-05
Hex Chrome	18540299					0.0006839				3.147E-07
Lead	7439921					0.0170982				7.868E-06
Nickel	7440020					0.0198339				9.127E-06
Barium	7440393					0.0567661				2.612E-05
Chromium	7440473					0.0225697				1.039E-05
Cobalt	7440484					0.0056082				2.581E-06
Zinc	7440666					0.0526626				2.423E-05
Molybdenum	7439987					0.0015046				6.924E-07
Vanadium	7440622					0.0362482				1.668E-05
1. AP-42, Table 11.19.2-2										
2. RMA Group Materials Test Report from All American, Irvine, August 18, 2021										
3. CRNOS-PM4 Crystalline Silica Emissions Factors and Ambient Concentrations November 2009										

S0008 (Maintenance Equipment)

ES84P1 Welding Electrode (E7018)										
Pollutant	CAS	Electrode Usage (lb/yr)	x	EF ¹ (lb/lb PM)	=	Annual Emissions (lb/yr)	÷	hours/hr	=	Hourly Emissions (lb/hr)
Hex chromium	18540299			0		0				0
Manganese	7439965			0.00103		0.1236				5.68799E-05
Nickel	7440020			0.000002		0.00024				1.10446E-07

1. Source: AP-42 Chapter 12.19, Table 12.19-2

ES84P2 Welding Electrode (E6011)										
Pollutant	CAS	Electrode Usage (lb/yr)	x	EF ¹ (lb/lb PM)	=	Annual Emissions (lb/yr)	÷	hours/hr	=	Hourly Emissions (lb/hr)
Hex chromium	18540299			0.00001		0.00012				5.52232E-08
Manganese	7439965			0.000998		0.011976				5.51127E-06
Nickel	7440020			0.000005		0.00006				2.76116E-08

1. Source: AP-42 Chapter 12.19, Table 12.19-2

ES102P1 Propane Torch										
Pollutant	CAS	Propane Used (kgal/yr)	x	EF ¹ (lbs/kgal)	=	Annual Emissions (lb/yr)	÷	hours/hr	=	Hourly Emissions (lb/hr)
Benzene	71432			0.00051		0.00002295				1.05614E-08
Formaldehyde	50000			0.00109		0.00004905				2.25725E-08
PAHs (excluding	1151			0.00001		0.00000045				2.07087E-10
Naphthalene	91203			0.00003		0.00000135				6.21261E-10
Acetaldehyde	75070			0.00028		0.0000126				5.79844E-09
Acrolein	107028			0.00024		0.0000108				4.97009E-09
Ammonia	7664417			0.3		0.0135				6.21261E-06
Ethyl benzene	100414			0.00061		0.00002745				1.26323E-08
Hexane	110543			0.00041		0.00001845				8.49057E-09
Toluene	108883			0.00235		0.00010575				4.86654E-08
Xylene	1330207			0.00175		0.00007875				3.62402E-08

1. SOUTH COAST AQMD, General Instructions Book, Appendix A, Table 8

S0009 (Diesel Engines)

ES96P1 Diesel Air Compressor										
Pollutant	CAS	Diesel Used (kgal/yr)	x	EF ¹ (lbs/kgal)	=	Annual Emissions (lb/yr)	÷	hours/hr	=	Hourly Emissions (lb/hr)
1,3 Butadiene	106990			0.2174		0.00178268				8.20377E-07
Acetaldehyde	75070			0.7833		0.00642306				2.95585E-06
Acrolein	107028			0.0339		0.00027798				1.27925E-07
Ammonia	7664417			0.8		0.00656				3.01887E-06
Arsenic	7440382			0.0016		0.00001312				6.03774E-09
Benzene	71432			0.1863		0.00152766				7.03019E-07
Cadmium	7440439			0.0015		0.0000123				5.66038E-09
Copper	7440508			0.0041		0.00003362				1.54717E-08
Diesel exhaust particulates	9901			33.5		0.2747				0.000126415
Ethyl benzene	100414			0.0109		0.00008938				4.11321E-08
Formaldehyde	50000			1.7261		0.01415402				6.51358E-06
Hexane	110543			0.0269		0.00022058				1.01509E-07
Hexavalent Chromium	18540299			0.0001		0.00000082				3.77358E-10
Hydrochloric acid	7647010			0.1863		0.00152766				7.03019E-07
Lead	7439921			0.0083		0.00006806				3.13208E-08
Manganese	7439965			0.0031		0.00002542				1.16981E-08
Mercury	7439976			0.002		0.0000164				7.54717E-09
Naphthalene	91203			0.0197		0.00016154				7.43396E-08
Nickel	7440020			0.0039		0.00003198				1.4717E-08
PAHs	1151			0.0362		0.00029684				1.36604E-07
Selenium and compounds	7782492			0.0022		0.00001804				8.30189E-09
Toluene	108883			0.1054		0.00086428				3.97736E-07
Xylenes	1330207			0.0424		0.00034768				0.00000016

1. Source: SOUTH COAST AQMD, General Instructions Book, Appendix A

S0009 (Diesel Engines) Continued

ES101P1 Diesel Light Towers										
Pollutant	CAS	Diesel Used (kgal/yr)	x	EF ¹ (lbs/kgal)	=	Annual Emissions (lb/yr)	÷	hours/hr	=	Hourly Emissions (lb/hr)
1,3 Butadiene	106990			0.2174		0.00615242				2.8313E-06
Acetaldehyde	75070			0.7833		0.02216739				1.02013E-05
Acrolein	107028			0.0339		0.00095937				4.41496E-07
Ammonia	7664417			0.8		0.02264				1.04188E-05
Arsenic	7440382			0.0016		0.00004528				2.08376E-08
Benzene	71432			0.1863		0.00527229				2.42627E-06
Cadmium	7440439			0.0015		0.00004245				1.95352E-08
Copper compounds	7440508			0.0041		0.00011603				5.33962E-08
Diesel exhaust particulates	9901			33.5		0.94805				0.000436286
Ethyl benzene	100414			0.0109		0.00030847				1.41956E-07
Formaldehyde	50000			1.7261		0.04884863				2.24798E-05
Hexane	110543			0.0269		0.00076127				3.50331E-07
Hexavalent Chromium	18540299			0.0001		0.00000283				1.30235E-09
Hydrochloric acid	7647010			0.1863		0.00527229				2.42627E-06
Lead	7439921			0.0083		0.00023489				1.08095E-07
Manganese Compounds	7439965			0.0031		0.00008773				4.03728E-08
Mercury Compounds	7439976			0.002		0.0000566				2.60469E-08
Naphthalene	91203			0.0197		0.00055751				2.56562E-07
Nickel	7440020			0.0039		0.00011037				5.07915E-08
PAHs	1151			0.0362		0.00102446				4.7145E-07
Selenium compounds	7782492			0.0022		0.00006226				2.86516E-08
Toluene	108883			0.1054		0.00298282				1.37267E-06
Xylene	1330207			0.0424		0.00119992				5.52195E-07

1. Source: SOUTH COAST AQMD, General Instructions Book, Appendix A

S0010 (HSI D106 Baghouse)

ES90P2 Horizontal Shaft Impactor D106										
Pollutant	CAS	PM ¹ (lbs/yr)	x	EF ² (lb/lb PM)	=	Annual Emissions lb/yr	÷	hours	=	Hourly Emissions (lb/hr)
Arsenic	7440382					4.999E-06				2.3E-09
Beryllium	7440417					2.313E-07				1.064E-10
Cadmium	7440439					5.894E-07				2.712E-10
Chrystaline Silica ³	1175					0.017058				7.85E-06
Copper	7440508					2.462E-05				1.133E-08
Hex Chrome	18540299					7.461E-07				3.434E-10
Lead	7439921					1.865E-05				8.584E-09
Nickel	7440020					2.164E-05				9.957E-09
Barium	7440393					6.193E-05				2.85E-08
Chromium	7440473					2.462E-05				1.133E-08
Cobalt	7440484					6.118E-06				2.815E-09
Zinc	7440666					5.745E-05				2.644E-08
Molybdenum	7439987					1.641E-06				7.554E-10
Vanadium	7440622					3.954E-05				1.82E-08

1. AP-42, Table 11.19.2-2
2. RMA Group Materials Test Report from All American, Irvine, August 18, 2021
3. CRNOS-PM4 Crystalline Silica Emissions Factors and Ambient Concentrations November 2009

S0011 (HSI D59 Baghouse)

ES90P3 Horizontal Shaft Impactor D59										
Pollutant	CAS	PM ¹ (lbs/yr)	x	EF ² (lb/lb PM)	=	Annual Emissions lb/yr	÷	hours	=	Hourly Emissions (lb/hr)
Arsenic	7440382					4.999E-06				2.3E-09
Beryllium	7440417					2.313E-07				1.064E-10
Cadmium	7440439					5.894E-07				2.712E-10
Chrystaline Silica ³	1175					0.017058				7.85E-06
Copper	7440508					2.462E-05				1.133E-08
Hex Chrome	18540299					7.461E-07				3.434E-10
Lead	7439921					1.865E-05				8.584E-09
Nickel	7440020					2.164E-05				9.957E-09
Barium	7440393					6.193E-05				2.85E-08
Chromium	7440473					2.462E-05				1.133E-08
Cobalt	7440484					6.118E-06				2.815E-09
Zinc	7440666					5.745E-05				2.644E-08
Molybdenum	7439987					1.641E-06				7.554E-10
Vanadium	7440622					3.954E-05				1.82E-08

1. AP-42, Table 11.19.2-2
2. RMA Group Materials Test Report from All American, Irvine, August 18, 2021
3. CRNOS-PM4 Crystalline Silica Emissions Factors and Ambient Concentrations November 2009

S0012 – S0019 (Haul Roads)

ES87P1-8 Paved Haul Roads												
Pollutant	Cas #	PM ² (lbs _{pm} /yr)	x	EF ¹ (lbs/lbs _{pm})	÷	8 Haul Road Segments	=	Annual E _{LS} (lbs/yr)	÷	Hours per year	=	Hourly E _{LS} (lbs/hr)
Aluminum	7429905					8		39.953				1.84E-02
Antimony	7440360					8		0.004				1.63E-06
Arsenic	7440382					8		0.008				3.50E-06
Barium	7440393					8		0.482				2.22E-04
Bromine	7726956					8		0.011				4.89E-06
Cadmium	7440439					8		0.013				5.83E-06
Chlorine	7782505					8		0.659				3.03E-04
Chromium	7440473					8		0.124				5.71E-05
Cobalt	7440484					8		0.075				3.47E-05
Copper	7440508					8		0.044				2.03E-05
Lead	7439921					8		0.456				2.10E-04
Manganese	7439965					8		0.532				2.45E-04
Mercury	7439976					8		0.008				3.50E-06
Nickel	7440020					8		0.032				1.47E-05
Phosphorus	7723140					8		0.811				3.73E-04
Selenium	7782492					8		0.001				2.33E-07
Silver	7440224					8		0.005				2.10E-06
Vanadium (Fume Or Dust)	7440622					8		0.158				7.27E-05
Zinc	7440666					8		0.315				1.45E-04

1. CARB Profile 416
2. Based on SOUTH COAST AQMD's Particulate Matter (PM) Emission Factors for Process/Equipment at Asphalt, Cement and Aggregate Product Plants interpretation of AP-42 13.2.1, Equation 1

S0020 (Diesel Fueling)

ES91P1 Diesel Storage												
Pollutant	CAS	Diesel Stored (kgal)	x	EF ¹ (% present)	x	Overall EF (lbs/kgal)	=	Annual Emissions (lb/yr)	÷	hours/hr	=	Hourly Emissions (lb/hr)
1,2,4-trimethylbenzene	95636			1.00000%		0.028		0.067460369				3.10448E-05
Benzene	71432			0.00080%		0.028		5.39683E-05				2.48358E-08
Ethylbenzene	100414			0.01300%		0.028		0.000876985				4.03583E-07
m-xylene	108383			0.29000%		0.028		0.019563507				9.00299E-06
n-hexane	110543			0.00010%		0.028		6.74604E-06				3.10448E-09
Toluene	108883			0.03200%		0.028		0.002158732				9.93434E-07

1. Source: SOUTH COAST AQMD General Instruction Book, Appendix A

S0021 (Storage Pile 1: Aggregate)

ES83P1 Storage Pile 1 (Aggregate)										
Pollutant	CAS	PM ¹ (lbs/yr)	x	EF ² (lb/lb PM)	=	Annual Emissions lb/yr	÷	hours	=	Hourly Emissions (lb/hr)
Arsenic	7440382					0.021604				9.942E-06
Beryllium	7440417					0.0013202				6.076E-07
Cadmium	7440439					0.0023004				1.059E-06
Chrystaline Silica ³	7631869					118.26596				0.0544252
Copper	7440508					0.1500279				6.904E-05
Hex Chrome	18540299					0.0027205				1.252E-06
Lead	7439921					0.070013				3.222E-05
Mercury	7439976					0.000224				1.031E-07
Nickel	7440020					0.0720134				3.314E-05
Barium	7440393					0.1428265				6.573E-05
Chromium	7440473					0.1640305				7.549E-05
Cobalt	7440484					0.0500093				2.301E-05
Zinc	7440666					1.260234				0.00058
Molybdenum	7439987					0.0037607				1.731E-06
Vanadium	7440622					0.3020561				0.0001389

1. AP-42, Table 11.19.2-2
2. RMA Group Materials Test Report from All American, Irvine, August 18, 2021
3. CRNOS-PM4 Crystalline Silica Emissions Factors and Ambient Concentrations November 2009

S0022 (Storage Pile 3: RAP)

ES83P3 Storage Pile 3 (RAP)										
Pollutant	CAS	PM ¹ (lbs/yr)	x	EF ² (lb/lb PM)	=	Annual Emissions lb/yr	÷	hours	=	Hourly Emissions (lb/hr)
Arsenic	7440382					0.0045823				2.109E-06
Beryllium	7440417					0.000212				9.757E-08
Cadmium	7440439					0.0005403				2.486E-07
Chrystaline Silica ³	7631869					20.217632				0.009304
Copper	7440508					0.0225697				1.039E-05
Hex Chrome	18540299					0.0006839				3.147E-07
Lead	7439921					0.0170982				7.868E-06
Nickel	7440020					0.0198339				9.127E-06
Barium	7440393					0.0567661				2.612E-05
Chromium	7440473					0.0225697				1.039E-05
Cobalt	7440484					0.0056082				2.581E-06
Zinc	7440666					0.0526626				2.423E-05
Molybdenum	7439987					0.0015046				6.924E-07
Vanadium	7440622					0.0362482				1.668E-05

1. AP-42, Table 11.19.2-2
2. RMA Group Materials Test Report from All American, Irvine, August 18, 2021
3. CRNOS-PM4 Crystalline Silica Emissions Factors and Ambient Concentrations November 2009

S0023 (Storage Pile 4: RAP)

ES83P4 Storage Pile 4 (RAP)										
Pollutant	CAS	PM ¹ (lbs/yr)	x	EF ² (lb/lb PM)	=	Annual Emissions lb/yr	÷	hours	=	Hourly Emissions (lb/hr)
Arsenic	7440382					0.0045823				2.109E-06
Beryllium	7440417					0.000212				9.757E-08
Cadmium	7440439					0.0005403				2.486E-07
Chrystaline Silica ³	7631869					20.217632				0.009304
Copper	7440508					0.0225697				1.039E-05
Hex Chrome	18540299					0.0006839				3.147E-07
Lead	7439921					0.0170982				7.868E-06
Nickel	7440020					0.0198339				9.127E-06
Barium	7440393					0.0567661				2.612E-05
Chromium	7440473					0.0225697				1.039E-05
Cobalt	7440484					0.0056082				2.581E-06
Zinc	7440666					0.0526626				2.423E-05
Molybdenum	7439987					0.0015046				6.924E-07
Vanadium	7440622					0.0362482				1.668E-05

1. AP-42, Table 11.19.2-2
2. RMA Group Materials Test Report from All American, Irvine, August 18, 2021
3. CRNOS-PM4 Crystalline Silica Emissions Factors and Ambient Concentrations November 2009

S0024 (Independent RAP Plant Handling)

ES90P5 Independent RAP Plant Handling										
Pollutant	CAS	PM ¹ (lbs/yr)	x	EF ² (lb/lb PM)	=	Annual Emissions lb/yr	÷	hours	=	Hourly Emissions (lb/hr)
Arsenic	7440382					0.0027661				1.273E-06
Beryllium	7440417					0.000128				5.89E-08
Cadmium	7440439					0.0003261				1.501E-07
Chrystaline Silica ³	1175					9.4387825				0.0043437
Copper	7440508					0.0136239				6.27E-06
Hex Chrome	18540299					0.0004128				1.9E-07
Lead	7439921					0.0103211				4.75E-06
Nickel	7440020					0.0119725				5.51E-06
Barium	7440393					0.0342661				1.577E-05
Chromium	7440473					0.0136239				6.27E-06
Cobalt	7440484					0.0033853				1.558E-06
Zinc	7440666					0.031789				1.463E-05
Molybdenum	7439987					0.0009083				4.18E-07
Vanadium	7440622					0.0218808				1.007E-05

1. AP-42, Table 11.19.2-2
2. RMA Group Materials Test Report from All American, Irvine, August 18, 2021
3. CRNOS-PM4 Crystalline Silica Emissions Factors and Ambient Concentrations November 2009

S0025 (RAP Handling Feeding Plant)

ES90P4 RAP Handling Feeding Asphalt Plant										
Pollutant	CAS	PM ¹ (lbs/yr)	x	EF ² (lb/lb PM)	=	Annual Emissions lb/yr	÷	hours	=	Hourly Emissions (lb/hr)
Arsenic	7440382					0.0016163				7.438E-07
Beryllium	7440417					7.478E-05				3.442E-08
Cadmium	7440439					0.0001906				8.77E-08
Chrystaline Silica ³	1175					5.5154332				0.0025382
Copper	7440508					0.0079609				3.664E-06
Hex Chrome	18540299					0.0002412				1.11E-07
Lead	7439921					0.006031				2.775E-06
Nickel	7440020					0.006996				3.22E-06
Barium	7440393					0.020023				9.214E-06
Chromium	7440473					0.0079609				3.664E-06
Cobalt	7440484					0.0019782				9.103E-07
Zinc	7440666					0.0185755				8.548E-06
Molybdenum	7439987					0.0005307				2.442E-07
Vanadium	7440622					0.0127857				5.884E-06

1. AP-42, Table 11.19.2-2
2. RMA Group Materials Test Report from All American, Irvine, August 18, 2021
3. CRNOS-PM4 Crystalline Silica Emissions Factors and Ambient Concentrations November 2009

3. Source and Emission Inventory Information

a. Release Parameters

Below you will find a table which summarizes the source release data which includes release name, release type, source identification numbers, release location, release parameters and stack information. The release data below are identical to the release parameters found in the EIM file submitted with the ATIR.

