INTEROFFICE MEMORANDUM
March 4, 2024

TO: **Carol Allen** **Via:** **Daphne Y. Chong**

FROM: **Davis Zhu** DZ

SUBJECT: **Results of Revised Health Risk Assessments (HRA) for Schnitzer Steel (Oakland, CA), Plant #208, Application #30009**

EXECUTIVE SUMMARY

Schnitzer Steel Products Company (Schnitzer) operates a metal shredding operation at their Oakland, CA facility. In 2020, the Air District required that Schnitzer install updated abatement systems for this metal shredding operation, because emissions from the shredder enclosure were exceeding the total carbon limits in Regulation 8-2-301. The updated abatement systems were required to include two regenerative thermal oxidizers (RTOs) that would control organic emissions from the shredder and two packed-bed acid gas scrubbers (AGSs) to control secondary toxic emissions generated by the thermal oxidation process. Schnitzer submitted Application #30009 to request permits for this additional air pollution abatement equipment on the existing metal shredder. On August 26, 2021, the Air District issued Schnitzer an Authority to Construct for these abatement equipment upgrades. Schnitzer installed the new abatement systems and began operating them on April 11, 2022. Subsequently, Schnitzer completed the required initial compliance demonstration testing for this equipment. Based on available source test data, the Air District has updated the emission estimates for pre-project and post-project scenarios for this metal shredder abatement upgrade project and has conducted health risk assessments (HRA) for each scenario to further inform the Air District's Permit to Operate decision for Application # 30009.

For the Authority to Construct analysis, the Air District prepared an HRA only for a post-project scenario using emission estimates derived from thermal oxidizer control efficiency assumptions and literature-based emission factors. For this revised HRA report, the Air District prepared more comprehensive toxic emission inventories for both pre-project and post-project scenarios. The updated HRAs for pre-project and post-project scenarios include emission estimates for fifty-five toxic air contaminants that were derived from site-specific source test data including pre-project tests, post-project tests, and revised stack emission limit proposals.

As shown in Table 1, Schnitzer's project to upgrade abatement systems for the metal shredder results in risk reductions for each type of health risk. The RTO abatement project reduced cancer risk by 74%, reduced chronic (annual) non-cancer health risks by 36%, and reduced acute (1-hour) non-cancer health risks by 65%.

Table 1. Comparison of Pre-Project and Post-Project Health Risks for Application #30009

	Cancer Risk (in a million)	Chronic Hazard Index	Acute Hazard Index
Pre-Project Scenario	21.6	0.127	0.42
Post-Project Scenario	5.7	0.082	0.15
Project Risk Reductions	15.9	0.045	0.27
Risk Reduction Percentage	74%	36%	65%

TOXIC NEW SOURCE REVIEW REQUIREMENTS

Regulation 2, Rule 5 contains the Air District's toxic new source review requirements for projects involving new or modified sources. A modified source is defined in Regulation 2-5-214.[1] This project to upgrade the abatement systems for the S-6 Metal Shredder involves a physical change to the source (the addition of abatement equipment) and results in emissions of new toxic air contaminants that were not previously emitted. Many of the compounds emitted by the shredder are organic compounds that contain chlorine or fluorine. Thermal oxidation of these compounds is necessary to reduce organic emissions to compliant levels and to reduce overall health risks from the shredding operation, but thermal oxidation will also result in new secondary toxic emissions, such as hydrogen chloride, hydrogen fluoride, formaldehyde, dioxins and polycyclic aromatic hydrocarbons. The packed-bed acid gas scrubbers will control most of these secondary toxic emissions. As defined in Regulation 2-5-214.4, the metal shredder may potentially be a modified source of toxic air contaminants, if the emission of new toxics results in a cancer risk greater than 1.0 in a million or a chronic hazard index greater than 0.20. A health risk assessment is necessary to determine if this project meets the Regulation 2-5-214.4 definition of a modified source.

If the metal shredder is presumed to be a modified source of toxic air contaminants, the metal shredder would be subject to the (a) Best Available Control Technology for Toxics (TBACT) Requirement of Regulation 2-5-301, if TBACT thresholds are exceeded, and (b) Project Risk Requirement of Regulation 2-5-302. For the Engineering Evaluation conducted prior to issuance of the Authority to Construct (ATC) for Application #30009, the Air District presumed that this project would constitute a modified source of toxic air contaminants. The Air District concluded that the shredder met TBACT requirements for carcinogenic health risks and established permit conditions to ensure that the abatement systems would achieve the highest achievable destruction efficiency for toxic air contaminants.

This updated estimate of post-project health risks is compared to Regulation 2, Rule 5 project risk limits in Table 2. Although this more comprehensive post-project HRA finds that health risks are higher than previously estimated for the Authority to Construct analysis, it demonstrates that post-project health risks comply with all applicable project risk limits for Application #30009. Project cancer risk is estimated to be 5.7 in a million and meets the most stringent project cancer risk limit of 6.0 in a million that applies to projects involving new or modified sources that are located in overburdened communities.[2] Cancer risk impacts are discussed in more detail later in this report. Non-cancer health impacts are not expected to occur, because the chronic hazard index and acute hazard index do not exceed 1.0.

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[1] Regulation 2-5-214 defines a modified source of toxic air contaminants as: "An existing source that undergoes a physical change, change in the method of operation, or increase in throughput or production that results or may result in any of the following:" [214.4] "The emission of any toxic air contaminant not previously emitted in a quantity that would result in a cancer risk greater than 1.0 in a million (10^{-6}) or a chronic hazard index greater than 0.20."

[2] Regulation 2-5-302.1 identifies the project cancer risk limits for permit applications for new or modified sources. Effective July 1, 2022, the project cancer risk limit for permit applications with new or modified sources of toxic air contaminants was reduced from 10.0 in a million to 6.0 in a million, if the project is located in an overburdened community. The Schnitzer Steel facility is located within an overburdened community.

Table 2. Comparison of Post-Project Health Risks to Project Risk Limits for Application #30009

	Cancer Risk (in a million)	Chronic Hazard Index	Acute Hazard Index
Post-Project Scenario [3]	5.7	0.082	0.15
Project Risk Limits (Regulation 2-5-302)	6.0	1.0	1.0

Table 3 presents the maximum source risk for the Metal Shredder and its associated abatement systems. In accordance with Regulation 2-5-301, the Metal Shredder requires TBACT for cancer impacts because the residual source risk exceeds 1.0 in a million. Most of the residual cancer risk is due to fugitive emissions, which were not directly impacted by this abatement project. However, fugitive impacts are higher than previously estimated due to improved emission factors and the inclusion of additional toxic air contaminants in this HRA. Non-cancer impacts do not trigger TBACT, because the maximum chronic hazard index for the Metal Shredder and Abatement Systems is less than 0.20.

Table 3. Post-Project Maximum Source Risks for Shredder Operations

	Cancer Risk (in a million)	Chronic Hazard Index	Acute Hazard Index
Impacts from Shredder Enclosure: Residual Fugitive Emissions	3.9	0.067	0.12
Impacts from Stacks (P-17 & P-18): Post-Project Abated Emissions	1.7	0.012	0.022
Total Source Risks for Metal Shredder and Abatement Systems	5.6	0.079	0.15
TBACT Source Risk Thresholds (Regulation 2-5-301)	1.0	0.20	NA

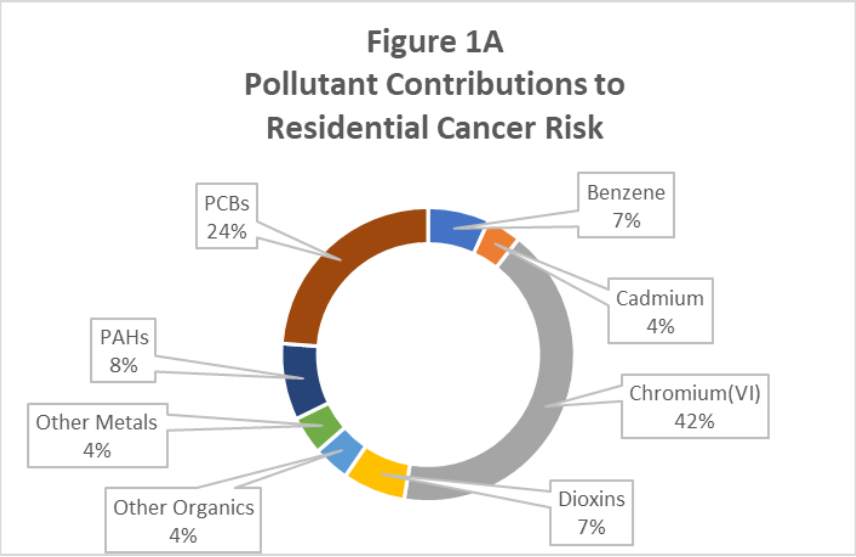
POST-PROJECT RESIDUAL HEALTH IMPACTS

For the post-project health risk scenario shown in Table 2 above, the pollutant contributions to each type of health risk (cancer risk, chronic hazard index, and acute hazard index) are presented in Figures 1A, 1B, and 1C, respectively.

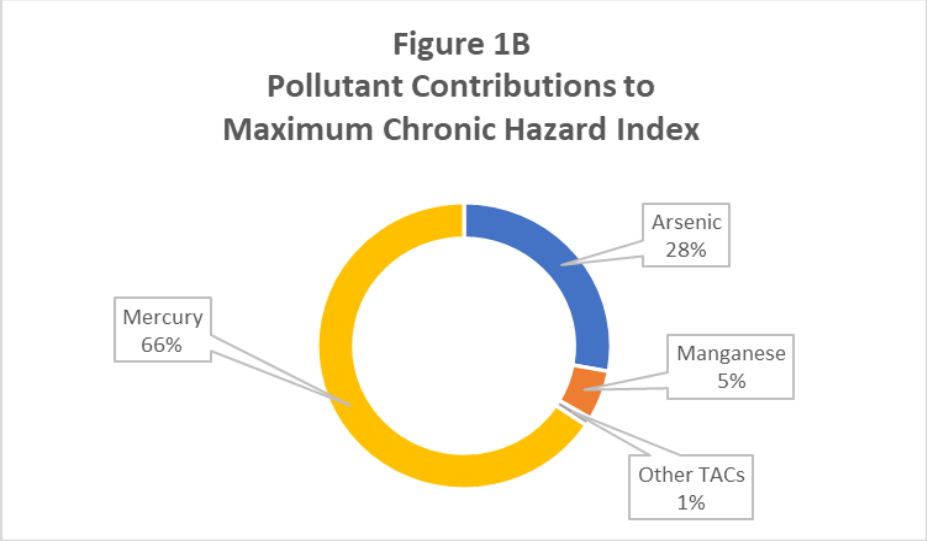
The highest project cancer risk occurs at a residential receptor. The highest pollutant contributions to cancer risk are from hexavalent chromium (Chromium(VI) or Cr(VI)) and polychlorinated biphenyls (PCBs), which collectively contribute 66% of the cancer risk. Secondary TACs, such as polycyclic aromatic hydrocarbons (PAHs) and dioxins collectively contribute 15% to cancer risk. Benzene and other organic compounds account for 11% of the cancer risk. Cadmium and the remaining metals contribute 8% to cancer risk. Emissions of PCBs, benzene, and many organic compounds are reduced by the new thermal oxidizers, while Cr(VI) and other metal emissions are not expected to be affected by

[3] As defined in Regulation 2-5-216, total project health risks include impacts from all new or modified sources in an application and any related applications. For Application #30009, the metal shredder and its proposed abatement systems, a diesel-fired emergency standby engine from Application #30401, and the Joint Products Plant from Application #29870 are included in the post-project HRA. However, only the modified source in the current application, the updated Metal Shredder and its abatement systems, are subject to a TBACT applicability determination.

the new abatement systems. PAHs and dioxins are primarily generated at the RTOs during combustion of other toxic air contaminants.

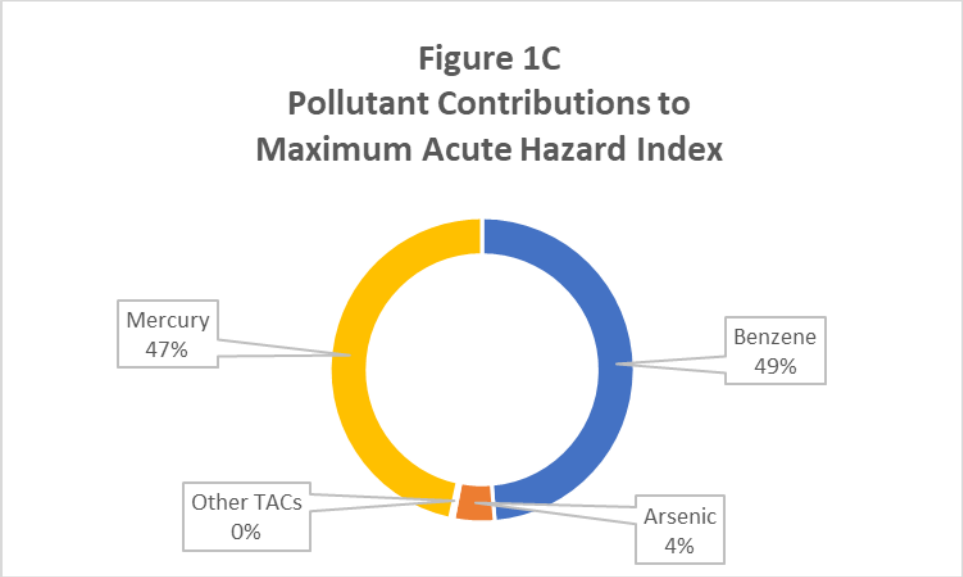


As discussed previously, non-cancer health impacts for the post-project risk scenario are not expected to occur because the hazard indices are less than 1.0. Nevertheless, the pollutant contributions to the chronic hazard index are presented in Figure 1B. The maximum chronic hazard index occurs at a worker receptor and impacts the central nervous system.[4] These impacts are mainly due to metals (mercury and arsenic) generated by the shredding process. Nickel and cadmium contribute to chronic health impacts for other organ systems. Secondary toxic compounds generated by thermal oxidizers have a negligible impact on chronic hazard index.



[4] Non-cancer health impacts are assessed for different target organ systems, and the highest health impact for an individual organ system is reported as the maximum chronic or acute hazard index for the project. For the chronic hazard index for this project, the organ system with the highest chronic hazard index was the central nervous system. Figure 1B shows the contributions to the central nervous system impacts.

Since the maximum acute hazard index is less than 1.0 for both the pre-abatement and post-RTO installation scenarios, acute health impacts are not expected to occur for either case. Benzene and mercury are the major contributors to the maximum acute hazard index for the reproductive and development systems. Benzene emissions from the shredder are controlled by the RTOs. Mercury emissions were estimated for the shredding operation, but mercury should be removed by de-pollution of the feedstock prior to transfer to the shredder. Potential impacts to other organ systems, such as the immune system, central nervous system, and blood were small compared to the potential impacts to the reproductive and development systems.



PROJECT DESCRIPTIONS

This report evaluates health risks for two scenarios: pre-project and post-project. The pre-project scenario is the Air District's best estimate of actual emissions from the metal shredder prior to this abatement project. The post-project scenario is based on the maximum permitted throughput rate for the shredder and proposed stack emission limits. This section describes these two project scenarios in more detail and explains assumptions used to calculate emissions that could not be measured.

Pre-Project Equipment Description:

For the purposes of this report, the following equipment configuration is identified as the pre-project scenario. The current metal shredder (S-6) was built in 2006 and replaced an older metal shredder at this facility. In 2017, Schnitzer installed an enclosure around the metal shredder, two large blowers, and two venturi scrubbers (A-11 and A-12). The enclosure and high-capacity blowers capture emissions generated during shredding operations. The enclosure and blowers were designed to capture a minimum of 95% of the emissions generated by the shredder. The remaining 5% or less of the emissions generated by the shredder are fugitive emissions that escape to the atmosphere through openings in the enclosure that are necessary to accommodate material transfer to and from the shredder. Each high-capacity blower vents the captured emissions to a venturi scrubber that controls at

least 90% of the particulate emissions. Emission streams from the two venturi scrubbers are combined and emit from a single stack (P-15).

In accordance with Regulation 2-5-602.2.1, the Air District determined that the baseline period for the pre-project scenario would be the 3-year period before the RTO and AGS abatement systems were installed (2019-2021). The average throughput rate to the shredder is determined based on throughput rates provided by Schnitzer in response to annual information update requests.

Table 4. Baseline Throughput Rate for the Metal Shredder

Year	Throughput to S-6 Metal Shredder (tons/year)
2019	688,579
2020	670,150
2021	715,214
3-Year Average	691,314

For calculating annual emissions, stack emission factors ($EF_{uncontrolled}$, lbs/ton) for the pre-project scenario were developed based on average source test data at stack P-15 and the reported metal shredder processing rate during the test. Maximum 1-hour emissions were based on maximum test results and an assumed maximum processing rate of 400 tons per hour. If a TAC was not tested for at stack P-15 but test data was available due to post-abatement testing, then this controlled emission factor ($EF_{controlled}$) and thermal oxidizer destruction efficiency (DE_{RTO}) assumptions were used to estimate an uncontrolled emission factor for that compound:
$EF_{uncontrolled} = EF_{controlled} / (1-DE_{RTO})$.

Fugitive emission rates from the metal shredder enclosure cannot be measured and must be estimated based on the stack emission factors above. The fugitive emission factor ($EF_{fugitive}$) is estimated based on the venturi scrubber control efficiency ($DE_{venturi}$), 90% for particulate TACs or 0% for organic TACs, and the enclosure capture efficiency ($CE_{enclosure}$) of 95%.
$EF_{fugitive} = EF_{uncontrolled} / (1-DE_{venturi}) / CE_{enclosure} * (1-CE_{enclosure})$

The stack emission factor and fugitive emissions factors are multiplied by the 3-year average baseline throughput rate to determine average annual emissions.

Applications that had permitting actions occurring during the 3-year period prior to the December 7, 2020 completeness date for Application #30009 are considered related projects. New or modified sources from these related applications that have toxic air contaminant emissions are included in a new source review HRA. The pre-project scenario included the S-16 diesel-fired emergency standby engine from Application #30401 and the Joint Products Plant (sources S-11 and S-13) from Application #29870. Emissions from these sources were the maximum permitted emission rates described in the referenced applications.

Post-Project Equipment Description:

For the purposes of this report, the following equipment configuration is identified as the post-project scenario. The S-6 metal shredder, enclosure, venturi scrubbers, and related sources (S-16, S-11, and S-13) are the same as described above for the pre-project scenario. Schnitzer replaced the blowers with equivalent capacity but more energy efficient blowers. The enclosure and blower capture efficiency for the post-project scenario is the same as described above for the pre-project scenario (a minimum of 95% capture with 5% or less fugitive emissions). After the venturi scrubbers, Schnitzer installed two

regenerative thermal oxidizers (RTOs: A-15 and A-16) to control organic emissions and toxic organic emissions from the shredding operations, followed by two packed-bed scrubbers (A-17 and A-18) to control acid gas emissions generated by the RTOs, and two new stacks (P-17 and P-18). Each blower is now abated by a venturi scrubber, a regenerative thermal oxidizer, and a packed-bed scrubber, and vents to the atmosphere through a new stack.

Fugitive emission factors are the same as those derived for the pre-project case, but the maximum permitted annual throughput rate of 720,000 tons per year was used to calculate maximum annual fugitive emissions rates instead of the baseline throughput rate.

Post-abatement stack emission factors used for calculating maximum annual emissions are derived from average post-abatement stack emission testing and processing rates reported for the test period. Post-abatement stack emission factors used for calculating maximum 1-hour emissions are derived from maximum values measured by stack testing and an assumed maximum processing rate of 400 tons per hour. If post-abatement test data was not available for a specific compound, data from uncontrolled tests and an assumed thermal oxidizer destruction efficiency is used to estimate average stack emission factors. Stack emission limits are proposed that are equal to the average post-abatement stack emission factors plus a compliance margin of three standard deviations to account for potential feedstock and testing variability. Annual emission limits are also based on the maximum permitted throughput rate of 720,000 tons per year.

DETAILED HRA RESULTS

Results from the Pre-Project and Post-Project HRAs are compared in Table 1 above and summarized in Tables 5 and 6, respectively. Overall, this abatement project results in risk reductions for each type of health risk for residential and worker receptors and for the acute point of maximum impact (PMI).

As discussed in the Toxics New Source Review Requirements section above, Application #30009 is subject to project risk limits of 6.0 in a million cancer risk, 1.0 chronic hazard index, and 1.0 acute hazard index. The maximum post-project health impacts are estimated at: **5.7 in a million cancer risk, 0.082 chronic hazard index**, and **0.15 acute hazard index**. This project complies with each applicable project risk limit. Since the residual source risk for Metal Shredder and Abatement Systems is greater than 1.0 in a million cancer risk, TBACT is required for this source pursuant to Regulation 2-5-301.

Table 5. Project Risks for Pre-Project Scenario

Receptor	NAD 83 UTM Coordinates (meters)		Cancer Risk (in a million)	Chronic Non-Cancer Hazard Index	Acute Hazard Index
	Easting (x)	Northing (y)			
Resident	563517	4183296	21.6	0.032	NA
Worker (WAF= 1, 1.8, 4.2 for 3 source groups)	562697	4183639	7.1	0.13	NA
1-hr PMI	562697	4183639	NA	NA	0.42

Table 6. Project Risks for Post-Project Scenario

Receptor	NAD 83 UTM Coordinates (meters)		Cancer Risk (in a million)	Chronic Non-Cancer Hazard Index	Acute Hazard Index
	Easting (x)	Northing (y)			
Resident	563517	4183296	5.7	0.024	NA
Worker (WAF= 1, 1.8, 4.2 for 3 source groups)	562697	4183639	2.5	0.082	NA
1-hr PMI	562697	4183639	NA	NA	0.15

Table 7. Source Risks for Post-Project Scenario

Risk Category	**Maximum Source Risk** [5]					
	Total Source Risk for Metal Shredder and Abatement Systems	RTO #1 (A15/P17)	RTO #2 (A16/P18)	Shredder Enclosure Fugitive Emissions (FUG1, FUG2 & FUG3)	JPP (S131, S132 & S11)	Generator (S16)
Resident Cancer (in a million)	5.6	0.85	0.84	3.9	0.068	0.010
Worker Cancer (in a million)	2.0	0.16	0.10	1.8	0.40	0.099
Resident Chronic HI	0.024	0.0040	0.0039	0.016	0.00000096	0.0000028
Worker Chronic HI	0.079	0.0075	0.0048	0.067	0.0023	0.000076
Acute HI	0.15	0.012	0.0094	0.12	0.0036	NA

In addition, 30-day lead concentrations were estimated in the model, where the maximum 30-day lead exposure was found to be **0.0027 µg/m^3**, which is well below the 0.12 µg/m^3 Hot Spots approvable level for areas with high lead exposure. In accordance with the OEHHA guidelines for analysis of lead non-cancer risk, this is an acceptable concentration.

[5] The sum of the maximum individual source cancer risks does not equal the maximum project cancer risk because the maximum source risks for the Joint Products Plan and the Emergency Standby Engine occur at different locations than the maximum impacts from the Metal Shredder and Abatement Systems. For non-cancer impacts, the maximum chronic hazard index and maximum acute hazard index for the Joint Products Plant and the Emergency Standby Generator occur for different target organ systems than the maximum impacts from the Metal Shredder and Abatement Systems. Impacts from different target organ systems are not additive.

MODELING PROCEDURES

The AERMOD air dispersion computer model (version 21112) was used to estimate annual average and hourly ambient air concentrations. The model was run with OAKLAND STP (2009-2013) AERMOD ready meteorological data. BAAQMD meteorology staff processed the meteorological data set using Oakland International Airport station upper air data for the same time-period.

The model was referenced in NAD 83 UTM coordinates and used 10-meter NED terrain data files for Alameda County.

Model runs were made with urban dispersion coefficients. The classification determination involves assessing land use by Auer's categories within a 3-km radius of the facility site. USEPA's AERSURFACE tool (version 20060) with USGS National Land Cover Data (NLCD_2016) was used to summarize the land use classifications. The land use was determined to be urban because Auer Urban land use categories made up more than 50% of the total area (79.6%). The site was modeled as an urban area (Oakland, 2010 population 390,724) with a surface roughness length of 1.0 using the AER Urban option.

Stack and building parameters for the analysis were based on information provided by the applicant.

For the pre-project scenario, the model includes three point-sources (S11, S16, and P15) and five volume-sources (S131, S132, FUG1, FUG2 and FUG3). For the post-project scenario, the model includes four point-sources (S11, S16, P17 and P18), and five volume-sources (S131, S132, FUG1, FUG2 and FUG3).

Table 8. Emission Release Points in the Post-Project HRA

Source	Source Description	Modelled source	Modelled source description
S-6 Metal Shredder	Fugitive emissions from the Shredder Enclosure	FUG1	Volume source, Shredder Enclosure opening 1
		FUG2	Volume source, Shredder Enclosure opening 2
		FUG3	Volume source, Shredder Enclosure opening 3
A-15, A-16, A-17 and A-18	2 RTOs with 2 Acid Gas Scrubbers	P17	Point source, RTO A15 exhaust
		P18	Point source, RTO A16 exhaust
S-11 and S-13	Material Separation Operations at Joint Products Plant (JPP)	S11	Point source, JPP plant bag house exhaust
		S131	Volume source, JPP plant opening 1
		S132	Volume source, JPP plant opening 2
S-16	Diesel Emergency Generator	S16	Point source, generator S16 exhaust

HEALTH RISK CALCULATIONS:

The HARP2 Air Dispersion Modeling and Risk Tool (ADMRT) was used to evaluate risk in the following categories: (1) Cancer Risk and (2) Chronic Hazard Index for Residential and Off-site Worker receptors; and (3) Acute Hazard Index for the maximally exposed receptor. Health risk estimates were calculated in accordance with the BAAQMD's Air Toxics NSR Program HRA Guidelines, dated December 2021.

Estimates of residential risk assume potential exposure to annual average TAC concentrations occurs 350 days per year, for 30 years. In addition, residential risk estimates assume a 95th percentile breathing rate for age groups younger than two years old, and 80th percentile breathing rate for age groups that are older than or equal to two years of age.

Risk estimates for offsite workers assume potential exposure occurs 8 hours per day, 250 days per year, for 25 years. For offsite workers, the 95th percentile 8-hour breathing rate based on moderate activity was assumed.

Residential cancer risk estimates include age sensitivity factors (ASFs) and fraction of time at home (FAH) adjustments. The ASFs are age-specific weighting factors used in calculating cancer risks from exposures of infants, children and adolescents, to reflect their anticipated special sensitivity to carcinogens.

For the RTO and Shredder fugitive emissions, the operating schedule is conservatively assumed to be 24 hours per day. Therefore, the worker adjustment factor (WAF) is assumed to be 1.0 for these source groups. The JPP operates 19 hours/day, 5 days/week, and the WAF is 1.8 for this source group. The generator (S-16) is assumed to operate 1 hour/day, 1 day/week, and WAF is 4.2 for this source group. Worker Cancer risk reflected sum of these three source groups with different WAFs.

Student risk was not calculated because there are no K-12 schools within 1,000 feet of the source.

Non-Cancer Lead Exposure Guidance:

The OEHHA guidelines for analysis of lead non-cancer health risk includes analyzing census data to determine whether the Maximum Exposure Area coincides with a census tract with a potential for "high exposure" or "average exposure" to lead. Per CARB's lead risk management guideline (Table 8-Air Concentrations Associated with Proposed Neurodevelopmental Risk Management Levels), the approvable average lead concentration is < 0.12 µg/m^3 for high exposure areas and < 0.30 µg/m^3 for average exposure areas. The maximum one-month average lead concentration for this project (**0.0027 µg/m^3**) is far below the screening levels for areas with high lead exposures.

Appendix A

Emission Rates for Application # 30009

Health Risk Assessments for

Permit to Operate Issuance

Table A-1 – Pre-Project Emissions with Fugitive Emissions Derived from 95% Minimum Building Capture Efficiency

				3 Fugitive Release Points			
Pollutant	**Overall Detection Status** [a]	**Maximum Fugitive Emissions** (lb/hr)	**Average Fugitive Emissions** (lb/yr)	**Emissions per Fugitive** Release Point (lb/hr)	**Emissions per Fugitive** Release Point (lb/yr)	**Uncontrolled Stack P-15 Maximum (lb/hr)**	**Uncontrolled Stack P-15 Baseline Avg (lb/yr)**
Acetaldehyde [d]	NA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acrylonitrile	PD	3.34E-03	2.59E+00	1.11E-03	8.62E-01	6.34E-02	1.10E+02
Allyl chloride	ND	1.04E-04	1.79E-01	3.46E-05	5.98E-02	1.97E-03	3.41E+00
Arsenic	PD [o]	5.58E-05	4.08E-02	1.86E-05	1.36E-02	0.00E+00	0.00E+00
Benzene	D	1.07E-01	9.11E+01	3.56E-02	3.04E+01	2.03E+00	3.50E+03
Benzyl Chloride	ND	1.52E-03	1.47E+00	5.08E-04	4.89E-01	2.90E-02	5.01E+01
Beryllium	PD [o]	2.21E-06	3.47E-03	7.37E-07	1.16E-03	0.00E+00	0.00E+00
Butadiene, 1,3-	PD	1.68E-03	2.10E+00	5.61E-04	7.01E-01	3.20E-02	5.52E+01
Cadmium	D	2.32E-05	4.00E-01	7.72E-06	1.33E-01	4.40E-04	7.60E-01
Carbon Disulfide	PD	2.23E-03	1.67E+00	7.45E-04	5.57E-01	4.24E-02	7.33E+01
Carbon Tetrachloride	ND	1.89E-03	1.81E+00	6.29E-04	6.04E-01	3.59E-02	6.20E+01
Chlorobenzene	ND	1.38E-03	1.32E+00	4.60E-04	4.41E-01	2.62E-02	4.53E+01
Chloroethane	ND	9.36E-04	8.85E-01	3.12E-04	2.95E-01	1.78E-02	3.08E+01
Chloroform	ND	1.49E-03	1.43E+00	4.96E-04	4.75E-01	2.83E-02	4.89E+01
Chromium (VI)	D	1.33E-05	1.24E-01	4.42E-06	4.13E-02	2.52E-04	4.36E-01
Cobalt	PD [o]	2.95E-05	2.27E-02	9.82E-06	7.55E-03	0.00E+00	0.00E+00
Copper	PD [o]	1.58E-04	1.42E-01	5.26E-05	4.74E-02	0.00E+00	0.00E+00
Dibromoethane, 1,2-	ND	2.25E-03	2.16E+00	7.50E-04	7.22E-01	4.28E-02	7.39E+01
Dichlorobenzene, 1,4-	PD	6.90E-03	5.12E+00	2.30E-03	1.71E+00	1.31E-01	2.27E+02
Dichloroethane, 1,1- (ethylidene dichloride)	ND	1.21E-03	1.16E+00	4.02E-04	3.86E-01	2.29E-02	3.96E+01
Dichloroethane, 1,2- (ethylene dichloride)	PD	2.80E-03	2.35E+00	9.33E-04	7.84E-01	5.32E-02	9.20E+01
Dichloroethene, 1,1- (vinylidene chloride)	PD	3.05E-03	2.49E+00	1.02E-03	8.29E-01	5.80E-02	1.00E+02
Dioxane, 1,4-	PD	2.66E-03	2.08E+00	8.87E-04	6.92E-01	5.06E-02	8.74E+01
Dioxins/Furans (total) [d, f]	NA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ethyl Benzene	D	2.43E-01	2.39E+02	8.11E-02	7.96E+01	4.62E+00	7.99E+03
Formaldehyde [d]	NA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Hexane	PD	2.49E-01	2.55E+02	8.30E-02	8.48E+01	4.73E+00	8.18E+03
Hydrogen Chloride [d]	NA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hydrogen Fluoride [d]	NA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Isopropyl Alcohol	PD	1.86E-01	8.08E+01	6.19E-02	2.69E+01	3.53E+00	6.10E+03
Lead	D	1.68E-04	2.91E+00	5.61E-05	9.70E-01	3.20E-03	5.53E+00
Manganese	D [o]	6.00E-04	7.72E-01	2.00E-04	2.57E-01	0.00E+00	0.00E+00
Mercury	PD [o]	1.79E-03	3.04E+00	5.96E-04	1.01E+00	0.00E+00	0.00E+00
Methanol	D	5.59E-02	4.81E+01	1.86E-02	1.60E+01	1.06E+00	1.83E+03
Methyl bromide	ND [o]	5.11E-03	7.32E+00	1.70E-03	2.44E+00	0.00E+00	0.00E+00
Methyl Ethyl Ketone	PD	3.91E-02	3.96E+01	1.30E-02	1.32E+01	7.42E-01	1.28E+03
Methyl Tert Butyl Ether	ND	1.07E-03	1.03E+00	3.56E-04	3.42E-01	2.03E-02	3.50E+01
Methylene Chloride	PD	4.97E-02	3.94E+01	1.66E-02	1.31E+01	9.45E-01	1.63E+03
Naphthalene	D [o]	7.89E-03	1.09E+01	2.63E-03	3.64E+00	0.00E+00	0.00E+00
Nickel	D [o]	2.53E-04	3.12E-01	8.42E-05	1.04E-01	0.00E+00	0.00E+00
PAHs, as benzo(a)pyrene [d, e]	NA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PCBs (polychlorinated biphenyls)	D	1.42E-03	1.28E+00	4.75E-04	4.28E-01	2.71E-02	4.68E+01
Perchloroethylene	PD	2.29E-02	9.89E+00	7.63E-03	3.30E+00	4.35E-01	7.52E+02
Propylene	D	6.18E-02	5.86E+01	2.06E-02	1.95E+01	1.17E+00	2.03E+03
Selenium	ND [o]	2.53E-05	4.27E-02	8.42E-06	1.42E-02	0.00E+00	0.00E+00
Styrene	PD	1.99E-02	2.29E+01	6.65E-03	7.62E+00	3.79E-01	6.55E+02
Tetrachloroethane, 1,1,2,2-	ND	2.03E-03	1.95E+00	6.78E-04	6.51E-01	3.86E-02	6.67E+01
Toluene	D	9.38E-01	7.93E+02	3.13E-01	2.64E+02	1.78E+01	3.08E+04
Trichloroethane, 1,1,1-	ND	2.22E-02	9.37E+00	7.41E-03	3.12E+00	4.22E-01	7.30E+02
Trichloroethane, 1,1,2-	ND	1.63E-03	1.56E+00	5.42E-04	5.21E-01	3.09E-02	5.34E+01
Trichloroethene	ND	1.62E-03	1.55E+00	5.40E-04	5.18E-01	3.08E-02	5.32E+01
Vanadium	ND [o]	1.00E-04	1.68E-01	3.33E-05	5.61E-02	0.00E+00	0.00E+00
Vinyl Acetate	ND	5.15E-03	4.66E+00	1.72E-03	1.55E+00	9.79E-02	1.69E+02
Vinyl Chloride	ND	7.62E-04	7.32E-01	2.54E-04	2.44E-01	1.45E-02	2.50E+01
Xylenes	D	1.24E+00	1.05E+03	4.13E-01	3.49E+02	2.35E+01	4.07E+04

Table A-2 – Post-Project Emissions with Fugitive Emissions Derived from 95% Minimum Building Capture Efficiency

				3 Fugitive Release Points			
Pollutant	**Overall Detection Status [a]**	**Maximum Fugitive Emissions** (lb/hr)	**Average Fugitive Emissions** (lb/yr)	**Emissions per Fugitive** Release Point (lb/hr)	**Emissions per Fugitive** Release Point (lb/yr)	P17 or P18 **Outlet PTE Per Stack (lb/hr)**	P17 or P18 **Outlet PTE Per Stack (lb/yr)**
Acetaldehyde [d]	NA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.80E-02	6.84E+01
Acrylonitrile	PD	3.34E-03	2.88E+00	1.11E-03	9.60E-01	2.10E-03	3.78E+00
Allyl chloride	ND	1.04E-04	1.87E-01	3.46E-05	6.23E-02	1.60E-03	2.88E+00
Arsenic	PD [o]	5.58E-05	4.32E-02	1.86E-05	1.44E-02	5.30E-05	9.54E-02
Benzene	D	1.07E-01	1.44E+02	3.56E-02	4.80E+01	1.40E-02	2.52E+01
Benzyl Chloride	ND	1.52E-03	1.53E+00	5.08E-04	5.09E-01	2.90E-04	5.22E-01
Beryllium	PD [o]	2.21E-06	3.61E-03	7.37E-07	1.20E-03	2.10E-06	3.78E-03
Butadiene, 1,3-	PD	1.68E-03	2.88E+00	5.61E-04	9.60E-01	5.60E-04	1.01E+00
Cadmium	D	2.32E-05	4.32E-01	7.72E-06	1.44E-01	2.20E-04	3.96E-01
Carbon Disulfide	PD	2.23E-03	1.74E+00	7.45E-04	5.81E-01	4.10E-03	7.38E+00
Carbon Tetrachloride	ND	1.89E-03	1.89E+00	6.29E-04	6.29E-01	2.30E-03	4.14E+00
Chlorobenzene	ND	1.38E-03	1.38E+00	4.60E-04	4.60E-01	1.60E-03	2.88E+00
Chloroethane	ND	9.36E-04	9.22E-01	3.12E-04	3.07E-01	9.90E-04	1.78E+00
Chloroform	ND	1.49E-03	1.49E+00	4.96E-04	4.95E-01	6.30E-03	1.13E+01
Chromium (VI)	D	1.33E-05	1.44E-01	4.42E-06	4.80E-02	5.00E-05	9.00E-02
Cobalt	PD [o]	2.95E-05	2.88E-02	9.82E-06	9.60E-03	2.80E-05	5.04E-02
Copper	PD [o]	1.58E-04	1.48E-01	5.26E-05	4.94E-02	1.50E-04	2.70E-01
Dibromoethane, 1,2-	ND	2.25E-03	2.25E+00	7.50E-04	7.52E-01	3.00E-03	5.40E+00
Dichlorobenzene, 1,4-	PD	6.90E-03	5.33E+00	2.30E-03	1.78E+00	2.20E-03	3.96E+00
Dichloroethane, 1,1- (ethylidene dichloride)	ND	1.21E-03	1.21E+00	4.02E-04	4.02E-01	1.50E-03	2.70E+00
Dichloroethane, 1,2- (ethylene dichloride)	PD	2.80E-03	2.45E+00	9.33E-04	8.17E-01	1.50E-03	2.70E+00
Dichloroethene, 1,1- (vinylidene chloride)	PD	3.05E-03	2.59E+00	1.02E-03	8.64E-01	1.40E-03	2.52E+00
Dioxane, 1,4-	PD	2.66E-03	2.16E+00	8.87E-04	7.21E-01	1.80E-03	3.24E+00
Dioxins/Furans (total) [d, f]	NA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.00E-08	1.80E-05
Ethyl Benzene	D	2.43E-01	2.88E+02	8.11E-02	9.60E+01	2.20E-02	3.96E+01
Formaldehyde [d]	NA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.30E-03	1.67E+01

