Chapter 3
Modifications to the Draft EIR

Introduction

This chapter of the document addresses modifications to the Draft EIR for the Al Larson Boat Shop Improvement Project (proposed Project) at the Port of Los Angeles (Port). It presents all revisions related to public comments, as determined necessary by the lead agencies, for the following areas of the document:

- Executive Summary;
- Chapter 2, Project Description;
- Section 3.1, Aesthetics and Visual Resources;
- Section 3.2, Air Quality, Meteorology and Greenhouse Gases;
- Section 3.3, Biological Resources;
- Section 3.4, Cultural Resources;
- Section 3.5, Geology;
- Section 3.6, Groundwater and Soils;
- Chapter 5, Cumulative Analysis
- Chapter 6, Analysis of Alternatives;
- Chapter 9, References;
- Chapter 10, List of Preparers and Contributors;
- Appendix C2, Operation Emissions;
- Appendix C3, Health Risk Assessment.
- Add Appendix H: Boatyard Analysis – A Review of Boatyard Market Demand Data

Any revisions to supporting documentation are also presented. The numbering format from the Draft EIR is maintained in the sections presented here. Only sections that have revisions based on public comment are included, and sections that have no revisions are not included. Readers are referred to the Draft EIR to view complete sections. It should be noted that some of the changes were editorial in nature. However, corrections and refinements to Section 3.2, Air Quality, Meteorology and Greenhouse Gases, in particular the health risk assessment, as a result of South Coast Air Quality Management District (SCAQMD) comment SCAQMD-3 resulted in changes (reductions) in the maximum

health impacts under Impact AQ-7, and elimination of a significant and unavoidable impact to residential cancer risk and acute hazard.

As provided in Section 15088(c) of the State CEQA Guidelines, responses to comments may take the form of a revision to a Draft EIR or may be separate section in the Final EIR. This chapter provides changes to the Draft EIR in revision-mode text (i.e., deletions are shown with ~~strikethrough~~ and additions are shown with underline). These notations are meant to provide clarification, corrections, or minor revisions as needed as a result of public comments or because of changes in the proposed Project since the release of the Draft EIR.

Changes to the Draft EIR

The following changes to the text as presented below are incorporated into the Final EIR:

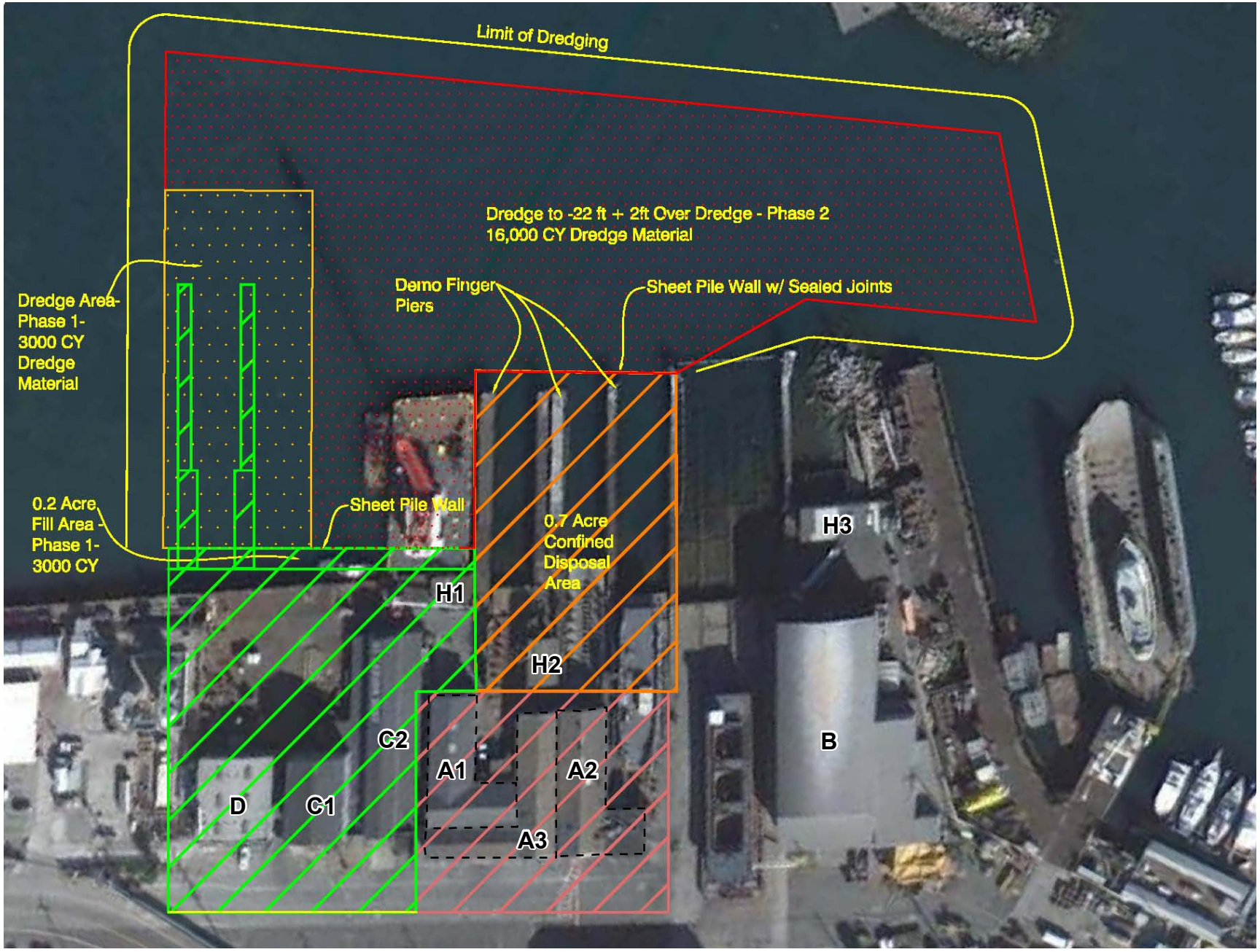
Changes Made to the Executive Summary

Section ES.3.3, Figure ES-3, Page ES-8

The southernmost portion of Building A2, which is part of the Office and Workshop Complex, was inadvertently omitted from the boundary delineating Building A2. Figure ES-3 has been revised to reflect the correct boundary of Building A2. In addition, the name of the figure has been revised to clarify the information being presented in the figure. Replace Figure ES-3 with the attached (next page).

Section ES.3.3.1.8, Figure ES-4, Page ES-13

The southernmost portion of Building A2, which is part of the Office and Workshop Complex, was inadvertently omitted from the boundary delineating Building A2. Figure ES-4 has been revised to reflect the correct boundary of Building A2. In addition, the Project boundary has been added to delineate the facility improvements and future leasehold area and the name of the figure has been revised to clarify the information being presented in the figure. Replace Figure ES-4 with the attached (following Figure ES-3).



A - Office and Workshop Complex
B - Paint and Shed
C - Machine Shop Complex
D - Building No. 4
H - Ancillary Buildings and Structures

LEGEND:
PHASE 1
PHASE 2
PHASE 3

Port of Los Angeles
Al Larson Boat Shop
Improvement Project
Improvement Element of Proposed Project
Figure ES-3

Existing Lease
Area to be added to lease
Excluded
Project Boundary - Facility Improvements and Future Leasehold
Buildings to be demolished
Buildings to remain
Redevelopment Area

CDM Smith

Port of Los Angeles
Al Larson Boat Shop Improvement Project
Project Boundary and Lease Renewal
Element of Proposed Project
Figure ES-4

Section ES.4.2.2, Page ES-15

Revise paragraph under "Alternative 2 – Reduced Project: Limited Demolition" heading, as follows:

Alternative 2 – Reduced Project: Limited Demolition

This alternative would be very similar to the proposed Project; however, not all of the three potentially historic buildings (A2, A3, or C1) would be demolished. Most of the other Project components would be constructed/implemented (i.e., drainage improvements, soil clean-up, dredging, 100-ton boat hoist, and CDFs). However, due to the retention of some of the potentially historic buildings, some of these components would not be implemented to their fullest extent, or, as is the case with the 600-ton boat hoist, not implemented at all (due to reduced clearance as a result of the retention of buildings slated for demolition as part of the proposed Project). In particular, the clean-up of landside legacy contaminants would not fully occur, as some of the potentially historic buildings would remain (i.e., contaminated soils beneath the buildings and asbestos from the buildings themselves would remain). Further, the maneuverability and versatility of the boat hoists would be limited due to loss of land area available for drydocking of vessels and access issues~~due to site constraints~~. No new structures would be constructed on the site, since some of the potentially historic buildings would remain available for reuse. Under this alternative, ALBS would continue to operate on the site under a new 30-year lease for the new area. The new lease term would begin in 2012.

Section ES.5.2.2, Table ES-1, Page ES-32

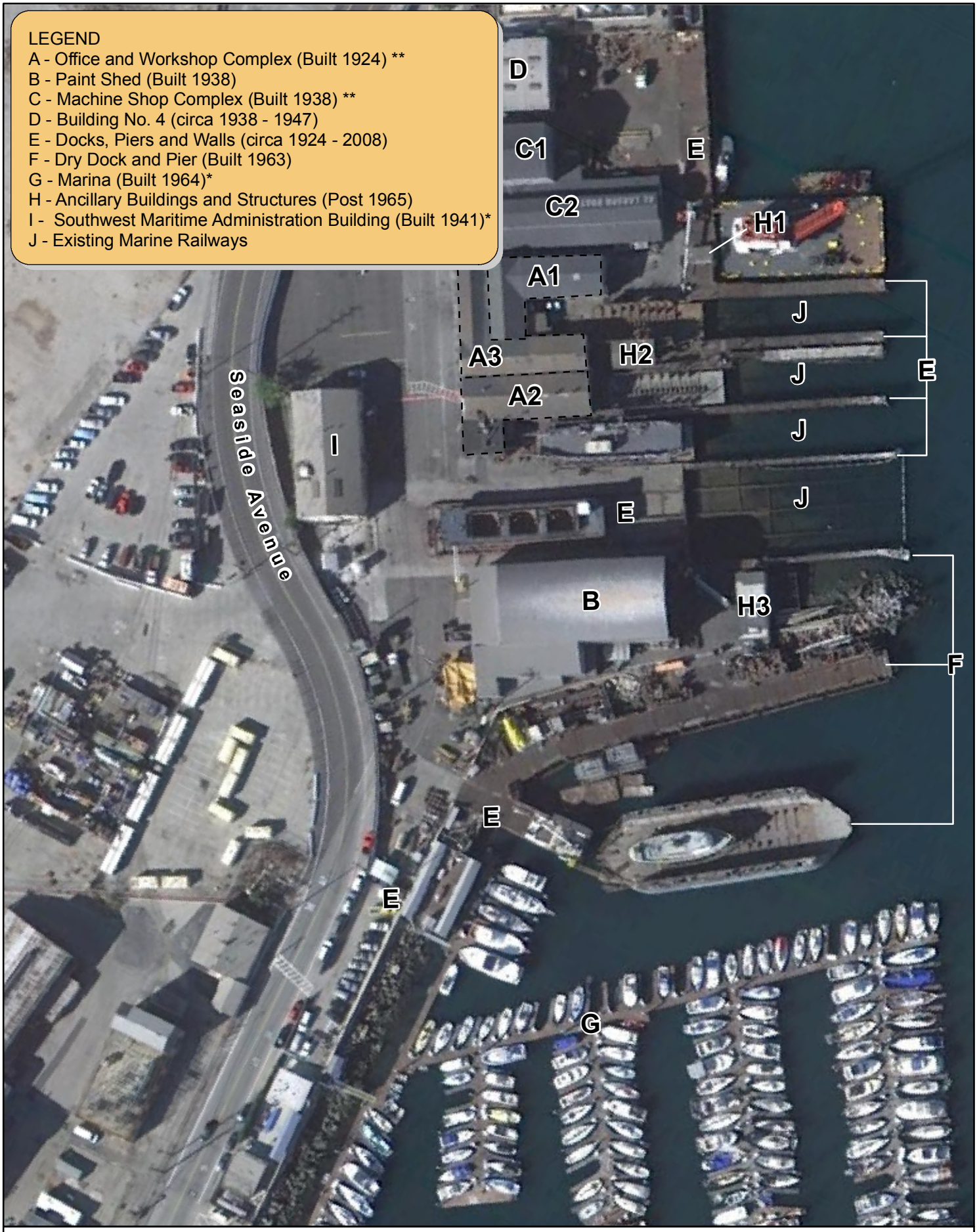
Revise mitigation measure MM CUL-2, in Table ES-1 as follows:

Environmental Impacts	Impact Determination	Mitigation Measures	Impacts after Mitigation
CUL-2: Construction of the proposed Project would impact significant historic architectural resources	Significant	**MM CUL-2: Historic Resource Recordation.** Impacts resulting from the demolition of Buildings A2, A3, and C1 shall be minimized through archival documentation of both building complexes in as-built and as-found condition. Prior to issuance of demolition permits, the Los Angeles Harbor Department (LAHD) shall ensure that documentation of the buildings proposed for demolition is completed in the form of a Historic American Building Survey (HABS) Level II documentation that shall comply with the Secretary of the Interior's Standards for Architectural and Engineering Documentation. The documentation shall include large-format photographic recordation, detailed historic narrative report, and compilation of historic research. The documentation shall be completed by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History. The original archival-quality documentation shall be placed in the ~~offered as donated material to Port of Los Angeles~~ LAHD archives~~.~~ ~~Archival copies of the documentation shall also be submitted to the Los Angeles Maritime Museum, the Central Branch of the Los Angeles Public Library and the Port of Los Angeles archives~~ where it would be available to local researchers.	**Significant and unavoidable**

Changes Made to Chapter 2, Project Description

Section 2.4.2, Figure 2-1, Page 2-8

The southernmost portion of Building A2, which is part of the Office and Workshop Complex, was inadvertently omitted from the boundary delineating Building A2. Figure 2-1 has been revised to reflect the correct boundary of Building A2. Replace Figure 2-1 with the attached (next page).



* Not part of the project.
** Potentially Historic Buildings.

CDM Smith

50 0 50
Feet

Port of Los Angeles
Al Larson Boat Shop Improvement Project
Project Site - Existing Conditions
Figure 2-1

Section 2.5.1, Figure 2-2, Page 2-11

The southernmost portion of Building A2, which is part of the Office and Workshop Complex, was inadvertently omitted from the boundary delineating Building A2. Figure 2-2 has been revised to reflect the correct boundary of Building A2. In addition, the name of the figure has been revised to clarify the information being presented in the figure. Replace Figure 2-2 with the attached (next page).

Section 2.5.3, Figure 2-3, Page 2-16

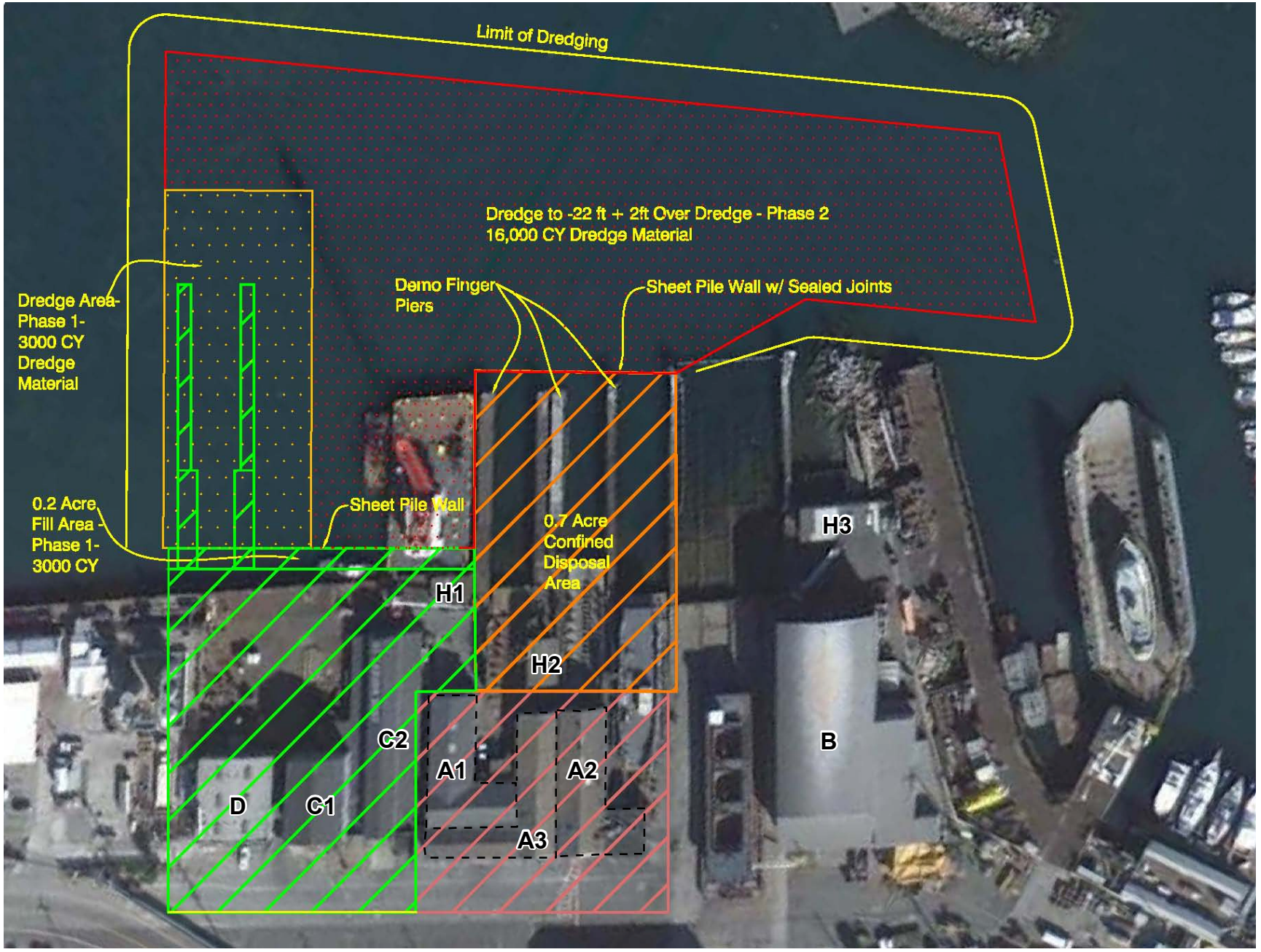
The southernmost portion of Building A2, which is part of the Office and Workshop Complex, was inadvertently omitted from the boundary delineating Building A2. Figure 2-3 has been revised to reflect the correct boundary of Building A2. In addition, the Project boundary has been added to delineate the facility improvements and future leasehold area and the name of the figure has been revised to clarify the information being presented in the figure. Replace Figure 2-3 with the attached (following Figure 2-2).

Section 2.7.1.2, Page 2-18

Revise paragraph under "Alternative 2 – Reduced Project: Limited Demolition" heading, as follows:

Alternative 2 – Reduced Project: Limited Demolition

This alternative would be very similar to the proposed Project; however, not all of the three potentially historic buildings (A2, A3, or C1) would be demolished. Most of the other Project components would be constructed/implemented (i.e., drainage improvements, soil clean-up, dredging, 100-ton boat hoist, and CDFs). However, due to the retention of some of the potentially historic buildings, some of these components would not be implemented to their fullest extent, or, as is the case with the 600-ton boat hoist, not implemented at all (due to reduced clearance as a result of the retention of buildings slated for demolition as part of the proposed Project – see Figure 2-4). In particular, the clean-up of landside legacy contaminants would not fully occur, as some of the potentially historic buildings would remain (i.e., contaminated soils beneath the buildings and asbestos from the buildings themselves would remain). Further, the maneuverability and versatility of the boat hoists would be limited due to loss of land area available for drydocking of vessels and access issues~~site constraints~~. No new structures would be constructed on the site, since some of the potentially historic buildings would remain available for reuse. Under this alternative, ALBS would continue to operate on the site under a new 30-year lease for the new area. The new lease term would begin in 2012.

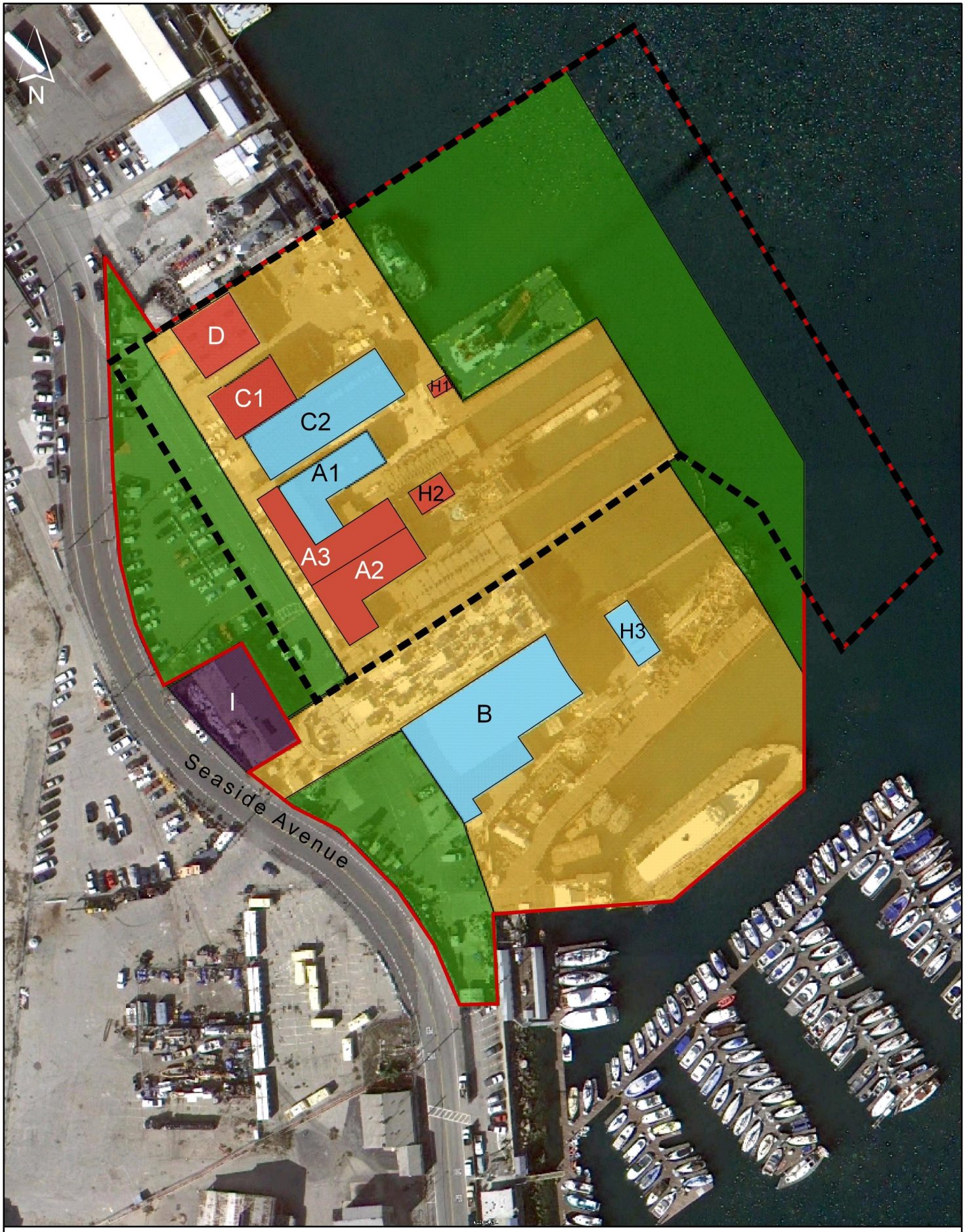


A - Office and Workshop Complex
B - Paint and Shed
C - Machine Shop Complex
D - Building No. 4
H - Ancillary Buildings and Structures

LEGEND:
PHASE 1
PHASE 2
PHASE 3

CDM Smith

Port of Los Angeles
Al Larson Boat Shop
Improvement Project
Improvement Element of Proposed Project
Figure 2-2



Existing Lease
Area to be added to lease
Excluded
Project Boundary - Facility Improvements and Future Leasehold
Buildings to be demolished
Buildings to remain
Redevelopment Area

CDM Smith

Port of Los Angeles
Al Larson Boat Shop Improvement Project
Project Boundary and Lease Renewal
Element of Proposed Project
Figure 2-3

Section 2.7.1.2, Figure 2-4, Page 2-19

The southernmost portion of Building A2, which is part of the Office and Workshop Complex, was inadvertently omitted from the boundary delineating Building A2. Figure 2-4 has been revised to reflect the correct boundary of Building A2. Replace Figure 2-4 with the attached (next page).

Changes Made to Section 3.1, Aesthetics and Visual Resources

Section 3.1.2.1, Figure 3.1-2, Page 3.1-7

The southernmost portion of Building A2, which is part of the Office and Workshop Complex, was inadvertently omitted from the boundary delineating Building A2. Figure 3.1-2 has been revised to reflect the correct boundary of Building A2. Replace Figure 3.1-2 with the attached (following Figure 2-4).

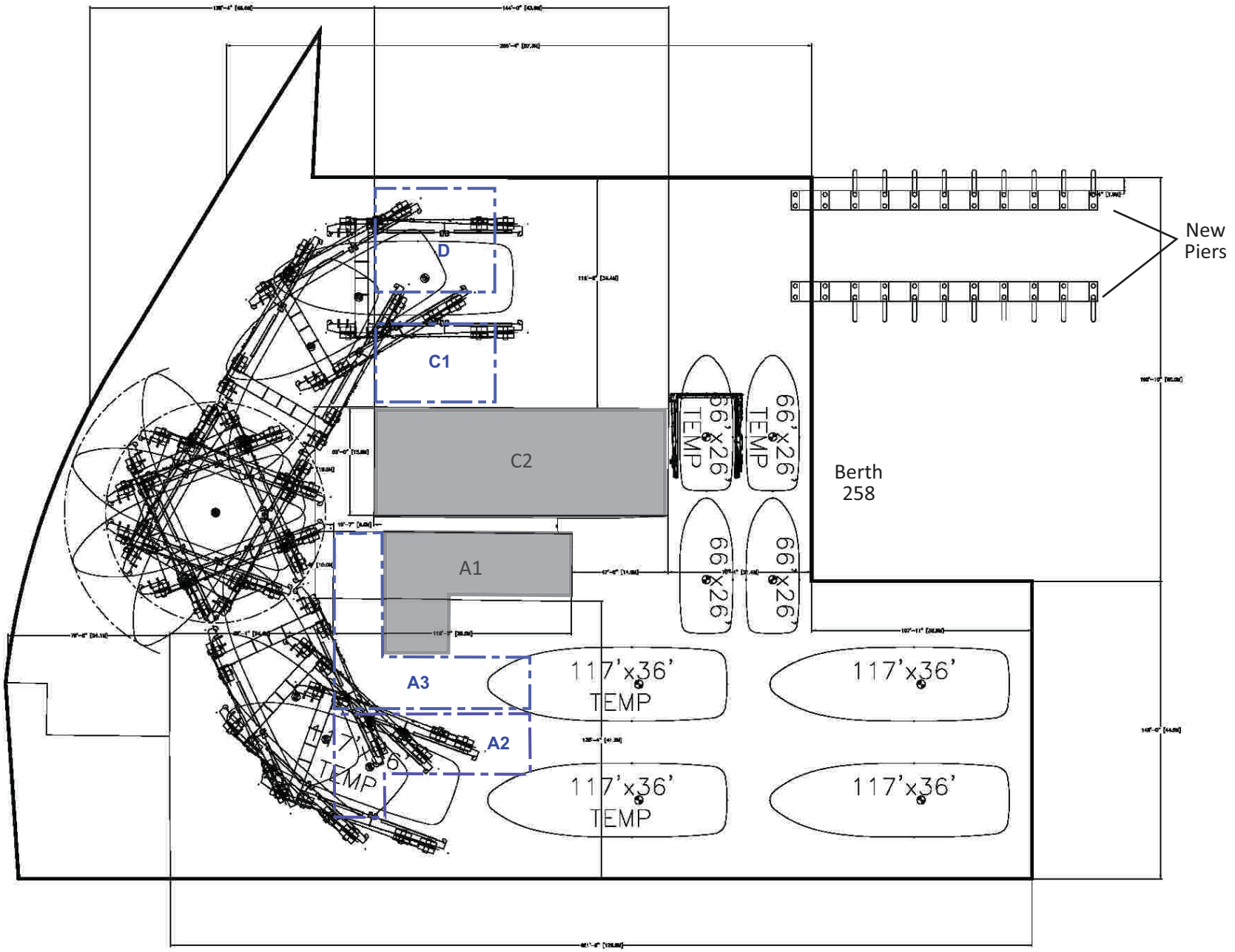
Changes Made to Section 3.2, Air Quality, Meteorology, and Greenhouse Gases

Section Summary, Key Points of Section 3.2, Page 3.2-4

Revise paragraph under "Health Risk Impacts" heading, as follows:

Health Risk Impacts

~~The combined t~~Toxic air contaminant (TAC) emissions (in particular, ~~diesel particulate matter for cancer [long-term] risk and~~ formaldehyde ~~for acute [short-term] risk~~) from construction diesel equipment would result in significant ~~residential cancer risk and acute residential and~~ occupational acute (short-term) risk ~~hazard index~~ impacts. Operational emissions do not contribute significantly to acute risks. The cancer (long term) risk and chronic non-cancer (long-term) health risk impacts from both construction equipment and incremental operational activity would be less than SCAQMD significance thresholds at all receptor types. Also, the maximum acute risk impacts at residential, sensitive, student, and recreational receptors would be less than significant. Mitigation measures **MM AQ-1 through MM AQ-6** would reduce acute risk impacts; however, ~~the residential cancer-related health risk impact and~~ the acute ~~residential and~~ occupational hazard index impact would remain significant and unavoidable after mitigation. ~~The initial screening assessment of emissions associated with proposed Project operations determined that the proposed Project would result in a minimal increase in operational TACs over baseline, and thus no significant short and long-term health risks would occur as a result of operations.~~



Legend

Buildings to be demolished

Buildings to remain

CDM Smith

Port of Los Angeles
Al Larson Boat Shop Improvement Project
Boat Hoists – Turn Radius
Figure 2-4

* Not part of the project.

CDM Smith

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Feet

Port of Los Angeles
Al Larson Boat Shop Improvement Project
Existing Conditions
Figure 3.1-2

Section 3.2.4.1, Page 3.2-33

Revise fourth paragraph under "Methodology," as follows:

A health risk assessment (HRA) of toxic air contaminant emissions associated with construction and operation of the proposed Project was conducted in accordance with a protocol prepared by the Port and reviewed and approved by both CARB and SCAQMD (POLA and POLB, 2009). Maximum predicted health risk values in the communities adjacent to the Project site were compared to Significance Criterion AQ-6. The HRA analyzed Project emissions and human exposure to the emissions during the 70-year period from approximately ~~2011 to 2080~~2012 to 2081 for residential risk.[4] Occupational risk is based on a 40-year exposure period, for this project from approximately ~~2011 to 2040~~2012 to 2051.[5]

Revise footnote "4" as follows:

The health risk assessment was based on 2012~~1~~ emission factors for construction equipment since~~. Although~~ construction is anticipated to begin in 2012~~, using 2011 factors and data is considered conservative as the emissions in future years are anticipated to be lower as technology improves~~. Operational emission factors were assumed to decrease from 2012 to 2040, based on the assumed fleet turnover in EMFAC 2011 and OFFROAD 2011. Operational emission factors were assumed to be constant over time after 2040.

Section 3.2.4.3, Page 3.2-54

Revise Table 3.2-16 under Impact AQ-3, as follows:

Table 3.2-16: Peak Daily[a] Operational Emissions Without Mitigation – Proposed Project

Emission Source	Peak Daily Emissions (lb/day)[d]					
	VOC	CO	NO_X	SO_X	PM_{10}	$PM_{2.5}$
Proposed Project						
Machine Shop Operations	82[e]	9	41	<1	37	11
Off-road Mobile Equipment	2	9	12	<1	1	1
Boat Hoists	<1	1	2	<1	<1	<1
Harbor Craft Transit	10	54	63	<1	1	1
Worker Trips[b]	5	50	5	<1	2	1
Total Peak Daily for Project Year 2014[c]	*100*[e]	*123*	*123*	*<1*	*42*	*14*
Impacts						
Baseline Emissions	46[e]	71	122	<1	22	9
Project minus Baseline	54[e]	52	1	<1	20	5
Thresholds	55	550	55	150	150	55
Significant?	No	No	No	No	No	No

a Emissions assume the simultaneous occurrence of maximum theoretical daily equipment activity levels. Such levels would rarely occur during day-to-day ALBS operations.
b Truck and worker commute emissions include transport within the South Coast Air Basin.
c Emissions might not precisely add due to rounding. For further explanation, refer to the discussion in Section 3.2.4.1.
d The emission estimates presented in this table were calculated using the latest available data, assumptions, and emission factors at the time this document was prepared. Future studies might use updated data, assumptions, and emission factors that are not currently available.
e VOC emissions from coating operations were developed from gross coating emissions contained in the Annual Emission Inventory reports provided to SCAQMD. If net coating emissions from these reports were used instead, the proposed Project VOC emissions from Machine Shop Operations would be 65 lbs/day (62 lbs/day from coating activity) and total VOC emissions in 2014 would be 83 lbs/day. Baseline total VOC emissions would also be reduced to 38 lbs/day (26 lbs/day from coating activity). Therefore, using the net coating emissions would have resulted in an incremental VOC emission of 45 lbs/day. Since using the net coating emissions would produce a lower incremental increase than the gross coating emissions, the analysis in the Draft EIR is conservative, and VOC emissions would not be significant.

Section 3.2.4.3, Pages 3.2-57 to 3.2-59

Revise text and table under Impact AQ-6, as follows:

Impact AQ-6: The proposed Project would expose receptors to significant levels of TACs.

Health Risk

Project construction and operations would emit toxic air contaminant (TAC) emissions that could affect public health. The pollutant contributing most to health risk impacts is DPM, and the main sources of DPM are the spray coating compressor engines, other on-site mobile diesel engines, and the heavy-duty off-road construction equipment. ~~The main sources of DPM would occur during proposed Project construction from heavy-duty off-~~

~~road construction equipment.~~ Increased TAC emissions would occur from the increase in ship repair activity anticipated after completion of the proposed Project. ~~However the increase in DPM would be minimal. Other TACs from welding and sand-blasting would be emitted, but the increase over the baseline operations is minimal, and emissions passed a simple Tier 2 screening assessment for both short and long-term health risks, and thus, no additional analysis of the health risks associated with operations is required. Therefore the health risk assessment (HRA) presented below is focused on addressing potential public health effects from TACs generated by the construction of the proposed Project, in particular DPM.~~

An HRA spanning years ~~2011-2080~~2012 to 2081 was conducted pursuant to a Protocol reviewed and approved by both CARB and SCAQMD (POLA, 2010). The period ~~2011-2080~~2012 to 2081 is the 70-year exposure period during which proposed Project construction would occur. The Hotspots Analysis and Reporting Program (HARP), version 1.4c (CARB, 2009), was used to perform health risk calculations based on output from the AERMOD dispersion model. The complete HRA report is included in Appendix C3 of this EIR.

As noted above, the major TAC contributing to health risk would be DPM. ~~The main sources of TACs from proposed Project construction would be DPM emissions from off-road equipment, trucks, and dredging equipment.~~ For health effects resulting from long-term exposure, CARB considers DPM as representative of the total health risks associated with the combustion of diesel fuel. TAC emissions from nondiesel sources (such as gasoline ~~fuel~~ engine~~s~~ exhaust and cleaning/coating operations) also were evaluated in the HRA, although their impacts were minor in comparison to DPM. Since the Project would generate emissions of DPM, Impact AQ-6 also discusses the effects of ambient PM on increased mortality and morbidity.

The HRA evaluated three different types of health effects: individual lifetime cancer risk, chronic noncancer hazard index, and acute noncancer hazard index. Individual lifetime cancer risk is the additional chance for a person to contract cancer after a lifetime of exposure to Project emissions. The "lifetime" exposure duration assumed in this HRA is 70 years for a residential receptor and 40 years for an occupational receptor. [12]

The chronic hazard index is a ratio of the long-term average concentrations of TACs in the air to established reference exposure levels. A chronic hazard index below 1.0 indicates that adverse noncancer health effects from long-term exposure are not expected. Similarly, the acute hazard index is a ratio of the short-term average concentrations of TACs in the air to established reference exposure levels (i.e., short-term exposure, which as described above consists of DPM emissions from off-road equipment, trucks, and dredging equipment during construction activities). An acute hazard index below 1.0 indicates that adverse noncancer health effects from short-term exposure are not expected.

For the determination of significance, this HRA determined the increase in health effects values due to the proposed Project construction. The health effects values were compared to the significance thresholds for health risk described in Section 3.2.4.2.

To estimate residential cancer risk impacts, VOC and DPM emissions were calculated for proposed Project construction and incremental operations, and averaged over a 70-year period, from approximately ~~2011through 2080~~2012 through 2081. Occupational risk was determined over a 40-year period, from approximately ~~2011 to 2040~~2012 to 2051.

Recreational, student, and sensitive receptor risks are determined from the calculated residential and occupational risks and according to receptor-type locations. Where applicable, emission factors were allowed to change with time in accordance with normal fleet turnover rates (for trucks and off-road equipment), and existing regulations and agreements listed in Table 3.2-8.