Table 3- Source Release Data

Type	Source	Description	X Coordinate	Y Coordinate	Elevation	Emission Rate	Stack Height	Temp	Stack Velocity	Stack Diameter
	ID		[m]	[m]	[m]	[g/s]	[m]	[C]	[ft/min]	[m]
Point	S0001	DRYER BAGHOUSE			127.98	1	9.85	125.56	4276.24	1.12
Point	S0003	RUBBER PLANT BURNER			124.73	1	4.08	154.44	456.43	0.51
Point	S0004	BLUE SMOKE CONTROL			128.25	1	6.02	25.56	2943.58	1.13
Point	S0005	AC OIL TANKS			124.73	1	6.10	20.00	0.17	0.91
Point	S0010	HSI D106 BAGHOUSE			125.95	1	7.13	20.00	8506.92	0.20
Point	S0011	HSI D59 BAGHOUSE			127.27	1	6.17	20.00	2696.67	0.36

Type	Source	Description	X Coordinate	Y Coordinate	Elevation	Emission Rate	Release Height	X Length	Y Length	Angle	Init. Vert. Dim.
	ID		[m]	[m]	[m]	[g/s-m ²]	[m]	[m]	[m]		[m]
Area	S0007	STORAGE PILE 2 (RAP)			125.13	0.00077	4.572	21.336	61.0	140	1.8288
Area	S0008	MAINTENANCE EQUIPMENT			126.77	0.00020	1.524	81.101	60.6	42.7	0.353568
Area	S0009	DIESEL ENGINES			126.77	0.00020	2.1336	81.101	60.6	42.7	0.353568
Area	S0012	HAUL ROAD 1			127.07	0.00219	3.048	6.096	75.0	-43.7	6.096
Area	S0013	HAUL ROAD 2			126.52	0.00219	3.048	6.096	75.0	-45.5	6.096
Area	S0014	HAUL ROAD 3			122.22	0.00219	3.048	6.096	75.0	-133.3	6.096
Area	S0015	HAUL ROAD 4			124.5	0.00219	3.048	6.096	75.0	132.4	6.096
Area	S0016	HAUL ROAD 5			122.31	0.00219	3.048	6.096	75.0	130.2	6.096
Area	S0017	HAUL ROAD 6			123.51	0.00219	3.048	6.096	75.0	59	6.096
Area	S0018	HAUL ROAD 7			127.7	0.00219	3.048	6.096	75.0	-45	6.096
Area	S0019	HAUL ROAD 8			125.88	0.00219	3.048	6.096	75.0	-44.2	6.096
Area	S0020	DIESEL FUELING			125.79	1.19599	1.524	0.9144	0.9	39.6	0.3401568
Area	S0021	STORAGE PILE 1 (AGGREGATE)			127.77	0.00096	4.572	18.9	55.2	-42.6	1.8288
Area	S0022	STORAGE PILE 3 (RAP)			122.22	0.00016	4.572	64.4	95.8	47	1.8288
Area	S0023	STORAGE PILE 4 (RAP)			122.84	0.00054	4.572	27.3	67.9	-54.8	1.8288

Type	Source	Description	X Coordinate	Y Coordinate	Elevation	Emission Rate	Release Height	Init. Lat. Dim.	Init. Vert. Dim.
	ID		[m]	[m]	[m]	[g/s]	[m]	[m]	[m]
Volume	S0006	AGG HANDLING			128.48	1	3.048	14.88558	6.096
Volume	S0024	INDEPENDENT RAP PLANT HANDLING			126.16	1	3.048	14.88558	6.096
Volume	S0025	RAP HANDLING FEEDING PLANT			127.29	1	3.048	14.88558	6.096

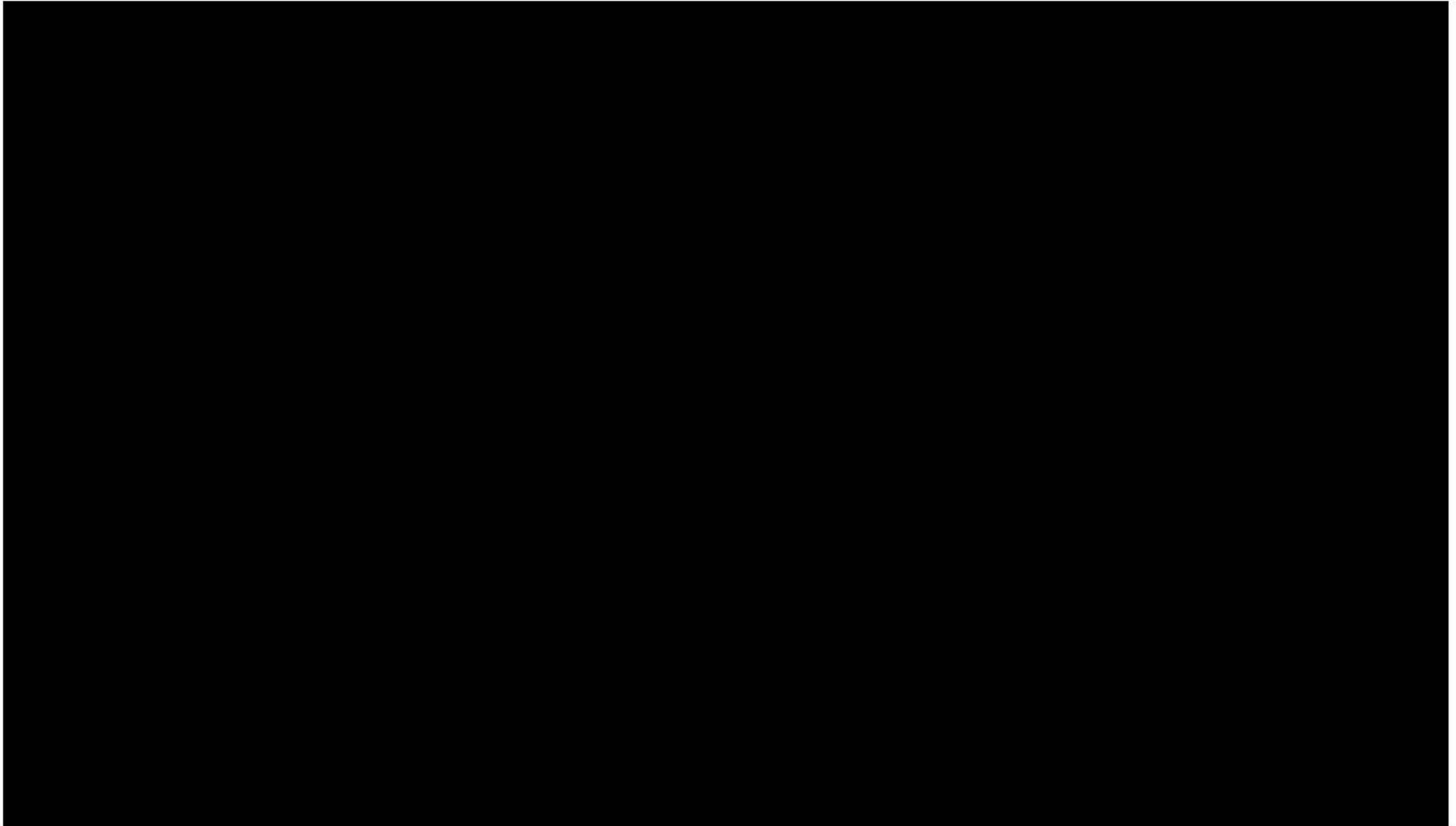


Figure 2 - Point Source ID Map

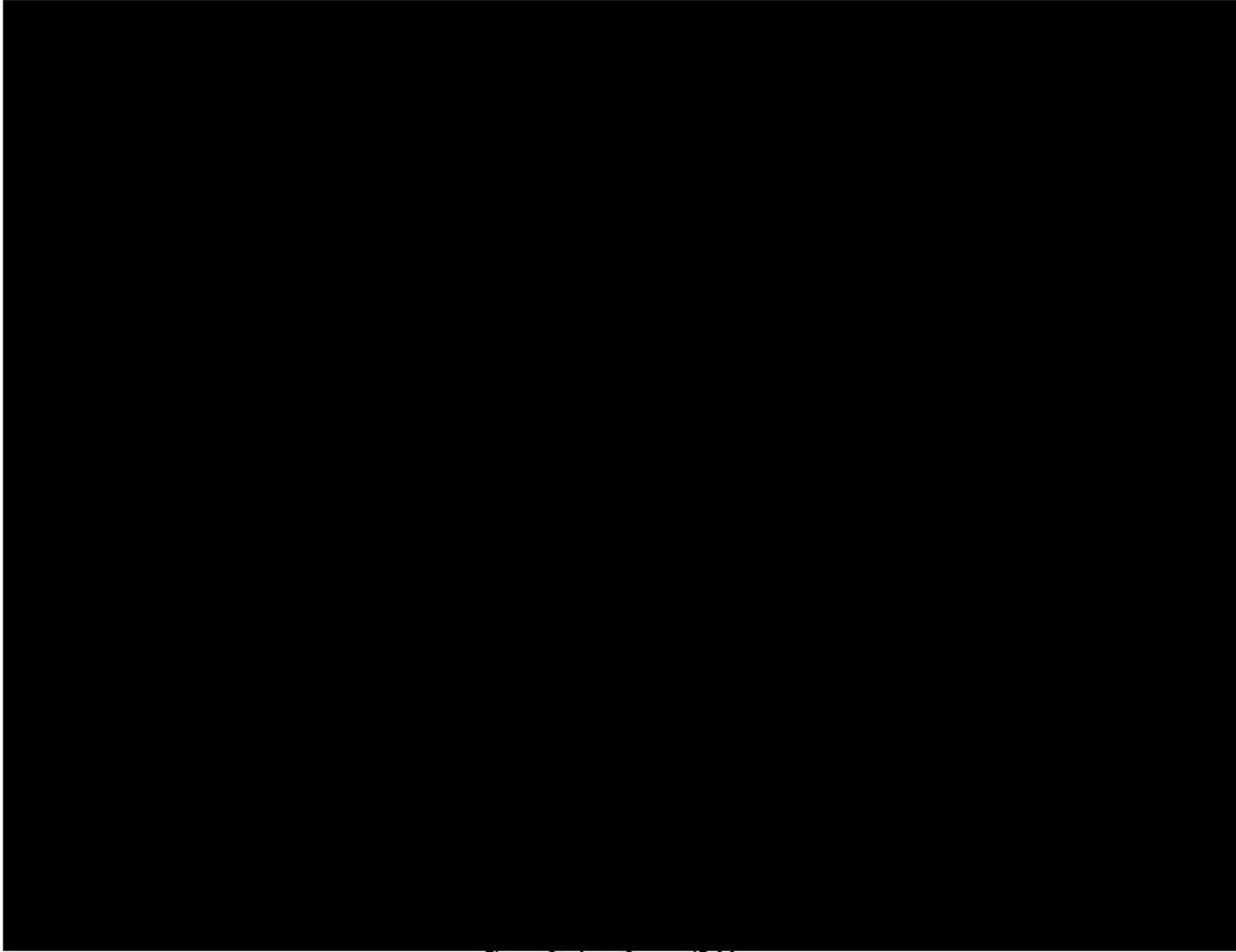


Figure 3 - Area Source ID Map

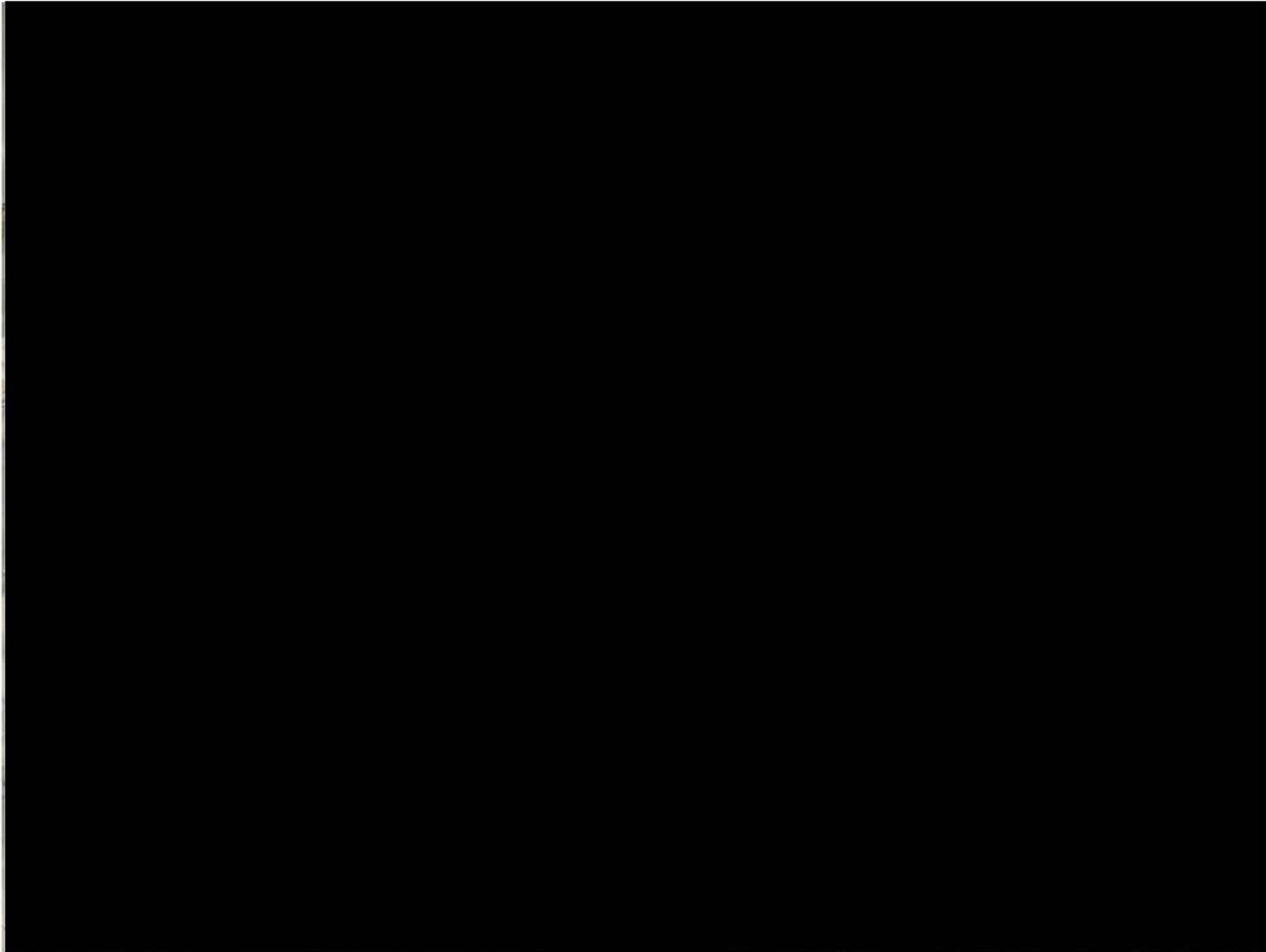


Figure 4 - Volume Source ID Map

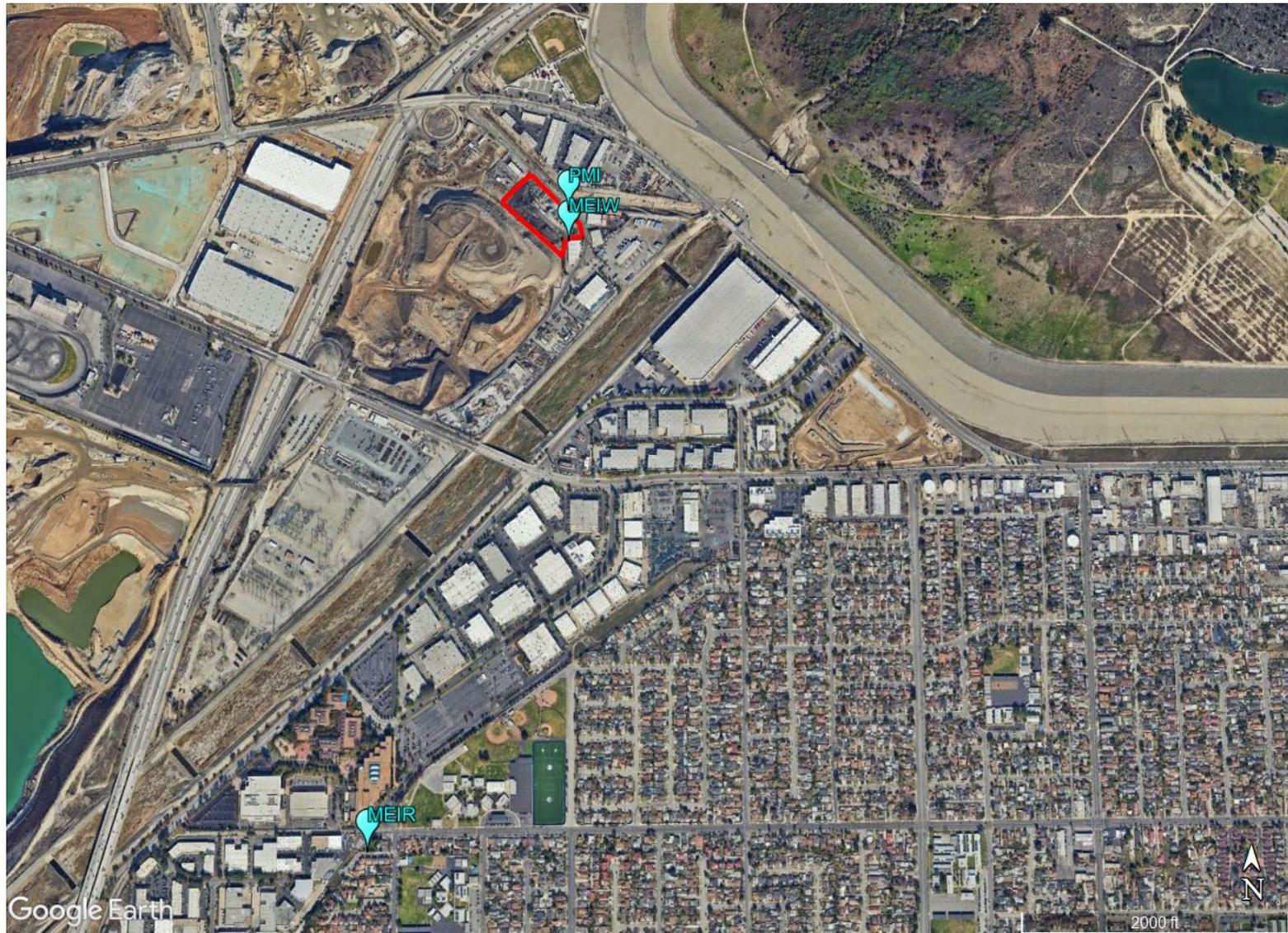


Figure 5 - MEIR, MEIW and PMI Locations

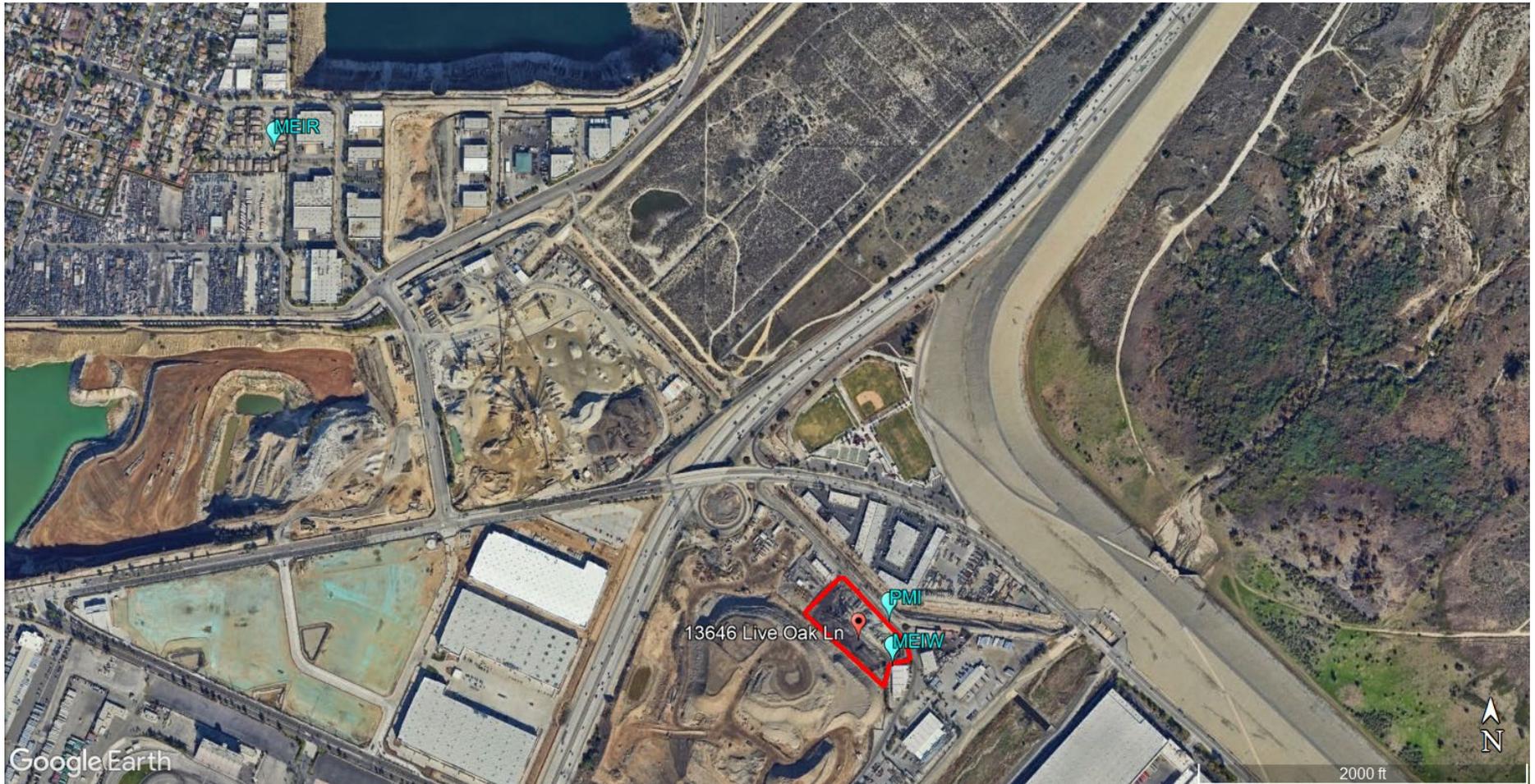


Figure 6 - MEIR, MEIW and PMI Locations for Acute

b. Source Description, Operating Schedule, Emission Control Equipment

A table detailing the source description, operating schedule, emission equipment control can be found below in Table 4.