Hexane	PD	2.49E-01	2.65E+02	8.30E-02	8.84E+01	4.30E-02	7.74E+01
Hydrogen Chloride [d]	NA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-01	2.16E+02
Hydrogen Fluoride [d]	NA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.20E-01	2.16E+02
Isopropyl Alcohol	PD	1.86E-01	8.42E+01	6.19E-02	2.81E+01	1.40E-02	2.52E+01
Lead	D	1.68E-04	3.60E+00	5.61E-05	1.20E+00	1.60E-03	2.88E+00
Manganese	D [o]	6.00E-04	8.04E-01	2.00E-04	2.68E-01	5.70E-04	1.03E+00
Mercury	PD [o]	1.79E-03	3.16E+00	5.96E-04	1.05E+00	1.70E-03	3.06E+00
Methanol	D	5.59E-02	5.01E+01	1.86E-02	1.67E+01	7.40E-03	1.33E+01
Methyl bromide	ND [o]	5.11E-03	7.63E+00	1.70E-03	2.54E+00	9.70E-04	1.75E+00
Methyl Ethyl Ketone	PD	3.91E-02	4.12E+01	1.30E-02	1.37E+01	3.90E-03	7.02E+00
Methyl Tert Butyl Ether	ND	1.07E-03	1.07E+00	3.56E-04	3.56E-01	1.30E-03	2.34E+00
Methylene Chloride	PD	4.97E-02	4.10E+01	1.66E-02	1.37E+01	4.70E-03	8.46E+00
Naphthalene	D [o]	7.89E-03	1.44E+01	2.63E-03	4.80E+00	1.50E-03	2.70E+00
Nickel	D [o]	2.53E-04	3.60E-01	8.42E-05	1.20E-01	2.40E-04	4.32E-01
PAHs, as benzo(a)pyrene [d, e]	NA	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.90E-04	1.42E+00
PCBs (polychlorinated biphenyls)	D	1.42E-03	1.44E+00	4.75E-04	4.80E-01	5.40E-04	9.72E-01
Perchloroethylene	PD	2.29E-02	1.03E+01	7.63E-03	3.43E+00	2.50E-03	4.50E+00
Propylene	D	6.18E-02	6.10E+01	2.06E-02	2.03E+01	3.70E-03	6.66E+00
Selenium	ND [o]	2.53E-05	4.44E-02	8.42E-06	1.48E-02	2.40E-05	4.32E-02
Styrene	PD	1.99E-02	2.38E+01	6.65E-03	7.93E+00	2.70E-03	4.86E+00
Tetrachloroethane, 1,1,2,2-	ND	2.03E-03	2.03E+00	6.78E-04	6.78E-01	2.50E-03	4.50E+00
Toluene	D	9.38E-01	8.26E+02	3.13E-01	2.75E+02	1.20E-01	2.16E+02
Trichloroethane, 1,1,1-	ND	2.22E-02	9.76E+00	7.41E-03	3.25E+00	1.90E-03	3.42E+00
Trichloroethane, 1,1,2-	ND	1.63E-03	1.63E+00	5.42E-04	5.42E-01	1.90E-03	3.42E+00
Trichloroethene	ND	1.62E-03	1.62E+00	5.40E-04	5.39E-01	1.90E-03	3.42E+00
Vanadium	ND [o]	1.00E-04	1.75E-01	3.33E-05	5.84E-02	9.50E-05	1.71E-01
Vinyl Acetate	ND	5.15E-03	4.85E+00	1.72E-03	1.62E+00	2.50E-03	4.50E+00
Vinyl Chloride	ND	7.62E-04	7.62E-01	2.54E-04	2.54E-01	9.30E-04	1.67E+00
Xylenes	D	1.24E+00	1.09E+03	4.13E-01	3.63E+02	1.20E-01	2.16E+02

Facility: Schnitzer Steel, P#208

A#30009 for PO report **Post-Project**

Resident Cancer by pollutant **5.7E-06**

*HARP - HRACalc v22118 2/22/2024 2:34:00 PM - Cancer Risk - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\R-HRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_F	MMILK_RI	WATER_RI	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RIS	PIG_RISK	CHICKEN_I	EGG_RISK	1ST_DRIVE	2ND_DRIVER
12	ALL		563517.4	4183297	6.48E-06	18540299	Cr(VI)	2.33E-06	30YrCance	40.9%	2.24E-06	9.33E-08	1.52E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATIC	SOIL
12	ALL		563517.4	4183297	6.40E-05	1336363	PCBs	1.32E-06	30YrCance	23.2%	6.11E-08	1.09E-06	1.67E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	SOIL	DERMAL
12	ALL		563517.4	4183297	1.65E-05	1151	PAHs-w/o	4.66E-07	30YrCance	8.2%	3.07E-08	2.70E-07	2.85E-08	1.37E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	SOIL	MMILK
12	ALL		563517.4	4183297	2.09E-10	1086	Dioxins-w/o	3.84E-07	30YrCance	6.7%	1.30E-08	1.69E-07	9.58E-09	1.92E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	MMILK	SOIL
12	ALL		563517.4	4183297	5.56E-03	71432	Benzene	3.76E-07	30YrCance	6.6%	3.76E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	2.09E-05	7440439	Cadmium	2.13E-07	30YrCance	3.7%	2.13E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	2.69E-06	7440382	Arsenic	1.44E-07	30YrCance	2.5%	2.18E-08	1.16E-07	5.65E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	SOIL	INHALATION
12	ALL		563517.4	4183297	1.49E-04	107131	Acrylonitrile	1.01E-07	30YrCance	1.8%	1.01E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.010999	100414	Ethyl Benzene	6.47E-08	30YrCance	1.1%	6.47E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000169	7439921	Lead	4.77E-08	30YrCance	0.8%	4.81E-09	4.14E-08	1.01E-09	4.99E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	SOIL	INHALATION
12	ALL		563517.4	4183297	0.000117	106990	1,3-Butadiene	4.75E-08	30YrCance	0.8%	4.75E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000558	91203	Naphthalene	4.53E-08	30YrCance	0.8%	4.53E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	1.64E-06	7440484	Cobalt	2.99E-08	30YrCance	0.5%	2.99E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000145	106934	EDB	2.46E-08	30YrCance	0.4%	2.46E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000127	79345	TetraClEthane	1.71E-08	30YrCance	0.3%	1.71E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	1.93E-05	7440020	Nickel	1.19E-08	30YrCance	0.2%	1.19E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000117	56235	CCl4	1.19E-08	30YrCance	0.2%	1.19E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	1.38E-05	9901	DieselExhPM	1.02E-08	30YrCance	0.2%	1.02E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	4.73E-05	75014	Vinyl Chloride	8.64E-09	30YrCance	0.2%	8.64E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	6.19E-05	100447	Benzyl Chloride	7.12E-09	30YrCance	0.1%	7.12E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000241	106467	p-DiClBenzene	6.53E-09	30YrCance	0.1%	6.53E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000429	127184	Perc	6.10E-09	30YrCance	0.1%	6.10E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000121	107062	EDC	5.89E-09	30YrCance	0.1%	5.89E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000794	75070	Acetaldehyde	5.37E-09	30YrCance	0.1%	5.37E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	9.92E-05	79005	1,1,2TriClEthan	3.83E-09	30YrCance	0.1%	3.83E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	1.60E-03	75092	Methylene Chlor	3.78E-09	30YrCance	0.1%	3.78E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000194	50000	Formaldehyde	2.76E-09	30YrCance	0.0%	2.76E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000186	67663	Chloroform	2.39E-09	30YrCance	0.0%	2.39E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000117	123911	1,4-Dioxane	2.13E-09	30YrCance	0.0%	2.13E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	1.76E-07	7440417	Beryllium	1.00E-09	30YrCance	0.0%	1.00E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	4.03E-05	107051	AllylChlor	5.72E-10	30YrCance	0.0%	5.72E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	9.89E-05	79016	TCE	4.68E-10	30YrCance	0.0%	4.68E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	7.54E-05	75343	1,1-DiClEthane	2.91E-10	30YrCance	0.0%	2.91E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	6.62E-05	1634044	Me t-ButylEther	8.07E-11	30YrCance	0.0%	8.07E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000149	75150	CS2	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	8.39E-05	108907	Chlorobenzn	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	5.44E-05	75003	Ethyl Chloride	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.000323	7440508	Copper	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.000124	75354	Vinylid Chlorid	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.010599	110543	Hexane	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.002506	7647010	HCl	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	2.51E-03	7664393	HF	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.003374	67630	Isopropyl Alcoh	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	4.64E-05	7439965	Manganese	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	1.51E-04	7439976	Mercury	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.001989	67561	Methanol	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.000299	74839	Methyl Bromide	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.00159	78933	MEK	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.002309	115071	Propylene	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	2.13E-06	7782492	Selenium	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.000927	100425	Styrene	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.032735	108883	Toluene	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.000397	71556	1,1,1-TCA	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	8.39E-06	7440622	Vanadium	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.00023	108054	Vinyl Acetate	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	4.24E-02	1330207	Xylenes	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
								5.70E-06		100.0%														

Resident Cancer by source

*HARP - HRACalc v22118 2/22/2024 2:34:55 PM - Cancer Risk by Receptor and Source - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\P17.ScRHRAInput.hra

SRC	REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_F	MMILK_RI	WATER_RI	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RIS	PIG_RISK	CHICKEN_I	EGG_RISK
FUG2	12	ALL		563517.4	4183297	1.38E-06	30YrCancerRMP_Inh	9.53E-07	3.78E-07	5.02E-08	1.37E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FUG1	12	ALL		563517.4	4183297	1.38E-06	30YrCancerRMP_Inh	9.51E-07	3.77E-07	5.01E-08	1.36E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FUG3	12	ALL		563517.4	4183297	1.18E-06	30YrCancerRMP_Inh	8.11E-07	3.21E-07	4.27E-08	1.16E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
P17	12	ALL		563517.4	4183297	8.54E-07	30YrCancerRMP_Inh	2.97E-07	3.55E-07	3.55E-08	1.66E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
P18	12	ALL		563517.4	4183297	8.37E-07	30YrCancerRMP_Inh	2.91E-07	3.48E-07	3.48E-08	1.63E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S131	12	ALL		563517.4	4183297	3.58E-08	30YrCancerRMP_Inh	3.40E-08	1.79E-09	3.32E-11	6.16E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S132	12	ALL		563517.4	4183297	3.17E-08	30YrCancerRMP_Inh	3.01E-08	1.59E-09	2.94E-11	5.46E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S16	12	ALL		563517.4	4183297	1.02E-08	30YrCancerRMP_Inh	1.02E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S11	12	ALL		563517.4	4183297	4.79E-10	30YrCancerRMP_Inh	4.55E-10	2.39E-11	4.44E-13	8.24E-14	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
						5.70E-06													

Facility: Schnitzer Steel, P#208

A#30009 for PO report **Post-Project**

Resident Chronic HI by pollutant **0.024**

*HARP - HRACalc v22118 2/22/2024 2:34:00 PM - Chronic Risk - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\R-HRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBRE	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	DETAILS	RESP	SKIN	EYE	BONE/TI	ENDO	BLOOD	ODOR	GENERAL	INH_CONC	SOIL_DOS	DERMAL	MMILK	WATE	FISH_	CROP_DI	BEEF_D	DAIRY_	PIG_DO	CHICKEN	EGG_D	1ST_DRIVE	2ND_DRIV	3RD_DRIVER
12	ALL		563517.4	4183297	0.000151	7439976	Mercury	NonCance	0	0.014273	0	0.014273	0	0.014273	60.1%	0	0	0	0	0	0	0	0	0.0002	0	0	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL	DERMAL
12	ALL		563517.4	4183297	2.69E-06	7440382	Arsenic	NonCance	0.007953	0.007953	0	0	0	0.007953	33.5%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL	DERMAL
12	ALL		563517.4	4183297	2.09E-10	1086	Dioxins-w/	NonCance	0	0	0	0	0.0012046	0.001205	5.1%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATIO	MMILK	SOIL
12	ALL		563517.4	4183297	0.000145	106934	EDB	NonCance	0	0	0	0	0	0.000181	0.8%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000299	74839	Methyl Bro	NonCance	0	5.99E-05	0	0	0	5.99E-05	0.3%	0	0	0	0	0	0	0	0	0.0003	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000117	106990	1,3-Butadi	NonCance	0	0	0	0	0	5.85E-05	0.2%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	1.93E-05	7440020	Nickel	NonCance	0	0	0	0	0	1.65E-05	0.1%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL	DERMAL
12	ALL		563517.4	4183297	0.010999	100414	Ethyl Benz	NonCance	0	0	0	5.4993E-06	5.4993E-06	5.5E-06	0.0%	0	0	0	0	0	0	0	0	0.0110	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000117	56235	CCl4	NonCance	0	2.93E-06	0	0	2.9268E-06	2.93E-06	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000186	67663	Chloroform	NonCance	0	0	0	6.1973E-07	6.1973E-07	6.2E-07	0.0%	0	0	0	0	0	0	0	0	0.0002	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.001989	67561	Methanol	NonCance	0	0	0	0	0	4.97E-07	0.0%	0	0	0	0	0	0	0	0	0.0020	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.003374	67630	Isopropyl A	NonCance	0	0	0	4.8193E-07	0	4.82E-07	0.0%	0	0	0	0	0	0	0	0	0.0034	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000149	75150	CS2	NonCance	0	1.87E-07	0	0	0	1.87E-07	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	8.39E-05	108907	Chloroben	NonCance	0	0	0	8.3872E-08	8.3872E-08	8.39E-08	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	5.44E-05	75003	Ethyl Chlor	NonCance	0	0	0	0	1.8134E-09	1.81E-09	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000794	75070	Acetaldeh	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0008	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000149	107131	Acrylonitri	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	4.03E-05	107051	AllylChlor	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.005562	71432	Benzene	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0056	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	6.19E-05	100447	Benzyl Chl	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	1.76E-07	7440417	Beryllium	NonCance	0	0	2.51E-05	0	8.4278E-07	0	0.0%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL	DERMAL
12	ALL		563517.4	4183297	2.09E-05	7440439	Cadmium	NonCance	0	0	0	0.0014275	0	0	0.0%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL	DERMAL
12	ALL		563517.4	4183297	6.48E-06	18540299	Cr(VI)	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL	DERMAL
12	ALL		563517.4	4183297	1.64E-06	7440484	Cobalt	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000323	7440508	Copper	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0003	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000241	106467	p-DiClBenz	NonCance	0	3.01E-07	0	3.0142E-07	3.0142E-07	0	0.0%	0	0	0	0	0	0	0	0	0.0002	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	7.54E-05	75343	1,1-DiClEth	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000121	107062	EDC	NonCance	0	0	0	0	3.0247E-07	0	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000124	75354	Vinylid Chl	NonCance	0	0	0	0	1.7722E-06	0	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000117	123911	1,4-Dioxan	NonCance	3.89E-08	0	0	3.8904E-08	3.8904E-08	0	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000194	50000	Formaldeh	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0002	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.010599	110543	Hexane	NonCance	0	1.51E-06	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0106	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.002506	7647010	HCl	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0025	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.002506	7664393	HF	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0025	0	0	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL	DERMAL
12	ALL		563517.4	4183297	0.000169	7439921	Lead	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0002	0	0	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL	MMILK
12	ALL		563517.4	4183297	4.64E-05	7439965	Manganes	NonCance	0	0.000515	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.00159	78933	MEK	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0016	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	6.62E-05	1634044	Me t-Butyl	NonCance	0	0	0	8.2793E-09	8.2793E-09	0	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.001598	75092	Methylene	NonCance	4E-06	4E-06	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0016	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000558	91203	Naphthale	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0006	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	1.65E-05	1151	PAHs-w/o	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATIO	MMILK	SOIL
12	ALL		563517.4	4183297	6.4E-05	1336363	PCBs	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL	DERMAL
12	ALL		563517.4	4183297	0.000429	127184	Perc	NonCance	0	0	0	1.2263E-05	0.000012263	0	0.0%	0	0	0	0	0	0	0	0	0.0004	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.002309	115071	Propylene	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0023	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	2.13E-06	7782492	Selenium	NonCance	4.18E-06	4.18E-06	0	0	4.1821E-06	0	0.0%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL	DERMAL
12	ALL		563517.4	4183297	0.000927	100425	Styrene	NonCance	0	1.03E-06	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0009	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000127	79345	TetraClEth	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.032735	108883	Toluene	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0327	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000397	71556	1,1,1-TCA	NonCance	0	3.97E-07	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0004	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	9.92E-05	79005	1,1,2TriClE	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	9.89E-05	79016	TCE	NonCance	0	1.65E-07	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	8.39E-06	7440622	Vanadium	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.00023	108054	Vinyl Acet	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0002	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	4.73E-05	75014	Vinyl Chlor	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.042391	1330207	Xylenes	NonCance	0	6.06E-05	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0424	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	1.38E-05	9901	DieselExhF	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.0000	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
														2.4E-02	100.0%																							

Resident Chronic HI by source **0.024**

*HARP - HRACalc v22118 2/22/2024 2:38:49 PM - Chronic Risk by Receptor and Source - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\P17.ScRhHRAInput.hra

SRC	REC	GRP	NETID	X	Y	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEVEL	RESP	SKIN	EYE	BONE/TEE	ENDO	BLOOD	ODOR	GENERA	MAXHI
FUG2	12	ALL		563517.4	4183297	NonCance	0.001645	0.005636	6.62E-06	0.004219	8.31E-06	0.0055582	0.0023341	0.001642	4.53E-05	0	1.85E-06	0.000948	0	0	0.005636
FUG1	12	ALL		563517.4	4183297	NonCance	0.001641	0.005623	6.61E-06	0.004209	8.29E-06	0.0055456	0.0023288	0.001639	4.52E-05	0	1.85E-06	0.000946	0	0	0.005623
FUG3	12	ALL		563517.4	4183297	NonCance	0.001399	0.004795	5.64E-06	0.00359	7.07E-06	0.0047293	0.001986	0.001397	3.85E-05	0	1.57E-06	0.000806	0	0	0.004795
P17	12	ALL		563517.4	4183297	NonCance	0.001655	0.003419	3.16E-06	0.001851	0.000611	0.0040028	0.0028208	0.001655	4.86E-06	0.000394	0.000609	0.000839	0	0	0.004003
P18	12	ALL		563517.4	4183297	NonCance	0.001621	0.003349	3.1E-06	0.001814	0.000599	0.0039212	0.0027633	0.001621	4.76E-06	0.000386	0.000596	0.000822	0	0	0.003921
S131	12	ALL		563517.4	4183297	NonCance	0	2.95E-05	0	1.96E-05	0	5.0483E-07	0.000057002	0	0	0	0	4.22E-05	0	0	5.7E-05
S132	12	ALL		563517.4	4183297	NonCance	0	2.62E-05	0	1.73E-05	0	4.4717E-07	0.000050492	0	0	0	0	3.74E-05	0	0	5.05E-05
S11	12	ALL		563517.4	4183297	NonCance	0	3.95E-07	0	2.62E-07	0	6.752E-09	7.624E-07	0	0	0	0	5.65E-07	0	0	7.62E-07
S16	12	ALL		563517.4	4183297	NonCance	0	0	0	0	0	0	2.7513E-06	0	0	0	0	0	0	0	2.75E-06
												2.4E-02									

Facility: Schnitzer Steel, P#208
A#30009 for PO report **Post-Project**

Worker Cancer from 3 source groups **2.5E-06**

From Source Group 1: RTO, WAF: 1, Assumed Operating Schudule: 24(h/d)x7(d/w)x52(w/y)
*HARP - HRACalc v22118 2/22/2024 10:05:50 AM - Cancer Risk - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\WAF-Post\PostWAF\hra\WCHRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_f	MMILK_RI	WATER_RI	FISH_RIS	CROP	BEEF_R	DAIRY_I	PIG_	CHICKEN	EGG_	1ST_DRIVI	2ND_DRIVER
127	ALL		562696.5	4183639	3.32E-05	18540299	Cr(VI)	9.7E-07	25YrCance	47.7%	9.51E-07	2.01E-08	1.4E-09	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL
127	ALL		562696.5	4183639	0.000334	1336363	PCBs	4.9E-07	25YrCance	24.1%	2.78E-08	2.4E-07	2.24E-07	0	0	0	0	0	0	0	0	0	SOIL	DERMAL
127	ALL		562696.5	4183639	0.0312	71432	Benzene	1.8E-07	25YrCance	8.6%	1.76E-07	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000103	7440439	Cadmium	8.7E-08	25YrCance	4.3%	8.72E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	4.29E-05	1151	PAHs-w/o	6.2E-08	25YrCance	3.1%	6.97E-09	2.97E-08	2.57E-08	0	0	0	0	0	0	0	0	0	SOIL	DERMAL
127	ALL		562696.5	4183639	0.000723	107131	Acrylonitrile	4.1E-08	25YrCance	2.0%	4.07E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	1.2E-05	7440382	Arsenic	3.7E-08	25YrCance	1.8%	5.99E-09	2.19E-08	8.76E-09	0	0	0	0	0	0	0	0	0	SOIL	DERMAL
127	ALL		562696.5	4183639	0.062074	100414	Ethyl Benzene	3.0E-08	25YrCance	1.5%	3.04E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	5.44E-10	1086	Dioxins-w/o	3.0E-08	25YrCance	1.5%	2.94E-09	1.86E-08	8.64E-09	0	0	0	0	0	0	0	0	0	SOIL	DERMAL
127	ALL		562696.5	4183639	0.000639	106990	1,3-Butadiene	2.2E-08	25YrCance	1.1%	2.16E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.003125	91203	Naphthalene	2.1E-08	25YrCance	1.0%	2.11E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000848	7439921	Lead	1.2E-08	25YrCance	0.6%	2E-09	8.76E-09	9.11E-10	0	0	0	0	0	0	0	0	0	SOIL	INHALATION
127	ALL		562696.5	4183639	7.61E-06	7440484	Cobalt	1.2E-08	25YrCance	0.6%	1.16E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.00064	106934	EDB	9.0E-09	25YrCance	0.4%	9E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000566	79345	TetraClEthane	6.4E-09	25YrCance	0.3%	6.37E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	8.91E-05	7440020	Nickel	4.6E-09	25YrCance	0.2%	4.56E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000524	56235	CCl4	4.4E-09	25YrCance	0.2%	4.42E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000338	100447	Benzyl Chloric	3.2E-09	25YrCance	0.2%	3.24E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000212	75014	Vinyl Chloride	3.2E-09	25YrCance	0.2%	3.22E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.001247	106467	p-DiClBenzene	2.8E-09	25YrCance	0.1%	2.81E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.002314	127184	Perc	2.7E-09	25YrCance	0.1%	2.73E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000599	107062	EDC	2.4E-09	25YrCance	0.1%	2.43E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.00892	75092	Methylene Ch	1.8E-09	25YrCance	0.1%	1.76E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000447	79005	1,1,2TriClEtha	1.4E-09	25YrCance	0.1%	1.43E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.002066	75070	Acetaldehyde	1.2E-09	25YrCance	0.1%	1.16E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000555	123911	1,4-Dioxane	8.4E-10	25YrCance	0.0%	8.43E-10	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000656	67663	Chloroform	7.0E-10	25YrCance	0.0%	7.02E-10	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000506	50000	Formaldehyde	6.0E-10	25YrCance	0.0%	5.97E-10	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	8.77E-07	7440417	Beryllium	4.1E-10	25YrCance	0.0%	4.15E-10	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000445	79016	TCE	1.8E-10	25YrCance	0.0%	1.75E-10	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000126	107051	AllylChlor	1.5E-10	25YrCance	0.0%	1.49E-10	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000336	75343	1,1-DiClEthan	1.1E-10	25YrCance	0.0%	1.08E-10	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000296	1634044	Me t-ButylEth	3.0E-11	25YrCance	0.0%	3E-11	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000591	75150	CS2	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.000378	108907	Chlorobenzn	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.000249	75003	Ethyl Chloride	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	3.95E-05	7440508	Copper	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.000624	75354	Vinylid Chlori	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.058377	110543	Hexane	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.006524	7647010	HCl	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.006524	7664393	HF	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.018559	67630	Isopropyl Alco	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.000201	7439965	Manganese	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.000761	7439976	Mercury	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.010996	67561	Methanol	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.001665	74839	Methyl Bromi	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.008926	78933	MEK	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.013093	115071	Propylene	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	1.07E-05	7782492	Selenium	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.005177	100425	Styrene	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.181141	108883	Toluene	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.002165	71556	1,1,1-TCA	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	4.22E-05	7440622	Vanadium	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.001161	108054	Vinyl Acetate	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.236915	1330207	Xylenes	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
								2.0E-06		100.0%														

*HARP - HRACalc v22118 2/22/2024 10:01:40 AM - Cancer Risk by Receptor and Source - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\WAF-Post\PostWAF\hra\P17.SrcWCHRAInput.hra

SRC	REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_f	MMILK_RI	WATER_RI	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_R	PIG_R	CHICKE	EGG_RISK
FUG2	127	ALL		562696.5	4183639	7.012E-07	25YrCancerDe	5.1372E-07	1.03E-07	8.41E-08	0	0	0	0	0	0	0	0	0
FUG1	127	ALL		562696.5	4183639	5.903E-07	25YrCancerDe	4.3249E-07	8.7E-08	7.08E-08	0	0	0	0	0	0	0	0	0
FUG3	127	ALL		562696.5	4183639	4.881E-07	25YrCancerDe	3.5763E-07	7.19E-08	5.85E-08	0	0	0	0	0	0	0	0	0
P17	127	ALL		562696.5	4183639	1.595E-07	25YrCancerDe	7.7836E-08	4.72E-08	3.45E-08	0	0	0	0	0	0	0	0	0
P18	127	ALL		562696.5	4183639	1.015E-07	25YrCancerDe	4.9541E-08	3E-08	2.19E-08	0	0	0	0	0	0	0	0	0
						2.0E-06													

From Source Group 2: JPP plant, WAF: 1.8 , Operating Schudule: 19(h/d)x5(d/w)x52(w/y)
*HARP - HRACalc v22118 4/12/2023 9:41:43 AM - Cancer Risk - Input File: F:\HRSA Assignments\30009\30009JPP\hra\W-C-HRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_f	MMILK_RI	WATER_RI	FISH_RIS	CROP	BEEF_R	DAIRY_I	PIG_	CHICKEN	EGG_	1ST_DRIVI	2ND_DRIVER
127	ALL		562696.5	4183639	7.05E-06	18540299	Cr(VI)	3.5854E-07	25YrCance	89.9%	3.54E-07	4.28E-09	2.97E-10	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL
127	ALL		562696.5	4183639	2.28E-05	7440439	Cadmium	3.3657E-08	25YrCance	8.4%	3.37E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	4.69E-05	7440020	Nickel	4.2014E-09	25YrCance	1.1%	4.2E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000166	7439921	Lead	2.5754E-09	25YrCance	0.6%	6.85E-10	1.71E-09	1.78E-10	0	0	0	0	0	0	0	0	0	SOIL	INHALATION
127	ALL		562696.5	4183639	0.013151	7440508	Copper	0	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.000211	7439965	Manganese	0	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
								4.0E-07		100.0%														

Worker Cancer by source
From Source Group 2: JPP plant, WAF: 1.8 , Operating Schudule: 19(h/d)x5(d/w)x52(w/y)
*HARP - HRACalc v22118 4/12/2023 9:44:00 AM - Cancer Risk by Receptor and Source - Input File: F:\HRSA Assignments\30009\30009JPP\hra\S11.Src-WC-HRAInput.hra

SRC	REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_f	MMILK_RI	WATER_RI	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_R	PIG_R	CHICKE	EGG_RISK
S132	127	ALL		562696.5	4183639	2.48E-07	25YrCancerDe	2.4443E-07	3.73E-09	2.96E-10	0	0	0	0	0	0	0	0	0
S131	127	ALL		562696.5	4183639	1.49E-07	25YrCancerDe	1.4661E-07	2.24E-09	1.77E-10	0	0	0	0	0	0	0	0	0
S11	127	ALL		562696.5	4183639	1.49E-09	25YrCancerDe	1.4639E-09	2.24E-11	1.77E-12	0	0	0	0	0	0	0	0	0
						4.0E-07													

Worker Cancer by pollutant:
From Source Group 3: Generator, WAF: 4.2 , Operating Schudule: 1(h/d)x1(d/w)x50(w/y)
*HARP - HRACalc v22118 4/12/2023 10:11:01 AM - Cancer Risk - Input File: F:\HRSA Assignments\30401 P208 BUG\S16\30401BUG\hra\W-C-HRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_f	MMILK_RI	WATER_RI	FISH_RIS	CROP	BEEF_R	DAIRY_I	PIG_	CHICKEN	EGG_	1ST_DRIVI	2ND_DRIVER
127	ALL		562696.5	4183639	0.000382	9901	DieselExhPM	9.92E-08	25YrCance	100.0%	9.92E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
								9.9E-08		100.0%														

Facility: Schnitzer Steel, P#208

A#30009 for PO report **Post-Project**

Worker Chronic HI by pollutant **0.082**

*HARP - HRACalc v22118 2/22/2024 2:31:45 PM - Chronic Risk - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\WCh-HRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBRE	SCENARIO	CV	CNS	DETAILS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP	SKIN	EYE	BONE/	ENDO	BLOOD	ODOR	GENERA	INH_CON	SOIL_DO	DERMAL_	MMILK_	WATER_	FISH_C	CROI	BEEF_(	DAIRY_(	PIG_(	CHIC	EG	1ST_DRIVE	2ND_DRIV	3RD_DRIVER
127	ALL		562696.5	4183639	0.000761	7439976	Mercury	NonCancer	0	0.053516	65.6%	0	0.053516	0	0.053516	0	0	0	0	0	0	0	0	0.000761	4E-06	7.2E-07	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
127	ALL		562696.5	4183639	1.2E-05	7440382	Arsenic	NonCancer	0.022724	0.022724	27.9%	0	0	0	0.022724	0.022724	0.022724	0	0	0	0	0	0	1.2E-05	6E-08	1.71E-08	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
127	ALL		562696.5	4183639	0.000412	7439965	Manganes	NonCancer	0	0.004578	5.6%	0	0	0	0	0	0	0	0	0	0	0	0	0.000412	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.236915	1330207	Xylenes	NonCancer	0	0.000338	0.4%	0	0	0	0	0.000338	0	0.000338	0	0	0	0	0	0.23692	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.001665	74839	Methyl Bro	NonCancer	0	0.000333	0.4%	0	0	0	0.000333	0.000333	0	0	0	0	0	0	0	0.001665	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.00892	75092	Methylene	NonCancer	0.0000223	2.23E-05	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.00892	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000524	56235	CCl4	NonCancer	0	1.31E-05	0.0%	0	0	1.31E-05	1.31E-05	0	0	0	0	0	0	0	0	0.000524	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	1.07E-05	7782492	Selenium	NonCancer	0.000012681	1.27E-05	0.0%	0	0	1.27E-05	0	0	0	0	0	0	0	0	0	1.07E-05	5E-08	7.59E-09	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
127	ALL		562696.5	4183639	0.058377	110543	Hexane	NonCancer	0	8.34E-06	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.058377	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.005177	100425	Styrene	NonCancer	0	5.75E-06	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.005177	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.002165	71556	1,1,1-TCA	NonCancer	0	2.17E-06	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.002165	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.001247	106467	p-DiClBenz	NonCancer	0	1.56E-06	0.0%	0	1.56E-06	1.56E-06	0	1.56E-06	0	0	0	0	0	0	0	0.001247	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000445	79016	TCE	NonCancer	0	7.42E-07	0.0%	0	0	0	0	0	0	7.42E-07	0	0	0	0	0	0.000445	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000591	75150	CS2	NonCancer	0	7.39E-07	0.0%	0	0	0	7.39E-07	0	0	0	0	0	0	0	0	0.000591	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.002066	75070	Acetaldeh	NonCancer	0	0	0.0%	0	0	0	0	1.48E-05	0	0	0	0	0	0	0	0.002066	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000723	107131	Acrylonitri	NonCancer	0	0	0.0%	0	0	0	0	0.000145	0	0	0	0	0	0	0	0.000723	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000126	107051	AllylChlor	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.000127	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.0312	71432	Benzene	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0.0104	0	0	0.0312	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000338	100447	Benzyl Chl	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.000338	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	8.77E-07	7440417	Beryllium	NonCancer	0	0	0.0%	0.000125	0	2.49E-06	0	0.000125	0	0	0	0	0	0	0	8.77E-07	4E-09	6.23E-10	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
127	ALL		562696.5	4183639	0.000639	106990	1,3-Butadi	NonCancer	0	0	0.0%	0	0	0	0.00032	0	0	0	0	0	0	0	0	0.000639	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000126	7440439	Cadmium	NonCancer	0	0	0.0%	0	0.007568	0	0	0.006303	0	0	0	0	0	0	0	0.000126	6E-07	5.96E-09	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
127	ALL		562696.5	4183639	0.000378	108907	Chloroben	NonCancer	0	0	0.0%	0	3.78E-07	3.78E-07	3.78E-07	0	0	0	0	0	0	0	0	0.000378	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000249	75003	Ethyl Chlor	NonCancer	0	0	0.0%	0	0	8.29E-09	8.29E-09	0	0	0	0	0	0	0	0	0.000249	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000656	67663	Chloroform	NonCancer	0	0	0.0%	0	2.19E-06	2.19E-06	2.19E-06	0	0	0	0	0	0	0	0	0.000656	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	4.02E-05	18540299	Cr(VI)	NonCancer	0	0	0.0%	0	0	0	0	0.000201	0	0	0	0	1.09E-05	0	0	4.02E-05	2E-07	1.9E-08	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
127	ALL		562696.5	4183639	7.61E-06	7440484	Cobalt	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	7.61E-06	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.013191	7440508	Copper	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.013191	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.00064	106934	EDB	NonCancer	0	0	0.0%	0	0	0	0.0008	0	0	0	0	0	0	0	0	0.00064	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000336	75343	1,1-DiClEth	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.000336	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000599	107062	EDC	NonCancer	0	0	0.0%	0	0	1.5E-06	0	0	0	0	0	0	0	0	0	0.000599	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000624	75354	Vinylid Chl	NonCancer	0	0	0.0%	0	0	8.91E-06	0	0	0	0	0	0	0	0	0	0.000624	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000555	123911	1,4-Dioxan	NonCancer	1.8496E-07	0	0.0%	0	1.85E-07	1.85E-07	0	0	0	0	0	0	0	0	0	0.000555	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	5.44E-10	1086	Dioxins-w/	NonCancer	0	0	0.0%	0	0	9.14E-05	9.14E-05	9.14E-05	0	0	0	9.1E-05	9.14E-05	0	0	5.44E-10	6E-13	1.94E-13	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
127	ALL		562696.5	4183639	0.062074	100414	Ethyl Benz	NonCancer	0	0	0.0%	0	3.1E-05	3.1E-05	3.1E-05	0	0	0	0	3.1E-05	0	0	0	0.062074	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000506	50000	Formaldeh	NonCancer	0	0	0.0%	0	0	0	0	5.62E-05	0	0	0	0	0	0	0	0.000506	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.006524	7647010	HCl	NonCancer	0	0	0.0%	0	0	0	0	0.000725	0	0	0	0	0	0	0	0.006524	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.006524	7664393	HF	NonCancer	0	0	0.0%	0	0	0	0	0.000466	0	0	0.001	0	0	0	0	0.006524	3E-05	4.63E-06	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
127	ALL		562696.5	4183639	0.018559	67630	Isopropyl A	NonCancer	0	0	0.0%	0	2.65E-06	0	2.65E-06	0	0	0	0	0	0	0	0	0.018559	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.001014	7439921	Lead	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.001014	5E-06	7.19E-07	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
127	ALL		562696.5	4183639	0.010996	67561	Methanol	NonCancer	0	0	0.0%	0	0	0	2.75E-06	0	0	0	0	0	0	0	0	0.010996	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.008926	78933	MEK	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.008926	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000296	1634044	Me t-Butyl	NonCancer	0	0	0.0%	0	3.71E-08	3.71E-08	0	0	0	3.71E-08	0	0	0	0	0	0.000296	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.003125	91203	Naphthale	NonCancer	0	0	0.0%	0	0	0	0	0.000347	0	0	0	0	0	0	0	0.003126	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000136	7440020	Nickel	NonCancer	0	0	0.0%	0	0	0	6.73E-05	0.009717	0	0	0	0	0.009717	0	0	0.000136	7E-07	6.44E-08	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
127	ALL		562696.5	4183639	4.29E-05	1151	PAHs-w/o	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	4.3E-05	1E-08	6.26E-09	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
127	ALL		562696.5	4183639	0.000334	1336363	PCBs	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.000334	5E-07	3.28E-07	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
127	ALL		562696.5	4183639	0.002314	127184	Perc	NonCancer	0	0	0.0%	0	6.61E-05	6.61E-05	0	0	0	0	0	0	0	0	0	0.002314	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.013093	115071	Propylene	NonCancer	0	0	0.0%	0	0	0	0	4.36E-06	0	0	0	0	0	0	0	0.013093	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000566	79345	TetraClEth	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.000566	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.181141	108883	Toluene	NonCancer	0	0	0.0%	0	0	0	0	0	0	0.000431	0	0	0	0	0	0.18114	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000447	79005	1,1,2TriClE	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.000447	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	4.22E-05	7440622	Vanadium	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	4.22E-05	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.001161	108054	Vinyl Aceta	NonCancer	0	0	0.0%	0	0	0	0	5.8E-06	0	0	0	0	0	0	0	0.001161	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000212	75014	Vinyl Chlor	NonCancer	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.000212	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
127	ALL		562696.5	4183639	0.000382	9901	DieselExhP	NonCancer	0	0	0.0%	0	0	0	0	7.64E-05	0	0	0	0	0	0	0	0.000382	0	0	0	0	0	0	0	0	0	0	0	INHALATION			
										8.2E-02	100.0%																										