Table 3.2-18 presents the maximum predicted health impacts associated with the proposed Project without mitigation. The table includes estimates of individual lifetime cancer risk (long-term), chronic noncancer hazard index (long-term), and acute noncancer hazard index (short-term) at the maximally exposed residential, occupational, sensitive, student, and recreational receptors. For each receptor type, the various health values in Table 3.2-18 often occur at different locations. Figure 3.2-1 shows the maximum concentration locations associated with unmitigated emissions, while Figure 3.2-2 shows the maximum concentration locations associated with mitigated emissions.

Table 3.2-18: Maximum Health Impacts Associated With the Construction and Incremental Operation of the Proposed Project Without Mitigation, 2012-2081~~2011 – 2080~~

Health Impact	Receptor Type	Maximum Predicted Impact[a,b] Increment[c]	Significance Threshold
Cancer Risk	Residential[d]	~~**29 x 10^{-06} (29 in a million)**~~ 8.5 x 10^{-06} (8.5 in a million)	10×10^{-6} 10 in a million
	Occupational	~~9 x 10^{-06} (9 in a million)~~ 3.6 x 10^{-06} (3.6 in a million)	
	Sensitive	~~5 x 10^{-07} (0.5 in a million)~~ 5 x 10^{-08} (0.05 in a million)	
	Student	~~3 x 10^{-09} (0.003 in a million)~~ 7 x 10^{-10} (0.0007 in a million)	
	Recreational	~~3 x 10^{-07} (0.3 in a million)~~ 2.6 x 10^{-06} (2.6 in a million)	
Chronic Hazard Index	Residential	0.07 ~~0.03~~	1.0
	Occupational	0.1 ~~0.03~~	
	Sensitive	0.0003 ~~0.0004~~	
	Student	0.0001 ~~0.00001~~	
	Recreational	0.07 ~~0.0002~~	
Acute Hazard Index	Residential	0.7 ~~**3.5**~~	1.0
	Occupational	**1.7** ~~**4.2**~~	
	Sensitive	0.004 ~~0.4~~	
	Student	0.04 ~~0.03~~	
	Recreational	0.7 ~~0.2~~	

[a] Exceedances of the significance thresholds are in **bold**. The significance thresholds apply to the increments only.
[b] Data represent the receptor locations with the maximum impacts or increments. The impacts or increments at all other receptors would be less than these values.
[c] The increment represents Project minus baseline.
[d] The cancer risk values reported in this table for the residential receptor are based on the 80th percentile breathing rate.

Section 3.2.4.3, Figure 3.2-1 and Figure 3.2-2, Pages 3.2-60 and 3.2-61

Based on revisions to the text and table under Impact AQ-6, replace Figures 3.2-1 and 3.2-2 with the following:

Port of Los Angeles

Al Larson Boat Shop Improvement Project

Maximum Concentration Locations associated with the Unmitigated Proposed Project

Figure 3.2-1

N

CDM Smith

0 0.25 0.5 1 Miles

Port of Los Angeles

Al Larson Boat Shop Improvement Project

Maximum Concentration Locations associated with the Mitigated Proposed Project

Figure 3.2-2

Section 3.2.4.3, Pages 3.2-66 to 3.2-68

Revise text and table under Impact Determination under Impact AQ-6, as follows:

Impact Determination

Table 3.2-18 shows that the maximum cancer risk (long-term) increment associated with the unmitigated combined construction and incremental operation ~~phase~~ of the proposed Project is predicted to be 8.5 ~~29~~ in a million at a residential receptor and less than 3.6 in a million or less at an occupational, recreational, sensitive, and student receptors. The cancer risk therefore would be less than significant at all ~~residential~~ receptors ~~during construction~~. The peak residential impact ~~during construction~~ occurs at the liveaboards directly to the south of the proposed Project. ~~No other residential locations would exceed the threshold of 10 in a million for cancer risk.~~

As shown on Table 3.2-18, the maximum chronic (long-term) hazard index increment associated with the unmitigated Project is predicted to be less than 0.1 at residential, occupational, sensitive, recreational, and student receptors. No chronic hazard index impact exceeds the threshold of 1.0, therefore chronic health risk impacts associated with the proposed Project would be less than significant.

As shown on Table 3.2-18, the maximum acute (short-term) hazard index increments ~~associated with residential receptors (3.5) and~~ occupational receptors (1.7~~4.2~~) without mitigation would exceed the significance criterion hazard index of 1.0 during construction and therefore impacts would be significant for off-site occupational workers~~construction~~.[14] The acute risk would be less than significant for all other receptor types. The acute risk is driven by formaldehyde emissions, also from diesel engines~~the main source of which is dredging equipment~~. ~~The maximum residential impact occurs south of the proposed Project at the liveaboard location at the Al Larson Marina, approximately 280 ft (85 meters) to the south of the nearest onshore portion of the Project (Phase 3 area) and 100 ft (30 meters) south of the southern limits of proposed Project dredging (Phase 2).~~ The maximum occupational impact occurs 80 feet west ~~the west fence line at a marine fueling station (currently operated by ExxonMobil/General Petroleum) directly north~~ of the proposed Project, on the west side of Seaside Avenue.

The 24-hour $PM_{2.5}$ impact shown in Table 3.2-14 for proposed Project construction is 19.4 $\mu g/m^3$. This exceeds the SCAQMD threshold of 10.4 $\mu g/m^{3.}$ To assess whether morbidity and mortality calculations were required, additional dispersion modeling was performed to determine whether the extent of the $PM_{2.5}$ exceedance reaches a residential area. With the exception of the liveaboards, no exceedance of the $PM_{2.5}$ SCAQMD threshold for construction occurs outside approximately 50 meters of the project boundary. There are only a few potential liveaboards that are impacted; therefore, a population exposure determination would not apply to this area. Similarly, while the operational $PM_{2.5}$ in Table 3.2-17 is 25.7 $\mu g/m^3$ which exceeds the SCAQMD threshold of 2.5 $\mu g/m^3$, the range of the exceedance would not extend into residential areas beyond the Project boundary with the exception of the few potential liveaboards within Al Larson Marina. Appendix C3 shows the results of this analysis in greater detail. Therefore the 24-hour $PM_{2.5}$ concentration is considered to be less than significant for the purposes of a mortality and morbidity analyses, and a mortality and morbidity determination is not required.

Mitigation Measures

Mitigation measures to reduce TAC emissions would be the same as measures **MM AQ-1 through MM AQ-6** described above for Impact AQ-1. These mitigation measures would be implemented by the responsible parties identified in Section 3.2.4.5.

Residual Impacts

Table 3.2-20 shows the maximum cancer, chronic and acute risks associated with the mitigated proposed Project with mitigation ~~for construction activities. The residential cancer risk after mitigation is reduced with mitigation, but remains significant at 22 in a million.~~ The acute (short-term) occupational hazard index (1.4~~2.0~~) remains significant after ~~mitigation. The acute (short-term) residential hazard index (1.0) remains significant after~~ implementation of mitigation measures **MM AQ-1 through MM AQ-6**.

Therefore, after mitigation, the ~~residential cancer risk and the residential and~~ occupational acute hazard index~~ices~~ remains significant and unavoidable for construction activities.

Table 3.2-20: Maximum Health Impacts Associated With the Construction and Incremental Operation of the Proposed Project With Mitigation, ~~2011 – 2080~~2012 – 2081

Health Impact	Receptor Type	Maximum Predicted Impact[a,b] Increment[c]	Significance Threshold
Cancer Risk	Residential[d]	~~**2 x 10^{-05} (22 in a million)**~~ 8.5 x 10^{-06} (8.5 in a million)	10×10^{-6} 10 in a million
	Occupational	~~7 x 10^{-06} (7 in a million)~~ 3.6 x 10^{-06} (3.6 in a million)	
	Sensitive	~~4 x 10^{-07} (0.4 in a million)~~ 5 x 10^{-08} (0.05 in a million)	
	Student	~~3 x 10^{-09} (0.003 in a million)~~ 7 x 10^{-10} (0.0007 in a million)	
	Recreational	~~2 x 10^{-07} (0.2 in a million)~~ 2.6 x 10^{-06} (2.6 in a million)	
Chronic Hazard Index	Residential	0.07 ~~0.008~~	1.0
	Occupational	0.1 ~~0.02~~	
	Sensitive	0.0003 ~~0.0002~~	
	Student	0.0001 ~~0.00001~~	
	Recreational	0.07 ~~0.0001~~	
Acute Hazard Index	Residential	0.6 ~~**1.0**~~	1.0
	Occupational	**1.4** ~~**2.0**~~	
	Sensitive	0.003 ~~0.2~~	
	Student	0.04 ~~0.01~~	
	Recreational	0.6 ~~0.1~~	

Table 3.2-20: Maximum Health Impacts Associated With the Construction and Incremental Operation of the Proposed Project With Mitigation, ~~2011 – 2080~~2012 – 2081

Health Impact	Receptor Type	Maximum Predicted Impact[a,b] Increment[c]	Significance Threshold

[a] Exceedances of the significance thresholds are in **bold**. The significance thresholds apply to the increments only.

[b] Data represent the receptor locations with the maximum impacts or increments. The impacts or increments at all other receptors would be less than these values.

[c] The increment represents Project minus baseline.

[d] The cancer risk values reported in this table for the residential receptor are based on the 80th percentile breathing rate.

Section 3.2.4.4, Table 3.2-26, Page 3.2-77

Revise Impact AQ-6 in Table 3.2-26, as follows:

AQ-6: The proposed Project would expose receptors to significant levels of TACs.	~~During construction cancer risk would be significant for residential receptors.~~ During construction the acute hazard index would be significant for ~~residential and~~ occupational receptors. The cancer risk and chronic hazard index would be less than significant for all receptors.	**MM AQ-1 through MM AQ-6**	The ~~cancer risk and~~ acute hazard index would be significant and unavoidable during construction at ~~residential receptors (livaboards in Al Larson Marina). The acute hazard index would be significant and unavoidable at~~ occupational receptors during construction.

Section 3.2.5, Page 3.2-83

Revise fifth paragraph under "Significant Unavoidable Impacts," as follows:

Construction and operational emissions of TACs under the proposed Project after mitigation would not increase the cancer risk or chronic hazard index from baseline levels to above the significance criteria~~on of 1.0~~ to off-site residential, occupational, and sensitive receptors. The construction emissions of TACs under the proposed Project after mitigation would increase the acute hazard index from baseline levels to above the significance criterion of 1.0 to off-site ~~residential and~~ occupational receptors. ~~The construction emissions of TACs under the proposed Project after mitigation would increase the cancer risk from baseline levels to above the significance criterion of 10 in a million (10×10^{-6}) risk or above to off-site residential receptors.~~ Impacts would be significant and unavoidable.

Changes Made to Section 3.3, Biological Resources

Section 3.3.2.9, Pages 3.3-17 to 3.3-19

Essential Fish Habitat (EFH)

The proposed Project/alternative area is located in an area designated as EFH for two Fishery Management Plans (FMPs): the Coastal Pelagics and Pacific Groundfish Management Plans. Of the 95 species federally managed under these plans, ~~24~~19 adult species are known to occur in the Port Complex and could potentially be affected by the proposed Project or alternatives. However, most of these ~~24~~19 species have been collected only sporadically and in very low numbers, and habitat near the proposed Project site is not suitable for these species. The species with the highest potential to be affected by the proposed Project are identified in Table 3.3-3.

Two coastal pelagics—northern anchovy and Pacific sardine—are likely to occur in the vicinity of the proposed Project. Northern anchovy is among the most common and abundant fish species in the Port Complex. In 2006, larvae were present in the Port Complex during two seasonal periods: a greater peak in March-July and a lesser peak in October-December (MBC et al., 2007). Juvenile and adult anchovies have consistently been collected during fish sampling near the proposed Project site (MEC and Associates, 2002; SAIC, 2010). Northern anchovy are found from the surface to depths of 1,017 feet, though juveniles are generally more common inshore and in estuaries (Davies and Bradley, 1972).

Pacific sardine were not abundant during 2006 ichthyoplankton sampling throughout the Port Complex; two sardine larvae were collected in the Outer Harbor in April 2006 (MBC et al., 2007). This species is also less common than northern anchovy near the Project site (MEC and Associates, 2002; SAIC, 2010). Pacific sardine is epipelagic, occurring in loosely aggregated schools (Wolf et al., 2001). Jack mackerel and Pacific mackerel have been collected in the Port, but in much lower frequency and numbers than northern anchovy and Pacific sardine. ~~While no mature market squid have been reported in recent surveys, market squid paralarvae were collected in Inner and Outer Harbor areas in 2006 (MBC et al., 2007). All coastal pelagics are associated with the water column (as opposed to the seafloor like many of the groundfish); however, female squid also lay egg masses on sandy bottoms during spawning (at depths of about 16-180 feet, with most occurring between 66-115 feet) (PFMC, 1998).~~

Table 3.3-3: Managed Adult Fish ~~/Invertebrate~~ Species ~~Most Likely to Occur Near the Proposed Project Site in Port of~~ Found in Los Angeles Harbor Based on Past Occurrences

Common Name	Potential Habitat Use	Larval Occurrence[1,2,4]	Juv./Adult Occurrence[2,3,4,5]
Coastal Pelagics			
northern anchovy (*Engraulis mordax*)	Open water.	Abundant	Abundant
Pacific sardine (*Sardinops*	Open water.	Uncommon	Common
Pacific (chub) mackerel (*Scomber japonicus*)	Open water, juveniles off sandy beaches and around kelp beds.	-	Uncommon

Table 3.3-3: Managed Adult Fish ~~/Invertebrate~~ Species ~~Most Likely to Occur Near the Proposed Project Site in Port of~~ Found in Los Angeles Harbor Based on Past Occurrences

Common Name	Potential Habitat Use	Larval Occurrence[1,2,4]	Juv./Adult Occurrence[2,3,4,5]
jack mackerel (*Trachurus symmetricus*)	Open water, young fish over shallow banks and juveniles around kelp	Rare	Uncommon
~~market squid (*Doryteuthis opalescens*)~~	~~Open water. Rare near bays, estuaries, and river mouths.~~	~~Rare~~	-
Pacific Groundfish			
English sole (*Parophrys vetulus*)	Soft bottom habitats.	Rare	Uncommon
Pacific sanddab (*Citharichthys sordidus*)	Soft bottom habitats.	Rare	Common
~~butter sole (*Isopsetta isolepis*)~~	~~Soft bottom habitats.~~	~~Rare~~	-
black rockfish (*Sebastes melanops*)	Along breakwater, near deep piers and pilings. Associated with kelp,	-	Rare
Bocaccio (*Sebastes paucispinis*)	Multiple habitat associations, including soft and hard bottom, kelp,	-	Rare
~~brown rockfish (*Sebastes auriculatus*)~~	~~Multiple habitat associations but prefer hard substrata and rocky~~	~~-~~	~~Rare~~
calico rockfish (*Sebastes dallii*)	Multiple habitat associations but prefer hard substrata and rocky	-	Rare
California scorpionfish (*Scorpaena guttata*)	Benthic, on soft and hard bottoms, as well as around structures.	-	Uncommon
grass rockfish (*Sebastes rastrelliger*)	Common on hard substrate, kelp, and eelgrass habitats.	-	Rare
kelp rockfish (*Sebastes atrovirens*)	Common on hard substrate, kelp; reported along breakwater.	-	Rare
olive rockfish (*Sebastes serranoides*)	Common around hard substrate, kelp; reported along breakwater.	-	Rare
vermilion rockfish (*Sebastes miniatus*)	Juveniles over soft-bottom and kelp, adults associated with hard substrate.	-	Uncommon
Lingcod (*Ophiodon elongatus*)	Multiple habitat associations but prefer hard substrata and rocky	-	Rare
Cabezon (*Scorpaenichthys*	Multiple habitat associations but prefer hard substrata and rocky	Rare	Rare
~~Pacific hake (*Merluccius productus*)~~	~~Common offshore, juveniles in open water.~~	~~Rare~~	-
leopard shark (*Triakis semifasciata*)	Multiple habitat associations, including soft bottoms, and near	N/A	Rare
~~spiny dogfish (*Squalus acanthias*)~~	~~Pelagic and on muddy bottoms.~~	~~N/A~~	~~Rare~~
big skate (*Raja binoculata*)	Soft bottom habitat.	N/A	Rare
California skate (*Raja*	Soft bottom habitat.	N/A	Uncommon

Sources: 1 – (MBC et al.,2007), 2 – (MEC and Associates, 2002), 3 – (MBC ,2009a,b), 4 – (SAIC, 2010), 5 – (MEC,1999).
Notes: N/A = Not applicable, internal fertilization.
Abundant>Common>Uncommon>Rare.
Most rockfish larvae not identifiable to species.

Changes Made to Section 3.4, Cultural Resources

Section Summary, Key Points of Section 3.4, Page 3.4-2

Revise mitigation measure MM CUL-2, as follows:

- **MM CUL-2: Historic Resource Recordation.** Impacts resulting from the demolition of Buildings A2, A3, and C1 shall be minimized through archival documentation of both building complexes in as-built and as-found condition. Prior to issuance of demolition permits, the Los Angeles Harbor Department (LAHD) shall ensure that documentation of the buildings proposed for demolition is completed in the form of a Historic American Building Survey (HABS) Level II documentation that shall comply with the Secretary of the Interior's Standards for Architectural and Engineering Documentation. The documentation shall include large-format photographic recordation, detailed historic narrative report, and compilation of historic research. The documentation shall be completed by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History. The original archival-quality documentation shall be placed in the ~~offered as donated material to Port~~ LAHD archives~~. Archival copies of the documentation shall also be submitted to the Los Angeles Maritime Museum, the Central Branch of the Los Angeles Public Library and the Port archives~~ where it would be available to local researchers.

Section 3.4.2.3.5, Figure 3.4-2, Page 3.4-14

The southernmost portion of Building A2, which is part of the Office and Workshop Complex, was inadvertently omitted from the boundary delineating Building A2. Figure 3.4-2 has been revised to reflect the correct boundary of Building A2. Replace Figure 3.4-2 with the attached (next page).

Section 3.4.4.3, Page 3.4-31

Under Impact Determination, Impact CUL-2, revise mitigation measure MM CUL-2, as follows:

MM CUL-2: **Historic Resource Recordation**

> Impacts resulting from the demolition of Buildings A2, A3, and C1 shall be minimized through archival documentation of both building complexes in as-built and as-found condition. Prior to issuance of demolition permits, the Los Angeles Harbor Department (LAHD) shall ensure that documentation of the buildings proposed for demolition is completed in the form of a Historic American Building Survey (HABS) Level II documentation that shall comply with the Secretary of the Interior's Standards for Architectural and Engineering Documentation. The documentation shall include large-format photographic recordation, detailed historic narrative report, and compilation of historic research. The documentation shall be completed by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History. The original archival-quality documentation shall be placed in the ~~offered as donated material to Port~~ LAHD archives~~. Archival copies of the documentation shall also be submitted to the Los Angeles Maritime Museum, the Central Branch of the Los Angeles Public Library and the Port archives~~ where it would be available to local researchers.

LEGEND
A - Office and Workshop Complex (Built 1924) *
B - Paint Shed (Built 1938) **
C - Machine Shop Complex (Built 1938) *
D - Building No. 4 (circa 1938 - 1947)
E - Docks, Piers and Walls (circa 1924 - 2008)
H - Ancillary Buildings and Structures (Post 1965)

Seaside Avenue

See Insert

D
C1
E
C2
A1
A3
H2
A2
E
B

* Potentially Historic Buildings.
** Not part of the Project.

CDM Smith

N

Port of Los Angeles
Al Larson Boat Shop Improvement Project
Buildings on the Project Site
Figure 3.4-2

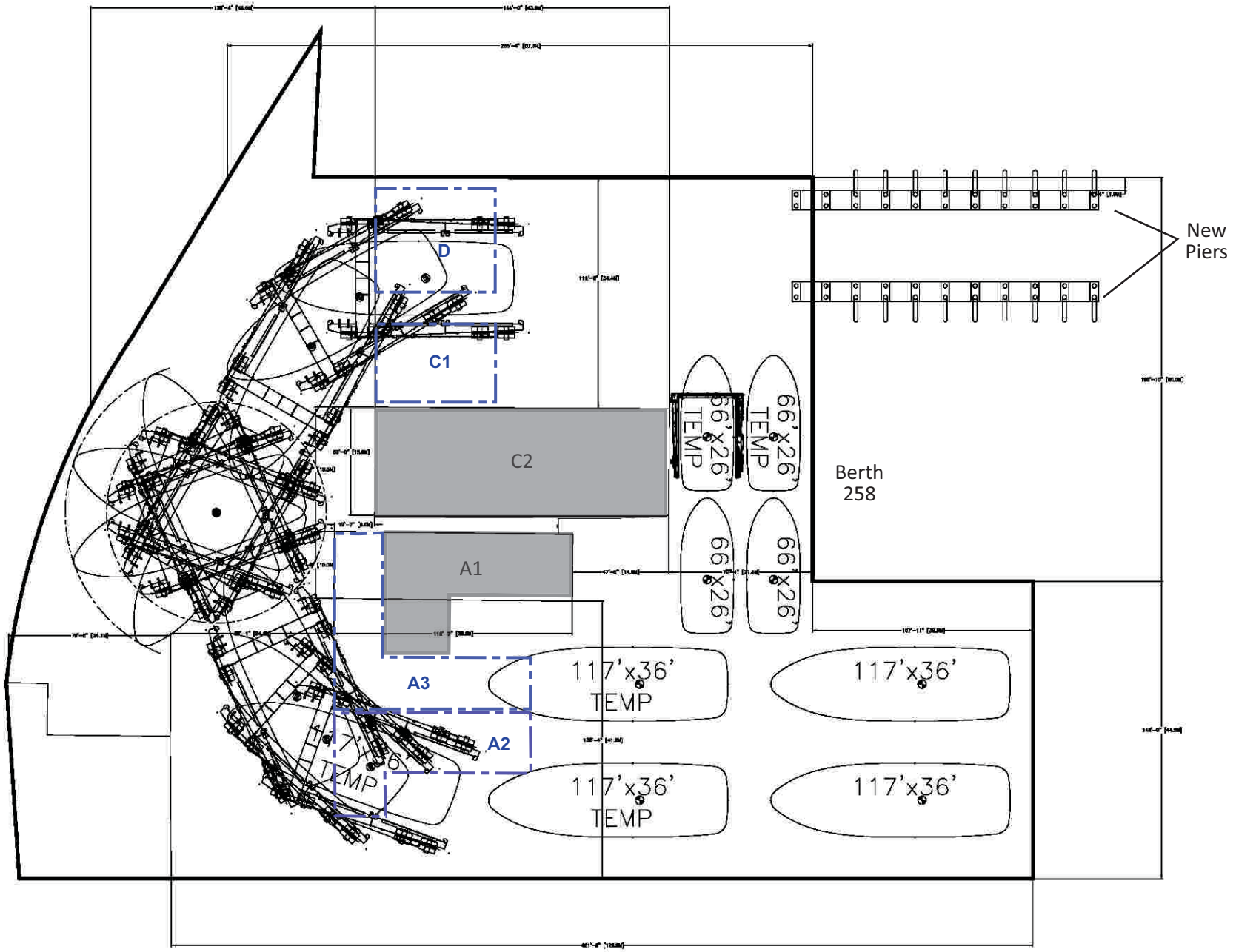
Section 3.4.4.3, Under Impact Determination CUL-2, Figure 3.4-3, Page 3.4-32

The southernmost portion of Building A2, which is part of the Office and Workshop Complex, was inadvertently omitted from the boundary delineating Building A2. Figure 3.4-3 has been revised to reflect the correct boundary of Building A2. Replace Figure 3.4-3 with the attached (next page).

Section 3.4.4.5, Page 3.4-36

Under Mitigation Monitoring, Impact CUL-2, revise mitigation measure MM CUL-2, as follows:

Mitigation Measure	**MM CUL-2: Historic Resource Recordation.** Impacts resulting from the demolition of Buildings A2, A3, and C1 shall be minimized through archival documentation of both building complexes in as-built and as-found condition. Prior to issuance of demolition permits, the Los Angeles Harbor Department (LAHD) shall ensure that documentation of the buildings proposed for demolition is completed in the form of a Historic American Building Survey (HABS) Level II documentation that shall comply with the Secretary of the Interior's Standards for Architectural and Engineering Documentation. The documentation shall include large-format photographic recordation, detailed historic narrative report, and compilation of historic research. The documentation shall be completed by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for History and/or Architectural History. The original archival-quality documentation shall be placed in the ~~offered as donated material to Port~~LAHD archives~~. Archival copies of the documentation shall also be submitted to the Los Angeles Maritime Museum, the Central Branch of the Los Angeles Public Library and the Port archives~~ where it would be available to local researchers.
Timing	Prior to demolition of the Buildings A2 and A3 in the Office and Workshop Complex and Building C1 in the Machine Shop Complex.
Methodology	LAHD shall prepare HABS recordation of the historic buildings.
Responsible Parties	Environmental Management Division shall prepare or cause to be prepared the required documentation.
Residual Impacts	Significant and unavoidable after mitigation.



Legend

Buildings to be demolished

Buildings to remain

CDM Smith

Port of Los Angeles

Al Larson Boat Shop Improvement Project

Boat Hoists – Turn Radius

Figure 3.4-3

Changes Made to Section 3.5, Geology

Section 3.5.2.2.2, Page 3.5-9

Revise third paragraph as follows:

Groundwater depth information is ~~not~~ currently available for the Project site~~; however,~~ based on reports from adjacent sites such as the ExxonMobil/General Petroleum facility immediately north of the Project site~~the Southwest Marine Terminal (Berth 240 or 240Z) located at 985 S. Seaside Avenue and the Mobil Southwest/ExxonMobil Terminal (Berths 238-240C) located at 799 S. Seaside Avenue, have reported groundwater depths in the vicinity (i.e., within 1,000 feet of the Project site)~~, which included the installation of four groundwater monitoring wells at the northern area of the Project site as part of their site investigations. During first quarter 2011 groundwater monitoring associated with the ExxonMobil/General Petroleum facility depth of groundwater under the Project site ranged from 4.12 to 6.23 feet below top of casing (ERM, 2011). There are currently 16 groundwater monitoring wells at the ExxonMobil site (SWRCB, 2010).[1] Groundwater depth recorded at these monitoring wells range from 7.4 to 11.2 feet bgs. Groundwater beneath the adjacent Southwest Marine Terminal has been recorded at depths ranging from 6 to 8.5 feet bgs (POLA, 2006). The groundwater beneath the ExxonMobil/General Petroleum facility has varied from 3 to 8 feet bgs, depending on the recent rainfall infiltration rates.

Changes Made to Section 3.6, Groundwater and Soils

Section 3.6.2.1, Page 3.6-4 to Page 3.6-5

Revise third paragraph as follows:

Groundwater depth information is ~~not~~ currently available for the Project site~~; however,~~ based on reports from adjacent sites such as the ExxonMobil/General Petroleum facility immediately north of the Project site~~the Southwest Marine Terminal (Berth 240 or 240Z) located at 985 S. Seaside Avenue and the Mobil Southwest/ExxonMobil Terminal (Berths 238-240C) located at 799 S. Seaside Avenue, have reported groundwater depths in the vicinity (i.e., within 1,000 feet of the Project site)~~, which included the installation of four groundwater monitoring wells at the northern area of the Project site as part of their site investigations. During first quarter 2011 groundwater monitoring associated with the ExxonMobil/General Petroleum facility depth of groundwater under the Project site ranged from 4.12 to 6.23 feet below top of casing (ERM, 2011b). There are currently 16 groundwater monitoring wells at the ExxonMobil site (SWRCB, 2010).[1] Groundwater depth recorded at these monitoring wells range from 7.4 to 11.2 feet bgs. Groundwater beneath the adjacent Southwest Marine Terminal has been recorded at depths ranging from 6 to 8.5 feet bgs (POLA, 2006). The groundwater beneath the ExxonMobil/General Petroleum facility has varied from 3 to 8 feet bgs, depending on the recent rainfall infiltration rates. It is a mixture of brackish groundwater in the Bellflower Aquiclude and salt water from the Pacific Ocean (details regarding this site – which shares the northern boundary of the proposed Project site – are in Section 3.6.2.4). These depths, as well as gradient and flow direction, is subject to variation as a result of tidal influences. Because the Project site is paved (impermeable), there is a low potential for infiltration of surface runoff.

Section 3.6.2.4.8, Page 3.6-11

Revise section as follows:

Conclusion Regarding Soil Contamination Issues

Contamination and remediation of the landside portions of the Project site have been addressed in the ALBS facility RAP and the ExxonMobil/GP site RAP. Due to access and operation restrictions, implementation of both of these~~the~~ RAPs associated with the Project site will occur as part of the phases associated with construction of the proposed Project. Remediation and closure of the site prior to placement of fill will require regulatory oversight by the Los Angeles RWQCB or the California Department of Toxic Substances Control (DTSC), under oversight and approval of the LAHD, and coordination with ExxonMobil/General Petroleum.

Section 3.6.4.3, Page 3.6-15

Revise first and second paragraph and LM GW-1 as follows:

The proposed Project would include grading, excavation, and other construction-related activities that could disturb or expose soils that are contaminated. Project elements that could result in exposure of soils include: demolition of Buildings D, A2, A3, and C1; development of new dry-dock area, and construction of the piers for the boat hoists; modification of site drainage; utility and infrastructure installation; grading and paving activities; and, construction of a new building approximately 2,400 sq ft. Three marine railways would be covered by the Phase 2 CDF, thereby encapsulating contaminated soils/sediments.

Excavations associated with these improvements could would encounter known and possiblypreviously unknown soil and/or groundwater contamination due to the limited extent of the previous investigations. Such discoveries could result in adverse impacts to construction and operations personnel. Improvements that would require asphalt or concrete paving such as the new dry dock area, the CDFs, and modifications to the site's drainage would essentially encapsulate contamination in the identified issue areas, thereby preventing runoff from leaching through the remaining contaminants. This would minimize future contamination of soil and groundwaterthe potential for exposure to underlying contaminants. As part of the proposed Project, all contaminated soil or groundwater encountered during construction would be handled, transported, remediated, and/or disposed of in accordance with the approved RAP and all applicable federal, state, and local laws and regulations and in accordance with the regulatory lead agency (e.g., DTSC, Los Angeles RWQCB) and following conditions under LAHD leasing requirements (i.e., lease measures - LMs):

Site Remediation Lease Requirement (LM GW-1). Unless otherwise authorized by the lead regulatory agency and the LAHD for any given site, the Tenant (i.e., ALBS) shall address all contaminated soils within proposed Project boundaries discovered during demolition and grading activities. Contamination existing at the time of discovery shall be the responsibility of the past and/or current property owner. Contamination as a result of the construction process shall be the responsibility of the Tenant and/or Tenant contractors. Remediation shall occur in compliance with local, state, and federal regulations, as described in Section 3.6.3 (above) and Section 3.7.3 (in Section 3.7, Hazards and Hazardous Materials), and as directed by the lead regulatory agency for the site (such as the Los Angeles RWQCB or DTSC).

Soil removal shall be completed such that remaining contamination levels are below risk-based health screening levels for industrial sites established by OEHHA and site specific cleanup goals ~~/or applicable action levels (e.g., Environmental Screening Levels, Preliminary Remediation Goals)~~ established by the lead regulatory agency overseeing the implementation of the RAP at the ~~with jurisdiction over the~~ site. Soil contamination waivers may be acceptable as a result of encapsulation (i.e., paving) and/or risk-based soil assessments for industrial sites, but are subject to the review and approval of the lead regulatory agency and LAHD. Excavated contaminated soil shall be properly disposed of off-site unless use of such material on-site is beneficial to construction and approved by the agency overseeing the environmental investigation and implementation of the RAP~~concerns~~. All imported soil to be used as backfill in excavated areas shall be sampled to ensure that it is suitable for use as backfill and is free of contamination~~at an industrial site~~.

Section 3.6.4.5, Page 3.6-21

Revise LM GW-1 under "Mitigation Monitoring," as follows:

Impact GW-1: Construction activities may encounter toxic substances or other contaminants associated with historical uses of the Port, resulting in short-term exposure (duration of construction) to construction/operations personnel and/or long-term exposure to future site occupants.	
Lease Measure	**LM GW-1: Site Remediation Lease Requirement.** Unless otherwise authorized by the lead regulatory agency and the LAHD for any given site, the Tenant (i.e., ALBS) shall address all contaminated soils within proposed Project boundaries discovered during demolition and grading activities. Contamination existing at the time of discovery shall be the responsibility of the past and/or current property owner. Contamination as a result of the construction process shall be the responsibility of the Tenant and/or Tenant contractors. Remediation shall occur in compliance with local, state, and federal regulations, as described in Section 3.6.3 (above) and Section 3.7.3 (in Section 3.7, Hazards and Hazardous Materials), and as directed by the lead regulatory agency for the site (such as the Los Angeles RWQCB or DTSC). Soil removal shall be completed such that remaining contamination levels are below risk-based health screening levels for industrial sites established by OEHHA and site specific cleanup goals ~~/or applicable action levels (e.g., Environmental Screening Levels, Preliminary Remediation Goals)~~ established by the lead regulatory agency overseeing the implementation of the RAP at the ~~with jurisdiction over the~~ site. Soil contamination waivers may be acceptable as a result of encapsulation (i.e., paving) and/or risk-based soil assessments for industrial sites, but are subject to the review and approval of the lead regulatory agency and LAHD. Excavated contaminated soil shall be properly disposed of off-site unless use of such material on-site is beneficial to construction and approved by the agency overseeing the environmental investigation and implementation of the RAP~~concerns~~. All imported soil to be used as backfill in excavated areas shall be sampled to ensure that it is suitable for use as backfill and is free of contamination~~at an industrial site~~.

Changes Made to Chapter 5, Cumulative Analysis

Section 5.2.2.7, Pages 5-43 to 5-44

Revise under Cumulative Impact AQ-6 section, as follows:

Contribution of the Proposed Project

The main source of health risk associated with the proposed Project would occur during construction. Prior to mitigation, proposed Project construction emissions of TACs would increase cancer risks from baseline levels.

The maximum cancer risk increment associated with the unmitigated proposed Project is predicted to be ~~29~~8.5 in a million at a residential receptor, ~~9~~ 3.6 in a million at an occupational receptor, 2.6 in a million at a recreational receptor, and less than 1 in a million at ~~recreational,~~ sensitive, and student receptors. Although the project-level cancer risk is below the significance threshold, the proposed Project would result in an increase in cancer risk in the Project area; consequently, the proposed Project would make a cumulatively considerable and unavoidable contribution to a significant cumulative cancer risk at ~~The cancer risk therefore would be cumulatively significant for~~ residential, ~~and~~ occupational, and recreational.

The maximum chronic hazard index increment associated with the unmitigated Project is predicted to be ~~0.03~~0.07 at residential receptors, up to 0.1 at ~~and~~ occupational receptors, 0.07 at recreational receptors, and less than 0.01 at sensitive, ~~recreational,~~and student receptors. No chronic hazard index impact exceeds the threshold of 1.0; therefore chronic health risk impacts associated with the proposed Project would be cumulatively insignificant.

The acute hazard index increments associated with ~~residential receptors (3.5) and~~ occupational receptors (1.7~~4.2~~) would exceed the significance criterion hazard index of 1.0. As a result, acute non-cancer effects would be cumulatively significant.

Any concurrent emissions-generating activity that occurs near the Project site would add additional airborne health burdens to these significant levels. As a result, emissions from Project construction would make a cumulatively considerable contribution to a significant impact.

Mitigation Measures and Residual Cumulative Impacts

The residential, ~~and~~ occupational, and recreational cancer risks after Project mitigation described in Section 3.2, Air Quality, Meteorology, and Greenhouse Gases, are ~~4~~ 8.5 in a million, ~~and 7~~ 3.6 in a million, and 2.6 in a million, respectively. Although these levels are below the significant thresholds, these impacts would still be cumulatively considerable and unavoidable to a significant cumulative cancer risk. The acute ~~residential hazard index (3.3) and~~ occupational hazard index (~~4.1~~1.4) remains significant after mitigation. Therefore, after mitigation, the ~~residential and~~ occupational acute hazard index remains significant and unavoidable. As a result, even with mitigation, the proposed Project would make a cumulatively considerable contribution to a significant health risk impact.

Project Alternatives

Alternatives 1 and 7

The main source of acute (short-term) health risk would occur during construction and cancer (long-term) risk would occur during operation. Given that the amount of construction would be considerably less and of shorter duration under Alternative 1 and Alternative 7 (i.e. no dredging would occur), it is anticipated that acute health risk impacts would be less than significant for all receptor types. Also, operational activity would not increase under these alternatives relative to existing conditions. Therefore, Alternatives 1 and 7 would not make a cumulatively considerable contribution to a significant cumulative impact relative to health risk.

Alternatives 2, 3, and 4

The main source of acute (short-term) health risk would occur during construction and cancer (long-term) risk would occur during operation~~The main source of health risk would occur during construction~~. Construction and operational emissions occurring under ~~from~~ Alternatives 2 through 4 would be similar to or slightly less than the proposed Project. Therefore, Alternatives 2 through 4 would make a cumulatively considerable contribution to a significant cumulative impact related to health risk. Mitigation measure would reduce this impact; however, the alternatives' contribution would continue to be cumulatively considerable and unavoidable.

Alternatives ~~5 and 6~~

Construction emissions under Alternative~~s~~ 5 ~~and 6~~ would be greater than under the proposed Project given that all existing structures on the Project site would be~~removed or~~ relocated, a larger amount of soils and sediments would be transported off site, and~~, in the case of Alternative 5,~~ construction/assembly of buildings would occur at an alternate site. Also, the level of operations at this site would be similar to that for the proposed Project. Therefore, construction and operation of Alternative~~s~~ 5 ~~and 6~~ would make ~~a~~ cumulatively considerable contribution to significant cumulative health risks (cancer and acute). Mitigation measure would reduce this impact; however, the alternative~~s~~'s contribution would continue to be cumulatively considerable and unavoidable.