Table 4 - Source Schedule and Control Equipment

Source ID	Description	Operating Schedule (hrs./yr)
S0001	DRYER BAGHOUSE	
S0003	RUBBER PLANT BURNER	
S0004	BLUE SMOKE CONTROL	
S0005	AC OIL TANKS	
S0006	AGG HANDLING	
S0007	STORAGE PILE 2 (RAP)	
S0008	MAINTENANCE EQUIPMENT	
S0009	DIESEL ENGINES	
S0010	HSI D106 BAGHOUSE	
S0011	HSI D59 BAGHOUSE	
S0012	HAUL ROAD 1	
S0013	HAUL ROAD 2	
S0014	HAUL ROAD 3	
S0015	HAUL ROAD 4	
S0016	HAUL ROAD 5	
S0017	HAUL ROAD 6	
S0018	HAUL ROAD 7	
S0019	HAUL ROAD 8	
S0020	DIESEL FUELING	
S0021	STORAGE PILE 1 (AGGREGATE)	
S0022	STORAGE PILE 3 (RAP)	
S0023	STORAGE PILE 4 (RAP)	
S0024	INDEPENDENT RAP PLANT HANDLING	
S0025	RAP HANDLING FEEDING PLANT	

c. Emissions Data Grouped by Source

Attached you will find a report which details the Annual and Hourly Emissions which includes the source name, source identification number, substance name and CAS number (Refer to Attachment "A", Table 1).

d. Emissions Data Grouped by Substance

Attached you will find a report which details the Annual and Hourly facility total emission rate by substance for all emitted substance (Refer to Attachment "A", Table 2).

e. Emission Estimation Methods

The emissions approved in the submitted toxic emission report were utilized in the Health Risk Assessment. The methods used to calculate the emissions are detailed in the submitted Toxic Emission Inventory Report (TEIR).

f. List of Substances

Attached you will find a table listing all “Hot Spots” Program substances which are emitted (Refer to Attachment “A”, Table 2).

g. Exposed Population and Receptor Location

Below you will find Table 5 which summarizes the location of the MEIR, MEIW and PMI that were evaluated against Rule 1402 Thresholds. Figure 5 details the location of these receptors. There were no sensitive receptors identified within the residential 30-yr zone of impact

Table 5 - Receptor Location: Resident and Worker

Receptor No.	Name	UTM Coordinates		Miles From Site
		X (m)	Y (m)	
9836	Cancer MEIR	409720.3	3773564.5	0.960
9836	Chronic MEIR	409720.3	3773564.5	0.960
5467	Cancer MEIW	410185.3	3774989.5	0.003
5467	Chronic MEIW	410185.3	3774989.5	0.003
5467	8-Hour Chronic MEIW	410185.3	3774989.5	0.003
5382	Acute PMI	410180.30	3775069.50	Fenceline

Attached you will find isopleths which detail the cancer risk and the hazard index for both residential and worker impacts. (Refer to Attachment “B” for each respective isopleth). The 8-hour chronic and acute HIs were below 0.5; therefore, isopleths were not generated for these risk scenarios.

All American Irwindale is in the heart of the San Gabriel valley in the suburbs of Los Angeles County. The facility lies in an industrial area of the city surrounded by businesses on all sides.

4. Meteorological Data

Meteorological data for the surface and profile preprocessed files were obtained for Azusa MET station (Station No. 99999) for years 2012-2016. The MET Station is approximately 3.30 miles to the Northeast of the facility. Figure 7 details the location of the meteorological station and the site location. Data is coming from South Coast AQMD MET data found here: <https://www.aqmd.gov/home/air-quality/meteorological-data/aermod-table-1>

Figure 8 wind rose details the prevailing wind direction coming from the West/Southwest direction.

5. Geographical Data

The Geographic Data for the Health Risk Assessment included in the model is the World Geodetic System 1984 (WGS 84) and Universal Transverse Mercator Zone 11N (UTM WGS 84). Both coordinate systems were used in site and device identification, receptor location, and modeling.



Figure 7 - Met Station Location

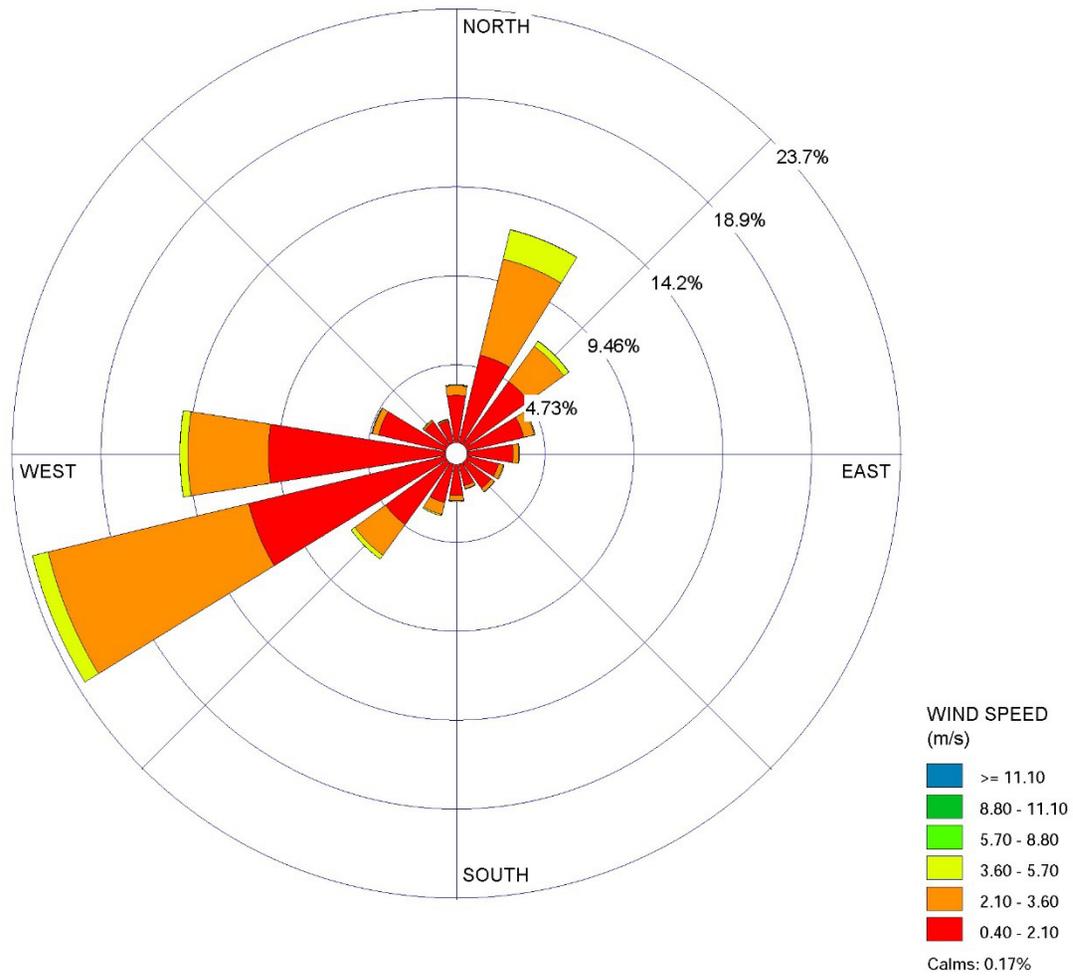


Figure 8 - Windrose

6. Model Selection

The air dispersion modeling was done using LAKES AERMOD v12.0.0. An emission rate of 1 g/s was used to complete the model. A variable density Cartesian Grid of 6.7 km x 4.6 km was created with a 5 m receptor spacing between the facility boundary and 250 m, 50 m spacing between 250 m and 500 m, and 100 m spacing between 500 m and the extents of the grid.

In Figure 9 below you will find a map detailing the gridded receptors.

7. Terrain Data

Terrain data were obtained from the United States Geological Survey (USGS), with 1/3 arc-second (~10 meter) National Elevation Dataset (NED) data downloaded. Elevations and hill heights were calculated for all sources and receptors using AERMOD terrain preprocessor, AERMAP.

8. Model Options

No non-regulatory options or deposition was used in the LAKES model. Table 6 below details the options and parameters used in LAKES.

Table 6 - Model Options

LAKES MODEL OPTIONS
AERMOD Version 23132
Model Result Type- Concentration
Urban

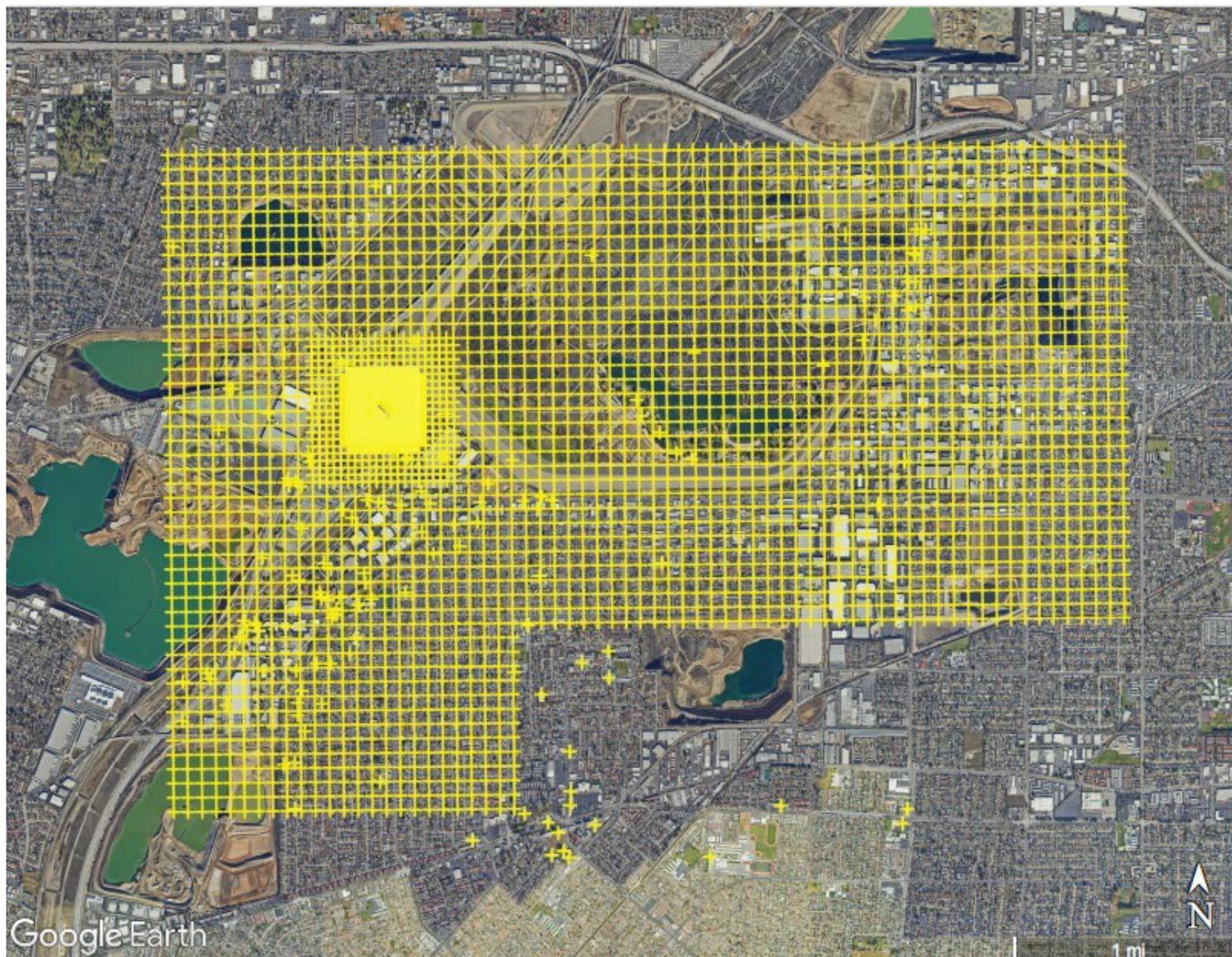


Figure 9 – Receptor Grid

9. Air Dispersion Modeling Results

The modeling files were provided electronically to the facility.

C. Health Values Used in Dose-Response and Dose Estimates

Refer to Attachment "C" for the Health Value tables which detail the REL, cancer potency factors, and target organ systems evaluated for the health risk assessment.

D. Risk Characterization

1. HARP2 Modeling Parameters

The HARP 2 model was prepared using Office of Environmental Health Hazard Assessment Air Toxic Hot Spots Program Risk Assessment Guidelines “Guidance Manual for Preparation of Health Risk Assessments”, dated February 2015. HARP Version 22118 was used to calculate the health risk for resident and worker. Tables 7, 8, and 9 list the parameters for the residential worker, and acute analysis.

An OEHHA Tier 1 evaluation was completed for all risk scenarios for comparison with South Coast AQMD Rule 1402 thresholds.

Table 7 - Residential Risk HARP Parameters

Cancer Risk 30-year Lifetime Exposure Period
RMP Derived Method
Exposure Pathways: Inhalation, Soil, Dermal, Mother’s Milk, Home Grown Produce Dermal Climate: Warm Deposition of 0.02 m/s Fraction at Time at Home: 16 years to 70 years enabled Daily Breathing Rates: RMP Tier 1 Analysis Completed for all Pathways
Resident Chronic HI Risk
OEHHA Derived Method
Exposure Pathway: Inhalation, Soil, Dermal, Mother’s Milk, Home Grown Produce Dermal Climate: Warm Deposition of 0.02 m/s Fraction at Time at Home: Disabled Daily Breathing Rates: Long Term 24 hr Tier 1 Analysis Completed for all Pathways

Table 8 - Worker Risk HARP Parameters

Cancer Risk 25-year Lifetime Exposure Period
OEHHA Derived Method
Worker Exposure Pathways: Inhalation, Soil, Dermal Dermal Climate: Warm Deposition of 0.02 m/s Fraction at Time at Home: Disabled Daily Breathing Rate: 8-hour Moderate Intensity Tier 1 Analysis Completed for all Pathways

Worker Chronic HI Risk
OEHHA Derived Method
Exposure Pathway: Inhalation, Soil, Dermal Dermal Climate: Warm Deposition of 0.02 m/s Fraction at Time at Home: Disabled Daily Breathing Rates: 8-hour Moderate Intensity Tier 1 Analysis Completed for all Pathways

Chronic 8-hour HI
OEHHA Derived Method
Worker Exposure Pathways: Inhalation Dermal Climate: Warm Deposition of 0.02 m/s Fraction of Time at Home: Disabled Daily Breathing Rate: 8-hour Moderate Intensity Tier 1 Analysis Completed for all Pathways

Table 9 - Acute Risk HARP Parameters

Acute
OEHHA Derived Method
Exposure Pathway: Inhalation Daily Breathing Rates: Long Term 24hr Fraction at time at home: Disabled

2. Summary of Risk Results

Table 10 below details the results of the HRA. As you will find, the results show that the facility was below Notification and Action Risk Levels for cancer and non-cancer scenarios. A map detailing the location of the Maximum Exposed Cancer Risk for Worker and Residential Receptors can be found in Figure 10.

Table 10 - Facility Risk Summary

Facility Risk Summary			
Facility Name:	All American Asphalt		
Facility Location:	13646 Live Oak Ln, Irwindale, CA 91706		
Facility ID:	114264	Inventory Year:	2021
Cancer Risk (chances in-one-million):			
Maximally exposed individual resident 30-year (MEIR):	0.7		
Maximally exposed individual worker 25-year (MEIW):	5.0		
Chronic hazard index (HI):			
Maximally exposed individual resident (MEIR):	0.03		
Maximally exposed individual worker (MEIW):	0.84		
Maximally exposed individual worker 8-hr (MEIW):	0.11		
Acute hazard index			
Point of maximum impact (PMI):	0.28		



Figure 10 – Maximally Exposed Individual Risk Locations

3. Risk Drivers

The following section details the device and listed substances driving the cancer, chronic and acute impacts.

Table 11 - MEIR Risk Drivers

MEIR 30-Year Cancer Risk Summary			
Receptor ID:	9836	UTM Zone:	11
UTME (m):	409720.3	UTMN (m):	3773564.5
Total cancer risk (chances in-one-million):	0.7		
Cancer risk contribution by substance	Pathway	Risk (chances in-one-million)	
Arsenic	SOIL, CROP	0.2813	
Cobalt	INHALATION	0.1498	
Cadmium	INHALATION	0.09264	
Cr(VI)	INHALATION, CROP	0.04221	
Benzene	INHALATION	0.02376	
Lead	SOIL, CROP	0.02272	
Cancer risk contribution by device	Risk (% of total)	Risk (chances in-one-million)	
S0001 (Dryer Baghouse)	48%	0.320	
S0012-S0019 (Haul Roads)	34%	0.227	
S0021 (Storage Pile - Aggregate)	8%	0.0552	
S0009 (Diesel Engine)	2%	0.0123	

Table 12 - MEIW Risk Drivers

MEIW 25-Year Cancer Risk Summary			
Receptor ID:	5467	UTM Zone:	11
UTME (m):	410185.3	UTMN (m):	3774989.5
Total cancer risk (chances in-one-million):		5.0	
Cancer risk contribution by substance		Pathway	Risk (chances in-one-million)
Cobalt		INHALATION	3.20
Arsenic		SOIL, DERMAL	0.87
Cadmium		INHALATION	0.32
Cr(VI)		INHALATION, SOIL	0.31
Cancer risk contribution by device		Risk (% of total)	Risk (chances in-one-million)
S0015-S0019 (Haul Roads)		76%	3.84
S0021 (Storage Pile - Aggregate)		11%	0.539
S0007 (Storage Pile 2 - RAP)		4%	0.183

Table 13 - MEIR Chronic Risk Drivers

MEIR Chronic Risk Summary			
Receptor ID:	9836	UTM Zone:	11
UTME (m):	409720.3	UTMN (m):	3773564.5
Total chronic hazard index:		0.03	
Chronic endpoint:		Central Nervous System	
Chronic hazard index contribution by substance		HI (% of total)	HI
Arsenic		80%	0.0271
Mercury		15%	0.0053
Manganese		4%	0.0014
Chronic hazard index contribution by device		HI (% of total)	HI
S0001 (Dryer Baghouse)		48%	0.0320
S0012-S0019 (Haul Roads)		35%	0.0027
S0021 (Storage Pile - Aggregate)		8%	0.0052

Table 14 - Chronic Worker Risk Drivers

MEIW Chronic Risk Summary			
Receptor ID:	5467	UTM Zone:	11
UTME (m):	410185.3	UTMN (m):	3774989.5
Total chronic hazard index:	0.87		
Chronic endpoint:	Respiratory		
Chronic hazard index contribution by substance	HI (% of total)	HI	
Arsenic	62%	0.5418	
Crystalline Silica	15%	0.133	
Chlorine	10%	0.085	
Nickel	10%	0.083	
Chronic hazard index contribution by device	HI (% of total)	HI	
S0012-S0019 (Haul Roads)	58%	0.499	
S0021 (Storage Pile - Aggregate)	21%	0.202	
S0007 (Storage Pile 2 - RAP)	8%	0.70	
S0001 (Dryer Baghouse)	4%	0.0347	

Table 15 – MEIW 8-Hour Chronic Risk Summary

MEIW 8-Hour Chronic Risk Summary			
Receptor ID:	5467	UTM Zone:	11
UTME (m):	410185.3	UTMN (m):	3774989.5
Total chronic hazard index:	0.114		
Chronic endpoint:	Central Nervous System		
Chronic hazard index contribution by substance	HI (% of total)	HI	
Manganese	77%	0.082847	
Arsenic	18%	0.019084	
Chronic hazard index contribution by device	HI (% of total)	HI	
S0012-S0019 (Haul Roads)	79%	0.0901	
S0021 (Storage Pile - Aggregate)	5	0.00621	
S0001 (Dryer Baghouse)	3%	0.00488	
S0007 (Storage Pile 2 - RAP)	2%	0.00263	

Table 16 – PMI Acute Risk Drivers

PMI Acute Risk Summary			
Receptor ID:	5382	UTM Zone:	11
UTME (m):	410180.3	UTMN (m):	3775069.5
Total acute hazard index:	0.284		
Acute endpoint:	Immune		
Acute hazard index contribution by substance	HI (% of total)	HI	
Nickel	95%	0.26967	
Benzene	5%	0.014557	
Acute hazard index contribution by device	HI (% of total)	HI	
S0012-S0019 (Haul Roads)	44%	0.125	
S0021 (Storage Pile - Aggregate)	26%	0.074	
S0001 (Dryer Baghouse)	22%	0.0633	
S0007 (Storage Pile 2 - RAP)	3%	0.00729	

4. Cancer Burden

The cancer burden within the residential 70-yr cancer Zone of Impact (ZOI) was evaluated utilizing the data from the updated model by South Coast AQMD staff. The new cancer burden calculation only included census receptors that were within the ZOI.