Worker Chronic HI by source

*HARP - HRACalc v22118 2/22/2024 2:32:06 PM - Chronic Risk by Receptor and Source - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\P17.SrcWCh-HRAInput.hra

SRC	REC	GRP	NETID	X	Y	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP	SKIN	EYE	BONE/TEE	ENDO	BLOOD	ODOR	GENERAL	MAXHI
FUG2	127	ALL		562696.5	4183639	NonCancer	0.006819	0.026356	0.000042945	0.020724	5.04E-05	0.025846	0.011292	0.006806	0.000294	0	1.2E-05	0.006143	0	0	0.026356
FUG1	127	ALL		562696.5	4183639	NonCancer	0.005741	0.022189	0.000036155	0.017447	4.25E-05	0.02176	0.009506	0.00573	0.000247	0	1.01E-05	0.005171	0	0	0.022189
FUG3	127	ALL		562696.5	4183639	NonCancer	0.004747	0.018348	0.000029897	0.014427	3.51E-05	0.017994	0.007861	0.004738	0.000204	0	8.35E-06	0.004276	0	0	0.018348
P17	127	ALL		562696.5	4183639	NonCancer	0.003332	0.007527	9.9665E-06	0.004413	6.33E-05	0.007504	0.005143	0.003331	1.53E-05	0.000851	5.62E-05	0.000781	0	0	0.007527
P18	127	ALL		562696.5	4183639	NonCancer	0.002121	0.004791	6.3435E-06	0.002809	4.03E-05	0.004776	0.003273	0.00212	9.74E-06	0.000541	3.58E-05	4.97E-04	0	0	0.004791
S132	127	ALL		562696.5	4183639	NonCancer	0	0.00146	0	0.000852	0	1.44E-05	0.002818	0	0	0	0	0.002087	0	0	0.002818
S131	127	ALL		562696.5	4183639	NonCancer	0	0.000876	0	0.000511	0	8.66E-06	0.00169	0	0	0	0	0.001252	0	0	0.00169
S11	127	ALL		562696.5	4183639	NonCancer	0	8.74E-06	0	5.1E-06	0	8.65E-08	1.69E-05	0	0	0	0	1.25E-05	0	0	1.69E-05
S16	127	ALL		562696.5	4183639	NonCancer	0	0	0	0	0	0	7.64E-05	0	0	0	0	0	0	0	7.64E-05
								8.2E-02													

Post-Project Risks

Facility: Schnitzer Steel, P#208

A#30009 for PO report **Post-Project**

Acute HI by pollutant **0.15**

*HARP - HRACalc v22118 2/22/2024 2:41:41 PM - Acute Risk - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\A-HRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBRE	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	DETAILS	RESP	SKIN	EYE	BONE/TEE	ENDO	BLOOD	ODOR	GENERAL
127	ALL		562696.5	4183639	1.912414	71432	Benzene	NonCance	0	0	0.07083	0	0	0.07083	48.7%	0	0	0	0	0	0.07083	0	0
127	ALL		562696.5	4183639	0.040681	7439976	Mercury	NonCance	0	0.067801	0	0	0	0.067801	46.6%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.001268	7440382	Arsenic	NonCance	0.006342	0.006342	0	0	0	0.006342	4.4%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.062551	67663	Chloroforr	NonCance	0	0.000417	0	0	0	0.000417	0.3%	0.000417	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.032137	106990	1,3-Butadi	NonCance	0	0	0	0	0	4.87E-05	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.045888	56235	CCl4	NonCance	0	2.42E-05	0	0	2.42E-05	2.42E-05	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.093255	74839	Methyl Bro	NonCance	0	2.39E-05	0	0	0	2.39E-05	0.0%	2.39E-05	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.357893	100425	Styrene	NonCance	0	0	0	0	0	1.7E-05	0.0%	1.7E-05	0	1.7E-05	0	0	0	0	0
127	ALL		562696.5	4183639	0.062402	75150	CS2	NonCance	0	1.01E-05	0	0	0	1.01E-05	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.223348	75070	Acetaldeh	NonCance	0	0	0	0	0	0	0.0%	0.000475	0	0.000475	0	0	0	0	0
127	ALL		562696.5	4183639	0.069548	107131	Acrylonitri	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.011184	107051	AllylChlor	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.027849	100447	Benzyl Chl	NonCance	0	0	0	0	0	0	0.0%	0.000116	0	0.000116	0	0	0	0	0
127	ALL		562696.5	4183639	5.03E-05	7440417	Beryllium	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.002313	7440439	Cadmium	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.033059	108907	Chloroben	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.021879	75003	Ethyl Chlor	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.000713	18540299	Cr(VI)	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.00067	7440484	Cobalt	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.361686	7440508	Copper	NonCance	0	0	0	0	0	0	0.0%	0.003617	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.056227	106934	EDB	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.131287	106467	p-DiClBenz	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.029483	75343	1,1-DiClEth	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.056844	107062	EDC	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.060565	75354	Vinylid Chl	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.056216	123911	1,4-Dioxan	NonCance	0	0	0	0	0	0	0.0%	1.87E-05	0	1.87E-05	0	0	0	0	0
127	ALL		562696.5	4183639	5.88E-08	1086	Dioxins-w/	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	4.300006	100414	Ethyl Benz	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.054662	50000	Formaldeh	NonCance	0	0	0	0	0	0	0.0%	0	0	0.000994	0	0	0	0	0
127	ALL		562696.5	4183639	4.523034	110543	Hexane	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.705311	7647010	HCl	NonCance	0	0	0	0	0	0	0.0%	0.000336	0	0.000336	0	0	0	0	0
127	ALL		562696.5	4183639	0.705311	7664393	HF	NonCance	0	0	0	0	0	0	0.0%	0.002939	0	0.002939	0	0	0	0	0
127	ALL		562696.5	4183639	3.269447	67630	Isopropyl A	NonCance	0	0	0	0	0	0	0.0%	0.001022	0	0.001022	0	0	0	0	0
127	ALL		562696.5	4183639	0.016805	7439921	Lead	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.019399	7439965	Manganes	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	1.001628	67561	Methanol	NonCance	0	3.58E-05	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.692851	78933	MEK	NonCance	0	0	0	0	0	0	0.0%	5.33E-05	0	5.33E-05	0	0	0	0	0
127	ALL		562696.5	4183639	0.025942	1634044	Me t-Butyl	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.880198	75092	Methylene	NonCance	6.29E-05	6.29E-05	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.144209	91203	Naphthale	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.00702	7440020	Nickel	NonCance	0	0	0.0351	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.004643	1151	PAHs-w/o	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.027595	1336363	PCBs	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.40747	127184	Perc	NonCance	0	2.04E-05	0	0	0	0	0.0%	2.04E-05	0	2.04E-05	0	0	0	0	0
127	ALL		562696.5	4183639	1.082173	115071	Propylene	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.000574	7782492	Selenium	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.049554	79345	TetraClEth	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	16.79051	108883	Toluene	NonCance	0	0.003358	0	0	0	0	0.0%	0.003358	0	0.003358	0	0	0	0	0
127	ALL		562696.5	4183639	0.392201	71556	1,1,1-TCA	NonCance	0	5.77E-06	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.039055	79005	1,1,2TriClE	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.038931	79016	TCE	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.002272	7440622	Vanadium	NonCance	0	0	0	0	0	0	0.0%	7.57E-05	0	7.57E-05	0	0	0	0	0
127	ALL		562696.5	4183639	0.103088	108054	Vinyl Aceta	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.018538	75014	Vinyl Chlor	NonCance	0	1.03E-07	0	0	0	0	0.0%	1.03E-07	0	1.03E-07	0	0	0	0	0
127	ALL		562696.5	4183639	21.94475	1330207	Xylenes	NonCance	0	0.000997	0	0	0	0	0.0%	0.000997	0	0.000997	0	0	0	0	0
127	ALL		562696.5	4183639	0.328234	9901	DieselExhF	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
														1.5E-01	100.0%								

Acute HI by source

*HARP - HRACalc v22118 2/22/2024 2:40:37 PM - Acute Risk by Receptor and Source - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\P17.ScAHRAInput.hra

SRC	REC	GRP	NETID	X	Y	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP	SKIN	EYE	BONE/TEE	ENDO	BLOOD	ODOR	GENERAL	MAXHI
FUG3	127	ALL		562696.5	4183639	NonCance	0.002009	0.02506	0.037078	0	7.06E-06	0.0514	0.002349	0	0.002258	0	0	0.028099	0	0	0.0514
FUG2	127	ALL		562696.5	4183639	NonCance	0.001492	0.018615	0.027542	0	5.25E-06	0.03818	0.001745	0	0.001677	0	0	0.020872	0	0	0.03818
FUG1	127	ALL		562696.5	4183639	NonCance	0.001345	0.016777	0.024823	0	4.73E-06	0.034411	0.001573	0	0.001512	0	0	0.018812	0	0	0.034411
P17	127	ALL		562696.5	4183639	NonCance	0.000875	0.010466	0.005669	0	3.99E-06	0.01208	0.002379	0	0.002792	0	0	0.001711	0	0	0.01208
P18	127	ALL		562696.5	4183639	NonCance	0.000684	0.008182	0.004432	0	3.12E-06	0.009444	0.00186	0	0.002183	0	0	0.001337	0	0	0.009444
S11	127	ALL		562696.5	4183639	NonCance	0	0	1.02E-05	0	0	0	5.72E-06	0	0	0	0	0	0	0	1.02E-05
S131	127	ALL		562696.5	4183639	NonCance	0	0	0.000889	0	0	0	0.000499	0	0	0	0	0	0	0	0.000889
S132	127	ALL		562696.5	4183639	NonCance	0	0	0.005488	0	0	0	0.003077	0	0	0	0	0	0	0	0.005488
S16	127	ALL		562696.5	4183639	NonCance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
												1.5E-01									

Facility: Schnitzer Steel, P#208

A#30009 for PO report **Pre-Project**

Resident Cancer by pollutant **2.2E-05**

*HARP - HRACalc v22118 2/21/2024 4:49:42 PM - Cancer Risk - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\RHRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_F	MMILK_RI	WATER_RI	FISH_RISK	CROP_RIS	BEEF_RISK	DAIRY_RIS	PIG_RISK	CHICKEN_I	EGG_RISK	1ST_DRIVE	2ND_DRIVER
12	ALL		563517.4	4183297	0.000307	1336363	PCBs	1.54E-05	30YrCance	71.3%	2.93E-07	1.31E-05	2.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	SOIL	DERMAL
12	ALL		563517.4	4183297	7.12E-06	18540299	Cr(VI)	2.72E-06	30YrCance	12.6%	2.46E-06	2.56E-07	4.16E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATIC	SOIL
12	ALL		563517.4	4183297	0.022796	71432	Benzene	1.54E-06	30YrCance	7.2%	1.54E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	7.03E-04	107131	Acrylonitrile	4.76E-07	30YrCance	2.2%	4.76E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	5.31E-02	100414	Ethyl Benzene	3.13E-07	30YrCance	1.4%	3.13E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	1.94E-05	7440439	Cadmium	1.97E-07	30YrCance	0.9%	1.97E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	1.49E-06	7440382	Arsenic	1.81E-07	30YrCance	0.8%	1.21E-08	1.61E-07	7.84E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	SOIL	INHALATION
12	ALL		563517.4	4183297	3.84E-04	106990	1,3-Butadiene	1.56E-07	30YrCance	0.7%	1.56E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000141	7439921	Lead	9.35E-08	30YrCance	0.4%	4.01E-09	8.64E-08	2.10E-09	1.02E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	SOIL	INHALATION
12	ALL		563517.4	4183297	0.00049	106934	EDB	8.28E-08	30YrCance	0.4%	8.28E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.004539	127184	Perc	6.45E-08	30YrCance	0.3%	6.45E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000442	79345	TetraClEthane	5.98E-08	30YrCance	0.3%	5.98E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000411	56235	CCl4	4.17E-08	30YrCance	0.2%	4.17E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.001446	106467	p-diClBenzene	3.91E-08	30YrCance	0.2%	3.91E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000332	100447	Benzyl Chloride	3.82E-08	30YrCance	0.2%	3.82E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000399	91203	Naphthalene	3.24E-08	30YrCance	0.2%	3.24E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000166	75014	Vinyl Chloride	3.03E-08	30YrCance	0.1%	3.03E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	5.97E-04	107062	EDC	2.91E-08	30YrCance	0.1%	2.91E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.010507	75092	Methylene Chlor	2.49E-08	30YrCance	0.1%	2.49E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	8.29E-07	7440484	Cobalt	1.51E-08	30YrCance	0.1%	1.51E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000354	79005	1,1,2TriClEthan	1.36E-08	30YrCance	0.1%	1.36E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000561	123911	1,4-Dioxane	1.03E-08	30YrCance	0.0%	1.03E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	1.38E-05	9901	DieselExhPM	1.02E-08	30YrCance	0.0%	1.02E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	1.25E-05	7440020	Nickel	7.72E-09	30YrCance	0.0%	7.72E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000324	67663	Chloroform	4.16E-09	30YrCance	0.0%	4.16E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	3.52E-04	79016	TCE	1.67E-09	30YrCance	0.0%	1.67E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000262	75343	1,1-DiClEthane	1.01E-09	30YrCance	0.0%	1.01E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	1.27E-07	7440417	Beryllium	7.21E-10	30YrCance	0.0%	7.21E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	2.55E-05	107051	AllylChlor	3.62E-10	30YrCance	0.0%	3.62E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.000232	1634044	Me t-ButylEther	2.83E-10	30YrCance	0.0%	2.83E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	INHALATION	
12	ALL		563517.4	4183297	0.00E+00	75070	Acetaldehyde	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.000469	75150	CS2	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.0003	108907	Chlorobenzn	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.000203	75003	Ethyl Chloride	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.00032	7440508	Copper	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.000648	75354	Vinylid Chlorid	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0	1086	Dioxins-w/o	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0	50000	Formaldehyde	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.054728	110543	Hexane	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0	7647010	HCl	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0	7664393	HF	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	3.69E-02	67630	Isopropyl Alcoh	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	3.33E-05	7439965	Manganese	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.000111	7439976	Mercury	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	1.20E-02	67561	Methanol	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.000268	74839	Methyl Bromide	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.008573	78933	MEK	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0	1151	PAHs-w/o	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.01342	115071	Propylene	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	1.56E-06	7782492	Selenium	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.004474	100425	Styrene	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.200087	108883	Toluene	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.004395	71556	1,1,1-TCA	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	6.15E-06	7440622	Vanadium	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	0.00111	108054	Vinyl Acetate	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
12	ALL		563517.4	4183297	2.64E-01	1330207	Xylenes	0.00E+00	30YrCance	0.0%	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
								2.16E-05		100.0%														

Resident Cancer by source

*HARP - HRACalc v22118 2/21/2024 9:42:12 PM - Cancer Risk by Receptor and Source - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\P15.SrcRCHRAInput.hra

SRC	REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_F	MMILK_RI	WATER_RI	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RIS	PIG_RISK	CHICKEN_I	EGG_RISK
P15	12	ALL		563517.4	4183297	1.65E-05	30YrCancerRMP_Inh	3.62E-06	1.12E-05	1.70E-06	2.22E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FUG2	12	ALL		563517.4	4183297	1.75E-06	30YrCancerRMP_Inh	7.94E-07	8.41E-07	1.12E-07	2.70E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FUG1	12	ALL		563517.4	4183297	1.74E-06	30YrCancerRMP_Inh	7.93E-07	8.39E-07	1.12E-07	2.69E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FUG3	12	ALL		563517.4	4183297	1.49E-06	30YrCancerRMP_Inh	6.76E-07	7.16E-07	9.54E-08	2.29E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S131	12	ALL		563517.4	4183297	3.86E-08	30YrCancerRMP_Inh	3.40E-08	4.48E-09	8.30E-11	1.51E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S132	12	ALL		563517.4	4183297	3.42E-08	30YrCancerRMP_Inh	3.01E-08	3.96E-09	7.35E-11	1.33E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S16	12	ALL		563517.4	4183297	1.02E-08	30YrCancerRMP_Inh	1.02E-08	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
S11	12	ALL		563517.4	4183297	5.16E-10	30YrCancerRMP_Inh	4.55E-10	5.99E-11	1.11E-12	2.01E-13	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
						2.16E-05													

Facility: Schnitzer Steel, P#208
A#30009 for PO report **Pre-Project**

Resident Chronic HI by pollutant **0.032**

*HARP - HRACalc v22118 2/21/2024 4:49:42 PM - Chronic Risk - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\RHRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBRE	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	DETAILS	RESP	SKIN	EYE	BONE/TEE	ENDO	BLOOD	ODOR	GENER	INH_CONC	SOIL_DC	DERMA	MMILK	WATEF	FISH_D	CROP	BEEF_D	DAIRY	PIG_DC	CHICKE	EGG_D	1ST_DRIVE	2ND_DRIV	3RD_DRIVER
12	ALL		563517.4	4183297	0.000111	7439976	Mercury	NonCance	0	0.020663	0	0.020663	0	0.020663	63.6%	0	0	0	0	0	0	0	0	0.000111	0	0	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
12	ALL		563517.4	4183297	1.49E-06	7440382	Arsenic	NonCance	0.010883	0.010883	0	0	0	0.010883	33.5%	0	0	0	0	0	0	0	0	0.000001	0	0	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
12	ALL		563517.4	4183297	0.00049	106934	EDB	NonCance	0	0	0	0	0	0.000612	1.9%	0	0	0	0	0	0	0	0	0.000490	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000384	106990	1,3-Butadi	NonCance	0	0	0	0	0	0.000192	0.6%	0	0	0	0	0	0	0	0	0.000384	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000268	74839	Methyl Br	NonCance	0	5.36E-05	0	0	0	5.36E-05	0.2%	0	0	0	0	0	0	0	0	0.000268	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	1.25E-05	7440020	Nickel	NonCance	0	0	0	0	0	2.68E-05	0.1%	0	0	0	0	0	0	0	0	0.000013	0	0	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
12	ALL		563517.4	4183297	0.053097	100414	Ethyl Benz	NonCance	0	0	0	2.65E-05	0.000026549	2.65E-05	0.1%	0	0	0	0	0	0	0	0	0.053097	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000411	56235	CCl4	NonCance	0	1.03E-05	0	0	0.000010263	1.03E-05	0.0%	0	0	0	0	0	0	0	0	0.000411	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.036853	67630	Isopropyl /	NonCance	0	0	0	5.26E-06	0	5.26E-06	0.0%	0	0	0	0	0	0	0	0	0.036853	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.01195	67561	Methanol	NonCance	0	0	0	0	0	2.99E-06	0.0%	0	0	0	0	0	0	0	0	0.011950	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000324	67663	Chloroform	NonCance	0	0	0	1.08E-06	1.0787E-06	1.08E-06	0.0%	0	0	0	0	0	0	0	0	0.000324	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000469	75150	CS2	NonCance	0	5.86E-07	0	0	0	5.86E-07	0.0%	0	0	0	0	0	0	0	0	0.000469	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.0003	108907	Chloroben	NonCance	0	0	0	3E-07	3.0001E-07	3E-07	0.0%	0	0	0	0	0	0	0	0	0.000300	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000203	75003	Ethyl Chlo	NonCance	0	0	0	0	6.7726E-09	6.77E-09	0.0%	0	0	0	0	0	0	0	0	0.000203	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0	75070	Acetaldeh	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000000	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000703	107131	Acrylonitri	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000703	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	2.55E-05	107051	AllylChlor	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000026	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.022796	71432	Benzene	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.022796	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000332	100447	Benzyl Chl	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000332	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	1.27E-07	7440417	Beryllium	NonCance	0	0	1.81E-05	0	1.5187E-06	0	0.0%	0	0	0	0	0	0	0	0	0.000000	0	0	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
12	ALL		563517.4	4183297	1.94E-05	7440439	Cadmium	NonCance	0	0	0	0.001852	0	0	0.0%	0	0	0	0	0	0	0	0	0.000019	0	0	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
12	ALL		563517.4	4183297	7.12E-06	18540299	Cr(VI)	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000007	0	0	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
12	ALL		563517.4	4183297	8.29E-07	7440484	Cobalt	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000001	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.00032	7440508	Copper	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000320	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.001446	106467	p-DiClBenz	NonCance	0	1.81E-06	0	1.81E-06	1.8076E-06	0	0.0%	0	0	0	0	0	0	0	0	0.001446	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000262	75343	1,1-DiClEtl	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000262	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000597	107062	EDC	NonCance	0	0	0	0	1.4921E-06	0	0.0%	0	0	0	0	0	0	0	0	0.000597	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000648	75354	Vinylid Chl	NonCance	0	0	0	0	9.2517E-06	0	0.0%	0	0	0	0	0	0	0	0	0.000648	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000561	123911	1,4-Dioxar	NonCance	1.87E-07	0	0	1.87E-07	1.871E-07	0	0.0%	0	0	0	0	0	0	0	0	0.000561	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0	1086	Dioxins-w/	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000000	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0	50000	Formaldeh	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000000	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.054728	110543	Hexane	NonCance	0	7.82E-06	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.054728	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0	7647010	HCl	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000000	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0	7664393	HF	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000000	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000141	7439921	Lead	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000141	0	0	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	MMILK
12	ALL		563517.4	4183297	3.33E-05	7439965	Manganes	NonCance	0	0.00037	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000033	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.008573	78933	MEK	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.008573	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000232	1634044	Me t-Butyl	NonCance	0	0	0	2.9E-08	2.902E-08	0	0.0%	0	0	0	0	0	0	0	0	0.000232	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.010507	75092	Methylene	NonCance	2.63E-05	2.63E-05	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.010507	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000399	91203	Naphthale	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000399	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0	1151	PAHs-w/o	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000000	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000307	1336363	PCBs	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000307	0	0	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
12	ALL		563517.4	4183297	0.004539	127184	Perc	NonCance	0	0	0	0.00013	0.00012969	0	0.0%	0	0	0	0	0	0	0	0	0.004539	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.01342	115071	Propylene	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.013420	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	1.56E-06	7782492	Selenium	NonCance	7.56E-06	7.56E-06	0	0	7.5561E-06	0	0.0%	0	0	0	0	0	0	0	0	0.000002	0	0	0	0	0	0	0	0	0	0	0	INHALATIC	SOIL	DERMAL
12	ALL		563517.4	4183297	0.004474	100425	Styrene	NonCance	0	4.97E-06	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.004474	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000442	79345	TetraClEth	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000442	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.200087	108883	Toluene	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.200090	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.004395	71556	1,1,1-TCA	NonCance	0	4.4E-06	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.004395	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000354	79005	1,1,2TriClE	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000354	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000352	79016	TCE	NonCance	0	5.87E-07	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000352	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	6.15E-06	7440622	Vanadium	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000006	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.00111	108054	Vinyl Acet	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.001110	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.000166	75014	Vinyl Chlo	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000166	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	0.264171	1330207	Xylenes	NonCance	0	0.000377	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.264170	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
12	ALL		563517.4	4183297	1.38E-05	9901	DieselExhF	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0	0.000014	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
														3.2E-02	100.0%																							

Resident Chronic HI by source **0.032**

*HARP - HRACalc v22118 2/21/2024 9:44:40 PM - Chronic Risk by Receptor and Source - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\P15.SrcRChHRAInput.hra

SRC	REC	GRP	NETID	X	Y	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP	SKIN	EYE	BONE/TEE	ENDO	BLOOD	ODOR	GENER	MAXHI
FUG2	12	ALL		563517.4	4183297	NonCance	0.003824	0.011228	6.36E-06	0.00775	9.64E-06	0.011152	0.004439	0.00382	4.35E-05	0	1.53E-06	0.0007	0	0	0.0112
FUG1	12	ALL		563517.4	4183297	NonCance	0.003816	0.011202	6.35E-06	0.007732	9.61E-06	0.011127	0.0044289	0.003812	4.34E-05	0	1.53E-06	0.0007	0	0	0.0112
FUG3	12	ALL		563517.4	4183297	NonCance	0.003254	0.009554	5.41E-06	0.006594	8.2E-06	0.009489	0.003777	0.003251	3.7E-05	0	1.31E-06	0.0006	0	0	0.0096
P15	12	ALL		563517.4	4183297	NonCance	2.28E-05	0.000371	0	0.000552	0.000162	0.000706	0.00067766	0	0.00073	0	2.22E-05	0.0065	0	0	0.0065
S131	12	ALL		563517.4	4183297	NonCance	0	2.95E-05	0	2.74E-05	0	1.26E-06	0.000057002	0	0	0	0	4E-05	0	0	6E-05
S132	12	ALL		563517.4	4183297	NonCance	0	2.62E-05	0	2.43E-05	0	1.12E-06	0.000050492	0	0	0	0	4E-05	0	0	5E-05
S11	12	ALL		563517.4	4183297	NonCance	0	3.95E-07	0	3.66E-07	0	1.69E-08	7.624E-07	0	0	0	0	6E-07	0	0	8E-07
S16	12	ALL		563517.4	4183297	NonCance	0	0	0	0	0	0	2.7513E-06	0	0	0	0	0	0	0	3E-06
												3.2E-02									

Facility: Schnitzer Steel, P#208
A#30009 for PO report **Pre-Project**

Worker Cancer from 3 source groups **7.1E-06**

From Source Group 1: Shredder Pre-RTO stack/fugitive, WAF: 1, Assumed Operating Schudule: 24(h/d)x7(d/w)x52(w/y)
*HARP - HRACalc v22118 2/22/2024 8:24:51 AM - Cancer Risk - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\WAF-Pre\Pre-WAF\hra\WCHRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_I	MMILK_RI	WATER_RI	FISH_RIS	CROP	BEEF_R	DAIRY_I	PIG_	CHICKEN	EGG_	1ST_DRIVE	2ND_DRIVER
127	ALL		562696.5	4183639	0.001234	1336363	PCBs	4.4E-06	25YrCance	66.3%	1.03E-07	2.22E-06	2.07E-06	0	0	0	0	0	0	0	0	0	SOIL	DERMAL
127	ALL		562696.5	4183639	3.51E-05	18540299	Cr(VI)	1.1E-06	25YrCance	16.1%	1.01E-06	5.34E-08	3.7E-09	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL
127	ALL		562696.5	4183639	0.091372	71432	Benzene	5.1E-07	25YrCance	7.7%	5.14E-07	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.002801	107131	Acrylonitrile	1.6E-07	25YrCance	2.4%	1.58E-07	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.214858	100414	Ethyl Benzene	1.1E-07	25YrCance	1.6%	1.05E-07	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.0001	7440439	Cadmium	8.5E-08	25YrCance	1.3%	8.46E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	8.61E-06	7440382	Arsenic	5.9E-08	25YrCance	0.9%	4.3E-09	3.93E-08	1.57E-08	0	0	0	0	0	0	0	0	0	SOIL	DERMAL
127	ALL		562696.5	4183639	0.001581	106990	1,3-Butadiene	5.3E-08	25YrCance	0.8%	5.34E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.001979	106934	EDB	2.8E-08	25YrCance	0.4%	2.78E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000729	7439921	Lead	2.4E-08	25YrCance	0.4%	1.27E-09	1.88E-08	3.77E-09	0	0	0	0	0	0	0	0	0	SOIL	DERMAL
127	ALL		562696.5	4183639	0.017569	127184	Perc	2.1E-08	25YrCance	0.3%	2.08E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.001787	79345	TetraClEthane	2.0E-08	25YrCance	0.3%	2.01E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.002307	91203	Naphthalene	1.6E-08	25YrCance	0.2%	1.56E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.001658	56235	CCl4	1.4E-08	25YrCance	0.2%	1.4E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.005747	106467	p-DiClBenzene	1.3E-08	25YrCance	0.2%	1.29E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.00134	100447	Benzyl Chloride	1.3E-08	25YrCance	0.2%	1.28E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.00067	75014	Vinyl Chloride	1.0E-08	25YrCance	0.2%	1.02E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.00239	107062	EDC	9.7E-09	25YrCance	0.1%	9.68E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.041917	75092	Methylene Cl	8.3E-09	25YrCance	0.1%	8.25E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	4.79E-06	7440484	Cobalt	7.3E-09	25YrCance	0.1%	7.28E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.001429	79005	1,1,2TriClEtha	4.6E-09	25YrCance	0.1%	4.58E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.002237	123911	1,4-Dioxane	3.4E-09	25YrCance	0.1%	3.4E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	6.6E-05	7440020	Nickel	3.4E-09	25YrCance	0.1%	3.38E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.001307	67663	Chloroform	1.4E-09	25YrCance	0.0%	1.4E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.001422	79016	TCE	5.6E-10	25YrCance	0.0%	5.6E-10	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	7.33E-07	7440417	Beryllium	3.5E-10	25YrCance	0.0%	3.46E-10	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.001059	75343	1,1-DiClEthan	3.4E-10	25YrCance	0.0%	3.4E-10	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000108	107051	AllylChlor	1.3E-10	25YrCance	0.0%	1.28E-10	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000938	1634044	Me t-ButylEth	9.5E-11	25YrCance	0.0%	9.5E-11	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0	75070	Acetaldehyde	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.001863	75150	CS2	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.001212	108907	Chlorobenzn	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.00082	75003	Ethyl Chloride	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	3.01E-05	7440508	Copper	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.002588	75354	Vinylid Chlori	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0	1086	Dioxins-w/o	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0	50000	Formaldehyde	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.222087	110543	Hexane	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0	7647010	HCl	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0	7664393	HF	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.142685	67630	Isopropyl Alco	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.000163	7439965	Manganese	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.000642	7439976	Mercury	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.047929	67561	Methanol	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.001548	74839	Methyl Bromi	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.034767	78933	MEK	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0	1151	PAHs-w/o	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.054166	115071	Propylene	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	9.02E-06	7782492	Selenium	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.018308	100425	Styrene	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.80153	108883	Toluene	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.016995	71556	1,1,1-TCA	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	3.56E-05	7440622	Vanadium	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.004468	108054	Vinyl Acetate	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	1.058195	1330207	Xylenes	0.0E+00	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
								6.6E-06		100.0%														

*HARP - HRACalc v22118 2/22/2024 8:25:13 AM - Cancer Risk by Receptor and Source - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\WAF-Pre\Pre-WAF\hra\P15.SrcWCHRAInput.hra

SRC	REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_F	MMILK_RI	WATER_RI	FISH_RISK	CROP_RISI	BEEF_RISK	DAIRY_R	PIG_R	CHICKE	EGG_RISK
P15	127	ALL		562696.5	4183639	4.488E-06	25YrCancerDe	1.12E-06	1.75E-06	1.62E-06	0	0	0	0	0	0	0	0	0
FUG1	127	ALL		562696.5	4183639	7.126E-07	25YrCancerDe	3.6E-07	1.94E-07	1.59E-07	0	0	0	0	0	0	0	0	0
FUG2	127	ALL		562696.5	4183639	8.465E-07	25YrCancerDe	4.28E-07	2.3E-07	1.88E-07	0	0	0	0	0	0	0	0	0
FUG3	127	ALL		562696.5	4183639	5.893E-07	25YrCancerDe	2.98E-07	1.6E-07	1.31E-07	0	0	0	0	0	0	0	0	0
						6.6E-06													

From Source Group 2: JPP plant, WAF: 1.8 , Operating Schudule: 19(h/d)x5(d/w)x52(w/y)
*HARP - HRACalc v22118 4/12/2023 9:41:43 AM - Cancer Risk - Input File: F:\HRSA Assignments\30009\30009JPP\hra\W-C-HRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_I	MMILK_RI	WATER_RI	FISH_RIS	CROP	BEEF_R	DAIRY_I	PIG_	CHICKEN	EGG_	1ST_DRIVE	2ND_DRIVER
127	ALL		562696.5	4183639	7.05E-06	18540299	Cr(VI)	3.59E-07	25YrCance	89.9%	3.54E-07	4.28E-09	2.97E-10	0	0	0	0	0	0	0	0	0	INHALATIO	SOIL
127	ALL		562696.5	4183639	2.28E-05	7440439	Cadmium	3.37E-08	25YrCance	8.4%	3.37E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	4.69E-05	7440020	Nickel	4.2E-09	25YrCance	1.1%	4.2E-09	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
127	ALL		562696.5	4183639	0.000166	7439921	Lead	2.58E-09	25YrCance	0.6%	6.85E-10	1.71E-09	1.78E-10	0	0	0	0	0	0	0	0	0	SOIL	INHALATION
127	ALL		562696.5	4183639	0.013151	7440508	Copper	0	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
127	ALL		562696.5	4183639	0.000211	7439965	Manganese	0	25YrCance	0.0%	0	0	0	0	0	0	0	0	0	0	0	0		
								4.0E-07		100.0%														

Worker Cancer by source
From Source Group 2: JPP plant, WAF: 1.8 , Operating Schudule: 19(h/d)x5(d/w)x52(w/y)
*HARP - HRACalc v22118 4/12/2023 9:44:00 AM - Cancer Risk by Receptor and Source - Input File: F:\HRSA Assignments\30009\30009JPP\hra\S11.Src-WC-HRAInput.hra

SRC	REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_F	MMILK_RI	WATER_RI	FISH_RISK	CROP_RISI	BEEF_RISK	DAIRY_R	PIG_R	CHICKE	EGG_RISK
S132	127	ALL		562696.5	4183639	2.48E-07	25YrCancerDe	2.44E-07	3.73E-09	2.96E-10	0	0	0	0	0	0	0	0	0
S131	127	ALL		562696.5	4183639	1.49E-07	25YrCancerDe	1.47E-07	2.24E-09	1.77E-10	0	0	0	0	0	0	0	0	0
S11	127	ALL		562696.5	4183639	1.49E-09	25YrCancerDe	1.46E-09	2.24E-11	1.77E-12	0	0	0	0	0	0	0	0	0
						4.0E-07													

Worker Cancer by pollutant:
From Source Group 3: Generator, WAF: 4.2 , Operating Schudule: 1(h/d)x1(d/w)x50(w/y)
*HARP - HRACalc v22118 4/12/2023 10:11:01 AM - Cancer Risk - Input File: F:\HRSA Assignments\30401 P208 BUG\S16\30401BUG\hra\W-C-HRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBREV	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_I	MMILK_RI	WATER_RI	FISH_RIS	CROP	BEEF_R	DAIRY_I	PIG_	CHICKEN	EGG_	1ST_DRIVE	2ND_DRIVER
127	ALL		562696.5	4183639	0.000382	9901	DieselExhPM	9.92E-08	25YrCance	100.0%	9.92E-08	0	0	0	0	0	0	0	0	0	0	0	INHALATION	
								9.9E-08		100.0%														