Alternative 6

Construction emissions under Alternative 6 would be greater than under the proposed Project given that all existing structures on the Project site would be removed and a larger amount of soils and sediments would be transported off site. However, the operation of the boat shop would cease under Alternative 6, thus no cumulative operational health risk impacts would occur. Therefore, construction of Alternative 6 would make a cumulatively considerable contribution to significant cumulative acute health risk. Mitigation measure would reduce this impact; however, the alternatives' contribution would continue to be cumulatively considerable and unavoidable.

Section 5.2.5.6, Page 5-73

Revise under Cumulative Impact GEO-6 section, as follows:

Cumulative Impact GEO-6 addresses the degree to which the proposed Project, along with other cumulative projects, results in substantial damage to structures or infrastructure or expose people to substantial risk of injury as a result of collapsible or unstable soils.

Excavations that occur in natural alluvial and estuarine deposits, as well as artificial fill consisting of dredged deposits or imported soils, may encounter relatively fluid materials near and below the shallow groundwater table. Groundwater at the site is ~~locally~~ present at depths ranging from 4.12 to 6.23 feet below top of casing~~as shallow as 4.5 feet bgs~~. In the absence of proper engineering, new structures could be cracked and warped as a result of saturated, unstable, or collapsible soils, exposing building personnel to a safety hazard.

Section 5.2.6.1, Page 5-76

Revise under Groundwater and Soils, Scope of Analysis, third paragraph, as follows:

The cumulative area of influence is predominantly underlain by a shallow, unconfined aquifer (non-potable) (with an overlying shallow, perched, water-bearing zone of saline, non-potable water), which has historically occurred under the site at depths ranging from 4.12 to 6.23 feet below top of casing~~as shallow as 5 feet bgs~~. This shallow aquifer is underlain by several major water-bearing zones. Spills of petroleum products and hazardous substances, due to long-term industrial land use, have resulted in contamination of some surface soils and shallow groundwater.

Changes Made to Chapter 6, Analysis of Alternatives

Section 6.2.3, Table 6-1, Page 6-4

Replace Table 6-1 with the following revised table:

Table 6-1: Summary of Project Elements Associated with the Alternatives

Project Element	Alternative 1 – Reduced Project – Water Quality Improvements	Alternative 2 – Reduced Project" Limited Demolition	Alternative 3 – Retention of Historic Buildings	Alternative 4 – Relocation of Historic Buildings	Alternative 5 – Alternate Site	Alternative 6 – No Project	Alternative 7 – No Federal Action
Comply with NPDES/ WDR	Yes - change site drainage and install oil/ water separator	Yes	Yes	Yes	Yes	No	Yes - change site drainage and install oil/water separator
Dredging contaminated sediment and creation of CDFs	No	Yes	Yes	Yes	Yes (at ALBS site) – but no CDFs would be created.	Yes – but no CDFs would be created.	No
Remove three marine railways and construct concrete piers for new boat hoists	No	Yes - one or more of Buildings A2, A3, or C1 will be retained	Yes - limited use due to turning radius limitations	Yes	Yes - marine railways would be removed at ALBS site. New pier would be constructed at alternative site.	Partial – marine railways would be removed. No new pier would be constructed.	No
Optimize and modernize space through removal of historic buildings	No	Partial - limited use due to turning radius and space limitations	No	Yes - relocation of 3 historic structures to the San Pedro or Wilmington Waterfront	Yes - relocation of historic buildings to alternate site; removal of buildings (some potentially historic) at the alter. site.	Yes – historic structures would be removed to bring site back to pre-lease conditions	No
Remove landside legacy contamination	No	Partial – no clean up under remaining building(s)	Partial - no clean up under remaining buildings	Yes	Yes - required to bring site back to pre-lease conditions	Yes - required to bring site back to pre-lease conditions	No
Replace infra-structure (lighting, pavement, etc) and construct new office	No	Partial – some new infrastruc-ture but no office building)	No	Partial – some new infrastruc-ture but no office building)	Yes	No	Yes
30-year lease renewal	Yes - but no new area	Yes	Yes	Yes	Yes - but for a different location	No	Yes - but no new area
Return site to pre-lease conditions (nothing on site)	No	No	No	No	Yes	Yes	No

Section 6.2.3.2.1, Pages 6-6 and 6-7

Revise text under "Alternative 2 Objectives Analysis," as follows:

Alternative 2 Objectives Analysis

This alternative would meet several of the Project objectives. Under this alternative, the site would comply with its WDR and NPDES requirements and partially clean up legacy contaminants. In addition, this alternative would result in the retention of only one or two of the potentially historic buildings proposed for demolition under the proposed Project, which would result in fewer impacts to historic resources as compared to the proposed Project, but would also reduce the modernization and optimization of the site.

Alternative 2 would allow for some increased capacity at the ALBS site. Although, to what extent would depend on which structures are retained. The retention of any of the historic buildings slated for demolition would impair the ability of ALBS to modernize and expand the site to the extent planned under the proposed Project. Retention of Building C1 would reduce the space available for the boat hoists from approximately 112 feet to 70 feet. The 600-ton boat hoist has an effective width (boat hoist width plus clearance) of 59 feet with a turning radius of 93 feet for the outside wheel and 33 feet for the inside wheel ~~(see Figure 6-1)~~. This would preclude the 600-ton hoist from accessing the ALBS backland and land area created by the construction of the Phase 2 CDF (see Figure 6-1). Retention of Building A2 will result in a 36-foot corridor between Building A2 and Marine Railway 4 rendering the Phase 2 CDF inaccessible to the larger boat hoist. Retention of Building A3 will provide ~~only a 58-foot~~a 76-foot access corridor, though access would still be restricted (see Figure 6.1) ~~again making the Phase 2 CDF inaccessible to the larger boat hoist~~.

In any situation, this alternative would limit the operational capacity on the site; however, any operational increase would be to a lesser degree than the proposed Project due to the loss of land area available for drydocking of vessels and access issues. Further, retention of a potentially historic building would constrain the opportunities to redesign the site to fully and most effectively comply with NPDES requirements, upgrade the existing infrastructure, constructing a new modern office space, and it would reduce the ability to clean up site legacy containments from beneath the existing pavement and buildings.

Section 6.2.3.2.1, Figure 6-1, Page 6-8

The southernmost portion of Building A2, which is part of the Office and Workshop Complex, was inadvertently omitted from the boundary delineating Building A2. Figure 6-1 has been revised to reflect the correct boundary of Building A2. Replace Figure 6-1 with the attached (next page).

Section 6.2.3.8, Table 6-2, Page 6-16

Replace Table 6-2 with the following revised table:

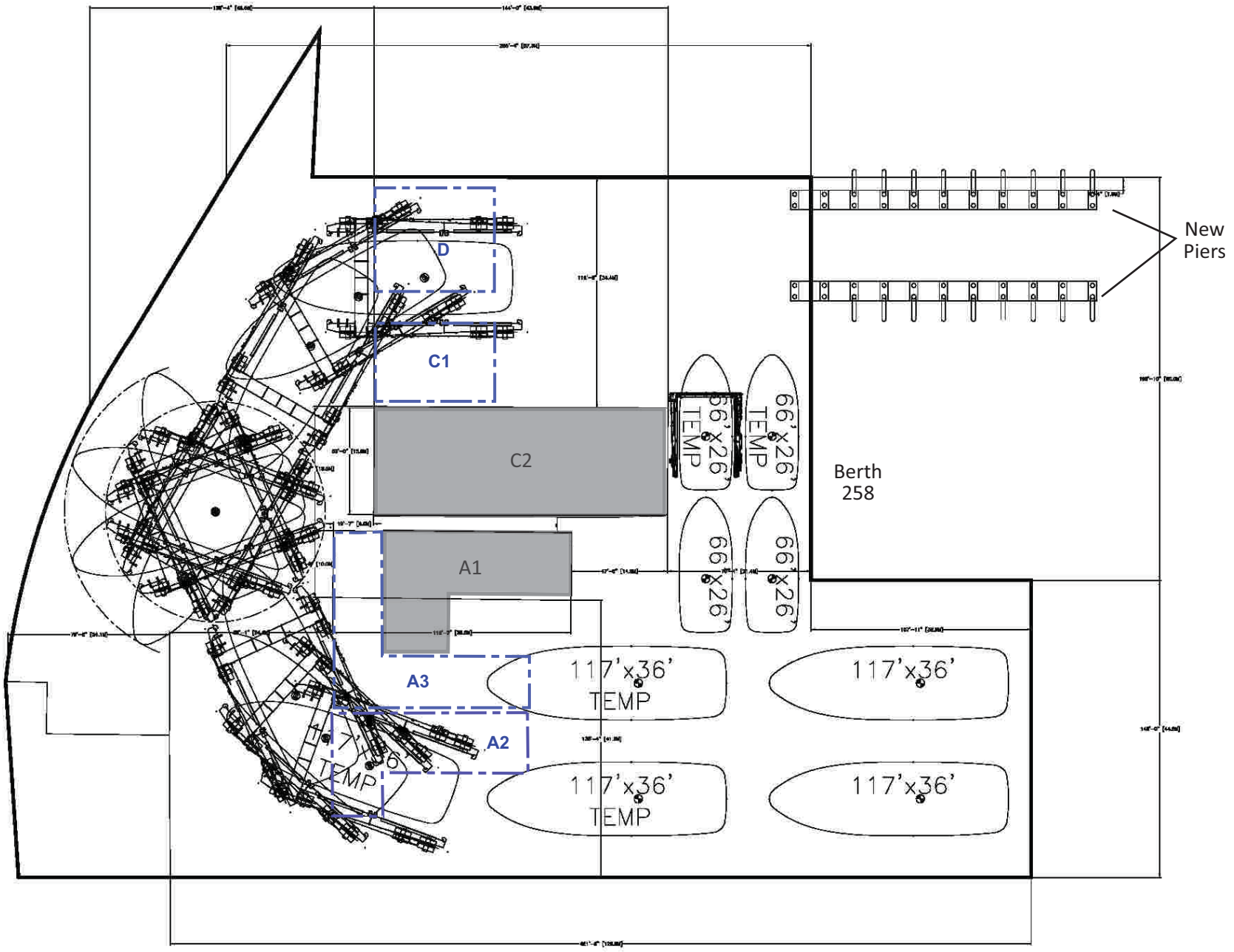
Table 6-2: Comparison of Proposed Project and Alternatives to the Project Objectives

Project Alternative	Does Alternative Avoid or Substantially Lessen Impacts to Potentially Historical Resources?	Key Project Objectives						
		Place ALBS in compliance with its WDR and NPDES requirements by re-contouring the site, removing three existing marine railways and constructing a stormwater collection and treatment system.	Demolish existing wharfs, piers and buildings/structures to allow for the subsequent creation and use of two CDF cells, which will sequester contaminated sediment and expand use of boat shop.	Dredge sediment to accommodate deeper draft vessels, remove contaminated sediment to improve water quality, and promote regional sediment management objectives by beneficially reusing dredged material to create two CDFs.	Remove buildings/structures in order to modernize and reconfigure the facility, to optimize and expand the existing boat shop operation at the present location and continue to meet a regional need for marine vessel repair.	Replace aging infrastructure and construct new building to support improved operations.	Clean-up site legacy contaminants from the historical use of the site as a boat shop, including contaminants located beneath existing pavement and buildings.	Enter a 30-year lease renewal between ALBS and LAHD changing the facility's leasehold from 7.7 acres (2.35 acres of land and 5.35 acres of water) to 7.3 acres (4.1 acres of land and 3.2 acres of water).
Proposed Project	**NO**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**
Alternative 1 - Reduced Project: Water Quality Improvements	**YES**	**Partial**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Alternative 2 - Reduced Project: Limited Demolition	**Partial**	**YES**	**~~YES~~Partial**	**YES**	**Partial**	**NO**	**Partial**	**Partial**
Alternative 3 - Retention of Historic Buildings	**YES**	**YES**	**~~YES~~Partial**	**YES**	**Partial**	**NO**	**NO**	**YES**
Alternative 4 - Relocation of Historic Buildings	**NO**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**
Alternative 5 - Alternate Site	**NO**	**YES**	**NO**	**NO**	**NO**	**YES**	**YES**	**Partial**
Alternative 6 – No Project	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**YES**	**NO**
Alternative 7 - No Federal Action	**NO**	**Partial**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Section 6.3, Page 6-17

Revise the introductory paragraph as follows:

Section 3 of the Draft EIR analyzes the potential impacts associated with the construction and operation of the proposed Project for the 13 environmental resource areas. As with the proposed Project, several of the alternatives have significant and unavoidable impacts for at least one of the three significant and unavoidable environmental resources (Air Quality, Meteorology, and Greenhouse Gases, Cultural Resources, and Noise). One of the environmental resources evaluated (Biological Resources) has potentially significant impacts that can be mitigated to a less than significant level for all of the alternatives with water construction. As with the proposed Project, there are ~~remaining~~ ten~~nine~~ environmental resource areas (Air Quality, Meteorology and Greenhouse Gases, Aesthetics and Visual Resources, Geology, Groundwater and Soils, Hazards and Hazardous Materials, Land Use, Population and Housing, Public Services and Utilities, Traffic and Transportation, and Water Quality, Sediments, and Oceanography) have less than significant impacts associated with the alternatives.



Legend

Buildings to be demolished

Buildings to remain

CDM Smith

Port of Los Angeles
Al Larson Boat Shop Improvement Project
Boat Hoists – Turn Radius
Figure 6-1

Section 6.3.1, Page 6-18

Revise Table 6-4, as follows:

Table 6-4: Comparison of Alternatives to the Proposed Project

Environmental Resource Area*	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7
Air Quality	-2	-1	-1	~~-1~~+1	+1	-1	-1
Biological Resources	-1	0	0	0	0	-1	-1
Cultural Resources	-2	-1	-2	-1	-1	0	0
Noise	-2	-1	-1	+1	0	-2	-2
Total	-7	-3	-4	+1	0	-4	-4

Notes:

*

(-2) = Impact considered to be substantially less when compared with the proposed Project.

(-1) = Impact considered to be somewhat less when compared with the proposed Project.

(0) = Impact considered to be equal to the proposed Project.

(1) = Impact considered to be somewhat greater when compared with the proposed Project.

(2) = Impact considered to be substantially greater when compared with the proposed Project.

Where significant unavoidable impacts would occur across numerous alternatives but there are impact intensity differences between those alternatives, decimal points are used to differentiate alternatives (i.e., in some cases, there are differences at the individual impact level, such as differences in number of impacts or relative intensity).

Section 6.3.2.1.2, Page 6-20

Revise *Health Risk* text under "Alternative 1 – Reduced Project: Water Quality Improvements," as follows:

The Proposed Project acute health risk impacts shown in Table 3.2-18 are driven by construction emissions~~, specifically dredging for acute impacts~~. Construction emissions would need to be reduced by approximately 4~~6~~0 percent to eliminate these impacts. ~~The residential cancer risk significant impact in Table 3.2-18 is caused by diesel PM emissions, which would be anticipated to be reduced sufficiently in Alternative 1 to remove this impact due to the substantially reduced construction activity under Alternative 1. In addition~~Under Alternative 1, it is anticipated that the acute ~~residential and~~ occupational risk~~s~~ would ~~similarly be anticipated to~~ be less than significant ~~under Alternative 1~~ due to the reduction in ~~dredging~~ construction emissions.

Section 6.3.2.1.3, Page 6-24

Revise *Health Risk* text under "Alternative 2 – Reduced Project: Limited Demolition," as follows:

The Proposed Project acute health risk impacts shown in Table 3.2-18 are driven by construction emissions. ~~A major source of acute risk is dredging equipment. The residential cancer risk significant impact in Table 3.2-18 is caused by diesel PM emissions, which would not be anticipated to be reduced sufficiently in Alternative 2 to remove this impact.~~ After application of Mitigation Measures **MM AQ-1 through MM AQ-6**, impacts would be similar to those shown in Table 3.2-2~~1~~0 for the proposed Project. Therefore, after mitigation, the ~~residential cancer risk and the residential and~~ occupational acute hazard ind~~ex~~ex~~ices~~ would remain significant and unavoidable for construction activities.

Section 6.3.2.1.4, Page 6-27

Revise *Health Risk* text under "Alternative 3 – Retention of Historic Buildings," as follows:

The Proposed Project acute health risk impacts shown in Table 3.2-18 are driven by construction emissions. ~~A major source of acute risk is dredging equipment. The residential cancer risk significant impact in Table 3.2-18 is caused by diesel PM emissions, which would not be anticipated to be reduced sufficiently in Alternative 3 to remove this impact.~~ After application of Mitigation Measures **MM AQ-1 through MM AQ-6**, impacts would be similar to those shown in Table 3.2-20 for the proposed Project. Therefore, after mitigation, the ~~residential cancer risk and the residential and~~ occupational acute hazard index~~ices~~ would remain significant and unavoidable for construction activities.

Section 6.3.2.1.5, Page 6-30

Revise *Health Risk* text under "Alternative 4 – Relocation of Historic Buildings," as follows:

The Proposed Project acute health risk impacts shown in Table 3.2-18 are driven by construction emissions. ~~A major source of acute risk is dredging equipment. The residential cancer risk significant impact in Table 3.2-18 is caused by diesel PM emissions, which would not be anticipated to be reduced sufficiently in Alternative 4 to remove this impact given that the level of dredging that would occur is similar to that of the proposed Project.~~ With Mitigation Measures **MM AQ-1 through MM AQ-6**, impacts would be similar to those shown in Table 3.2-20 for the proposed Project. Therefore, after mitigation, the ~~residential cancer risk and the residential and~~ occupational acute hazard index~~ices~~ would remain significant and unavoidable for construction activities.

Section 6.3.2.1.6, Page 6-34

Revise *Health Risk* text under "Alternative 5 – Alternative Site," as follows:

Acute h~~H~~ealth risk impacts are dependent upon the proximity of construction activities to residences, worker locations, and other sensitive uses. Construction activities associated with reassembling the relocated buildings and making the on-site improvements under this alternative would occur at a different location than for the proposed Project. However ~~if the alternative location is adjacent to Fish Harbor, along the Main Channel, or near the East Basin, significant residential impacts are still anticipated. In addition~~, occupational impacts are still anticipated to be significant because industrial/commercial uses would be in close proximity to any other potential alternative ALBS location where construction might occur. Further, ~~while no operational impacts would occur at the existing site, demolition and dredging activities would continue to occur.~~ M~~m~~ore construction emissions are anticipated from Alterative 5 than the proposed Project due to the additional work needed to return the existing ALBS site to its original condition and relocated the five potentially historic buildings to the new site. Therefore it is possible that the Alternative 5 impacts are greater than the proposed Project acute health risk impacts shown in Tables 3.2-18 and 3.2-20. After mitigation, acute health risk impacts would remain significant and unavoidable for construction activities.

Section 6.3.2.1.7, Page 6-38

Revise *Health Risk* text under "Alternative 6 – No Project," as follows:

While no operational impacts would occur under Alternative 6, demolition and dredging activities would take place. More construction emissions are anticipated from Alterative 6 than the proposed Project due to the additional work needed to return the existing ALBS site to its original condition. Thus, it is anticipated that significant ~~residential cancer risk and significant residential and~~ occupational acute hazard index impacts would still occur. While mitigation would reduce impacts, acute health risk impacts would remain significant and unavoidable for construction activities.

Section 6.3.2.1.7, Page 6-40

Revise *Health Risk* text under "Alternative 7 – No Federal Action," as follows:

Health risk impacts under Alternative 7 are anticipated to be less than significant for all receptor types due to the reduced construction impacts ~~(specifically no dredging)~~ and removal of boat shop operations.

Section 6.3.4, Page 6-50

Revise the introductory paragraph as follows:

As noted above, there are ~~remaining ten~~nine environmental resources (Air Quality, Meteorology and Greenhouse Gases, Aesthetics and Visual Resources, Geology, Groundwater and Soils, Hazards and Hazardous Materials, Land Use, Population and Housing, Public Services and Utilities, Traffic and Transportation, and Water Quality, Sediments, and Oceanography) have no potentially significant impacts associated, as analyzed in Chapter 3 for the proposed Project and following is a qualitative analysis for each alternative:

Section 6.3.4, Beginning on Page 6-51

Add as Section 6.3.4.1, Air Quality, Meteorology and Greenhouse Gases, as follows (this renumbers the following nine analyzes by one number – i.e., Aesthetics and Visual Resources becomes Section 6.3.4.2, Geology becomes Section 6.3.4.3, etc.):

6.3.4.1 Air Quality, Meteorology, and Greenhouse Gases

6.3.4.1.1 Proposed Project

Proposed Project construction activities would involve the use of off-road construction equipment, on-road trucks, tugboats, and dredging equipment. Because these sources would primarily use diesel fuel, they would generate emissions of diesel exhaust in the form of VOC, CO, NO_X, SO_X, PM_{10} and $PM_{2.5}$. In addition, off-road construction equipment traveling over unpaved surfaces and performing earthmoving activities such as site clearing or grading would generate fugitive dust emissions in the form of PM_{10} and $PM_{2.5}$. Building demolition activities would also generate fugitive dust emissions. Site paving activities would generative fugitive emissions of VOCs. Worker commute trips would generate vehicle exhaust and paved road dust emissions.

Construction-related emissions would vary substantially depending on the level of activity, length of the construction period, specific construction operations, types of

equipment, number of personnel, wind and precipitation conditions, and soil moisture content.

Construction of the proposed Project is anticipated to commence in 2012 and last for approximately three years. Phase 1 would last approximately one year, employing approximately 30 people. Phase 2 would last approximately six to ten months and would employ 30 people. Phase 3 would last approximately six months and would employ 20 people. Construction would take place on the site Monday through Friday (with some Saturdays) from 7:00 am until 3:30 pm. Operation of the proposed Project would occur under a new 30-year lease. The new lease term would begin in 2012.

There would be an increase in operational emissions under the proposed Project. The new 600- and 100-ton boat hoists would be installed, therefore the capacity of the boat shop would increased, and the number and size of boats repaired would be expected to increase as well.

6.3.4.1.2 Alternative 1 – Reduced Project: Water Quality Improvements

Health Risk

Proposed Project cancer and chronic non-cancer health risk impacts for the combined construction and operational impacts shown in Table 3.2-18 are driven by operational emissions. There would be no increase in operational emissions under Alternative 1 (current operations would continue). The new 600- and 100-ton boat hoists would not be installed and the dredging would not occur, therefore the capacity of the boat shop would remain the same, and the number of boats repaired would not be expected to increase as a result of Alternative 1 improvements. In addition, ALBS would not be able to accommodate larger vessels because dredging would be required to accommodate the larger vessels. Operational emissions impacts (Alternative 1 minus the baseline) would be zero and therefore there would be no impacts under this alternative.

6.3.4.1.3 Alternative 2 – Reduced Project: Limited Demolition

Health Risk

Proposed Project cancer and chronic non-cancer health risk impacts for the combined construction and operational impacts shown in Table 3.2-18 are driven by operational emissions. Alternative 2 operations would be similar to the proposed Project, and the impacts would be comparable to the proposed Project impacts. Therefore, cancer and chronic non-cancer health risk impacts would be less than significant under Alternative 2.

6.3.4.1.4 Alternative 3 – Retention of Historic Buildings

Health Risk

Proposed Project cancer and chronic non-cancer health risk impacts for the combined construction and operational impacts shown in Table 3.2-18 are driven by operational emissions. The operational air quality emissions under this alternative would be less than the proposed Project. Under this alternative, there would not be enough room on the Project site to operate the 600-ton boat hoist. In addition, because one or two of the existing historic buildings proposed for demolition under the proposed Project would not be demolished or relocated under Alternative 3, implementation of this alternative would not result in the complete modernization of the existing boat shop facilities and would not

provide for the same level of operational efficiency that would occur under the proposed Project. As a result, the boat shop would not be able to operate at the maximum capacity, including servicing the same number and size of vessels, as proposed under the proposed Project. Therefore, cancer and chronic non-cancer health risk impacts would be less than significant under Alternative 3.

6.3.4.1.5 Alternative 4 –Relocation of Historic Buildings

Health Risk

Proposed Project cancer and chronic non-cancer health risk impacts for the combined construction and operational impacts shown in Table 3.2-18 are driven by operational emissions. The operations of Alternative 4 from a toxic air contaminant standpoint would be similar to the proposed Project. The capacity of the boat shop is assumed to be similar and there would be no difference in boat repair activities that would occur after Project completion. For purposes of this analysis, it is assumed that the relocated buildings would remain vacant and thus there would be no emissions associated with their operation. Therefore, cancer and chronic non-cancer health risk impacts would be less than significant under Alternative 4.

6.3.4.1.6 Alternative 5 – Alternate Site

Health Risk

Cancer and chronic non-cancer health risk impacts are dependent upon the proximity of construction and operational activities to residences, worker locations, and other sensitive uses. These activities under this alternative would occur at a different location than for the proposed Project. Even if the alternative location is adjacent to Fish Harbor, along the Main Channel, or near the East Basin, significant residential cancer and chronic non-cancer impacts are not anticipated. Occupational cancer and chronic non-cancer impacts are also anticipated to be less than significant because industrial/commercial uses would not likely be any closer in proximity to any other potential alternative ALBS locations.

6.3.4.1.7 Alternative 6 – No Project

Health Risk

Operational cancer and chronic non-cancer health risk impacts would be completely eliminated when compared to the proposed Project because the site would be completely cleared of structures and employees. As a result, Alternative 6 cancer and chronic non-cancer health risks would be less than the baseline and there would be no impacts.

6.3.4.1.8 Alternative 7 – No Federal Action

Health Risk

There would be no increase in operational activity under Alternative 7. The new 600- and 100-ton boat hoists would not be installed, therefore the capacity of the boat shop would remain the same, and the number and size of boats repaired would not be expected to increase under this alternative. As a result, cancer and chronic non-cancer health risk impacts under this alternative would be less than significant.

Changes Made to Chapter 9, References

Section 3.5, Geology, Page 9-15

Based on revisions to text in Section 3.5, Geology (see above), add to Printed References the following:

Environmental Resources Management (ERM). 2011. *Draft Comprehensive Site Investigation and First Quarter 2011 Groundwater Monitoring Report.* March.

Changes Made to Chapter 10, List of Preparers and Contributors

Section 10.2.2, Pages 10-1 to 10-2

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Changes Made to Appendix C.2, Operation Emissions

Appendix C2 is a compilation of operation emission worksheets that are generated from air quality modeling efforts. At the end of this chapter is attached the entire text of Appendix C3, including the attachments. Due to the nature of the model and output tables, the revisions cannot be shown in the typical revision-mode text (i.e., deletions are shown with ~~strikethrough~~ and additions are shown with underline). The corrections provided in the attached construction emission tables are shown in **bold/underline**. Please refer to Appendix C2 of the Draft EIR for original information.

The following tables have been included in their entirety; however, on the noted pages have been revised:

- **Summary Table, Pages 1 to 3 of 3**
- **Hoist Table, Pages 1 to 3 of 3**
- **CompEngine Table, Pages 1 to 3 of 3**
- **Coating Table, Pages 1 and 2 of 2**
- **Welding Table, Page 2 of 2**
- **On-site Mobile Table, Pages 1 and 2 of 2**
- **Baseline Project Table, Pages 1 and 2 of 2**
- **Project Description Table, Pages 1 and 2 of 2**

Changes Made to Appendix C.3, Health Risk Assessment

Based on the correction to, refinement and remodeling of, the health risk assessment in response to Draft EIR Comment SCAQMD-3 (refer to Chapter 2, Response to Comments, of the Final EIR for the comment and the response to comment), various portions of Appendix C3 has been revised. At the end of this chapter is attached the entire text of Appendix C3, including the attachments. As with the changes shown in this chapter (Chapter 3, Modifications to the Draft EIR, of the Final EIR), revisions to the text are shown with ~~strikethrough~~ for deletions and underline for additions. Figures 1 to 6 have also been revised to reflect changes in the model and text. The corrections provided in the attached tables are shown in **bold/underline**. Please refer to Appendix C3 of the Draft EIR for original information.

Addition of Appendix H: Boatyard Analysis – A Review of Boatyard Market Demand Data

Based on responses to comments (Chapter 2, Response to Comments, of the Final EIR), a new appendix (Appendix H) has been added, following Appendix C3 revisions.

Appendix C2. – Operation Emission – Modifications

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Al Larson Boat Shop (ALBS) Improvement Project ~~July 7, 2011~~

Operational Emissions **Updated May 14, 2012**

Table 1 - Baseline Operational Emissions (100 boats/year serviced)

	NOx (lb/day)	VOC (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	SO2 (lb/day)	CO (lb/day)	Lead (lb/day)	70-Yr Avg Diesel PM (lb/day)	Other TACs (lb/day)	CO2eq (MT/yr)
Total Project Operational Emissions:	**122.00**	**45.54**	**21.80**	**9.10**	**0.11**	**71.02**	**0.00**	**0.267**	**[c]**	**[d]**
New mobile boat hoist:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	-	-
Air compressor diesel engine(s) usage:	17.41	1.42	1.22	1.22	0.01	3.75	0.00	**0.214**	[c]	-
Coating:	-	33.50	9.74	1.95	-	-	-	-	**[c]**	-
Abrasive blasting:	-	-	3.72	0.37	-	-	-	-	[c]	-
Welding:	-	-	1.22	1.22	-	-	-	-	[c]	-
Pressure washer:	0.02	0.00	0.00	0.00	0.00	0.01	-	**0.004**	[c]	-
On-site mobile equipment:	5.22	1.06	0.42	0.42	0.01	4.02	-	**0.050**	[c]	-
Off-site employee trips:	3.89	4.00	1.86	0.59	0.05	38.43	-	-	[c]	-
Boat transit:	95.45	5.56	3.61	3.32	0.04	24.82	-	-	[c]	-

Baseline emissions estimates based on Project Description and 3-Year Averages from 2008, 2009 and 2010 SCAQMD Annual Emissions Reports.

Table 2 - Future with Proposed Project Operational Emissions (304 boats/year serviced)

	NOx (lb/day)	VOC (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	SO2 (lb/day)	CO (lb/day)	Lead (lb/day)	70-Yr Avg Diesel PM (lb/day)	Other TACs (lb/day)	CO2eq (MT/yr)
Total Project Operational Emissions:	**122.78**	**99.63**	**41.96**	**14.14**	**0.18**	**122.97**	**0.00**	**0.633**	**[c]**	**[d]**
New mobile boat hoist:	1.93	0.10	0.07	0.07	0.00	0.28	0.00	**0.013**	[c]	-
Air compressor diesel engine(s) usage:	40.72	3.32	2.86	2.86	0.01	8.77	0.00	**0.494**	[c]	-
Coating:	-	78.34	22.78	4.56	-	-	-	-	[c]	-
Abrasive blasting:	-	-	8.71	0.87	-	-	-	-	[c]	-
Welding:	-	-	2.85	2.85	-	-	-	-	[c]	-
Pressure washer:	0.05	0.00	0.01	0.01	0.00	0.01	-	**0.009**	[c]	-
On-site mobile equipment:	12.20	2.48	0.99	0.99	0.01	9.40	-	**0.117**	[c]	-
Off-site employee trips:	5.08	5.21	2.42	0.77	0.07	50.11	-	-	[c]	-
Boat transit:	62.79	10.18	1.27	1.17	0.08	**54.39**	-	-		

Al Larson Boat Shop (ALBS) Improvement Project										~~July 7, 2011~~
Operational Emissions										**Updated May 14, 2012**
Table 3 - Proposed Project Incremental Operational Emissions (Future with Project Minus CEQA Baseline Emissions)										
	NOx (lb/day)	**VOC (lb/day)**	**PM10 (lb/day)**	**PM2.5 (lb/day)**	**SO2 (lb/day)**	**CO (lb/day)**	**Lead (lb/day)**	**70-Yr Avg Diesel PM (lb/day)**	**Other TACs (lb/day)**	**CO2eq (MT/yr)**
Total Project Operational Emissions:	**1**	**54**	**20**	**5**	**0**	**52**	**0**	**0.366**	**[c]**	**[d]**
New mobile boat hoist:	1.93	0.10	0.07	0.07	0.00	0.28	0.00	**0.013**	[c]	-
Air compressor diesel engine(s) usage:	23.31	1.90	1.64	1.64	0.01	5.02	0.00	**0.281**	[c]	-
Coating:	-	44.84	13.04	2.61	-	-	-	-	**[c]**	-
Abrasive blasting:	-	-	4.98	0.50	-	-	-	-	[c]	-
Welding:	-	-	1.63	1.63	-	-	-	-	[c]	-
Pressure washer:	0.03	0.00	0.00	0.00	0.00	0.01	-	**0.005**	[c]	-
On-site mobile equipment:	6.98	1.42	0.57	0.57	0.01	5.38	-	**0.067**	[c]	-
Off-site employee trips:	1.18	1.22	0.56	0.18	0.02	11.69	-	-	[c]	-
Boat transit:	-32.66	4.62	-2.34	-2.15	0.04	**29.57**	-	**-**	[c]	-
SCAQMD Air Quality Significance Threshold [a]:	**55**	**55**	**150**	**55**	**150**	**550**	**3**	**[b]**	**[b]**	**10,000**
Project Emissions Change Significant?	**No**	**No**	**No**	**No**	**No**	**No**	**No**	**No [b]**	**No**	**No**
~~**Table 4 - Proposed Project Operational Emissions with Mitigation**~~										
	~~**NOx (lb/day)**~~	~~**VOC (lb/day)**~~	~~**PM10 (lb/day)**~~	~~**PM2.5 (lb/day)**~~	~~**SO2 (lb/day)**~~	~~**CO (lb/day)**~~	~~**Lead (lb/day)**~~	~~**Diesel PM (lb/day)**~~	~~**Other TACs (lb/day)**~~	~~**CO2eq (MT/yr)**~~
~~**Total Project Operational Emissions:**~~	~~**19.27**~~	~~**86.13**~~	~~**37.82**~~	~~**10.11**~~	~~**0.09**~~	~~**59.81**~~	~~**0.00**~~	~~**0.14**~~	~~**[c]**~~	~~**[d]**~~
~~New mobile boat hoist:~~	~~1.93~~	~~0.10~~	~~0.07~~	~~0.07~~	~~0.00~~	~~0.28~~	~~0.00~~	~~0.01~~	~~[c]~~	~~-~~
~~Air compressor diesel engine(s) usage:~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~[c]~~	~~-~~
~~Coating:~~	~~-~~	~~78.34~~	~~22.78~~	~~4.56~~	~~-~~	~~-~~	~~-~~	~~-~~	~~0.00~~	~~-~~
~~Abrasive blasting:~~	~~-~~	~~-~~	~~8.71~~	~~0.87~~	~~-~~	~~-~~	~~-~~	~~-~~	~~[c]~~	~~-~~
~~Welding:~~	~~-~~	~~-~~	~~2.85~~	~~2.85~~	~~-~~	~~-~~	~~-~~	~~-~~	~~[c]~~	~~-~~
~~Pressure washer:~~	~~0.05~~	~~0.00~~	~~0.01~~	~~0.01~~	~~0.00~~	~~0.01~~	~~-~~	~~0.01~~	~~[c]~~	~~-~~
~~On-site mobile equipment:~~	~~12.20~~	~~2.48~~	~~0.99~~	~~0.99~~	~~0.01~~	~~9.40~~	~~-~~	~~0.12~~	~~[c]~~	~~-~~
~~Off-site employee trips:~~	~~5.08~~	~~5.21~~	~~2.42~~	~~0.77~~	~~0.07~~	~~50.11~~	~~-~~	~~-~~	~~[c]~~	~~-~~
~~Boat transit:~~	~~62.79~~	~~10.18~~	~~1.27~~	~~1.17~~	~~0.08~~	~~54.39~~	~~-~~	~~-~~	~~[c]~~	~~-~~
~~Mitigation = replacement of all diesel engine-powered compressor engines with electric motors.~~										

Al Larson Boat Shop (ALBS) Improvement Project ~~July 7, 2011~~

Operational Emissions **Updated May 14, 2012**

~~**Table 5 - Proposed Project Operational Emissions Increase with Mitigation**~~

	~~NOx (lb/day)~~	~~VOC (lb/day)~~	~~PM10 (lb/day)~~	~~PM2.5 (lb/day)~~	~~SO2 (lb/day)~~	~~CO (lb/day)~~	~~Lead (lb/day)~~	~~Diesel PM (lb/day)~~	~~Other TACs (lb/day)~~	~~CO2eq (MT/yr)~~
~~**Total Project Operational Emissions:**~~	~~**-7.28**~~	~~**46.16**~~	~~**19.63**~~	~~**4.33**~~	~~**0.02**~~	~~**13.61**~~	~~**0.00**~~	~~**-0.13**~~	~~**[c]**~~	~~**[d]**~~
~~New mobile boat hoist:~~	~~1.93~~	~~0.10~~	~~0.07~~	~~0.07~~	~~0.00~~	~~0.28~~	~~0.00~~	~~0.01~~	~~[c]~~	~~-~~
~~Air compressor diesel engine(s) usage:~~	~~-17.41~~	~~-1.42~~	~~-1.22~~	~~-1.22~~	~~-0.01~~	~~-3.75~~	~~0.00~~	~~-0.21~~	~~[c]~~	~~-~~
~~Coating:~~	~~-~~	~~44.84~~	~~13.04~~	~~2.61~~	~~-~~	~~-~~	~~-~~	~~-~~	~~0.00~~	~~-~~
~~Abrasive blasting:~~	~~-~~	~~-~~	~~4.98~~	~~0.50~~	~~-~~	~~-~~	~~-~~	~~-~~	~~[c]~~	~~-~~
~~Welding:~~	~~-~~	~~-~~	~~1.63~~	~~1.63~~	~~-~~	~~-~~	~~-~~	~~-~~	~~[c]~~	~~-~~
~~Pressure washer:~~	~~0.03~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.00~~	~~0.01~~	~~-~~	~~0.00~~	~~[c]~~	~~-~~
~~On-site mobile equipment:~~	~~6.98~~	~~1.42~~	~~0.57~~	~~0.57~~	~~0.01~~	~~5.38~~	~~-~~	~~0.07~~	~~[c]~~	~~-~~
~~Off-site employee trips:~~	~~1.18~~	~~1.22~~	~~0.56~~	~~0.18~~	~~0.02~~	~~11.69~~	~~-~~	~~-~~	~~[c]~~	~~-~~
~~Boat transit:~~	~~-32.66~~	~~4.62~~	~~-2.34~~	~~-2.15~~	~~0.04~~	~~29.57~~	~~-~~	~~-~~	~~[c]~~	~~-~~
~~SCAQMD Air Quality Significance Threshold [a]:~~	~~55~~	~~55~~	~~150~~	~~55~~	~~150~~	~~550~~	~~3~~	~~[b]~~	~~[b]~~	~~10,000~~
~~Project Emissions Change Significant?~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No~~	~~No [b]~~	~~No~~	~~No~~

NOx = nitrogen oxides, VOC = volatile organic compounds, PM10 = particulate matter with an aerodynamic diameter less than or equal to 10 microns,
PM2.5 = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns, SO2 = sulfur dioxide, CO = carbon monoxide,
Diesel PM = diesel particulate matter (a Toxic Air Contaminant), Other TACs = Toxic Air Contaminants (TAC) other than Diesel PM.
- = not applicable.