The ZOI area contained a low population density resulting in a cancer burden well below the Cancer Burden limit of 0.5.

ATTACHMENT "A"

SUMMARY TABLES

All American Asphalt
Irwindale 2021 HRA
Table 1: Toxic Emissions by Source

Source ID	Device ID	Process ID	CAS	Pollutant Name	Annual Emissions (lbs/yr)	Hourly Emissions (lbs/hr)
S0001	1	1	107028	Acrolein	0.063778	2.94E-05
S0001	1	1	7664417	NH3	255.1136	0.117402
S0001	1	2	71556	1,1,1-TCA	1.350488	0.000621
S0001	1	2	540841	2,2,4TriMePentn	15.43415	0.007103
S0001	1	2	91576	2MeNaphthalene	28.55318	0.01314
S0001	1	2	83329	Acenaphthene	474.6002	0.218408
S0001	1	2	208968	Acenaphthylene	4.09005	0.001882
S0001	1	2	75070	Acetaldehyde	24.65606	0.011347
S0001	1	2	120127	Anthracene	0.373121	0.000172
S0001	1	2	7440360	Antimony	0.069454	3.20E-05
S0001	1	2	7440382	Arsenic	0.771708	0.000355
S0001	1	2	56553	B[a]anthracene	0.006058	2.79E-06
S0001	1	2	50328	B[a]P	0.000629	2.89E-07
S0001	1	2	205992	B[b]fluoranthen	0.001439	6.62E-07
S0001	1	2	192972	B[e]pyrene	0.001597	7.35E-07
S0001	1	2	191242	B[g,h,i]perylene	0.000787	3.62E-07
S0001	1	2	207089	B[k]fluoranthen	0.001682	7.74E-07
S0001	1	2	7440393	Barium	2.237952	0.00103
S0001	1	2	71432	Benzene	128.0332	0.05892
S0001	1	2	7440417	Beryllium	0.771708	0.000355
S0001	1	2	7440439	Cadmium	3.082972	0.001419
S0001	1	2	7440473	Chromium	0.598073	0.000275
S0001	1	2	218019	Chrysene	0.001242	5.72E-07
S0001	1	2	7440484	Cobalt	0.010032	4.62E-06
S0001	1	2	7440508	Copper	1.882967	0.000867
S0001	1	2	18540299	Cr(VI)	0.001482	6.82E-07
S0001	1	2	53703	D[a,h]anthracen	0.000683	3.14E-07
S0001	1	2	100414	Ethyl Benzene	12.88752	0.005931
S0001	1	2	206440	Fluoranthene	1.389074	0.000639
S0001	1	2	86737	Fluorene	1.022513	0.000471
S0001	1	2	50000	Formaldehyde	303.4215	0.139633
S0001	1	2	7783064	H2S	345.2682	0.15889
S0001	1	2	110543	Hexane	354.9855	0.163362
S0001	1	2	193395	In[1,2,3-cd]pyr	0.000841	3.87E-07
S0001	1	2	7439921	Lead	8.10293	0.003729
S0001	1	2	7439965	Manganese	17.20908	0.00792
S0001	1	2	7439976	Mercury	11.80713	0.005434
S0001	1	2	91203	Naphthalene	24.92616	0.011471
S0001	1	2	7440020	Nickel	3.935709	0.001811
S0001	1	2	198550	Perylene	0.003396	1.56E-06
S0001	1	2	85018	Phenanthrene	2.990367	0.001376
S0001	1	2	7723140	Phosphorus	10.80391	0.004972
S0001	1	2	129000	Pyrene	2.716411	0.00125
S0001	1	2	7782492	Selenium	0.767849	0.000353
S0001	1	2	7440224	Silver	0.18521	8.52E-05
S0001	1	2	7440280	Thallium	0.001582	7.28E-07
S0001	1	2	108883	Toluene	20.48884	0.009429
S0001	1	2	1330207	Xylenes	20.37308	0.009376
S0001	1	2	7440666	Zinc	9.877858	0.004546
S0003	92	1	75070	Acetaldehyde	0.037908	4.33E-06
S0003	92	1	107028	Acrolein	0.023803	2.72E-06
S0003	92	1	71432	Benzene	0.070527	8.05E-06
S0003	92	1	100414	Ethyl Benzene	0.083751	9.56E-06
S0003	92	1	50000	Formaldehyde	0.14987	1.71E-05
S0003	92	1	110543	Hexane	0.05554	6.34E-06
S0003	92	1	91203	Naphthalene	0.002645	3.02E-07

Table 1: Toxic Emissions by Source

S0003	92	1	7664417	NH3	28.21088	0.00322
S0003	92	1	1151	PAHs-w/o	0.000882	1.01E-07
S0003	92	1	108883	Toluene	0.322662	3.68E-05
S0003	92	1	1330207	Xylenes	0.239792	2.74E-05
S0004	1	3	91576	2MeNaphthalene	0.516496	0.000238
S0004	1	3	83329	Acenaphthene	0.046063	2.12E-05
S0004	1	3	208968	Acenaphthylene	0.001372	6.31E-07
S0004	1	3	120127	Anthracene	0.012741	5.86E-06
S0004	1	3	56553	B[a]anthracene	0.005488	2.53E-06
S0004	1	3	192972	B[e]pyrene	0.000931	4.28E-07
S0004	1	3	71432	Benzene	1.50483	0.000693
S0004	1	3	218019	Chrysene	0.020581	9.47E-06
S0004	1	3	100414	Ethyl Benzene	1.786766	0.000822
S0004	1	3	206440	Fluoranthene	0.014701	6.77E-06
S0004	1	3	86737	Fluorene	0.098987	4.56E-05
S0004	1	3	50000	Formaldehyde	32.4439	0.01493
S0004	1	3	110543	Hexane	4.702015	0.002164
S0004	1	3	91203	Naphthalene	0.178372	8.21E-05
S0004	1	3	95476	o-Xylene	2.680148	0.001233
S0004	1	3	198550	Perylene	0.00294	1.35E-06
S0004	1	3	85018	Phenanthrene	0.176412	8.12E-05
S0004	1	3	129000	Pyrene	0.043123	1.98E-05
S0004	1	3	100425	Styrene	0.253909	0.000117
S0004	1	3	108883	Toluene	2.915249	0.001342
S0004	1	3	1330207	Xylenes	9.404029	0.004328
S0004	1	4	91576	2MeNaphthalene	0.313093	0.000144
S0004	1	4	83329	Acenaphthene	0.034203	1.57E-05
S0004	1	4	208968	Acenaphthylene	0.003683	1.70E-06
S0004	1	4	120127	Anthracene	0.009209	4.24E-06
S0004	1	4	56553	B[a]anthracene	0.002499	1.15E-06
S0004	1	4	50328	B[a]P	0.000303	1.39E-07
S0004	1	4	205992	B[b]fluoranthen	0.001	4.60E-07
S0004	1	4	192972	B[e]pyrene	0.001026	4.72E-07
S0004	1	4	191242	B[g,h,i]perylene	0.00025	1.15E-07
S0004	1	4	207089	B[k]fluoranthen	0.000289	1.33E-07
S0004	1	4	71432	Benzene	0.834458	0.000384
S0004	1	4	218019	Chrysene	0.01355	6.24E-06
S0004	1	4	53703	D[a,h]anthracen	4.87E-05	2.24E-08
S0004	1	4	100414	Ethyl Benzene	4.493237	0.002068
S0004	1	4	206440	Fluoranthene	0.006578	3.03E-06
S0004	1	4	86737	Fluorene	0.101295	4.66E-05
S0004	1	4	50000	Formaldehyde	1.41216	0.00065
S0004	1	4	110543	Hexane	2.407091	0.001108
S0004	1	4	193395	In[1,2,3-cd]pyr	6.18E-05	2.85E-08
S0004	1	4	91203	Naphthalene	0.16444	7.57E-05
S0004	1	4	95476	o-Xylene	1.283782	0.000591
S0004	1	4	198550	Perylene	0.002894	1.33E-06
S0004	1	4	85018	Phenanthrene	0.106557	4.90E-05
S0004	1	4	129000	Pyrene	0.019733	9.08E-06
S0004	1	4	100425	Styrene	0.117145	5.39E-05
S0004	1	4	108883	Toluene	3.369928	0.001551
S0004	1	4	75694	TriClFluorMetha	0.020861	9.60E-06
S0004	1	4	1330207	Xylenes	0.539363	0.000248
S0005	2	1	91576	2MeNaphthalene	0.744729	0.000343
S0005	2	1	83329	Acenaphthene	0.066418	3.06E-05
S0005	2	1	208968	Acenaphthylene	0.001978	9.10E-07
S0005	2	1	120127	Anthracene	0.018371	8.45E-06
S0005	2	1	56553	B[a]anthracene	0.007914	3.64E-06
S0005	2	1	192972	B[e]pyrene	0.001342	6.18E-07
S0005	2	1	71432	Benzene	0.160328	7.38E-05

Table 1: Toxic Emissions by Source

S0005	2	1	218019	Chrysene	0.029676	1.37E-05
S0005	2	1	75150	CS2	0.080164	3.69E-05
S0005	2	1	100414	Ethyl Benzene	0.19039	8.76E-05
S0005	2	1	75003	Ethyl Chloride	0.020041	9.22E-06
S0005	2	1	206440	Fluoranthene	0.021197	9.75E-06
S0005	2	1	86737	Fluorene	0.142728	6.57E-05
S0005	2	1	50000	Formaldehyde	3.457074	0.001591
S0005	2	1	110543	Hexane	0.501025	0.000231
S0005	2	1	78933	MEK	0.1954	8.99E-05
S0005	2	1	74839	Methyl Bromide	0.02455	1.13E-05
S0005	2	1	75092	Methylene Chlor	0.001353	6.23E-07
S0005	2	1	91203	Naphthalene	0.257193	0.000118
S0005	2	1	95476	o-Xylene	0.285584	0.000131
S0005	2	1	198550	Perylene	0.004239	1.95E-06
S0005	2	1	85018	Phenanthrene	0.254367	0.000117
S0005	2	1	129000	Pyrene	0.062179	2.86E-05
S0005	2	1	100425	Styrene	0.027055	1.25E-05
S0005	2	1	108883	Toluene	0.310636	0.000143
S0005	2	1	1330207	Xylenes	1.00205	0.000461
S0005	3	1	91576	2MeNaphthalene	0.744729	0.000343
S0005	3	1	83329	Acenaphthene	0.066418	3.06E-05
S0005	3	1	208968	Acenaphthylene	0.001978	9.10E-07
S0005	3	1	120127	Anthracene	0.018371	8.45E-06
S0005	3	1	56553	B[a]anthracene	0.007914	3.64E-06
S0005	3	1	192972	B[e]pyrene	0.001342	6.18E-07
S0005	3	1	71432	Benzene	0.160328	7.38E-05
S0005	3	1	218019	Chrysene	0.029676	1.37E-05
S0005	3	1	75150	CS2	0.080164	3.69E-05
S0005	3	1	100414	Ethyl Benzene	0.19039	8.76E-05
S0005	3	1	75003	Ethyl Chloride	0.020041	9.22E-06
S0005	3	1	206440	Fluoranthene	0.021197	9.75E-06
S0005	3	1	86737	Fluorene	0.142728	6.57E-05
S0005	3	1	50000	Formaldehyde	3.457074	0.001591
S0005	3	1	110543	Hexane	0.501025	0.000231
S0005	3	1	78933	MEK	0.1954	8.99E-05
S0005	3	1	74839	Methyl Bromide	0.02455	1.13E-05
S0005	3	1	75092	Methylene Chlor	0.001353	6.23E-07
S0005	3	1	91203	Naphthalene	0.257193	0.000118
S0005	3	1	95476	o-Xylene	0.285584	0.000131
S0005	3	1	198550	Perylene	0.004239	1.95E-06
S0005	3	1	85018	Phenanthrene	0.254367	0.000117
S0005	3	1	129000	Pyrene	0.062179	2.86E-05
S0005	3	1	100425	Styrene	0.027055	1.25E-05
S0005	3	1	108883	Toluene	0.310636	0.000143
S0005	3	1	1330207	Xylenes	1.00205	0.000461
S0005	4	1	91576	2MeNaphthalene	0.744729	0.000343
S0005	4	1	83329	Acenaphthene	0.066418	3.06E-05
S0005	4	1	208968	Acenaphthylene	0.001978	9.10E-07
S0005	4	1	120127	Anthracene	0.018371	8.45E-06
S0005	4	1	56553	B[a]anthracene	0.007914	3.64E-06
S0005	4	1	192972	B[e]pyrene	0.001342	6.18E-07
S0005	4	1	71432	Benzene	0.160328	7.38E-05
S0005	4	1	218019	Chrysene	0.029676	1.37E-05
S0005	4	1	75150	CS2	0.080164	3.69E-05
S0005	4	1	100414	Ethyl Benzene	0.19039	8.76E-05
S0005	4	1	75003	Ethyl Chloride	0.020041	9.22E-06
S0005	4	1	206440	Fluoranthene	0.021197	9.75E-06
S0005	4	1	86737	Fluorene	0.142728	6.57E-05
S0005	4	1	50000	Formaldehyde	3.457074	0.001591
S0005	4	1	110543	Hexane	0.501025	0.000231

Table 1: Toxic Emissions by Source

S0005	4	1	78933	MEK	0.1954	8.99E-05
S0005	4	1	74839	Methyl Bromide	0.02455	1.13E-05
S0005	4	1	75092	Methylene Chlor	0.001353	6.23E-07
S0005	4	1	91203	Naphthalene	0.257193	0.000118
S0005	4	1	95476	o-Xylene	0.285584	0.000131
S0005	4	1	198550	Perylene	0.004239	1.95E-06
S0005	4	1	85018	Phenanthrene	0.254367	0.000117
S0005	4	1	129000	Pyrene	0.062179	2.86E-05
S0005	4	1	100425	Styrene	0.027055	1.25E-05
S0005	4	1	108883	Toluene	0.310636	0.000143
S0005	4	1	1330207	Xylenes	1.00205	0.000461
S0005	5	1	91576	2MeNaphthalene	0.744729	0.000343
S0005	5	1	83329	Acenaphthene	0.066418	3.06E-05
S0005	5	1	208968	Acenaphthylene	0.001978	9.10E-07
S0005	5	1	120127	Anthracene	0.018371	8.45E-06
S0005	5	1	56553	B[a]anthracene	0.007914	3.64E-06
S0005	5	1	192972	B[e]pyrene	0.001342	6.18E-07
S0005	5	1	71432	Benzene	0.160328	7.38E-05
S0005	5	1	218019	Chrysene	0.029676	1.37E-05
S0005	5	1	75150	CS2	0.080164	3.69E-05
S0005	5	1	100414	Ethyl Benzene	0.19039	8.76E-05
S0005	5	1	75003	Ethyl Chloride	0.020041	9.22E-06
S0005	5	1	206440	Fluoranthene	0.021197	9.75E-06
S0005	5	1	86737	Fluorene	0.142728	6.57E-05
S0005	5	1	50000	Formaldehyde	3.457074	0.001591
S0005	5	1	110543	Hexane	0.501025	0.000231
S0005	5	1	78933	MEK	0.1954	8.99E-05
S0005	5	1	74839	Methyl Bromide	0.02455	1.13E-05
S0005	5	1	75092	Methylene Chlor	0.001353	6.23E-07
S0005	5	1	91203	Naphthalene	0.257193	0.000118
S0005	5	1	95476	o-Xylene	0.285584	0.000131
S0005	5	1	198550	Perylene	0.004239	1.95E-06
S0005	5	1	85018	Phenanthrene	0.254367	0.000117
S0005	5	1	129000	Pyrene	0.062179	2.86E-05
S0005	5	1	100425	Styrene	0.027055	1.25E-05
S0005	5	1	108883	Toluene	0.310636	0.000143
S0005	5	1	1330207	Xylenes	1.00205	0.000461
S0005	6	1	91576	2MeNaphthalene	0.744729	0.000343
S0005	6	1	83329	Acenaphthene	0.066418	3.06E-05
S0005	6	1	208968	Acenaphthylene	0.001978	9.10E-07
S0005	6	1	120127	Anthracene	0.018371	8.45E-06
S0005	6	1	56553	B[a]anthracene	0.007914	3.64E-06
S0005	6	1	192972	B[e]pyrene	0.001342	6.18E-07
S0005	6	1	71432	Benzene	0.160328	7.38E-05
S0005	6	1	218019	Chrysene	0.029676	1.37E-05
S0005	6	1	75150	CS2	0.080164	3.69E-05
S0005	6	1	100414	Ethyl Benzene	0.19039	8.76E-05
S0005	6	1	75003	Ethyl Chloride	0.020041	9.22E-06
S0005	6	1	206440	Fluoranthene	0.021197	9.75E-06
S0005	6	1	86737	Fluorene	0.142728	6.57E-05
S0005	6	1	50000	Formaldehyde	3.457074	0.001591
S0005	6	1	110543	Hexane	0.501025	0.000231
S0005	6	1	78933	MEK	0.1954	8.99E-05
S0005	6	1	74839	Methyl Bromide	0.02455	1.13E-05
S0005	6	1	75092	Methylene Chlor	0.001353	6.23E-07
S0005	6	1	91203	Naphthalene	0.257193	0.000118
S0005	6	1	95476	o-Xylene	0.285584	0.000131
S0005	6	1	198550	Perylene	0.004239	1.95E-06
S0005	6	1	85018	Phenanthrene	0.254367	0.000117
S0005	6	1	129000	Pyrene	0.062179	2.86E-05