Facility: Schnitzer Steel, P#208

A#30009 for PO report **Pre-Project**

Worker Chronic HI by pollutant **0.13**

*HARP - HRACalc v22118 2/21/2024 5:51:47 PM - Chronic Risk - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\WChHRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBRE	SCENARIO	CV	CNS	DETAILS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP	SKIN	EYE	BONE/	ENDO	BLOOD	ODOR	GENERA	INH_CON	SOIL_DO	DERMAL_	MMILK_	WATER_	FISH_D	CRO	BEEF_	DAIRY_	PIG_	CHIC	EG	1ST_DRIVI	2ND_DRIV	3RD_DRIVER
127	ALL		562696.5	4183639	0.000642	7439976	Mercury	NonCance	0	0.080753	63.7%	0	0.080753	0	0.080753	0	0	0	0	0	0	0	0	0.00064	8E-06	1.5E-06	0	0	0	0	0	0	0	0	0	INHALATI	SOIL	DERMAL
127	ALL		562696.5	4183639	8.61E-06	7440382	Arsenic	NonCance	0.039875	0.039875	31.4%	0	0	0	0.039875	0.039875	0.03988	0	0	0	0	0	0	8.6E-06	1E-07	3.1E-08	0	0	0	0	0	0	0	0	0	INHALATI	SOIL	DERMAL
127	ALL		562696.5	4183639	0.000374	7439965	Manganes	NonCance	0	0.004159	3.3%	0	0	0	0	0	0	0	0	0	0	0	0	0.00037	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	1.058195	1330207	Xylenes	NonCance	0	0.001512	1.2%	0	0	0	0	0.001512	0	0.001512	0	0	0	0	0	1.0582	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.001548	74839	Methyl Br	NonCance	0	0.00031	0.2%	0	0	0	0.00031	0.00031	0	0	0	0	0	0	0	0.00155	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.041917	75092	Methylene	NonCance	0.000105	0.000105	0.1%	0	0	0	0	0	0	0	0	0	0	0	0	0.04192	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.001658	56235	CCl4	NonCance	0	4.15E-05	0.0%	0	0	4.15E-05	4.15E-05	0	0	0	0	0	0	0	0	0.00166	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.222087	110543	Hexane	NonCance	0	3.17E-05	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.22209	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	9.02E-06	7782492	Selenium	NonCance	2.61E-05	2.61E-05	0.0%	0	0	2.61E-05	0	0	0	0	0	0	0	0	0	9E-06	1E-07	1.6E-08	0	0	0	0	0	0	0	0	0	INHALATI	SOIL	DERMAL
127	ALL		562696.5	4183639	0.018308	100425	Styrene	NonCance	0	2.03E-05	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.01831	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.016995	71556	1,1,1-TCA	NonCance	0	1.7E-05	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.017	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.005747	106467	p-DiClBen	NonCance	0	7.18E-06	0.0%	0	7.18E-06	7.18E-06	0	7.18E-06	0	0	0	0	0	0	0	0.00575	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.001422	79016	TCE	NonCance	0	2.37E-06	0.0%	0	0	0	0	0	0	2.37E-06	0	0	0	0	0	0.00142	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.001863	75150	CS2	NonCance	0	2.33E-06	0.0%	0	0	0	2.33E-06	0	0	0	0	0	0	0	0	0.00186	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0	75070	Acetaldeh	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.002801	107131	Acrylonitri	NonCance	0	0	0.0%	0	0	0	0	0.00056	0	0	0	0	0	0	0	0.0028	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.000108	107051	AllylChlor	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.00011	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.091372	71432	Benzene	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0.03046	0	0	0.09137	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.00134	100447	Benzyl Chl	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.00134	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	7.33E-07	7440417	Beryllium	NonCance	0	0	0.0%	0.000105	0	5.2E-06	0	0.000105	0	0	0	0	0	0	0	7.3E-07	9E-09	1.3E-09	0	0	0	0	0	0	0	0	0	INHALATI	SOIL	DERMAL
127	ALL		562696.5	4183639	0.001581	106990	1,3-Butadi	NonCance	0	0	0.0%	0	0	0	0.00079	0	0	0	0	0	0	0	0	0.00158	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.000123	7440439	Cadmium	NonCance	0	0	0.0%	0	0.009238	0	0	0.006152	0	0	0	0	0	0	0	0.00012	2E-06	1.5E-08	0	0	0	0	0	0	0	0	0	INHALATI	SOIL	DERMAL
127	ALL		562696.5	4183639	0.001212	108907	Chloroben	NonCance	0	0	0.0%	0	1.21E-06	1.21E-06	1.21E-06	0	0	0	0	0	0	0	0	0.00121	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.00082	75003	Ethyl Chlo	NonCance	0	0	0.0%	0	0	2.73E-08	2.73E-08	0	0	0	0	0	0	0	0	0.00082	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.001307	67663	Chloroforr	NonCance	0	0	0.0%	0	4.36E-06	4.36E-06	4.36E-06	0	0	0	0	0	0	0	0	0.00131	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	4.22E-05	18540299	Cr(VI)	NonCance	0	0	0.0%	0	0	0	0	0.000211	0	0	0	0	2.9E-05	0	0	4.2E-05	5E-07	5E-08	0	0	0	0	0	0	0	0	0	INHALATI	SOIL	DERMAL
127	ALL		562696.5	4183639	4.79E-06	7440484	Cobalt	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	4.8E-06	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.013181	7440508	Copper	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.01318	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.001979	106934	EDB	NonCance	0	0	0.0%	0	0	0	0.002473	0	0	0	0	0	0	0	0	0.00198	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.001059	75343	1,1-DiClEt	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.00106	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.00239	107062	EDC	NonCance	0	0	0.0%	0	0	5.97E-06	0	0	0	0	0	0	0	0	0	0.00239	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.002588	75354	Vinylid Chl	NonCance	0	0	0.0%	0	0	3.7E-05	0	0	0	0	0	0	0	0	0	0.00259	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.002237	123911	1,4-Dioxar	NonCance	7.46E-07	0	0.0%	0	7.46E-07	7.46E-07	0	0	0	0	0	0	0	0	0	0.00224	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0	1086	Dioxins-w/	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.214858	100414	Ethyl Benz	NonCance	0	0	0.0%	0	0.000107	0.000107	0.000107	0	0	0	0	0.00011	0	0	0	0.21486	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0	50000	Formaldeh	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0	7647010	HCl	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0	7664393	HF	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.142685	67630	Isopropyl /	NonCance	0	0	0.0%	0	2.04E-05	0	2.04E-05	0	0	0	0	0	0	0	0	0.14269	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.000895	7439921	Lead	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.00089	1E-05	1.6E-06	0	0	0	0	0	0	0	0	0	INHALATI	SOIL	DERMAL
127	ALL		562696.5	4183639	0.047929	67561	Methanol	NonCance	0	0	0.0%	0	0	0	1.2E-05	0	0	0	0	0	0	0	0	0.04793	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.034767	78933	MEK	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.03477	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.000938	1634044	Me t-Buty	NonCance	0	0	0.0%	0	1.17E-07	1.17E-07	0	0	0	1.17E-07	0	0	0	0	0	0.00094	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.002307	91203	Naphthale	NonCance	0	0	0.0%	0	0	0	0	0.000256	0	0	0	0	0	0	0	0.00231	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.000113	7440020	Nickel	NonCance	0	0	0.0%	0	0	0	0.00014	0.00806	0	0	0	0	0.00806	0	0	0.00011	1E-06	1.3E-07	0	0	0	0	0	0	0	0	0	INHALATI	SOIL	DERMAL
127	ALL		562696.5	4183639	0	1151	PAHs-w/o	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.001234	1336363	PCBs	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.00123	5E-06	3E-06	0	0	0	0	0	0	0	0	0	INHALATI	SOIL	DERMAL
127	ALL		562696.5	4183639	0.017569	127184	Perc	NonCance	0	0	0.0%	0	0.000502	0.000502	0	0	0	0	0	0	0	0	0	0.01757	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.054166	115071	Propylene	NonCance	0	0	0.0%	0	0	0	0	1.81E-05	0	0	0	0	0	0	0	0.05417	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.001787	79345	TetraClEth	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.00179	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.80153	108883	Toluene	NonCance	0	0	0.0%	0	0	0	0	0	0	0.001908	0	0	0	0	0	0.80153	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.001429	79005	1,1,2TriClE	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.00143	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	3.56E-05	7440622	Vanadium	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	3.6E-05	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.004468	108054	Vinyl Acet	NonCance	0	0	0.0%	0	0	0	0	2.23E-05	0	0	0	0	0	0	0	0.00447	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.00067	75014	Vinyl Chlo	NonCance	0	0	0.0%	0	0	0	0	0	0	0	0	0	0	0	0	0.00067	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
127	ALL		562696.5	4183639	0.000382	9901	DieselExhf	NonCance	0	0	0.0%	0	0	0	0	7.64E-05	0	0	0	0	0	0	0	0.00038	0	0	0	0	0	0	0	0	0	0	0	INHALATION		
										1.3E-01	100.0%																										

Worker Chronic HI by source

*HARP - HRACalc v22118 2/21/2024 9:33:05 PM - Chronic Risk by Receptor and Source - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\P15.SrcWChHRAInput.hra

SRC	REC	GRP	NETID	X	Y	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP	SKIN	EYE	BONE/TEE	ENDO	BLOOD	ODOR	GENERAL	MAXHI
FUG2	127	ALL		562696.5	4183639	NonCance	0.015729	0.048518	4.12E-05	0.034355	5.41E-05	0.048011	0.019721	0.015711	0.000282	0	9.9E-06	0.004392	0	0	0.04852
FUG1	127	ALL		562696.5	4183639	NonCance	0.013242	0.040846	3.47E-05	0.028923	4.56E-05	0.04042	0.016603	0.013227	0.000237	0	8.4E-06	0.003697	0	0	0.04085
FUG3	127	ALL		562696.5	4183639	NonCance	0.01095	0.033777	2.87E-05	0.023917	3.77E-05	0.033424	0.013729	0.010937	0.000196	0	6.9E-06	0.003057	0	0	0.03378
S132	127	ALL		562696.5	4183639	NonCance	0	0.00146	0	0.001066	0	3.61E-05	0.002818	0	0	0	0	0.002089	0	0	0.00282
P15	127	ALL		562696.5	4183639	NonCance	8.46E-05	0.001375	0	0.001728	0.000601	0.002617	0.002511	0	0.002707	0	8.22E-05	0.024046	0	0	0.02405
S131	127	ALL		562696.5	4183639	NonCance	0	0.000876	0	0.000639	0	2.17E-05	0.00169	0	0	0	0	0.001253	0	0	0.00169
S11	127	ALL		562696.5	4183639	NonCance	0	8.74E-06	0	6.38E-06	0	2.16E-07	1.69E-05	0	0	0	0	1.25E-05	0	0	1.7E-05
S16	127	ALL		562696.5	4183639	NonCance	0	0	0	0	0	0	7.64E-05	0	0	0	0	0	0	0	7.6E-05
								1.3E-01													

Pre-Project Risks

Facility: Schnitzer Steel, P#208

A#30009 for PO report **Pre-Project**

Acute HI by pollutant **0.42**

*HARP - HRACalc v22118 2/21/2024 5:52:23 PM - Acute Risk - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\AHRAInput.hra

REC	GRP	NETID	X	Y	CONC	POLID	POLABBRE	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	DETAILS	RESP	SKIN	EYE	BONE/TEE	ENDO	BLOOD	ODOR	GENERAL
127	ALL		562696.5	4183639	9.737405	71432	Benzene	NonCance	0	0	0.36064	0	0	0.36064	86.3%	0	0	0	0	0	0.36064	0	0
127	ALL		562696.5	4183639	0.030689	7439976	Mercury	NonCance	0	0.051148	0	0	0	0.051148	12.2%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.000957	7440382	Arsenic	NonCance	0.004785	0.004785	0	0	0	0.004785	1.1%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.135794	67663	Chloroforn	NonCance	0	0.000905	0	0	0	0.000905	0.2%	0.000905	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.153475	106990	1,3-Butadi	NonCance	0	0	0	0	0	0.000233	0.1%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.172226	56235	CCl4	NonCance	0	9.06E-05	0	0	9.06E-05	9.06E-05	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	1.819777	100425	Styrene	NonCance	0	0	0	0	0	8.67E-05	0.0%	8.67E-05	0	8.67E-05	0	0	0	0	0
127	ALL		562696.5	4183639	0.2038	75150	CS2	NonCance	0	3.29E-05	0	0	0	3.29E-05	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.087554	74839	Methyl Bro	NonCance	0	2.25E-05	0	0	0	2.25E-05	0.0%	2.25E-05	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0	75070	Acetaldeh	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.304365	107131	Acrylonitri	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.009475	107051	AllylChlor	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.139106	100447	Benzyl Chl	NonCance	0	0	0	0	0	0	0.0%	0.00058	0	0.00058	0	0	0	0	0
127	ALL		562696.5	4183639	3.79E-05	7440417	Beryllium	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.002736	7440439	Cadmium	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.125858	108907	Chloroben	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.085451	75003	Ethyl Chlor	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.001402	18540299	Cr(VI)	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.000505	7440484	Cobalt	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.360805	7440508	Copper	NonCance	0	0	0	0	0	0	0.0%	0.003608	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.205347	106934	EDB	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.629727	106467	p-DiClBenz	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.10996	75343	1,1-DiClEth	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.255535	107062	EDC	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.278462	75354	Vinylid Chl	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.242813	123911	1,4-Dioxan	NonCance	0	0	0	0	0	0	0.0%	8.09E-05	0	8.09E-05	0	0	0	0	0
127	ALL		562696.5	4183639	0	1086	Dioxins-w/	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	22.19068	100414	Ethyl Benz	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0	50000	Formaldeh	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	22.72061	110543	Hexane	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0	7647010	HCl	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0	7664393	HF	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	16.95766	67630	Isopropyl A	NonCance	0	0	0	0	0	0	0.0%	0.005299	0	0.005299	0	0	0	0	0
127	ALL		562696.5	4183639	0.019881	7439921	Lead	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.016049	7439965	Manganes	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	5.097863	67561	Methanol	NonCance	0	0.000182	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	3.56443	78933	MEK	NonCance	0	0	0	0	0	0	0.0%	0.000274	0	0.000274	0	0	0	0	0
127	ALL		562696.5	4183639	0.097374	1634044	Me t-Butyl	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	4.536215	75092	Methylene	NonCance	0.000324	0.000324	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.135392	91203	Naphthale	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.005609	7440020	Nickel	NonCance	0	0	0.028047	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0	1151	PAHs-w/o	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.129933	1336363	PCBs	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	2.08981	127184	Perc	NonCance	0	0.000104	0	0	0	0	0.0%	0.000104	0	0.000104	0	0	0	0	0
127	ALL		562696.5	4183639	5.642116	115071	Propylene	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.000433	7782492	Selenium	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.185474	79345	TetraClEth	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	85.58317	108883	Toluene	NonCance	0	0.017117	0	0	0	0	0.0%	0.017117	0	0.017117	0	0	0	0	0
127	ALL		562696.5	4183639	2.027332	71556	1,1,1-TCA	NonCance	0	2.98E-05	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.14838	79005	1,1,2TriClE	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.147717	79016	TCE	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.001713	7440622	Vanadium	NonCance	0	0	0	0	0	0	0.0%	5.71E-05	0	5.71E-05	0	0	0	0	0
127	ALL		562696.5	4183639	0.47031	108054	Vinyl Acet	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
127	ALL		562696.5	4183639	0.069553	75014	Vinyl Chlor	NonCance	0	3.86E-07	0	0	0	0	0.0%	3.86E-07	0	3.86E-07	0	0	0	0	0
127	ALL		562696.5	4183639	113.0069	1330207	Xylenes	NonCance	0	0.005137	0	0	0	0	0.0%	0.005137	0	0.005137	0	0	0	0	0
127	ALL		562696.5	4183639	0.328234	9901	DieselExhP	NonCance	0	0	0	0	0	0	0.0%	0	0	0	0	0	0	0	0
														4.2E-01	100.0%								

Acute HI by source

*HARP - HRACalc v22118 2/21/2024 6:41:28 PM - Acute Risk by Receptor and Source - Input File: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\P15.SrcAHRAInput.hra

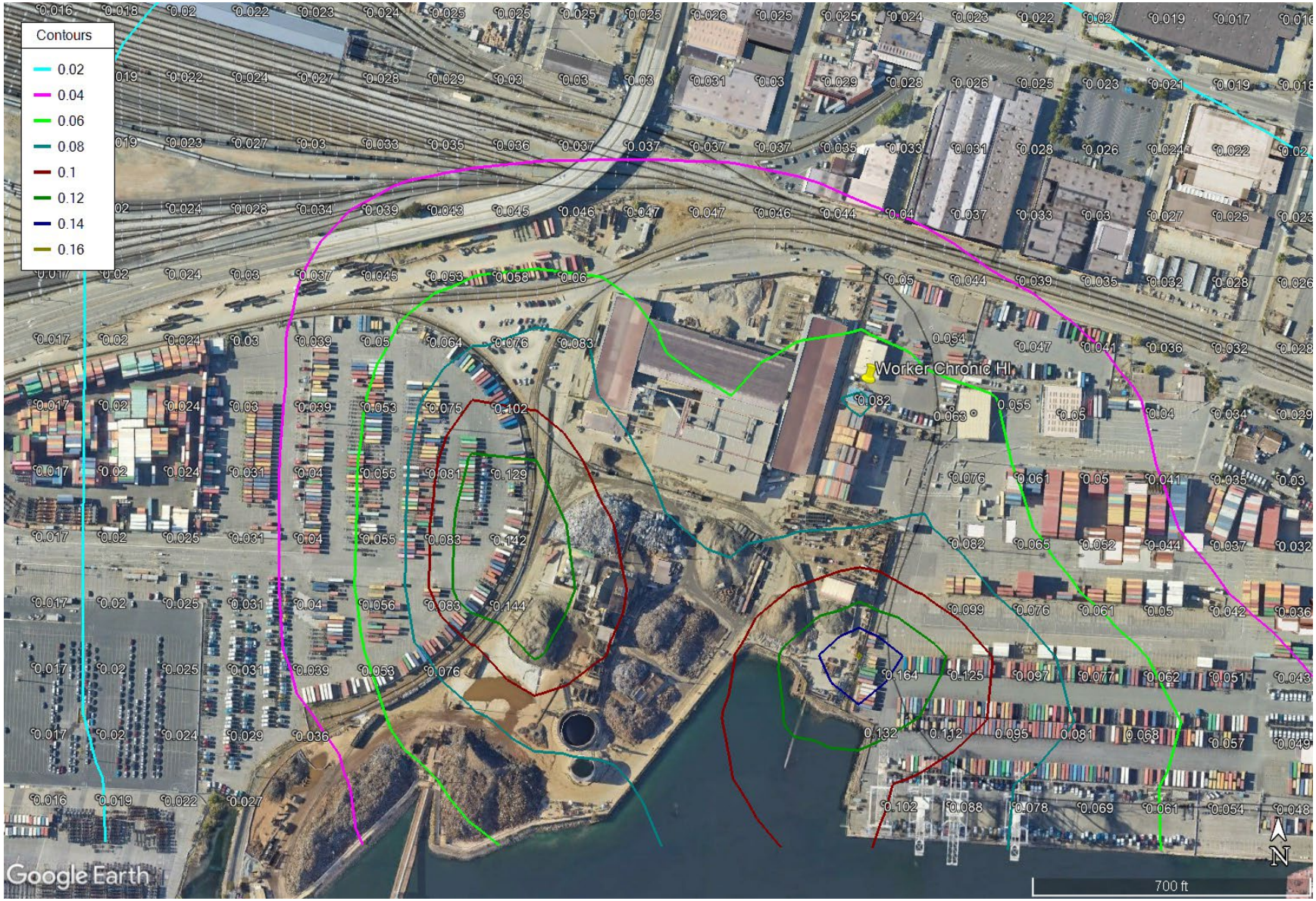
SRC	REC	GRP	NETID	X	Y	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DE	RESP	SKIN	EYE	BONE/TEE	ENDO	BLOOD	ODOR	GENERAL	MAXHI
P15	127	ALL		562696.5	4183639	NonCance	0.000263	0.019427	0.29286	0	7.36E-05	0.29396	0.024024	0	0.023289	0	0	0.29286	0	0	0.29396
FUG3	127	ALL		562696.5	4183639	NonCance	0.002009	0.02506	0.037078	0	7.06E-06	0.0514	0.002349	0	0.002258	0	0	0.028099	0	0	0.0514
FUG2	127	ALL		562696.5	4183639	NonCance	0.001492	0.018615	0.027542	0	5.25E-06	0.03818	0.001745	0	0.001677	0	0	0.020872	0	0	0.03818
FUG1	127	ALL		562696.5	4183639	NonCance	0.001345	0.016777	0.024823	0	4.73E-06	0.034411	0.001573	0	0.001512	0	0	0.018812	0	0	0.034411
S16	127	ALL		562696.5	4183639	NonCance	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
S11	127	ALL		562696.5	4183639	NonCance	0	0	1.02E-05	0	0	0	5.72E-06	0	0	0	0	0	0	0	1.02E-05
S131	127	ALL		562696.5	4183639	NonCance	0	0	0.000889	0	0	0	0.000499	0	0	0	0	0	0	0	0.000889
S132	127	ALL		562696.5	4183639	NonCance	0	0	0.005488	0	0	0	0.003077	0	0	0	0	0	0	0	0.005488
												4.2E-01									

Schnitzer Steel (Oakland, CA), P#208, A#30009

Post-Project Resident Cancer Risk (in a million) Contours

Schnitzer Steel (Oakland, CA), P#208, A#30009

Post-Project Worker Chronic Hazard Index Contours

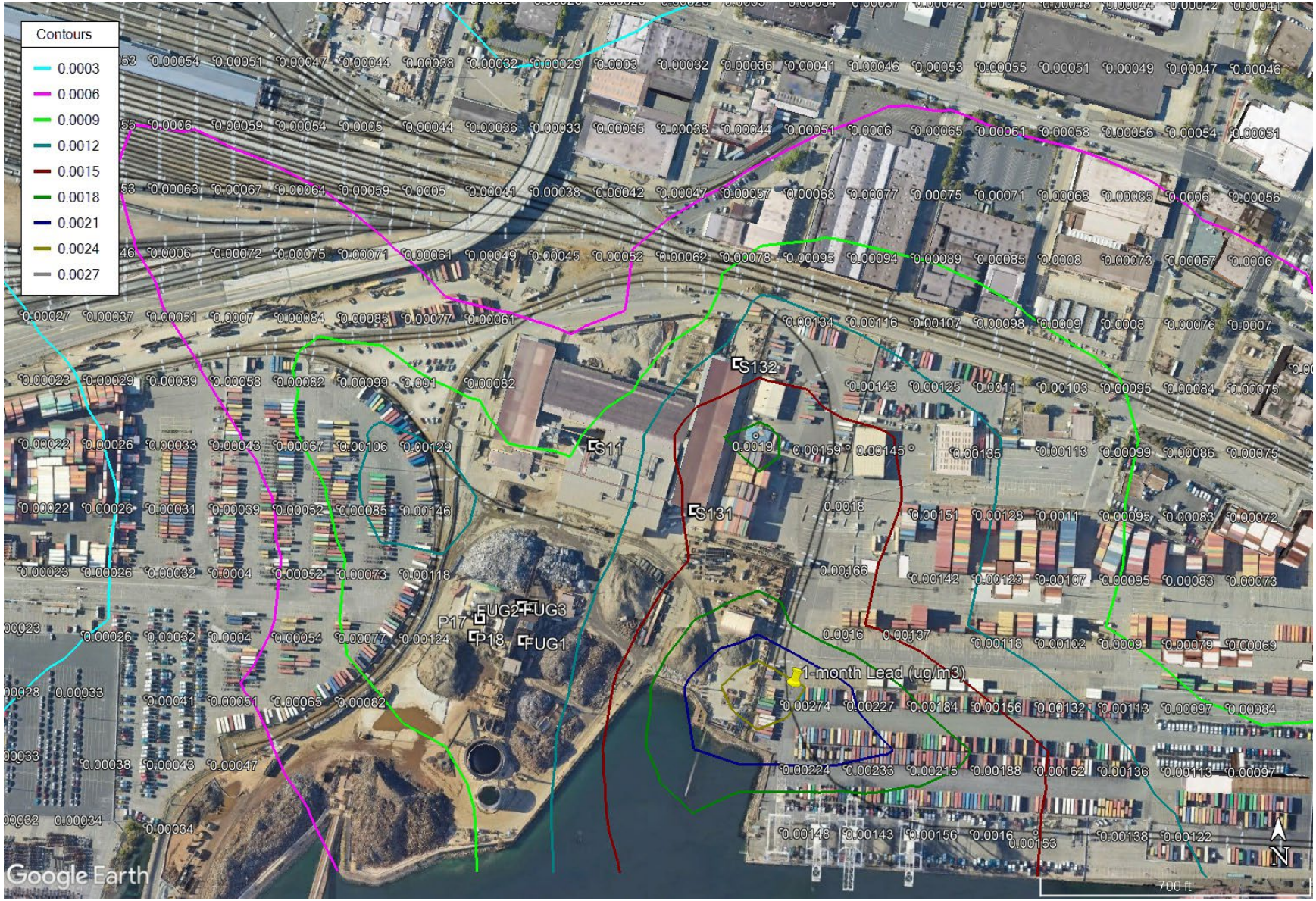


Schnitzer Steel (Oakland, CA), P#208, A#30009

Post-Project Acute Hazard Index Contours

Schnitzer Steel (Oakland, CA), P#208, A#30009

Post-Project -Monthly Average Lead Concentration (ug/m3) Contours



```
**BEE-Line Software:  (Version 12.07) data input file
**  Model: AERMOD.EXE     Input File Creation Date: 4/11/2023  Time: 4:26:37 PM
NO ECHO









  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 SO W320     133        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS

 **********************************
 *** SETUP Finishes Successfully ***
 **********************************
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** MODEL SETUP OPTIONS SUMMARY ***

- - - -

```
                Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =   0.10000E+07
                Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      3.8 MB of RAM.

**Input Runstream File:          C:\HRSA\P208 AN30009\MASTER_2009-2013_OTHER_1.DTA
**Output Print File:             C:\HRSA\P208 AN30009\MASTER_2009-2013_OTHER_1.LST

**File for Summary of Results:   C:\HRSA\P208 AN30009\MASTER_2009-2013_OTHER_1.SUM
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR	EMIS RATE SCALAR VARY BY
S11	0	0.10000E+01	562569.4	4183631.4	2.5	18.29	294.26	23.80	2.75	YES	YES	NO	
P17	0	0.10000E+01	562481.1	4183495.2	2.3	25.91	314.26	26.19	1.37	YES	YES	NO	
P18	0	0.10000E+01	562476.6	4183481.6	2.3	25.91	314.26	26.19	1.37	YES	YES	NO	
S16	0	0.10000E+01	562582.2	4183647.4	2.5	3.68	745.37	114.12	0.13	YES	YES	NO	

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
S131	0	0.10000E+01	562648.8	4183581.6	2.4	3.05	0.83	7.09	YES	
S132	0	0.10000E+01	562682.1	4183696.0	2.9	3.05	0.83	7.09	YES	
FUG1	0	0.10000E+01	562515.4	4183478.8	2.0	1.22	0.67	12.05	YES	
FUG2	0	0.10000E+01	562522.6	4183504.9	2.1	2.90	0.73	12.05	YES	
FUG3	0	0.10000E+01	562515.7	4183506.9	2.1	12.80	0.36	12.05	YES	

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	S11 , S131 , S132 , P17 , P18 , FUG1 , FUG2 , FUG3 ,
	S16 ,
S11	S11 ,
S131	S131 ,
S132	S132 ,
P17	P17 ,
P18	P18 ,
FUG1	FUG1 ,
FUG2	FUG2 ,
FUG3	FUG3 ,
S16	S16 ,
FUG	FUG1 , FUG2 , FUG3 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	390724.	S11 , S131 , S132 , P17 , P18 , FUG1 , FUG2 , FUG3 , S16 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: S11

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	15.2,	149.1,	151.2,	-66.5,	-29.5,	2	15.2,	148.1,	157.4,	-57.4,	-22.1,
3	15.2,	158.1,	168.6,	-54.9,	-18.9,	4	15.2,	163.4,	178.5,	-54.5,	-15.2,
5	15.2,	88.8,	114.1,	16.4,	-48.5,	6	15.2,	101.8,	104.8,	28.4,	-35.1,
7	15.2,	155.6,	175.2,	-43.6,	-4.8,	8	15.2,	150.3,	163.3,	-37.1,	-4.4,
9	15.2,	144.3,	156.5,	-39.6,	-2.0,	10	15.2,	151.2,	149.1,	-45.1,	9.1,
11	15.2,	157.4,	148.1,	-52.0,	21.3,	12	15.2,	168.6,	158.1,	-60.2,	29.4,
13	15.2,	120.0,	73.0,	23.9,	64.0,	14	15.2,	183.0,	163.7,	-70.8,	39.1,
15	15.2,	181.9,	159.1,	-73.0,	42.2,	16	15.2,	175.2,	155.6,	-73.0,	44.0,
17	15.2,	163.3,	150.3,	-70.7,	44.5,	18	15.2,	156.5,	144.3,	-70.1,	38.7,
19	15.2,	149.1,	151.2,	-84.7,	29.5,	20	15.2,	148.1,	157.4,	-99.9,	22.1,
21	15.2,	158.1,	168.6,	-113.7,	18.9,	22	15.2,	163.4,	178.5,	-124.0,	15.2,
23	15.2,	88.8,	114.1,	-130.6,	48.5,	24	15.2,	101.8,	104.8,	-133.1,	35.1,
25	15.2,	111.7,	92.3,	-131.7,	20.7,	26	15.2,	118.2,	77.0,	-126.2,	5.7,
27	15.2,	121.1,	59.3,	-116.9,	-9.5,	28	15.2,	120.4,	39.9,	-104.0,	-24.5,
29	15.2,	120.7,	35.5,	-96.1,	-39.6,	30	15.2,	122.2,	55.1,	-98.0,	-52.6,
31	15.2,	120.0,	73.0,	-96.9,	-64.0,	32	15.2,	183.0,	163.7,	-92.9,	-39.1,
33	15.2,	181.9,	159.1,	-86.0,	-42.2,	34	15.2,	175.2,	155.6,	-82.6,	-44.0,
35	15.2,	163.3,	150.3,	-79.6,	-44.5,	36	15.2,	156.5,	144.3,	-74.2,	-38.7,

SOURCE ID: P17

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	0.0,	0.0,	0.0,	0.0,	0.0,	2	0.0,	0.0,	0.0,	0.0,	0.0,
3	25.9,	29.6,	50.1,	-19.9,	-27.2,	4	25.9,	32.6,	51.0,	-15.3,	-24.3,
5	25.9,	35.8,	50.4,	-10.1,	-21.4,	6	25.9,	40.6,	48.3,	-4.7,	-19.1,
7	25.9,	44.2,	44.7,	0.9,	-16.2,	8	25.9,	46.5,	39.7,	6.5,	-12.9,
9	25.9,	47.3,	33.5,	11.8,	-9.1,	10	25.9,	46.7,	27.5,	15.7,	-5.1,
11	25.9,	47.6,	25.7,	16.4,	-0.2,	12	25.9,	50.1,	29.6,	12.4,	5.1,
13	25.9,	51.0,	32.6,	8.1,	10.2,	14	25.9,	50.4,	35.8,	3.4,	15.1,
15	25.9,	48.3,	40.6,	-1.2,	19.4,	16	25.9,	44.7,	44.2,	-5.9,	23.2,
17	25.9,	39.7,	46.5,	-10.4,	26.3,	18	25.9,	33.5,	47.3,	-14.6,	28.6,
19	0.0,	0.0,	0.0,	0.0,	0.0,	20	0.0,	0.0,	0.0,	0.0,	0.0,
21	25.9,	29.6,	50.1,	-30.1,	27.2,	22	25.9,	32.6,	51.0,	-35.8,	24.3,
23	25.9,	35.8,	50.4,	-40.3,	21.4,	24	25.9,	40.6,	48.3,	-43.6,	19.1,
25	25.9,	44.2,	44.7,	-45.6,	16.2,	26	25.9,	46.5,	39.7,	-46.2,	12.9,
27	25.9,	47.3,	33.5,	-45.4,	9.1,	28	25.9,	46.7,	27.5,	-43.2,	5.1,
29	25.9,	47.6,	25.7,	-42.0,	0.2,	30	25.9,	50.1,	29.6,	-42.0,	-5.1,
31	25.9,	51.0,	32.6,	-40.6,	-10.2,	32	25.9,	50.4,	35.8,	-39.3,	-15.1,
33	25.9,	48.3,	40.6,	-39.4,	-19.4,	34	25.9,	44.7,	44.2,	-38.3,	-23.2,
35	25.9,	39.7,	46.5,	-36.1,	-26.3,	36	25.9,	33.5,	47.3,	-32.8,	-28.6,

SOURCE ID: P18

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	0.0,	0.0,	0.0,	0.0,	0.0,	2	0.0,	0.0,	0.0,	0.0,	0.0,
3	25.9,	29.6,	50.1,	-6.0,	-24.3,	4	25.9,	32.6,	51.0,	-2.0,	-19.0,
5	25.9,	35.8,	50.4,	2.0,	-13.9,	6	25.9,	40.6,	48.3,	5.9,	-9.6,
7	25.9,	44.2,	44.7,	9.7,	-5.0,	8	25.9,	46.5,	39.7,	13.2,	-0.3,
9	25.9,	47.3,	33.5,	16.3,	4.4,	10	25.9,	46.7,	27.5,	17.7,	9.0,
11	25.9,	47.6,	25.7,	15.9,	14.0,	12	25.9,	50.1,	29.6,	9.5,	19.0,
13	25.9,	51.0,	32.6,	2.8,	23.5,	14	25.9,	50.4,	35.8,	-4.0,	27.2,
15	25.9,	48.3,	40.6,	-10.7,	30.1,	16	25.9,	44.7,	44.2,	-17.1,	32.0,
17	0.0,	0.0,	0.0,	0.0,	0.0,	18	0.0,	0.0,	0.0,	0.0,	0.0,

19	0.0,	0.0,	0.0,	0.0,	0.0,	20	0.0,	0.0,	0.0,	0.0,	0.0,
21	25.9,	29.6,	50.1,	-44.1,	24.3,	22	25.9,	32.6,	51.0,	-49.0,	19.0,
23	25.9,	35.8,	50.4,	-52.4,	13.9,	24	25.9,	40.6,	48.3,	-54.2,	9.6,
25	25.9,	44.2,	44.7,	-54.4,	5.0,	26	25.9,	46.5,	39.7,	-52.9,	0.3,
27	25.9,	47.3,	33.5,	-49.8,	-4.4,	28	25.9,	46.7,	27.5,	-45.2,	-9.0,
29	25.9,	47.6,	25.7,	-41.6,	-14.0,	30	25.9,	50.1,	29.6,	-39.0,	-19.0,
31	25.9,	51.0,	32.6,	-35.3,	-23.5,	32	25.9,	50.4,	35.8,	-31.8,	-27.2,
33	25.9,	48.3,	40.6,	-29.9,	-30.1,	34	25.9,	44.7,	44.2,	-27.1,	-32.0,
35	0.0,	0.0,	0.0,	0.0,	0.0,	36	0.0,	0.0,	0.0,	0.0,	0.0,

SOURCE ID: S16

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	15.2,	149.1,	151.2,	-84.5,	-19.6,	2	15.2,	148.1,	157.4,	-76.9,	-15.5,
3	15.2,	158.1,	168.6,	-75.2,	-15.8,	4	15.2,	163.4,	178.5,	-75.0,	-15.7,
5	15.2,	163.7,	183.0,	-72.6,	-15.0,	6	15.2,	101.8,	104.8,	9.2,	-42.6,
7	15.2,	111.7,	92.3,	21.8,	-31.4,	8	15.2,	150.3,	163.3,	-52.5,	-18.0,
9	15.2,	144.3,	156.5,	-52.4,	-18.1,	10	15.2,	151.2,	149.1,	-55.0,	-8.9,
11	15.2,	157.4,	148.1,	-58.6,	1.8,	12	15.2,	168.6,	158.1,	-63.3,	9.1,
13	15.2,	120.0,	73.0,	24.3,	43.5,	14	15.2,	114.1,	88.8,	8.2,	53.4,
15	15.2,	181.9,	159.1,	-65.6,	23.1,	16	15.2,	175.2,	155.6,	-62.3,	26.5,
17	15.2,	163.3,	150.3,	-57.2,	29.1,	18	15.2,	156.5,	144.3,	-54.1,	25.8,
19	15.2,	149.1,	151.2,	-66.6,	19.6,	20	15.2,	148.1,	157.4,	-80.5,	15.5,
21	15.2,	158.1,	168.6,	-93.4,	15.8,	22	15.2,	163.4,	178.5,	-103.5,	15.7,
23	15.2,	163.7,	183.0,	-110.4,	15.0,	24	15.2,	101.8,	104.8,	-114.0,	42.6,
25	15.2,	111.7,	92.3,	-114.1,	31.4,	26	15.2,	118.2,	77.0,	-110.8,	19.2,
27	15.2,	121.1,	59.3,	-104.1,	6.5,	28	15.2,	120.4,	39.9,	-94.2,	-6.5,
29	15.2,	120.7,	35.5,	-89.5,	-20.1,	30	15.2,	122.2,	55.1,	-94.9,	-32.3,
31	15.2,	120.0,	73.0,	-97.4,	-43.5,	32	15.2,	114.1,	88.8,	-96.9,	-53.4,
33	15.2,	181.9,	159.1,	-93.5,	-23.1,	34	15.2,	175.2,	155.6,	-93.3,	-26.5,
35	15.2,	163.3,	150.3,	-93.2,	-29.1,	36	15.2,	156.5,	144.3,	-90.2,	-25.8,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\HRSA\0 Tools\AERMOD_met_inputs\OAKLAND_STP_2009_2013.SFC Met Version: 14134
Profile file: C:\HRSA\0 Tools\AERMOD_met_inputs\OAKLAND_STP_2009_2013.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 23230 Upper air station no.: 23230
Name: UNKNOWN Name: UNKNOWN
Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	02	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	03	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	04	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	06	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	07	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	08	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	09	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.38	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	10	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.25	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	11	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.20	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	12	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.19	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	13	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.18	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	14	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.19	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	15	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.22	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	16	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.31	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	17	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.54	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	18	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	21	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	23	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	24	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
09	01	01	01	9.7	0	-999.	-99.00	-999.0	999.0	-99.00	-99.00
09	01	01	01	16.3	1	-999.	-99.00	-999.0	999.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): S11 , S131 , S132 , P17 , P18 ,
FUG1 , FUG2 , FUG3 , S16 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC	
562069.00	4183331.00	15.42945	562119.00	4183331.00	17.77404	
562169.00	4183331.00	20.71298	562219.00	4183331.00	24.38655	
562719.00	4183331.00	92.86881	562769.00	4183331.00	84.12943	
562819.00	4183331.00	76.05440	562869.00	4183331.00	68.40846	
562919.00	4183331.00	61.03711	562969.00	4183331.00	54.10127	
563019.00	4183331.00	47.70639	563517.40	4183296.50	16.77043	Resident
562069.00	4183381.00	16.12624	562119.00	4183381.00	18.73490	
562169.00	4183381.00	22.16804	562219.00	4183381.00	26.62017	
562269.00	4183381.00	32.63793	562719.00	4183381.00	121.89975	
562769.00	4183381.00	108.30823	562819.00	4183381.00	94.77410	
562869.00	4183381.00	81.71658	562919.00	4183381.00	69.84458	
562969.00	4183381.00	59.61433	563019.00	4183381.00	51.13942	
563069.00	4183381.00	44.19745	562069.00	4183431.00	16.54527	
562119.00	4183431.00	19.36803	562169.00	4183431.00	23.12230	
562219.00	4183431.00	28.24350	562269.00	4183431.00	35.46275	
562319.00	4183431.00	46.36381	562369.00	4183431.00	64.03435	
562719.00	4183431.00	162.88642	562769.00	4183431.00	134.07691	
562819.00	4183431.00	109.07120	562869.00	4183431.00	89.02814	
562919.00	4183431.00	73.39531	562969.00	4183431.00	61.33868	
563019.00	4183431.00	51.97269	563069.00	4183431.00	44.57271	
562069.00	4183481.00	16.75072	562119.00	4183481.00	19.67978	
562169.00	4183481.00	23.62133	562219.00	4183481.00	28.99981	
562269.00	4183481.00	36.82007	562319.00	4183481.00	49.08886	
562369.00	4183481.00	70.42506	562419.00	4183481.00	114.72431	
562769.00	4183481.00	146.39587	562819.00	4183481.00	115.87625	
562869.00	4183481.00	93.11289	562919.00	4183481.00	75.65024	
562969.00	4183481.00	62.27544	563019.00	4183481.00	52.07468	
563069.00	4183481.00	44.20516	562069.00	4183531.00	16.79899	
562119.00	4183531.00	19.76835	562169.00	4183531.00	23.75264	
562219.00	4183531.00	29.21098	562269.00	4183531.00	37.24011	
562319.00	4183531.00	49.62576	562369.00	4183531.00	71.20913	
562419.00	4183531.00	115.62061	562769.00	4183531.00	183.06174	
562819.00	4183531.00	133.59602	562869.00	4183531.00	99.60200	
562919.00	4183531.00	77.19966	562969.00	4183531.00	62.06209	
563019.00	4183531.00	51.35085	563069.00	4183531.00	43.34773	
562069.00	4183581.00	16.73818	562119.00	4183581.00	19.68376	
562169.00	4183581.00	23.62034	562219.00	4183581.00	29.07188	
562269.00	4183581.00	37.00499	562319.00	4183581.00	49.17338	
562369.00	4183581.00	69.84344	562419.00	4183581.00	106.83614	
562769.00	4183581.00	186.24318	562819.00	4183581.00	130.39533	