[a] SCAQMD, Air Quality Significance Thresholds, from http://www.aqmd.gov/ceqa/handbook/signthres.pdf (March 2011)
[b] Maximum incremental cancer risk >= 10 in 1 million, cancer burden > 0.5 excess cancer cases, chronic & acute hazard index >= 1.0 (project increment)
~~Based on SCAQMD Rule 1401 Risk Calculator (http://www.aqmd.gov/permit/r1401_risk_assessment.htm), risk is not significant.~~
~~[c] 'Other TACs' (TACs other than Diesel PM) have not been calculated because project risk is driven mainly by Diesel PM emissions.~~
[c] See individual TAC emissions in following tables for Hoist, Comp Engine, Coating, Welding and On-Site Mobile.
[d] Project increase in GHG emissions (as CO2eq) are well below 10,000 metric tons per year (MT/yr).

Al Larson Boat Shop (ALBS) Improvement Project
New TravelLift 600C Mobile Boat Hoist Emissions

~~July 7, 2011~~
Updated May 14, 2012

	NOx (lb/day)	VOC (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	SO2 (lb/day)	CO (lb/day)	Lead (lb/day)	DPM 70-yr (lb/day)	DPM 70-yr (lb/yr)
Mobile hoist emissions (baseline):	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.000**	**-**
Mobile hoist emissions (increase):	1.93	0.10	0.068	0.068	0.0035	0.28	0.00014	**0.013**	**3.37**
Mobile hoist emissions (post-project):	1.93	0.10	0.068	0.068	0.0035	0.28	0.00014	**0.013**	**3.37**

Parameter	Value		Basis
Engine rating:	400	hp	@ 2,200 rpm. John Deere Diesel 6090HF - Tier 3 (Marine Travelift 600C Mobile Boat Hoist brochure)
Fuel usage rate:	135.39	lb/hr	Fuel usage @ peak hp (400 hp), Model HF6090, 2010 Model Year, Engine Family AJFXL09.0102 (CARB Executive Order U-R-004-0376, John Deere Power Systems)
Fuel density:	7	lb/gal	Diesel
Fuel S content:	15	ppmw	15 ppmw Ultra Low Sulfur Diesel required by SCAQMD Rule 431.2
Average engine load factor:	43%		SCAQMD 1993 CEQA Handbook, Table A9-8-D (Typical Load Factors for Mobile (Off-Road Equipment)), "Crane".
Hoist hours per ship:	1	hr/ship	Estimate
Max. ships per day:	2	ships/day	Estimate
Max. ships per year:	304	ship/yr	Project Description
Hoist operating days:	260	days/yr	Project Description
Fuel usage (Max ships/day)	16.63	gal/day	Fuel usage [gal/day] = (Fuel usage rate [lb/hr]) / (Fuel density [lb/gal]) * (Load factor [%]) * (Hours per ship [hr/ship]) * (Ships per day [ships/day])
Fuel usage (Max ships/yr)	2,528	gal/yr	Fuel usage [gal/yr] = (Fuel usage rate [lb/hr]) / (Fuel density [lb/gal]) * (Load factor [%]) * (Hours per ship [hr/ship]) * (Ships per year [ships/yr])
Emission factors:			
NMHC+NOx	3.6	g/kW-hr	Model HF6090, 2010 Model Year, Engine Family AJFXL09.0102 (CARB Executive Order U-R-004-0376, John Deere Power Systems)
	2.68	g/hp-hr	

Al Larson Boat Shop (ALBS) Improvement Project
New TravelLift 600C Mobile Boat Hoist Emissions

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NOx	2.55	g/hp-hr	NOx = 0.95 NMHC+NOx (CARB 2008 Carl Moyer Program Guidelines, Table B-26, Pollutant Fractions NOx+NMHC Standards, Diesel Engines)
VOC	0.13	g/hp-hr	CO = 0.05 NMHC+NOx (CARB 2008 Carl Moyer Program Guidelines, Table B-26, Pollutant Fractions NOx+NMHC Standards, Diesel Engines)
PM	0.12	g/kW-hr	Model HF6090, 2010 Model Year, Engine Family AJFXL09.0102 (CARB Executive Order U-R-004-0376, John Deere Power Systems)
	0.09	g/hp-hr	
CO	0.5	g/kW-hr	Model HF6090, 2010 Model Year, Engine Family AJFXL09.0102 (CARB Executive Order U-R-004-0376, John Deere Power Systems)
	0.37	g/hp-hr	
SO2	0.21	lb/10^3 gal	Mass balance (assumes all fuel S is converted to SO2)
Lead	0.0083	lb/10^3 gal	Ventura County APCD AB2588 Combustion Emission Factors (5/2001)

Emissions:

NOx	1.93	lb/day	Max. ships per day
VOC	0.10	lb/day	Max. ships per day
PM10	0.068	lb/day	Max. ships per day. Assume all PM is PM10/PM2.5
CO	0.28	lb/day	Max. ships per day
SO2	0.0035	lb/day	Max. ships per day
Lead	0.00014	lb/day	Max. ships per day

Al Larson Boat Shop (ALBS) Improvement Project
New TravelLift 600C Mobile Boat Hoist Emissions

~~July 7, 2011~~
Updated May 14, 2012

TAC 1-Hour Emission Rates for Acute Risk Assessment - Organics

Emission Rates in lbs/hour	acetaldehyde	benzene	formaldehyde	methanol	methyl ethyl ketone (mek) (2-butanone)	styrene	toluene	xylenes, total
Mobile hoist emissions (increase):	**9.36E-04**	**2.55E-04**	**1.87E-03**	**3.82E-06**	**1.88E-04**	**7.38E-06**	**1.87E-04**	**1.32E-04**

TAC 1-Hour Emission Rates for Acute Risk Assessment - Inorganics

Emission Rates in lbs/hour	arsenic	chlorine	copper	manganese	mercury	nickel	vanadium	sulfates
Mobile hoist emissions (increase):	**4.24E-08**	**2.92E-06**	**2.12E-07**	**3.39E-07**	**2.54E-07**	**1.61E-07**	**2.46E-07**	**1.48E-04**

Al Larson Boat Shop (ALBS) Improvement Project
Air Compressor Diesel Engine(s) Emissions

~~July 7, 2011~~
Updated May 14, 2012

	NOx (lb/day)	VOC (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	SO2 (lb/day)	CO (lb/day)	~~Lead (lb/day)~~	DPM 70-Yr Average (lb/day)[a]	DPM 70-Yr Average (lb/yr)[a]
Air compressor engine(s) (baseline):	17.41	1.42	1.22	1.22	0.006	3.75	~~0.0002~~	**0.2135**	**55.51**
Air compressor engine(s) (increase):	23.31	1.90	1.64	1.64	0.008	5.02	~~0.0003~~	**0.2809**	**73.03**
Air compressor engine(s) (post-project):	40.72	3.32	2.86	2.86	0.014	8.77	~~0.0005~~	**0.4944**	**128.54**

a. 70-year average emission rates estimated from SCAB Fleet Average Emission Factor (Diesel) tables developed by SCAQMD and final PM emission standard (0.01 g/hp-hr). Emission factors decline from the baseline period through 2040, then are held at 2040 levels (0.01 g/hp-hr) for the remaining years.
~~All diesel engine powered air compressors serving ship spray coating equipment (pressure pots) will be replaced with electric units.~~

Parameter	Value		Basis
Fuel usage baseline:	7,333	gal/yr	See 'Baseline->Project' sheet
Fuel usage increase:	9,815	gal/yr	See 'Baseline->Project' sheet
Fuel heat content:	140,000	Btu/gal	Typical for No. 2 diesel
Fuel density:	7	lb/gal	Typical for No. 2 diesel
Fuel S content:	15	ppmw	15 ppmw Ultra Low Sulfur Diesel required by SCAQMD Rule 431.2
Operation:	260	days/yr	Project Description
Emission factors:			
NOx	4.41	lb/MMBtu	EPA AP-42, Table 3.3-1 (Emission Factors for Uncontrolled Diesel Industrial Engines)
VOC	0.36	lb/MMBtu	EPA AP-42, Table 3.3-1 (Emission Factors for Uncontrolled Diesel Industrial Engines)
PM10	0.31	lb/MMBtu	EPA AP-42, Table 3.3-1 (Emission Factors for Uncontrolled Diesel Industrial Engines)
PM2.5	0.31	lb/MMBtu	EPA AP-42, Table 3.3-1 (Emission Factors for Uncontrolled Diesel Industrial Engines)
SO2	0.0015	lb/MMBtu	Mass balance (assumes all fuel S is converted to SO2)
CO	0.95	lb/MMBtu	EPA AP-42, Table 3.3-1 (Emission Factors for Uncontrolled Diesel Industrial Engines)
~~Lead~~	~~0.000059~~	~~lb/MMBtu~~	~~0.0083 lb/10^3 gallons per Ventura County APCD AB2588 Combustion Emission Factors (5/2001)~~

AP-42 Table 3.3-1 emission factors applicable to diesel engines up to 600 hp.

Emissions Increase (Daily Average):			
NOx	23.31	lb/day	Daily fuel usage = annual fuel usage / operating days
VOC	1.90	lb/day	Daily fuel usage = annual fuel usage / operating days
PM10	1.64	lb/day	Daily fuel usage = annual fuel usage / operating days
PM2.5	1.64	lb/day	Daily fuel usage = annual fuel usage / operating days
SO2	0.0079	lb/day	Daily fuel usage = annual fuel usage / operating days
CO	5.02	lb/day	Daily fuel usage = annual fuel usage / operating days
~~Lead~~	~~0.00031~~	~~lb/day~~	~~Daily fuel usage = annual fuel usage / operating days~~

Al Larson Boat Shop (ALBS) Improvement Project
Air Compressor Diesel Engine(s) Emissions

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Updated May 14, 2012

For 70-year average DPM Rate:

Compressor Engine Size:	**300**	**BHP**	**SCAQMD Permit to Operate F41657 (A/N 387435)**
Compressor Engine Load Factor:	**0.48**		**1993 SCAQMD CEQA Handbook (Table A9-8-D).**
Diesel Engine PM Emission Standard:	**0.01**	**g/hp-hr**	**Assumed to be met by 2040 for all non-road diesel engines**

Baseline EF (Average of 2008, 2009, 2010)	**0.0545**
Baseline 70-Year Average EF	**0.0095**
Ratio 70-Year to Baseline	**0.1744**

Future (2012) EF	**0.0469**
Future 70-Year Average EF	**0.0081**
Ratio 70-Year to 2012	**0.1727**

Al Larson Boat Shop (ALBS) Improvement Project
Air Compressor Diesel Engine(s) Emissions

~~July 7, 2011~~
Updated May 14, 2012

TAC 1-Hour Emission Rates for Acute Risk Assessment - Organics

Emission Rates in lbs/hour	acetaldehyde	benzene	formaldehyde	methanol	methyl ethyl ketone (mek) (2-butanone)	styrene	toluene	xylenes, total
Air compressor engine(s) (baseline):	1.31E-02	3.56E-03	2.61E-02	5.33E-05	2.62E-03	1.03E-04	2.62E-03	1.85E-03
Air compressor engine(s) (increase):	1.75E-02	4.76E-03	3.50E-02	7.13E-05	3.51E-03	1.38E-04	3.50E-03	2.48E-03
Air compressor engine(s) (post-project):	3.06E-02	8.31E-03	6.11E-02	1.25E-04	6.14E-03	2.41E-04	6.12E-03	4.33E-03

TAC 1-Hour Emission Rates for Acute Risk Assessment - Inorganics

Emission Rates in lbs/hour	arsenic	chlorine	copper	manganese	mercury	nickel	vanadium	sulfates
Air compressor engine(s) (baseline):	7.65E-07	5.26E-05	3.83E-06	6.12E-06	4.59E-06	2.91E-06	4.44E-06	2.67E-03
Air compressor engine(s) (increase):	1.76E-07	1.21E-05	8.78E-07	1.40E-06	1.05E-06	6.67E-07	1.02E-06	6.12E-04
Air compressor engine(s) (post-project):	1.79E-06	1.23E-04	8.95E-06	1.43E-05	1.07E-05	6.80E-06	1.04E-05	6.24E-03

Al Larson Boat Shop (ALBS) Improvement Project
Coating Emissions

~~July 7, 2011~~
Updated May 14, 2012

	NOx (lb/day)	VOC (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	SO2 (lb/day)	CO (lb/day)	Lead (lb/day)
Coating emissions (baseline):	-	33.50	9.74	1.95	-	-	-
Coating emissions (increase):	-	44.84	13.04	2.61	-	-	-
Coating emissions (post-project):	-	78.34	22.78	4.56	-	-	-

- = Not applicable
Coating emissions increase is based on 3-year average baseline emissions (2008-2010) and assumed to be proportional to number of ships serviced.

Coating Usage/VOCs:	Value		Basis	
Cleaning/thinner VOC	1,614	lb/yr	Increase from 3-year baseline emissions (2008-2010)	
Cleaning/thinner	448	gal/yr	Increase from 3-year baseline usage (2008-2010)	
Avg VOC	3.6	lb/gal	2008-2010 AERs	
Painting/epoxy VOC	5,602	lb/yr	Increase from 3-year baseline emissions (2008-2010)	
Usage	2,001	gal/yr	Increase from 3-year baseline usage (2008-2010)	
Avg VOC	2.8	lb/gal	2008-2010 AERs	
Painting/antifouling VOC	4,367	lb/yr	Increase from 3-year baseline emissions (2008-2010)	
Usage	1,560	gal/yr	Increase from 3-year baseline usage (2008-2010)	
Avg VOC	2.8	lb/gal	2008-2010 AERs	
Painting/enamel VOC	76	lb/yr	Increase from 3-year baseline emissions (2008-2010)	
Usage	27	gal/yr	Increase from 3-year baseline usage (2008-2010)	
Avg VOC	2.8	lb/gal	2008-2010 AERs	
Total VOC increase:	11,659	lb/yr	Calc	11,584
Total Usage	4,036	gal/yr	Calc	
Operating days per year:	260	days/yr	Project Description	
Spray Coating PM emissions:				
Quantity of paint/epoxy applied:	3,588	gal/yr	Increase in coatings (excludes cleaner/thinner use)	
Coatings spray painted:	90%		Remainder (10%) are hand applied.	
Solids content:	3.0	lb/gal	Default solids content from SCAQMD's "Guidelines for Particulate Matter (PM) Emissions Calculations for Spray Coating Operations"	
Transfer efficiency:	0.65		Default transfer efficiency of 65% per SCAQMD's Guidelines.	
Control efficiency:	0.00		Estimate	
Annual PM10 emissions:	3,390.7	lb/yr	=(Coating quantity applied [gal]) * (% spray coated) * (Solids content [lb/gal]) * (1 - Transfer Efficiency) * (1 - Control Efficiency)	
Daily PM10 emissions:	13.0	lb/day	Annual PM10 emissions divided by Operating days per year.	
PM2.5 fraction:	20%		Estimate	
Daily PM2.5 emissions:	2.6	lb/day	Calc	

Al Larson Boat Shop (ALBS) Improvement Project
Coating Emissions

~~July 7, 2011~~
Updated May 14, 2012

Spray Coating PM TAC emissions:			
Quantity of paint/antifouling applied:	**1,560**	**gal/yr**	**Increase in paint/epoxy use**
Coatings spray painted:	**90%**		**Remainder (10%) are hand applied.**
Solids content:	**3.0**	**lb/gal**	**Default solids content from SCAQMD's "Guidelines for Particulate Matter (PM) Emissions**
Transfer efficiency:	**0.65**		**Default transfer efficiency of 65% per SCAQMD's Guidelines.**
Control efficiency:	**0.00**		**Estimate**
Annual PM10 emissions:	**1,474**	**lb/yr**	**=(Coating quantity applied [gal]) * (% spray coated) * (Solids content [lb/gal]) * (1 - Transfer Efficiency) * (1 - Control Efficiency)**
Annual Cuprous Oxide Emissions	**688**	**lb/yr**	**See Baseline->Project, MSDS Info.**
Annual Zinc Oxide Emissions	**393**	**lb/yr**	**See Baseline->Project, MSDS Info.**
Hourly Cuprous Oxide Emissions	**0.33**	**lb/hr**	
Hourly Zinc Oxide Emissions	**0.19**	**lb/hr**	
Spray Coating VOC TAC emissions:			
Quantity of paint/epoxy applied:	**2,001**	**gallons**	**Increase in paint/epoxy use**
Annual Painting/epoxy VOC	**5,602**	**lb/yr**	**Increase from 3-year baseline emissions (2008-2010)**
Annual Xylene Emissions	**244**	**lb/yr**	**See Baseline->Project, MSDS Info.**
Annual N-butyl alcohol Emissions	**1709**	**lb/yr**	**See Baseline->Project, MSDS Info.**
Hourly Xylene Emissions	**0.12**	**lb/hr**	
Hourly N-butyl alcohol Emissions	**0.82**	**lb/hr**	
Quantity of paint/antifoulant applied:	**1,560**	**gallons**	**Increase in paint/antifoulant use**
Annual Painting/antifoulant VOC	**4,367**	**lb/yr**	**Increase from 3-year baseline emissions (2008-2010)**
Annual Xylene Emissions	**1414**	**lb/yr**	**See Baseline->Project, MSDS Info.**
Annual Ethyl benzene Emissions	**336**	**lb/yr**	**See Baseline->Project, MSDS Info.**
Hourly Xylene Emissions	**0.68**	**lb/hr**	
Hourly Ethyl benzene Emissions	**0.16**	**lb/hr**	
Quantity of thinner/cleaner applied:	**448**	**gallons**	**Increase in thinner/cleaner use**
Annual thinner/cleaner VOC	**1,614**	**lb/yr**	**Increase from 3-year baseline emissions (2008-2010)**
Annual Benzene Emissions	**1.6**	**lb/yr**	**See Baseline->Project, MSDS Info.**
Annual Naphthalene Emissions	**3.2**	**lb/yr**	**See Baseline->Project, MSDS Info.**
Hourly Benzene Emissions	**0.0008**	**lb/hr**	
Hourly Naphthalene Emissions	**0.0016**	**lb/hr**	

Al Larson Boat Shop (ALBS) Improvement Project
Welding Emissions

~~July 7, 2011~~
Updated May 14, 2012

	NOx (lb/day)	VOC (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	SO2 (lb/day)	CO (lb/day)	Lead (lb/day)	Cr (lb/day)	Cr 6+ (lb/day)	Mn (lb/day)	Ni (lb/day)
Welding emissions (baseline):	-	-	1.22	1.22	-	-	-	0.00032	**0.000016**	0.07189	0.00040
Welding emissions (increase):	-	-	1.63	1.63	-	-	-	0.00043	**0.000022**	0.09623	0.00054
Welding emissions (post-project):	-	-	2.85	2.85	-	-	-	0.00075	**0.000038**	0.16812	0.00094

- = Not applicable

Welding emissions increase assumed to be proportional to number of ships serviced.

Parameter	Value		Basis
Operating days per year:	260	days/yr	Project Description
Baseline ships/yr	130	ship/yr	Project Description
Additional ships/yr	174	ship/yr	Project Description (increase from 130 ships/yr to 304 ships/yr)
Average max. daily increase:	0.67	ships/day	Calc
Rounded max. daily increase:	1.00	ship/day	Calc
Electrode usage:	6	lb/hr/welder	Estimate
Max. welding hours/ship	3	hr/welder/ship	Estimate
Max. ships/day	3	ships/day	Estimate
Max. welders/ship	2	welders/ship	Estimate
Electrode usage (increase):	108	lb/day	Calc
Fume (PM10) emission factor:	15.1	lb/1000 lb	AP-42, Table 12.19 (Flux Core Arc Welding [FCAW], E70T electrode type)
PM10 emissions:	1.63	lb/day	Calc
PM2.5 emissions:	1.63	lb/day	Assume PM2.5=PM10 (conservative)
HAPs:			
Chromium (Cr)	0.04	lb/10,000 lb	AP-42, Table 12.19-2 (FCAW welding, E70T electrode type)
Manganese (Mn)	8.91	lb/10,000 lb	AP-42, Table 12.19-2 (FCAW welding, E70T electrode type)
Nickel (Ni)	0.05	lb/10,000 lb	AP-42, Table 12.19-2 (FCAW welding, E70T electrode type)
Total HAPs:	9.00	lb/10,000 lb	Calc

PM and HAP emissions estimates assume Flux Core Arc Welding (FCAW) process and E70T electrode type are used.
Per an EPA "Shipbuilding and Ship Repair NESHAP Residual Risk Analysis" presentation (January 25, 2005), flux core arc welding (FCAW) is the most common welding process used in shipbuilding and ship repair.
According to Table 2-3 of "Development of Emission Inventory for Metal Welding, Cutting and Spraying Operations" (May 31, 2000 Final Report, Submitted by Pacific Environmental Services to South Coast Air Quality Management District), electrode types used by FCAW for mild steel include E70T and E71T.

HAP = Hazardous Air Pollutant

Al Larson Boat Shop (ALBS) Improvement Project
Welding Emissions

~~July 7, 2011~~
Updated May 14, 2012

TAC 1-Hour Emission Rates for Acute Risk Assessment

Emission Rates in lbs/hour	Chromium 6+	Manganese	Nickel
Welding emissions (baseline):	2.02E-06	8.99E-03	5.04E-05
Welding emissions (increase):	**2.70E-06**	**1.20E-02**	**6.75E-05**
Welding emissions (post-project):	4.72E-06	2.10E-02	1.18E-04

TAC Annual Emission Rates for Cancer and Chronic Non-Cancer Risk Assessment

Emission Rates in lbs/year	Chromium 6+	Manganese	Nickel
Welding emissions (baseline):	0.0042	18.69	0.105
Welding emissions (increase):	0.0056	25.02	0.140
Welding emissions (post-project):	0.0098	43.71	0.245

Al Larson Boat Shop (ALBS) Improvement Project

On-Site Mobile Equipment Emissions

~~July 7, 2011~~

Updated May 14, 2012

	NOx (lb/day)	VOC (lb/day)	PM10 (lb/day)	PM2.5 (lb/day)	SO2 (lb/day)	CO (lb/day)	Lead (lb/day)	DPM 70-yr (lb/day)	DPM 70-yr (lb/yr)
Mobile equipment (baseline)	5.22	1.06	0.42	0.42	0.01	4.02	-	**0.050**	**13.00**
Mobile equipment (increase)	6.98	1.42	0.57	0.57	0.01	5.38	-	**0.067**	**17.42**
Mobile equipment (post-project)	12.20	2.48	0.99	0.99	0.01	9.40	-	**0.117**	**30.42**

Increase assumes activity increases by: 2.34 times from baseline (increase assumed proportional to number of ships serviced).

Equipment/Activity Descriptions

Equipment/Activity	*Hp Rating*	*Load Factor*	*Number Active*	*Equip-Hrs Day*	*Miles/ Day*	Equipment Type	Fuel usage (gal/day)
Forklifts	83	0.30	5	2.0	-	Off-Road	16.43
Crane (55-ton T-Rex 2002 RT Crane)	185	0.43	1	1.0	-	Off-Road	5.25
Crane (Linkbelt RTC-8018)	110	0.43	1	1.0	-	Off-Road	3.12
Crane (Linkbelt RTC-8025)	152	0.43	1	1.0	-	Off-Road	4.31
Forklift (telescopic, rough terrain)	140	0.475	1	1.0	-	Off-Road	4.39

Notes:

Horsepower ratings from 1993 SCAQMD CEQA Handbook (Tables A9-8-C and A9-8-D) or estimated manufacturer specs.

Load factors from 1993 SCAQMD CEQA Handbook (Tables A9-8-C and A9-8-D) used to estimate fuel usage.

Fuel usage estimate assumes 0.066 gallons per horsepower-hour (1993 SCAQMD CEQA Handbook, Table A9-8-C).

Emission Factors for Off-Road Equipment

	Emission Factors (include load factor)							
Equipment/Activity	*NOx*	*VOC*	*PM10*	*PM2.5*	*SO2*	*CO*	*Units*	*Reference*
Forklifts	1.2510	0.3334	0.1148	0.115	0.0016	1.1980	g/hp-hr	1
Crane (55-ton T-Rex 2002 RT Crane)	2.1145	0.2712	0.1171	0.117	0.0023	1.1619	g/hp-hr	1
Crane (Linkbelt RTC-8018)	2.2146	0.4609	0.2062	0.206	0.0023	1.5688	g/hp-hr	1
Crane (Linkbelt RTC-8025)	2.1693	0.3194	0.1566	0.157	0.0023	1.3066	g/hp-hr	1
Forklift (telescopic, rough terrain)	2.6015	0.3858	0.2022	0.202	0.0031	1.7348	g/hp-hr	1

1 - Composite emission factor based on CARB OFFROAD Emissions Model and South Coast Air Basin Fleet Average Emission Factors for 2012.

Composite emission factors include load factors. http://www.aqmd.gov/ceqa/handbook/offroad/offroad.html

Al Larson Boat Shop (ALBS) Improvement Project

On-Site Mobile Equipment Emissions

~~July 7, 2011~~

Updated May 14, 2012

TAC 1-Hour Emission Rates for Acute Risk Assessment - Organics

Emission Rates in lbs/hour	acetaldehyde	benzene	formaldehyde	methanol	methyl ethyl ketone (mek) (2-butanone)	styrene	toluene	xylenes, total
Air compressor engine(s) (baseline):								
Air compressor engine(s) (increase):	1.30E-02	3.54E-03	2.61E-02	5.31E-05	2.62E-03	1.03E-04	2.61E-03	1.84E-03
Air compressor engine(s) (post-project):								

TAC 1-Hour Emission Rates for Acute Risk Assessment - Inorganics

Emission Rates in lbs/hour	arsenic	chlorine	copper	manganese	mercury	nickel	vanadium	sulfates
Air compressor engine(s) (baseline):								
Air compressor engine(s) (increase):	4.19E-08	2.88E-06	2.09E-07	3.35E-07	2.51E-07	1.59E-07	2.43E-07	1.46E-04
Air compressor engine(s) (post-project):								

Baseline->Project

Al Larson Boat Shop (ALBS) Improvement Project ~~July 7, 2011~~
Baseline Information **Updated May 14, 2012**

	Baseline				Project	Project	Project
	2010	**2009**	**2008**	**3-Yr Avg**	**[1]**	**Increase**	**(w/mit)**
Air compressor engine:							
Diesel usage (gal/yr)	7,170	7,510	7,320	7,333	17,149	9,815	9,815
Cleaning/thinner VOC (lb/yr)	1,407.6	1,054.8	1,155.6	1,206.0	2,820	1,614	1,614
Cleaning/thinner (gal/yr)	391	293	321	335	783	448	448
Avg VOC (lb/gal)	3.60	3.60	3.60	3.60	-	-	-
Painting/epoxy VOC (lb/yr)	4,340.0	4,295.2	3,920.0	4,185.1	9,787	5,602	5,602
Usage (gal/yr)	1,550.0	1,534.0	1,400.0	1,494.7	3,495	2,001	2,001
Avg VOC (lb/gal)	2.80	2.80	2.80	2.80	-	-	-
Painting/antifouling VOC (lb/yr)	3,295.6	3,213.0	3,278.8	3,262.5	7,629	4,367	4,367
Usage (gal/yr)	1,177.0	1,147.5	1,171.0	1,165.2	2,725	1,560	1,560
Avg VOC (lb/gal)	2.80	2.80	2.80	2.80	-	-	-
Painting/enamel VOC (lb/yr)	56	11.2	102.2	56.5	132	76	76
Usage (gal/yr)	20.0	4.0	36.5	20.2	47	27	27
Avg VOC (lb/gal)	2.80	2.80	2.80	2.80	-	-	-
Sandblasting (ton/yr) [2]	701.90	701.45	701	701.5	1,640	939	939
Welding (ton/yr)	ND	ND	ND	ND	ND	ND	ND

- = Not applicable
ND = no data available.

[1] Project Total assumes throughputs/emissions are proportional to number of ships serviced:

Parameter	Value		Basis
Baseline ships serviced:	130	ships/yr	Project Description
Project ships serviced:	304	ships/yr	Project Description
Increase in ships:	174	ships/yr	Calc
Project increase:	2.34	times	

All diesel engine powered compressors will be replaced with electric units.

[2] For 2009 sandblasting throughput, the 2009 AER did not list an annual throughput,
so an average of 2010 and 2008 values was assumed.

~~2008-2010 AERs state coatings did not contain TAC/ODC (Toxic Air Contaminants/Ozone Depleting Compounds)~~
MSDS Sheets obtained from tenant for antifoulant and epoxy coatings.
References:
2008, 2009, and 2010 Annual Emission Reports (AER) for Al Larson Boat Shop, Facility ID 21862.

Al Larson Boat Shop (ALBS) Improvement Project

~~July 7, 2011~~

Baseline Information

Updated May 14, 2012

MSDS Information

Paint/Antifouling

TACs	Name	Cas No.	Wt%
yes	**Cuprous oxide**	**1317391**	**35.00%**
no	Magnesium silicate	14807966	10.00%
no	Terpineol	8006391	2.70%
no	Butyl acetate	mixture	5.00%
no	Cyclohexanone	108941	2.00%
no	Vinyl chloride copolymer	25154842	5.00%
no	Acrylic resin	dna	5.00%
yes	**Zinc oxide**	**1314132**	**20.00%**
yes	**Xylene**	**1330207**	**8.00%**
no	Butyl acetate	123864	5.10%
yes	**Ethyl benzene**	**100414**	**1.90%**

Source: Ameron Coatings, MSDS for ABC #4 Blue AF (antifoulant)

99.70%

Paint/Epoxy

TACs	Name	Cas No.	Max Wt%	Est Wt%
no	Talc	14807969	30.00%	23.6%
no	Epoxy resin	25068386	30.00%	23.6%
no	Mica	12001262	13.00%	10.2%
no	Petroleum resins	64742161	13.00%	10.2%
no	Red iron oxide	1309371	7.00%	5.5%
no	Acromatic naphtha	64742956	7.00%	5.5%
no	1,2,4-trimethyl benzene	95636	5.00%	3.9%
no	Epoxy resin	67924349	5.00%	3.9%
no	Methyl ketone	110430	5.00%	3.9%
no	Mesitylene	108678	1.00%	0.8%
no	Nonylphenol	84852153	1.00%	0.8%
yes	**N-butyl alcohol**	**71363**	**7.00%**	7.0%
yes	**xylenes**	**1330207**	**1.00%**	1.0%

Source: PPG Industries, MSDS for AmerCoat 235 Oxide Red 235B7821 Res

117.00% 100.0%

Thinner/Cleaner (based on Stoddard Solvent)

yes	**Benzene**		**0.10%**
yes	**Naphthalene**		**0.20%**

Toxicological Profile for Stoddard Solvent, U.S. Dept. Health & Human Services, Agency for Toxic Substances and Disease Registry, June 1995.

"Solids" - Paint/Antifouling

TACs	Name	Cas No.	Wt%	Adj Wt%
yes	**Cuprous ox**	**1317391**	**35.00%**	**46.7%**
no	Magnesiun	14807966	10.00%	13.3%
no	Vinyl chlori	25154842	5.00%	6.7%
no	Acrylic resi	dna	5.00%	6.7%
yes	**Zinc oxide**	**1314132**	**20.00%**	**26.7%**
			75.00%	100.0%

Organics - Paint/Antifouling

TACs	Name	Cas No.	Wt%	Adj Wt%
no	Terpineol	8006391	2.70%	10.9%
no	Butyl aceta	mixture	5.00%	20.2%
no	Cyclohexar	108941	2.00%	8.1%
yes	**Xylene**	**1330207**	**8.00%**	**32.4%**
no	Butyl aceta	123864	5.10%	20.6%
yes	**Ethyl benz**	**100414**	**1.90%**	**7.7%**
			24.70%	100.0%

"Solids" - Paint/Epoxy

TACs	Name	Cas No.	Wt%	Adj Wt%
no	Talc	14807969	23.59%	30.6%
no	Epoxy resi	25068386	23.59%	30.6%
no	Mica	12001262	10.22%	13.3%
no	Petroleum	64742161	10.22%	13.3%
no	Red iron ox	1309371	5.50%	7.1%
no	Epoxy resi	67924349	3.93%	5.1%
			77.06%	100.0%

Organics - Paint/Epoxy

TACs	Name	Cas No.	Est Wt%	Adj Wt%
no	Acromatic	64742956	5.5%	24.0%
no	1,2,4-trime	95636	3.9%	17.1%
no	Methyl ket	110430	3.9%	17.1%
no	Mesitylene	108678	0.8%	3.4%
no	Nonylphen	84852153	0.8%	3.4%
yes	**N-butyl alc**	**71363**	**7.0%**	**30.5%**
yes	**xylenes**	**1330207**	**1.0%**	**4.4%**
			22.9%	100.0%

Al Larson Boat Shop (ALBS) Improvement Project
Project Description - Key Parameters

~~July 7, 2011~~
Updated May 14, 2012

Parameter	Inputs	Existing Operation	Proposed Operation / Assumptions
Vessels	Number of vessels	120 to 130 vessels/yr. Use 130 vessel/yr.	204 to 304 vessels/yr. Use 304 vessels/yr.
Employee trips	Employee count	70 to 100 employees. Use 100 employees.	90 to 130 employees. Use 130 employees.
Off-site trips	Number of vehicles	5 (estimate)	Assume proportional to number of vessels repaired.
Operating hours	-	15 hours/day (7:45am to 4:15pm, 3:30 pm to 11pm - assuming 30 minute lunches) **5** days/week (assumption)	260 days/year maximum
New mobile boat hoist	- Horsepower: 400 hp. - Fuel type: diesel. - Emissions: Tier 3 certified.	-	Hours of operation of boat hoist per vessel (hours/vessel)
Mobile and stationary fuel burning equipment	- Horsepower rating of each fixed and portable piece of equipment (cranes, etc) - Fuel type (propane, diesel, etc)	5 - 3 Ton Forklifts (diesel, 2 hr/day each) 55 Ton T-Rex 2002 RT Crane (diesel, 1 hr/day) 25 Ton 8018 XL Linkbelt RT Crane (diesel, 1 hr/day) 25 Ton 8025S Linkbelt RT Crane (diesel, 1 hr/day) 8 Ton Telescopic Fork Liftall (diesel, 1 hr/day) Diesel-engine powered air compressor units for ship	Assume proportional to number of vessels repaired. ~~Diesel engine powered air compressors will be replaced with electric units.~~
Boiler/hot water heater	Natural gas usage (MMBtu/yr or therms/year)	2008-2010 AERs	Assume proportional to number of vessels repaired.

Al Larson Boat Shop (ALBS) Improvement Project
Project Description - Key Parameters

~~July 7, 2011~~
Updated May 14, 2012

Parameter	Inputs	Existing Operation	Proposed Operation / Assumptions
Coating operations	- Quantity of marine coatings used (volume per ship average or volume per year total) and VOC and HAP content of each coating type; or - 2008/2009/2010 AER coating VOC/HAP emissions. **- MSDS Sheets for epoxy and antifoulant coatings.**	2008-2010 AERs	Assume proportional to number of vessels repaired.
Cleanup and preparation solvent	Type and quantity of cleanup and surface preparation solvent used (gal/yr)	2008-2010 AERs	Assume proportional to number of vessels repaired.
Welding	Quantity of welding electrode used (lb/yr or kg/yr) by electrode type (E308, E6010, ECoCr, etc) by welding process (shielded metal arc welding, gas metal arc welding, flux cored arc welding, submerged arc welding)	Assume FCAW (Flux Core Arc Welding), E70T electrode type	Assume proportional to number of vessels repaired.
Abrasive blasting	- Quantity of abrasive used per ship (lb/ship); or total quantity of abrasive used per year (lb/yr) and total number of ship repaired (ships/yr). - Blasting occurs indoors or outdoors? Control devices?	2008-2010 AERs	Assume proportional to number of vessels repaired.
Site energy usage	- kW-hr/yr electricity usage, - MMBtu/yr or therms/yr natural gas usage	Utility records	Assume proportional to number of vessels repaired.
Baseline period	-	2008-2010 (3-year average)	-

Appendix C3. – Revised Health Risk Assessment

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Heath Risk Assessment for the Al Larson Boat Shop Improvement Project

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1.1 Introduction

A health risk assessment (HRA) was conducted to address potential public health effects from toxic air contaminant (TAC) emissions generated by the improvement of the Al Larson Boat Shop (ALBS) at the Port of Los Angeles (Port). This document describes the methods and results of the HRA.