Table 1: Toxic Emissions by Source

S0005	6	1	100425	Styrene	0.027055	1.25E-05
S0005	6	1	108883	Toluene	0.310636	0.000143
S0005	6	1	1330207	Xylenes	1.00205	0.000461
S0006	90	1	7440382	Arsenic	0.004347	2.00E-06
S0006	90	1	7440393	Barium	0.028738	1.32E-05
S0006	90	1	7440417	Beryllium	0.000266	1.22E-07
S0006	90	1	7440439	Cadmium	0.000463	2.13E-07
S0006	90	1	7440473	Chromium	0.033005	1.52E-05
S0006	90	1	7440484	Cobalt	0.010062	4.63E-06
S0006	90	1	7440508	Copper	0.030187	1.39E-05
S0006	90	1	18540299	Cr(VI)	0.000547	2.52E-07
S0006	90	1	7439921	Lead	0.014087	6.48E-06
S0006	90	1	7439976	Mercury	4.51E-05	2.07E-08
S0006	90	1	7440020	Nickel	0.01449	6.67E-06
S0006	90	1	1175	Silica, Crystln	18.40451	0.00847
S0006	90	1	7440622	Vanadium	0.060777	2.80E-05
S0006	90	1	7440666	Zinc	0.253574	0.000117
S0007	83	2	7440382	Arsenic	0.004582	2.11E-06
S0007	83	2	7440393	Barium	0.056766	2.61E-05
S0007	83	2	7440417	Beryllium	0.000212	9.76E-08
S0007	83	2	7440439	Cadmium	0.00054	2.49E-07
S0007	83	2	7440473	Chromium	0.02257	1.04E-05
S0007	83	2	7440484	Cobalt	0.005608	2.58E-06
S0007	83	2	7440508	Copper	0.02257	1.04E-05
S0007	83	2	18540299	Cr(VI)	0.000684	3.15E-07
S0007	83	2	7439921	Lead	0.017098	7.87E-06
S0007	83	2	7440020	Nickel	0.019834	9.13E-06
S0007	83	2	1175	Silica, Crystln	20.21763	0.009304
S0007	83	2	7440622	Vanadium	0.036248	1.67E-05
S0007	83	2	7440666	Zinc	0.052663	2.42E-05
S0008	84	1	18540299	Cr(VI)	0	0
S0008	84	1	7439965	Manganese	0.1236	5.69E-05
S0008	84	1	7440020	Nickel	0.00024	1.10E-07
S0008	84	2	18540299	Cr(VI)	0	0
S0008	84	2	7439965	Manganese	0.011976	5.51E-06
S0008	84	2	7440020	Nickel	6.00E-05	2.76E-08
S0008	102	1	75070	Acetaldehyde	1.26E-05	5.80E-09
S0008	102	1	107028	Acrolein	1.08E-05	4.97E-09
S0008	102	1	71432	Benzene	2.30E-05	1.06E-08
S0008	102	1	100414	Ethyl Benzene	2.75E-05	1.26E-08
S0008	102	1	50000	Formaldehyde	4.91E-05	2.26E-08
S0008	102	1	110543	Hexane	1.85E-05	8.49E-09
S0008	102	1	91203	Naphthalene	1.35E-06	6.21E-10
S0008	102	1	7664417	NH3	0.0135	6.21E-06
S0008	102	1	1151	PAHs-w/o	4.50E-07	2.07E-10
S0008	102	1	108883	Toluene	0.000106	4.87E-08
S0008	102	1	1330207	Xylenes	7.88E-05	3.62E-08
S0009	96	1	106990	1,3-Butadiene	0.001783	8.20E-07
S0009	96	1	75070	Acetaldehyde	0.006423	2.96E-06
S0009	96	1	107028	Acrolein	0.000278	1.28E-07
S0009	96	1	7440382	Arsenic	1.31E-05	6.04E-09
S0009	96	1	71432	Benzene	0.001528	7.03E-07
S0009	96	1	7440439	Cadmium	1.23E-05	5.66E-09
S0009	96	1	7440508	Copper	3.36E-05	1.55E-08
S0009	96	1	18540299	Cr(VI)	8.20E-07	3.77E-10
S0009	96	1	9901	DieselExhPM	0.2747	0.000126
S0009	96	1	100414	Ethyl Benzene	8.94E-05	4.11E-08
S0009	96	1	50000	Formaldehyde	0.014154	6.51E-06
S0009	96	1	7647010	HCl	0.001528	7.03E-07
S0009	96	1	110543	Hexane	0.000221	1.02E-07

Table 1: Toxic Emissions by Source

S0009	96	1	7439921	Lead	6.81E-05	3.13E-08
S0009	96	1	7439965	Manganese	2.54E-05	1.17E-08
S0009	96	1	7439976	Mercury	1.64E-05	7.55E-09
S0009	96	1	91203	Naphthalene	0.000162	7.43E-08
S0009	96	1	7664417	NH3	0.00656	3.02E-06
S0009	96	1	7440020	Nickel	3.20E-05	1.47E-08
S0009	96	1	1151	PAHs-w/o	0.000297	1.37E-07
S0009	96	1	7782492	Selenium	1.80E-05	8.30E-09
S0009	96	1	108883	Toluene	0.000864	3.98E-07
S0009	96	1	1330207	Xylenes	0.000348	1.60E-07
S0009	101	1	106990	1,3-Butadiene	0.006152	2.83E-06
S0009	101	1	75070	Acetaldehyde	0.022167	1.02E-05
S0009	101	1	107028	Acrolein	0.000959	4.41E-07
S0009	101	1	7440382	Arsenic	4.53E-05	2.08E-08
S0009	101	1	71432	Benzene	0.005272	2.43E-06
S0009	101	1	7440439	Cadmium	4.25E-05	1.95E-08
S0009	101	1	7440508	Copper	0.000116	5.34E-08
S0009	101	1	18540299	Cr(VI)	2.83E-06	1.30E-09
S0009	101	1	9901	DieselExhPM	0.94805	0.000436
S0009	101	1	100414	Ethyl Benzene	0.000308	1.42E-07
S0009	101	1	50000	Formaldehyde	0.048849	2.25E-05
S0009	101	1	7647010	HCl	0.005272	2.43E-06
S0009	101	1	110543	Hexane	0.000761	3.50E-07
S0009	101	1	7439921	Lead	0.000235	1.08E-07
S0009	101	1	7439965	Manganese	8.77E-05	4.04E-08
S0009	101	1	7439976	Mercury	5.66E-05	2.60E-08
S0009	101	1	91203	Naphthalene	0.000558	2.57E-07
S0009	101	1	7664417	NH3	0.02264	1.04E-05
S0009	101	1	7440020	Nickel	0.00011	5.08E-08
S0009	101	1	1151	PAHs-w/o	0.001024	4.71E-07
S0009	101	1	7782492	Selenium	6.23E-05	2.87E-08
S0009	101	1	108883	Toluene	0.002983	1.37E-06
S0009	101	1	1330207	Xylenes	0.0012	5.52E-07
S0010	90	2	7440382	Arsenic	5.00E-06	2.30E-09
S0010	90	2	7440393	Barium	6.19E-05	2.85E-08
S0010	90	2	7440417	Beryllium	2.31E-07	1.06E-10
S0010	90	2	7440439	Cadmium	5.89E-07	2.71E-10
S0010	90	2	7440473	Chromium	2.46E-05	1.13E-08
S0010	90	2	7440484	Cobalt	6.12E-06	2.82E-09
S0010	90	2	7440508	Copper	2.46E-05	1.13E-08
S0010	90	2	18540299	Cr(VI)	7.46E-07	3.43E-10
S0010	90	2	7439921	Lead	1.87E-05	8.58E-09
S0010	90	2	7440020	Nickel	2.16E-05	9.96E-09
S0010	90	2	1175	Silica, Crystln	0.017058	7.85E-06
S0010	90	2	7440622	Vanadium	3.95E-05	1.82E-08
S0010	90	2	7440666	Zinc	5.75E-05	2.64E-08
S0011	90	3	7440382	Arsenic	5.00E-06	2.30E-09
S0011	90	3	7440393	Barium	6.19E-05	2.85E-08
S0011	90	3	7440417	Beryllium	2.31E-07	1.06E-10
S0011	90	3	7440439	Cadmium	5.89E-07	2.71E-10
S0011	90	3	7440473	Chromium	2.46E-05	1.13E-08
S0011	90	3	7440484	Cobalt	6.12E-06	2.82E-09
S0011	90	3	7440508	Copper	2.46E-05	1.13E-08
S0011	90	3	18540299	Cr(VI)	7.46E-07	3.43E-10
S0011	90	3	7439921	Lead	1.87E-05	8.58E-09
S0011	90	3	7440020	Nickel	2.16E-05	9.96E-09
S0011	90	3	1175	Silica, Crystln	0.017058	7.85E-06
S0011	90	3	7440622	Vanadium	3.95E-05	1.82E-08
S0011	90	3	7440666	Zinc	5.75E-05	2.64E-08
S0012	87	1	7429905	Aluminum	39.95301	0.018386

Table 1: Toxic Emissions by Source

S0012	87	1	7440360	Antimony	0.003545	1.63E-06
S0012	87	1	7440382	Arsenic	0.007595	3.50E-06
S0012	87	1	7440393	Barium	0.482057	0.000222
S0012	87	1	7726956	Bromine	0.010634	4.89E-06
S0012	87	1	7440439	Cadmium	0.012659	5.83E-06
S0012	87	1	7782505	Chlorine	0.659284	0.000303
S0012	87	1	7440473	Chromium	0.124059	5.71E-05
S0012	87	1	7440484	Cobalt	0.075448	3.47E-05
S0012	87	1	7440508	Copper	0.044054	2.03E-05
S0012	87	1	7439921	Lead	0.456233	0.00021
S0012	87	1	7439965	Manganese	0.532187	0.000245
S0012	87	1	7439976	Mercury	0.007595	3.50E-06
S0012	87	1	7440020	Nickel	0.031901	1.47E-05
S0012	87	1	7723140	Phosphorus	0.811193	0.000373
S0012	87	1	7782492	Selenium	0.000506	2.33E-07
S0012	87	1	7440224	Silver	0.004557	2.10E-06
S0012	87	1	7440622	Vanadium	0.157985	7.27E-05
S0012	87	1	7440666	Zinc	0.314957	0.000145
S0013	87	2	7429905	Aluminum	39.95301	0.018386
S0013	87	2	7440360	Antimony	0.003545	1.63E-06
S0013	87	2	7440382	Arsenic	0.007595	3.50E-06
S0013	87	2	7440393	Barium	0.482057	0.000222
S0013	87	2	7726956	Bromine	0.010634	4.89E-06
S0013	87	2	7440439	Cadmium	0.012659	5.83E-06
S0013	87	2	7782505	Chlorine	0.659284	0.000303
S0013	87	2	7440473	Chromium	0.124059	5.71E-05
S0013	87	2	7440484	Cobalt	0.075448	3.47E-05
S0013	87	2	7440508	Copper	0.044054	2.03E-05
S0013	87	2	7439921	Lead	0.456233	0.00021
S0013	87	2	7439965	Manganese	0.532187	0.000245
S0013	87	2	7439976	Mercury	0.007595	3.50E-06
S0013	87	2	7440020	Nickel	0.031901	1.47E-05
S0013	87	2	7723140	Phosphorus	0.811193	0.000373
S0013	87	2	7782492	Selenium	0.000506	2.33E-07
S0013	87	2	7440224	Silver	0.004557	2.10E-06
S0013	87	2	7440622	Vanadium	0.157985	7.27E-05
S0013	87	2	7440666	Zinc	0.314957	0.000145
S0014	87	3	7429905	Aluminum	39.95301	0.018386
S0014	87	3	7440360	Antimony	0.003545	1.63E-06
S0014	87	3	7440382	Arsenic	0.007595	3.50E-06
S0014	87	3	7440393	Barium	0.482057	0.000222
S0014	87	3	7726956	Bromine	0.010634	4.89E-06
S0014	87	3	7440439	Cadmium	0.012659	5.83E-06
S0014	87	3	7782505	Chlorine	0.659284	0.000303
S0014	87	3	7440473	Chromium	0.124059	5.71E-05
S0014	87	3	7440484	Cobalt	0.075448	3.47E-05
S0014	87	3	7440508	Copper	0.044054	2.03E-05
S0014	87	3	7439921	Lead	0.456233	0.00021
S0014	87	3	7439965	Manganese	0.532187	0.000245
S0014	87	3	7439976	Mercury	0.007595	3.50E-06
S0014	87	3	7440020	Nickel	0.031901	1.47E-05
S0014	87	3	7723140	Phosphorus	0.811193	0.000373
S0014	87	3	7782492	Selenium	0.000506	2.33E-07
S0014	87	3	7440224	Silver	0.004557	2.10E-06
S0014	87	3	7440622	Vanadium	0.157985	7.27E-05
S0014	87	3	7440666	Zinc	0.314957	0.000145
S0015	87	4	7429905	Aluminum	39.95301	0.018386
S0015	87	4	7440360	Antimony	0.003545	1.63E-06
S0015	87	4	7440382	Arsenic	0.007595	3.50E-06
S0015	87	4	7440393	Barium	0.482057	0.000222

Table 1: Toxic Emissions by Source

S0015	87	4	7726956	Bromine	0.010634	4.89E-06
S0015	87	4	7440439	Cadmium	0.012659	5.83E-06
S0015	87	4	7782505	Chlorine	0.659284	0.000303
S0015	87	4	7440473	Chromium	0.124059	5.71E-05
S0015	87	4	7440484	Cobalt	0.075448	3.47E-05
S0015	87	4	7440508	Copper	0.044054	2.03E-05
S0015	87	4	7439921	Lead	0.456233	0.00021
S0015	87	4	7439965	Manganese	0.532187	0.000245
S0015	87	4	7439976	Mercury	0.007595	3.50E-06
S0015	87	4	7440020	Nickel	0.031901	1.47E-05
S0015	87	4	7723140	Phosphorus	0.811193	0.000373
S0015	87	4	7782492	Selenium	0.000506	2.33E-07
S0015	87	4	7440224	Silver	0.004557	2.10E-06
S0015	87	4	7440622	Vanadium	0.157985	7.27E-05
S0015	87	4	7440666	Zinc	0.314957	0.000145
S0016	87	5	7429905	Aluminum	39.95301	0.018386
S0016	87	5	7440360	Antimony	0.003545	1.63E-06
S0016	87	5	7440382	Arsenic	0.007595	3.50E-06
S0016	87	5	7440393	Barium	0.482057	0.000222
S0016	87	5	7726956	Bromine	0.010634	4.89E-06
S0016	87	5	7440439	Cadmium	0.012659	5.83E-06
S0016	87	5	7782505	Chlorine	0.659284	0.000303
S0016	87	5	7440473	Chromium	0.124059	5.71E-05
S0016	87	5	7440484	Cobalt	0.075448	3.47E-05
S0016	87	5	7440508	Copper	0.044054	2.03E-05
S0016	87	5	7439921	Lead	0.456233	0.00021
S0016	87	5	7439965	Manganese	0.532187	0.000245
S0016	87	5	7439976	Mercury	0.007595	3.50E-06
S0016	87	5	7440020	Nickel	0.031901	1.47E-05
S0016	87	5	7723140	Phosphorus	0.811193	0.000373
S0016	87	5	7782492	Selenium	0.000506	2.33E-07
S0016	87	5	7440224	Silver	0.004557	2.10E-06
S0016	87	5	7440622	Vanadium	0.157985	7.27E-05
S0016	87	5	7440666	Zinc	0.314957	0.000145
S0017	87	6	7429905	Aluminum	39.95301	0.018386
S0017	87	6	7440360	Antimony	0.003545	1.63E-06
S0017	87	6	7440382	Arsenic	0.007595	3.50E-06
S0017	87	6	7440393	Barium	0.482057	0.000222
S0017	87	6	7726956	Bromine	0.010634	4.89E-06
S0017	87	6	7440439	Cadmium	0.012659	5.83E-06
S0017	87	6	7782505	Chlorine	0.659284	0.000303
S0017	87	6	7440473	Chromium	0.124059	5.71E-05
S0017	87	6	7440484	Cobalt	0.075448	3.47E-05
S0017	87	6	7440508	Copper	0.044054	2.03E-05
S0017	87	6	7439921	Lead	0.456233	0.00021
S0017	87	6	7439965	Manganese	0.532187	0.000245
S0017	87	6	7439976	Mercury	0.007595	3.50E-06
S0017	87	6	7440020	Nickel	0.031901	1.47E-05
S0017	87	6	7723140	Phosphorus	0.811193	0.000373
S0017	87	6	7782492	Selenium	0.000506	2.33E-07
S0017	87	6	7440224	Silver	0.004557	2.10E-06
S0017	87	6	7440622	Vanadium	0.157985	7.27E-05
S0017	87	6	7440666	Zinc	0.314957	0.000145
S0018	87	7	7429905	Aluminum	39.95301	0.018386
S0018	87	7	7440360	Antimony	0.003545	1.63E-06
S0018	87	7	7440382	Arsenic	0.007595	3.50E-06
S0018	87	7	7440393	Barium	0.482057	0.000222
S0018	87	7	7726956	Bromine	0.010634	4.89E-06
S0018	87	7	7440439	Cadmium	0.012659	5.83E-06
S0018	87	7	7782505	Chlorine	0.659284	0.000303

Table 1: Toxic Emissions by Source

S0018	87	7	7440473	Chromium	0.124059	5.71E-05
S0018	87	7	7440484	Cobalt	0.075448	3.47E-05
S0018	87	7	7440508	Copper	0.044054	2.03E-05
S0018	87	7	7439921	Lead	0.456233	0.00021
S0018	87	7	7439965	Manganese	0.532187	0.000245
S0018	87	7	7439976	Mercury	0.007595	3.50E-06
S0018	87	7	7440020	Nickel	0.031901	1.47E-05
S0018	87	7	7723140	Phosphorus	0.811193	0.000373
S0018	87	7	7782492	Selenium	0.000506	2.33E-07
S0018	87	7	7440224	Silver	0.004557	2.10E-06
S0018	87	7	7440622	Vanadium	0.157985	7.27E-05
S0018	87	7	7440666	Zinc	0.314957	0.000145
S0019	87	8	7429905	Aluminum	39.95301	0.018386
S0019	87	8	7440360	Antimony	0.003545	1.63E-06
S0019	87	8	7440382	Arsenic	0.007595	3.50E-06
S0019	87	8	7440393	Barium	0.482057	0.000222
S0019	87	8	7726956	Bromine	0.010634	4.89E-06
S0019	87	8	7440439	Cadmium	0.012659	5.83E-06
S0019	87	8	7782505	Chlorine	0.659284	0.000303
S0019	87	8	7440473	Chromium	0.124059	5.71E-05
S0019	87	8	7440484	Cobalt	0.075448	3.47E-05
S0019	87	8	7440508	Copper	0.044054	2.03E-05
S0019	87	8	7439921	Lead	0.456233	0.00021
S0019	87	8	7439965	Manganese	0.532187	0.000245
S0019	87	8	7439976	Mercury	0.007595	3.50E-06
S0019	87	8	7440020	Nickel	0.031901	1.47E-05
S0019	87	8	7723140	Phosphorus	0.811193	0.000373
S0019	87	8	7782492	Selenium	0.000506	2.33E-07
S0019	87	8	7440224	Silver	0.004557	2.10E-06
S0019	87	8	7440622	Vanadium	0.157985	7.27E-05
S0019	87	8	7440666	Zinc	0.314957	0.000145
S0020	91	1	95636	1,2,4TriMeBenze	0.06746	3.10E-05
S0020	91	1	71432	Benzene	5.40E-05	2.48E-08
S0020	91	1	100414	Ethyl Benzene	0.000877	4.04E-07
S0020	91	1	110543	Hexane	6.75E-06	3.10E-09
S0020	91	1	108383	m-Xylene	0.019564	9.00E-06
S0020	91	1	108883	Toluene	0.002159	9.93E-07
S0021	83	1	7440382	Arsenic	0.021604	9.94E-06
S0021	83	1	7440393	Barium	0.142827	6.57E-05
S0021	83	1	7440417	Beryllium	0.00132	6.08E-07
S0021	83	1	7440439	Cadmium	0.0023	1.06E-06
S0021	83	1	7440473	Chromium	0.16403	7.55E-05
S0021	83	1	7440484	Cobalt	0.050009	2.30E-05
S0021	83	1	7440508	Copper	0.150028	6.90E-05
S0021	83	1	18540299	Cr(VI)	0.002721	1.25E-06
S0021	83	1	7439921	Lead	0.070013	3.22E-05
S0021	83	1	7439976	Mercury	0.000224	1.03E-07
S0021	83	1	7440020	Nickel	0.072013	3.31E-05
S0021	83	1	1175	Silica, Crystln	118.266	0.054425
S0021	83	1	7440622	Vanadium	0.302056	0.000139
S0021	83	1	7440666	Zinc	1.260234	0.00058
S0022	83	3	7440382	Arsenic	0.004582	2.11E-06
S0022	83	3	7440393	Barium	0.056766	2.61E-05
S0022	83	3	7440417	Beryllium	0.000212	9.76E-08
S0022	83	3	7440439	Cadmium	0.00054	2.49E-07
S0022	83	3	7440473	Chromium	0.02257	1.04E-05
S0022	83	3	7440484	Cobalt	0.005608	2.58E-06
S0022	83	3	7440508	Copper	0.02257	1.04E-05
S0022	83	3	18540299	Cr(VI)	0.000684	3.15E-07
S0022	83	3	7439921	Lead	0.017098	7.87E-06