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** THE PERIOD (43824 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): S11 , S131 , S132 , P17 , P18 ,
FUG1 , FUG2 , FUG3 , S16 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC		X-COORD (M)	Y-COORD (M)	CONC
562869.00	4183581.00	97.24465		562919.00	4183581.00	76.12502
562969.00	4183581.00	61.52813		563019.00	4183581.00	50.71974
563069.00	4183581.00	42.45708		562069.00	4183631.00	16.60147
562119.00	4183631.00	19.50876		562169.00	4183631.00	23.40059
562219.00	4183631.00	28.76014		562269.00	4183631.00	36.36906
562319.00	4183631.00	47.77743		562369.00	4183631.00	65.11328
562419.00	4183631.00	88.86170		562769.00	4183631.00	205.63727
562819.00	4183631.00	141.82617		562869.00	4183631.00	103.34277
562919.00	4183631.00	77.84030		562969.00	4183631.00	60.70418
563019.00	4183631.00	48.80972		563069.00	4183631.00	40.24515
562069.00	4183681.00	16.43702		562119.00	4183681.00	19.28626
562169.00	4183681.00	23.07798		562219.00	4183681.00	28.19771
562269.00	4183681.00	35.27015		562319.00	4183681.00	44.93651
562369.00	4183681.00	57.43402		562419.00	4183681.00	71.50363
562469.00	4183681.00	86.64895		562851.20	4183629.00	114.79102
562769.00	4183681.00	224.35981		562819.00	4183681.00	131.31055
562869.00	4183681.00	90.77666		562919.00	4183681.00	68.19012
562969.00	4183681.00	53.84213		563019.00	4183681.00	43.94931
563069.00	4183681.00	36.71076		562069.00	4183731.00	16.26464
562119.00	4183731.00	19.03641		562169.00	4183731.00	22.64924
562219.00	4183731.00	27.37238		562269.00	4183731.00	33.47138
562319.00	4183731.00	40.99076		562369.00	4183731.00	49.59179
562419.00	4183731.00	59.10576		562469.00	4183731.00	71.97185
562696.53	4183639.38	364.95870	Worker	562785.70	4183628.00	177.98998
562719.00	4183731.00	265.31271		562769.00	4183731.00	148.03482
562819.00	4183731.00	99.43318		562869.00	4183731.00	74.22441
562919.00	4183731.00	58.61162		562969.00	4183731.00	47.85720
563019.00	4183731.00	40.00036		563069.00	4183731.00	33.96630
562069.00	4183781.00	16.05583		562119.00	4183781.00	18.69661
562169.00	4183781.00	22.04955		562219.00	4183781.00	26.18464
562269.00	4183781.00	31.15641		562319.00	4183781.00	36.82297
562369.00	4183781.00	43.23166		562419.00	4183781.00	51.00100
562469.00	4183781.00	61.66525		562519.00	4183781.00	75.41617
562569.00	4183781.00	95.96256		562619.00	4183781.00	126.83094
562669.00	4183781.00	143.52771		562719.00	4183781.00	126.58646
562769.00	4183781.00	98.78799		562819.00	4183781.00	77.48692
562869.00	4183781.00	62.33918		562919.00	4183781.00	51.45946
562969.00	4183781.00	43.30146		563019.00	4183781.00	36.95236
563069.00	4183781.00	31.90149		562069.00	4183831.00	15.80065
562119.00	4183831.00	18.26610		562169.00	4183831.00	21.25105

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)					OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	364.95870 AT (	562696.53,	4183639.38,	2.62,	2.62,	1.50)	DC	
	2ND HIGHEST VALUE IS	265.31271 AT (	562719.00,	4183731.00,	3.17,	3.17,	1.50)	DC	
	3RD HIGHEST VALUE IS	224.35981 AT (	562769.00,	4183681.00,	2.90,	2.90,	1.50)	DC	
	4TH HIGHEST VALUE IS	205.63727 AT (	562769.00,	4183631.00,	2.77,	2.77,	1.50)	DC	
	5TH HIGHEST VALUE IS	186.24318 AT (	562769.00,	4183581.00,	2.50,	2.50,	1.50)	DC	
	6TH HIGHEST VALUE IS	183.06174 AT (	562769.00,	4183531.00,	2.33,	2.33,	1.50)	DC	
	7TH HIGHEST VALUE IS	177.98998 AT (	562785.70,	4183628.00,	2.74,	2.74,	1.50)	DC	
	8TH HIGHEST VALUE IS	162.88642 AT (	562719.00,	4183431.00,	1.93,	1.93,	1.50)	DC	
	9TH HIGHEST VALUE IS	148.03482 AT (	562769.00,	4183731.00,	3.05,	3.05,	1.50)	DC	
	10TH HIGHEST VALUE IS	146.39587 AT (	562769.00,	4183481.00,	2.20,	2.20,	1.50)	DC	
S11	1ST HIGHEST VALUE IS	10.50338 AT (	562696.53,	4183639.38,	2.62,	2.62,	1.50)	DC	
	2ND HIGHEST VALUE IS	5.10574 AT (	562719.00,	4183731.00,	3.17,	3.17,	1.50)	DC	
	3RD HIGHEST VALUE IS	4.96830 AT (	562769.00,	4183631.00,	2.77,	2.77,	1.50)	DC	
	4TH HIGHEST VALUE IS	4.26623 AT (	562769.00,	4183581.00,	2.50,	2.50,	1.50)	DC	
	5TH HIGHEST VALUE IS	4.26376 AT (	562785.70,	4183628.00,	2.74,	2.74,	1.50)	DC	
	6TH HIGHEST VALUE IS	4.07045 AT (	562619.00,	4183781.00,	3.18,	3.18,	1.50)	DC	
	7TH HIGHEST VALUE IS	3.88551 AT (	562769.00,	4183681.00,	2.90,	2.90,	1.50)	DC	
	8TH HIGHEST VALUE IS	3.64292 AT (	562819.00,	4183631.00,	2.72,	2.72,	1.50)	DC	
	9TH HIGHEST VALUE IS	3.51651 AT (	562819.00,	4183581.00,	2.62,	2.62,	1.50)	DC	
	10TH HIGHEST VALUE IS	3.22061 AT (	562819.00,	4183681.00,	3.00,	3.00,	1.50)	DC	
S131	1ST HIGHEST VALUE IS	100.03332 AT (	562696.53,	4183639.38,	2.62,	2.62,	1.50)	DC	
	2ND HIGHEST VALUE IS	84.85928 AT (	562769.00,	4183531.00,	2.33,	2.33,	1.50)	DC	
	3RD HIGHEST VALUE IS	67.02735 AT (	562769.00,	4183581.00,	2.50,	2.50,	1.50)	DC	
	4TH HIGHEST VALUE IS	53.79100 AT (	562769.00,	4183481.00,	2.20,	2.20,	1.50)	DC	
	5TH HIGHEST VALUE IS	53.46180 AT (	562819.00,	4183531.00,	2.42,	2.42,	1.50)	DC	
	6TH HIGHEST VALUE IS	48.89365 AT (	562769.00,	4183631.00,	2.77,	2.77,	1.50)	DC	
	7TH HIGHEST VALUE IS	42.17857 AT (	562719.00,	4183431.00,	1.93,	1.93,	1.50)	DC	
	8TH HIGHEST VALUE IS	41.68406 AT (	562785.70,	4183628.00,	2.74,	2.74,	1.50)	DC	
	9TH HIGHEST VALUE IS	39.63388 AT (	562819.00,	4183481.00,	2.30,	2.30,	1.50)	DC	
	10TH HIGHEST VALUE IS	38.31352 AT (	562819.00,	4183581.00,	2.62,	2.62,	1.50)	DC	
S132	1ST HIGHEST VALUE IS	178.88513 AT (	562719.00,	4183731.00,	3.17,	3.17,	1.50)	DC	
	2ND HIGHEST VALUE IS	166.77734 AT (	562696.53,	4183639.38,	2.62,	2.62,	1.50)	DC	
	3RD HIGHEST VALUE IS	137.82570 AT (	562769.00,	4183681.00,	2.90,	2.90,	1.50)	DC	
	4TH HIGHEST VALUE IS	97.32672 AT (	562769.00,	4183631.00,	2.77,	2.77,	1.50)	DC	
	5TH HIGHEST VALUE IS	81.91985 AT (	562785.70,	4183628.00,	2.74,	2.74,	1.50)	DC	
	6TH HIGHEST VALUE IS	81.37683 AT (	562769.00,	4183731.00,	3.05,	3.05,	1.50)	DC	
	7TH HIGHEST VALUE IS	76.94310 AT (	562669.00,	4183781.00,	3.22,	3.22,	1.50)	DC	
	8TH HIGHEST VALUE IS	70.18260 AT (	562719.00,	4183781.00,	3.31,	3.31,	1.50)	DC	
	9TH HIGHEST VALUE IS	65.10089 AT (	562819.00,	4183631.00,	2.72,	2.72,	1.50)	DC	
	10TH HIGHEST VALUE IS	64.13369 AT (	562819.00,	4183681.00,	3.00,	3.00,	1.50)	DC	

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
P17	1ST HIGHEST VALUE IS	2.11067 AT	(562719.00, 4183431.00, 1.93, 1.93, 1.50)	DC	
	2ND HIGHEST VALUE IS	2.01422 AT	(562769.00, 4183431.00, 2.05, 2.05, 1.50)	DC	
	3RD HIGHEST VALUE IS	1.89841 AT	(562769.00, 4183381.00, 1.97, 1.97, 1.50)	DC	
	4TH HIGHEST VALUE IS	1.84699 AT	(562819.00, 4183381.00, 2.02, 2.02, 1.50)	DC	
	5TH HIGHEST VALUE IS	1.80441 AT	(562819.00, 4183431.00, 2.13, 2.13, 1.50)	DC	
	6TH HIGHEST VALUE IS	1.79864 AT	(562719.00, 4183381.00, 1.83, 1.83, 1.50)	DC	
	7TH HIGHEST VALUE IS	1.70482 AT	(562869.00, 4183381.00, 2.02, 2.02, 1.50)	DC	
	8TH HIGHEST VALUE IS	1.57318 AT	(562869.00, 4183431.00, 2.16, 2.16, 1.50)	DC	
	9TH HIGHEST VALUE IS	1.54875 AT	(562769.00, 4183481.00, 2.20, 2.20, 1.50)	DC	
	10TH HIGHEST VALUE IS	1.52001 AT	(562919.00, 4183381.00, 2.03, 2.03, 1.50)	DC	
P18	1ST HIGHEST VALUE IS	1.98959 AT	(562719.00, 4183431.00, 1.93, 1.93, 1.50)	DC	
	2ND HIGHEST VALUE IS	1.98655 AT	(562769.00, 4183381.00, 1.97, 1.97, 1.50)	DC	
	3RD HIGHEST VALUE IS	1.94578 AT	(562719.00, 4183381.00, 1.83, 1.83, 1.50)	DC	
	4TH HIGHEST VALUE IS	1.87525 AT	(562819.00, 4183381.00, 2.02, 2.02, 1.50)	DC	
	5TH HIGHEST VALUE IS	1.86496 AT	(562769.00, 4183431.00, 2.05, 2.05, 1.50)	DC	
	6TH HIGHEST VALUE IS	1.68994 AT	(562869.00, 4183381.00, 2.02, 2.02, 1.50)	DC	
	7TH HIGHEST VALUE IS	1.65760 AT	(562819.00, 4183431.00, 2.13, 2.13, 1.50)	DC	
	8TH HIGHEST VALUE IS	1.53223 AT	(562819.00, 4183331.00, 1.82, 1.82, 1.50)	DC	
	9TH HIGHEST VALUE IS	1.51370 AT	(562769.00, 4183331.00, 1.82, 1.82, 1.50)	DC	
	10TH HIGHEST VALUE IS	1.49385 AT	(562869.00, 4183331.00, 1.82, 1.82, 1.50)	DC	
FUG1	1ST HIGHEST VALUE IS	42.19874 AT	(562419.00, 4183481.00, 2.22, 2.22, 1.50)	DC	
	2ND HIGHEST VALUE IS	38.48165 AT	(562419.00, 4183531.00, 2.32, 2.32, 1.50)	DC	
	3RD HIGHEST VALUE IS	35.10236 AT	(562719.00, 4183431.00, 1.93, 1.93, 1.50)	DC	
	4TH HIGHEST VALUE IS	30.98457 AT	(562419.00, 4183581.00, 2.42, 2.42, 1.50)	DC	
	5TH HIGHEST VALUE IS	29.15004 AT	(562719.00, 4183381.00, 1.83, 1.83, 1.50)	DC	
	6TH HIGHEST VALUE IS	24.12922 AT	(562769.00, 4183431.00, 2.05, 2.05, 1.50)	DC	
	7TH HIGHEST VALUE IS	23.22616 AT	(562369.00, 4183481.00, 2.28, 2.28, 1.50)	DC	
	8TH HIGHEST VALUE IS	23.18446 AT	(562769.00, 4183381.00, 1.97, 1.97, 1.50)	DC	
	9TH HIGHEST VALUE IS	22.47142 AT	(562419.00, 4183631.00, 2.46, 2.46, 1.50)	DC	
	10TH HIGHEST VALUE IS	22.23313 AT	(562719.00, 4183331.00, 1.82, 1.82, 1.50)	DC	
FUG2	1ST HIGHEST VALUE IS	36.88738 AT	(562419.00, 4183531.00, 2.32, 2.32, 1.50)	DC	
	2ND HIGHEST VALUE IS	36.42782 AT	(562419.00, 4183481.00, 2.22, 2.22, 1.50)	DC	
	3RD HIGHEST VALUE IS	34.46563 AT	(562719.00, 4183431.00, 1.93, 1.93, 1.50)	DC	
	4TH HIGHEST VALUE IS	32.09901 AT	(562419.00, 4183581.00, 2.42, 2.42, 1.50)	DC	
	5TH HIGHEST VALUE IS	25.83798 AT	(562719.00, 4183381.00, 1.83, 1.83, 1.50)	DC	
	6TH HIGHEST VALUE IS	25.53394 AT	(562769.00, 4183431.00, 2.05, 2.05, 1.50)	DC	
	7TH HIGHEST VALUE IS	24.84033 AT	(562419.00, 4183631.00, 2.46, 2.46, 1.50)	DC	
	8TH HIGHEST VALUE IS	21.37780 AT	(562769.00, 4183481.00, 2.20, 2.20, 1.50)	DC	
	9TH HIGHEST VALUE IS	21.28328 AT	(562369.00, 4183531.00, 2.35, 2.35, 1.50)	DC	
	10TH HIGHEST VALUE IS	21.23207 AT	(562369.00, 4183481.00, 2.28, 2.28, 1.50)	DC	

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** THE SUMMARY OF MAXIMUM PERIOD (43824 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)					OF TYPE	NETWORK GRID-ID
FUG3	1ST HIGHEST VALUE IS	22.63597 AT (	562719.00,	4183431.00,	1.93,	1.93,	1.50)	DC	
	2ND HIGHEST VALUE IS	19.36988 AT (	562419.00,	4183581.00,	2.42,	2.42,	1.50)	DC	
	3RD HIGHEST VALUE IS	17.76898 AT (	562419.00,	4183531.00,	2.32,	2.32,	1.50)	DC	
	4TH HIGHEST VALUE IS	17.46285 AT (	562769.00,	4183431.00,	2.05,	2.05,	1.50)	DC	
	5TH HIGHEST VALUE IS	17.39040 AT (	562719.00,	4183381.00,	1.83,	1.83,	1.50)	DC	
	6TH HIGHEST VALUE IS	16.73818 AT (	562419.00,	4183631.00,	2.46,	2.46,	1.50)	DC	
	7TH HIGHEST VALUE IS	16.01810 AT (	562419.00,	4183481.00,	2.22,	2.22,	1.50)	DC	
	8TH HIGHEST VALUE IS	14.86329 AT (	562769.00,	4183481.00,	2.20,	2.20,	1.50)	DC	
	9TH HIGHEST VALUE IS	14.62466 AT (	562769.00,	4183381.00,	1.97,	1.97,	1.50)	DC	
	10TH HIGHEST VALUE IS	13.87036 AT (	562469.00,	4183681.00,	2.68,	2.68,	1.50)	DC	
S16	1ST HIGHEST VALUE IS	41.45530 AT (	562696.53,	4183639.38,	2.62,	2.62,	1.50)	DC	
	2ND HIGHEST VALUE IS	24.40391 AT (	562719.00,	4183731.00,	3.17,	3.17,	1.50)	DC	
	3RD HIGHEST VALUE IS	19.55152 AT (	562769.00,	4183681.00,	2.90,	2.90,	1.50)	DC	
	4TH HIGHEST VALUE IS	18.53398 AT (	562769.00,	4183631.00,	2.77,	2.77,	1.50)	DC	
	5TH HIGHEST VALUE IS	18.08686 AT (	562619.00,	4183781.00,	3.18,	3.18,	1.50)	DC	
	6TH HIGHEST VALUE IS	17.11385 AT (	562669.00,	4183781.00,	3.22,	3.22,	1.50)	DC	
	7TH HIGHEST VALUE IS	16.50268 AT (	562769.00,	4183731.00,	3.05,	3.05,	1.50)	DC	
	8TH HIGHEST VALUE IS	16.13975 AT (	562785.70,	4183628.00,	2.74,	2.74,	1.50)	DC	
	9TH HIGHEST VALUE IS	15.86364 AT (	562769.00,	4183581.00,	2.50,	2.50,	1.50)	DC	
	10TH HIGHEST VALUE IS	14.56220 AT (	562819.00,	4183681.00,	3.00,	3.00,	1.50)	DC	
FUG	1ST HIGHEST VALUE IS	94.64466 AT (	562419.00,	4183481.00,	2.22,	2.22,	1.50)	DC	
	2ND HIGHEST VALUE IS	93.13801 AT (	562419.00,	4183531.00,	2.32,	2.32,	1.50)	DC	
	3RD HIGHEST VALUE IS	92.20397 AT (	562719.00,	4183431.00,	1.93,	1.93,	1.50)	DC	
	4TH HIGHEST VALUE IS	82.45345 AT (	562419.00,	4183581.00,	2.42,	2.42,	1.50)	DC	
	5TH HIGHEST VALUE IS	72.37842 AT (	562719.00,	4183381.00,	1.83,	1.83,	1.50)	DC	
	6TH HIGHEST VALUE IS	67.12601 AT (	562769.00,	4183431.00,	2.05,	2.05,	1.50)	DC	
	7TH HIGHEST VALUE IS	64.04993 AT (	562419.00,	4183631.00,	2.46,	2.46,	1.50)	DC	
	8TH HIGHEST VALUE IS	58.69314 AT (	562769.00,	4183381.00,	1.97,	1.97,	1.50)	DC	
	9TH HIGHEST VALUE IS	56.30212 AT (	562719.00,	4183331.00,	1.82,	1.82,	1.50)	DC	
	10TH HIGHEST VALUE IS	54.53547 AT (	562369.00,	4183481.00,	2.28,	2.28,	1.50)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

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*** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  NODRYDPLT  NOWETDPLT  URBAN

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of           15 Warning Message(s)
A Total of         1760 Informational Message(s)

A Total of        43824 Hours Were Processed

A Total of            6 Calm Hours Identified

A Total of         1754 Missing Hours Identified (  4.00 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
SO W320     133        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
MX W403     972       PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data
MX W403     973       PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data
MX W441   22927        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081407
MX W441   22928        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081408
MX W441   22929        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081409
MX W441   22930        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081410
MX W441   22931        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081411
MX W441   22932        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081412
MX W441   22933        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081413
MX W441   22934        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081414
MX W441   22935        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081415
MX W441   22936        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081416
MX W441   22937        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081417
MX W441   22938        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081418

   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
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**BEE-Line Software:  (Version 12.07) data input file
**  Model: AERMOD.EXE     Input File Creation Date: 4/11/2023  Time: 4:46:39 PM
NO ECHO









  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 SO W320     134        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS

 **********************************
 *** SETUP Finishes Successfully ***
 **********************************
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** MODEL SETUP OPTIONS SUMMARY ***

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                Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =   0.10000E+07
                Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      3.9 MB of RAM.

**Input Runstream File:          C:\HRSA\P208 AN30009\MASTERhourly_2009-2013_OTHER_1.DTA
**Output Print File:             C:\HRSA\P208 AN30009\MASTERhourly_2009-2013_OTHER_1.LST

**File for Summary of Results:   C:\HRSA\P208 AN30009\MASTERhourly_2009-2013_OTHER_1.SUM
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*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR	EMIS RATE SCALAR VARY BY
S11	0	0.10000E+01	562569.4	4183631.4	2.5	18.29	294.26	23.80	2.75	YES	YES	NO	
P17	0	0.10000E+01	562481.1	4183495.2	2.3	25.91	314.26	26.19	1.37	YES	YES	NO	
P18	0	0.10000E+01	562476.6	4183481.6	2.3	25.91	314.26	26.19	1.37	YES	YES	NO	
S16	0	0.10000E+01	562582.2	4183647.4	2.5	3.68	745.37	114.12	0.13	YES	YES	NO	

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
S131	0	0.10000E+01	562648.8	4183581.6	2.4	3.05	0.83	7.09	YES	
S132	0	0.10000E+01	562682.1	4183696.0	2.9	3.05	0.83	7.09	YES	
FUG1	0	0.10000E+01	562515.4	4183478.8	2.0	1.22	0.67	12.05	YES	
FUG2	0	0.10000E+01	562522.6	4183504.9	2.1	2.90	0.73	12.05	YES	
FUG3	0	0.10000E+01	562515.7	4183506.9	2.1	12.80	0.36	12.05	YES	

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	S11 , S131 , S132 , P17 , P18 , FUG1 , FUG2 , FUG3 ,
	S16 ,
S11	S11 ,
S131	S131 ,
S132	S132 ,
P17	P17 ,
P18	P18 ,
FUG1	FUG1 ,
FUG2	FUG2 ,
FUG3	FUG3 ,
S16	S16 ,
FUG	FUG1 , FUG2 , FUG3 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	390724.	S11 , S131 , S132 , P17 , P18 , FUG1 , FUG2 , FUG3 ,
		S16 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: S11

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	15.2,	149.1,	151.2,	-66.5,	-29.5,	2	15.2,	148.1,	157.4,	-57.4,	-22.1,
3	15.2,	158.1,	168.6,	-54.9,	-18.9,	4	15.2,	163.4,	178.5,	-54.5,	-15.2,
5	15.2,	88.8,	114.1,	16.4,	-48.5,	6	15.2,	101.8,	104.8,	28.4,	-35.1,
7	15.2,	155.6,	175.2,	-43.6,	-4.8,	8	15.2,	150.3,	163.3,	-37.1,	-4.4,
9	15.2,	144.3,	156.5,	-39.6,	-2.0,	10	15.2,	151.2,	149.1,	-45.1,	9.1,
11	15.2,	157.4,	148.1,	-52.0,	21.3,	12	15.2,	168.6,	158.1,	-60.2,	29.4,
13	15.2,	120.0,	73.0,	23.9,	64.0,	14	15.2,	183.0,	163.7,	-70.8,	39.1,
15	15.2,	181.9,	159.1,	-73.0,	42.2,	16	15.2,	175.2,	155.6,	-73.0,	44.0,
17	15.2,	163.3,	150.3,	-70.7,	44.5,	18	15.2,	156.5,	144.3,	-70.1,	38.7,
19	15.2,	149.1,	151.2,	-84.7,	29.5,	20	15.2,	148.1,	157.4,	-99.9,	22.1,
21	15.2,	158.1,	168.6,	-113.7,	18.9,	22	15.2,	163.4,	178.5,	-124.0,	15.2,
23	15.2,	88.8,	114.1,	-130.6,	48.5,	24	15.2,	101.8,	104.8,	-133.1,	35.1,
25	15.2,	111.7,	92.3,	-131.7,	20.7,	26	15.2,	118.2,	77.0,	-126.2,	5.7,
27	15.2,	121.1,	59.3,	-116.9,	-9.5,	28	15.2,	120.4,	39.9,	-104.0,	-24.5,
29	15.2,	120.7,	35.5,	-96.1,	-39.6,	30	15.2,	122.2,	55.1,	-98.0,	-52.6,
31	15.2,	120.0,	73.0,	-96.9,	-64.0,	32	15.2,	183.0,	163.7,	-92.9,	-39.1,
33	15.2,	181.9,	159.1,	-86.0,	-42.2,	34	15.2,	175.2,	155.6,	-82.6,	-44.0,
35	15.2,	163.3,	150.3,	-79.6,	-44.5,	36	15.2,	156.5,	144.3,	-74.2,	-38.7,

SOURCE ID: P17

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	0.0,	0.0,	0.0,	0.0,	0.0,	2	0.0,	0.0,	0.0,	0.0,	0.0,
3	25.9,	29.6,	50.1,	-19.9,	-27.2,	4	25.9,	32.6,	51.0,	-15.3,	-24.3,
5	25.9,	35.8,	50.4,	-10.1,	-21.4,	6	25.9,	40.6,	48.3,	-4.7,	-19.1,
7	25.9,	44.2,	44.7,	0.9,	-16.2,	8	25.9,	46.5,	39.7,	6.5,	-12.9,
9	25.9,	47.3,	33.5,	11.8,	-9.1,	10	25.9,	46.7,	27.5,	15.7,	-5.1,
11	25.9,	47.6,	25.7,	16.4,	-0.2,	12	25.9,	50.1,	29.6,	12.4,	5.1,
13	25.9,	51.0,	32.6,	8.1,	10.2,	14	25.9,	50.4,	35.8,	3.4,	15.1,
15	25.9,	48.3,	40.6,	-1.2,	19.4,	16	25.9,	44.7,	44.2,	-5.9,	23.2,
17	25.9,	39.7,	46.5,	-10.4,	26.3,	18	25.9,	33.5,	47.3,	-14.6,	28.6,
19	0.0,	0.0,	0.0,	0.0,	0.0,	20	0.0,	0.0,	0.0,	0.0,	0.0,
21	25.9,	29.6,	50.1,	-30.1,	27.2,	22	25.9,	32.6,	51.0,	-35.8,	24.3,
23	25.9,	35.8,	50.4,	-40.3,	21.4,	24	25.9,	40.6,	48.3,	-43.6,	19.1,
25	25.9,	44.2,	44.7,	-45.6,	16.2,	26	25.9,	46.5,	39.7,	-46.2,	12.9,
27	25.9,	47.3,	33.5,	-45.4,	9.1,	28	25.9,	46.7,	27.5,	-43.2,	5.1,
29	25.9,	47.6,	25.7,	-42.0,	0.2,	30	25.9,	50.1,	29.6,	-42.0,	-5.1,
31	25.9,	51.0,	32.6,	-40.6,	-10.2,	32	25.9,	50.4,	35.8,	-39.3,	-15.1,
33	25.9,	48.3,	40.6,	-39.4,	-19.4,	34	25.9,	44.7,	44.2,	-38.3,	-23.2,
35	25.9,	39.7,	46.5,	-36.1,	-26.3,	36	25.9,	33.5,	47.3,	-32.8,	-28.6,

SOURCE ID: P18

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	0.0,	0.0,	0.0,	0.0,	0.0,	2	0.0,	0.0,	0.0,	0.0,	0.0,
3	25.9,	29.6,	50.1,	-6.0,	-24.3,	4	25.9,	32.6,	51.0,	-2.0,	-19.0,
5	25.9,	35.8,	50.4,	2.0,	-13.9,	6	25.9,	40.6,	48.3,	5.9,	-9.6,
7	25.9,	44.2,	44.7,	9.7,	-5.0,	8	25.9,	46.5,	39.7,	13.2,	-0.3,
9	25.9,	47.3,	33.5,	16.3,	4.4,	10	25.9,	46.7,	27.5,	17.7,	9.0,
11	25.9,	47.6,	25.7,	15.9,	14.0,	12	25.9,	50.1,	29.6,	9.5,	19.0,
13	25.9,	51.0,	32.6,	2.8,	23.5,	14	25.9,	50.4,	35.8,	-4.0,	27.2,
15	25.9,	48.3,	40.6,	-10.7,	30.1,	16	25.9,	44.7,	44.2,	-17.1,	32.0,
17	0.0,	0.0,	0.0,	0.0,	0.0,	18	0.0,	0.0,	0.0,	0.0,	0.0,

19	0.0,	0.0,	0.0,	0.0,	0.0,	20	0.0,	0.0,	0.0,	0.0,	0.0,
21	25.9,	29.6,	50.1,	-44.1,	24.3,	22	25.9,	32.6,	51.0,	-49.0,	19.0,
23	25.9,	35.8,	50.4,	-52.4,	13.9,	24	25.9,	40.6,	48.3,	-54.2,	9.6,
25	25.9,	44.2,	44.7,	-54.4,	5.0,	26	25.9,	46.5,	39.7,	-52.9,	0.3,
27	25.9,	47.3,	33.5,	-49.8,	-4.4,	28	25.9,	46.7,	27.5,	-45.2,	-9.0,
29	25.9,	47.6,	25.7,	-41.6,	-14.0,	30	25.9,	50.1,	29.6,	-39.0,	-19.0,
31	25.9,	51.0,	32.6,	-35.3,	-23.5,	32	25.9,	50.4,	35.8,	-31.8,	-27.2,
33	25.9,	48.3,	40.6,	-29.9,	-30.1,	34	25.9,	44.7,	44.2,	-27.1,	-32.0,
35	0.0,	0.0,	0.0,	0.0,	0.0,	36	0.0,	0.0,	0.0,	0.0,	0.0,

SOURCE ID: S16

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	15.2,	149.1,	151.2,	-84.5,	-19.6,	2	15.2,	148.1,	157.4,	-76.9,	-15.5,
3	15.2,	158.1,	168.6,	-75.2,	-15.8,	4	15.2,	163.4,	178.5,	-75.0,	-15.7,
5	15.2,	163.7,	183.0,	-72.6,	-15.0,	6	15.2,	101.8,	104.8,	9.2,	-42.6,
7	15.2,	111.7,	92.3,	21.8,	-31.4,	8	15.2,	150.3,	163.3,	-52.5,	-18.0,
9	15.2,	144.3,	156.5,	-52.4,	-18.1,	10	15.2,	151.2,	149.1,	-55.0,	-8.9,
11	15.2,	157.4,	148.1,	-58.6,	1.8,	12	15.2,	168.6,	158.1,	-63.3,	9.1,
13	15.2,	120.0,	73.0,	24.3,	43.5,	14	15.2,	114.1,	88.8,	8.2,	53.4,
15	15.2,	181.9,	159.1,	-65.6,	23.1,	16	15.2,	175.2,	155.6,	-62.3,	26.5,
17	15.2,	163.3,	150.3,	-57.2,	29.1,	18	15.2,	156.5,	144.3,	-54.1,	25.8,
19	15.2,	149.1,	151.2,	-66.6,	19.6,	20	15.2,	148.1,	157.4,	-80.5,	15.5,
21	15.2,	158.1,	168.6,	-93.4,	15.8,	22	15.2,	163.4,	178.5,	-103.5,	15.7,
23	15.2,	163.7,	183.0,	-110.4,	15.0,	24	15.2,	101.8,	104.8,	-114.0,	42.6,
25	15.2,	111.7,	92.3,	-114.1,	31.4,	26	15.2,	118.2,	77.0,	-110.8,	19.2,
27	15.2,	121.1,	59.3,	-104.1,	6.5,	28	15.2,	120.4,	39.9,	-94.2,	-6.5,
29	15.2,	120.7,	35.5,	-89.5,	-20.1,	30	15.2,	122.2,	55.1,	-94.9,	-32.3,
31	15.2,	120.0,	73.0,	-97.4,	-43.5,	32	15.2,	114.1,	88.8,	-96.9,	-53.4,
33	15.2,	181.9,	159.1,	-93.5,	-23.1,	34	15.2,	175.2,	155.6,	-93.3,	-26.5,
35	15.2,	163.3,	150.3,	-93.2,	-29.1,	36	15.2,	156.5,	144.3,	-90.2,	-25.8,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\HRSA\0 Tools\AERMOD_met_inputs\OAKLAND_STP_2009_2013.SFC Met Version: 14134
Profile file: C:\HRSA\0 Tools\AERMOD_met_inputs\OAKLAND_STP_2009_2013.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 23230 Upper air station no.: 23230
Name: UNKNOWN Name: UNKNOWN
Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	02	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	03	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	04	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	06	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	07	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	08	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	09	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.38	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	10	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.25	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	11	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.20	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	12	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.19	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	13	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.18	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	14	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.19	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	15	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.22	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	16	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.31	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	17	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.54	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	18	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	21	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	23	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	24	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
09	01	01	01	9.7	0	-999.	-99.00	-999.0	999.0	-99.00	-99.00
09	01	01	01	16.3	1	-999.	-99.00	-999.0	999.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): S11 , S131 , S132 , P17 , P18 ,
FUG1 , FUG2 , FUG3 , S16 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)		X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
562869.00	4183581.00	765.55393	(13100603)		562919.00	4183581.00	653.37212	(13010801)
562969.00	4183581.00	541.91546	(12102807)		563019.00	4183581.00	450.15115	(10021801)
563069.00	4183581.00	413.55861	(11101124)		562069.00	4183631.00	250.15017	(11110804)
562119.00	4183631.00	301.17232	(11110804)		562169.00	4183631.00	349.34838	(11110804)
562219.00	4183631.00	382.21504	(11110804)		562269.00	4183631.00	418.80341	(12021005)
562319.00	4183631.00	512.29347	(11121524)		562369.00	4183631.00	725.39430	(11121803)
562419.00	4183631.00	856.26026	(13112901)		562769.00	4183631.00	1815.45270	(13123003)
562819.00	4183631.00	1217.80960	(13010801)		562869.00	4183631.00	897.29650	(10021801)
562919.00	4183631.00	719.02893	(11101124)		562969.00	4183631.00	546.35506	(12100202)
563019.00	4183631.00	435.23785	(12100202)		563069.00	4183631.00	364.88428	(09092101)
562069.00	4183681.00	268.54841	(11110804)		562119.00	4183681.00	283.19740	(11110804)
562169.00	4183681.00	304.12300	(12021005)		562219.00	4183681.00	346.90200	(11121524)
562269.00	4183681.00	393.94872	(13112902)		562319.00	4183681.00	545.02242	(11121803)
562369.00	4183681.00	603.00259	(13112901)		562419.00	4183681.00	671.01060	(12011902)
562469.00	4183681.00	594.03386	(10122523)		562851.20	4183629.00	1001.36616	(12102807)
562769.00	4183681.00	2030.15064	(10121504)		562819.00	4183681.00	1141.49750	(10121504)
562869.00	4183681.00	722.87952	(09092101)		562919.00	4183681.00	530.24539	(09092101)
562969.00	4183681.00	404.53084	(09092101)		563019.00	4183681.00	335.95698	(12011222)
563069.00	4183681.00	303.81684	(12011222)		562069.00	4183731.00	239.05581	(12021005)
562119.00	4183731.00	252.48498	(12021005)		562169.00	4183731.00	293.03174	(12121402)
562219.00	4183731.00	342.21698	(11121803)		562269.00	4183731.00	434.31119	(11121803)
562319.00	4183731.00	455.61497	(13120523)		562369.00	4183731.00	503.48880	(12011902)
562419.00	4183731.00	529.24605	(10122522)		562469.00	4183731.00	472.58279	(11091004)
562696.53	4183639.38	3705.08343	(12042104)	1-Hr PMI	562785.70	4183628.00	1467.41972	(13010723)
562719.00	4183731.00	1538.21308	(13011716)		562769.00	4183731.00	889.29207	(13011816)
562819.00	4183731.00	556.63784	(09050622)		562869.00	4183731.00	488.79798	(10120404)
562919.00	4183731.00	441.34790	(10120404)		562969.00	4183731.00	396.65120	(10120404)
563019.00	4183731.00	353.76618	(12020304)		563069.00	4183731.00	316.12642	(12020304)
562069.00	4183781.00	225.98423	(12121402)		562119.00	4183781.00	254.66446	(12121402)
562169.00	4183781.00	300.32094	(11121803)		562219.00	4183781.00	361.32996	(11121803)
562269.00	4183781.00	374.94377	(13120523)		562319.00	4183781.00	425.41711	(13112901)
562369.00	4183781.00	433.45938	(12011902)		562419.00	4183781.00	402.41207	(10122522)
562469.00	4183781.00	394.41646	(13090702)		562519.00	4183781.00	439.14647	(13090702)
562569.00	4183781.00	537.18626	(13083101)		562619.00	4183781.00	657.65460	(13112901)
562669.00	4183781.00	846.64095	(13090407)		562719.00	4183781.00	899.19668	(12010104)
562769.00	4183781.00	599.93907	(10120623)		562819.00	4183781.00	494.72052	(13082619)
562869.00	4183781.00	450.48143	(13082619)		562919.00	4183781.00	393.30385	(09050622)
562969.00	4183781.00	362.25316	(09050622)		563019.00	4183781.00	346.85246	(12020304)
563069.00	4183781.00	331.46212	(12020304)		562069.00	4183831.00	223.46048	(12121402)
562119.00	4183831.00	266.17740	(11121803)		562169.00	4183831.00	309.86513	(11121803)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** THE SUMMARY OF HIGHEST 1-HR RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID			AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)					OF TYPE	NETWORK GRID-ID
ALL	HIGH	1ST HIGH VALUE IS	3705.08343	ON 12042104: AT (	562696.53,	4183639.38,	2.62,	2.62,	1.50)	DC	
S11	HIGH	1ST HIGH VALUE IS	152.42603	ON 12100123: AT (	562469.00,	4183781.00,	3.00,	3.00,	1.50)	DC	
S131	HIGH	1ST HIGH VALUE IS	1386.27561	ON 13110201: AT (	562769.00,	4183531.00,	2.33,	2.33,	1.50)	DC	
S132	HIGH	1ST HIGH VALUE IS	3569.97128	ON 12042104: AT (	562696.53,	4183639.38,	2.62,	2.62,	1.50)	DC	
P17	HIGH	1ST HIGH VALUE IS	34.63323	ON 10092011: AT (	562719.00,	4183431.00,	1.93,	1.93,	1.50)	DC	
P18	HIGH	1ST HIGH VALUE IS	34.43423	ON 10092812: AT (	562719.00,	4183331.00,	1.82,	1.82,	1.50)	DC	
FUG1	HIGH	1ST HIGH VALUE IS	812.89388	ON 13010801: AT (	562719.00,	4183381.00,	1.83,	1.83,	1.50)	DC	
FUG2	HIGH	1ST HIGH VALUE IS	670.51897	ON 12102807: AT (	562719.00,	4183431.00,	1.93,	1.93,	1.50)	DC	
FUG3	HIGH	1ST HIGH VALUE IS	636.21658	ON 10110102: AT (	562419.00,	4183481.00,	2.22,	2.22,	1.50)	DC	
S16	HIGH	1ST HIGH VALUE IS	306.19409	ON 10010906: AT (	562719.00,	4183731.00,	3.17,	3.17,	1.50)	DC	
FUG	HIGH	1ST HIGH VALUE IS	1560.12136	ON 11101124: AT (	562719.00,	4183431.00,	1.93,	1.93,	1.50)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 15 Warning Message(s)
A Total of 1760 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 6 Calm Hours Identified

A Total of 1754 Missing Hours Identified (4.00 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********

```
SO W320     134        PPARM: Input Parameter May Be Out-of-Range for Parameter            VS
MX W403     972       PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data
MX W403     973       PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data
MX W441   22927        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081407
MX W441   22928        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081408
MX W441   22929        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081409
MX W441   22930        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081410
MX W441   22931        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081411
MX W441   22932        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081412
MX W441   22933        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081413
MX W441   22934        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081414
MX W441   22935        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081415
MX W441   22936        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081416
MX W441   22937        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081417
MX W441   22938        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081418
```

****
*** AERMOD Finishes Successfully ***
****

```
**BEE-Line Software:  (Version 12.07) data input file
**  Model: AERMOD.EXE     Input File Creation Date: 2/22/2024  Time: 4:16:15 PM
NO ECHO




 ************************************
 *** SETUP Finishes Successfully ***
 ************************************
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** MODEL SETUP OPTIONS SUMMARY ***

- - - -

```
                Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =   0.10000E+07
                Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      3.6 MB of RAM.