The HRA evaluated incremental health risks from the proposed Project in comparison to the baseline. The baseline emissions are represented by the boat repair activity at ALBS between September 1, 2009 and August 31, 2010. In the baseline year, the site was used for ship repair and includes the following facilities: office and workshop complex, paint shed, wood shop, welding and machine shops, docks, piers, walls and marine railways, marine, and other ancillary buildings and structures.

The existing ALBS has the capacity to accommodate five vessels with four marine railways, one floating dry dock, and dock space for dockside repairs. Wood, welding, and machine shops, storage areas, and crew quarters support the shipyard. Existing equipment includes portable and fixed cranes, portable forklifts, welders and sand blasting equipment. The facility services on average 120 to 140 ships/vessels per year and has between 70 and 100 employees on-site daily.

The proposed Project involves improving site drainage, increasing available land, modernizing existing boat yard facilities, restoring the navigable capacity of the facility, cleaning up existing contamination, and managing on-site disposal and beneficial reuse of dredged materials.

The HRA was prepared in accordance with the *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA, 2003), *Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act (AB2588)* (SCAQMD, 2005), and *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Emissions* (SCAQMD, 2003). The *Hotspots Analysis and Reporting Program* (HARP) model Version 1.4c (CARB, 2010a) used in the HRA incorporates the methods in these guidance documents.

The HRA was developed using a five-step process to estimate incremental health impact results:

- Quantify project-generated and baseline emissions;
- Identify ground-level receptor locations that may be affected by emissions, including a regular receptor grid as well as specific sensitive receptor locations nearby such as schools, hospitals, convalescent homes, or daycare centers;
- Perform dispersion modeling analyses to estimate ambient TAC concentrations at each receptor location;
- Characterize the potential health risk at each receptor location; and
- Evaluate incremental health risk values to compare potential health risk posed by the proposed Project relative to the baseline.

1.2 Emission Sources

Emission sources included both construction and operational emission sources. Construction emissions were assumed to occur during the calendar years 2012~~1~~ through 2014~~3~~. Operational emissions are analyzed after project completion in 2014.

1.2.1 Construction Emission Sources

Construction emissions included in the analysis of acute risk represent the maximum daily construction emissions in any calendar quarter. Emissions included in the chronic risk analysis were developed using the peak year of construction activity, and emissions included in the 40-year and 70-year cancer risk calculations were based on the emissions from the entire construction period.

Based on the construction schedule, maximum daily, annual, and total construction emissions were calculated by individual activity. Daily emissions for overlapping activities were summed for each calendar quarter. Maximum daily construction emissions are expected to occur in 2012, and include the following simultaneous activities.

- Demolish finger piers;
- Dredge to elevation -22;
- Soil export and asphalt removals;
- Service vehicles and deliveries; and,
- Demolish structure H2.

Consistent with SCAQMD policy, only on-site construction emissions were included in the HRA. On-site emission sources for construction included the following:

- **Construction equipment and on-site vehicle activity**, including loaders, dozers, pavers, trenchers, derrick barge crane hoists, flat barges, tugboats, air compressors, cement trucks, graders, haul trucks and on-road vehicles.

1.2.2 Operational Emission Sources

Consistent with SCAQMD policy, the HRA assessed both on-site and off-site operational emission sources. The following operational emission sources were included in the health risk assessment:

- New mobile boat hoist
- Air compressor
- Painting operations
- Abrasive blasting
- Welding
- Pressure washing

- On-site offroad mobile equipment
- Harbor craft transit to ALBS
- Employee trips

1.2.3 HRA Modeling Domain

Emissions were calculated approximately one mile off-site for truck sources.

1.2.4 Activity Level Trends

The baseline and proposed Project activity are described in Table 1 below.

Table 1. Project Activity

Parameter	Inputs	Existing Operation	Proposed Operation / Assumptions
Vessels	Number of vessels	120 to 130 vessels/yr.	204 to 304 vessels/yr.
Employee trips	Employee count	70 to 100 employees.	90 to 130 employees.
Off-site trips	Number of vehicles	5 (estimate)	Assume proportional to number of vessels repaired.
Operating hours	-	15 hours/day (7:45am to 4:15pm, 3:30 pm to 11pm - assuming 30 minute lunches) 6 days/week (assumption)	260 days/year maximum
New boat hoist (largest; 600-ton)	- Horsepower: 400 hp. - Fuel type: diesel. - Emissions: Tier 3 certified.	-	Hours of operation of boat hoist per vessel (hours/vessel)
Mobile and stationary fuel burning equipment	- Horsepower rating of each fixed and portable piece of equipment (cranes, etc) - Fuel type (propane, diesel, etc)	5 - 3 Ton Forklifts (diesel, 2 hr/day each) 55 Ton T-Rex 2002 RT Crane (diesel, 1 hr/day) 25 Ton 8018 XL Linkbelt RT Crane (diesel, 1 hr/day) 25 Ton 8025S Linkbelt RT Crane (diesel, 1 hr/day) 8 Ton Telescopic Fork Liftall (diesel, 1 hr/day) Diesel engine powered air compressor units for ship spray coating pots.	Assume proportional to number of vessels repaired. ~~Diesel engine powered air compressors will be replaced with electric units.~~

Table 1. Project Activity

Parameter	Inputs	Existing Operation	Proposed Operation / Assumptions
Boiler/hot water heater	Natural gas usage (MMBtu/yr or therms/year)	2008-2010 AERs	Assume proportional to number of vessels repaired.
Coating operations	- Quantity of marine coatings used (volume per ship average or volume per year total) and, VOC and HAP content of each coating type; or - 2008/2009/2010 AER coating VOC/HAP emissions.	2008-2010 AERs	Assume proportional to number of vessels repaired.
Cleanup and preparation solvent	Type and quantity of cleanup and surface preparation solvent used (gal/yr)	2008-2010 AERs	Assume proportional to number of vessels repaired.
Welding	Quantity of welding electrode used (lb/yr or kg/yr) by electrode type (E308, E6010, ECoCr, etc) by welding process (shielded metal arc welding, gas metal arc welding, flux cored arc welding, submerged arc welding)	Assume FCAW (Flux Core Arc Welding), E70T electrode type	Assume proportional to number of vessels repaired.
Abrasive blasting	-Quantity of abrasive used per ship (lb/ship); or total quantity of abrasive used per year (lb/yr) and total number of ship repaired (ships/yr). - Blasting occurs indoors or outdoors? Control devices?	2008-2010 AERs	Assume proportional to number of vessels repaired.
Site energy usage	- kW-hr/yr electricity usage, - MMBtu/yr or therms/yr natural gas usage	Utility records	Assume proportional to number of vessels repaired.

1.2.5 TAC Emission Calculation Approach

The following averaging periods were used to determine TAC emission rates for use in the HRA:

- Cancer risk for residential, student, recreational and sensitive receptors was based on 70-year average emission rates;
- Cancer risk for occupational receptors was based on 40-year average emission rates;
- Chronic hazard index for all receptors was conservatively based on the maximum annual emission rate, as the chronic exposure period for noncancer effects is assumed to be up to 8 years; and,

- Acute hazard index for all receptors was based on the maximum 1-hour emission rate.

The proposed Project TAC emission rates used for analyzing acute and chronic hazard indices were calculated by first determining the peak hourly and annual emissions, respectively, for each emissions source. To ensure that the highest acute and chronic health hazard indices are captured, the maximum emissions from each source group over the entire Project period were combined to create a conservative composite worst-case peak hour and peak year emissions inventory.

~~Operational emissions of TACs, specifically diesel particulate matter (DPM) were less than the baseline and, therefore, not anticipated to contribute to significant health risk impacts. TAC emissions were compared to SCAQMD Rule 1401 risk levels and were determined not to require further analysis. Therefore the in-depth calculation of health risk focused on construction emissions only. The cancer risk for residential, student, recreational, and sensitive receptors was calculated using the emissions from the entire construction period. The baseline for construction is zero.~~

1.2.6 TAC Emission Rates

Attachment A contains the annual and hourly toxic emission rates for the proposed Project before and after mitigation.

1.3 Receptor Locations

Receptor and source base elevations were determined from USGS National Elevation Dataset (NED) data calculated using AERMAP, version 06341. All coordinates were referenced to UTM North American Datum 1927 (NAD27) Zone 11.

To identify the extent and location of maximum impacts, a coarse Cartesian receptor grid was placed surrounding the project area, with receptors spaced 500 meters apart out to a distance of 5 kilometers. Receptors were also placed around the property line at 100-meter intervals. On-site receptors, property line receptors bordering water, and overwater grid receptors were excluded from the analysis.

To refine the locations of maximum impacts, fine receptor grids were placed based on contours generated by maximum incremental impacts, with receptors spaced 50 meters apart out to a distance approximately 500 meters past the maximum impact location.

Maximally exposed individual (MEI) locations were selected from the modeled receptor grids for the following five receptor types: residential, occupational, sensitive, student and recreational. The MEI locations were selected as follows:

- Residential – The residential MEI was selected from all receptors in residential or zoned-residential areas, including public marinas located in Fish Harbor and the West Channel;
- Occupational – The occupational MEI was selected from all receptors outside the ALBS site area.
- Sensitive – The sensitive MEI was selected from all schools, hospitals, convalescent homes, and day care centers identified in the project vicinity.

- Recreational – The recreational MEI was selected from all on-land park and recreational facilities identified in the project vicinity.

1.4 Air Dispersion Model Selection and Inputs

Air dispersion modeling for the HRA was performed using the U.S. EPA Gaussian Plume Air Dispersion Model AERMOD version 09292. Dispersion data were then processed through HARP On-Ramp version 1 (CARB, 2010). Data were then incorporated into the HARP version 1.4d model to calculate health risk values.

1.4.1 Emission Source Representation

Construction and operational emission sources were modeled according to the parameters in Table 2. The construction area sources encompassed ~~the~~ each phase of construction. The operational area source encompassed the entire ~~construction~~ boat shop area and emissions were assumed to be uniformly distributed throughout the construction area.

Table 2. Source Release Parameters ~~– Construction Emissions~~

AERMOD Source Type	Source Description	No. of Sources Represented	Release Height (m)	Source Width (m)	Initial Vertical Thickness[a] (m)
Elevated Area	~~Combustion~~ Emissions from Coating Activity and Combustion Engines used for Operations and Construction ~~Equipment and Vehicle Activity~~	4 ~~1~~	5	Varies[b]	5

Notes:
[a]Release height of the volume source was assumed to be 5 meters above the base elevation of 15 feet. The initial vertical dimension of the plume (σ_z) was estimated by dividing the initial vertical thickness by 4.3 for elevated releases (construction equipment and ship turning/docking).
[b]Area source width varies from approximately 875-2,000 meters.

1.4.2 Meteorological Data

The surface conditions file and vertical profile data sets were generated from on-site data collected at Terminal Island Water Reclamation Plant and processed by ENVIRON between September 2006 and August 2007.

1.4.3 Model Options

Regulatory default technical options were used in AERMOD to model dispersion, in accordance with the U.S. EPA modeling guidance (USEPA, 2009).

1.4.4 Temporal Assumptions

~~Construction e~~Emissions were assumed to occur between 7:00 a.m. and 3:30 p.m. Emissions were assumed to be uniformly distributed during these time periods.

1.5 Calculation of Health Risks

The HARP model was used to calculate 70-year cancer risk, 40-year cancer risk as well as non-cancer chronic and acute risk from dispersion values calculated by AERMOD.

1.5.1 Toxicity Factors

Toxicity factors for each TAC are built into the HARP model to calculate cancer risk and hazard index values. These values are provided in Table 3.

Table 3. Toxicity Factors

Pollutant	CAS Number	Inhalation Cancer Potency Factor $(mg/kg\text{-}d)^{-1}$	Chronic Inhalation REL $(\mu g/m^3)$	Target Organ for Chronic Exposure[d]	Acute Inhalation REL $(\mu g/m^3)$	Target Organ for Acute Exposure[d]
DPM[a]	9901	1.10E+00	5.00E+00	I	--	--
Arsenic[b,c]	7440382	1.20E+01	1.50E-02	B,C,G,I,J	2.00E-01	B,C,G
Bromine	7726956	--	--	--	--	--
Cadmium[c]	7440439	1.50E+01	2.00E-02	M,I	--	--
Chlorine	7782505	--	2.00E-01	I	2.10E+02	D,I
Chromium VI[c]	18540299	5.10E+02	2.00E-01	I	--	--
Copper	7440508	--	--	--	1.00E+02	I
Lead[b]	7439921	4.20E-02	--	--	--	--
Manganese	7439965	--	9.00E-02	G	--	--
Mercury[c]	7439976	--	3.00E-02	C,M,G	6.00E-01	C,G
Nickel[c]	7440020	9.10E-01	5.00E-02	E,I	6.00E+00	F,I
Selenium	7782492	--	2.00E+01	A,B,G	--	--
Sulfates	9960	--	--	--	1.20E+02	I
Vanadium	7440622	--	--	--	3.00E+01	D,I
1,3-Butadiene	106990	6.00E-01	2.00E+01	H	--	--
Acetaldehyde	75070	1.00E-02	1.40E+02	I	4.70E+02	D,I
Benzene	71432	1.00E-01	6.00E+01	C,E,G	1.30E+03	C,E,F,H
Chlorobenzene	108907	--	1.00E+03	A,M,H	--	--
Ethyl Benzene	100414	8.70E-03	2.00E+03	A,C,L,M	--	--
Formaldehyde	50000	2.10E-02	9.00E+00	I	5.50E+01	D
Xylenes	1330207	--	7.00E+02	G,I	2.20E+04	D,I
Methanol	67561	--	4.00E+03	C	2.80E+04	G
MEK	78933	--	--	--	1.30E+04	D,I

m-Xylene	108383	--	7.00E+02	G,I	2.20E+04	D,I
Naphthalene	91203	1.20E-01	9.00E+00	I	--	--
Hexane	110543	--	7.00E+03	G	--	--
o-Xylene	95476	--	7.00E+02	G,I	2.20E+04	D,I
Propylene	115071	--	3.00E+03	I	--	--
p-Xylene	106423	--	7.00E+02	G,I	2.20E+04	D,I
Styrene	100425	--	9.00E+02	G	2.10E+04	D,I
Toluene	108883	--	3.00E+02	C,G,I	3.70E+04	C,D,G,H,I
Acrolein	107028	--	3.50E-01	I	2.50E+00	D,I

[a]DPM = Diesel Particulate Matter. For ICEs only, DPM is considered to be a surrogate for speciated compounds from diesel exhaust, and is assumed to account for combined health effects of diesel exhaust constituents.
[b]Arsenic and lead were also evaluated for cancer risk from oral exposure. The cancer potency factors for arsenic and lead are 1.50E+00 and 8.50E-03, respectively.
[c]Arsenic, cadmium, hexavalent chromium, mercury and selenium were also evaluated for non-cancer chronic effects from oral exposure. The chronic RELs are 3.5E-06, 5.00E-04, 2.00E-02, 1.60E-04 and 5.00E-02 respectively.
[d]Below is the key to non-cancer acute and chronic target organ systems (OEHHA, 2009):

A. Alimentary Tract
B. Cardiovascular System
C. Developmental System
D. Eye
E. Hematologic System
F. Immune System
G. Nervous System
H. Reproductive System
I. Respiratory System
J. Skin
K. Bone
L. Endocrine System
M. Kidney

Cancer risk values are calculated from cancer potency factors, which are TAC-specific factors that assess the probability that an individual will develop cancer by continuously inhaling or ingesting 1 mg/kg-day over a period of 70 years.

Reference exposure levels (RELs) define the level of continuous exposure to a TAC below which the population is likely to avoid developing adverse non-cancer chronic or acute health effects.

1.5.2 Exposure Scenarios

Cancer risk calculations depend directly on the frequency and duration of exposure to TACs. Risk values were calculated based on exposure assumptions in accordance with the OEHHA HRA Guidance Manual (OEHHA, 2003) and *CARB Recommended Interim Risk Management Policy for Inhalation-Based Residential Cancer Risk* (OEHHA, 2003).

Occupational cancer risk values were adjusted by applying factors to the annual average TAC concentrations. These factors adjust for the fraction of the facility's operating schedule that coincides with a hypothetical worker's schedule. Ground-level concentration (GLC) adjustment factors were obtained from the *SCAQMD Permit Application Package "L" for Use in Conjunction with the Risk Assessment Procedures for Rules 1401 and 212*, version 7.0 (SCAQMD, 2010) and varied depending on the operating schedule emission source.

Since HARP does not directly calculate student and recreational cancer risk values, these values were scaled using the risk results for occupational or residential receptors by adjusting the exposure assumptions (exposure frequency, exposure duration, and breathing rate). Scaling for student receptors was based on occupational receptors is because student and occupational receptors share common non-inhalation exposure pathways of dermal absorption and soil ingestion. By contrast, residential and sensitive receptors include these same pathways plus home-grown produce ingestion and mother's milk ingestion. Recreational receptors were scaled to the residential cancer risk impact, due to the similarities in exposure duration.

Exposure assumptions used to calculate cancer risk values are provided in Table 4.

Table 4. Exposure Assumptions for Individual Lifetime Cancer Risk

Receptor Type	Exposure Frequency		Exposure Duration (years)	Breathing Rate (L/kg-day)	HARP Point Estimate Analysis Option[e]
	Hours/Day	Days/Year			
Residential[a]	24	350	70	302	Derived (Adjusted)
Occupational[b]	8	245	40	447	Derived (OEHHA)
Sensitive	24	350	70	302	n/a
Student[c]	6	180	6	581	n/a
Recreational[d]	2	350	70	1,097	n/a

Notes:

[a]The residential breathing rate of 302 L/kg-day represents the 80th percentile breathing rate, in accordance with the *CARB Recommended Interim Risk Management Policy for Inhalation-Based Residential Cancer Risk*
.[b]The occupational exposure frequency of 245 days/year represents 5 days/week, 49 weeks/year. The occupational breathing rate of 447 L/kg-day is equal to 149 L/kg-day per 8 hour workday (OEHHA, 2003).
[c]The student breathing rate of 583 L/kg-day represents the high-end breathing rate for children (OEHHA, 2003).
[d]The recreational breathing rate of 1,097 L/kg-day represents a breathing rate for "heavy activity." It is derived from a breathing rate of 3.2 m3/hr for a 70-kg adult, as reported from the USEPA Exposure Factors Handbook (USEPA, 1997).
[e]HARP does not directly calculate risks for student or recreational exposure assumptions, rather these values are scaled from the results for workers. Exposure pathways for sensitive receptors are assumed equal to residential receptors.

1.6 Predicted Incremental Health Impacts

Tables 5 and 6 show the maximum health impacts expected to occur from the increment (Unmitigated and Mitigated Project minus the baseline). Figures 1 and 2 show the maximum concentration locations associated with the unmitigated and mitigated proposed Project, respectively.

Based on significance thresholds adopted by the Los Angeles Harbor Department, the additional cancer risk above the baseline that is expected to result from the proposed Project is deemed to be less than significant if it is below 10 cases per one million persons. For non-cancer chronic and acute hazard indices, maximum predicted annual and maximum 1-hour TAC concentrations are compared to the RELs developed by OEHHA. The incremental hazard index calculated by the quotient of increased TAC concentration above baseline and the REL is said to be significant if it exceeds 1.0. Figures 3 and 4 show the isopleths of residential lifetime cancer risk and occupational cancer risk, respectively, for the unmitigated proposed Project minus the baseline. Figures 5 and 6 show the isopleths of residential lifetime cancer risk and occupational cancer risk, respectively, for the mitigated proposed Project minus the baseline.

Table 5. Maximum Health Impacts Associated With The Proposed Project Without Mitigation, 2012-2081~~2011 – 2080~~

Health Impact	Receptor Type	Maximum Predicted Impact[a,b] Increment[c]	Significance Threshold
Cancer Risk	Residential[d]	~~**29 x 10^{-06} (29 in a million)**~~ 8.5 x 10^{-06} (8.5 in a million)	10×10^{-6} 10 in a million
	Occupational	~~9 x 10^{-06} (9 in a million)~~ 3.6 x 10^{-06} (3.6 in a million)	
	Sensitive	~~5 x 10^{-07} (0.5 in a million)~~ 5 x 10^{-08} (0.05 in a million)	
	Student	~~3 x 10^{-09} (0.003 in a million)~~ 7 x 10^{-10} (0.0007 in a million)	
	Recreational	~~3 x 10^{-07} (0.3 in a million)~~ 2.6 x 10^{-06} (2.6 in a million)	
Chronic Hazard Index	Residential	0.07 ~~0.03~~	1.0
	Occupational	0.1 ~~0.03~~	
	Sensitive	0.0003 ~~0.0004~~	
	Student	0.001 ~~0.00001~~	
	Recreational	0.07 ~~0.0002~~	
Acute Hazard Index	Residential	0.7 ~~**3.5**~~	1.0
	Occupational	**1.7** ~~**4.2**~~	
	Sensitive	0.004 ~~0.4~~	
	Student	0.04 ~~0.03~~	
	Recreational	0.7 ~~0.2~~	

[a] Exceedances of the significance thresholds are in **bold**. The significance thresholds apply to the increments only.
[b] Data represent the receptor locations with the maximum impacts or increments. The impacts or increments at all other receptors would be less than these values.
[c] The increment represents Project minus baseline.
[d] The cancer risk values reported in this table for the residential receptor are based on the 80th percentile breathing rate.

Table 6. Maximum Health Impacts Associated With The Proposed Project With Mitigation, 2012-2081~~2011 – 2080~~

Health Impact	Receptor Type	Maximum Predicted Impact[a,c] Increment[b]	Significance Threshold
Cancer Risk	Residential[d]	~~**2 x 10^{-5} (22 in a million)**~~ 8.5 x 10^{-6} (8.5 in a million)	10 × 10^{-6} 10 in a million
	Occupational	~~7 x 10^{-6} (7 in a million)~~ 3.6 x 10^{-6} (3.6 in a million)	
	Sensitive	~~4 x 10^{-07} (0.4 in a million)~~ 5 x 10^{-08} (0.05 in a million)	
	Student	~~3 x 10^{-09} (0.003 in a million)~~ 7 x 10^{-10} (0.0007 in a million)	
	Recreational	~~2 x 10^{-07} (0.2 in a million)~~ 2.6 x 10^{-06} (2.6 in a million)	
Chronic	Residential	0.07 ~~0.008~~	1.0
	Occupational	0.1 ~~0.02~~	
	Sensitive	0.0003 ~~0.0002~~	
	Student	0.0001 ~~0.00001~~	
	Recreational	0.07 ~~0.0001~~	
Acute Hazard Index	Residential	0.6 ~~**1.0**~~	1.0
	Occupational	**1.4** ~~**2.0**~~	
	Sensitive	0.003 ~~0.2~~	
	Student	0.04 ~~0.01~~	
	Recreational	0.6 ~~0.1~~	

[a] Exceedances of the significance criteria are in **bold**. The significance thresholds apply to the increments only.

[b] The increment represents proposed Project minus baseline.

[c] Data represent the receptor locations with the maximum impacts or increments. The impacts or increments at all other receptors would be less than these values.

[d] The cancer risk values reported in this table for the residential receptor are based on the 80th percentile breathing rate.

Port of Los Angeles

Al Larson Boat Shop Improvement Project

Maximum Concentration Locations associated with the Unmitigated Proposed Project

Figure 1

N

CDM Smith

0 0.25 0.5 1 Miles

Port of Los Angeles

Al Larson Boat Shop Improvement Project

Maximum Concentration Locations associated with the Mitigated Proposed Project

Figure 2

N

CDM Smith

0 200 400 800 Feet

Port of Los Angeles

Al Larson Boat Shop Improvement Project

Isopleths of Residential Cancer Risk: Unmitigated Proposed Project Minus Baseline

Figure 3

N

CDM Smith

0 200 400 800 Feet

Port of Los Angeles

Al Larson Boat Shop Improvement Project

Isopleths of Occupational Cancer Risk: Unmitigated Proposed Project Minus Baseline

Figure 4

N

CDM Smith

0 200 400 800 Feet

Port of Los Angeles

Al Larson Boat Shop Improvement Project

Isopleths of Residential Cancer Risk: Mitigated Proposed Project Minus Baseline

Figure 5

N

CDM Smith

0 200 400 800 Feet

Port of Los Angeles

Al Larson Boat Shop Improvement Project

Isopleths of Occupational Cancer Risk: Mitigated Proposed Project Minus Baseline

Figure 6

1.7 Risk Uncertainty

There are a number of factors that contribute to uncertainty in risk calculations. These include, but are not limited to, the following: the need for estimating previous and current emissions and also projecting future emissions, the use of computer models and representative data to estimate risk at a given location, and uncertainty behind the cancer potency factors and RELs used to gauge the magnitude of adverse health effects that may occur from exposure to TACs.

To provide a margin of safety, this report has been prepared with built-in conservatism where assumptions have been made.

1.8 Conclusion

As shown in Table 5, unmitigated emissions would result in ~~significant cancer risk impacts for residential receptors and~~ significant acute hazard impacts for residential and occupational receptors. The peak residential impact for ~~both cancer risk and~~ acute exposure occurs at the liveaboards directly to the south of the proposed Project. The maximum occupational impact occurs on the west side of Seaside Avenue, 80 feet west of the proposed Project.~~at a marine fueling station (currently operated by ExxonMobil/General Petroleum) directly north of the proposed Project.~~ Mitigation measures would reduce the significant residential acute risk ~~cancer risk~~ impacts to less than significant, but the occupational acute hazard index would remain significant and unavoidable. These impacts will be addressed in the Statement of Findings and Overriding Considerations that will be prepared for the proposed Project.

1.9 References

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USEPA, 1997. *Exposure Factors Handbook*. August.

USEPA, 2009. *AERMOD Implementation Guide*. March.

Maximum Health Impacts Associated With The Proposed Project Without Mitigation, 2012 – 2081

Health Impact	Receptor Type	Maximum Predicted Impact[a,b] Increment[c]	Significance Threshold	Location	
				X (m)	Y (m)
Cancer Risk	Residential	8.5E-06	10×10^{-6} 10 in a million	382,675	3,733,038
		8.5 in a million			
	Occupational	3.6E-06		382,521	3,733,264
		3.6 in a million			
	Sensitive	5.0E-08		381,429	3,733,365
		5.0 in a million			
	Student	6.8E-10		380,234	3,733,595
		0.00068 in a million			
	Recreational	2.6E-06		382,675	3,733,038
		2.6 in a million			
Chronic Hazard Index	Residential	0.07	1	382,675	3,733,038
	Occupational	0.1		382,521	3,733,264
	Sensitive	0.0003		381,429	3,733,365
	Student	0.0001		380,234	3,733,595
	Recreational	0.07		382,675	3,733,038
Acute Hazard Index	Residential	0.7	1	382,675	3,733,038
	Occupational	**1.7**		382,481	3,733,130
	Sensitive	0.004		380,102	3,739,333
	Student	0.04		389,250	3,740,250
	Recreational	0.7		382,675	3,733,038

[a] Exceedances of the significance thresholds are in **bold**. The significance thresholds apply to the increments only.

[b] Data represent the receptor locations with the maximum impacts or increments. The impacts or increments at all other receptors would be less than these values.

[c] The increment represents Project minus baseline.

[d] The cancer risk values reported in this table for the residential receptor are based on the 80th percentile breathing rate.

Maximum Health Impacts Associated With The Proposed Project With Mitigation, 2012 – 2081

Health Impact	Receptor Type	Maximum Predicted Impact[a,b] Increment[c]	Significance Threshold	Location X (m)	Location Y (m)
Cancer Risk	Residential	8.5E-06 8.5 in a million	10×10^{-6} 10 in a million	382,675	3,733,038
	Occupational	3.6E-06 3.6 in a million		382,521	3,733,264
	Sensitive	4.9E-08 5.0 in a million		381,429	3,733,365
	Student	6.7E-10 0.00068 in a million		380,234	3,733,595
	Recreational	2.6E-06 2.6 in a million		382,675	3,733,038
Chronic Hazard Index	Residential	0.07	1	382,675	3,733,038
	Occupational	0.1		382,521	3,733,264
	Sensitive	0.0003		381,429	3,733,365
	Student	0.0001		380,234	3,733,595
	Recreational	0.07		382,675	3,733,038
Acute Hazard Index	Residential	0.6	1	382,675	3,733,038
	Occupational	**1.4**		382,481	3,733,130
	Sensitive	0.003		380,102	3,739,333
	Student	0.04		389,250	3,740,250
	Recreational	0.6		382,675	3,733,038

[a] Exceedances of the significance thresholds are in **bold**. The significance thresholds apply to the increments only.

[b] Data represent the receptor locations with the maximum impacts or increments. The impacts or increments at all other receptors would be less than these values.

[c] The increment represents Project minus baseline.

[d] The cancer risk values reported in this table for the residential receptor are based on the 80th percentile breathing rate.

Al Larson Boat Shop Upgrade

Revised April 2012

Table 1. Peak Daily Toxic Emissions by Phase

Construction	Diesel PM	ARSENIC	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM
	9901	7440382	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622
	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
Phase 1	**0.912**	**1.57E-05**	**3.07E-05**	**5.18E-05**	**2.48E-03**	**7.10E-06**	**8.96E-05**	**2.29E-03**	**2.61E-04**	**3.90E-05**	**5.22E-05**	**1.30E-05**	**1.72E-02**	**2.33E-02**	**1.89E-04**
Phase 2	**0.834**	**1.57E-05**	**3.22E-05**	**4.69E-05**	**2.70E-03**	**7.18E-06**	**9.12E-05**	**3.30E-03**	**6.24E-04**	**3.15E-05**	**5.37E-05**	**1.04E-05**	**1.39E-02**	**1.90E-02**	**1.89E-04**
Phase 3	**1.022**	**1.77E-05**	**3.74E-05**	**6.08E-05**	**2.64E-03**	**7.33E-06**	**1.01E-04**	**4.03E-04**	**6.52E-04**	**4.11E-05**	**5.92E-05**	**1.18E-05**	**1.56E-02**	**2.16E-02**	**2.00E-04**
	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons
Phase 1	**0.164**	**2.79E-07**	**4.25E-07**	**4.44E-07**	**5.15E-05**	**1.50E-07**	**1.66E-06**	**8.02E-06**	**1.35E-05**	**2.32E-07**	**8.91E-07**	**3.51E-08**	**4.38E-05**	**8.77E-05**	**3.79E-06**
Phase 2	**0.101**	**2.54E-07**	**3.88E-07**	**4.03E-07**	**4.71E-05**	**1.36E-07**	**1.52E-06**	**7.29E-06**	**1.23E-05**	**2.11E-07**	**8.11E-07**	**3.19E-08**	**3.99E-05**	**8.16E-05**	**3.45E-06**
Phase 3	**0.283**	**2.92E-07**	**4.52E-07**	**4.57E-07**	**5.46E-05**	**1.55E-07**	**1.78E-06**	**8.29E-06**	**1.42E-05**	**2.42E-07**	**9.30E-07**	**3.68E-08**	**4.62E-05**	**1.01E-04**	**3.92E-06**

Revised April 2012

Phase 1 Construction (2011)

Unmitigated

	Diesel PM	ARSENIC	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR
	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
Demolish 200' creosote timber wharf	0.2447	1.29E-06	4.65E-06	9.80E-06	1.13E-04	1.60E-07	7.03E-06	1.09E-05	1.39E-05	7.39E-06	4.89E-06	2.46E-06	3.26E-03
Demolish buildings D, C1, & H1	0.1291	7.87E-07	2.70E-06	5.36E-06	9.26E-05	1.54E-07	4.35E-06	9.13E-06	1.24E-05	3.99E-06	3.04E-06	1.31E-06	1.74E-03
Install 24" Octagonal Prestressed Concrete Piles	0.3096	1.62E-06	5.77E-06	1.24E-05	1.28E-04	1.97E-07	8.72E-06	1.37E-05	1.71E-05	9.34E-06	6.08E-06	3.11E-06	4.13E-03
Construct finger piers	0.2961	1.48E-06	5.52E-06	1.18E-05	1.28E-04	1.87E-07	7.59E-06	1.24E-05	1.20E-05	8.88E-06	5.81E-06	2.96E-06	3.93E-03
Install owner furnished 600 ton travel lift	0.1451	7.62E-07	2.78E-06	5.81E-06	6.97E-05	9.60E-08	4.18E-06	0.00E+00	0.00E+00	4.38E-06	2.92E-06	1.46E-06	1.93E-03
F & I steel sheet pile wall (CDF Cell #1)	0.1874	9.90E-07	3.61E-06	7.51E-06	9.27E-05	1.25E-07	5.48E-06	8.38E-06	1.09E-05	5.66E-06	3.80E-06	1.88E-06	2.50E-03
Dredge to elevation -22	0.3576	2.82E-06	1.02E-05	2.21E-05	2.26E-04	3.47E-07	1.48E-05	2.38E-05	2.65E-05	1.66E-05	1.08E-05	5.52E-06	7.33E-03
Stabilize dredge material	0.2537	2.31E-06	8.36E-06	1.79E-05	1.91E-04	2.86E-07	1.23E-05	0.00	0.00	1.35E-05	8.81E-06	4.48E-06	5.95E-03
Dispose of Dredge material into CDF #1	0.1894	1.98E-06	7.20E-06	1.53E-05	1.68E-04	2.46E-07	1.06E-05	1.67E-05	1.98E-05	1.15E-05	7.58E-06	3.84E-06	5.10E-03
Import clean soil to bring upland elevation to street level	0.1549	8.63E-07	2.94E-06	6.00E-06	7.70E-05	1.05E-07	5.21E-06	7.38E-06	1.33E-05	4.56E-06	3.09E-06	1.51E-06	2.01E-03
Storm Water System w/ oil-water separator	0.1483	8.05E-07	2.99E-06	5.95E-06	9.02E-05	1.06E-07	4.69E-06	6.83E-06	1.01E-05	4.49E-06	3.14E-06	1.49E-06	1.98E-03
Soil Export and Asphalt Removals	0.1770	1.11E-06	3.78E-06	7.39E-06	1.13E-04	1.38E-07	7.06E-06	9.53E-06	1.94E-05	5.64E-06	3.96E-06	1.87E-06	2.48E-03
Grading	0.3370	1.39E-05	2.40E-05	3.33E-05	2.30E-03	6.86E-06	7.91E-05	3.70E-04	6.00E-04	2.03E-05	4.52E-05	4.90E-06	6.37E-03
Paving	0.1414	7.81E-07	2.88E-06	5.67E-06	8.83E-05	1.03E-07	4.64E-06	6.65E-06	1.05E-05	4.29E-06	3.02E-06	1.43E-06	1.89E-03
Lighting Improvements	0.0953	5.19E-07	1.90E-06	3.82E-06	5.54E-05	6.74E-08	3.01E-06	4.41E-06	6.57E-06	2.89E-06	2.00E-06	9.60E-07	1.27E-03
Service Truck (Small Deliveries, Port-a-Potties, Utilities)	0.0033	3.77E-08	7.91E-08	1.37E-07	2.01E-06	3.37E-09	3.24E-07	3.41E-07	1.44E-06	1.14E-07	8.24E-08	3.63E-08	4.90E-05
Total	**3.1699**	**3.21E-05**	**8.94E-05**	**1.70E-04**	**3.93E-03**	**9.18E-06**	**1.79E-04**	**3.77E-03**	**1.15E-03**	**1.23E-04**	**1.14E-04**	**3.92E-05**	**5.19E-02**
Peak Daily Construction -->	**0.9117**	**1.57E-05**	**3.07E-05**	**5.18E-05**	**2.48E-03**	**7.10E-06**	**8.96E-05**	**0.00**	**0.00**	**3.90E-05**	**5.22E-05**	**1.30E-05**	**1.72E-02**

1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl ethyl ketone (mek) (2-butanone)	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)			
106990	75070	71432	100414	50000	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028			
lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr			
4.37E-03	**1.66E-01**	**6.03E-02**	**7.51E-03**	**3.34E-01**	**6.94E-04**	**3.34E-02**	**1.73E-02**	**2.41E-03**	**1.46E-02**	**9.85E-03**	**9.03E-02**	**2.15E-03**	**1.33E-03**	**4.87E-02**	**1.96E-05**			
3.90E-03	**1.48E-01**	**4.80E-02**	**6.52E-03**	**2.96E-01**	**6.20E-04**	**2.97E-02**	**1.43E-02**	**1.95E-03**	**1.34E-02**	**7.97E-03**	**6.99E-02**	**1.91E-03**	**1.18E-03**	**3.78E-02**	**1.88E-05**			
4.41E-03	**1.68E-01**	**4.61E-02**	**7.11E-03**	**3.36E-01**	**7.02E-04**	**3.37E-02**	**1.44E-02**	**1.95E-03**	**3.80E-03**	**7.82E-03**	**5.97E-02**	**2.17E-03**	**1.34E-03**	**3.44E-02**	**1.84E-05**			
tons	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons			
1.91E-06	**9.80E-07**	**8.68E-06**	**3.40E-05**	**5.54E-06**	**4.29E-07**	**6.41E-08**	**1.25E-05**	**1.66E-07**	**5.61E-06**	**5.32E-05**	**1.07E-05**	**0.00E+00**	**4.31E-07**	**1.05E-04**	**4.65E-07**			
1.35E-06	**6.92E-07**	**6.13E-06**	**3.29E-05**	**3.92E-06**	**3.03E-07**	**4.53E-08**	**8.83E-06**	**1.17E-07**	**3.96E-06**	**5.19E-05**	**7.59E-06**	**0.00E+00**	**3.04E-07**	**9.87E-05**	**3.28E-07**			
2.95E-06	**1.51E-06**	**1.34E-05**	**3.60E-05**	**8.54E-06**	**6.61E-07**	**9.88E-08**	**1.93E-05**	**2.55E-07**	**8.65E-06**	**5.55E-05**	**1.66E-05**	**0.00E+00**	**6.64E-07**	**1.16E-04**	**7.16E-07**			

SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl ethyl ketone (mek) (2-butanone)	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)
lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
4.45E-03	7.45E-06	1.11E-03	4.22E-02	1.16E-02	1.78E-03	8.45E-02	1.76E-04	8.47E-03	3.62E-03	4.89E-04	9.50E-04	1.96E-03	1.50E-02	5.45E-04	3.37E-04	8.63E-03	4.11E-06
2.45E-03	5.51E-06	5.53E-04	2.07E-02	5.72E-03	8.93E-04	4.15E-02	8.84E-05	4.17E-03	1.83E-03	2.41E-04	4.92E-04	9.83E-04	7.42E-03	2.68E-04	1.67E-04	4.33E-03	4.11E-06
5.53E-03	9.38E-06	1.51E-03	5.81E-02	1.59E-02	2.43E-03	1.16E-01	2.40E-04	1.17E-02	4.91E-03	6.73E-04	1.28E-03	2.68E-03	2.06E-02	7.51E-04	4.61E-04	1.18E-02	2.88E-06
5.33E-03	8.59E-06	1.49E-03	5.70E-02	1.56E-02	2.40E-03	1.14E-01	2.36E-04	1.15E-02	4.85E-03	6.60E-04	1.27E-03	2.64E-03	2.02E-02	7.36E-04	4.53E-04	1.16E-02	4.11E-06
2.65E-03	4.41E-06	7.41E-04	2.82E-02	7.73E-03	1.19E-03	5.65E-02	1.18E-04	5.67E-03	2.42E-03	3.27E-04	6.37E-04	1.31E-03	1.00E-02	3.64E-04	2.25E-04	5.77E-03	2.88E-06
3.45E-03	5.72E-06	9.60E-04	3.65E-02	1.00E-02	1.55E-03	7.30E-02	1.53E-04	7.33E-03	3.14E-03	4.23E-04	8.29E-04	1.70E-03	1.30E-02	4.71E-04	2.92E-04	7.49E-03	4.11E-06
9.84E-03	1.64E-05	1.77E-03	6.77E-02	2.59E-02	3.09E-03	1.36E-01	2.81E-04	1.36E-02	7.30E-03	1.02E-03	6.94E-03	4.19E-03	3.96E-02	8.74E-04	5.39E-04	2.11E-02	5.35E-06
8.03E-03	1.34E-05	1.24E-03	4.71E-02	2.03E-02	2.24E-03	9.47E-02	1.97E-04	9.47E-03	5.60E-03	7.86E-04	6.50E-03	3.26E-03	3.23E-02	6.09E-04	3.77E-04	1.70E-02	5.35E-06
6.90E-03	1.15E-05	9.74E-04	3.68E-02	1.75E-02	1.81E-03	7.41E-02	1.55E-04	7.40E-03	4.74E-03	6.67E-04	6.28E-03	2.79E-03	2.87E-02	4.76E-04	2.95E-04	1.50E-02	5.35E-06
2.76E-03	4.96E-06	6.28E-04	2.38E-02	6.54E-03	1.01E-03	4.77E-02	1.00E-04	4.78E-03	2.07E-03	2.76E-04	5.48E-04	1.11E-03	8.48E-03	3.07E-04	1.91E-04	4.91E-03	3.29E-06
2.83E-03	4.65E-06	6.45E-04	2.41E-02	6.67E-03	1.04E-03	4.84E-02	1.03E-04	4.85E-03	2.15E-03	2.81E-04	5.78E-04	1.15E-03	8.65E-03	3.12E-04	1.95E-04	5.06E-03	5.23E-06
3.51E-03	6.37E-06	7.71E-04	2.89E-02	7.97E-03	1.25E-03	5.79E-02	1.23E-04	5.80E-03	2.56E-03	3.36E-04	6.90E-04	1.37E-03	1.03E-02	3.73E-04	2.33E-04	6.05E-03	6.05E-06
9.01E-03	1.78E-04	1.47E-03	5.62E-02	1.54E-02	2.36E-03	1.12E-01	2.32E-04	1.13E-02	4.76E-03	6.51E-04	1.24E-03	2.59E-03	1.99E-02	7.26E-04	4.46E-04	1.14E-02	3.29E-06
2.72E-03	4.51E-06	6.13E-04	2.29E-02	6.33E-03	2.51E-03	4.59E-02	9.83E-05	4.60E-03	2.04E-03	2.67E-04	5.52E-04	3.53E-03	8.21E-03	2.96E-04	1.86E-04	9.04E-03	5.23E-06
1.80E-03	3.00E-06	4.22E-04	1.58E-02	4.36E-03	6.81E-04	3.17E-02	6.75E-05	3.17E-03	1.40E-03	1.84E-04	3.77E-04	7.51E-04	5.66E-03	2.04E-04	1.28E-04	3.31E-03	3.29E-06
6.20E-05	2.12E-07	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	0.00E+00
7.13E-02	**2.84E-04**	**1.49E-02**	**5.67E-01**	**1.77E-01**	**2.62E-02**	**1.14E+00**	**2.37E-03**	**1.14E-01**	**5.34E-02**	**7.29E-03**	**2.92E-02**	**3.20E-02**	**2.48E-01**	**7.32E-03**	**4.53E-03**	**1.43E-01**	**6.46E-05**
2.33E-02	**1.89E-04**	**4.37E-03**	**1.66E-01**	**6.03E-02**	**7.51E-03**	**3.34E-01**	**6.94E-04**	**3.34E-02**	**1.73E-02**	**2.41E-03**	**1.46E-02**	**9.85E-03**	**9.03E-02**	**2.15E-03**	**1.33E-03**	**4.87E-02**	**1.96E-05**

	Phase 2 Construction															
	Demolish finger piers			0.17	8.85E-07	3.23E-06	6.67E-06	8.55E-05	1.13E-07	4.95E-06	7.50E-06	1.01E-05	5.03E-06	3.40E-06	1.67E-06	2.22E-03
	Dredge to elevation -22			0.36	2.82E-06	1.02E-05	2.21E-05	2.26E-04	3.47E-07	1.48E-05	2.38E-05	2.65E-05	1.66E-05	1.08E-05	5.52E-06	7.33E-03
	Stabilize dredge material			0.26	2.33E-06	8.40E-06	1.80E-05	1.92E-04	2.87E-07	1.25E-05	0.00	2.37E-05	1.35E-05	8.85E-06	4.50E-06	5.98E-03
	Dispose of Dredge material into CDF #1			0.19	1.98E-06	7.20E-06	1.53E-05	1.68E-04	2.46E-07	1.06E-05	1.67E-05	1.98E-05	1.15E-05	7.58E-06	3.84E-06	5.10E-03
	F & I steel sheet pile wall (CDF Cell #2)			0.19	9.90E-07	3.61E-06	7.51E-06	9.27E-05	1.25E-07	5.48E-06	8.38E-06	1.09E-05	5.66E-06	3.80E-06	1.88E-06	2.50E-03
	Demolish building H2			0.13	7.39E-07	2.58E-06	5.23E-06	7.32E-05	1.05E-07	4.27E-06	6.91E-06	1.07E-05	3.94E-06	2.76E-06	1.30E-06	1.73E-03
	Import clean soil to bring upland elevation to cell elevation and T			0.15	9.01E-07	3.02E-06	6.13E-06	7.90E-05	1.08E-07	5.53E-06	7.72E-06	1.47E-05	4.67E-06	3.17E-06	1.55E-06	2.06E-03
	Storm Water System w/ oil-water separator			0.15	8.05E-07	4.53E-06	5.95E-06	3.06E-04	1.83E-07	6.23E-06	6.83E-06	1.16E-05	4.49E-06	4.68E-06	1.49E-06	1.98E-03
	Soil Export and Asphalt Removals			0.18	1.34E-06	4.00E-06	7.47E-06	1.22E-04	1.53E-07	9.62E-06	1.17E-05	3.31E-05	5.82E-06	4.19E-06	1.91E-06	2.55E-03
	Grading			0.34	1.39E-05	2.40E-05	3.33E-05	2.30E-03	6.86E-06	7.91E-05	3.70E-04	6.00E-04	2.03E-05	4.52E-05	4.90E-06	6.37E-03
	Paving			0.14	7.81E-07	2.88E-06	5.67E-06	8.83E-05	1.03E-07	4.64E-06	6.65E-06	1.05E-05	4.29E-06	3.02E-06	1.43E-06	1.89E-03
	Lighting Improvements			0.10	5.19E-07	1.90E-06	3.82E-06	5.54E-05	6.74E-08	3.01E-06	4.41E-06	6.57E-06	2.89E-06	2.00E-06	9.60E-07	1.27E-03
	Service Vehicles and Deliveries			0.00	3.77E-08	7.91E-08	1.37E-07	2.01E-06	3.37E-09	3.24E-07	3.41E-07	1.44E-06	1.14E-07	8.24E-08	3.63E-08	4.90E-05
			Total	2.34	2.80E-05	7.57E-05	1.37E-04	3.79E-03	8.70E-06	1.61E-04	3.74E-03	7.80E-04	9.88E-05	9.95E-05	3.10E-05	4.10E-02
			Peak Daily Construction -->	0.83	1.57E-05	3.22E-05	4.69E-05	2.70E-03	7.18E-06	9.12E-05	3.30E-03	6.24E-04	3.15E-05	5.37E-05	1.04E-05	1.39E-02
	Phase 3 Construction															
	Demolish buildings A2 & A3			0.13	1.02E-06	3.02E-06	5.67E-06	1.27E-04	2.55E-07	5.98E-06	1.49E-05	2.43E-05	4.17E-06	3.66E-06	1.34E-06	1.78E-03
	Import clean soil to bring upland elevation to street level, trench			0.16	9.95E-07	3.22E-06	6.48E-06	8.40E-05	1.16E-07	6.34E-06	8.57E-06	1.83E-05	4.96E-06	3.38E-06	1.64E-06	2.18E-03
	Storm Water System w/ oil-water separator			0.15	8.05E-07	2.99E-06	5.95E-06	9.02E-05	1.06E-07	4.69E-06	6.83E-06	1.01E-05	4.49E-06	3.14E-06	1.49E-06	1.98E-03
	Soil Export and Asphalt Removals			0.18	1.43E-06	4.20E-06	7.82E-06	1.27E-04	1.61E-07	1.04E-05	1.25E-05	3.67E-05	6.11E-06	4.39E-06	2.00E-06	2.67E-03
	Grading			0.34	1.39E-05	2.40E-05	3.33E-05	2.30E-03	6.86E-06	7.91E-05	3.70E-04	6.00E-04	2.03E-05	4.52E-05	4.90E-06	6.37E-03
	Paving			0.14	7.81E-07	2.88E-06	5.67E-06	8.83E-05	1.03E-07	4.64E-06	6.65E-06	1.05E-05	4.29E-06	3.02E-06	1.43E-06	1.89E-03
	Lighting Improvements			0.10	5.03E-07	1.83E-06	3.82E-06	4.69E-05	6.36E-08	2.78E-06	4.26E-06	5.54E-06	2.88E-06	1.93E-06	9.57E-07	1.27E-03
	Existing Utility Protection			0.10	5.03E-07	1.83E-06	3.82E-06	4.69E-05	6.36E-08	2.78E-06	4.26E-06	5.54E-06	2.88E-06	1.93E-06	9.57E-07	1.27E-03
	Construct Buildings to replace buildings A2, A3, C1, & D			0.37	1.97E-06	7.09E-06	1.49E-05	1.72E-04	2.45E-07	1.09E-05	1.67E-05	2.20E-05	1.13E-05	7.46E-06	3.74E-06	4.97E-03
	Service Vehicles and Deliveries			0.00	3.77E-08	7.91E-08	1.37E-07	2.01E-06	3.37E-09	3.24E-07	3.41E-07	1.44E-06	1.14E-07	8.24E-08	3.63E-08	4.90E-05
			Total	1.66	2.20E-05	5.12E-05	8.76E-05	3.08E-03	7.98E-06	1.28E-04	4.46E-04	7.35E-04	6.14E-05	7.42E-05	1.85E-05	2.44E-02
			Peak Daily Construction -->	1.02	1.77E-05	3.74E-05	6.08E-05	2.64E-03	7.33E-06	1.01E-04	4.03E-04	6.52E-04	4.11E-05	5.92E-05	1.18E-05	1.56E-02

3.08E-03	5.12E-06	8.72E-04	3.31E-02	9.08E-03	1.41E-03	6.63E-02	1.39E-04	6.65E-03	2.86E-03	3.84E-04	7.56E-04	1.55E-03	1.18E-02	4.28E-04	2.65E-04	6.81E-03	4.11E-06
9.84E-03	1.64E-05	1.77E-03	6.77E-02	2.59E-02	3.09E-03	1.36E-01	2.81E-04	1.36E-02	7.30E-03	1.02E-03	6.94E-03	4.19E-03	3.96E-02	8.74E-04	5.39E-04	2.11E-02	5.35E-06
8.06E-03	1.35E-05	1.25E-03	4.73E-02	2.04E-02	2.24E-03	9.51E-02	1.98E-04	9.51E-03	5.61E-03	7.88E-04	6.50E-03	3.27E-03	3.24E-02	6.12E-04	3.78E-04	1.71E-02	5.35E-06
6.90E-03	1.15E-05	9.74E-04	3.68E-02	1.75E-02	1.81E-03	7.41E-02	1.55E-04	7.40E-03	4.74E-03	6.67E-04	6.28E-03	2.79E-03	2.87E-02	4.76E-04	2.95E-04	1.50E-02	5.35E-06
3.45E-03	5.72E-06	9.60E-04	3.65E-02	1.00E-02	1.55E-03	7.30E-02	1.53E-04	7.33E-03	3.14E-03	4.23E-04	8.29E-04	1.70E-03	1.30E-02	4.71E-04	2.92E-04	7.49E-03	4.11E-06
2.40E-03	4.51E-06	5.49E-04	2.07E-02	5.70E-03	8.86E-04	4.15E-02	8.76E-05	4.17E-03	1.81E-03	2.41E-04	4.82E-04	9.76E-04	7.40E-03	2.68E-04	1.67E-04	4.30E-03	3.29E-06
2.82E-03	5.18E-06	6.39E-04	2.42E-02	6.65E-03	1.03E-03	4.85E-02	1.02E-04	4.86E-03	2.10E-03	2.81E-04	5.57E-04	1.13E-03	8.62E-03	3.13E-04	1.94E-04	4.99E-03	3.29E-06
4.22E-03	4.65E-06	6.66E-04	2.42E-02	6.76E-03	1.08E-03	4.84E-02	1.08E-04	4.85E-03	2.28E-03	2.83E-04	6.39E-04	1.20E-03	8.76E-03	3.12E-04	2.00E-04	5.28E-03	1.03E-05
3.57E-03	7.61E-06	6.95E-04	2.59E-02	7.17E-03	1.12E-03	5.19E-02	1.11E-04	5.21E-03	2.32E-03	3.02E-04	6.27E-04	1.24E-03	9.30E-03	3.35E-04	2.10E-04	5.46E-03	6.05E-06
9.01E-03	1.78E-04	1.47E-03	5.62E-02	1.54E-02	2.36E-03	1.12E-01	2.32E-04	1.13E-02	4.76E-03	6.51E-04	1.24E-03	2.59E-03	1.99E-02	7.26E-04	4.46E-04	1.14E-02	3.29E-06
2.72E-03	4.51E-06	6.13E-04	2.29E-02	6.33E-03	2.51E-03	4.59E-02	9.83E-05	4.60E-03	2.04E-03	2.67E-04	5.52E-04	3.53E-03	8.21E-03	2.96E-04	1.86E-04	9.04E-03	5.23E-06
1.80E-03	3.00E-06	4.22E-04	1.58E-02	4.36E-03	6.81E-04	3.17E-02	6.75E-05	3.17E-03	1.40E-03	1.84E-04	3.77E-04	7.51E-04	5.66E-03	2.04E-04	1.28E-04	3.31E-03	3.29E-06
6.20E-05	2.12E-07	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	0.00E+00
5.79E-02	2.60E-04	1.09E-02	4.12E-01	1.35E-01	1.98E-02	8.26E-01	1.73E-03	8.27E-02	4.04E-02	5.50E-03	2.58E-02	2.49E-02	1.93E-01	5.32E-03	3.30E-03	1.11E-01	5.90E-05
1.90E-02	1.89E-04	3.90E-03	1.48E-01	4.80E-02	6.52E-03	2.96E-01	6.20E-04	2.97E-02	1.43E-02	1.95E-03	1.34E-02	7.97E-03	6.99E-02	1.91E-03	1.18E-03	3.78E-02	1.88E-05
2.51E-03	8.29E-06	5.53E-04	2.07E-02	5.72E-03	8.93E-04	4.15E-02	8.84E-05	4.17E-03	1.83E-03	2.41E-04	4.92E-04	9.83E-04	7.42E-03	2.68E-04	1.67E-04	4.33E-03	4.11E-06
2.98E-03	5.71E-06	6.65E-04	2.52E-02	6.93E-03	1.07E-03	5.05E-02	1.06E-04	5.07E-03	2.18E-03	2.93E-04	5.78E-04	1.18E-03	8.99E-03	3.26E-04	2.02E-04	5.20E-03	3.29E-06
2.83E-03	4.65E-06	6.45E-04	2.41E-02	6.67E-03	1.04E-03	4.84E-02	1.03E-04	4.85E-03	2.15E-03	2.81E-04	5.78E-04	1.15E-03	8.65E-03	3.12E-04	1.95E-04	5.06E-03	5.23E-06
3.72E-03	8.14E-06	7.21E-04	2.70E-02	7.45E-03	1.17E-03	5.40E-02	1.16E-04	5.41E-03	2.40E-03	3.14E-04	6.48E-04	1.28E-03	9.66E-03	3.48E-04	2.18E-04	5.66E-03	6.05E-06
9.01E-03	1.78E-04	1.47E-03	5.62E-02	1.54E-02	2.36E-03	1.12E-01	2.32E-04	1.13E-02	4.76E-03	6.51E-04	1.24E-03	2.59E-03	1.99E-02	7.26E-04	4.46E-04	1.14E-02	3.29E-06
2.72E-03	4.51E-06	6.13E-04	2.29E-02	6.33E-03	2.51E-03	4.59E-02	9.83E-05	4.60E-03	2.04E-03	2.67E-04	5.52E-04	3.53E-03	8.21E-03	2.96E-04	1.86E-04	9.04E-03	5.23E-06
1.75E-03	2.91E-06	4.17E-04	1.58E-02	4.34E-03	6.72E-04	3.16E-02	6.64E-05	3.17E-03	1.37E-03	1.83E-04	3.62E-04	7.39E-04	5.63E-03	2.04E-04	1.27E-04	3.25E-03	2.06E-06
1.75E-03	2.91E-06	4.17E-04	1.58E-02	4.34E-03	6.72E-04	3.16E-02	6.64E-05	3.17E-03	1.37E-03	1.83E-04	3.62E-04	7.39E-04	5.63E-03	2.04E-04	1.27E-04	3.25E-03	2.06E-06
6.77E-03	1.14E-05	1.63E-03	6.20E-02	1.70E-02	2.62E-03	1.24E-01	2.59E-04	1.25E-02	5.32E-03	7.19E-04	1.40E-03	2.88E-03	2.21E-02	8.01E-04	4.95E-04	1.27E-02	6.17E-06
6.20E-05	2.12E-07	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	0.00E+00
3.41E-02	2.27E-04	7.14E-03	2.70E-01	7.42E-02	1.30E-02	5.41E-01	1.14E-03	5.43E-02	2.35E-02	3.14E-03	6.22E-03	1.51E-02	9.63E-02	3.49E-03	2.17E-03	6.00E-02	3.75E-05
2.16E-02	2.00E-04	4.41E-03	1.68E-01	4.61E-02	7.11E-03	3.36E-01	7.02E-04	3.37E-02	1.44E-02	1.95E-03	3.80E-03	7.82E-03	5.97E-02	2.17E-03	1.34E-03	3.44E-02	1.84E-05

Table 1. Peak Daily Toxic Emissions by Phase After Mitigation (No electric dredging)

Construction	Diesel PM	ARSENIC	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM
	9901	7440382	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622
	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
Phase 1	0.881	6.61E-06	2.38E-05	5.07E-05	5.54E-04	1.03E-06	3.56E-05	2.29E-03	2.61E-04	3.82E-05	2.51E-05	1.27E-05	1.69E-02	2.28E-02	3.82E-05
Phase 2	0.803	5.67E-06	1.96E-05	4.03E-05	7.06E-04	1.10E-06	3.32E-05	3.30E-03	9.29E-05	3.06E-05	2.06E-05	1.01E-05	1.35E-02	1.84E-02	3.32E-05
Phase 3	0.857	5.93E-06	1.84E-05	3.64E-05	6.46E-04	1.25E-06	3.42E-05	4.02E+03	2.06E+03	2.70E-05	2.14E-05	8.79E-06	1.17E-02	1.61E-02	4.40E-05
	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
Phase 1	0.145	5.96E-08	1.05E-07	8.79E-08	1.27E-05	3.05E-08	4.00E-07	1.61E-06	2.96E-06	4.87E-08	1.96E-07	7.63E-09	9.77E-06	3.38E-05	7.68E-07
Phase 2	0.092	3.45E-08	6.85E-08	4.70E-08	8.26E-06	1.68E-08	2.57E-07	8.80E-07	1.77E-06	2.79E-08	1.16E-07	4.51E-09	5.91E-06	2.77E-05	4.22E-07
Phase 3	0.274	7.26E-08	1.32E-07	1.01E-07	1.58E-05	3.54E-08	5.19E-07	1.88E-06	3.68E-06	5.88E-08	2.35E-07	9.42E-09	1.23E-05	4.68E-05	8.99E-07

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Phase 1 Construction (2011) Mitigated Mitigated

	Diesel PM	ARSENIC	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR
	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
Demolish 200' creosote timber wharf	0.1951	1.09E-06	3.99E-06	7.83E-06	1.24E-04	1.43E-07	6.58E-06	9.31E-06	1.54E-05	5.93E-06	4.19E-06	1.97E-06	2.62E-03
Demolish buildings D, C1, & H1	0.1191	7.36E-07	2.52E-06	4.96E-06	8.91E-05	1.48E-07	4.09E-06	8.71E-06	1.20E-05	3.69E-06	2.85E-06	1.21E-06	1.60E-03
Install 24" Octagonal Prestressed Concrete Piles	0.3096	1.59E-06	5.74E-06	1.24E-05	1.26E-04	1.95E-07	8.29E-06	1.34E-05	1.48E-05	9.31E-06	6.05E-06	3.10E-06	4.12E-03
Construct finger piers	0.2961	1.48E-06	5.52E-06	1.18E-05	1.28E-04	1.87E-07	7.59E-06	1.24E-05	1.20E-05	8.88E-06	5.81E-06	2.96E-06	3.93E-03
Install owner furnished 600 ton travel lift	0.1451	7.62E-07	2.78E-06	5.81E-06	6.97E-05	9.60E-08	4.18E-06	0.00E+00	0.00E+00	4.38E-06	2.92E-06	1.46E-06	1.93E-03
F & I steel sheet pile wall (CDF Cell #1)	0.1874	9.90E-07	3.61E-06	7.51E-06	9.27E-05	1.25E-07	5.48E-06	8.38E-06	1.09E-05	5.66E-06	3.80E-06	1.88E-06	2.50E-03
Dredge to elevation -22	0.3576	2.82E-06	1.02E-05	2.21E-05	2.26E-04	3.47E-07	1.48E-05	2.38E-05	2.65E-05	1.66E-05	1.08E-05	5.52E-06	7.33E-03
Stabilize dredge material	0.2489	2.29E-06	8.28E-06	1.77E-05	1.89E-04	2.83E-07	1.22E-05	0.00	0.00	1.33E-05	8.72E-06	4.44E-06	5.89E-03
Dispose of Dredge material into CDF #1	0.1894	1.98E-06	7.20E-06	1.53E-05	1.68E-04	2.46E-07	1.06E-05	1.67E-05	1.98E-05	1.15E-05	7.58E-06	3.84E-06	5.10E-03
Import clean soil to bring upland elevation to street l	0.1298	7.11E-07	2.51E-06	5.11E-06	6.77E-05	8.87E-08	4.18E-06	6.06E-06	9.81E-06	3.87E-06	2.64E-06	1.28E-06	1.71E-03
Storm Water System w/ oil-water separator	0.1108	6.18E-07	2.32E-06	4.45E-06	7.73E-05	8.37E-08	3.76E-06	5.26E-06	8.61E-06	3.37E-06	2.43E-06	1.12E-06	1.49E-03
Soil Export and Asphalt Removals	0.1273	8.61E-07	2.89E-06	5.40E-06	9.57E-05	1.08E-07	5.82E-06	7.45E-06	1.74E-05	4.15E-06	3.02E-06	1.37E-06	1.82E-03
Grading	0.2315	2.42E-06	6.13E-06	1.12E-05	3.18E-04	8.14E-07	1.34E-05	4.57E-05	7.04E-05	7.99E-06	8.44E-06	2.47E-06	3.27E-03
Paving	0.1125	6.37E-07	2.35E-06	4.52E-06	7.83E-05	8.54E-08	3.92E-06	5.43E-06	9.33E-06	3.43E-06	2.47E-06	1.14E-06	1.51E-03
Lighting Improvements	0.0579	3.32E-07	1.23E-06	2.32E-06	4.25E-05	4.49E-08	2.08E-06	2.84E-06	5.07E-06	1.77E-06	1.29E-06	5.85E-07	7.78E-04
Service Truck (Small Deliveries, Port-a-Potties, Utiliti	0.0033	3.77E-08	7.91E-08	1.37E-07	2.01E-06	3.37E-09	3.24E-07	3.41E-07	1.44E-06	1.14E-07	8.24E-08	3.63E-08	4.90E-05
Total	2.8214	1.94E-05	6.74E-05	1.39E-04	1.90E-03	3.00E-06	1.07E-04	3.44E-03	6.06E-04	1.04E-04	7.30E-05	3.44E-05	4.56E-02
Peak Daily Construction -->	0.8810	6.61E-06	2.38E-05	5.07E-05	5.54E-04	1.03E-06	3.56E-05	0.00	0.00	3.82E-05	2.51E-05	1.27E-05	1.69E-02
	0.8024	*5.55E-06*	*1.97E-05*	*4.04E-05*	*5.37E-04*	*7.49E-07*	*3.16E-05*	*4.96E-05*	1.44E-03	*3.05E-05*	*2.09E-05*	*1.01E-05*	*1.34E-02*
	0.5331	*4.06E-06*	*1.21E-05*	*2.33E-05*	*4.90E-04*	*1.03E-06*	*2.30E-05*	*5.97E-05*	*9.14E-05*	*1.71E-05*	*1.47E-05*	*5.51E-06*	*7.31E-03*
	0.6149	*3.25E-06*	*1.20E-05*	*2.46E-05*	*3.20E-04*	*4.17E-07*	*1.81E-05*	*2.10E-05*	*2.79E-05*	*1.86E-05*	*1.26E-05*	*6.18E-06*	*8.20E-03*
	0.8810	*6.61E-06*	*2.38E-05*	*5.07E-05*	*5.54E-04*	*8.16E-07*	*3.56E-05*	*3.31E-03*	*4.18E-04*	*3.82E-05*	*2.51E-05*	*1.27E-05*	*1.69E-02*

Table 1. Peak D

Construction

	1,3-butadiene	acetaldehyde	benzene	[illegible]	methanol	methyl ethyl ketone (mek) (2-butanone)	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)
	106990	75070	71432	50000	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028
	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
Phase 1	**3.68E-03**	**1.40E-01**	**5.31E-02**	**2.81E-01**	**5.86E-04**	**2.81E-02**	**1.51E-02**	**2.10E-03**	**1.40E-02**	**8.65E-03**	**8.09E-02**	**1.81E-03**	**1.12E-03**	**4.34E-02**	**2.37E-05**
Phase 2	**3.21E-03**	**1.21E-01**	**4.07E-02**	**2.43E-01**	**5.11E-04**	**2.43E-02**	**1.21E-02**	**1.65E-03**	**1.30E-02**	**6.75E-03**	**6.46E-02**	**1.56E-03**	**9.73E-04**	**3.41E-02**	**1.88E-05**
Phase 3	**3.40E-03**	**1.29E-01**	**3.54E-02**	**2.58E-01**	**5.42E-04**	**2.59E-02**	**1.12E-02**	**1.49E-03**	**2.97E-03**	**6.19E-03**	**4.59E-02**	**1.66E-03**	**1.03E-03**	**2.66E-02**	**1.84E-05**
	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
Phase 1	**1.91E-06**	**9.80E-07**	**8.68E-06**	**5.54E-06**	**4.29E-07**	**6.41E-08**	**1.25E-05**	**1.66E-07**	**5.61E-06**	**5.32E-05**	**1.07E-05**	**0.00E+00**	**4.31E-07**	**1.05E-04**	**4.65E-07**
Phase 2	**1.35E-06**	**6.92E-07**	**6.13E-06**	**3.92E-06**	**3.03E-07**	**4.53E-08**	**8.83E-06**	**1.17E-07**	**3.96E-06**	**5.19E-05**	**7.59E-06**	**0.00E+00**	**3.04E-07**	**9.87E-05**	**3.28E-07**
Phase 3	**2.95E-06**	**1.51E-06**	**1.34E-05**	**8.54E-06**	**6.61E-07**	**9.88E-08**	**1.93E-05**	**2.55E-07**	**8.65E-06**	**5.55E-05**	**1.66E-05**	**0.00E+00**	**6.64E-07**	**1.16E-04**	**7.16E-07**

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Phase 1 Construction (201

	SULFATES	VANADIUM	1,3-butadiene	[illegible]aldehyde	ethylbenzene	formaldehyde	methanol	methyl ethyl ketone (mek) (2-butanone)	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2
	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr	lbs/hr
Demolish 200' creosote tir	**3.76E-03**	**6.30E-06**	**6.91E-04**	**7.08E-03**	**1.12E-03**	**5.10E-02**	**1.11E-04**	**5.11E-03**	**2.34E-03**	**2.97E-04**	**6.43E-04**	**1.24E-03**	**9.18E-03**	**3.29E-04**	**2.08E-04**	**5.46E-03**	**8.22E-06**
Demolish buildings D, C1, A	**2.28E-03**	**5.22E-06**	**4.05E-04**	**4.17E-03**	**6.56E-04**	**3.01E-02**	**6.51E-05**	**3.02E-03**	**1.36E-03**	**1.75E-04**	**3.71E-04**	**7.24E-04**	**5.41E-03**	**1.94E-04**	**1.22E-04**	**3.19E-03**	**4.11E-06**
Install 24" Octagonal Prest	**5.52E-03**	**9.18E-06**	**1.22E-03**	**1.28E-02**	**1.96E-03**	**9.34E-02**	**1.93E-04**	**9.38E-03**	**3.96E-03**	**5.41E-04**	**1.03E-03**	**2.15E-03**	**1.66E-02**	**6.03E-04**	**3.71E-04**	**9.48E-03**	**2.88E-06**
Construct finger piers	**5.33E-03**	**8.59E-06**	**1.49E-03**	**1.56E-02**	**2.40E-03**	**1.14E-01**	**2.36E-04**	**1.15E-02**	**4.85E-03**	**6.60E-04**	**1.27E-03**	**2.64E-03**	**2.02E-02**	**7.36E-04**	**4.53E-04**	**1.16E-02**	**4.11E-06**
Install owner furnished 60	**2.65E-03**	**4.41E-06**	**7.41E-04**	**7.73E-03**	**1.19E-03**	**5.65E-02**	**1.18E-04**	**5.67E-03**	**2.42E-03**	**3.27E-04**	**6.37E-04**	**1.31E-03**	**1.00E-02**	**3.64E-04**	**2.25E-04**	**5.77E-03**	**2.88E-06**
F & I steel sheet pile wall (	**3.45E-03**	**5.72E-06**	**8.65E-04**	**9.01E-03**	**1.39E-03**	**6.57E-02**	**1.38E-04**	**6.59E-03**	**2.84E-03**	**3.81E-04**	**7.50E-04**	**1.53E-03**	**1.17E-02**	**4.24E-04**	**2.63E-04**	**6.75E-03**	**4.11E-06**
Dredge to elevation -22	**9.84E-03**	**1.64E-05**	**1.62E-03**	**2.44E-02**	**2.85E-03**	**1.25E-01**	**2.58E-04**	**1.25E-02**	**6.83E-03**	**9.58E-04**	**6.82E-03**	**3.93E-03**	**3.76E-02**	**8.01E-04**	**4.94E-04**	**2.00E-02**	**5.35E-06**
Stabilize dredge material	**7.94E-03**	**1.33E-05**	**1.21E-03**	**2.00E-02**	**2.19E-03**	**9.25E-02**	**1.93E-04**	**9.24E-03**	**5.50E-03**	**7.73E-04**	**6.48E-03**	**3.20E-03**	**3.19E-02**	**5.94E-04**	**3.68E-04**	**1.68E-02**	**5.35E-06**
Dispose of Dredge materia	**6.90E-03**	**1.15E-05**	**9.74E-04**	**1.75E-02**	**1.81E-03**	**7.41E-02**	**1.55E-04**	**7.40E-03**	**4.74E-03**	**6.67E-04**	**6.28E-03**	**2.79E-03**	**2.87E-02**	**4.76E-04**	**2.95E-04**	**1.50E-02**	**5.35E-06**
Import clean soil to bring u	**2.37E-03**	**4.10E-06**	**2.70E-04**	**2.77E-03**	**4.38E-04**	**1.99E-02**	**4.36E-05**	**2.00E-03**	**9.14E-04**	**1.16E-04**	**2.52E-04**	**4.84E-04**	**3.59E-03**	**1.28E-04**	**8.15E-05**	**2.13E-03**	**3.29E-06**
Storm Water System w/ o	**2.18E-03**	**3.56E-06**	**3.47E-04**	**3.52E-03**	**5.64E-04**	**2.53E-02**	**5.62E-05**	**2.53E-03**	**1.19E-03**	**1.47E-04**	**3.32E-04**	**6.23E-04**	**4.57E-03**	**1.63E-04**	**1.04E-04**	**2.75E-03**	**5.23E-06**
Soil Export and Asphalt Re	**2.64E-03**	**4.93E-06**	**3.39E-04**	**3.42E-03**	**5.52E-04**	**2.44E-02**	**5.52E-05**	**2.44E-03**	**1.17E-03**	**1.43E-04**	**3.33E-04**	**6.10E-04**	**4.43E-03**	**1.57E-04**	**1.01E-04**	**2.70E-03**	**6.05E-06**
Grading	**4.48E-03**	**2.37E-05**	**4.53E-04**	**4.69E-03**	**7.32E-04**	**3.41E-02**	**7.25E-05**	**3.42E-03**	**1.50E-03**	**1.98E-04**	**4.03E-04**	**8.06E-04**	**6.09E-03**	**2.20E-04**	**1.37E-04**	**3.55E-03**	**3.29E-06**
Paving	**2.21E-03**	**3.67E-06**	**3.52E-04**	**3.58E-03**	**2.09E-03**	**2.57E-02**	**5.70E-05**	**2.57E-03**	**1.20E-03**	**1.50E-04**	**3.36E-04**	**3.07E-03**	**4.64E-03**	**1.65E-04**	**1.06E-04**	**7.01E-03**	**5.23E-06**
Lighting Improvements	**1.15E-03**	**1.91E-06**	**1.23E-04**	**1.22E-03**	**2.03E-04**	**8.55E-03**	**2.04E-05**	**8.55E-04**	**4.42E-04**	**5.04E-05**	**1.31E-04**	**2.25E-04**	**1.58E-03**	**5.50E-05**	**3.66E-05**	**9.95E-04**	**3.29E-06**
Service Truck (Small Delive	**6.20E-05**	**2.12E-07**	**1.05E-05**	**1.11E-04**	**1.69E-05**	**8.17E-04**	**1.67E-06**	**8.20E-05**	**3.39E-05**	**4.72E-06**	**8.72E-06**	**1.86E-05**	**1.44E-04**	**5.27E-06**	**3.22E-06**	**8.18E-05**	**0.00E+00**
	6.28E-02	1.23E-04	1.11E-02	1.37E-01	2.02E-02	8.41E-01	1.77E-03	8.42E-02	4.13E-02	5.59E-03	2.61E-02	2.54E-02	1.96E-01	5.42E-03	3.37E-03	1.13E-01	6.87E-05
F	2.28E-02	3.82E-05	3.68E-03	5.31E-02	6.41E-03	2.81E-01	5.86E-04	2.81E-02	1.51E-02	2.10E-03	1.40E-02	8.65E-03	8.09E-02	1.81E-03	1.12E-03	4.34E-02	2.37E-05
	1.86E-02	*3.30E-05*	*3.07E-03*	*3.91E-02*	*5.20E-03*	*2.31E-01*	*4.91E-04*	*2.31E-02*	*1.17E-02*	*1.58E-03*	*8.17E-03*	*6.52E-03*	*5.68E-02*	*1.49E-03*	*9.30E-04*	*3.14E-02*	*2.37E-05*
	1.02E-02	*3.32E-05*	*1.68E-03*	*1.73E-02*	*2.71E-03*	*1.26E-01*	*2.68E-04*	*1.26E-02*	*5.56E-03*	*7.31E-04*	*1.49E-03*	*2.98E-03*	*2.25E-02*	*8.12E-04*	*5.07E-04*	*1.31E-02*	*1.26E-05*
	1.14E-02	*1.88E-05*	*2.72E-03*	*2.82E-02*	*5.90E-03*	*2.06E-01*	*4.33E-04*	*2.06E-02*	*8.95E-03*	*1.19E-03*	*2.38E-03*	*7.26E-03*	*3.66E-02*	*1.33E-03*	*8.24E-04*	*2.55E-02*	*1.55E-05*
	2.28E-02	*3.82E-05*	*3.68E-03*	*5.31E-02*	*6.41E-03*	*2.81E-01*	*5.86E-04*	*2.81E-02*	*1.51E-02*	*2.10E-03*	*1.40E-02*	*8.65E-03*	*8.09E-02*	*1.81E-03*	*1.12E-03*	*4.34E-02*	*1.69E-05*