Table 1: Toxic Emissions by Source

S0022	83	3	7440020	Nickel	0.019834	9.13E-06
S0022	83	3	1175	Silica, Crystln	20.21763	0.009304
S0022	83	3	7440622	Vanadium	0.036248	1.67E-05
S0022	83	3	7440666	Zinc	0.052663	2.42E-05
S0023	83	4	7440382	Arsenic	0.004582	2.11E-06
S0023	83	4	7440393	Barium	0.056766	2.61E-05
S0023	83	4	7440417	Beryllium	0.000212	9.76E-08
S0023	83	4	7440439	Cadmium	0.00054	2.49E-07
S0023	83	4	7440473	Chromium	0.02257	1.04E-05
S0023	83	4	7440484	Cobalt	0.005608	2.58E-06
S0023	83	4	7440508	Copper	0.02257	1.04E-05
S0023	83	4	18540299	Cr(VI)	0.000684	3.15E-07
S0023	83	4	7439921	Lead	0.017098	7.87E-06
S0023	83	4	7440020	Nickel	0.019834	9.13E-06
S0023	83	4	1175	Silica, Crystln	20.21763	0.009304
S0023	83	4	7440622	Vanadium	0.036248	1.67E-05
S0023	83	4	7440666	Zinc	0.052663	2.42E-05
S0024	90	5	7440382	Arsenic	0.002766	1.27E-06
S0024	90	5	7440393	Barium	0.034266	1.58E-05
S0024	90	5	7440417	Beryllium	0.000128	5.89E-08
S0024	90	5	7440439	Cadmium	0.000326	1.50E-07
S0024	90	5	7440473	Chromium	0.013624	6.27E-06
S0024	90	5	7440484	Cobalt	0.003385	1.56E-06
S0024	90	5	7440508	Copper	0.013624	6.27E-06
S0024	90	5	18540299	Cr(VI)	0.000413	1.90E-07
S0024	90	5	7439921	Lead	0.010321	4.75E-06
S0024	90	5	7440020	Nickel	0.011972	5.51E-06
S0024	90	5	1175	Silica, Crystln	9.438783	0.004344
S0024	90	5	7440622	Vanadium	0.021881	1.01E-05
S0024	90	5	7440666	Zinc	0.031789	1.46E-05
S0025	90	4	7440382	Arsenic	0.001616	7.44E-07
S0025	90	4	7440393	Barium	0.020023	9.21E-06
S0025	90	4	7440417	Beryllium	7.48E-05	3.44E-08
S0025	90	4	7440439	Cadmium	0.000191	8.77E-08
S0025	90	4	7440473	Chromium	0.007961	3.66E-06
S0025	90	4	7440484	Cobalt	0.001978	9.10E-07
S0025	90	4	7440508	Copper	0.007961	3.66E-06
S0025	90	4	18540299	Cr(VI)	0.000241	1.11E-07
S0025	90	4	7439921	Lead	0.006031	2.78E-06
S0025	90	4	7440020	Nickel	0.006996	3.22E-06
S0025	90	4	1175	Silica, Crystln	5.515433	0.002538
S0025	90	4	7440622	Vanadium	0.012786	5.88E-06
S0025	90	4	7440666	Zinc	0.018576	8.55E-06

Table 2: Toxic Emissions by Substance

Source ID	Device ID	Process ID	CAS	Pollutant Name	Annual Emissions (lbs/yr)	Hourly Emissions (lbs/hr)
S0001	1	2	71556	1,1,1-TCA	1.350488	0.000621
S0020	91	1	95636	1,2,4TriMeBenze	0.06746	3.10E-05
S0009	96	1	106990	1,3-Butadiene	0.001783	8.20E-07
S0009	101	1	106990	1,3-Butadiene	0.006152	2.83E-06
S0001	1	2	540841	2,2,4TriMePentn	15.43415	0.007103
S0001	1	2	91576	2MeNaphthalene	28.55318	0.01314
S0004	1	3	91576	2MeNaphthalene	0.516496	0.000238
S0004	1	4	91576	2MeNaphthalene	0.313093	0.000144
S0005	2	1	91576	2MeNaphthalene	0.744729	0.000343
S0005	3	1	91576	2MeNaphthalene	0.744729	0.000343
S0005	4	1	91576	2MeNaphthalene	0.744729	0.000343
S0005	5	1	91576	2MeNaphthalene	0.744729	0.000343
S0005	6	1	91576	2MeNaphthalene	0.744729	0.000343
S0001	1	2	83329	Acenaphthene	474.6002	0.218408
S0004	1	3	83329	Acenaphthene	0.046063	2.12E-05
S0004	1	4	83329	Acenaphthene	0.034203	1.57E-05
S0005	2	1	83329	Acenaphthene	0.066418	3.06E-05
S0005	3	1	83329	Acenaphthene	0.066418	3.06E-05
S0005	4	1	83329	Acenaphthene	0.066418	3.06E-05
S0005	5	1	83329	Acenaphthene	0.066418	3.06E-05
S0005	6	1	83329	Acenaphthene	0.066418	3.06E-05
S0001	1	2	208968	Acenaphthylene	4.09005	0.001882
S0004	1	3	208968	Acenaphthylene	0.001372	6.31E-07
S0004	1	4	208968	Acenaphthylene	0.003683	1.70E-06
S0005	2	1	208968	Acenaphthylene	0.001978	9.10E-07
S0005	3	1	208968	Acenaphthylene	0.001978	9.10E-07
S0005	4	1	208968	Acenaphthylene	0.001978	9.10E-07
S0005	5	1	208968	Acenaphthylene	0.001978	9.10E-07
S0005	6	1	208968	Acenaphthylene	0.001978	9.10E-07
S0001	1	2	75070	Acetaldehyde	24.65606	0.011347
S0003	92	1	75070	Acetaldehyde	0.037908	4.33E-06
S0008	102	1	75070	Acetaldehyde	1.26E-05	5.80E-09
S0009	96	1	75070	Acetaldehyde	0.006423	2.96E-06
S0009	101	1	75070	Acetaldehyde	0.022167	1.02E-05
S0001	1	1	107028	Acrolein	0.063778	2.94E-05
S0003	92	1	107028	Acrolein	0.023803	2.72E-06
S0008	102	1	107028	Acrolein	1.08E-05	4.97E-09
S0009	96	1	107028	Acrolein	0.000278	1.28E-07
S0009	101	1	107028	Acrolein	0.000959	4.41E-07
S0012	87	1	7429905	Aluminum	39.95301	0.018386
S0013	87	2	7429905	Aluminum	39.95301	0.018386
S0014	87	3	7429905	Aluminum	39.95301	0.018386
S0015	87	4	7429905	Aluminum	39.95301	0.018386
S0016	87	5	7429905	Aluminum	39.95301	0.018386
S0017	87	6	7429905	Aluminum	39.95301	0.018386
S0018	87	7	7429905	Aluminum	39.95301	0.018386
S0019	87	8	7429905	Aluminum	39.95301	0.018386
S0001	1	2	120127	Anthracene	0.373121	0.000172
S0004	1	3	120127	Anthracene	0.012741	5.86E-06
S0004	1	4	120127	Anthracene	0.009209	4.24E-06
S0005	2	1	120127	Anthracene	0.018371	8.45E-06
S0005	3	1	120127	Anthracene	0.018371	8.45E-06
S0005	4	1	120127	Anthracene	0.018371	8.45E-06
S0005	5	1	120127	Anthracene	0.018371	8.45E-06
S0005	6	1	120127	Anthracene	0.018371	8.45E-06
S0001	1	2	7440360	Antimony	0.069454	3.20E-05

Table 2: Toxic Emissions by Substance

S0012	87	1	7440360	Antimony	0.003545	1.63E-06
S0013	87	2	7440360	Antimony	0.003545	1.63E-06
S0014	87	3	7440360	Antimony	0.003545	1.63E-06
S0015	87	4	7440360	Antimony	0.003545	1.63E-06
S0016	87	5	7440360	Antimony	0.003545	1.63E-06
S0017	87	6	7440360	Antimony	0.003545	1.63E-06
S0018	87	7	7440360	Antimony	0.003545	1.63E-06
S0019	87	8	7440360	Antimony	0.003545	1.63E-06
S0001	1	2	7440382	Arsenic	0.771708	0.000355
S0006	90	1	7440382	Arsenic	0.004347	2.00E-06
S0007	83	2	7440382	Arsenic	0.004582	2.11E-06
S0009	96	1	7440382	Arsenic	1.31E-05	6.04E-09
S0009	101	1	7440382	Arsenic	4.53E-05	2.08E-08
S0010	90	2	7440382	Arsenic	5.00E-06	2.30E-09
S0011	90	3	7440382	Arsenic	5.00E-06	2.30E-09
S0012	87	1	7440382	Arsenic	0.007595	3.50E-06
S0013	87	2	7440382	Arsenic	0.007595	3.50E-06
S0014	87	3	7440382	Arsenic	0.007595	3.50E-06
S0015	87	4	7440382	Arsenic	0.007595	3.50E-06
S0016	87	5	7440382	Arsenic	0.007595	3.50E-06
S0017	87	6	7440382	Arsenic	0.007595	3.50E-06
S0018	87	7	7440382	Arsenic	0.007595	3.50E-06
S0019	87	8	7440382	Arsenic	0.007595	3.50E-06
S0021	83	1	7440382	Arsenic	0.021604	9.94E-06
S0022	83	3	7440382	Arsenic	0.004582	2.11E-06
S0023	83	4	7440382	Arsenic	0.004582	2.11E-06
S0024	90	5	7440382	Arsenic	0.002766	1.27E-06
S0025	90	4	7440382	Arsenic	0.001616	7.44E-07
S0001	1	2	56553	B[a]anthracene	0.006058	2.79E-06
S0004	1	3	56553	B[a]anthracene	0.005488	2.53E-06
S0004	1	4	56553	B[a]anthracene	0.002499	1.15E-06
S0005	2	1	56553	B[a]anthracene	0.007914	3.64E-06
S0005	3	1	56553	B[a]anthracene	0.007914	3.64E-06
S0005	4	1	56553	B[a]anthracene	0.007914	3.64E-06
S0005	5	1	56553	B[a]anthracene	0.007914	3.64E-06
S0005	6	1	56553	B[a]anthracene	0.007914	3.64E-06
S0001	1	2	50328	B[a]P	0.000629	2.89E-07
S0004	1	4	50328	B[a]P	0.000303	1.39E-07
S0001	1	2	205992	B[b]fluoranthen	0.001439	6.62E-07
S0004	1	4	205992	B[b]fluoranthen	0.001	4.60E-07
S0001	1	2	192972	B[e]pyrene	0.001597	7.35E-07
S0004	1	3	192972	B[e]pyrene	0.000931	4.28E-07
S0004	1	4	192972	B[e]pyrene	0.001026	4.72E-07
S0005	2	1	192972	B[e]pyrene	0.001342	6.18E-07
S0005	3	1	192972	B[e]pyrene	0.001342	6.18E-07
S0005	4	1	192972	B[e]pyrene	0.001342	6.18E-07
S0005	5	1	192972	B[e]pyrene	0.001342	6.18E-07
S0005	6	1	192972	B[e]pyrene	0.001342	6.18E-07
S0001	1	2	191242	B[g,h,i]perylene	0.000787	3.62E-07
S0004	1	4	191242	B[g,h,i]perylene	0.00025	1.15E-07
S0001	1	2	207089	B[k]fluoranthen	0.001682	7.74E-07
S0004	1	4	207089	B[k]fluoranthen	0.000289	1.33E-07
S0001	1	2	7440393	Barium	2.237952	0.00103
S0006	90	1	7440393	Barium	0.028738	1.32E-05
S0007	83	2	7440393	Barium	0.056766	2.61E-05
S0010	90	2	7440393	Barium	6.19E-05	2.85E-08
S0011	90	3	7440393	Barium	6.19E-05	2.85E-08
S0012	87	1	7440393	Barium	0.482057	0.000222
S0013	87	2	7440393	Barium	0.482057	0.000222
S0014	87	3	7440393	Barium	0.482057	0.000222

Table 2: Toxic Emissions by Substance

S0015	87	4	7440393	Barium	0.482057	0.000222
S0016	87	5	7440393	Barium	0.482057	0.000222
S0017	87	6	7440393	Barium	0.482057	0.000222
S0018	87	7	7440393	Barium	0.482057	0.000222
S0019	87	8	7440393	Barium	0.482057	0.000222
S0021	83	1	7440393	Barium	0.142827	6.57E-05
S0022	83	3	7440393	Barium	0.056766	2.61E-05
S0023	83	4	7440393	Barium	0.056766	2.61E-05
S0024	90	5	7440393	Barium	0.034266	1.58E-05
S0025	90	4	7440393	Barium	0.020023	9.21E-06
S0001	1	2	71432	Benzene	128.0332	0.05892
S0003	92	1	71432	Benzene	0.070527	8.05E-06
S0004	1	3	71432	Benzene	1.50483	0.000693
S0004	1	4	71432	Benzene	0.834458	0.000384
S0005	2	1	71432	Benzene	0.160328	7.38E-05
S0005	3	1	71432	Benzene	0.160328	7.38E-05
S0005	4	1	71432	Benzene	0.160328	7.38E-05
S0005	5	1	71432	Benzene	0.160328	7.38E-05
S0005	6	1	71432	Benzene	0.160328	7.38E-05
S0008	102	1	71432	Benzene	2.30E-05	1.06E-08
S0009	96	1	71432	Benzene	0.001528	7.03E-07
S0009	101	1	71432	Benzene	0.005272	2.43E-06
S0020	91	1	71432	Benzene	5.40E-05	2.48E-08
S0001	1	2	7440417	Beryllium	0.771708	0.000355
S0006	90	1	7440417	Beryllium	0.000266	1.22E-07
S0007	83	2	7440417	Beryllium	0.000212	9.76E-08
S0010	90	2	7440417	Beryllium	2.31E-07	1.06E-10
S0011	90	3	7440417	Beryllium	2.31E-07	1.06E-10
S0021	83	1	7440417	Beryllium	0.00132	6.08E-07
S0022	83	3	7440417	Beryllium	0.000212	9.76E-08
S0023	83	4	7440417	Beryllium	0.000212	9.76E-08
S0024	90	5	7440417	Beryllium	0.000128	5.89E-08
S0025	90	4	7440417	Beryllium	7.48E-05	3.44E-08
S0012	87	1	7726956	Bromine	0.010634	4.89E-06
S0013	87	2	7726956	Bromine	0.010634	4.89E-06
S0014	87	3	7726956	Bromine	0.010634	4.89E-06
S0015	87	4	7726956	Bromine	0.010634	4.89E-06
S0016	87	5	7726956	Bromine	0.010634	4.89E-06
S0017	87	6	7726956	Bromine	0.010634	4.89E-06
S0018	87	7	7726956	Bromine	0.010634	4.89E-06
S0019	87	8	7726956	Bromine	0.010634	4.89E-06
S0001	1	2	7440439	Cadmium	3.082972	0.001419
S0006	90	1	7440439	Cadmium	0.000463	2.13E-07
S0007	83	2	7440439	Cadmium	0.00054	2.49E-07
S0009	96	1	7440439	Cadmium	1.23E-05	5.66E-09
S0009	101	1	7440439	Cadmium	4.25E-05	1.95E-08
S0010	90	2	7440439	Cadmium	5.89E-07	2.71E-10
S0011	90	3	7440439	Cadmium	5.89E-07	2.71E-10
S0012	87	1	7440439	Cadmium	0.012659	5.83E-06
S0013	87	2	7440439	Cadmium	0.012659	5.83E-06
S0014	87	3	7440439	Cadmium	0.012659	5.83E-06
S0015	87	4	7440439	Cadmium	0.012659	5.83E-06
S0016	87	5	7440439	Cadmium	0.012659	5.83E-06
S0017	87	6	7440439	Cadmium	0.012659	5.83E-06
S0018	87	7	7440439	Cadmium	0.012659	5.83E-06
S0019	87	8	7440439	Cadmium	0.012659	5.83E-06
S0021	83	1	7440439	Cadmium	0.0023	1.06E-06
S0022	83	3	7440439	Cadmium	0.00054	2.49E-07
S0023	83	4	7440439	Cadmium	0.00054	2.49E-07
S0024	90	5	7440439	Cadmium	0.000326	1.50E-07

Table 2: Toxic Emissions by Substance

S0025	90	4	7440439	Cadmium	0.000191	8.77E-08
S0012	87	1	7782505	Chlorine	0.659284	0.000303
S0013	87	2	7782505	Chlorine	0.659284	0.000303
S0014	87	3	7782505	Chlorine	0.659284	0.000303
S0015	87	4	7782505	Chlorine	0.659284	0.000303
S0016	87	5	7782505	Chlorine	0.659284	0.000303
S0017	87	6	7782505	Chlorine	0.659284	0.000303
S0018	87	7	7782505	Chlorine	0.659284	0.000303
S0019	87	8	7782505	Chlorine	0.659284	0.000303
S0001	1	2	7440473	Chromium	0.598073	0.000275
S0006	90	1	7440473	Chromium	0.033005	1.52E-05
S0007	83	2	7440473	Chromium	0.02257	1.04E-05
S0010	90	2	7440473	Chromium	2.46E-05	1.13E-08
S0011	90	3	7440473	Chromium	2.46E-05	1.13E-08
S0012	87	1	7440473	Chromium	0.124059	5.71E-05
S0013	87	2	7440473	Chromium	0.124059	5.71E-05
S0014	87	3	7440473	Chromium	0.124059	5.71E-05
S0015	87	4	7440473	Chromium	0.124059	5.71E-05
S0016	87	5	7440473	Chromium	0.124059	5.71E-05
S0017	87	6	7440473	Chromium	0.124059	5.71E-05
S0018	87	7	7440473	Chromium	0.124059	5.71E-05
S0019	87	8	7440473	Chromium	0.124059	5.71E-05
S0021	83	1	7440473	Chromium	0.16403	7.55E-05
S0022	83	3	7440473	Chromium	0.02257	1.04E-05
S0023	83	4	7440473	Chromium	0.02257	1.04E-05
S0024	90	5	7440473	Chromium	0.013624	6.27E-06
S0025	90	4	7440473	Chromium	0.007961	3.66E-06
S0001	1	2	218019	Chrysene	0.001242	5.72E-07
S0004	1	3	218019	Chrysene	0.020581	9.47E-06
S0004	1	4	218019	Chrysene	0.01355	6.24E-06
S0005	2	1	218019	Chrysene	0.029676	1.37E-05
S0005	3	1	218019	Chrysene	0.029676	1.37E-05
S0005	4	1	218019	Chrysene	0.029676	1.37E-05
S0005	5	1	218019	Chrysene	0.029676	1.37E-05
S0005	6	1	218019	Chrysene	0.029676	1.37E-05
S0001	1	2	7440484	Cobalt	0.010032	4.62E-06
S0006	90	1	7440484	Cobalt	0.010062	4.63E-06
S0007	83	2	7440484	Cobalt	0.005608	2.58E-06
S0010	90	2	7440484	Cobalt	6.12E-06	2.82E-09
S0011	90	3	7440484	Cobalt	6.12E-06	2.82E-09
S0012	87	1	7440484	Cobalt	0.075448	3.47E-05
S0013	87	2	7440484	Cobalt	0.075448	3.47E-05
S0014	87	3	7440484	Cobalt	0.075448	3.47E-05
S0015	87	4	7440484	Cobalt	0.075448	3.47E-05
S0016	87	5	7440484	Cobalt	0.075448	3.47E-05
S0017	87	6	7440484	Cobalt	0.075448	3.47E-05
S0018	87	7	7440484	Cobalt	0.075448	3.47E-05
S0019	87	8	7440484	Cobalt	0.075448	3.47E-05
S0021	83	1	7440484	Cobalt	0.050009	2.30E-05
S0022	83	3	7440484	Cobalt	0.005608	2.58E-06
S0023	83	4	7440484	Cobalt	0.005608	2.58E-06
S0024	90	5	7440484	Cobalt	0.003385	1.56E-06
S0025	90	4	7440484	Cobalt	0.001978	9.10E-07
S0001	1	2	7440508	Copper	1.882967	0.000867
S0006	90	1	7440508	Copper	0.030187	1.39E-05
S0007	83	2	7440508	Copper	0.02257	1.04E-05
S0009	96	1	7440508	Copper	3.36E-05	1.55E-08
S0009	101	1	7440508	Copper	0.000116	5.34E-08
S0010	90	2	7440508	Copper	2.46E-05	1.13E-08
S0011	90	3	7440508	Copper	2.46E-05	1.13E-08