**Input Runstream File:          C:\HRSA\P208 AN30009\MASTERlead25_2009-2013_Ld.DTA
**Output Print File:             C:\HRSA\P208 AN30009\MASTERlead25_2009-2013_Ld.LST

**File for Summary of Results:   C:\HRSA\P208 AN30009\MASTERlead25_2009-2013_Ld.SUM
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR	EMIS RATE SCALAR VARY BY
S11	0	0.10300E-06	562569.4	4183631.4	2.5	18.29	294.26	23.80	2.75	YES	YES	NO	
P17	0	0.20200E-03	562481.1	4183495.2	2.3	25.91	314.26	26.19	1.37	YES	YES	NO	
P18	0	0.20200E-03	562476.6	4183481.6	2.3	25.91	314.26	26.19	1.37	YES	YES	NO	

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
S131	0	0.10900E-05	562648.8	4183581.6	2.4	3.05	0.83	7.09	YES	
S132	0	0.10900E-05	562682.1	4183696.0	2.9	3.05	0.83	7.09	YES	
FUG1	0	0.70700E-05	562515.4	4183478.8	2.0	1.22	0.67	12.05	YES	
FUG2	0	0.70700E-05	562522.6	4183504.9	2.1	2.90	0.73	12.05	YES	
FUG3	0	0.70700E-05	562515.7	4183506.9	2.1	12.80	0.36	12.05	YES	

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	S11 , S131 , S132 , P17 , P18 , FUG1 , FUG2 , FUG3 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	390724.	S11 , S131 , S132 , P17 , P18 , FUG1 , FUG2 , FUG3 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: S11

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	15.2,	149.1,	151.2,	-66.5,	-29.5,	2	15.2,	148.1,	157.4,	-57.4,	-22.1,
3	15.2,	158.1,	168.6,	-54.9,	-18.9,	4	15.2,	163.4,	178.5,	-54.5,	-15.2,
5	15.2,	88.8,	114.1,	16.4,	-48.5,	6	15.2,	101.8,	104.8,	28.4,	-35.1,
7	15.2,	155.6,	175.2,	-43.6,	-4.8,	8	15.2,	150.3,	163.3,	-37.1,	-4.4,
9	15.2,	144.3,	156.5,	-39.6,	-2.0,	10	15.2,	151.2,	149.1,	-45.1,	9.1,
11	15.2,	157.4,	148.1,	-52.0,	21.3,	12	15.2,	168.6,	158.1,	-60.2,	29.4,
13	15.2,	120.0,	73.0,	23.9,	64.0,	14	15.2,	183.0,	163.7,	-70.8,	39.1,
15	15.2,	181.9,	159.1,	-73.0,	42.2,	16	15.2,	175.2,	155.6,	-73.0,	44.0,
17	15.2,	163.3,	150.3,	-70.7,	44.5,	18	15.2,	156.5,	144.3,	-70.1,	38.7,
19	15.2,	149.1,	151.2,	-84.7,	29.5,	20	15.2,	148.1,	157.4,	-99.9,	22.1,
21	15.2,	158.1,	168.6,	-113.7,	18.9,	22	15.2,	163.4,	178.5,	-124.0,	15.2,
23	15.2,	88.8,	114.1,	-130.6,	48.5,	24	15.2,	101.8,	104.8,	-133.1,	35.1,
25	15.2,	111.7,	92.3,	-131.7,	20.7,	26	15.2,	118.2,	77.0,	-126.2,	5.7,
27	15.2,	121.1,	59.3,	-116.9,	-9.5,	28	15.2,	120.4,	39.9,	-104.0,	-24.5,
29	15.2,	120.7,	35.5,	-96.1,	-39.6,	30	15.2,	122.2,	55.1,	-98.0,	-52.6,
31	15.2,	120.0,	73.0,	-96.9,	-64.0,	32	15.2,	183.0,	163.7,	-92.9,	-39.1,
33	15.2,	181.9,	159.1,	-86.0,	-42.2,	34	15.2,	175.2,	155.6,	-82.6,	-44.0,
35	15.2,	163.3,	150.3,	-79.6,	-44.5,	36	15.2,	156.5,	144.3,	-74.2,	-38.7,

SOURCE ID: P17

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	0.0,	0.0,	0.0,	0.0,	0.0,	2	0.0,	0.0,	0.0,	0.0,	0.0,
3	25.9,	29.6,	50.1,	-19.9,	-27.2,	4	25.9,	32.6,	51.0,	-15.3,	-24.3,
5	25.9,	35.8,	50.4,	-10.1,	-21.4,	6	25.9,	40.6,	48.3,	-4.7,	-19.1,
7	25.9,	44.2,	44.7,	0.9,	-16.2,	8	25.9,	46.5,	39.7,	6.5,	-12.9,
9	25.9,	47.3,	33.5,	11.8,	-9.1,	10	25.9,	46.7,	27.5,	15.7,	-5.1,
11	25.9,	47.6,	25.7,	16.4,	-0.2,	12	25.9,	50.1,	29.6,	12.4,	5.1,
13	25.9,	51.0,	32.6,	8.1,	10.2,	14	25.9,	50.4,	35.8,	3.4,	15.1,
15	25.9,	48.3,	40.6,	-1.2,	19.4,	16	25.9,	44.7,	44.2,	-5.9,	23.2,
17	25.9,	39.7,	46.5,	-10.4,	26.3,	18	25.9,	33.5,	47.3,	-14.6,	28.6,
19	0.0,	0.0,	0.0,	0.0,	0.0,	20	0.0,	0.0,	0.0,	0.0,	0.0,
21	25.9,	29.6,	50.1,	-30.1,	27.2,	22	25.9,	32.6,	51.0,	-35.8,	24.3,
23	25.9,	35.8,	50.4,	-40.3,	21.4,	24	25.9,	40.6,	48.3,	-43.6,	19.1,
25	25.9,	44.2,	44.7,	-45.6,	16.2,	26	25.9,	46.5,	39.7,	-46.2,	12.9,
27	25.9,	47.3,	33.5,	-45.4,	9.1,	28	25.9,	46.7,	27.5,	-43.2,	5.1,
29	25.9,	47.6,	25.7,	-42.0,	0.2,	30	25.9,	50.1,	29.6,	-42.0,	-5.1,
31	25.9,	51.0,	32.6,	-40.6,	-10.2,	32	25.9,	50.4,	35.8,	-39.3,	-15.1,
33	25.9,	48.3,	40.6,	-39.4,	-19.4,	34	25.9,	44.7,	44.2,	-38.3,	-23.2,
35	25.9,	39.7,	46.5,	-36.1,	-26.3,	36	25.9,	33.5,	47.3,	-32.8,	-28.6,

SOURCE ID: P18

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	0.0,	0.0,	0.0,	0.0,	0.0,	2	0.0,	0.0,	0.0,	0.0,	0.0,
3	25.9,	29.6,	50.1,	-6.0,	-24.3,	4	25.9,	32.6,	51.0,	-2.0,	-19.0,
5	25.9,	35.8,	50.4,	2.0,	-13.9,	6	25.9,	40.6,	48.3,	5.9,	-9.6,
7	25.9,	44.2,	44.7,	9.7,	-5.0,	8	25.9,	46.5,	39.7,	13.2,	-0.3,
9	25.9,	47.3,	33.5,	16.3,	4.4,	10	25.9,	46.7,	27.5,	17.7,	9.0,
11	25.9,	47.6,	25.7,	15.9,	14.0,	12	25.9,	50.1,	29.6,	9.5,	19.0,
13	25.9,	51.0,	32.6,	2.8,	23.5,	14	25.9,	50.4,	35.8,	-4.0,	27.2,
15	25.9,	48.3,	40.6,	-10.7,	30.1,	16	25.9,	44.7,	44.2,	-17.1,	32.0,
17	0.0,	0.0,	0.0,	0.0,	0.0,	18	0.0,	0.0,	0.0,	0.0,	0.0,

19	0.0,	0.0,	0.0,	0.0,	0.0,	20	0.0,	0.0,	0.0,	0.0,	0.0,
21	25.9,	29.6,	50.1,	-44.1,	24.3,	22	25.9,	32.6,	51.0,	-49.0,	19.0,
23	25.9,	35.8,	50.4,	-52.4,	13.9,	24	25.9,	40.6,	48.3,	-54.2,	9.6,
25	25.9,	44.2,	44.7,	-54.4,	5.0,	26	25.9,	46.5,	39.7,	-52.9,	0.3,
27	25.9,	47.3,	33.5,	-49.8,	-4.4,	28	25.9,	46.7,	27.5,	-45.2,	-9.0,
29	25.9,	47.6,	25.7,	-41.6,	-14.0,	30	25.9,	50.1,	29.6,	-39.0,	-19.0,
31	25.9,	51.0,	32.6,	-35.3,	-23.5,	32	25.9,	50.4,	35.8,	-31.8,	-27.2,
33	25.9,	48.3,	40.6,	-29.9,	-30.1,	34	25.9,	44.7,	44.2,	-27.1,	-32.0,
35	0.0,	0.0,	0.0,	0.0,	0.0,	36	0.0,	0.0,	0.0,	0.0,	0.0,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: C:\HRSA\0 Tools\AERMOD_met_inputs\OAKLAND_STP_2009_2013.SFC Met Version: 14134
Profile file: C:\HRSA\0 Tools\AERMOD_met_inputs\OAKLAND_STP_2009_2013.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 23230 Upper air station no.: 23230
Name: UNKNOWN Name: UNKNOWN
Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	02	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	03	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	04	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	06	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	07	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	08	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	09	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.38	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	10	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.25	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	11	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.20	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	12	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.19	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	13	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.18	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	14	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.19	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	15	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.22	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	16	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.31	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	17	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	0.54	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	18	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	21	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	22	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	23	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0
09	01	01	1	24	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.11	0.75	1.00	999.00	999.	-9.0	999.0	-9.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
09	01	01	01	9.7	0	-999.	-99.00	-999.0	999.0	-99.00	-99.00
09	01	01	01	16.3	1	-999.	-99.00	-999.0	999.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** THE 1ST HIGHEST MONTH AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): S11 , S131 , S132 , P17 , P18 ,
FUG1 , FUG2 , FUG3 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER_1 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)		X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
562069.00	4183331.00	0.00030m	(09123124)		562119.00	4183331.00	0.00032m	(09123124)
562169.00	4183331.00	0.00034m	(09123124)		562219.00	4183331.00	0.00034m	(09123124)
562719.00	4183331.00	0.00148m	(13103124)		562769.00	4183331.00	0.00143m	(13103124)
562819.00	4183331.00	0.00156	(13073124)		562869.00	4183331.00	0.00160	(13073124)
562919.00	4183331.00	0.00153	(13073124)		562969.00	4183331.00	0.00138	(13073124)
563019.00	4183331.00	0.00122m	(12093024)		563517.40	4183296.50	0.00038m	(12093024)
562069.00	4183381.00	0.00029m	(09123124)		562119.00	4183381.00	0.00033m	(09123124)
562169.00	4183381.00	0.00038m	(09123124)		562219.00	4183381.00	0.00043m	(09123124)
562269.00	4183381.00	0.00047m	(09123124)		562719.00	4183381.00	0.00224	(13073124)
562769.00	4183381.00	0.00233	(13073124)		562819.00	4183381.00	0.00215	(13073124)
562869.00	4183381.00	0.00188m	(12093024)		562919.00	4183381.00	0.00162m	(12093024)
562969.00	4183381.00	0.00136m	(12093024)		563019.00	4183381.00	0.00113m	(12093024)
563069.00	4183381.00	0.00097b	(11093024)		562069.00	4183431.00	0.00024m	(09123124)
562119.00	4183431.00	0.00028m	(09123124)		562169.00	4183431.00	0.00033m	(09123124)
562219.00	4183431.00	0.00041m	(09123124)		562269.00	4183431.00	0.00051m	(09123124)
562319.00	4183431.00	0.00065m	(09123124)		562369.00	4183431.00	0.00082m	(09123124)
562719.00	4183431.00	0.00274m	(12093024)	1-month lead	562769.00	4183431.00	0.00227m	(12093024)
562819.00	4183431.00	0.00184	(10073124)		562869.00	4183431.00	0.00156	(10073124)
562919.00	4183431.00	0.00132	(10073124)		562969.00	4183431.00	0.00113	(10073124)
563019.00	4183431.00	0.00097	(10073124)		563069.00	4183431.00	0.00084	(10073124)
562069.00	4183481.00	0.00020	(13123124)		562119.00	4183481.00	0.00023	(13123124)
562169.00	4183481.00	0.00026	(13123124)		562219.00	4183481.00	0.00032m	(09123124)
562269.00	4183481.00	0.00040m	(09123124)		562319.00	4183481.00	0.00054m	(09123124)
562369.00	4183481.00	0.00077m	(09123124)		562419.00	4183481.00	0.00124m	(09123124)
562769.00	4183481.00	0.00160	(10073124)		562819.00	4183481.00	0.00137	(10073124)
562869.00	4183481.00	0.00118	(10073124)		562919.00	4183481.00	0.00102m	(11043024)
562969.00	4183481.00	0.00090m	(11043024)		563019.00	4183481.00	0.00079m	(11043024)
563069.00	4183481.00	0.00069m	(11043024)		562069.00	4183531.00	0.00020	(13123124)
562119.00	4183531.00	0.00023	(13123124)		562169.00	4183531.00	0.00026	(13123124)
562219.00	4183531.00	0.00032	(13123124)		562269.00	4183531.00	0.00040	(13123124)
562319.00	4183531.00	0.00052	(13123124)		562369.00	4183531.00	0.00073	(13123124)
562419.00	4183531.00	0.00118	(13123124)		562769.00	4183531.00	0.00166c	(09063024)
562819.00	4183531.00	0.00142	(11053124)		562869.00	4183531.00	0.00123	(11053124)
562919.00	4183531.00	0.00107	(11053124)		562969.00	4183531.00	0.00095	(11053124)
563019.00	4183531.00	0.00083	(11053124)		563069.00	4183531.00	0.00073	(11053124)
562069.00	4183581.00	0.00020	(13123124)		562119.00	4183581.00	0.00022	(13123124)
562169.00	4183581.00	0.00026	(13123124)		562219.00	4183581.00	0.00031	(13123124)
562269.00	4183581.00	0.00039	(13123124)		562319.00	4183581.00	0.00052	(13123124)
562369.00	4183581.00	0.00085m	(10013124)		562419.00	4183581.00	0.00146m	(10013124)
562769.00	4183581.00	0.00180c	(09063024)		562819.00	4183581.00	0.00151c	(09063024)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** THE SUMMARY OF HIGHEST MONTH RESULTS ***

** CONC OF OTHER_1 IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	HIGH 1ST HIGH VALUE IS	0.00274m	ON 12093024:	AT (562719.00, 4183431.00, 1.93, 1.93, 1.50)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL NODRYDPLT NOWETDPLT URBAN

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 14 Warning Message(s)
A Total of 1760 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 6 Calm Hours Identified

A Total of 1754 Missing Hours Identified (4.00 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********

```
MX W403     972       PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data
MX W403     973       PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data
MX W441   22927        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081407
MX W441   22928        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081408
MX W441   22929        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081409
MX W441   22930        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081410
MX W441   22931        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081411
MX W441   22932        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081412
MX W441   22933        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081413
MX W441   22934        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081414
MX W441   22935        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081415
MX W441   22936        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081416
MX W441   22937        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081417
MX W441   22938        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=     11081418
```

****
*** AERMOD Finishes Successfully ***
****

Post-project HARP2 Summary

HARP Project Summary Report 2/22/2024 3:26:17 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: PostRTOPte
Project Output Directory: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:294
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
P17	0	0	75070	Acetaldehyde	1	68.4	0.038	1
P17	0	0	107131	Acrylonitrile	1	3.78	0.0021	1
P17	0	0	107051	AllylChlor	1	2.88	0.0016	1
P17	0	0	7440382	Arsenic	1	0.0954	5.3E-05	1
P17	0	0	71432	Benzene	1	25.2	0.014	1
P17	0	0	100447	Benzyl Chloride	1	0.522	0.00029	1
P17	0	0	7440417	Beryllium	1	0.00378	2.1E-06	1
P17	0	0	106990	1,3-Butadiene	1	1.008	0.00056	1
P17	0	0	7440439	Cadmium	1	0.396	0.00022	1
P17	0	0	75150	CS2	1	7.38	0.0041	1
P17	0	0	56235	CCl4	1	4.14	0.0023	1
P17	0	0	108907	Chlorobenzn	1	2.88	0.0016	1
P17	0	0	75003	Ethyl Chloride	1	1.782	0.00099	1
P17	0	0	67663	Chloroform	1	11.34	0.0063	1
P17	0	0	18540299	Cr(VI)	1	0.09	5E-05	1
P17	0	0	7440484	Cobalt	1	0.0504	2.8E-05	1
P17	0	0	7440508	Copper	1	0.27	0.00015	1
P17	0	0	106934	EDB	1	5.4	0.003	1
P17	0	0	106467	p-DiClBenzene	1	3.96	0.0022	1
P17	0	0	75343	1,1-DiClEthane	1	2.7	0.0015	1
P17	0	0	107062	EDC	1	2.7	0.0015	1
P17	0	0	75354	Vinylid Chlorid	1	2.52	0.0014	1
P17	0	0	123911	1,4-Dioxane	1	3.24	0.0018	1
P17	0	0	1086	Dioxins-w/o	1	1.8E-05	1E-08	1
P17	0	0	100414	Ethyl Benzene	1	39.6	0.022	1
P17	0	0	50000	Formaldehyde	1	16.74	0.0093	1
P17	0	0	110543	Hexane	1	77.4	0.043	1
P17	0	0	7647010	HCl	1	216	0.12	1
P17	0	0	7664393	HF	1	216	0.12	1
P17	0	0	67630	Isopropyl Alcoh	1	25.2	0.014	1
P17	0	0	7439921	Lead	1	2.88	0.0016	1
P17	0	0	7439965	Manganese	1	1.026	0.00057	1
P17	0	0	7439976	Mercury	1	3.06	0.0017	1
P17	0	0	67561	Methanol	1	13.32	0.0074	1
P17	0	0	74839	Methyl Bromide	1	1.746	0.00097	1
P17	0	0	78933	MEK	1	7.02	0.0039	1

P17	0	0	1634044	Me t-ButylEther	1	2.34	0.0013	1
P17	0	0	75092	Methylene Chlor	1	8.46	0.0047	1
P17	0	0	91203	Naphthalene	1	2.7	0.0015	1
P17	0	0	7440020	Nickel	1	0.432	0.00024	1
P17	0	0	1151	PAHs-w/o	1	1.422	0.00079	1
P17	0	0	1336363	PCBs	1	0.972	0.00054	1
P17	0	0	127184	Perc	1	4.5	0.0025	1
P17	0	0	115071	Propylene	1	6.66	0.0037	1
P17	0	0	7782492	Selenium	1	0.0432	2.4E-05	1
P17	0	0	100425	Styrene	1	4.86	0.0027	1
P17	0	0	79345	TetraClEthane	1	4.5	0.0025	1
P17	0	0	108883	Toluene	1	216	0.12	1
P17	0	0	71556	1,1,1-TCA	1	3.42	0.0019	1
P17	0	0	79005	1,1,2TriClEthan	1	3.42	0.0019	1
P17	0	0	79016	TCE	1	3.42	0.0019	1
P17	0	0	7440622	Vanadium	1	0.171	9.5E-05	1
P17	0	0	108054	Vinyl Acetate	1	4.5	0.0025	1
P17	0	0	75014	Vinyl Chloride	1	1.674	0.00093	1
P17	0	0	1330207	Xylenes	1	216	0.12	1
P18	0	0	75070	Acetaldehyde	1	68.4	0.038	1
P18	0	0	107131	Acrylonitrile	1	3.78	0.0021	1
P18	0	0	107051	AllylChlor	1	2.88	0.0016	1
P18	0	0	7440382	Arsenic	1	0.0954	5.3E-05	1
P18	0	0	71432	Benzene	1	25.2	0.014	1
P18	0	0	100447	Benzyl Chloride	1	0.522	0.00029	1
P18	0	0	7440417	Beryllium	1	0.00378	2.1E-06	1
P18	0	0	106990	1,3-Butadiene	1	1.008	0.00056	1
P18	0	0	7440439	Cadmium	1	0.396	0.00022	1
P18	0	0	75150	CS2	1	7.38	0.0041	1
P18	0	0	56235	CCl4	1	4.14	0.0023	1
P18	0	0	108907	Chlorobenzn	1	2.88	0.0016	1
P18	0	0	75003	Ethyl Chloride	1	1.782	0.00099	1
P18	0	0	67663	Chloroform	1	11.34	0.0063	1
P18	0	0	18540299	Cr(VI)	1	0.09	5E-05	1
P18	0	0	7440484	Cobalt	1	0.0504	2.8E-05	1
P18	0	0	7440508	Copper	1	0.27	0.00015	1
P18	0	0	106934	EDB	1	5.4	0.003	1
P18	0	0	106467	p-DiClBenzene	1	3.96	0.0022	1
P18	0	0	75343	1,1-DiClEthane	1	2.7	0.0015	1
P18	0	0	107062	EDC	1	2.7	0.0015	1
P18	0	0	75354	Vinylid Chlorid	1	2.52	0.0014	1
P18	0	0	123911	1,4-Dioxane	1	3.24	0.0018	1
P18	0	0	1086	Dioxins-w/o	1	1.8E-05	1E-08	1
P18	0	0	100414	Ethyl Benzene	1	39.6	0.022	1
P18	0	0	50000	Formaldehyde	1	16.74	0.0093	1
P18	0	0	110543	Hexane	1	77.4	0.043	1
P18	0	0	7647010	HCl	1	216	0.12	1
P18	0	0	7664393	HF	1	216	0.12	1
P18	0	0	67630	Isopropyl Alcoh	1	25.2	0.014	1
P18	0	0	7439921	Lead	1	2.88	0.0016	1
P18	0	0	7439965	Manganese	1	1.026	0.00057	1
P18	0	0	7439976	Mercury	1	3.06	0.0017	1

P18	0	0	67561	Methanol	1	13.32	0.0074	1
P18	0	0	74839	Methyl Bromide	1	1.746	0.00097	1
P18	0	0	78933	MEK	1	7.02	0.0039	1
P18	0	0	1634044	Me t-ButylEther	1	2.34	0.0013	1
P18	0	0	75092	Methylene Chlor	1	8.46	0.0047	1
P18	0	0	91203	Naphthalene	1	2.7	0.0015	1
P18	0	0	7440020	Nickel	1	0.432	0.00024	1
P18	0	0	1151	PAHs-w/o	1	1.422	0.00079	1
P18	0	0	1336363	PCBs	1	0.972	0.00054	1
P18	0	0	127184	Perc	1	4.5	0.0025	1
P18	0	0	115071	Propylene	1	6.66	0.0037	1
P18	0	0	7782492	Selenium	1	0.0432	2.4E-05	1
P18	0	0	100425	Styrene	1	4.86	0.0027	1
P18	0	0	79345	TetraClEthane	1	4.5	0.0025	1
P18	0	0	108883	Toluene	1	216	0.12	1
P18	0	0	71556	1,1,1-TCA	1	3.42	0.0019	1
P18	0	0	79005	1,1,2TriClEthan	1	3.42	0.0019	1
P18	0	0	79016	TCE	1	3.42	0.0019	1
P18	0	0	7440622	Vanadium	1	0.171	9.5E-05	1
P18	0	0	108054	Vinyl Acetate	1	4.5	0.0025	1
P18	0	0	75014	Vinyl Chloride	1	1.674	0.00093	1
P18	0	0	1330207	Xylenes	1	216	0.12	1
FUG1	0	0	75070	Acetaldehyde	1	0	0	1
FUG1	0	0	107131	Acrylonitrile	1	0.96	0.001111875	1
FUG1	0	0	107051	AllylChlor	1	0.062305203	3.46E-05	1
FUG1	0	0	7440382	Arsenic	1	0.0144	1.86E-05	1
FUG1	0	0	71432	Benzene	1	48	0.035571688	1
FUG1	0	0	100447	Benzyl Chloride	1	0.508876422	0.000508167	1
FUG1	0	0	7440417	Beryllium	1	0.001203158	7.37E-07	1
FUG1	0	0	106990	1,3-Butadiene	1	0.96	0.00056066	1
FUG1	0	0	7440439	Cadmium	1	0.144	7.72E-06	1
FUG1	0	0	75150	CS2	1	0.580542079	0.000744501	1
FUG1	0	0	56235	CCl4	1	0.628857742	0.000629159	1
FUG1	0	0	108907	Chlorobenzn	1	0.459612218	0.00045977	1
FUG1	0	0	75003	Ethyl Chloride	1	0.307203432	0.00031216	1
FUG1	0	0	67663	Chloroform	1	0.49505627	0.000496068	1
FUG1	0	0	18540299	Cr(VI)	1	0.048	4.42E-06	1
FUG1	0	0	7440484	Cobalt	1	0.0096	9.82E-06	1
FUG1	0	0	7440508	Copper	1	0.049357895	5.26E-05	1
FUG1	0	0	106934	EDB	1	0.751607143	0.000750151	1
FUG1	0	0	106467	p-DiClBenzene	1	1.778025109	0.002300454	1
FUG1	0	0	75343	1,1-DiClEthane	1	0.401807546	0.000401694	1
FUG1	0	0	107062	EDC	1	0.816724348	0.000933492	1
FUG1	0	0	75354	Vinylid Chlorid	1	0.863652261	0.001017248	1
FUG1	0	0	123911	1,4-Dioxane	1	0.720704514	0.000887021	1
FUG1	0	0	1086	Dioxins-w/o	1	0	0	1
FUG1	0	0	100414	Ethyl Benzene	1	96	0.081064731	1
FUG1	0	0	50000	Formaldehyde	1	0	0	1
FUG1	0	0	110543	Hexane	1	88.36968323	0.083000605	1
FUG1	0	0	7647010	HCl	1	0	0	1
FUG1	0	0	7664393	HF	1	0	0	1
FUG1	0	0	67630	Isopropyl Alcoh	1	28.06590635	0.061947973	1

FUG1	0	0	7439921	Lead	1	1.2	5.61404E-05	1
FUG1	0	0	7439965	Manganese	1	0.268105263	0.0002	1
FUG1	0	0	7439976	Mercury	1	1.054736842	0.000596491	1
FUG1	0	0	67561	Methanol	1	16.70591829	0.018622991	1
FUG1	0	0	74839	Methyl Bromide	1	2.542105263	0.001701754	1
FUG1	0	0	78933	MEK	1	13.74142597	0.013021211	1
FUG1	0	0	1634044	Me t-ButylEther	1	0.356027875	0.000355717	1
FUG1	0	0	75092	Methylene Chlor	1	13.66300128	0.016571236	1
FUG1	0	0	91203	Naphthalene	1	4.8	0.002631579	1
FUG1	0	0	7440020	Nickel	1	0.12	8.42E-05	1
FUG1	0	0	1151	PAHs-w/o	1	0	0	1
FUG1	0	0	1336363	PCBs	1	0.48	0.000474657	1
FUG1	0	0	127184	Perc	1	3.433958269	0.007634279	1
FUG1	0	0	115071	Propylene	1	20.3289985	0.020611203	1
FUG1	0	0	7782492	Selenium	1	0.014810526	8.42E-06	1
FUG1	0	0	100425	Styrene	1	7.932774941	0.006647823	1
FUG1	0	0	79345	TetraClEthane	1	0.678125227	0.000677556	1
FUG1	0	0	108883	Toluene	1	275.355552	0.312643678	1
FUG1	0	0	71556	1,1,1-TCA	1	3.251811156	0.007406041	1
FUG1	0	0	79005	1,1,2TriClEthan	1	0.542142616	0.000542045	1
FUG1	0	0	79016	TCE	1	0.53915063	0.000539625	1
FUG1	0	0	7440622	Vanadium	1	0.058389474	3.33E-05	1
FUG1	0	0	108054	Vinyl Acetate	1	1.616367757	0.001718088	1
FUG1	0	0	75014	Vinyl Chloride	1	0.254115817	0.000254083	1
FUG1	0	0	1330207	Xylenes	1	363.3071998	0.412825166	1
FUG2	0	0	75070	Acetaldehyde	1	0	0	1
FUG2	0	0	107131	Acrylonitrile	1	0.96	0.001111875	1
FUG2	0	0	107051	AllylChlor	1	0.062305203	3.46E-05	1
FUG2	0	0	7440382	Arsenic	1	0.0144	1.86E-05	1
FUG2	0	0	71432	Benzene	1	48	0.035571688	1
FUG2	0	0	100447	Benzyl Chloride	1	0.508876422	0.000508167	1
FUG2	0	0	7440417	Beryllium	1	0.001203158	7.37E-07	1
FUG2	0	0	106990	1,3-Butadiene	1	0.96	0.00056066	1
FUG2	0	0	7440439	Cadmium	1	0.144	7.72E-06	1
FUG2	0	0	75150	CS2	1	0.580542079	0.000744501	1
FUG2	0	0	56235	CCl4	1	0.628857742	0.000629159	1
FUG2	0	0	108907	Chlorobenzn	1	0.459612218	0.00045977	1
FUG2	0	0	75003	Ethyl Chloride	1	0.307203432	0.00031216	1
FUG2	0	0	67663	Chloroform	1	0.49505627	0.000496068	1
FUG2	0	0	18540299	Cr(VI)	1	0.048	4.42E-06	1
FUG2	0	0	7440484	Cobalt	1	0.0096	9.82E-06	1
FUG2	0	0	7440508	Copper	1	0.049357895	5.26E-05	1
FUG2	0	0	106934	EDB	1	0.751607143	0.000750151	1
FUG2	0	0	106467	p-DiClBenzene	1	1.778025109	0.002300454	1
FUG2	0	0	75343	1,1-DiClEthane	1	0.401807546	0.000401694	1
FUG2	0	0	107062	EDC	1	0.816724348	0.000933492	1
FUG2	0	0	75354	Vinylid Chlorid	1	0.863652261	0.001017248	1
FUG2	0	0	123911	1,4-Dioxane	1	0.720704514	0.000887021	1
FUG2	0	0	1086	Dioxins-w/o	1	0	0	1
FUG2	0	0	100414	Ethyl Benzene	1	96	0.081064731	1
FUG2	0	0	50000	Formaldehyde	1	0	0	1
FUG2	0	0	110543	Hexane	1	88.36968323	0.083000605	1