Phase 2 Construction													
Demolish finger piers	**0.16**	**8.59E-07**	**3.14E-06**	**6.46E-06**	**8.37E-05**	**1.09E-07**	**4.82E-06**	**7.27E-06**	**9.89E-06**	**4.87E-06**	**3.30E-06**	**1.62E-06**	**2.15E-03**
Dredge to elevation -22	**0.36**	**2.82E-06**	**1.02E-05**	**2.21E-05**	**2.26E-04**	**3.47E-07**	**1.48E-05**	**2.38E-05**	**2.65E-05**	**1.66E-05**	**1.08E-05**	**5.52E-06**	**7.33E-03**
Stabilize dredge material	**0.25**	**2.31E-06**	**8.32E-06**	**1.78E-05**	**1.90E-04**	**2.84E-07**	**1.24E-05**	**0.00**	**2.35E-05**	**1.34E-05**	**8.76E-06**	**4.45E-06**	**5.91E-03**
Dispose of Dredge material into CDF #1	**0.19**	**1.98E-06**	**7.20E-06**	**1.53E-05**	**1.68E-04**	**2.46E-07**	**1.06E-05**	**1.67E-05**	**1.98E-05**	**1.15E-05**	**7.58E-06**	**3.84E-06**	**5.10E-03**
F & I steel sheet pile wall (CDF Cell #2)	**0.19**	**9.90E-07**	**3.61E-06**	**7.51E-06**	**9.27E-05**	**1.25E-07**	**5.48E-06**	**8.38E-06**	**1.09E-05**	**5.66E-06**	**3.80E-06**	**1.88E-06**	**2.50E-03**
Demolish building H2	**0.12**	**6.89E-07**	**2.39E-06**	**4.83E-06**	**6.97E-05**	**9.94E-08**	**4.02E-06**	**6.48E-06**	**1.03E-05**	**3.64E-06**	**2.56E-06**	**1.20E-06**	**1.60E-03**
Import clean soil to bring upland elevation to cell ele	**0.13**	**7.91E-07**	**2.63E-06**	**5.26E-06**	**7.14E-05**	**9.48E-08**	**4.98E-06**	**6.80E-06**	**1.39E-05**	**4.01E-06**	**2.76E-06**	**1.33E-06**	**1.77E-03**
Storm Water System w/ oil-water separator	**0.11**	**6.18E-07**	**3.86E-06**	**4.45E-06**	**2.93E-04**	**1.61E-07**	**5.30E-06**	**5.26E-06**	**1.02E-05**	**3.37E-06**	**3.97E-06**	**1.12E-06**	**1.49E-03**
Soil Export and Asphalt Removals	**0.16**	**1.26E-06**	**3.72E-06**	**6.85E-06**	**1.17E-04**	**1.43E-07**	**9.23E-06**	**1.10E-05**	**3.25E-05**	**5.36E-06**	**3.89E-06**	**1.75E-06**	**2.34E-03**
Grading	**0.23**	**2.42E-06**	**6.13E-06**	**1.12E-05**	**3.18E-04**	**8.14E-07**	**1.34E-05**	**4.57E-05**	**7.04E-05**	**7.99E-06**	**8.44E-06**	**2.47E-06**	**3.27E-03**
Paving	**0.11**	**6.37E-07**	**2.35E-06**	**4.52E-06**	**7.83E-05**	**8.54E-08**	**3.92E-06**	**5.43E-06**	**9.33E-06**	**3.43E-06**	**2.47E-06**	**1.14E-06**	**1.51E-03**
Lighting Improvements	**0.06**	**3.32E-07**	**1.23E-06**	**2.32E-06**	**4.25E-05**	**4.49E-08**	**2.08E-06**	**2.84E-06**	**5.07E-06**	**1.77E-06**	**1.29E-06**	**5.85E-07**	**7.78E-04**
Service Vehicles and Deliveries	**0.00**	**3.77E-08**	**7.91E-08**	**1.37E-07**	**2.01E-06**	**3.37E-09**	**3.24E-07**	**3.41E-07**	**1.44E-06**	**1.14E-07**	**8.24E-08**	**3.63E-08**	**4.90E-05**
Total	2.07	1.57E-05	5.49E-05	1.09E-04	1.75E-03	2.56E-06	9.13E-05	3.41E-03	2.44E-04	8.17E-05	5.97E-05	2.69E-05	3.58E-02
Peak Daily Construction -->	0.80	5.67E-06	1.96E-05	4.03E-05	7.06E-04	1.10E-06	3.32E-05	3.30E-03	9.29E-05	3.06E-05	2.06E-05	1.01E-05	1.35E-02
	0.80	*5.67E-06*	*1.96E-05*	*4.03E-05*	*4.98E-04*	*7.03E-07*	*3.32E-05*	*4.89E-05*	*8.06E-05*	*3.06E-05*	*2.06E-05*	*1.01E-05*	*1.35E-02*
	0.53	*4.06E-06*	*1.37E-05*	*2.33E-05*	*7.06E-04*	*1.10E-06*	*2.45E-05*	*5.97E-05*	*9.29E-05*	*1.71E-05*	*1.63E-05*	*5.51E-06*	*7.31E-03*
	0.57	*5.12E-06*	*1.82E-05*	*3.85E-05*	*4.32E-04*	*6.29E-07*	*2.83E-05*	*3.30E-03*	*5.86E-05*	*2.90E-05*	*1.92E-05*	*9.66E-06*	*1.28E-02*
	0.17	*1.01E-06*	*3.66E-06*	*6.98E-06*	*1.23E-04*	*1.34E-07*	*6.32E-06*	*8.61E-06*	*1.58E-05*	*5.31E-06*	*3.84E-06*	*1.76E-06*	*2.34E-03*
Phase 3 Construction								#DIV/0!	#DIV/0!				
Demolish buildings A2 & A3	**0.12**	**9.69E-07**	**2.84E-06**	**5.27E-06**	**1.23E-04**	**2.49E-07**	**5.73E-06**	**1.45E-05**	**2.39E-05**	**3.87E-06**	**3.47E-06**	**1.24E-06**	**1.64E-03**
Import clean soil to bring upland elevation to street l	**0.14**	**8.85E-07**	**2.83E-06**	**5.60E-06**	**7.64E-05**	**1.03E-07**	**5.79E-06**	**7.65E-06**	**1.75E-05**	**4.30E-06**	**2.96E-06**	**1.42E-06**	**1.89E-03**
Storm Water System w/ oil-water separator	**0.11**	**6.18E-07**	**2.32E-06**	**4.45E-06**	**7.73E-05**	**8.37E-08**	**3.76E-06**	**5.26E-06**	**8.61E-06**	**3.37E-06**	**2.43E-06**	**1.12E-06**	**1.49E-03**
Soil Export and Asphalt Removals	**0.16**	**1.35E-06**	**3.92E-06**	**7.20E-06**	**1.22E-04**	**1.52E-07**	**1.00E-05**	**1.19E-05**	**3.61E-05**	**5.64E-06**	**4.10E-06**	**1.84E-06**	**2.46E-03**
Grading	**0.23**	**2.42E-06**	**6.13E-06**	**1.12E-05**	**3.18E-04**	**8.14E-07**	**1.34E-05**	**3.31E+03**	**2.06E+03**	**7.99E-06**	**8.44E-06**	**2.47E-06**	**3.27E-03**
Paving	**0.11**	**6.37E-07**	**2.35E-06**	**4.52E-06**	**7.83E-05**	**8.54E-08**	**3.92E-06**	**4.02E+03**	**1.50E+03**	**3.43E-06**	**2.47E-06**	**1.14E-06**	**1.51E-03**
Lighting Improvements	**0.06**	**3.16E-07**	**1.16E-06**	**2.32E-06**	**3.40E-05**	**4.11E-08**	**1.84E-06**	**2.68E-06**	**4.04E-06**	**1.75E-06**	**1.22E-06**	**5.83E-07**	**7.74E-04**
Existing Utility Protection	**0.06**	**3.16E-07**	**1.16E-06**	**2.32E-06**	**3.40E-05**	**4.11E-08**	**1.84E-06**	**2.68E-06**	**4.04E-06**	**1.75E-06**	**1.22E-06**	**5.83E-07**	**7.74E-04**
Construct Buildings to replace buildings A2, A3, C1, &	**0.37**	**1.97E-06**	**7.09E-06**	**1.49E-05**	**1.72E-04**	**2.45E-07**	**1.09E-05**	**1.67E-05**	**2.20E-05**	**1.13E-05**	**7.46E-06**	**3.74E-06**	**4.97E-03**
Service Vehicles and Deliveries	**0.00**	**3.77E-08**	**7.91E-08**	**1.37E-07**	**2.01E-06**	**3.37E-09**	**3.24E-07**	**3.41E-07**	**1.44E-06**	**1.14E-07**	**8.24E-08**	**3.63E-08**	**4.90E-05**
Total	1.37	9.52E-06	2.99E-05	5.80E-05	1.04E-03	1.82E-06	5.75E-05	7.32E+03	3.56E+03	4.35E-05	3.38E-05	1.42E-05	1.88E-02
Peak Daily Construction -->	0.86	5.93E-06	1.84E-05	3.64E-05	6.46E-04	1.25E-06	3.42E-05	4.02E+03	2.06E+03	2.70E-05	2.14E-05	8.79E-06	1.17E-02
	0.72	4.65E-06	1.51E-05	2.99E-05	4.53E-04	6.90E-07	2.88E-05	4.61E-05	8.75E-05	2.26E-05	1.63E-05	7.45E-06	9.90E-03
	0.86	5.93E-06	1.84E-05	3.64E-05	6.46E-04	1.25E-06	3.42E-05	3.31E+03	2.06E+03	2.70E-05	2.14E-05	8.79E-06	1.17E-02
	0.55	2.97E-06	1.07E-05	2.19E-05	2.86E-04	3.75E-07	1.69E-05	4.02E+03	1.50E+03	1.66E-05	1.12E-05	5.50E-06	7.31E-03

Phase 2 Construction

Demolish finger piers	**2.99E-03**	**4.96E-06**	**7.54E-04**	**7.84E-03**	**1.22E-03**	**5.71E-02**	**1.20E-04**	**5.73E-03**	**2.48E-03**	**3.31E-04**	**6.59E-04**	**1.34E-03**	**1.02E-02**	**3.68E-04**	**2.29E-04**	**5.89E-03**	**4.11E-06**
Dredge to elevation -22	**9.84E-03**	**1.64E-05**	**1.62E-03**	**2.44E-02**	**2.85E-03**	**1.25E-01**	**2.58E-04**	**1.25E-02**	**6.83E-03**	**9.58E-04**	**6.82E-03**	**3.93E-03**	**3.76E-02**	**8.01E-04**	**4.94E-04**	**2.00E-02**	**5.35E-06**
Stabilize dredge material	**7.97E-03**	**1.34E-05**	**1.22E-03**	**2.01E-02**	**2.20E-03**	**9.29E-02**	**1.93E-04**	**9.28E-03**	**5.52E-03**	**7.75E-04**	**6.48E-03**	**3.21E-03**	**3.20E-02**	**5.97E-04**	**3.70E-04**	**1.68E-02**	**5.35E-06**
Dispose of Dredge materia	**6.90E-03**	**1.15E-05**	**9.74E-04**	**1.75E-02**	**1.81E-03**	**7.41E-02**	**1.55E-04**	**7.40E-03**	**4.74E-03**	**6.67E-04**	**6.28E-03**	**2.79E-03**	**2.87E-02**	**4.76E-04**	**2.95E-04**	**1.50E-02**	**5.35E-06**
F & I steel sheet pile wall (	**3.45E-03**	**5.72E-06**	**8.65E-04**	**9.01E-03**	**1.39E-03**	**6.57E-02**	**1.38E-04**	**6.59E-03**	**2.84E-03**	**3.81E-04**	**7.50E-04**	**1.53E-03**	**1.17E-02**	**4.24E-04**	**2.63E-04**	**6.75E-03**	**4.11E-06**
Demolish building H2	**2.23E-03**	**4.21E-06**	**4.02E-04**	**4.15E-03**	**6.50E-04**	**3.01E-02**	**6.44E-05**	**3.02E-03**	**1.34E-03**	**1.75E-04**	**3.61E-04**	**7.16E-04**	**5.39E-03**	**1.94E-04**	**1.22E-04**	**3.16E-03**	**3.29E-06**
Import clean soil to bring u	**2.44E-03**	**4.54E-06**	**2.81E-04**	**2.88E-03**	**4.55E-04**	**2.07E-02**	**4.53E-05**	**2.08E-03**	**9.48E-04**	**1.21E-04**	**2.61E-04**	**5.02E-04**	**3.73E-03**	**1.34E-04**	**8.47E-05**	**2.22E-03**	**3.29E-06**
Storm Water System w/ oi	**3.57E-03**	**3.56E-06**	**3.68E-04**	**3.62E-03**	**6.04E-04**	**2.53E-02**	**6.09E-05**	**2.53E-03**	**1.32E-03**	**1.49E-04**	**3.93E-04**	**6.70E-04**	**4.68E-03**	**1.63E-04**	**1.09E-04**	**2.97E-03**	**1.03E-05**
Soil Export and Asphalt Re	**3.30E-03**	**7.16E-06**	**4.15E-04**	**4.22E-03**	**6.74E-04**	**3.03E-02**	**6.72E-05**	**3.03E-03**	**1.42E-03**	**1.77E-04**	**3.95E-04**	**7.44E-04**	**5.47E-03**	**1.95E-04**	**1.25E-04**	**3.29E-03**	**6.05E-06**
Grading	**4.48E-03**	**2.37E-05**	**4.53E-04**	**4.69E-03**	**7.32E-04**	**3.41E-02**	**7.25E-05**	**3.42E-03**	**1.50E-03**	**1.98E-04**	**4.03E-04**	**8.06E-04**	**6.09E-03**	**2.20E-04**	**1.37E-04**	**3.55E-03**	**3.29E-06**
Paving	**2.21E-03**	**3.67E-06**	**3.52E-04**	**3.58E-03**	**2.09E-03**	**2.57E-02**	**5.70E-05**	**2.57E-03**	**1.20E-03**	**1.50E-04**	**3.36E-04**	**3.07E-03**	**4.64E-03**	**1.65E-04**	**1.06E-04**	**7.01E-03**	**5.23E-06**
Lighting Improvements	**1.15E-03**	**1.91E-06**	**1.23E-04**	**1.22E-03**	**2.03E-04**	**8.55E-03**	**2.04E-05**	**8.55E-04**	**4.42E-04**	**5.04E-05**	**1.31E-04**	**2.25E-04**	**1.58E-03**	**5.50E-05**	**3.66E-05**	**9.95E-04**	**3.29E-06**
Service Vehicles and Deliv	**6.20E-05**	**2.12E-07**	**1.05E-05**	**1.11E-04**	**1.69E-05**	**8.17E-04**	**1.67E-06**	**8.20E-05**	**3.39E-05**	**4.72E-06**	**8.72E-06**	**1.86E-05**	**1.44E-04**	**5.27E-06**	**3.22E-06**	**8.18E-05**	**0.00E+00**
	5.06E-02	1.01E-04	7.84E-03	1.03E-01	1.49E-02	5.90E-01	1.25E-03	5.91E-02	3.06E-02	4.14E-03	2.33E-02	1.96E-02	1.52E-01	3.80E-03	2.37E-03	8.77E-02	5.90E-05
F	1.84E-02	3.32E-05	3.21E-03	4.07E-02	5.41E-03	2.43E-01	5.11E-04	2.43E-02	1.21E-02	1.65E-03	1.30E-02	6.75E-03	6.46E-02	1.56E-03	9.73E-04	3.41E-02	1.88E-05
	1.84E-02	*3.29E-05*	*3.21E-03*	*4.07E-02*	*5.41E-03*	*2.43E-01*	*5.11E-04*	*2.43E-02*	*1.21E-02*	*1.65E-03*	*8.24E-03*	*6.75E-03*	*5.88E-02*	*1.56E-03*	*9.73E-04*	*3.24E-02*	*1.88E-05*
	1.16E-02	*3.32E-05*	*1.70E-03*	*1.74E-02*	*2.75E-03*	*1.26E-01*	*2.73E-04*	*1.26E-02*	*5.70E-03*	*7.33E-04*	*1.56E-03*	*3.03E-03*	*2.26E-02*	*8.12E-04*	*5.12E-04*	*1.34E-02*	*1.77E-05*
	1.74E-02	*2.96E-05*	*2.48E-03*	*4.05E-02*	*4.48E-03*	*1.89E-01*	*3.96E-04*	*1.88E-02*	*1.12E-02*	*1.57E-03*	*1.30E-02*	*6.52E-03*	*6.46E-02*	*1.21E-03*	*7.53E-04*	*3.41E-02*	*1.40E-05*
	3.42E-03	*5.79E-06*	*4.86E-04*	*4.91E-03*	*2.31E-03*	*3.50E-02*	*7.91E-05*	*3.51E-03*	*1.68E-03*	*2.05E-04*	*4.76E-04*	*3.32E-03*	*6.36E-03*	*2.26E-04*	*1.46E-04*	*8.09E-03*	*8.52E-06*

Phase 3 Construction

Demolish buildings A2 & A	**2.33E-03**	**8.00E-06**	**4.05E-04**	**4.17E-03**	**6.56E-04**	**3.01E-02**	**6.51E-05**	**3.02E-03**	**1.36E-03**	**1.75E-04**	**3.71E-04**	**7.24E-04**	**5.41E-03**	**1.94E-04**	**1.22E-04**	**3.19E-03**	**4.11E-06**
Import clean soil to bring u	**2.59E-03**	**5.07E-06**	**3.07E-04**	**3.15E-03**	**4.98E-04**	**2.28E-02**	**4.94E-05**	**2.28E-03**	**1.03E-03**	**1.33E-04**	**2.82E-04**	**5.49E-04**	**4.09E-03**	**1.47E-04**	**9.27E-05**	**2.42E-03**	**3.29E-06**
Storm Water System w/ oi	**2.18E-03**	**3.56E-06**	**3.47E-04**	**3.52E-03**	**5.64E-04**	**2.53E-02**	**5.62E-05**	**2.53E-03**	**1.19E-03**	**1.47E-04**	**3.32E-04**	**6.23E-04**	**4.57E-03**	**1.63E-04**	**1.04E-04**	**2.75E-03**	**5.23E-06**
Soil Export and Asphalt Re	**3.45E-03**	**7.69E-06**	**4.41E-04**	**4.50E-03**	**7.17E-04**	**3.23E-02**	**7.14E-05**	**3.24E-03**	**1.50E-03**	**1.88E-04**	**4.17E-04**	**7.91E-04**	**5.83E-03**	**2.08E-04**	**1.33E-04**	**3.49E-03**	**6.05E-06**
Grading	**4.48E-03**	**2.37E-05**	**1.11E-03**	**1.16E-02**	**1.78E-03**	**8.48E-02**	**1.76E-04**	**8.51E-03**	**3.61E-03**	**4.91E-04**	**9.44E-04**	**1.96E-03**	**1.50E-02**	**5.47E-04**	**3.37E-04**	**8.62E-03**	**3.29E-06**
Paving	**2.21E-03**	**3.67E-06**	**3.52E-04**	**3.58E-03**	**2.09E-03**	**2.57E-02**	**5.70E-05**	**2.57E-03**	**1.20E-03**	**1.50E-04**	**3.36E-04**	**3.07E-03**	**4.64E-03**	**1.65E-04**	**1.06E-04**	**7.01E-03**	**5.23E-06**
Lighting Improvements	**1.10E-03**	**1.82E-06**	**1.18E-04**	**1.20E-03**	**1.93E-04**	**8.54E-03**	**1.93E-05**	**8.55E-04**	**4.09E-04**	**4.99E-05**	**1.16E-04**	**2.13E-04**	**1.55E-03**	**5.50E-05**	**3.55E-05**	**9.42E-04**	**2.06E-06**
Existing Utility Protection	**1.10E-03**	**1.82E-06**	**1.18E-04**	**1.20E-03**	**1.93E-04**	**8.54E-03**	**1.93E-05**	**8.55E-04**	**4.09E-04**	**4.99E-05**	**1.16E-04**	**2.13E-04**	**1.55E-03**	**5.50E-05**	**3.55E-05**	**9.42E-04**	**2.06E-06**
Construct Buildings to repl	**6.77E-03**	**1.14E-05**	**1.63E-03**	**1.70E-02**	**2.62E-03**	**1.24E-01**	**2.59E-04**	**1.25E-02**	**5.32E-03**	**7.19E-04**	**1.40E-03**	**2.88E-03**	**2.21E-02**	**8.01E-04**	**4.95E-04**	**1.27E-02**	**6.17E-06**
Service Vehicles and Deliv	**6.20E-05**	**2.12E-07**	**1.05E-05**	**1.11E-04**	**1.69E-05**	**8.17E-04**	**1.67E-06**	**8.20E-05**	**3.39E-05**	**4.72E-06**	**8.72E-06**	**1.86E-05**	**1.44E-04**	**5.27E-06**	**3.22E-06**	**8.18E-05**	**0.00E+00**
	2.63E-02	6.70E-05	4.84E-03	5.00E-02	9.33E-03	3.63E-01	7.74E-04	3.64E-02	1.61E-02	2.11E-03	4.32E-03	1.10E-02	6.49E-02	2.34E-03	1.46E-03	4.21E-02	3.75E-05
F	1.61E-02	4.40E-05	3.40E-03	3.54E-02	5.48E-03	2.58E-01	5.42E-04	2.59E-02	1.12E-02	1.49E-03	2.97E-03	6.19E-03	4.59E-02	1.66E-03	1.03E-03	2.66E-02	1.84E-05
	1.37E-02	2.91E-05	2.60E-03	2.70E-02	4.20E-03	1.96E-01	4.16E-04	1.97E-02	8.63E-03	1.14E-03	2.31E-03	4.63E-03	3.50E-02	1.26E-03	7.89E-04	2.04E-02	1.84E-05
	1.61E-02	4.40E-05	3.40E-03	3.54E-02	5.48E-03	2.58E-01	5.42E-04	2.59E-02	1.12E-02	1.49E-03	2.97E-03	6.03E-03	4.59E-02	1.66E-03	1.03E-03	2.66E-02	1.80E-05
	1.01E-02	1.71E-05	2.11E-03	2.19E-02	4.92E-03	1.59E-01	3.37E-04	1.60E-02	6.97E-03	9.24E-04	1.86E-03	6.19E-03	2.84E-02	1.03E-03	6.39E-04	2.07E-02	1.35E-05

Unmitigated Proposed Project - Input for HARP Model												
	TAC	**CAS**	**Phase 1 (lbs/hr)**	**Phase 2 (lbs/hr)**	**Phase 3 (lbs/hr)**	**Max (lbs/hr)**		**Phase 1 (lbs/70yr)**	**Phase 2 (lbs/70yr)**	**Phase 3 (lbs/70yr)**	**Max (lbs/70yr)**	
	ARSENIC	7440382	0.000016	0.000016	0.000018	0.000018		7.98E-06	7.25E-06	8.34E-06	8.34E-06	
	BROMINE	7726956	0.000031	0.000032	0.000037	0.000037		1.21E-05	1.11E-05	1.29E-05	1.29E-05	
	CADMIUM	7440439	0.000052	0.000047	0.000061	0.000061		1.27E-05	1.15E-05	1.31E-05	1.31E-05	
	CHLORINE	7782505	0.002481	0.002697	0.002644	0.002697		1.47E-03	1.35E-03	1.56E-03	1.56E-03	
	CHROMIUM VI	18540299	0.000007	0.000007	0.000007	0.000007		4.29E-06	3.90E-06	4.43E-06	4.43E-06	
	COPPER	7440508	0.000090	0.000091	0.000101	0.000101		4.76E-05	4.34E-05	5.09E-05	5.09E-05	
	LEAD	7439921	0.002290	0.003297	0.000403	0.003297		2.29E-04	2.08E-04	2.37E-04	2.37E-04	
	MANGANESE	7439965	0.000261	0.000624	0.000652	0.000652		3.85E-04	3.51E-04	4.05E-04	4.05E-04	
	MERCURY	7439976	0.000039	0.000031	0.000041	0.000041		6.62E-06	6.02E-06	6.90E-06	6.90E-06	
	NICKEL	7440020	0.000052	0.000054	0.000059	0.000059		2.54E-05	2.32E-05	2.66E-05	2.66E-05	
	SELENIUM	7782492	0.000013	0.000010	0.000012	0.000013		1.00E-06	9.12E-07	1.05E-06	1.05E-06	
	~~SULFUR~~	~~7704349~~	~~0.017230~~	~~0.013879~~	~~0.015551~~	~~0.017230~~		~~1.25E-03~~	~~1.14E-03~~	~~1.32E-03~~	~~1.32E-03~~	not TAC
	SULFATES	9960	0.023280	0.018951	0.021649	0.023280		2.51E-03	2.33E-03	2.88E-03	2.88E-03	
	VANADIUM	7440622	0.000189	0.000189	0.000200	0.000200		1.08E-04	9.85E-05	1.12E-04	1.12E-04	
	1,3-butadiene	106990	0.004366	0.003897	0.004415	0.004415		5.47E-05	3.86E-05	8.43E-05	8.43E-05	
	acetaldehyde	75070	0.166330	0.147858	0.168031	0.168031		2.80E-05	1.98E-05	4.31E-05	4.31E-05	
	benzene	71432	0.060321	0.047953	0.046052	0.060321		2.48E-04	1.75E-04	3.82E-04	3.82E-04	
	ethylbenzene	100414	0.007509	0.006519	0.007111	0.007509		9.72E-04	9.41E-04	1.03E-03	1.03E-03	
	formaldehyde	50000	0.333654	0.296363	0.336383	0.336383		1.58E-04	1.12E-04	2.44E-04	2.44E-04	
	methanol	67561	0.000694	0.000620	0.000702	0.000702		1.23E-05	8.66E-06	1.89E-05	1.89E-05	
	methyl ethyl ketone (mek) (2-b	78933	0.033406	0.029695	0.033747	0.033747		1.83E-06	1.29E-06	2.82E-06	2.82E-06	
	m-xylene	108383	0.017345	0.014325	0.014443	0.017345		3.57E-04	2.52E-04	5.51E-04	5.51E-04	
	naphthalene	91203	0.002406	0.001954	0.001948	0.002406		4.73E-06	3.34E-06	7.29E-06	7.29E-06	
	n-hexane	110543	0.014613	0.013351	0.003804	0.014613		1.60E-04	1.13E-04	2.47E-04	2.47E-04	
	o-xylene	95476	0.009851	0.007969	0.007822	0.009851		1.52E-03	1.48E-03	1.59E-03	1.59E-03	
	propene	115071	0.090266	0.069886	0.059749	0.090266		3.07E-04	2.17E-04	4.73E-04	4.73E-04	
	p-xylene	106423	0.002149	0.001910	0.002170	0.002170		0.00E+00	0.00E+00	0.00E+00	0.00E+00	
	styrene	100425	0.001327	0.001183	0.001342	0.001342		1.23E-05	8.70E-06	1.90E-05	1.90E-05	
	toluene	108883	0.048730	0.037771	0.034435	0.048730		2.99E-03	2.82E-03	3.30E-03	3.30E-03	
	acrolein (2-propenal)	107028	0.000020	0.000019	0.000018	0.000020		1.33E-05	9.38E-06	2.05E-05	2.05E-05	
	Diesel PM	9901	0.911696	0.834321	1.022028	1.022028		4.675264	2.891033	8.093223	8.093223	

Mitigated Proposed Project - Input for HARP Model										
TAC	**CAS**	**Phase 1 (lbs/hr)**	**Phase 2 (lbs/hr)**	**Phase 3 (lbs/hr)**	**Max (lbs/hr)**		**Phase 1 (lbs/70yr)**	**Phase 2 (lbs/70yr)**	**Phase 3 (lbs/70yr)**	**Max (lbs/70yr)**
ARSENIC	7440382	6.61E-06	5.67E-06	5.93E-06	6.61E-06		1.70E-06	9.87E-07	2.07E-06	2.07E-06
BROMINE	7726956	2.38E-05	1.96E-05	1.84E-05	2.38E-05		3.00E-06	1.96E-06	3.77E-06	3.77E-06
CADMIUM	7440439	5.07E-05	4.03E-05	3.64E-05	5.07E-05		2.51E-06	1.34E-06	2.88E-06	2.88E-06
CHLORINE	7782505	5.54E-04	7.06E-04	6.46E-04	7.06E-04		3.63E-04	2.36E-04	4.50E-04	4.50E-04
CHROMIUM VI	18540299	1.03E-06	1.10E-06	1.25E-06	1.25E-06		8.72E-07	4.79E-07	1.01E-06	1.01E-06
COPPER	7440508	3.56E-05	3.32E-05	3.42E-05	3.56E-05		1.14E-05	7.35E-06	1.48E-05	1.48E-05
LEAD	7439921	2.29E-03	3.30E-03	4.02E+03	4.02E+03		4.61E-05	2.51E-05	5.37E-05	5.37E-05
MANGANESE	7439965	2.61E-04	9.29E-05	2.06E+03	2.06E+03		8.47E-05	5.05E-05	1.05E-04	1.05E-04
MERCURY	7439976	3.82E-05	3.06E-05	2.70E-05	3.82E-05		1.39E-06	7.96E-07	1.68E-06	1.68E-06
NICKEL	7440020	2.51E-05	2.06E-05	2.14E-05	2.51E-05		5.59E-06	3.32E-06	6.72E-06	6.72E-06
SELENIUM	7782492	1.27E-05	1.01E-05	8.79E-06	1.27E-05		2.18E-07	1.29E-07	2.69E-07	2.69E-07
~~SULFUR~~	~~7704349~~	~~1.69E-02~~	~~1.35E-02~~	~~1.17E-02~~	~~1.69E-02~~		~~2.79E-04~~	~~1.69E-04~~	~~3.51E-04~~	~~3.51E-04~~
SULFATES	9960	2.28E-02	1.84E-02	1.61E-02	2.28E-02		9.64E-04	7.92E-04	1.34E-03	1.34E-03
VANADIUM	7440622	3.82E-05	3.32E-05	4.40E-05	4.40E-05		2.19E-05	1.20E-05	2.57E-05	2.57E-05
1,3-butadiene	106990	3.68E-03	3.21E-03	3.40E-03	3.68E-03		5.47E-05	3.86E-05	8.43E-05	8.43E-05
acetaldehyde	75070	1.40E-01	1.21E-01	1.29E-01	1.40E-01		2.80E-05	1.98E-05	4.31E-05	4.31E-05
benzene	71432	5.31E-02	4.07E-02	3.54E-02	5.31E-02		2.48E-04	1.75E-04	3.82E-04	3.82E-04
ethylbenzene	100414	6.41E-03	5.41E-03	5.48E-03	6.41E-03		9.72E-04	9.41E-04	1.03E-03	1.03E-03
formaldehyde	50000	2.81E-01	2.43E-01	2.58E-01	2.81E-01		1.58E-04	1.12E-04	2.44E-04	2.44E-04
methanol	67561	5.86E-04	5.11E-04	5.42E-04	5.86E-04		1.23E-05	8.66E-06	1.89E-05	1.89E-05
methyl ethyl ket	78933	2.81E-02	2.43E-02	2.59E-02	2.81E-02		1.83E-06	1.29E-06	2.82E-06	2.82E-06
m-xylene	108383	1.51E-02	1.21E-02	1.12E-02	1.51E-02		3.57E-04	2.52E-04	5.51E-04	5.51E-04
naphthalene	91203	2.10E-03	1.65E-03	1.49E-03	2.10E-03		4.73E-06	3.34E-06	7.29E-06	7.29E-06
n-hexane	110543	1.40E-02	1.30E-02	2.97E-03	1.40E-02		1.60E-04	1.13E-04	2.47E-04	2.47E-04
o-xylene	95476	8.65E-03	6.75E-03	6.19E-03	8.65E-03		1.52E-03	1.48E-03	1.59E-03	1.59E-03
propene	115071	8.09E-02	6.46E-02	4.59E-02	8.09E-02		3.07E-04	2.17E-04	4.73E-04	4.73E-04
p-xylene	106423	1.81E-03	1.56E-03	1.66E-03	1.81E-03		0.00E+00	0.00E+00	0.00E+00	0.00E+00
styrene	100425	1.12E-03	9.73E-04	1.03E-03	1.12E-03		1.23E-05	8.70E-06	1.90E-05	1.90E-05
toluene	108883	4.34E-02	3.41E-02	2.66E-02	4.34E-02		2.99E-03	2.82E-03	3.30E-03	3.30E-03
acrolein (2-prop	107028	2.37E-05	1.88E-05	1.84E-05	2.37E-05		1.33E-05	9.38E-06	2.05E-05	2.05E-05
Diesel PM	9901	8.81E-01	8.03E-01	8.57E-01	8.81E-01		4.15E+00	2.61E+00	7.82E+00	7.82E+00

	Al Larson Boat Shop Upgrade														
		Marine Work													
		Site Civil Work													
		Building Demolition													
					Duration	**Number**				**Offroad**	**Offroad**	**Peak Day**			
	Item	**Description**	**Quantity**		**Work Days**	**of Workers**	**Major Equipment**	**Equipment #**	**Hours/day or Miles/rountrip**	**Equipment Category**	**HP ***	**ROG lbs/hr**	**PM10 lbs/hr**	**Diesel PM 9901**	
1															
2	**Phase 1 Construction (2011)**														
3															
4	1			SF	20	10									
5		**Demolish 200' creosote timber wharf**			20		Derrick Barge	1	8.0	Cranes	195	0.09	0.03		
6					20		Flat Barge - Main Hoist	1	8.0	Hoist/swing/winch	335	0.12	0.04		
7					20		Vibratory Hammer	1	8.0	Crushing/Proc. Equipment	175	0.22	0.10		
8					20		Track Loader	1	8.0	Rubber Tired Loaders	175	0.14	0.06		
9		*Added by CDM*			20		Haul Trucks - Diesel	1	**1.0**	HHDT-DSL	NA	0.00	0.00		
10					20		Haul Trucks - Fugitive Dust	1	**1.0**	Dust		-	0.00		
11					20		*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00		
12					20		*Workers - Dust*	10	0.5	Dust		-	0.00		
13					***Subtotal***							***1***	***0***	***0***	
14	2	**Demolish buildings D, C1, & H1**	3	each	60	10									
15					60		Excavator with Ram-Hoe	1	8.0	Excavators	175	0.14	0.06		
16					60		Front End (Wheel) Loader	1	8.0	Rubber Tired Loaders	175	0.14	0.06		
17					60		Dump Trucks (2)	2	**1.0**	HHDT-DSL	NA	0.01	0.00		
18					60		Dump Trucks (2) - Dust		**1.0**	Dust		-	0.00		
19					60		*Demolition Dust*		8.0			-	0.01		
20					60		*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00		
21					60		*Workers - Dust*	10	0.5	Dust		-	0.00		
22					***Subtotal***							***0***	***0***	***0***	
23	3	**Install 24" Octagonal Prestressed**	32	each	15	7									
24		**Concrete Piles**			15		Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10		
25					15		Flat Barge - Main Hoist	1	8.0	Hoist/swing/winch	335	0.12	0.04		
26					15		Flat Barge - Deck Winch	1	8.0	Hoist/swing/winch	120	0.08	0.04		
27					15		Flat Barge - Generator 1	1	8.0	Generator Sets	229	0.14	0.05		
28					15		Flat Barge - Generator 2	1	8.0	Generator Sets	90	0.08	0.04		
29					15		Pile-driving Hammer	1	8.0	Generator Sets	190	0.11	0.04		
30					15		*Workers*	7	0.5	LDA-TOT	NA	0.00	0.00		
31					15		*Workers - Dust*	7	0.5	Dust		-	0.01		
32					***Subtotal***							***1***	***0***	***0***	
33	4	**Construct finger piers**	2	each	20	10									
34					20		Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10		
35					15		Flat Barge - Main Hoist	1	8.0	Hoist/swing/winch	335	0.12	0.04		
36					20		Generator Sets	1	8.0	Generator Sets	500	0.21	0.08		
37					20		Air Compressors	1	8.0	Air Compressors	500	0.18	0.07		
38					20		*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00		
39					20		*Workers - Dust*	10	0.5	Dust		-	0.00		
40					***Subtotal***							***1***	***0***	***0***	
41	5	**Install owner furnished 600 ton travel lift**	1	each	5	7									