Table 2: Toxic Emissions by Substance

S0012	87	1	7440508	Copper	0.044054	2.03E-05
S0013	87	2	7440508	Copper	0.044054	2.03E-05
S0014	87	3	7440508	Copper	0.044054	2.03E-05
S0015	87	4	7440508	Copper	0.044054	2.03E-05
S0016	87	5	7440508	Copper	0.044054	2.03E-05
S0017	87	6	7440508	Copper	0.044054	2.03E-05
S0018	87	7	7440508	Copper	0.044054	2.03E-05
S0019	87	8	7440508	Copper	0.044054	2.03E-05
S0021	83	1	7440508	Copper	0.150028	6.90E-05
S0022	83	3	7440508	Copper	0.02257	1.04E-05
S0023	83	4	7440508	Copper	0.02257	1.04E-05
S0024	90	5	7440508	Copper	0.013624	6.27E-06
S0025	90	4	7440508	Copper	0.007961	3.66E-06
S0001	1	2	18540299	Cr(VI)	0.001482	6.82E-07
S0006	90	1	18540299	Cr(VI)	0.000547	2.52E-07
S0007	83	2	18540299	Cr(VI)	0.000684	3.15E-07
S0008	84	1	18540299	Cr(VI)	0	0
S0008	84	2	18540299	Cr(VI)	0	0
S0009	96	1	18540299	Cr(VI)	8.20E-07	3.77E-10
S0009	101	1	18540299	Cr(VI)	2.83E-06	1.30E-09
S0010	90	2	18540299	Cr(VI)	7.46E-07	3.43E-10
S0011	90	3	18540299	Cr(VI)	7.46E-07	3.43E-10
S0021	83	1	18540299	Cr(VI)	0.002721	1.25E-06
S0022	83	3	18540299	Cr(VI)	0.000684	3.15E-07
S0023	83	4	18540299	Cr(VI)	0.000684	3.15E-07
S0024	90	5	18540299	Cr(VI)	0.000413	1.90E-07
S0025	90	4	18540299	Cr(VI)	0.000241	1.11E-07
S0005	2	1	75150	CS2	0.080164	3.69E-05
S0005	3	1	75150	CS2	0.080164	3.69E-05
S0005	4	1	75150	CS2	0.080164	3.69E-05
S0005	5	1	75150	CS2	0.080164	3.69E-05
S0005	6	1	75150	CS2	0.080164	3.69E-05
S0001	1	2	53703	D[a,h]anthracen	0.000683	3.14E-07
S0004	1	4	53703	D[a,h]anthracen	4.87E-05	2.24E-08
S0009	96	1	9901	DieselExhPM	0.2747	0.000126
S0009	101	1	9901	DieselExhPM	0.94805	0.000436
S0001	1	2	100414	Ethyl Benzene	12.88752	0.005931
S0003	92	1	100414	Ethyl Benzene	0.083751	9.56E-06
S0004	1	3	100414	Ethyl Benzene	1.786766	0.000822
S0004	1	4	100414	Ethyl Benzene	4.493237	0.002068
S0005	2	1	100414	Ethyl Benzene	0.19039	8.76E-05
S0005	3	1	100414	Ethyl Benzene	0.19039	8.76E-05
S0005	4	1	100414	Ethyl Benzene	0.19039	8.76E-05
S0005	5	1	100414	Ethyl Benzene	0.19039	8.76E-05
S0005	6	1	100414	Ethyl Benzene	0.19039	8.76E-05
S0008	102	1	100414	Ethyl Benzene	2.75E-05	1.26E-08
S0009	96	1	100414	Ethyl Benzene	8.94E-05	4.11E-08
S0009	101	1	100414	Ethyl Benzene	0.000308	1.42E-07
S0020	91	1	100414	Ethyl Benzene	0.000877	4.04E-07
S0005	2	1	75003	Ethyl Chloride	0.020041	9.22E-06
S0005	3	1	75003	Ethyl Chloride	0.020041	9.22E-06
S0005	4	1	75003	Ethyl Chloride	0.020041	9.22E-06
S0005	5	1	75003	Ethyl Chloride	0.020041	9.22E-06
S0005	6	1	75003	Ethyl Chloride	0.020041	9.22E-06
S0001	1	2	206440	Fluoranthene	1.389074	0.000639
S0004	1	3	206440	Fluoranthene	0.014701	6.77E-06
S0004	1	4	206440	Fluoranthene	0.006578	3.03E-06
S0005	2	1	206440	Fluoranthene	0.021197	9.75E-06
S0005	3	1	206440	Fluoranthene	0.021197	9.75E-06
S0005	4	1	206440	Fluoranthene	0.021197	9.75E-06

Table 2: Toxic Emissions by Substance

S0005	5	1	206440	Fluoranthene	0.021197	9.75E-06
S0005	6	1	206440	Fluoranthene	0.021197	9.75E-06
S0001	1	2	86737	Fluorene	1.022513	0.000471
S0004	1	3	86737	Fluorene	0.098987	4.56E-05
S0004	1	4	86737	Fluorene	0.101295	4.66E-05
S0005	2	1	86737	Fluorene	0.142728	6.57E-05
S0005	3	1	86737	Fluorene	0.142728	6.57E-05
S0005	4	1	86737	Fluorene	0.142728	6.57E-05
S0005	5	1	86737	Fluorene	0.142728	6.57E-05
S0005	6	1	86737	Fluorene	0.142728	6.57E-05
S0001	1	2	50000	Formaldehyde	303.4215	0.139633
S0003	92	1	50000	Formaldehyde	0.14987	1.71E-05
S0004	1	3	50000	Formaldehyde	32.4439	0.01493
S0004	1	4	50000	Formaldehyde	1.41216	0.00065
S0005	2	1	50000	Formaldehyde	3.457074	0.001591
S0005	3	1	50000	Formaldehyde	3.457074	0.001591
S0005	4	1	50000	Formaldehyde	3.457074	0.001591
S0005	5	1	50000	Formaldehyde	3.457074	0.001591
S0005	6	1	50000	Formaldehyde	3.457074	0.001591
S0008	102	1	50000	Formaldehyde	4.91E-05	2.26E-08
S0009	96	1	50000	Formaldehyde	0.014154	6.51E-06
S0009	101	1	50000	Formaldehyde	0.048849	2.25E-05
S0001	1	2	7783064	H2S	345.2682	0.15889
S0009	96	1	7647010	HCl	0.001528	7.03E-07
S0009	101	1	7647010	HCl	0.005272	2.43E-06
S0001	1	2	110543	Hexane	354.9855	0.163362
S0003	92	1	110543	Hexane	0.05554	6.34E-06
S0004	1	3	110543	Hexane	4.702015	0.002164
S0004	1	4	110543	Hexane	2.407091	0.001108
S0005	2	1	110543	Hexane	0.501025	0.000231
S0005	3	1	110543	Hexane	0.501025	0.000231
S0005	4	1	110543	Hexane	0.501025	0.000231
S0005	5	1	110543	Hexane	0.501025	0.000231
S0005	6	1	110543	Hexane	0.501025	0.000231
S0008	102	1	110543	Hexane	1.85E-05	8.49E-09
S0009	96	1	110543	Hexane	0.000221	1.02E-07
S0009	101	1	110543	Hexane	0.000761	3.50E-07
S0020	91	1	110543	Hexane	6.75E-06	3.10E-09
S0001	1	2	193395	ln[1,2,3-cd]pyr	0.000841	3.87E-07
S0004	1	4	193395	ln[1,2,3-cd]pyr	6.18E-05	2.85E-08
S0001	1	2	7439921	Lead	8.10293	0.003729
S0006	90	1	7439921	Lead	0.014087	6.48E-06
S0007	83	2	7439921	Lead	0.017098	7.87E-06
S0009	96	1	7439921	Lead	6.81E-05	3.13E-08
S0009	101	1	7439921	Lead	0.000235	1.08E-07
S0010	90	2	7439921	Lead	1.87E-05	8.58E-09
S0011	90	3	7439921	Lead	1.87E-05	8.58E-09
S0012	87	1	7439921	Lead	0.456233	0.00021
S0013	87	2	7439921	Lead	0.456233	0.00021
S0014	87	3	7439921	Lead	0.456233	0.00021
S0015	87	4	7439921	Lead	0.456233	0.00021
S0016	87	5	7439921	Lead	0.456233	0.00021
S0017	87	6	7439921	Lead	0.456233	0.00021
S0018	87	7	7439921	Lead	0.456233	0.00021
S0019	87	8	7439921	Lead	0.456233	0.00021
S0021	83	1	7439921	Lead	0.070013	3.22E-05
S0022	83	3	7439921	Lead	0.017098	7.87E-06
S0023	83	4	7439921	Lead	0.017098	7.87E-06
S0024	90	5	7439921	Lead	0.010321	4.75E-06
S0025	90	4	7439921	Lead	0.006031	2.78E-06

Table 2: Toxic Emissions by Substance

S0001	1	2	7439965	Manganese	17.20908	0.00792
S0008	84	1	7439965	Manganese	0.1236	5.69E-05
S0008	84	2	7439965	Manganese	0.011976	5.51E-06
S0009	96	1	7439965	Manganese	2.54E-05	1.17E-08
S0009	101	1	7439965	Manganese	8.77E-05	4.04E-08
S0012	87	1	7439965	Manganese	0.532187	0.000245
S0013	87	2	7439965	Manganese	0.532187	0.000245
S0014	87	3	7439965	Manganese	0.532187	0.000245
S0015	87	4	7439965	Manganese	0.532187	0.000245
S0016	87	5	7439965	Manganese	0.532187	0.000245
S0017	87	6	7439965	Manganese	0.532187	0.000245
S0018	87	7	7439965	Manganese	0.532187	0.000245
S0019	87	8	7439965	Manganese	0.532187	0.000245
S0005	2	1	78933	MEK	0.1954	8.99E-05
S0005	3	1	78933	MEK	0.1954	8.99E-05
S0005	4	1	78933	MEK	0.1954	8.99E-05
S0005	5	1	78933	MEK	0.1954	8.99E-05
S0005	6	1	78933	MEK	0.1954	8.99E-05
S0001	1	2	7439976	Mercury	11.80713	0.005434
S0006	90	1	7439976	Mercury	4.51E-05	2.07E-08
S0009	96	1	7439976	Mercury	1.64E-05	7.55E-09
S0009	101	1	7439976	Mercury	5.66E-05	2.60E-08
S0012	87	1	7439976	Mercury	0.007595	3.50E-06
S0013	87	2	7439976	Mercury	0.007595	3.50E-06
S0014	87	3	7439976	Mercury	0.007595	3.50E-06
S0015	87	4	7439976	Mercury	0.007595	3.50E-06
S0016	87	5	7439976	Mercury	0.007595	3.50E-06
S0017	87	6	7439976	Mercury	0.007595	3.50E-06
S0018	87	7	7439976	Mercury	0.007595	3.50E-06
S0019	87	8	7439976	Mercury	0.007595	3.50E-06
S0021	83	1	7439976	Mercury	0.000224	1.03E-07
S0005	2	1	74839	Methyl Bromide	0.02455	1.13E-05
S0005	3	1	74839	Methyl Bromide	0.02455	1.13E-05
S0005	4	1	74839	Methyl Bromide	0.02455	1.13E-05
S0005	5	1	74839	Methyl Bromide	0.02455	1.13E-05
S0005	6	1	74839	Methyl Bromide	0.02455	1.13E-05
S0005	2	1	75092	Methylene Chlor	0.001353	6.23E-07
S0005	3	1	75092	Methylene Chlor	0.001353	6.23E-07
S0005	4	1	75092	Methylene Chlor	0.001353	6.23E-07
S0005	5	1	75092	Methylene Chlor	0.001353	6.23E-07
S0005	6	1	75092	Methylene Chlor	0.001353	6.23E-07
S0020	91	1	108383	m-Xylene	0.019564	9.00E-06
S0001	1	2	91203	Naphthalene	24.92616	0.011471
S0003	92	1	91203	Naphthalene	0.002645	3.02E-07
S0004	1	3	91203	Naphthalene	0.178372	8.21E-05
S0004	1	4	91203	Naphthalene	0.16444	7.57E-05
S0005	2	1	91203	Naphthalene	0.257193	0.000118
S0005	3	1	91203	Naphthalene	0.257193	0.000118
S0005	4	1	91203	Naphthalene	0.257193	0.000118
S0005	5	1	91203	Naphthalene	0.257193	0.000118
S0005	6	1	91203	Naphthalene	0.257193	0.000118
S0008	102	1	91203	Naphthalene	1.35E-06	6.21E-10
S0009	96	1	91203	Naphthalene	0.000162	7.43E-08
S0009	101	1	91203	Naphthalene	0.000558	2.57E-07
S0001	1	1	7664417	NH3	255.1136	0.117402
S0003	92	1	7664417	NH3	28.21088	0.00322
S0008	102	1	7664417	NH3	0.0135	6.21E-06
S0009	96	1	7664417	NH3	0.00656	3.02E-06
S0009	101	1	7664417	NH3	0.02264	1.04E-05
S0001	1	2	7440020	Nickel	3.935709	0.001811

Table 2: Toxic Emissions by Substance

S0006	90	1	7440020	Nickel	0.01449	6.67E-06
S0007	83	2	7440020	Nickel	0.019834	9.13E-06
S0008	84	1	7440020	Nickel	0.00024	1.10E-07
S0008	84	2	7440020	Nickel	6.00E-05	2.76E-08
S0009	96	1	7440020	Nickel	3.20E-05	1.47E-08
S0009	101	1	7440020	Nickel	0.00011	5.08E-08
S0010	90	2	7440020	Nickel	2.16E-05	9.96E-09
S0011	90	3	7440020	Nickel	2.16E-05	9.96E-09
S0012	87	1	7440020	Nickel	0.031901	1.47E-05
S0013	87	2	7440020	Nickel	0.031901	1.47E-05
S0014	87	3	7440020	Nickel	0.031901	1.47E-05
S0015	87	4	7440020	Nickel	0.031901	1.47E-05
S0016	87	5	7440020	Nickel	0.031901	1.47E-05
S0017	87	6	7440020	Nickel	0.031901	1.47E-05
S0018	87	7	7440020	Nickel	0.031901	1.47E-05
S0019	87	8	7440020	Nickel	0.031901	1.47E-05
S0021	83	1	7440020	Nickel	0.072013	3.31E-05
S0022	83	3	7440020	Nickel	0.019834	9.13E-06
S0023	83	4	7440020	Nickel	0.019834	9.13E-06
S0024	90	5	7440020	Nickel	0.011972	5.51E-06
S0025	90	4	7440020	Nickel	0.006996	3.22E-06
S0004	1	3	95476	o-Xylene	2.680148	0.001233
S0004	1	4	95476	o-Xylene	1.283782	0.000591
S0005	2	1	95476	o-Xylene	0.285584	0.000131
S0005	3	1	95476	o-Xylene	0.285584	0.000131
S0005	4	1	95476	o-Xylene	0.285584	0.000131
S0005	5	1	95476	o-Xylene	0.285584	0.000131
S0005	6	1	95476	o-Xylene	0.285584	0.000131
S0003	92	1	1151	PAHs-w/o	0.000882	1.01E-07
S0008	102	1	1151	PAHs-w/o	4.50E-07	2.07E-10
S0009	96	1	1151	PAHs-w/o	0.000297	1.37E-07
S0009	101	1	1151	PAHs-w/o	0.001024	4.71E-07
S0001	1	2	198550	Perylene	0.003396	1.56E-06
S0004	1	3	198550	Perylene	0.00294	1.35E-06
S0004	1	4	198550	Perylene	0.002894	1.33E-06
S0005	2	1	198550	Perylene	0.004239	1.95E-06
S0005	3	1	198550	Perylene	0.004239	1.95E-06
S0005	4	1	198550	Perylene	0.004239	1.95E-06
S0005	5	1	198550	Perylene	0.004239	1.95E-06
S0005	6	1	198550	Perylene	0.004239	1.95E-06
S0001	1	2	85018	Phenanthrene	2.990367	0.001376
S0004	1	3	85018	Phenanthrene	0.176412	8.12E-05
S0004	1	4	85018	Phenanthrene	0.106557	4.90E-05
S0005	2	1	85018	Phenanthrene	0.254367	0.000117
S0005	3	1	85018	Phenanthrene	0.254367	0.000117
S0005	4	1	85018	Phenanthrene	0.254367	0.000117
S0005	5	1	85018	Phenanthrene	0.254367	0.000117
S0005	6	1	85018	Phenanthrene	0.254367	0.000117
S0001	1	2	7723140	Phosphorus	10.80391	0.004972
S0012	87	1	7723140	Phosphorus	0.811193	0.000373
S0013	87	2	7723140	Phosphorus	0.811193	0.000373
S0014	87	3	7723140	Phosphorus	0.811193	0.000373
S0015	87	4	7723140	Phosphorus	0.811193	0.000373
S0016	87	5	7723140	Phosphorus	0.811193	0.000373
S0017	87	6	7723140	Phosphorus	0.811193	0.000373
S0018	87	7	7723140	Phosphorus	0.811193	0.000373
S0019	87	8	7723140	Phosphorus	0.811193	0.000373
S0001	1	2	129000	Pyrene	2.716411	0.00125
S0004	1	3	129000	Pyrene	0.043123	1.98E-05
S0004	1	4	129000	Pyrene	0.019733	9.08E-06

Table 2: Toxic Emissions by Substance

S0005	2	1	129000	Pyrene	0.062179	2.86E-05
S0005	3	1	129000	Pyrene	0.062179	2.86E-05
S0005	4	1	129000	Pyrene	0.062179	2.86E-05
S0005	5	1	129000	Pyrene	0.062179	2.86E-05
S0005	6	1	129000	Pyrene	0.062179	2.86E-05
S0001	1	2	7782492	Selenium	0.767849	0.000353
S0009	96	1	7782492	Selenium	1.80E-05	8.30E-09
S0009	101	1	7782492	Selenium	6.23E-05	2.87E-08
S0012	87	1	7782492	Selenium	0.000506	2.33E-07
S0013	87	2	7782492	Selenium	0.000506	2.33E-07
S0014	87	3	7782492	Selenium	0.000506	2.33E-07
S0015	87	4	7782492	Selenium	0.000506	2.33E-07
S0016	87	5	7782492	Selenium	0.000506	2.33E-07
S0017	87	6	7782492	Selenium	0.000506	2.33E-07
S0018	87	7	7782492	Selenium	0.000506	2.33E-07
S0019	87	8	7782492	Selenium	0.000506	2.33E-07
S0006	90	1	1175	Silica, Crystln	18.40451	0.00847
S0007	83	2	1175	Silica, Crystln	20.21763	0.009304
S0010	90	2	1175	Silica, Crystln	0.017058	7.85E-06
S0011	90	3	1175	Silica, Crystln	0.017058	7.85E-06
S0021	83	1	1175	Silica, Crystln	118.266	0.054425
S0022	83	3	1175	Silica, Crystln	20.21763	0.009304
S0023	83	4	1175	Silica, Crystln	20.21763	0.009304
S0024	90	5	1175	Silica, Crystln	9.438783	0.004344
S0025	90	4	1175	Silica, Crystln	5.515433	0.002538
S0001	1	2	7440224	Silver	0.18521	8.52E-05
S0012	87	1	7440224	Silver	0.004557	2.10E-06
S0013	87	2	7440224	Silver	0.004557	2.10E-06
S0014	87	3	7440224	Silver	0.004557	2.10E-06
S0015	87	4	7440224	Silver	0.004557	2.10E-06
S0016	87	5	7440224	Silver	0.004557	2.10E-06
S0017	87	6	7440224	Silver	0.004557	2.10E-06
S0018	87	7	7440224	Silver	0.004557	2.10E-06
S0019	87	8	7440224	Silver	0.004557	2.10E-06
S0004	1	3	100425	Styrene	0.253909	0.000117
S0004	1	4	100425	Styrene	0.117145	5.39E-05
S0005	2	1	100425	Styrene	0.027055	1.25E-05
S0005	3	1	100425	Styrene	0.027055	1.25E-05
S0005	4	1	100425	Styrene	0.027055	1.25E-05
S0005	5	1	100425	Styrene	0.027055	1.25E-05
S0005	6	1	100425	Styrene	0.027055	1.25E-05
S0001	1	2	7440280	Thallium	0.001582	7.28E-07
S0001	1	2	108883	Toluene	20.48884	0.009429
S0003	92	1	108883	Toluene	0.322662	3.68E-05
S0004	1	3	108883	Toluene	2.915249	0.001342
S0004	1	4	108883	Toluene	3.369928	0.001551
S0005	2	1	108883	Toluene	0.310636	0.000143
S0005	3	1	108883	Toluene	0.310636	0.000143
S0005	4	1	108883	Toluene	0.310636	0.000143
S0005	5	1	108883	Toluene	0.310636	0.000143
S0005	6	1	108883	Toluene	0.310636	0.000143
S0008	102	1	108883	Toluene	0.000106	4.87E-08
S0009	96	1	108883	Toluene	0.000864	3.98E-07
S0009	101	1	108883	Toluene	0.002983	1.37E-06
S0020	91	1	108883	Toluene	0.002159	9.93E-07
S0004	1	4	75694	TriClFluorMetha	0.020861	9.60E-06
S0006	90	1	7440622	Vanadium	0.060777	2.80E-05
S0007	83	2	7440622	Vanadium	0.036248	1.67E-05
S0010	90	2	7440622	Vanadium	3.95E-05	1.82E-08
S0011	90	3	7440622	Vanadium	3.95E-05	1.82E-08