FUG2	0	0	7647010	HCl	1	0	0	1
FUG2	0	0	7664393	HF	1	0	0	1
FUG2	0	0	67630	Isopropyl Alcoh	1	28.06590635	0.061947973	1
FUG2	0	0	7439921	Lead	1	1.2	5.61404E-05	1
FUG2	0	0	7439965	Manganese	1	0.268105263	0.0002	1
FUG2	0	0	7439976	Mercury	1	1.054736842	0.000596491	1
FUG2	0	0	67561	Methanol	1	16.70591829	0.018622991	1
FUG2	0	0	74839	Methyl Bromide	1	2.542105263	0.001701754	1
FUG2	0	0	78933	MEK	1	13.74142597	0.013021211	1
FUG2	0	0	1634044	Me t-ButylEther	1	0.356027875	0.000355717	1
FUG2	0	0	75092	Methylene Chlor	1	13.66300128	0.016571236	1
FUG2	0	0	91203	Naphthalene	1	4.8	0.002631579	1
FUG2	0	0	7440020	Nickel	1	0.12	8.42E-05	1
FUG2	0	0	1151	PAHs-w/o	1	0	0	1
FUG2	0	0	1336363	PCBs	1	0.48	0.000474657	1
FUG2	0	0	127184	Perc	1	3.433958269	0.007634279	1
FUG2	0	0	115071	Propylene	1	20.3289985	0.020611203	1
FUG2	0	0	7782492	Selenium	1	0.014810526	8.42E-06	1
FUG2	0	0	100425	Styrene	1	7.932774941	0.006647823	1
FUG2	0	0	79345	TetraClEthane	1	0.678125227	0.000677556	1
FUG2	0	0	108883	Toluene	1	275.355552	0.312643678	1
FUG2	0	0	71556	1,1,1-TCA	1	3.251811156	0.007406041	1
FUG2	0	0	79005	1,1,2TriClEthan	1	0.542142616	0.000542045	1
FUG2	0	0	79016	TCE	1	0.53915063	0.000539625	1
FUG2	0	0	7440622	Vanadium	1	0.058389474	3.33E-05	1
FUG2	0	0	108054	Vinyl Acetate	1	1.616367757	0.001718088	1
FUG2	0	0	75014	Vinyl Chloride	1	0.254115817	0.000254083	1
FUG2	0	0	1330207	Xylenes	1	363.3071998	0.412825166	1
FUG3	0	0	75070	Acetaldehyde	1	0	0	1
FUG3	0	0	107131	Acrylonitrile	1	0.96	0.001111875	1
FUG3	0	0	107051	AllylChlor	1	0.062305203	3.46E-05	1
FUG3	0	0	7440382	Arsenic	1	0.0144	1.86E-05	1
FUG3	0	0	71432	Benzene	1	48	0.035571688	1
FUG3	0	0	100447	Benzyl Chloride	1	0.508876422	0.000508167	1
FUG3	0	0	7440417	Beryllium	1	0.001203158	7.37E-07	1
FUG3	0	0	106990	1,3-Butadiene	1	0.96	0.00056066	1
FUG3	0	0	7440439	Cadmium	1	0.144	7.72E-06	1
FUG3	0	0	75150	CS2	1	0.580542079	0.000744501	1
FUG3	0	0	56235	CCl4	1	0.628857742	0.000629159	1
FUG3	0	0	108907	Chlorobenzn	1	0.459612218	0.00045977	1
FUG3	0	0	75003	Ethyl Chloride	1	0.307203432	0.00031216	1
FUG3	0	0	67663	Chloroform	1	0.49505627	0.000496068	1
FUG3	0	0	18540299	Cr(VI)	1	0.048	4.42E-06	1
FUG3	0	0	7440484	Cobalt	1	0.0096	9.82E-06	1
FUG3	0	0	7440508	Copper	1	0.049357895	5.26E-05	1
FUG3	0	0	106934	EDB	1	0.751607143	0.000750151	1
FUG3	0	0	106467	p-DiClBenzene	1	1.778025109	0.002300454	1
FUG3	0	0	75343	1,1-DiClEthane	1	0.401807546	0.000401694	1
FUG3	0	0	107062	EDC	1	0.816724348	0.000933492	1
FUG3	0	0	75354	Vinylid Chlorid	1	0.863652261	0.001017248	1
FUG3	0	0	123911	1,4-Dioxane	1	0.720704514	0.000887021	1
FUG3	0	0	1086	Dioxins-w/o	1	0	0	1

FUG3	0	0	100414	Ethyl Benzene	1	96	0.081064731	1
FUG3	0	0	50000	Formaldehyde	1	0	0	1
FUG3	0	0	110543	Hexane	1	88.36968323	0.083000605	1
FUG3	0	0	7647010	HCl	1	0	0	1
FUG3	0	0	7664393	HF	1	0	0	1
FUG3	0	0	67630	Isopropyl Alcoh	1	28.06590635	0.061947973	1
FUG3	0	0	7439921	Lead	1	1.2	5.61404E-05	1
FUG3	0	0	7439965	Manganese	1	0.268105263	0.0002	1
FUG3	0	0	7439976	Mercury	1	1.054736842	0.000596491	1
FUG3	0	0	67561	Methanol	1	16.70591829	0.018622991	1
FUG3	0	0	74839	Methyl Bromide	1	2.542105263	0.001701754	1
FUG3	0	0	78933	MEK	1	13.74142597	0.013021211	1
FUG3	0	0	1634044	Me t-ButylEther	1	0.356027875	0.000355717	1
FUG3	0	0	75092	Methylene Chlor	1	13.66300128	0.016571236	1
FUG3	0	0	91203	Naphthalene	1	4.8	0.002631579	1
FUG3	0	0	7440020	Nickel	1	0.12	8.42E-05	1
FUG3	0	0	1151	PAHs-w/o	1	0	0	1
FUG3	0	0	1336363	PCBs	1	0.48	0.000474657	1
FUG3	0	0	127184	Perc	1	3.433958269	0.007634279	1
FUG3	0	0	115071	Propylene	1	20.3289985	0.020611203	1
FUG3	0	0	7782492	Selenium	1	0.014810526	8.42E-06	1
FUG3	0	0	100425	Styrene	1	7.932774941	0.006647823	1
FUG3	0	0	79345	TetraClEthane	1	0.678125227	0.000677556	1
FUG3	0	0	108883	Toluene	1	275.355552	0.312643678	1
FUG3	0	0	71556	1,1,1-TCA	1	3.251811156	0.007406041	1
FUG3	0	0	79005	1,1,2TriClEthan	1	0.542142616	0.000542045	1
FUG3	0	0	79016	TCE	1	0.53915063	0.000539625	1
FUG3	0	0	7440622	Vanadium	1	0.058389474	3.33E-05	1
FUG3	0	0	108054	Vinyl Acetate	1	1.616367757	0.001718088	1
FUG3	0	0	75014	Vinyl Chloride	1	0.254115817	0.000254083	1
FUG3	0	0	1330207	Xylenes	1	363.3071998	0.412825166	1
S11	0	0	7440508	Copper	1	0.324646605	6.48E-05	1
S11	0	0	7440439	Cadmium	1	0.000562589	1.12E-07	1
S11	0	0	18540299	Cr(VI)	1	0.000174019	3.47E-08	1
S11	0	0	7439921	Lead	1	0.004091555	8.17E-07	1
S11	0	0	7439965	Manganese	1	0.0052092	1.04E-06	1
S11	0	0	7440020	Nickel	1	0.0011576	2.31E-07	1
S131	0	0	7440508	Copper	1	3.414173952	0.000684	1
S131	0	0	7440439	Cadmium	1	0.005916513	1.19E-06	1
S131	0	0	18540299	Cr(VI)	1	0.001830085	3.67E-07	1
S131	0	0	7439921	Lead	1	0.043029186	8.62E-06	1
S131	0	0	7439965	Manganese	1	0.054783	1.1E-05	1
S131	0	0	7440020	Nickel	1	0.012174	2.44E-06	1
S132	0	0	7440508	Copper	1	3.414173952	0.000684	1
S132	0	0	7440439	Cadmium	1	0.005916513	1.19E-06	1
S132	0	0	18540299	Cr(VI)	1	0.001830085	3.67E-07	1
S132	0	0	7439921	Lead	1	0.043029186	8.62E-06	1
S132	0	0	7439965	Manganese	1	0.054783	1.1E-05	1
S132	0	0	7440020	Nickel	1	0.012174	2.44E-06	1
S16	0	0	9901	DieselExhPM	1	0.640332971	0.0128	1

Background

Post-project HARP2 Summary

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

100414MAXHR.txt
100414PER.txt
100425MAXHR.txt
100425PER.txt
100447MAXHR.txt
100447PER.txt
106467MAXHR.txt
106467PER.txt
106934MAXHR.txt
106934PER.txt
106990MAXHR.txt
106990PER.txt
107051MAXHR.txt
107051PER.txt
107062MAXHR.txt
107062PER.txt
107131MAXHR.txt
107131PER.txt
108054MAXHR.txt
108054PER.txt
108101MAXHR.txt
108101PER.txt
1086MAXHR.txt
1086PER.txt
108883MAXHR.txt
108883PER.txt
108907MAXHR.txt
108907PER.txt
110543MAXHR.txt
110543PER.txt
115071MAXHR.txt
115071PER.txt
1151MAXHR.txt
1151PER.txt
123911MAXHR.txt
123911PER.txt
127184MAXHR.txt
127184PER.txt
1330207MAXHR.txt
1330207PER.txt
1336363MAXHR.txt
1336363PER.txt
1634044MAXHR.txt
1634044PER.txt
18540299MAXHR.txt
18540299PER.txt
50000MAXHR.txt

50000PER.txt
540841MAXHR.txt
540841PER.txt
56235MAXHR.txt
56235PER.txt
67561MAXHR.txt
67561PER.txt
67630MAXHR.txt
67630PER.txt
67663MAXHR.txt
67663PER.txt
67721MAXHR.txt
67721PER.txt
71432MAXHR.txt
71432PER.txt
71556MAXHR.txt
71556PER.txt
7439921MAXHR.txt
7439921PER.txt
7439965MAXHR.txt
7439965PER.txt
7439976MAXHR.txt
7439976PER.txt
7440020MAXHR.txt
7440020PER.txt
7440382MAXHR.txt
7440382MAXHR.txt~RF1e2d7de4.TMP
7440382PER.txt
7440417MAXHR.txt
7440417PER.txt
7440439MAXHR.txt
7440439PER.txt
7440484MAXHR.txt
7440484PER.txt
7440508MAXHR.txt
7440508PER.txt
7440622MAXHR.txt
7440622PER.txt
74839MAXHR.txt
74839PER.txt
75003MAXHR.txt
75003PER.txt
75014MAXHR.txt
75014PER.txt
75070MAXHR.txt
75070PER.txt
75092MAXHR.txt
75092PER.txt
75150MAXHR.txt
75150PER.txt
75343MAXHR.txt
75343PER.txt

75354MAXHR.txt
75354PER.txt
7647010MAXHR.txt
7647010PER.txt
7664393MAXHR.txt
7664393PER.txt
7782492MAXHR.txt
7782492PER.txt
78933MAXHR.txt
78933PER.txt
79005MAXHR.txt
79005PER.txt
79016MAXHR.txt
79016PER.txt
79345MAXHR.txt
79345PER.txt
91203MAXHR.txt
91203MAXHR.txt~RF1f544fc4.TMP
91203PER.txt
91203PER.txt~RF1f545080.TMP
95476MAXHR.txt
95476PER.txt
98828MAXHR.txt
98828PER.txt
9901MAXHR.txt
9901PER.txt
{B4D4FB7D-C3BC-4B3F-894D-B0D7BFEB5E1B}.tmp
{F4F984D5-64AB-44E3-8991-0FD37A8BFD0A}.tmp

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH20276
Official: False

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
75070	Acetaldehyde	0.01		470	140		300
107131	Acrylonitrile	1			5		
107051	AllylChlor	0.021					
7440382	Arsenic	12	1.5	0.2	0.015	3.5E-06	0.015
71432	Benzene	0.1		27	3		3
100447	Benzyl Chloride	0.17		240			
7440417	Beryllium	8.4			0.007	0.002	
106990	1,3-Butadiene	0.6		660	2		9
7440439	Cadmium	15			0.02	0.0005	
75150	CS2			6200	800		
56235	CCl4	0.15		1900	40		
108907	Chlorobenzn				1000		
75003	Ethyl Chloride				30000		
67663	Chloroform	0.019		150	300		
18540299	Cr(VI)	510	0.5		0.2	0.02	
7440484	Cobalt	27					

Post-project HARP2 Summary

7440508	Copper			100			
106934	EDB	0.25			0.8		
106467	p-DiClBenzene	0.04			800		
75343	1,1-DiClEthane	0.0057					
107062	EDC	0.072			400		
75354	Vinylid Chlorid				70		
123911	1,4-Dioxane	0.027		3000	3000		
1086	Dioxins-w/o	130000	130000		4E-05	1E-08	
100414	Ethyl Benzene	0.0087			2000		
50000	Formaldehyde	0.021		55	9		9
110543	Hexane				7000		
7647010	HCl			2100	9		
7664393	HF			240	14	0.04	
67630	Isopropyl Alcoh			3200	7000		
7439921	Lead	0.042	0.0085				
7439965	Manganese				0.09		0.17
7439976	Mercury			0.6	0.03	0.00016	0.06
67561	Methanol			28000	4000		
74839	Methyl Bromide			3900	5		
78933	MEK			13000			
1634044	Me t-ButylEther	0.0018			8000		
75092	Methylene Chlor	0.0035		14000	400		
91203	Naphthalene	0.12			9		
7440020	Nickel	0.91		0.2	0.014	0.011	0.06
1151	PAHs-w/o	3.9	12				
1336363	PCBs	2	2				
127184	Perc	0.021		20000	35		
115071	Propylene				3000		
7782492	Selenium				20	0.005	
100425	Styrene			21000	900		
79345	TetraClEthane	0.2					
108883	Toluene			5000	420		830
71556	1,1,1-TCA			68000	1000		
79005	1,1,2TriClEthan	0.057					
79016	TCE	0.007			600		
7440622	Vanadium			30			
108054	Vinyl Acetate				200		
75014	Vinyl Chloride	0.27		180000			
1330207	Xylenes			22000	700		
9901	DieselExhPM	1.1			5		

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)

_____
A-GLCList.csv
A-HRAInput.hra
A-NCAcuteRisk.csv
A-NCAcuteRiskSumByRec.csv
A-Output.txt
A-PathwayRec.csv
A-PolDB.csv
FUG1.ScAGLCList.csv

FUG1.ScAHRAInput.hra
FUG1.ScANCAcuteRisk.csv
FUG1.ScANCAcuteRiskSumByRec.csv
FUG1.ScAPathwayRec.csv
FUG1.ScAPolDB.csv
FUG1.ScRCancerRisk.csv
FUG1.ScRCancerRiskSumByRec.csv
FUG1.ScRGLCList.csv
FUG1.ScRhGLCList.csv
FUG1.ScRhHRAInput.hra
FUG1.ScRhNCChronicRisk.csv
FUG1.ScRhNCChronicRiskSumByRec.csv
FUG1.ScRhPathwayRec.csv
FUG1.ScRhPolDB.csv
FUG1.ScRHRAInput.hra
FUG1.ScRPathwayRec.csv
FUG1.ScRPolDB.csv
FUG1.SrcWCh-GLCList.csv
FUG1.SrcWCh-HRAInput.hra
FUG1.SrcWCh-NCChronicRisk.csv
FUG1.SrcWCh-NCChronicRiskSumByRec.csv
FUG1.SrcWCh-PathwayRec.csv
FUG1.SrcWCh-PolDB.csv
FUG2.ScAGLCList.csv
FUG2.ScAHRAInput.hra
FUG2.ScANCAcuteRisk.csv
FUG2.ScANCAcuteRiskSumByRec.csv
FUG2.ScAPathwayRec.csv
FUG2.ScAPolDB.csv
FUG2.ScRCancerRisk.csv
FUG2.ScRCancerRiskSumByRec.csv
FUG2.ScRGLCList.csv
FUG2.ScRhGLCList.csv
FUG2.ScRhHRAInput.hra
FUG2.ScRhNCChronicRisk.csv
FUG2.ScRhNCChronicRiskSumByRec.csv
FUG2.ScRhPathwayRec.csv
FUG2.ScRhPolDB.csv
FUG2.ScRHRAInput.hra
FUG2.ScRPathwayRec.csv
FUG2.ScRPolDB.csv
FUG2.SrcWCh-GLCList.csv
FUG2.SrcWCh-HRAInput.hra
FUG2.SrcWCh-NCChronicRisk.csv
FUG2.SrcWCh-NCChronicRiskSumByRec.csv
FUG2.SrcWCh-PathwayRec.csv
FUG2.SrcWCh-PolDB.csv
FUG3.ScAGLCList.csv
FUG3.ScAHRAInput.hra
FUG3.ScANCAcuteRisk.csv
FUG3.ScANCAcuteRiskSumByRec.csv
FUG3.ScAPathwayRec.csv

FUG3.ScAPolDB.csv
FUG3.ScRCancerRisk.csv
FUG3.ScRCancerRiskSumByRec.csv
FUG3.ScRGLCList.csv
FUG3.ScRhGLCList.csv
FUG3.ScRhHRAInput.hra
FUG3.ScRhNCChronicRisk.csv
FUG3.ScRhNCChronicRiskSumByRec.csv
FUG3.ScRhPathwayRec.csv
FUG3.ScRhPolDB.csv
FUG3.ScRHRAInput.hra
FUG3.ScRPathwayRec.csv
FUG3.ScRPolDB.csv
FUG3.SrcWCh-GLCList.csv
FUG3.SrcWCh-HRAInput.hra
FUG3.SrcWCh-NCChronicRisk.csv
FUG3.SrcWCh-NCChronicRiskSumByRec.csv
FUG3.SrcWCh-PathwayRec.csv
FUG3.SrcWCh-PolDB.csv
P17.ScAGLCList.csv
P17.ScAHRAInput.hra
P17.ScANCAcuteRisk.csv
P17.ScANCAcuteRiskSumByRec.csv
P17.ScAPathwayRec.csv
P17.ScAPolDB.csv
P17.ScRCancerRisk.csv
P17.ScRCancerRiskSumByRec.csv
P17.ScRGLCList.csv
P17.ScRhGLCList.csv
P17.ScRhHRAInput.hra
P17.ScRhNCChronicRisk.csv
P17.ScRhNCChronicRiskSumByRec.csv
P17.ScRhPathwayRec.csv
P17.ScRhPolDB.csv
P17.ScRHRAInput.hra
P17.ScRPathwayRec.csv
P17.ScRPolDB.csv
P17.SrcWCh-GLCList.csv
P17.SrcWCh-HRAInput.hra
P17.SrcWCh-NCChronicRisk.csv
P17.SrcWCh-NCChronicRiskSumByRec.csv
P17.SrcWCh-PathwayRec.csv
P17.SrcWCh-PolDB.csv
P18.ScAGLCList.csv
P18.ScAHRAInput.hra
P18.ScANCAcuteRisk.csv
P18.ScANCAcuteRiskSumByRec.csv
P18.ScAPathwayRec.csv
P18.ScAPolDB.csv
P18.ScRCancerRisk.csv
P18.ScRCancerRiskSumByRec.csv
P18.ScRGLCList.csv

P18.ScRhGLCList.csv
P18.ScRhHRAInput.hra
P18.ScRhNCChronicRisk.csv
P18.ScRhNCChronicRiskSumByRec.csv
P18.ScRhPathwayRec.csv
P18.ScRhPolDB.csv
P18.ScRHRAInput.hra
P18.ScRPathwayRec.csv
P18.ScRPolDB.csv
P18.SrcWCh-GLCList.csv
P18.SrcWCh-HRAInput.hra
P18.SrcWCh-NCChronicRisk.csv
P18.SrcWCh-NCChronicRiskSumByRec.csv
P18.SrcWCh-PathwayRec.csv
P18.SrcWCh-PolDB.csv
R-CancerRisk.csv
R-CancerRiskSumByRec.csv
R-GLCList.csv
R-HRAInput.hra
R-NCChronicRisk.csv
R-NCChronicRiskSumByRec.csv
R-Output.txt
R-PathwayRec.csv
R-PolDB.csv
S11.ScAGLCList.csv
S11.ScAHRAInput.hra
S11.ScANCAcuteRisk.csv
S11.ScANCAcuteRiskSumByRec.csv
S11.ScAPathwayRec.csv
S11.ScAPolDB.csv
S11.ScRCancerRisk.csv
S11.ScRCancerRiskSumByRec.csv
S11.ScRGLCList.csv
S11.ScRhGLCList.csv
S11.ScRhHRAInput.hra
S11.ScRhNCChronicRisk.csv
S11.ScRhNCChronicRiskSumByRec.csv
S11.ScRhPathwayRec.csv
S11.ScRhPolDB.csv
S11.ScRHRAInput.hra
S11.ScRPathwayRec.csv
S11.ScRPolDB.csv
S11.SrcWCh-GLCList.csv
S11.SrcWCh-HRAInput.hra
S11.SrcWCh-NCChronicRisk.csv
S11.SrcWCh-NCChronicRiskSumByRec.csv
S11.SrcWCh-PathwayRec.csv
S11.SrcWCh-PolDB.csv
S131.ScAGLCList.csv
S131.ScAHRAInput.hra
S131.ScANCAcuteRisk.csv
S131.ScANCAcuteRiskSumByRec.csv

S131.ScAPathwayRec.csv
S131.ScAPolDB.csv
S131.ScRCancerRisk.csv
S131.ScRCancerRiskSumByRec.csv
S131.ScRGLCList.csv
S131.ScRhGLCList.csv
S131.ScRhHRAInput.hra
S131.ScRhNCChronicRisk.csv
S131.ScRhNCChronicRiskSumByRec.csv
S131.ScRhPathwayRec.csv
S131.ScRhPolDB.csv
S131.ScRHRAInput.hra
S131.ScRPathwayRec.csv
S131.ScRPolDB.csv
S131.SrcWCh-GLCList.csv
S131.SrcWCh-HRAInput.hra
S131.SrcWCh-NCChronicRisk.csv
S131.SrcWCh-NCChronicRiskSumByRec.csv
S131.SrcWCh-PathwayRec.csv
S131.SrcWCh-PolDB.csv
S132.ScAGLCList.csv
S132.ScAHRAInput.hra
S132.ScANCAcuteRisk.csv
S132.ScANCAcuteRiskSumByRec.csv
S132.ScAPathwayRec.csv
S132.ScAPolDB.csv
S132.ScRCancerRisk.csv
S132.ScRCancerRiskSumByRec.csv
S132.ScRGLCList.csv
S132.ScRhGLCList.csv
S132.ScRhHRAInput.hra
S132.ScRhNCChronicRisk.csv
S132.ScRhNCChronicRiskSumByRec.csv
S132.ScRhPathwayRec.csv
S132.ScRhPolDB.csv
S132.ScRHRAInput.hra
S132.ScRPathwayRec.csv
S132.ScRPolDB.csv
S132.SrcWCh-GLCList.csv
S132.SrcWCh-HRAInput.hra
S132.SrcWCh-NCChronicRisk.csv
S132.SrcWCh-NCChronicRiskSumByRec.csv
S132.SrcWCh-PathwayRec.csv
S132.SrcWCh-PolDB.csv
S16.ScAGLCList.csv
S16.ScAHRAInput.hra
S16.ScANCAcuteRisk.csv
S16.ScANCAcuteRiskSumByRec.csv
S16.ScAPathwayRec.csv
S16.ScAPolDB.csv
S16.ScRCancerRisk.csv
S16.ScRCancerRiskSumByRec.csv

S16.ScRGLCList.csv
S16.ScRhGLCList.csv
S16.ScRhHRAInput.hra
S16.ScRhNCChronicRisk.csv
S16.ScRhNCChronicRiskSumByRec.csv
S16.ScRhPathwayRec.csv
S16.ScRhPolDB.csv
S16.ScRHRAInput.hra
S16.ScRPathwayRec.csv
S16.ScRPolDB.csv
S16.SrcWCh-GLCList.csv
S16.SrcWCh-HRAInput.hra
S16.SrcWCh-NCChronicRisk.csv
S16.SrcWCh-NCChronicRiskSumByRec.csv
S16.SrcWCh-PathwayRec.csv
S16.SrcWCh-PolDB.csv
ScANCAcuteRiskSumByRecBySrc.csv
ScAOutput.txt
ScRCancerRiskSumByRecBySrc.csv
ScRhNCChronicRiskSumByRecBySrc.csv
ScRhOutput.txt
ScROutput.txt
SrcWCh-NCChronicRiskSumByRecBySrc.csv
SrcWCh-Output.txt
WCh-GLCList.csv
WCh-HRAInput.hra
WCh-NCChronicRisk.csv
WCh-NCChronicRiskSumByRec.csv
WCh-Output.txt
WCh-PathwayRec.csv
WCh-PolDB.csv

Spatial averaging files (\sa\)

HARP2 - HRACalc (dated 22118) 2/22/2024 2:34:00 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 30

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 14
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

```
**Fraction at time at home**
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

**********************************
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Warm

**********************************
TIER 2 SETTINGS
Tier2 not used.

**********************************

Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\R-CancerRisk.csv
Cancer risk total by receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\R-CancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs
PreAVG\PostRTOPte\hra\R-NCChronicRisk.csv
Chronic risk total by receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\R-NCChronicRiskSumByRec.csv

HRA ran successfully
```

HARP2 - HRACalc (dated 22118) 2/22/2024 10:05:50 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16
Total Exposure Duration: 25

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 25

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.

```
Worker adjustments factors enabled: YES
GLC adjustment factor: 1
Exposure frequency: 250

**Fraction at time at home**
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

**********************************
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Warm

**********************************
TIER 2 SETTINGS
Tier2 not used.

**********************************

Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs
PreAVG\WAF-Post\PostWAF\hra\WCCancerRisk.csv
Cancer risk total by receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\WAF-Post\PostWAF\hra\WCCancerRiskSumByRec.csv
HRA ran successfully
```

HARP Project Summary Report 4/12/2023 10:57:10 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: 30009JPP
Project Output Directory: F:\HRSA Assignments\30009\30009JPP
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:18
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
S11	0	0	7440508	Copper	1	0.324646605	6.48E-05	1
S11	0	0	7440439	Cadmium	1	0.000562589	1.12E-07	1
S11	0	0	18540299	Cr(VI)	1	0.000174019	3.47E-08	1
S11	0	0	7439921	Lead	1	0.004091555	8.17E-07	1
S11	0	0	7439965	Manganese	1	0.0052092	1.04E-06	1
S11	0	0	7440020	Nickel	1	0.0011576	2.31E-07	1
S131	0	0	7440508	Copper	1	3.414173952	0.000684293	1
S131	0	0	7440439	Cadmium	1	0.005916513	1.19E-06	1
S131	0	0	18540299	Cr(VI)	1	0.001830085	3.67E-07	1
S131	0	0	7439921	Lead	1	0.043029186	8.62E-06	1
S131	0	0	7439965	Manganese	1	0.054783	1.098E-05	1
S131	0	0	7440020	Nickel	1	0.012174	2.44E-06	1
S132	0	0	7440508	Copper	1	3.414173952	0.000684293	1
S132	0	0	7440439	Cadmium	1	0.005916513	1.19E-06	1
S132	0	0	18540299	Cr(VI)	1	0.001830085	3.67E-07	1
S132	0	0	7439921	Lead	1	0.043029186	8.62E-06	1
S132	0	0	7439965	Manganese	1	0.054783	1.098E-05	1
S132	0	0	7440020	Nickel	1	0.012174	2.44E-06	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

18540299MAXHR.txt
18540299PER.txt
7439921MAXHR.txt
7439921PER.txt
7439965MAXHR.txt
7439965PER.txt
7440020MAXHR.txt
7440020PER.txt
7440439MAXHR.txt
7440439PER.txt
7440508MAXHR.txt
7440508PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH20276
Official: False

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
7440508	Copper			100			
7440439	Cadmium	15			0.02	0.0005	
18540299	Cr(VI)	510	0.5		0.2	0.02	
7439921	Lead	0.042	0.0085				
7439965	Manganese				0.09		0.17
7440020	Nickel	0.91		0.2	0.014	0.011	0.06

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)

S11.Src-WC-CancerRisk.csv
S11.Src-WC-CancerRiskSumByRec.csv
S11.Src-WC-GLCList.csv
S11.Src-WC-HRAInput.hra
S11.Src-WC-PathwayRec.csv
S11.Src-WC-PolDB.csv
S11.W-C-SrcCancerRisk.csv
S11.W-C-SrcCancerRiskSumByRec.csv
S11.W-C-SrcGLCList.csv
S11.W-C-SrcHRAInput.hra
S11.W-C-SrcPathwayRec.csv
S11.W-C-SrcPolDB.csv
S131.Src-WC-CancerRisk.csv
S131.Src-WC-CancerRiskSumByRec.csv
S131.Src-WC-GLCList.csv
S131.Src-WC-HRAInput.hra
S131.Src-WC-PathwayRec.csv
S131.Src-WC-PolDB.csv
S131.W-C-SrcCancerRisk.csv
S131.W-C-SrcCancerRiskSumByRec.csv
S131.W-C-SrcGLCList.csv
S131.W-C-SrcHRAInput.hra
S131.W-C-SrcPathwayRec.csv
S131.W-C-SrcPolDB.csv
S132.Src-WC-CancerRisk.csv
S132.Src-WC-CancerRiskSumByRec.csv
S132.Src-WC-GLCList.csv
S132.Src-WC-HRAInput.hra
S132.Src-WC-PathwayRec.csv
S132.Src-WC-PolDB.csv
S132.W-C-SrcCancerRisk.csv
S132.W-C-SrcCancerRiskSumByRec.csv
S132.W-C-SrcGLCList.csv
S132.W-C-SrcHRAInput.hra
S132.W-C-SrcPathwayRec.csv

S132.W-C-SrcPolDB.csv
Src-WC-CancerRiskSumByRecBySrc.csv
Src-WC-Output.txt
W-C-CancerRisk.csv
W-C-CancerRiskSumByRec.csv
W-C-GLCList.csv
W-C-HRAInput.hra
W-C-Output.txt
W-C-PathwayRec.csv
W-C-PolDB.csv
W-C-SrcCancerRiskSumByRecBySrc.csv
W-C-SrcOutput.txt

Spatial averaging files (\sa\)

HARP2 - HRACalc (dated 22118) 4/12/2023 9:41:43 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16
Total Exposure Duration: 25

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 25

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.
Worker adjustments factors enabled: YES

```
GLC adjustment factor: 1.75
Exposure frequency: 250

**Fraction at time at home**
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

**********************************
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Warm

**********************************
TIER 2 SETTINGS
Tier2 not used.

**********************************

Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: F:\HRSA Assignments\30009\30009JPP\hra\W-C-CancerRisk.csv
Cancer risk total by receptor saved to: F:\HRSA Assignments\30009\30009JPP\hra\W-C-CancerRiskSumByRec.csv
HRA ran successfully
```

HARP Project Summary Report 4/12/2023 11:00:20 AM

PROJECT INFORMATION
HARP Version: 22118
Project Name: 30401BUG
Project Output Directory: F:\HRSA Assignments\30401 P208 BUG\S16\30401BUG
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:1
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
S16	0	0	9901	DieselExhPM	1	0.64	0.0128	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

9901MAXHR.txt
9901PER.txt

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: HEALTH20276
Official: True

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
9901	DieselExhPM	1.1			5		

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)

W-C-CancerRisk.csv
W-C-CancerRiskSumByRec.csv
W-C-GLCList.csv
W-C-HRAInput.hra
W-C-Output.txt
W-C-PathwayRec.csv
W-C-PolDB.csv

Spatial averaging files (\sa\)

HARP2 - HRACalc (dated 22118) 4/12/2023 10:11:01 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16
Total Exposure Duration: 25

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 25

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.
Worker adjustments factors enabled: YES

```
GLC adjustment factor: 4.2
Exposure frequency: 250

**Fraction at time at home**
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

**********************************
TIER 2 SETTINGS
Tier2 not used.

**********************************

Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: F:\HRSA Assignments\30401 P208 BUG\S16\30401BUG\hra\W-C-CancerRisk.csv
Cancer risk total by receptor saved to: F:\HRSA Assignments\30401 P208 BUG\S16\30401BUG\hra\W-C-CancerRiskSumByRec.csv
HRA ran successfully
```

HARP2 - HRACalc (dated 22118) 2/22/2024 2:31:45 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: NCChronic
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER
Exposure duration are only adjusted for cancer assessments

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.02
Soil mixing depth (m): 0.01
Dermal climate: Warm

Post-project HARP2

```
**********************************
TIER 2 SETTINGS
Tier2 not used.

**********************************

Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs
PreAVG\PostRTOPte\hra\WCh-NCChronicRisk.csv
Chronic risk total by receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\WCh-NCChronicRiskSumByRec.csv
HRA ran successfully
```

HARP2 - HRACalc (dated 22118) 2/22/2024 2:41:41 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: NCAcute
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER
Exposure duration are only adjusted for cancer assessments

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

****
TIER 2 SETTINGS
Tier2 not used.

****

Calculating acute risk

Post-project HARP2

```
Acute risk breakdown by pollutant and receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\A-NCAcuteRisk.csv
Acute risk total by receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PostRTOPte\hra\A-NCAcuteRiskSumByRec.csv
HRA ran successfully
```

Pre-project HARP2 Summary

HARP Project Summary Report 2/21/2024 10:23:56 PM

PROJECT INFORMATION
HARP Version: 22118
Project Name: PreRTOAvg
Project Output Directory: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg
HARP Database: NA

EMISSION INVENTORY
No. of Pollutants:239
No. of Background Pollutants:0

Emissions

ScrID	StkID	ProID	PolID	PolAbbrev	Multi	Annual Ems (lbs/yr)	MaxHr Ems (lbs/hr)	MWAF
P15	0	0	75070	Acetaldehyde	1	0	0	1
P15	0	0	107131	Acrylonitrile	1	109.5333361	0.063376864	1
P15	0	0	107051	AllylChlor	1	3.409904637	0.001972998	1
P15	0	0	7440382	Arsenic	1	0	0	1
P15	0	0	71432	Benzene	1	3504.248517	2.027586207	1
P15	0	0	100447	Benzyl Chloride	1	50.0606931	0.028965517	1
P15	0	0	7440417	Beryllium	1	0	0	1
P15	0	0	106990	1,3-Butadiene	1	55.23185628	0.031957594	1
P15	0	0	7440439	Cadmium	1	0.760445767	0.00044	1
P15	0	0	75150	CS2	1	73.3425155	0.042436566	1
P15	0	0	56235	CCl4	1	61.97990575	0.035862069	1
P15	0	0	108907	Chlorobenzn	1	45.29300805	0.026206897	1
P15	0	0	75003	Ethyl Chloride	1	30.75156862	0.017793103	1
P15	0	0	67663	Chloroform	1	48.86877184	0.028275862	1
P15	0	0	18540299	Cr(VI)	1	0.43552803	0.000252	1
P15	0	0	7440484	Cobalt	1	0	0	1
P15	0	0	7440508	Copper	1	0	0	1
P15	0	0	106934	EDB	1	73.89911839	0.042758621	1
P15	0	0	106467	p-DiClBenzene	1	226.622984	0.13112587	1
P15	0	0	75343	1,1-DiClEthane	1	39.57178598	0.022896552	1
P15	0	0	107062	EDC	1	91.96047905	0.053209068	1
P15	0	0	75354	Vinylid Chlorid	1	100.2113923	0.057983113	1
P15	0	0	123911	1,4-Dioxane	1	87.38246637	0.050560194	1
P15	0	0	1086	Dioxins-w/o	1	0	0	1
P15	0	0	100414	Ethyl Benzene	1	7985.872471	4.620689655	1
P15	0	0	50000	Formaldehyde	1	0	0	1
P15	0	0	110543	Hexane	1	8176.579874	4.731034483	1
P15	0	0	7647010	HCl	1	0	0	1
P15	0	0	7664393	HF	1	0	0	1
P15	0	0	67630	Isopropyl Alcoh	1	6102.636874	3.531034483	1
P15	0	0	7439921	Lead	1	5.530514667	0.0032	1
P15	0	0	7439965	Manganese	1	0	0	1
P15	0	0	7439976	Mercury	1	0	0	1
P15	0	0	67561	Methanol	1	1834.593525	1.06151048	1
P15	0	0	74839	Methyl Bromide	1	0	0	1
P15	0	0	78933	MEK	1	1282.749396	0.742209055	1

P15	0	0	1634044	Me t-ButylEther	1	35.04248517	0.020275862	1
P15	0	0	75092	Methylene Chlor	1	1632.470478	0.944560469	1
P15	0	0	91203	Naphthalene	1	0	0	1
P15	0	0	7440020	Nickel	1	0	0	1
P15	0	0	1151	PAHs-w/o	1	0	0	1
P15	0	0	1336363	PCBs	1	46.75952714	0.027055436	1
P15	0	0	127184	Perc	1	752.0703525	0.435153918	1
P15	0	0	115071	Propylene	1	2030.456847	1.174838564	1
P15	0	0	7782492	Selenium	1	0	0	1
P15	0	0	100425	Styrene	1	654.892258	0.378925896	1
P15	0	0	79345	TetraClEthane	1	66.7475908	0.03862069	1
P15	0	0	108883	Toluene	1	30799.24547	17.82068966	1
P15	0	0	71556	1,1,1-TCA	1	729.5860621	0.422144328	1
P15	0	0	79005	1,1,2TriClEthan	1	53.39807264	0.030896552	1
P15	0	0	79016	TCE	1	53.15968839	0.030758621	1
P15	0	0	7440622	Vanadium	1	0	0	1
P15	0	0	108054	Vinyl Acetate	1	169.2528195	0.097931034	1
P15	0	0	75014	Vinyl Chloride	1	25.03034655	0.014482759	1
P15	0	0	1330207	Xylenes	1	40668.35354	23.53103448	1
FUG1	0	0	75070	Acetaldehyde	1	0	0	1
FUG1	0	0	107131	Acrylonitrile	1	0.862104484	0.001111875	1
FUG1	0	0	107051	AllylChlor	1	0.059822888	3.46E-05	1
FUG1	0	0	7440382	Arsenic	1	0.01358372	1.86E-05	1
FUG1	0	0	71432	Benzene	1	30.35899623	0.035571688	1
FUG1	0	0	100447	Benzyl Chloride	1	0.488602173	0.000508167	1
FUG1	0	0	7440417	Beryllium	1	0.001155223	7.37E-07	1
FUG1	0	0	106990	1,3-Butadiene	1	0.700546304	0.00056066	1
FUG1	0	0	7440439	Cadmium	1	0.133411538	7.72E-06	1
FUG1	0	0	75150	CS2	1	0.557412584	0.000744501	1
FUG1	0	0	56235	CCl4	1	0.603803292	0.000629159	1
FUG1	0	0	108907	Chlorobenzn	1	0.441300714	0.00045977	1
FUG1	0	0	75003	Ethyl Chloride	1	0.294964077	0.00031216	1
FUG1	0	0	67663	Chloroform	1	0.475332632	0.000496068	1
FUG1	0	0	18540299	Cr(VI)	1	0.041266614	4.42E-06	1
FUG1	0	0	7440484	Cobalt	1	0.007552912	9.82E-06	1
FUG1	0	0	7440508	Copper	1	0.047391417	5.26E-05	1
FUG1	0	0	106934	EDB	1	0.72166221	0.000750151	1
FUG1	0	0	106467	p-DiClBenzene	1	1.707186449	0.002300454	1
FUG1	0	0	75343	1,1-DiClEthane	1	0.38579905	0.000401694	1
FUG1	0	0	107062	EDC	1	0.784185067	0.000933492	1
FUG1	0	0	75354	Vinylid Chlorid	1	0.829243316	0.001017248	1
FUG1	0	0	123911	1,4-Dioxane	1	0.691990779	0.000887021	1
FUG1	0	0	1086	Dioxins-w/o	1	0	0	1
FUG1	0	0	100414	Ethyl Benzene	1	79.63996145	0.081064731	1
FUG1	0	0	50000	Formaldehyde	1	0	0	1
FUG1	0	0	110543	Hexane	1	84.84892868	0.083000605	1
FUG1	0	0	7647010	HCl	1	0	0	1
FUG1	0	0	7664393	HF	1	0	0	1
FUG1	0	0	67630	Isopropyl Alcoh	1	26.94772686	0.061947973	1
FUG1	0	0	7439921	Lead	1	0.970265731	5.61404E-05	1
FUG1	0	0	7439965	Manganese	1	0.257423627	0.0002	1
FUG1	0	0	7439976	Mercury	1	1.012714857	0.000596491	1

FUG1	0	0	67561	Methanol	1	16.04033439	0.018622991	1
FUG1	0	0	74839	Methyl Bromide	1	2.44082473	0.001701754	1
FUG1	0	0	78933	MEK	1	13.19395102	0.013021211	1
FUG1	0	0	1634044	Me t-ButylEther	1	0.341843295	0.000355717	1
FUG1	0	0	75092	Methylene Chlor	1	13.11865086	0.016571236	1
FUG1	0	0	91203	Naphthalene	1	3.638496491	0.002631579	1
FUG1	0	0	7440020	Nickel	1	0.104000358	8.42E-05	1
FUG1	0	0	1151	PAHs-w/o	1	0	0	1
FUG1	0	0	1336363	PCBs	1	0.428286094	0.000474657	1
FUG1	0	0	127184	Perc	1	3.297145238	0.007634279	1
FUG1	0	0	115071	Propylene	1	19.51906673	0.020611203	1
FUG1	0	0	7782492	Selenium	1	0.014220457	8.42E-06	1
FUG1	0	0	100425	Styrene	1	7.616723639	0.006647823	1
FUG1	0	0	79345	TetraClEthane	1	0.651107901	0.000677556	1
FUG1	0	0	108883	Toluene	1	264.3850554	0.312643678	1
FUG1	0	0	71556	1,1,1-TCA	1	3.122255086	0.007406041	1
FUG1	0	0	79005	1,1,2TriClEthan	1	0.520543002	0.000542045	1
FUG1	0	0	79016	TCE	1	0.51767022	0.000539625	1
FUG1	0	0	7440622	Vanadium	1	0.056063167	3.33E-05	1
FUG1	0	0	108054	Vinyl Acetate	1	1.551969719	0.001718088	1
FUG1	0	0	75014	Vinyl Chloride	1	0.243991537	0.000254083	1
FUG1	0	0	1330207	Xylenes	1	348.8326037	0.412825166	1
FUG2	0	0	75070	Acetaldehyde	1	0	0	1
FUG2	0	0	107131	Acrylonitrile	1	0.862104484	0.001111875	1
FUG2	0	0	107051	AllylChlor	1	0.059822888	3.46E-05	1
FUG2	0	0	7440382	Arsenic	1	0.01358372	1.86E-05	1
FUG2	0	0	71432	Benzene	1	30.35899623	0.035571688	1
FUG2	0	0	100447	Benzyl Chloride	1	0.488602173	0.000508167	1
FUG2	0	0	7440417	Beryllium	1	0.001155223	7.37E-07	1
FUG2	0	0	106990	1,3-Butadiene	1	0.700546304	0.00056066	1
FUG2	0	0	7440439	Cadmium	1	0.133411538	7.72E-06	1
FUG2	0	0	75150	CS2	1	0.557412584	0.000744501	1
FUG2	0	0	56235	CCl4	1	0.603803292	0.000629159	1
FUG2	0	0	108907	Chlorobenzn	1	0.441300714	0.00045977	1
FUG2	0	0	75003	Ethyl Chloride	1	0.294964077	0.00031216	1
FUG2	0	0	67663	Chloroform	1	0.475332632	0.000496068	1
FUG2	0	0	18540299	Cr(VI)	1	0.041266614	4.42E-06	1
FUG2	0	0	7440484	Cobalt	1	0.007552912	9.82E-06	1
FUG2	0	0	7440508	Copper	1	0.047391417	5.26E-05	1
FUG2	0	0	106934	EDB	1	0.72166221	0.000750151	1
FUG2	0	0	106467	p-DiClBenzene	1	1.707186449	0.002300454	1
FUG2	0	0	75343	1,1-DiClEthane	1	0.38579905	0.000401694	1
FUG2	0	0	107062	EDC	1	0.784185067	0.000933492	1
FUG2	0	0	75354	Vinylid Chlorid	1	0.829243316	0.001017248	1
FUG2	0	0	123911	1,4-Dioxane	1	0.691990779	0.000887021	1
FUG2	0	0	1086	Dioxins-w/o	1	0	0	1
FUG2	0	0	100414	Ethyl Benzene	1	79.63996145	0.081064731	1
FUG2	0	0	50000	Formaldehyde	1	0	0	1
FUG2	0	0	110543	Hexane	1	84.84892868	0.083000605	1
FUG2	0	0	7647010	HCl	1	0	0	1
FUG2	0	0	7664393	HF	1	0	0	1
FUG2	0	0	67630	Isopropyl Alcoh	1	26.94772686	0.061947973	1

FUG2	0	0	7439921	Lead	1	0.970265731	5.61404E-05	1
FUG2	0	0	7439965	Manganese	1	0.257423627	0.0002	1
FUG2	0	0	7439976	Mercury	1	1.012714857	0.000596491	1
FUG2	0	0	67561	Methanol	1	16.04033439	0.018622991	1
FUG2	0	0	74839	Methyl Bromide	1	2.44082473	0.001701754	1
FUG2	0	0	78933	MEK	1	13.19395102	0.013021211	1
FUG2	0	0	1634044	Me t-ButylEther	1	0.341843295	0.000355717	1
FUG2	0	0	75092	Methylene Chlor	1	13.11865086	0.016571236	1
FUG2	0	0	91203	Naphthalene	1	3.638496491	0.002631579	1
FUG2	0	0	7440020	Nickel	1	0.104000358	8.42E-05	1
FUG2	0	0	1151	PAHs-w/o	1	0	0	1
FUG2	0	0	1336363	PCBs	1	0.428286094	0.000474657	1
FUG2	0	0	127184	Perc	1	3.297145238	0.007634279	1
FUG2	0	0	115071	Propylene	1	19.51906673	0.020611203	1
FUG2	0	0	7782492	Selenium	1	0.014220457	8.42E-06	1
FUG2	0	0	100425	Styrene	1	7.616723639	0.006647823	1
FUG2	0	0	79345	TetraClEthane	1	0.651107901	0.000677556	1
FUG2	0	0	108883	Toluene	1	264.3850554	0.312643678	1
FUG2	0	0	71556	1,1,1-TCA	1	3.122255086	0.007406041	1
FUG2	0	0	79005	1,1,2TriClEthan	1	0.520543002	0.000542045	1
FUG2	0	0	79016	TCE	1	0.51767022	0.000539625	1
FUG2	0	0	7440622	Vanadium	1	0.056063167	3.33E-05	1
FUG2	0	0	108054	Vinyl Acetate	1	1.551969719	0.001718088	1
FUG2	0	0	75014	Vinyl Chloride	1	0.243991537	0.000254083	1
FUG2	0	0	1330207	Xylenes	1	348.8326037	0.412825166	1
FUG3	0	0	75070	Acetaldehyde	1	0	0	1
FUG3	0	0	107131	Acrylonitrile	1	0.862104484	0.001111875	1
FUG3	0	0	107051	AllylChlor	1	0.059822888	3.46E-05	1
FUG3	0	0	7440382	Arsenic	1	0.01358372	1.86E-05	1
FUG3	0	0	71432	Benzene	1	30.35899623	0.035571688	1
FUG3	0	0	100447	Benzyl Chloride	1	0.488602173	0.000508167	1
FUG3	0	0	7440417	Beryllium	1	0.001155223	7.37E-07	1
FUG3	0	0	106990	1,3-Butadiene	1	0.700546304	0.00056066	1
FUG3	0	0	7440439	Cadmium	1	0.133411538	7.72E-06	1
FUG3	0	0	75150	CS2	1	0.557412584	0.000744501	1
FUG3	0	0	56235	CCl4	1	0.603803292	0.000629159	1
FUG3	0	0	108907	Chlorobenzn	1	0.441300714	0.00045977	1
FUG3	0	0	75003	Ethyl Chloride	1	0.294964077	0.00031216	1
FUG3	0	0	67663	Chloroform	1	0.475332632	0.000496068	1
FUG3	0	0	18540299	Cr(VI)	1	0.041266614	4.42E-06	1
FUG3	0	0	7440484	Cobalt	1	0.007552912	9.82E-06	1
FUG3	0	0	7440508	Copper	1	0.047391417	5.26E-05	1
FUG3	0	0	106934	EDB	1	0.72166221	0.000750151	1
FUG3	0	0	106467	p-DiClBenzene	1	1.707186449	0.002300454	1
FUG3	0	0	75343	1,1-DiClEthane	1	0.38579905	0.000401694	1
FUG3	0	0	107062	EDC	1	0.784185067	0.000933492	1
FUG3	0	0	75354	Vinylid Chlorid	1	0.829243316	0.001017248	1
FUG3	0	0	123911	1,4-Dioxane	1	0.691990779	0.000887021	1
FUG3	0	0	1086	Dioxins-w/o	1	0	0	1
FUG3	0	0	100414	Ethyl Benzene	1	79.63996145	0.081064731	1
FUG3	0	0	50000	Formaldehyde	1	0	0	1
FUG3	0	0	110543	Hexane	1	84.84892868	0.083000605	1

FUG3	0	0	7647010	HCl	1	0	0	1
FUG3	0	0	7664393	HF	1	0	0	1
FUG3	0	0	67630	Isopropyl Alcoh	1	26.94772686	0.061947973	1
FUG3	0	0	7439921	Lead	1	0.970265731	5.61404E-05	1
FUG3	0	0	7439965	Manganese	1	0.257423627	0.0002	1
FUG3	0	0	7439976	Mercury	1	1.012714857	0.000596491	1
FUG3	0	0	67561	Methanol	1	16.04033439	0.018622991	1
FUG3	0	0	74839	Methyl Bromide	1	2.44082473	0.001701754	1
FUG3	0	0	78933	MEK	1	13.19395102	0.013021211	1
FUG3	0	0	1634044	Me t-ButylEther	1	0.341843295	0.000355717	1
FUG3	0	0	75092	Methylene Chlor	1	13.11865086	0.016571236	1
FUG3	0	0	91203	Naphthalene	1	3.638496491	0.002631579	1
FUG3	0	0	7440020	Nickel	1	0.104000358	8.42E-05	1
FUG3	0	0	1151	PAHs-w/o	1	0	0	1
FUG3	0	0	1336363	PCBs	1	0.428286094	0.000474657	1
FUG3	0	0	127184	Perc	1	3.297145238	0.007634279	1
FUG3	0	0	115071	Propylene	1	19.51906673	0.020611203	1
FUG3	0	0	7782492	Selenium	1	0.014220457	8.42E-06	1
FUG3	0	0	100425	Styrene	1	7.616723639	0.006647823	1
FUG3	0	0	79345	TetraClEthane	1	0.651107901	0.000677556	1
FUG3	0	0	108883	Toluene	1	264.3850554	0.312643678	1
FUG3	0	0	71556	1,1,1-TCA	1	3.122255086	0.007406041	1
FUG3	0	0	79005	1,1,2TriClEthan	1	0.520543002	0.000542045	1
FUG3	0	0	79016	TCE	1	0.51767022	0.000539625	1
FUG3	0	0	7440622	Vanadium	1	0.056063167	3.33E-05	1
FUG3	0	0	108054	Vinyl Acetate	1	1.551969719	0.001718088	1
FUG3	0	0	75014	Vinyl Chloride	1	0.243991537	0.000254083	1
FUG3	0	0	1330207	Xylenes	1	348.8326037	0.412825166	1
S11	0	0	7440508	Copper	1	0.324646605	6.48E-05	1
S11	0	0	7440439	Cadmium	1	0.000562589	1.12E-07	1
S11	0	0	18540299	Cr(VI)	1	0.000174019	3.47E-08	1
S11	0	0	7439921	Lead	1	0.004091555	8.17E-07	1
S11	0	0	7439965	Manganese	1	0.0052092	1.04E-06	1
S11	0	0	7440020	Nickel	1	0.0011576	2.31E-07	1
S131	0	0	7440508	Copper	1	3.414173952	0.000684	1
S131	0	0	7440439	Cadmium	1	0.005916513	1.19E-06	1
S131	0	0	18540299	Cr(VI)	1	0.001830085	3.67E-07	1
S131	0	0	7439921	Lead	1	0.043029186	8.62E-06	1
S131	0	0	7439965	Manganese	1	0.054783	1.1E-05	1
S131	0	0	7440020	Nickel	1	0.012174	2.44E-06	1
S132	0	0	7440508	Copper	1	3.414173952	0.000684	1
S132	0	0	7440439	Cadmium	1	0.005916513	1.19E-06	1
S132	0	0	18540299	Cr(VI)	1	0.001830085	3.67E-07	1
S132	0	0	7439921	Lead	1	0.043029186	8.62E-06	1
S132	0	0	7439965	Manganese	1	0.054783	1.1E-05	1
S132	0	0	7440020	Nickel	1	0.012174	2.44E-06	1
S16	0	0	9901	DieselExhPM	1	0.640332971	0.0128	1

Background

PolID	PolAbbrev	Conc (ug/m^3)	MWAF

Ground level concentration files (\glc\)

100414MAXHR.txt
100414PER.txt
100425MAXHR.txt
100425PER.txt
100447MAXHR.txt
100447PER.txt
106467MAXHR.txt
106467PER.txt
106934MAXHR.txt
106934PER.txt
106990MAXHR.txt
106990PER.txt
107051MAXHR.txt
107051PER.txt
107062MAXHR.txt
107062PER.txt
107131MAXHR.txt
107131PER.txt
108054MAXHR.txt
108054PER.txt
108101MAXHR.txt
108101PER.txt
1086MAXHR.txt
1086PER.txt
108883MAXHR.txt
108883PER.txt
108907MAXHR.txt
108907PER.txt
110543MAXHR.txt
110543PER.txt
115071MAXHR.txt
115071PER.txt
1151MAXHR.txt
1151PER.txt
123911MAXHR.txt
123911PER.txt
127184MAXHR.txt
127184PER.txt
1330207MAXHR.txt
1330207PER.txt
1336363MAXHR.txt
1336363PER.txt
1634044MAXHR.txt
1634044PER.txt
18540299MAXHR.txt
18540299PER.txt
50000MAXHR.txt
50000PER.txt
540841MAXHR.txt
540841PER.txt

56235MAXHR.txt
56235PER.txt
67561MAXHR.txt
67561PER.txt
67630MAXHR.txt
67630PER.txt
67663MAXHR.txt
67663PER.txt
67721MAXHR.txt
67721PER.txt
71432MAXHR.txt
71432PER.txt
71556MAXHR.txt
71556PER.txt
7439921MAXHR.txt
7439921PER.txt
7439965MAXHR.txt
7439965PER.txt
7439976MAXHR.txt
7439976PER.txt
7440020MAXHR.txt
7440020PER.txt
7440382MAXHR.txt
7440382MAXHR.txt~RF1e2d7de4.TMP
7440382PER.txt
7440417MAXHR.txt
7440417PER.txt
7440439MAXHR.txt
7440439PER.txt
7440484MAXHR.txt
7440484PER.txt
7440508MAXHR.txt
7440508PER.txt
7440622MAXHR.txt
7440622PER.txt
74839MAXHR.txt
74839PER.txt
75003MAXHR.txt
75003PER.txt
75014MAXHR.txt
75014PER.txt
75070MAXHR.txt
75070PER.txt
75092MAXHR.txt
75092PER.txt
75150MAXHR.txt
75150PER.txt
75343MAXHR.txt
75343PER.txt
75354MAXHR.txt
75354PER.txt
7647010MAXHR.txt

7647010PER.txt
7664393MAXHR.txt
7664393PER.txt
7782492MAXHR.txt
7782492PER.txt
78933MAXHR.txt
78933PER.txt
79005MAXHR.txt
79005PER.txt
79016MAXHR.txt
79016PER.txt
79345MAXHR.txt
79345PER.txt
91203MAXHR.txt
91203MAXHR.txt~RF1f544fc4.TMP
91203PER.txt
91203PER.txt~RF1f545080.TMP
95476MAXHR.txt
95476PER.txt
98828MAXHR.txt
98828PER.txt
9901MAXHR.txt
9901PER.txt
{B4D4FB7D-C3BC-4B3F-894D-B0D7BFEB5E1B}.tmp
{F4F984D5-64AB-44E3-8991-0FD37A8BFD0A}.tmp

POLLUTANT HEALTH INFORMATION
Health Database: C:\HARP2\Tables\HEALTH17320.mdb
Health Table Version: BAYAREAHEALTHTBL
Official: False

PolID	PolAbbrev	InhCancer	OralCancer	AcuteREL	InhChronicREL	OralChronicREL	InhChronic8HRREL
75070	Acetaldehyde	0.01		470	140		300
107131	Acrylonitrile	1			5		
107051	AllylChlor	0.021					
7440382	Arsenic	12	1.5	0.2	0.015	3.5E-06	0.015
71432	Benzene	0.1		27	3		3
100447	Benzyl Chloride	0.17		240			
7440417	Beryllium	8.4			0.007	0.002	
106990	1,3-Butadiene	0.6		660	2		9
7440439	Cadmium	15			0.02	0.0005	
75150	CS2			6200	800		
56235	CCl4	0.15		1900	40		
108907	Chlorobenzn				1000		
75003	Ethyl Chloride				30000		
67663	Chloroform	0.019		150	300		
18540299	Cr(VI)	510	0.5		0.2	0.02	
7440484	Cobalt						
7440508	Copper			100			
106934	EDB	0.25			0.8		
106467	p-DiClBenzene	0.04			800		

75343	1,1-DiClEthane	0.0057					
107062	EDC	0.072			400		
75354	Vinylid Chlorid				70		
123911	1,4-Dioxane	0.027		3000	3000		
1086	Dioxins-w/o	130000	130000		4E-05	1E-08	
100414	Ethyl Benzene	0.0087			2000		
50000	Formaldehyde	0.021		55	9		9
110543	Hexane				7000		
7647010	HCl			2100	9		
7664393	HF			240	14	0.04	
67630	Isopropyl Alcoh			3200	7000		
7439921	Lead	0.042	0.0085				
7439965	Manganese				0.09		0.17
7439976	Mercury			0.6	0.03	0.00016	0.06
67561	Methanol			28000	4000		
74839	Methyl Bromide			3900	5		
78933	MEK			13000			
1634044	Me t-ButylEther	0.0018			8000		
75092	Methylene Chlor	0.0035		14000	400		
91203	Naphthalene	0.12			9		
7440020	Nickel	0.91		0.2	0.014	0.011	0.06
1151	PAHs-w/o	3.9	12				
1336363	PCBs	2	2				
127184	Perc	0.021		20000	35		
115071	Propylene				3000		
7782492	Selenium				20	0.005	
100425	Styrene			21000	900		
79345	TetraClEthane	0.2					
108883	Toluene			37000	300		
71556	1,1,1-TCA			68000	1000		
79005	1,1,2TriClEthan	0.057					
79016	TCE	0.007			600		
7440622	Vanadium			30			
108054	Vinyl Acetate				200		
75014	Vinyl Chloride	0.27		180000			
1330207	Xylenes			22000	700		
9901	DieselExhPM	1.1			5		

LIST OF RISK ASSESSMENT FILES
Health risk analysis files (\hra\)

_____
AGLCList.csv
AHRAInput.hra
ANCAcuteRisk.csv
ANCAcuteRiskSumByRec.csv
AOutput.txt
APathwayRec.csv
APolDB.csv
FUG1.SrcAGLCList.csv
FUG1.SrcAHRAInput.hra
FUG1.SrcANCAcuteRisk.csv
FUG1.SrcANCAcuteRiskSumByRec.csv

FUG1.SrcAPathwayRec.csv
FUG1.SrcAPolDB.csv
FUG1.SrcRCCancerRisk.csv
FUG1.SrcRCCancerRiskSumByRec.csv
FUG1.SrcRCGLCList.csv
FUG1.SrcRChGLCList.csv
FUG1.SrcRChHRAInput.hra
FUG1.SrcRChNCChronicRisk.csv
FUG1.SrcRChNCChronicRiskSumByRec.csv
FUG1.SrcRChPathwayRec.csv
FUG1.SrcRChPolDB.csv
FUG1.SrcRCHRAInput.hra
FUG1.SrcRCPathwayRec.csv
FUG1.SrcRCPolDB.csv
FUG1.SrcWChGLCList.csv
FUG1.SrcWChHRAInput.hra
FUG1.SrcWChNCChronicRisk.csv
FUG1.SrcWChNCChronicRiskSumByRec.csv
FUG1.SrcWChPathwayRec.csv
FUG1.SrcWChPolDB.csv
FUG2.SrcAGLCList.csv
FUG2.SrcAHRAInput.hra
FUG2.SrcANCAcuteRisk.csv
FUG2.SrcANCAcuteRiskSumByRec.csv
FUG2.SrcAPathwayRec.csv
FUG2.SrcAPolDB.csv
FUG2.SrcRCCancerRisk.csv
FUG2.SrcRCCancerRiskSumByRec.csv
FUG2.SrcRCGLCList.csv
FUG2.SrcRChGLCList.csv
FUG2.SrcRChHRAInput.hra
FUG2.SrcRChNCChronicRisk.csv
FUG2.SrcRChNCChronicRiskSumByRec.csv
FUG2.SrcRChPathwayRec.csv
FUG2.SrcRChPolDB.csv
FUG2.SrcRCHRAInput.hra
FUG2.SrcRCPathwayRec.csv
FUG2.SrcRCPolDB.csv
FUG2.SrcWChGLCList.csv
FUG2.SrcWChHRAInput.hra
FUG2.SrcWChNCChronicRisk.csv
FUG2.SrcWChNCChronicRiskSumByRec.csv
FUG2.SrcWChPathwayRec.csv
FUG2.SrcWChPolDB.csv
FUG3.SrcAGLCList.csv
FUG3.SrcAHRAInput.hra
FUG3.SrcANCAcuteRisk.csv
FUG3.SrcANCAcuteRiskSumByRec.csv
FUG3.SrcAPathwayRec.csv
FUG3.SrcAPolDB.csv
FUG3.SrcRCCancerRisk.csv
FUG3.SrcRCCancerRiskSumByRec.csv

FUG3.SrcRCGLCList.csv
FUG3.SrcRChGLCList.csv
FUG3.SrcRChHRAInput.hra
FUG3.SrcRChNCChronicRisk.csv
FUG3.SrcRChNCChronicRiskSumByRec.csv
FUG3.SrcRChPathwayRec.csv
FUG3.SrcRChPolDB.csv
FUG3.SrcRCHRAInput.hra
FUG3.SrcRCPathwayRec.csv
FUG3.SrcRCPolDB.csv
FUG3.SrcWChGLCList.csv
FUG3.SrcWChHRAInput.hra
FUG3.SrcWChNCChronicRisk.csv
FUG3.SrcWChNCChronicRiskSumByRec.csv
FUG3.SrcWChPathwayRec.csv
FUG3.SrcWChPolDB.csv
P15.SrcAGLCList.csv
P15.SrcAHRAInput.hra
P15.SrcANCAcuteRisk.csv
P15.SrcANCAcuteRiskSumByRec.csv
P15.SrcAPathwayRec.csv
P15.SrcAPolDB.csv
P15.SrcRCCancerRisk.csv
P15.SrcRCCancerRiskSumByRec.csv
P15.SrcRCGLCList.csv
P15.SrcRChGLCList.csv
P15.SrcRChHRAInput.hra
P15.SrcRChNCChronicRisk.csv
P15.SrcRChNCChronicRiskSumByRec.csv
P15.SrcRChPathwayRec.csv
P15.SrcRChPolDB.csv
P15.SrcRCHRAInput.hra
P15.SrcRCPathwayRec.csv
P15.SrcRCPolDB.csv
P15.SrcWChGLCList.csv
P15.SrcWChHRAInput.hra
P15.SrcWChNCChronicRisk.csv
P15.SrcWChNCChronicRiskSumByRec.csv
P15.SrcWChPathwayRec.csv
P15.SrcWChPolDB.csv
RCancerRisk.csv
RCancerRiskSumByRec.csv
RGLCList.csv
RHRAInput.hra
RNCAcuteRisk.csv
RNCAcuteRiskSumByRec.csv
RNCChronicRisk.csv
RNCChronicRiskSumByRec.csv
ROutput.txt
RPathwayRec.csv
RPolDB.csv
S11.SrcAGLCList.csv

S11.SrcAHRAInput.hra
S11.SrcANCAcuteRisk.csv
S11.SrcANCAcuteRiskSumByRec.csv
S11.SrcAPathwayRec.csv
S11.SrcAPolDB.csv
S11.SrcRCCancerRisk.csv
S11.SrcRCCancerRiskSumByRec.csv
S11.SrcRCGLCList.csv
S11.SrcRChGLCList.csv
S11.SrcRChHRAInput.hra
S11.SrcRChNCChronicRisk.csv
S11.SrcRChNCChronicRiskSumByRec.csv
S11.SrcRChPathwayRec.csv
S11.SrcRChPolDB.csv
S11.SrcRCHRAInput.hra
S11.SrcRCPathwayRec.csv
S11.SrcRCPolDB.csv
S11.SrcWChGLCList.csv
S11.SrcWChHRAInput.hra
S11.SrcWChNCChronicRisk.csv
S11.SrcWChNCChronicRiskSumByRec.csv
S11.SrcWChPathwayRec.csv
S11.SrcWChPolDB.csv
S131.SrcAGLCList.csv
S131.SrcAHRAInput.hra
S131.SrcANCAcuteRisk.csv
S131.SrcANCAcuteRiskSumByRec.csv
S131.SrcAPathwayRec.csv
S131.SrcAPolDB.csv
S131.SrcRCCancerRisk.csv
S131.SrcRCCancerRiskSumByRec.csv
S131.SrcRCGLCList.csv
S131.SrcRChGLCList.csv
S131.SrcRChHRAInput.hra
S131.SrcRChNCChronicRisk.csv
S131.SrcRChNCChronicRiskSumByRec.csv
S131.SrcRChPathwayRec.csv
S131.SrcRChPolDB.csv
S131.SrcRCHRAInput.hra
S131.SrcRCPathwayRec.csv
S131.SrcRCPolDB.csv
S131.SrcWChGLCList.csv
S131.SrcWChHRAInput.hra
S131.SrcWChNCChronicRisk.csv
S131.SrcWChNCChronicRiskSumByRec.csv
S131.SrcWChPathwayRec.csv
S131.SrcWChPolDB.csv
S132.SrcAGLCList.csv
S132.SrcAHRAInput.hra
S132.SrcANCAcuteRisk.csv
S132.SrcANCAcuteRiskSumByRec.csv
S132.SrcAPathwayRec.csv

S132.SrcAPolDB.csv
S132.SrcRCCancerRisk.csv
S132.SrcRCCancerRiskSumByRec.csv
S132.SrcRCGLCList.csv
S132.SrcRChGLCList.csv
S132.SrcRChHRAInput.hra
S132.SrcRChNCChronicRisk.csv
S132.SrcRChNCChronicRiskSumByRec.csv
S132.SrcRChPathwayRec.csv
S132.SrcRChPolDB.csv
S132.SrcRCHRAInput.hra
S132.SrcRCPathwayRec.csv
S132.SrcRCPolDB.csv
S132.SrcWChGLCList.csv
S132.SrcWChHRAInput.hra
S132.SrcWChNCChronicRisk.csv
S132.SrcWChNCChronicRiskSumByRec.csv
S132.SrcWChPathwayRec.csv
S132.SrcWChPolDB.csv
S16.SrcAGLCList.csv
S16.SrcAHRAInput.hra
S16.SrcANCAcuteRisk.csv
S16.SrcANCAcuteRiskSumByRec.csv
S16.SrcAPathwayRec.csv
S16.SrcAPolDB.csv
S16.SrcRCCancerRisk.csv
S16.SrcRCCancerRiskSumByRec.csv
S16.SrcRCGLCList.csv
S16.SrcRChGLCList.csv
S16.SrcRChHRAInput.hra
S16.SrcRChNCChronicRisk.csv
S16.SrcRChNCChronicRiskSumByRec.csv
S16.SrcRChPathwayRec.csv
S16.SrcRChPolDB.csv
S16.SrcRCHRAInput.hra
S16.SrcRCPathwayRec.csv
S16.SrcRCPolDB.csv
S16.SrcWChGLCList.csv
S16.SrcWChHRAInput.hra
S16.SrcWChNCChronicRisk.csv
S16.SrcWChNCChronicRiskSumByRec.csv
S16.SrcWChPathwayRec.csv
S16.SrcWChPolDB.csv
SrcANCAcuteRiskSumByRecBySrc.csv
SrcAOutput.txt
SrcRCCancerRiskSumByRecBySrc.csv
SrcRChNCChronicRiskSumByRecBySrc.csv
SrcRChOutput.txt
SrcRCOutput.txt
SrcWChNCChronicRiskSumByRecBySrc.csv
SrcWChOutput.txt
WchGLCList.csv

WchHRAInput.hra
WChNCChronicRisk.csv
WChNCChronicRiskSumByRec.csv
WchOutput.txt
WchPathwayRec.csv
WchPolDB.csv

Spatial averaging files (\sa\)

HARP2 - HRACalc (dated 22118) 2/21/2024 4:49:42 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 30

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 14
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

```
**Fraction at time at home**
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

**********************************
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Warm

**********************************
TIER 2 SETTINGS
Tier2 not used.

**********************************

Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\RCancerRisk.csv
Cancer risk total by receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\RCancerRiskSumByRec.csv
Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\RNCChronicRisk.csv
Chronic risk total by receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\RNCChronicRiskSumByRec.csv

HRA ran successfully
```

HARP2 - HRACalc (dated 22118) 2/22/2024 8:24:51 AM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: 16
Total Exposure Duration: 25

Exposure Duration Bin Distribution
3rd Trimester Bin: 0
0<2 Years Bin: 0
2<9 Years Bin: 0
2<16 Years Bin: 0
16<30 Years Bin: 0
16 to 70 Years Bin: 25

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
NOTE: The worker adjustment factors below are only used for cancer assessments. However, the GLC adjustment factor is also applied to 8-hr noncancer chronic assessments.

```
Worker adjustments factors enabled: YES
GLC adjustment factor: 1
Exposure frequency: 250

**Fraction at time at home**
3rd Trimester to 16 years: OFF
16 years to 70 years: OFF

**********************************
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Warm

**********************************
TIER 2 SETTINGS
Tier2 not used.

**********************************

Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs
PreAVG\WAF-Pre\Pre-WAF\hra\WCCancerRisk.csv
Cancer risk total by receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\WAF-Pre\Pre-WAF\hra\WCCancerRiskSumByRec.csv
HRA ran successfully
```

HARP2 - HRACalc (dated 22118) 2/21/2024 5:51:47 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: NCChronic
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER
Exposure duration are only adjusted for cancer assessments

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Warm

```
**********************************
TIER 2 SETTINGS
Tier2 not used.

**********************************

Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs
PreAVG\PreRTOAvg\hra\WChNCChronicRisk.csv
Chronic risk total by receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\WChNCChronicRiskSumByRec.csv
HRA ran successfully
```

HARP2 - HRACalc (dated 22118) 2/21/2024 5:52:23 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Worker
Scenario: NCAcute
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER
Exposure duration are only adjusted for cancer assessments

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: False
Dermal: False
Mother's milk: False
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: Moderate8HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

****
TIER 2 SETTINGS
Tier2 not used.

****

Calculating acute risk

Pre-project HARP2

```
Acute risk breakdown by pollutant and receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\ANCAcuteRisk.csv
Acute risk total by receptor saved to: F:\HRSA Assignments\Steel RTO 30009\30009 PostPTE vs PreAVG\PreRTOAvg\hra\ANCAcuteRiskSumByRec.csv
HRA ran successfully
```

A#30009
** Generated by AERSURFACE, Version 20060 09/14/23

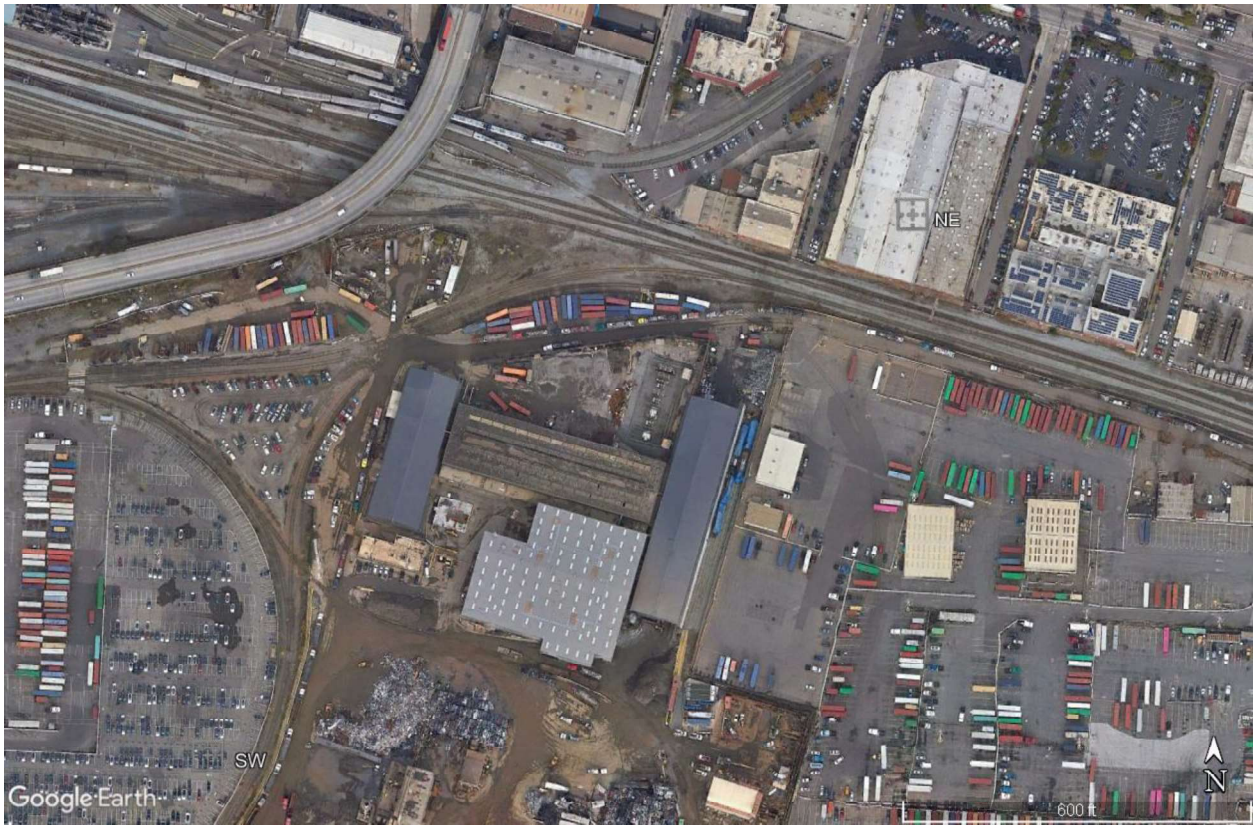
Data Type: NLCD 2016
** Title 1
** Primary Site (Zo)

** Center UTM Easting (meters)	562481
** Center UTM Northing (meters)	4183495
** UTM Zone	10

Land Cover Counts: Surface Roughness (Within 3000m Radius)

Land: Cover Counts: Surface Roughness

0	Missing, Out-of-Bounds, or Unde	0
11	Open Water	3393
12	Perennial Ice/Snow	0
21	Developed, Open Space	855
22	Developed, Low Intensity	1776
23	Developed, Medium Intensity	9848
24	Developed, High Intensity	15180
31	Barren Land (Rock/Sand/Clay)	132
32	Unconsolidated Shore	0
41	Deciduous Forest	0
42	Evergreen Forest	0
43	Mixed Forest	0
51	Dwarf Scrub	0
52	Shrub/Scrub	11
71	Grasslands/Herbaceous	28
72	Sedge/Herbaceous	0
73	Lichens	0
74	Moss	0
81	Pasture/Hay	0
82	Cultivated Crops	198
90	Woody Wetlands	0
91	Palustrine Forested Wetland	0
92	Palustrine Scrub/Shrub Wetland	0
93	Estuarine Forested Wetland	0
94	Estuarine Scrub/Shrub Wetland	0
95	Emergent Herbaceous Wetland	8
96	Palustrine Emergent Wetland (Pe	0
97	Estuarine Emergent Wetland	0
98	Palustrine Aquatic Bed	0
99	Estuarine Aquatic Bed	0
	Total	31429
	Urban=	79.63%



NAD 83

SW

562407 m E
4183512 m N

NE

562775 m E

4183798 m N

Met Data: Oakland STP
Terrain data: Alameda County