Table 2: Toxic Emissions by Substance

S0012	87	1	7440622	Vanadium	0.157985	7.27E-05
S0013	87	2	7440622	Vanadium	0.157985	7.27E-05
S0014	87	3	7440622	Vanadium	0.157985	7.27E-05
S0015	87	4	7440622	Vanadium	0.157985	7.27E-05
S0016	87	5	7440622	Vanadium	0.157985	7.27E-05
S0017	87	6	7440622	Vanadium	0.157985	7.27E-05
S0018	87	7	7440622	Vanadium	0.157985	7.27E-05
S0019	87	8	7440622	Vanadium	0.157985	7.27E-05
S0021	83	1	7440622	Vanadium	0.302056	0.000139
S0022	83	3	7440622	Vanadium	0.036248	1.67E-05
S0023	83	4	7440622	Vanadium	0.036248	1.67E-05
S0024	90	5	7440622	Vanadium	0.021881	1.01E-05
S0025	90	4	7440622	Vanadium	0.012786	5.88E-06
S0001	1	2	1330207	Xylenes	20.37308	0.009376
S0003	92	1	1330207	Xylenes	0.239792	2.74E-05
S0004	1	3	1330207	Xylenes	9.404029	0.004328
S0004	1	4	1330207	Xylenes	0.539363	0.000248
S0005	2	1	1330207	Xylenes	1.00205	0.000461
S0005	3	1	1330207	Xylenes	1.00205	0.000461
S0005	4	1	1330207	Xylenes	1.00205	0.000461
S0005	5	1	1330207	Xylenes	1.00205	0.000461
S0005	6	1	1330207	Xylenes	1.00205	0.000461
S0008	102	1	1330207	Xylenes	7.88E-05	3.62E-08
S0009	96	1	1330207	Xylenes	0.000348	1.60E-07
S0009	101	1	1330207	Xylenes	0.0012	5.52E-07
S0001	1	2	7440666	Zinc	9.877858	0.004546
S0006	90	1	7440666	Zinc	0.253574	0.000117
S0007	83	2	7440666	Zinc	0.052663	2.42E-05
S0010	90	2	7440666	Zinc	5.75E-05	2.64E-08
S0011	90	3	7440666	Zinc	5.75E-05	2.64E-08
S0012	87	1	7440666	Zinc	0.314957	0.000145
S0013	87	2	7440666	Zinc	0.314957	0.000145
S0014	87	3	7440666	Zinc	0.314957	0.000145
S0015	87	4	7440666	Zinc	0.314957	0.000145
S0016	87	5	7440666	Zinc	0.314957	0.000145
S0017	87	6	7440666	Zinc	0.314957	0.000145
S0018	87	7	7440666	Zinc	0.314957	0.000145
S0019	87	8	7440666	Zinc	0.314957	0.000145
S0021	83	1	7440666	Zinc	1.260234	0.00058
S0022	83	3	7440666	Zinc	0.052663	2.42E-05
S0023	83	4	7440666	Zinc	0.052663	2.42E-05
S0024	90	5	7440666	Zinc	0.031789	1.46E-05
S0025	90	4	7440666	Zinc	0.018576	8.55E-06

ATTACHMENT "B"

ISOPLETHS



Figure 1 – 30 Year Resident Cancer Risk (chances in-one-million)

-  Facility Boundary
-  1 chance in-one-million Cancer Risk
-  10 chances in-one-million Cancer Risk
-  25 chances in-one-million Cancer Risk
-  100 chances in-one-million Cancer Risk



Figure 2 – 25 Year Worker Cancer Risk (chances in-one-million)

-  Facility Boundary
-  1 chance in-one-million Cancer Risk



Figure 3 – Chronic Worker

-  Facility Boundary
-  Hazard Index of 0.5
-  Hazard Index of 1



Figure 4 – Chronic Resident

-  Facility Boundary
-  Hazard Index of 0.5
-  Hazard Index of 1
-  Hazard Index of 3

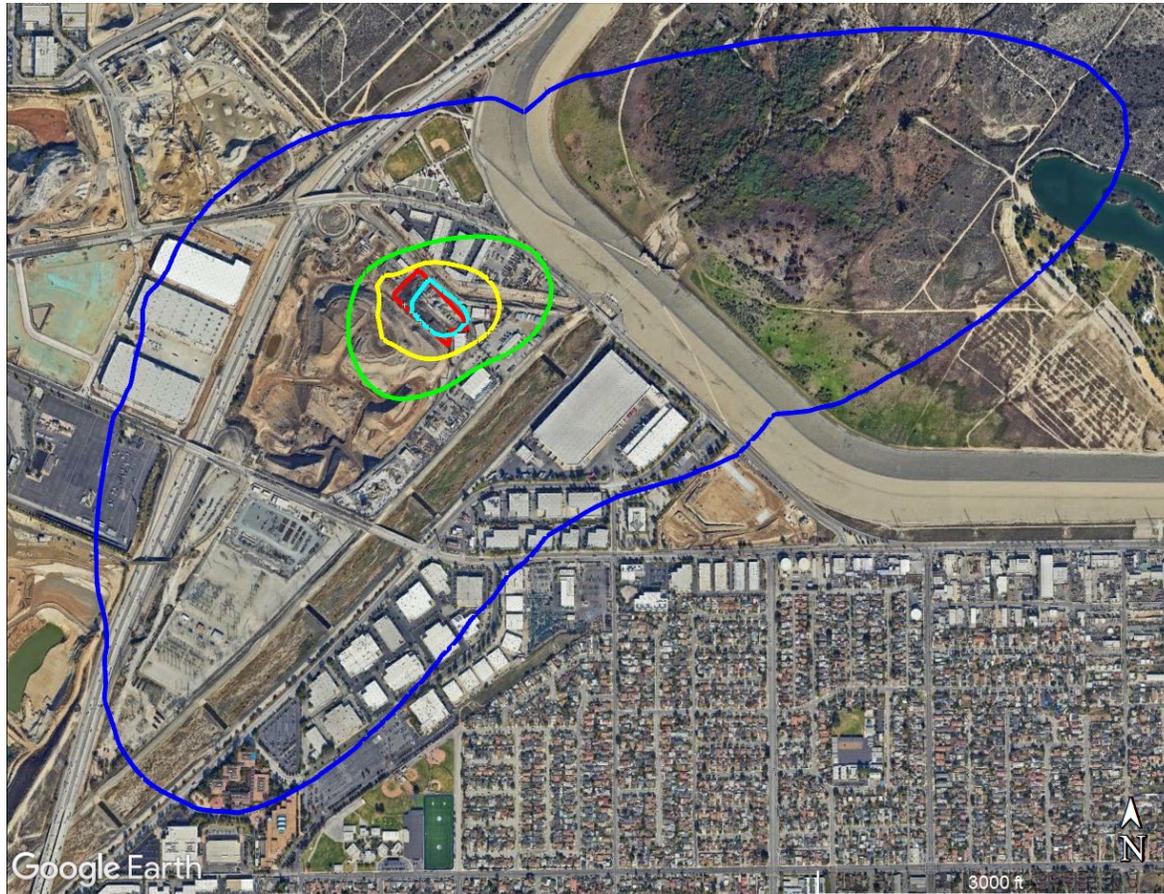


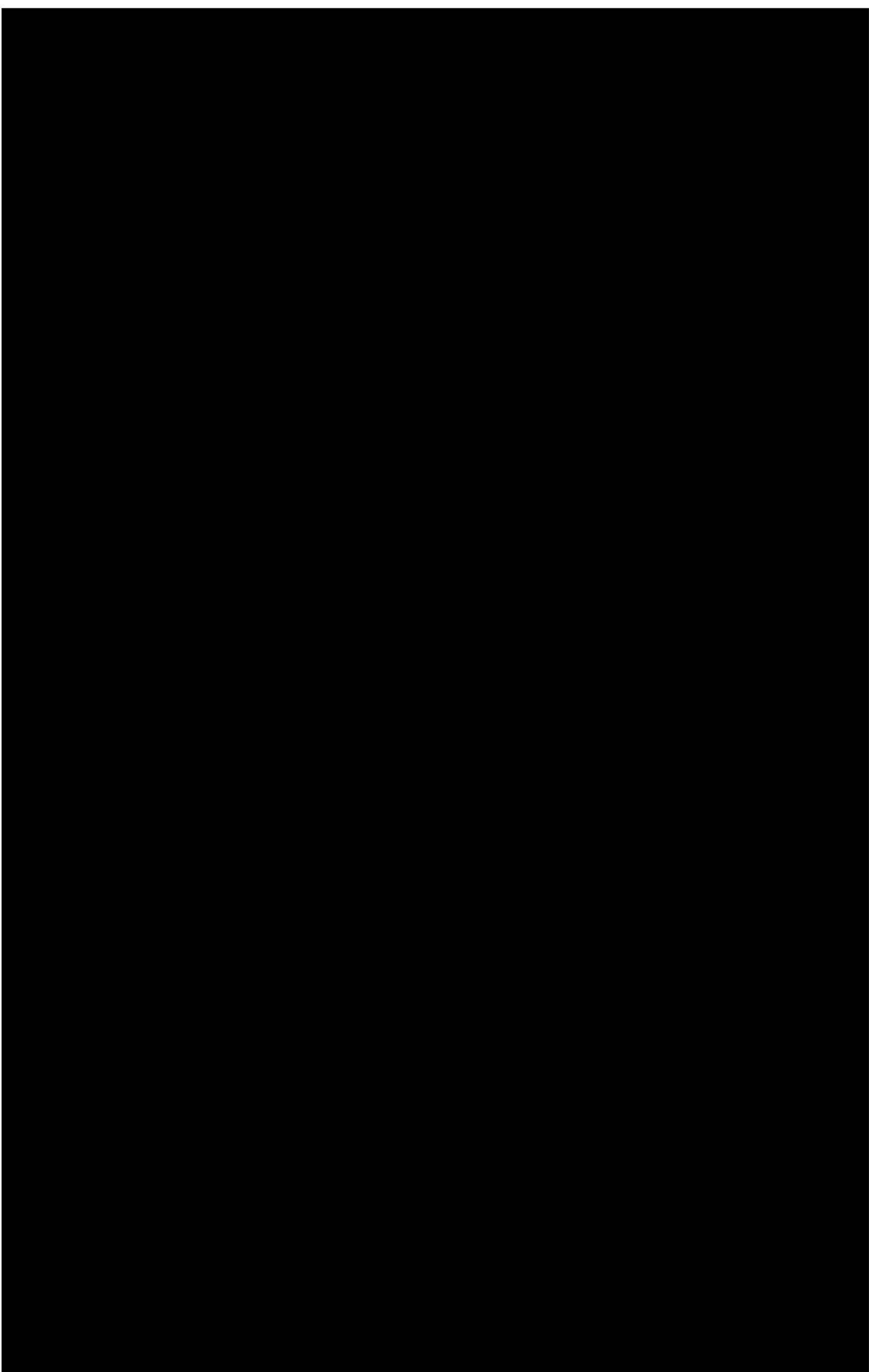
Figure 5 – 70-Year Cancer Risk

-  Facility Boundary
-  1 chance in-one-million Cancer Risk
-  10 chances in-one-million Cancer Risk
-  25 chances in-one-million Cancer Risk
-  100 chances in-one-million Cancer Risk

ATTACHMENT "C"
HEALTH DATA TABLES
(SEE PROVIDED ELECTRONIC COPY)

ATTACHMENT “D”

FLOW DIAGRAM



ATTACHMENT “E”

CANCER BURDEN

Receptor No.	Track No.	Block No.	Census Coordinates		Population x	Cancer Risk =	Cancer Burden
			X(m)	Y(m)			
12071	404600	2035	410566.6	3775037	0	5.32E-06	0
12083	404600	2075	410545	3774737	0	1.82E-06	0
12084	404600	2076	410290.3	3774730	0	2.85E-06	0
12085	404600	2077	410247.5	3775187	50	1.70E-05	0.000848
12086	404600	2078	410346	3775543	0	1.13E-06	0
12087	404600	2087	409975.1	3775460	0	1.41E-06	0
12088	404600	2088	409868.5	3775390	0	1.61E-06	0
12089	404600	2089	409830.9	3775393	0	1.49E-06	0
12096	404600	2111	409663.2	3775013	0	2.31E-06	0
12097	404600	2112	409592	3774750	0	1.98E-06	0
12098	404600	2113	409600.8	3774706	0	2.05E-06	0
12099	404600	2114	410207.2	3775072	0	7.98E-05	0
12100	404600	2115	410194.2	3774776	0	5.19E-06	0
12101	404600	2116	409541.8	3774242	0	1.44E-06	0
12102	404600	2117	409542.3	3774535	0	1.69E-06	0
12103	404600	2118	409503.4	3774572	0	1.55E-06	0
12104	404600	2119	409454.8	3774544	0	1.39E-06	0
12105	404600	2120	409447.4	3774593	0	1.38E-06	0
12106	404600	2121	409470.6	3773914	0	1.08E-06	0
12107	404600	2122	409523.6	3773878	0	1.08E-06	0
12110	404600	2135	410001.9	3774437	0	2.20E-06	0
12111	404600	2136	410083.1	3774423	0	1.90E-06	0
12112	404600	2137	410119.5	3774414	0	1.72E-06	0
12113	404600	2138	410383.4	3774495	0	1.14E-06	0
12131	404600	2207	409662.2	3773793	0	1.01E-06	0
12134	404600	2210	409744.7	3773958	0	1.17E-06	0
12136	404600	2212	409694.8	3773997	0	1.24E-06	0

Receptor No.	Track No.	Block No.	Census Coordinates		Population x	Cancer Risk =	Cancer Burden
			X(m)	Y(m)			
12157	405001	3001	410242.2	3774399	0	1.26E-06	0
12158	405001	3002	410035.7	3774172	0	1.22E-06	0
12159	405001	3003	409931.1	3774264	0	1.65E-06	0
12160	405001	3004	409894.5	3774313	0	1.84E-06	0
12161	405001	3005	409834.7	3774371	0	2.09E-06	0
Total Cancer Burden =8.48E-04							

ATTACHMENT "F"
MULTIPATHWAY POLLUTANTS

Multi-pathway Pollutant	INHALATION	SOIL	DERMAL	Mother's MILK	Drinking	FISH	CROP	DAIRY	MEAT & EGG
Arsenic	x	x	x		x	x	x	x	x
B(a)anthracene	x	x	x	x	x	x	x	x	x
B(a)P	x	x	x	x	x	x	x	x	x
B(b)fluoranthen	x	x	x	x	x	x	x	x	x
B(k)fluoranthen	x	x	x	x	x	x	x	x	x
Beryllium	x	x	x		x	x	x	x	x
Cadmium	x	x	x		x	x	x	x	x
Cr(VI)	x	x	x		x	x	x	x	x
Chrysene	x	x	x	x	x	x	x	x	x
D(a,h)anthracen	x	x	x	x	x	x	x	x	x
In(1,2,3-cd)pyr	x	x	x	x	x	x	x	x	x
Lead	x	x	x	x	x	x	x	x	x
Mercury	x	x	x		x	x	x	x	x
Nickel	x	x	x		x		x	x	x
PAHs-w/o	x	x	x	x	x	x	x	x	x

ATTACHMENT "G"

TARGET ORGANS BY TAC

Compound	CAS Number / Pollutant ID	Acute Target Organs						Chronic Target Organs										8-Hr Chronic Target Organs										
		Central Nervous System	Cardiovascular	Immune System	Reproductive Development	Respiratory System	Eye	Blood	Cardiovascular	Central Nervous System	Immune System	Kidney	GILV	Reproductive Development	Respiratory System	Skin	Eye	Endocrine	Blood	Cardiovascular	Central Nervous System	Immune System	Kidney	Reproductive Development	Respiratory System	Skin	Eye	Blood
1,1,1-TCA	71556																											
1,3-Butadiene	106990				X								X											X				
2,2,4TriMePentn	540841																											
2MENaphthalene	91576																											
Acenaphthene	83329																											
Acenaphthylene	208968																											
Acetaldehyde	75070					X	X							X										X				
Acrolein	107028					X	X							X										X				
Aluminium	7429905																											
Ammonia	7664417					X	X							X														
Anthracene	120127																											
Antimony	7440360																											
Arsenic	7440382	X	X		X			X	X				X	X	X				X	X			X	X	X			
B(a)anthracene	56553																											
B(a)P	50328																											
B(b)fluoranthene	205992																											
B[e]pyrene	192972																											

Compound	CAS Number / Pollutant ID	Acute Target Organs						Chronic Target Organs										8-Hr Chronic Target Organs										
		Central Nervous System	Cardiovascular	Immune System	Reproductive Development	Respiratory System	Eye	Blood	Cardiovascular	Central Nervous System	Immune System	Kidney	GILV	Reproductive Development	Respiratory System	Skin	Eye	Endocrine	Blood	Cardiovascular	Central Nervous System	Immune System	Kidney	Reproductive Development	Respiratory System	Skin	Eye	Blood
B[g,h,i]perylene	191242																											
B(k)fluoranthene	207089																											
Barium	7440393																											
Benzene	71432			X	X			X										X										X
Beryllium	7440417									X		X		X														
Bromine	7726956																											
Cadmium	7440439										X			X														
Carbon Disulfide	75150	X			X				X				X															
Chlorine	7782505					X	X																					
Chromium	7440473																											
Chrysene	218019																											
Cobalt	7440484																											
Copper	7440508					X																						
Cr(VI)	18540299													X				X										
D(a,h)anthracen	53703																											
DPM	9901													X														
Ethyl Benzene	100414										X	X	X				X											

Compound	CAS Number / Pollutant ID	Acute Target Organs							Chronic Target Organs								8-Hr Chronic Target Organs											
		Central Nervous System	Cardiovascular	Immune System	Reproductive Development	Respiratory System	Eye	Blood	Cardiovascular	Central Nervous System	Immune System	Kidney	GILV	Reproductive Development	Respiratory System	Skin	Eye	Endocrine	Blood	Cardiovascular	Central Nervous System	Immune System	Kidney	Reproductive Development	Respiratory System	Skin	Eye	Blood
Ethyl Chloride	75003											X	X															
Fluoranthene	206440																											
Fluorene	86737																											
Formaldehyde	50000						X							X									X					
Hydrogen Sulfide	77833064	X												X														
Hydrochloric Acid	7647010					X	X							X														
Hexane	110543																											
In(1,2,3-cd)pyrene	193395																											
Lead	7439921																											
Manganese	7439965								X											X								
Mercury	7439976	X			X				X		X		X							X		X	X					
Methyl Bromide	74839	X			X	X			X				X	X														
Methyl Ethyl Ketone	78933					X	X																					
Methylene Chloride	75092	X	X						X	X																		
Naphthalene	91203													X														
Nickel	7440020			X									X	X				X			X			X				
o-Xylene	95476	X				X	X		X					X		X												

Compound	CAS Number / Pollutant ID	Acute Target Organs							Chronic Target Organs								8-Hr Chronic Target Organs										
		Central Nervous System	Cardiovascular	Immune System	Reproductive Development	Respiratory System	Eye	Blood	Cardiovascular	Central Nervous System	Immune System	Kidney	GILV	Reproductive Development	Respiratory System	Skin	Eye	Endocrine	Blood	Cardiovascular	Central Nervous System	Immune System	Kidney	Reproductive Development	Respiratory System	Skin	Eye
PAHs-w/o	1151																										
Perylene	198550																										
Phenanthrene	85018																										
Phosphorus	7723140																										
Pyrene	129000																										
Selenium	7782492							X	X			X															
Silica, crystalline (respirable)	1175													X													
Silver	7440224																										
Styrene	100425				X	X	X		X																		
Thallium	7440280																										
Toluene	108883	X				X	X									X										X	
TriCFluorMetha	75694																										
Vanadium	7440622						X																				
Xylenes	1330207	X				X	X		X					X		X											
Zinc	7440666																										