					Duration	Number				Offroad	Offroad	Peak Day		
	Item	Description	Quantity		Work Days	of Workers	Major Equipment	Equipment #	Hours/day or Miles/rountrip	Equipment Category	HP *	ROG lbs/hr	PM10 lbs/hr	Diesel PM 9901
1														
42					5		Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10	
43					5		Flat Barge - Main Hoist	1	8.0	Hoist/swing/winch	335	0.12	0.04	
44					5		*Workers*	7	0.5	LDA-TOT	NA	0.00	0.00	
45					5		*Workers - Dust*	7	0.5	Dust		-	0.00	
46					***Subtotal***							***0***	***0***	***0***
47	6			LF	20	10								
48		**F & I steel sheet pile wall (CDF Cell #1)**			20		Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10	
49					20		Flat Barge - Main Hoist	1	8.0	Hoist/swing/winch	335	0.12	0.04	
50					20		Pile-driving Hammer	1	8.0	Generator Sets	190	0.11	0.04	
51					20		*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00	
52					20		*Workers - Dust*	10	0.5	Dust		-	0.00	
53					***Subtotal***							***0***	***0***	***0***
54	7	**Dredge to elevation -22**	3,000	CY	3	13								
55					3		Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	**0.27**	**0.10**	
56					3		Derrick Barge Deck Winch	1	8.0	Hoist/swing/winch	238	0.12	0.04	
57					3		Derrick Barge-Generator 1	1	8.0	Generator Sets	432	0.18	0.07	
58					3		Derrick Barge-Generator 2	1	8.0	Generator Sets	135	0.12	0.05	
59					3		2 ea Flat Barges or Dump Scows	2	8.0	Hoist/swing/winch	335	0.23	0.09	
60					3		Tug Boat - (Main Engine)	1	4.0	NA	702	**0.26**	**0.16**	
61					3		Tug Boat - (Auxiliary Engine)	1	4.0	NA	50	**0.08**	**0.03**	
62					3		*Workers*	13	0.5	LDA-TOT	NA	0.00	0.00	
63					3		*Workers - Dust*	13	0.5	Dust		0.00	0.01	
64					***Subtotal***							***1.27***	***0.56***	***0.36***
65	8	**Stabilize dredge material**	3,000	CY	3	13								
66					3		Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10	
67					3		2 ea Flat Barges or Dump Scows	2	8.0	Hoist/swing/winch	335	0.23	0.09	
68					3		Excavator with Ram-Hoe	1	8.0	Excavators	175	0.14	0.06	
69					2		Cement Trucks	1	**1.0**	HHDT-DSL	NA	0.00	0.00	
70					2		Cement Trucks - Dust	1	**1.0**	Dust	NA	-	0.00	
71					3		Tug Boat - (Main Engine)	1	4.0	NA	702	**0.26**	**0.16**	
72					3		Tug Boat - (Auxiliary Engine)	1	4.0	NA	50	**0.08**	**0.03**	
73					3		*Workers*	13	0.5	LDA-TOT	NA	0.00	0.00	
74					3		*Workers - Dust*	13	0.5	Dust		-	0.01	
75					***Subtotal***							***0.99***	***0.45***	***0.25***
76	9		3,000	CY	3	13								
77		**Dispose of Dredge material into CDF #1**			3		Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10	
78					3		2 ea Flat Barges or Dump Scows	2	8.0	Hoist/swing/winch	335	0.23	0.09	
79					3		Tug Boat - (Main Engine)	1	4.0	NA	702	**0.26**	**0.16**	
80					3		Tug Boat - (Auxiliary Engine)	1	4.0	NA	50	**0.08**	**0.03**	
81					3		*Workers*	13	0.5	LDA-TOT	NA	0.00	0.00	
82					3		*Workers - Dust*	13	0.5	Dust		-	0.01	
83					***Subtotal***							***0.85***	***0.39***	***0.19***
84	10	**Import clean soil to bring upland elevation to street level**	1	LS	15	8								
85					15		Dump Trucks	7	**1.0**	HHDT-DSL	NA	0.02	0.01	
86					15		*Dust*	7	**1.0**	Dust	NA	-	0.01	

					Duration	Number				Offroad	Offroad	Peak Day		
	Item	Description	Quantity		Work Days	of Workers	Major Equipment	Equipment #	Hours/day or Miles/rountrip	Equipment Category	HP *	ROG lbs/hr	PM10 lbs/hr	Diesel PM 9901
1														
87					15		Motor blade grader	1	8.0	Graders	175	0.16	0.07	
88					15		Drum roller	1	8.0	Rollers	175	0.14	0.06	
89					15		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
90					15		*Workers - Dust*	8	0.5	Dust		-	0.00	
91		***Subtotal***										***0***	***0***	***0***
92	11	**Storm Water System w/ oil-water separator**	1	LS	20	8								
93					20		Small loader (Backhoe loader)	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05	
94					20		Trenching Machine	1	8.0	Trenchers	175	0.21	0.10	
95					20		Pick up trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00	
96					20		*Dust*	2	**1.0**	Dust	NA	-	0.00	
97					20		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
98					20		*Workers - Dust*	8	0.5	Dust	NA	-	0.00	
99		***Subtotal***										***0***	***0***	***0***
100	12	**Soil Export and Asphalt Removals**	1	LS	14	10								
101					14		Asphalt breaker	1	8.0	Crushing/Proc. Equipment	175	0.22	0.10	
102					14		Front End (Wheel) Loader	1	8.0	Rubber Tired Loaders	175	0.14	0.06	
103					14		Dump Trucks - Soil	7	**1.0**	HHDT-DSL	NA	**0.02**	**0.01**	
104					14		Dust	7	**1.0**	Dust	NA	**0.00**	**0.01**	
103					14		Dump Trucks - Concrete	4	**1.0**	HHDT-DSL	NA	0.01	0.01	
104					14		Dust	4	**1.0**	Dust	NA	-	0.00	
105					14		Pick up trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00	
106					14		Dust	2	**1.0**	Dust	NA	-	0.00	
107					14		*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00	
108					14		*Workers - Dust*	10	0.5	Dust		-	0.00	
109		***Subtotal***										***0.40***	***0.20***	***0.18***
110	13	**Grading**	1	LS	5	8								
111					5		Blade grader	1	8.0	Graders	175	0.16	0.07	
112					5		Small dozers (2)	2	8.0	Rubber Tired Dozers	175	0.46	0.20	
113					5		Roller (Smooth drum)	1	8.0	Rollers	175	0.14	0.06	
114					5		*Grading Fugitive Dust*	0.2	8.0			-	0.51	
115					5		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
116					5		*Workers - Dust*	8	0.5	Dust		-	0.00	
117		***Subtotal***										***1***	***1***	***0***
118	14	**Paving**	1	LS	5	8								
119					5		Small loader (Backhoe loader)	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05	
120					5		Asphalt paver	1	8.0	Pavers	175	0.20	0.09	
121					5		On-road Asphalt trucks	1	**1.0**	HHDT-DSL	NA	0.00	0.00	
122					5		Dust	1	**1.0**	Dust	NA	-	0.00	
123					5		Pick up trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00	
124					5		Dust	2	**1.0**	Dust	NA	-	0.00	
125					5		*Paving Fugitive VOC*	0.2	8.0			0.07	-	
126					5		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
127					5		*Workers - Dust*	8	0.5	Dust	NA	-	0.00	
128		***Subtotal***										***0***	***0***	***0***
129	15	**Lighting Improvements**	1	LS	15	8								

					Duration	Number				Offroad	Offroad	Peak Day		
	Item	Description	Quantity		Work Days	of Workers	Major Equipment	Equipment #	Hours/day or Miles/rountrip	Equipment Category	HP *	ROG lbs/hr	PM10 lbs/hr	Diesel PM 9901
130					15		Trenching Machine	1	8.0	Trenchers	175	0.21	0.10	
131					15		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
132					15		*Workers - Dust*	8	0.5	Dust	NA	-	0.00	
133		***Subtotal***										***0***	***0***	***0***
134	16	**Service Truck (Small Deliveries, Port-a-Potties, Utilities)**			100	N/A								
135					100		Service trucks (2)	2	**1.0**	HHDT-DSL	NA	0.01	0.00	
136					100		Dust	2	**1.0**	Dust	NA	-	0.00	
137		***Subtotal***										***0.01***	***0.00***	***0.00***
138		**Total**			**323**							**8.85**	**4.36**	**3.17E+00**
139														
140	**Phase 2 Construction**													
141														
142	1	**Demolish finger piers**	2	each	10	10								
143					10		Derrick Barge	1	8.0	Cranes	195	0.09	0.03	
144					10		Flat Barge - Main Hoist	1	8.0	Hoist/swing/winch	335	0.12	0.04	
145					10		Vibratory Hammer	1	8.0	Concrete/Industrial Saws	45	0.10	0.03	
146					10		Track Loader	1	8.0	Rubber Tired Loaders	175	0.14	0.06	
147					10		*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00	
148					10		*Workers - Dust*	10	0.5	Dust		-	0.00	
149		***Subtotal***										***0***	***0***	***0***
150	2	**Dredge to elevation -22**	16,000	CY	10	13								
151					10		Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10	
152					10		Derrick Barge Deck Winch	1	8.0	Hoist/swing/winch	238	0.12	0.04	
153					10		Derrick Barge-Generator 1	1	8.0	Generator Sets	432	0.18	0.07	
154					10		Derrick Barge-Generator 2	1	8.0	Generator Sets	135	0.12	0.05	
155					10		2 ea Flat Barges or Dump Scows	2	8.0	Hoist/swing/winch	335	0.23	0.09	
156					10		Tug Boat - (Main Engine)	1	4.0	NA	702	**0.26**	**0.16**	
157					10		Tug Boat - (Auxiliary Engine)	1	4.0	NA	50	**0.08**	**0.03**	
158					10		*Workers*	13	0.5	LDA-TOT	NA	0.00	0.00	
159					10		*Workers - Dust*	13	0.5	Dust		-	0.01	
160		***Subtotal***										***1.27***	***0.56***	***0.36***
161	3	**Stabilize dredge material**	16,000	CY	10	13								
162					10		Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10	
163					10		2 ea Flat Barges or Dump Scows	2	8.0	Hoist/swing/winch	335	0.23	0.09	
164					10		Excavator with Ram-Hoe	1	8.0	Excavators	175	0.14	0.06	
165					4		Cement Trucks	2	**1.0**	HHDT-DSL	NA	0.01	0.00	
166					4		Dust	2	**1.0**	Dust	NA	-	0.00	
167					10		Tug Boat - (Main Engine)	1	4.0	NA	702	**0.26**	**0.16**	
168					10		Tug Boat - (Auxiliary Engine)	1	4.0	NA	50	**0.08**	**0.03**	
169					10		*Workers*	13	0.5	LDA-TOT	NA	0.00	0.00	
170					10		*Workers - Dust*	13	0.5	Dust		-	0.01	
171		***Subtotal***										***0.99***	***0.46***	***0.26***
172	4		16,000	CY	10	13								
173		**Dispose of Dredge material into CDF #1**			10		Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10	

					Duration	Number				Offroad	Offroad	Peak Day		
	Item	Description	Quantity		Work Days	of Workers	Major Equipment	Equipment #	Hours/day or Miles/rountrip	Equipment Category	HP *	ROG lbs/hr	PM10 lbs/hr	Diesel PM 9901
1														
174					10		2 ea Flat Barges or Dump Scows	2	8.0	Hoist/swing/winch	335	0.23	0.09	
175					10		Tug Boat - (Main Engine)	1	4.0	NA	702	**0.26**	**0.16**	
176					10		Tug Boat - (Auxiliary Engine)	1	4.0	NA	50	**0.08**	**0.03**	
177					10		*Workers*	13	0.5	LDA-TOT	NA	0.00	0.00	
178					10		*Workers - Dust*	13	0.5	Dust		-	0.01	
179		***Subtotal***										***0.85***	***0.39***	***0.19***
180	5			LF	20	10								
181		**F & I steel sheet pile wall (CDF Cell #2)**			20		Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10	
182					20		Flat Barge - Main Hoist	1	8.0	Hoist/swing/winch	335	0.12	0.04	
183					20		Pile Driving Hammer	1	8.0	Generator Sets	190	0.11	0.04	
184					20		*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00	
185					20		*Workers - Dust*	10	0.5	Dust		-	0.00	
186		***Subtotal***										***0***	***0***	***0***
187	6	**Demolish building H2**	1	each	30	8								
188					30		Excavator with Ram-Hoe	1	8.0	Excavators	175	0.14	0.06	
189					30		Front End (Wheel) Loader	1	8.0	Rubber Tired Loaders	175	0.14	0.06	
190					30		Dump Trucks (2)	2	**1.0**	HHDT-DSL	NA	0.01	0.00	
191					30		*Dust*	2	**1.0**	Dust	NA	-	0.00	
192					30		*Demolition Dust*		8.0			-	0.00	
193					30		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
194					30		*Workers - Dust*	8	0.5	Dust	NA	-	0.00	
195		***Subtotal***										***0***	***0***	***0.13***
196	7		1	LS	15	8								
197		**Import clean soil to bring upland elevation to cell elevation and Trench back fill**			15		Dump Trucks - Soil	9	**1.0**	HHDT-DSL	NA	0.02	0.01	
198					15		Dust	9	**1.0**	Dust	NA	-	0.01	
199					15		Motor blade grader	1	8.0	Graders	175	0.16	0.07	
200					15		Drum roller	1	8.0	Rollers	175	0.14	0.06	
201					15		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
202					15		*Workers - Dust*	8	0.5	Dust	NA	-	0.00	
203		***Subtotal***										***0***	***0***	***0.15***
204	8	**Storm Water System w/ oil-water separator**	1	LS	10	8								
205					10		Small Loader (Backhoe Loader)	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05	
206					10		Trenching Machine	1	8.0	Trenchers	175	0.21	0.10	
207					10		Pick up Trucks (2)	2	**1.0**	LDT2-TOT	NA	0.01	0.00	
208					10		Dust	2	**1.0**	Dust	NA	-	0.00	
209					10		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
210					10		*Workers - Dust*	8	0.5	Dust	NA	-	0.00	
211		***Subtotal***										***0***	***0***	***0***
212	9	**Soil Export and Asphalt Removals**		LS	5	10								
213					5		Asphalt Breaker	1	8.0	Concrete/Industrial Saws	120	0.12	0.07	
214					5		Front End (Wheel) Loader	1	8.0	Rubber Tired Loaders	175	0.14	0.06	
215					5		Dump Trucks - Soil	28	**1.0**	HHDT-DSL	NA	0.08	0.05	
216							Dust	28	**1.0**	Dust	NA	-	0.02	
							Dump Trucks - Concrete	4	**1.0**	HHDT-DSL	NA	**0.01**	**0.01**	
							Dust	4	**1.0**	Dust	NA	-	0.00	
217					5		Pick up Trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00	

					Duration	Number				Offroad	Offroad	Peak Day		
	Item	Description	Quantity		Work Days	of Workers	Major Equipment	Equipment #	Hours/day or Miles/rountrip	Equipment Category	HP *	ROG lbs/hr	PM10 lbs/hr	Diesel PM 9901
218							Dust	2	**1.0**	Dust	NA	-	0.00	
219					5		*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00	
220					5		*Workers - Dust*	10	0.5	Dust	NA	-	0.00	
221					***Subtotal***							***0.36***	***0.22***	***0.18***
222	10	**Grading**	1	LS	5	8								
223					5		Blade grader	1	8.0	Graders	175	0.16	0.07	
224					5		Small dozers (2)	2	8.0	Rubber Tired Dozers	175	0.46	0.20	
225					5		Roller (Smooth drum)	1	8.0	Rollers	175	0.14	0.06	
226					5		*Grading Fugitive Dust*	0.14	8.0			-	0.51	
227					5		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
228					5		*Workers - Dust*	8	0.5	Dust		-	0.00	
229					***Subtotal***							***1***	***1***	***0***
230	11	**Paving**	1	LS	5	8								
231					5		Small Loader (Backhoe Loader)	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05	
232					5		Asphalt Paver	1	8.0	Pavers	175	0.20	0.09	
233					5		Onroad Asphalt Trucks	1	**1.0**	HHDT-DSL	NA	0.00	0.00	
234					5		Dust	1	**1.0**	Dust	NA	-	0.00	
235					5		Pick up Trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00	
236					5		Dust	2	**1.0**	Dust	NA	-	0.00	
237					5		*Paving Fugitive VOC*	0.14	8.0			0.07	-	
238					5		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
239					5		*Workers - Dust*	8	0.5	Dust		-	0.00	
240					***Subtotal***							***0***	***0***	***0***
241	12	**Lighting Improvements**	1	LS	15	8								
242					15		Trenching Machine	1	8.0	Trenchers	175	0.21	0.10	
243					15		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
244					15		*Workers - Dust*	8	0.5	Dust	NA	-	0.00	
245					***Subtotal***							***0***	***0***	***0***
246	13	**Service Vehicles and Deliveries**	1	LS	70	N/A								
247					70		Service Trucks (2)	2	**1.0**	HHDT-DSL	NA	0.01	0.00	
248					70			2	**1.0**	Dust	NA	-	0.00	
249					***Subtotal***							***0***	***0***	**0.00**
250		**Total**			**215**							**6.74**	**3.54**	**2.34E+00**
251														
252	**Phase 3 Construction**													
253														
254	1	**Demolish buildings A2 & A3**	2	each	30	10								
255					30		Excavator with Ram-Hoe	1	8.0	Excavators	175	0.14	0.06	
256					30		Front End (Wheel) Loader	1	8.0	Rubber Tired Loaders	175	0.14	0.06	
257					30		Dump Trucks (2)	2	**1.0**	HHDT-DSL	NA	0.01	0.00	
258					30		Dust	2	**1.0**	Dust	NA	-	0.00	
259					30		*Demolition Dust*		8.0			-	0.01	
260					30		*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00	
261					30		*Workers - Dust*	10	0.5	Dust	NA	-	0.00	
262					***Subtotal***							***0***	***0***	**0.13**

					Duration	Number				Offroad	Offroad	Peak Day		
	Item	Description	Quantity		Work Days	of Workers	Major Equipment	Equipment #	Hours/day or Miles/rountrip	Equipment Category	HP *	ROG lbs/hr	PM10 lbs/hr	Diesel PM 9901
263	2		1	LS	10	8							-	
264					10		Dump Trucks	14	**1.0**	HHDT-DSL	NA	0.04	0.02	
265		**Import clean soil to bring upland**			10		Dust	14	**1.0**	Dust	NA	-	0.01	
266		**elevation to street level, trench backfill**			10		Motor Blade Grader	1	8.0	Graders	175	0.16	0.07	
267					10		Drum Roller	1	8.0	Rollers	175	0.14	0.06	
268					10		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
269					10		*Workers - Dust*	8	0.5	Dust	NA	-	0.00	
270					***Subtotal***							***0***	***0***	***0***
271	3	**Storm Water System w/ oil-water**	1	LS	10	8								
272		**separator**			10		Small Loader (Backhoe Loader)	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05	
273					10		Trenching Machine	1	8.0	Trenchers	175	0.21	0.10	
274					10		Pick Up Trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00	
275					10		Dust	2	**1.0**	Dust	NA	-	0.00	
276					10		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
277					10		*Workers - Dust*	8	0.5	Dust	NA	-	0.00	
278					***Subtotal***							***0***	***0***	***0***
279	4	**Soil Export and Asphalt Removals**		LS	5	10								
280					5		Asphalt Breaker	1	8.0	Concrete/Industrial Saws	120	0.12	0.07	
281					5		Front End (Wheel) Loader	1	8.0	Rubber Tired Loaders	175	0.14	0.06	
282					5		Dump Trucks - Soil	28	**1.0**	HHDT-DSL	NA	**0.08**	**0.05**	
283					5		Dust	28	**1.0**	Dust	NA	**0.00**	**0.02**	
					5		Dump Trucks - Concrete	9	**1.0**	HHDT-DSL	NA	0.02	0.01	
					5		Dust	9	**1.0**	Dust	NA	-	0.01	
284					5		Pick Up Trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00	
285					5		Dust	2	**1.0**	Dust	NA	-	0.00	
286					5		*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00	
287					5		*Workers - Dust*	10	0.5	Dust	NA	-	0.00	
288					***Subtotal***							***0.37***	***0.23***	***0.18***
289	5	**Grading**	1	LS	5	8								
290					5		Blade Grader	1	8.0	Graders	175	0.16	0.07	
291					5		Small Dozers (2)	2	8.0	Rubber Tired Dozers	175	0.46	0.20	
292					5		Roller (Smooth Drum)	1	8.0	Rollers	175	0.14	0.06	
293					5		*Grading Fugitive Dust*	0.12	8.0			-	0.51	
294					5		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
295					5		*Workers - Dust*	8	0.5	Dust	NA	-	0.00	
296					***Subtotal***							***1***	***1***	***0***
297	6	**Paving**	1	LS	5	8								
298					5		Small Loader (Backhoe Loader)	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05	
299					5		Asphalt Paver	1	8.0	Pavers	175	0.20	0.09	
300					5		Onroad Asphalt Trucks	1	**1.0**	HHDT-DSL	NA	0.00	0.00	
301					5		Dust	1	**1.0**	Dust	NA	-	0.00	
302					5		Pick Up Trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00	
303					5		Dust	2	**1.0**	Dust	NA	-	0.00	
304					5		*Paving Fugitive VOC*	0.12	8.0			0.07	-	
305					5		*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00	
306					5		*Workers - Dust*	8	0.5	Dust	NA	-	0.00	

					Duration	Number					Offroad	Offroad	Peak Day		
	Item	Description	Quantity		Work	of	Major Equipment	Equipment	Hours/day or	Equipment	HP	ROG	PM10	Diesel PM
1					Days	Workers		#	Miles/rountrip	Category	*	lbs/hr	lbs/hr	9901
307					***Subtotal***							***0***	***0***	***0***
308	7	**Lighting Improvements**	1	LS	15	5							-	
309					15		Trenching Machine	1	8.0	Trenchers	175	0.21	0.10	
310					15		*Workers*	5	0.5	LDA-TOT	NA	0.00	0.00	
311					15		*Workers - Dust*	5	0.5	Dust	NA	-	0.00	
312					***Subtotal***							***0***	***0***	***0***
313	8	**Existing Utility Protection**	1	LS	5	5							-	
314					5		Trenching Machine	**1**	8.0	Trenchers	175	0.21	0.10	
315					5		*Workers*	5	0.5	LDA-TOT	NA	0.00	0.00	
316					5		*Workers - Dust*	5	0.5	Dust	NA	-	0.00	
317					***Subtotal***							***0***	***0***	***0***
318	9	**Construct Buildings to replace buildings A2, A3, C1, & D**	1	LS	180	15	Compressor (3)	3	8.0	Air Compressors	120	0.29	0.16	
319					20		Flatbed Truck (20 days)	1	**1.0**	HHDT-DSL	NA	0.00	0.00	
320					20		Dust	1	**1.0**	Dust	NA	-	0.00	
321					9		Cement Trucks	2	**1.0**	HHDT-DSL	NA	0.01	0.00	
322					9		Dust	2	**1.0**	Dust	NA	-	0.00	
323					90		Boom Truck (90 days)	1	8.0	Off-Highway Trucks	500	0.24	0.08	
324					180		Small Loader	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05	
325					180		Small Crane	1	8.0	Cranes	175	0.11	0.05	
326					180		Large Fork Lift	1	8.0	Forklifts	500	0.08	0.03	
327					180		*Workers*	15	0.5	LDA-TOT	NA	0.00	0.00	
328					180		*Workers - Dust*	15	0.5	Dust	NA	-	0.01	
329					***Subtotal***							***1***	***0***	***0***
330	10	**Service Vehicles and Deliveries**	1	LS	70	N/A								
331					70		Service Trucks (2)	2	**1.0**	HHDT-DSL	NA	0.01	0.00	
332					70		Dust	2	**1.0**	Dust	NA	-	0.00	
333					***Subtotal***							***0***	***0***	***0***
334		**Total**			**335**							**3.77**	**2.28**	**1.66**

Offroad																				
Equipment	ARSENIC	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	1,30E-07	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehy
Category	7440382	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
Cranes	1.67E-07	6.01E-07	1.33E-06	1.15E-05	2.00E-08	8.34E-07	1.40E-06	1.33E-06	1.00E-06	6.34E-07	3.34E-07	4.43E-04	5.82E-04	9.68E-07	1.73E-04	6.71E-03	1.83E-03	2.78E-04	1.34E-02
Hoist/swing/winch	2.22E-07	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
Crushing/Proc. Equipment	5.11E-07	1.84E-06	4.09E-06	3.52E-05	6.13E-08	2.55E-06	4.29E-06	4.09E-06	3.07E-06	1.94E-06	1.02E-06	1.36E-03	1.78E-03	2.96E-06	4.24E-04	1.64E-02	4.47E-03	6.81E-04	3.28E-02
Rubber Tired Loaders	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.64E-04	1.02E-02	2.78E-03	4.24E-04	2.05E-02
HHDT-DSL	8.27E-09	2.98E-08	6.61E-08	5.69E-07	9.92E-10	4.13E-08	6.94E-08	6.61E-08	4.96E-08	3.14E-08	1.65E-08	2.19E-05	2.88E-05	4.79E-08	5.27E-06	2.04E-04	5.55E-05	8.47E-06	4.08E-04
Dust	1.06E-08	9.79E-09	2.45E-09	4.35E-07	6.93E-10	1.21E-07	1.01E-07	6.53E-07	7.34E-09	9.79E-09	1.63E-09	2.55E-06	2.20E-06	5.79E-08	-	-	-	-	-
LDA-TOT	-	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	5.30E-08	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	1.29E-06	**4.65E-06**	**9.80E-06**	**1.13E-04**	**1.60E-07**	**7.03E-06**	**1.09E-05**	**1.39E-05**	**7.39E-06**	**4.89E-06**	**2.46E-06**	**3.26E-03**	**4.45E-03**	**7.45E-06**	**1.11E-03**	**4.22E-02**	**1.16E-02**	**1.78E-03**	**8.45E-02**
Excavators	3.13E-07	1.13E-06	2.50E-06	2.15E-05	3.76E-08	1.56E-06	2.63E-06	2.50E-06	1.88E-06	1.19E-06	6.26E-07	8.31E-04	1.09E-03	1.82E-06	2.61E-04	1.01E-02	2.75E-03	4.19E-04	2.02E-02
Rubber Tired Loaders	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.64E-04	1.02E-02	2.78E-03	4.24E-04	2.05E-02
HHDT-DSL	1.65E-08	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	1.20E-07	1.75E-07	1.95E-07	2.13E-05	6.55E-08	6.90E-07	3.51E-06	5.75E-06	1.00E-07	3.80E-07	1.50E-08	1.86E-05	2.95E-05	1.66E-06	-	-	-	-	-
LDA-TOT	-	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	5.30E-08	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	7.87E-07	**2.70E-06**	**5.36E-06**	**9.26E-05**	**1.54E-07**	**4.35E-06**	**9.13E-06**	**1.24E-05**	**3.99E-06**	**3.04E-06**	**1.31E-06**	**1.74E-03**	**2.45E-03**	**5.51E-06**	**5.53E-04**	**2.07E-02**	**5.72E-03**	**8.93E-04**	**4.15E-02**
Hoist/swing/winch	5.04E-07	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	2.22E-07	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
Hoist/swing/winch	1.77E-07	6.38E-07	1.42E-06	1.22E-05	2.13E-08	8.87E-07	1.49E-06	1.42E-06	1.06E-06	6.74E-07	3.55E-07	4.71E-04	6.18E-04	1.03E-06	1.48E-04	5.73E-03	1.56E-03	2.38E-04	1.15E-02
Generator Sets	2.55E-07	9.19E-07	2.04E-06	1.76E-05	3.06E-08	1.28E-06	2.14E-06	2.04E-06	1.53E-06	9.70E-07	5.11E-07	6.77E-04	8.90E-04	1.48E-06	2.58E-04	9.98E-03	2.72E-03	4.14E-04	2.00E-02
Generator Sets	1.78E-07	6.42E-07	1.43E-06	1.23E-05	2.14E-08	8.91E-07	1.50E-06	1.43E-06	1.07E-06	6.77E-07	3.56E-07	4.73E-04	6.21E-04	1.03E-06	1.53E-04	5.94E-03	1.62E-03	2.46E-04	1.19E-02
Generator Sets	2.12E-07	7.62E-07	1.69E-06	1.46E-05	2.54E-08	1.06E-06	1.78E-06	1.69E-06	1.27E-06	8.05E-07	4.24E-07	5.62E-04	7.38E-04	1.23E-06	2.14E-04	8.28E-03	2.25E-03	3.43E-04	1.66E-02
LDA-TOT	-	1.30E-07	-	1.82E-05	6.51E-09	1.30E-07	-	1.30E-07	-	1.30E-07	-	-	1.17E-04	-	1.19E-05	6.07E-06	5.37E-05	2.28E-05	3.43E-05
Dust	7.42E-08	6.85E-08	1.71E-08	3.04E-06	4.85E-09	8.45E-07	7.08E-07	4.57E-06	5.14E-08	6.85E-08	1.14E-08	1.79E-05	1.54E-05	4.05E-07	-	-	-	-	-
	1.62E-06	**5.77E-06**	**1.24E-05**	**1.28E-04**	**1.97E-07**	**8.72E-06**	**1.37E-05**	**1.71E-05**	**9.34E-06**	**6.08E-06**	**3.11E-06**	**4.13E-03**	**5.53E-03**	**9.38E-06**	**1.51E-03**	**5.81E-02**	**1.59E-02**	**2.43E-03**	**1.16E-01**
Hoist/swing/winch	5.04E-07	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	2.22E-07	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
Generator Sets	4.15E-07	1.49E-06	3.32E-06	2.85E-05	4.98E-08	2.07E-06	3.48E-06	3.32E-06	2.49E-06	1.58E-06	8.29E-07	1.10E-03	1.45E-03	2.40E-06	4.00E-04	1.55E-02	4.22E-03	6.43E-04	3.10E-02
Air Compressors	3.41E-07	1.23E-06	2.73E-06	2.34E-05	4.09E-08	1.70E-06	2.86E-06	2.73E-06	2.04E-06	1.29E-06	6.81E-07	9.04E-04	1.19E-03	1.98E-06	3.44E-04	1.33E-02	3.62E-03	5.52E-04	2.66E-02
LDA-TOT	-	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	5.30E-08	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	1.48E-06	**5.52E-06**	**1.18E-05**	**1.28E-04**	**1.87E-07**	**7.59E-06**	**1.24E-05**	**1.20E-05**	**8.88E-06**	**5.81E-06**	**2.96E-06**	**3.93E-03**	**5.33E-03**	**8.59E-06**	**1.49E-03**	**5.70E-02**	**1.56E-02**	**2.40E-03**	**1.14E-01**

Offroad																			
Equipment	ARSENIC	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	1,30E-07	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehy
Category	7440382	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
Hoist/swing/winch	5.04E-07	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	2.22E-07	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
LDA-TOT	-	1.30E-07	-	1.82E-05	6.51E-09	1.30E-07	-	1.30E-07	-	1.30E-07	-	-	1.17E-04	-	1.19E-05	6.07E-06	5.37E-05	2.28E-05	3.43E-05
Dust	3.71E-08	3.43E-08	8.57E-09	1.52E-06	2.43E-09	4.23E-07	3.54E-07	2.28E-06	2.57E-08	3.43E-08	5.71E-09	8.94E-06	7.69E-06	2.03E-07	-	-	-	-	-
	7.62E-07	**2.78E-06**	**5.81E-06**	**6.97E-05**	**9.60E-08**	**4.18E-06**	**6.45E-06**	**8.22E-06**	**4.38E-06**	**2.92E-06**	**1.46E-06**	**1.93E-03**	**2.65E-03**	**4.41E-06**	**7.41E-04**	**2.82E-02**	**7.73E-03**	**1.19E-03**	**5.65E-02**
Hoist/swing/winch	5.04E-07	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	2.22E-07	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
Generator Sets	2.12E-07	7.62E-07	1.69E-06	1.46E-05	2.54E-08	1.06E-06	1.78E-06	1.69E-06	1.27E-06	8.05E-07	4.24E-07	5.62E-04	7.38E-04	1.23E-06	2.14E-04	8.28E-03	2.25E-03	3.43E-04	1.66E-02
LDA-TOT	-	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	5.30E-08	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	9.90E-07	**3.61E-06**	**7.51E-06**	**9.27E-05**	**1.25E-07**	**5.48E-06**	**8.38E-06**	**1.09E-05**	**5.66E-06**	**3.80E-06**	**1.88E-06**	**2.50E-03**	**3.45E-03**	**5.72E-06**	**9.60E-04**	**3.65E-02**	**1.00E-02**	**1.55E-03**	**7.30E-02**
Hoist/swing/winch	**5.04E-07**	**1.81E-06**	**4.03E-06**	**3.47E-05**	**6.04E-08**	**2.52E-06**	**4.23E-06**	**4.03E-06**	**3.02E-06**	**1.91E-06**	**1.01E-06**	**1.34E-03**	**1.76E-03**	**2.92E-06**	**5.06E-04**	**1.96E-02**	**5.33E-03**	**8.12E-04**	**3.92E-02**
Hoist/swing/winch	2.15E-07	7.75E-07	1.72E-06	1.48E-05	2.58E-08	1.08E-06	1.81E-06	1.72E-06	1.29E-06	8.18E-07	4.31E-07	5.72E-04	7.51E-04	1.25E-06	2.20E-04	8.53E-03	2.32E-03	3.54E-04	1.71E-02
Generator Sets	3.58E-07	1.29E-06	2.87E-06	2.46E-05	4.30E-08	1.79E-06	3.01E-06	2.87E-06	2.15E-06	1.36E-06	7.16E-07	9.51E-04	1.25E-03	2.08E-06	3.46E-04	1.34E-02	3.64E-03	5.55E-04	2.68E-02
Generator Sets	2.67E-07	9.62E-07	2.14E-06	1.84E-05	3.21E-08	1.34E-06	2.25E-06	2.14E-06	1.60E-06	1.02E-06	5.35E-07	7.09E-04	9.32E-04	1.55E-06	2.30E-04	8.91E-03	2.42E-03	3.69E-04	1.78E-02
Hoist/swing/winch	4.43E-07	1.60E-06	3.55E-06	3.05E-05	5.32E-08	2.22E-06	3.72E-06	3.55E-06	2.66E-06	1.68E-06	8.87E-07	1.18E-03	1.55E-03	2.57E-06	4.46E-04	1.73E-02	4.70E-03	7.16E-04	3.45E-02
NA	**8.20E-07**	**2.95E-06**	**6.56E-06**	**5.64E-05**	**9.84E-08**	**4.10E-06**	**6.89E-06**	**6.56E-06**	**4.92E-06**	**3.12E-06**	**1.64E-06**	**2.18E-03**	**2.86E-03**	**4.76E-06**	**-**	**-**	**5.68E-03**	**1.84E-04**	**2.63E-04**
NA	**1.47E-07**	**5.29E-07**	**1.18E-06**	**1.01E-05**	**1.76E-08**	**7.34E-07**	**1.23E-06**	**1.18E-06**	**8.81E-07**	**5.58E-07**	**2.94E-07**	**3.90E-04**	**5.12E-04**	**8.52E-07**	**-**	**-**	**1.70E-03**	**5.50E-05**	**7.86E-05**
LDA-TOT	-	2.42E-07	-	3.39E-05	1.21E-08	2.42E-07	-	2.42E-07	-	2.42E-07	-	-	2.18E-04	-	2.20E-05	1.13E-05	9.98E-05	4.23E-05	6.37E-05
Dust	6.89E-08	6.36E-08	1.59E-08	2.83E-06	4.51E-09	7.85E-07	6.57E-07	4.24E-06	4.77E-08	6.36E-08	1.06E-08	1.66E-05	1.43E-05	3.76E-07	-	-	-	-	-
	2.82E-06	**1.02E-05**	**2.21E-05**	**2.26E-04**	**3.47E-07**	**1.48E-05**	**2.38E-05**	**2.65E-05**	**1.66E-05**	**1.08E-05**	**5.52E-06**	**7.33E-03**	**9.84E-03**	**1.64E-05**	**1.77E-03**	**6.77E-02**	**2.59E-02**	**3.09E-03**	**1.36E-01**
Hoist/swing/winch	5.04E-07	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	4.43E-07	1.60E-06	3.55E-06	3.05E-05	5.32E-08	2.22E-06	3.72E-06	3.55E-06	2.66E-06	1.68E-06	8.87E-07	1.18E-03	1.55E-03	2.57E-06	4.46E-04	1.73E-02	4.70E-03	7.16E-04	3.45E-02
Excavators	3.13E-07	1.13E-06	2.50E-06	2.15E-05	3.76E-08	1.56E-06	2.63E-06	2.50E-06	1.88E-06	1.19E-06	6.26E-07	8.31E-04	1.09E-03	1.82E-06	2.61E-04	1.01E-02	2.75E-03	4.19E-04	2.02E-02
HHDT-DSL	8.27E-09	2.98E-08	6.61E-08	5.69E-07	9.92E-10	4.13E-08	6.94E-08	6.61E-08	4.96E-08	3.14E-08	1.65E-08	2.19E-05	2.88E-05	4.79E-08	5.27E-06	2.04E-04	5.55E-05	8.47E-06	4.08E-04
Dust	1.06E-08	9.79E-09	2.45E-09	4.35E-07	6.93E-10	1.21E-07	1.01E-07	6.53E-07	7.34E-09	9.79E-09	1.63E-09	2.55E-06	2.20E-06	5.79E-08	-	-	-	-	-
NA	**8.20E-07**	**2.95E-06**	**6.56E-06**	**5.64E-05**	**9.84E-08**	**4.10E-06**	**6.89E-06**	**6.56E-06**	**4.92E-06**	**3.12E-06**	**1.64E-06**	**2.18E-03**	**2.86E-03**	**4.76E-06**	**-**	**-**	**5.68E-03**	**1.84E-04**	**2.63E-04**
NA	**1.47E-07**	**5.29E-07**	**1.18E-06**	**1.01E-05**	**1.76E-08**	**7.34E-07**	**1.23E-06**	**1.18E-06**	**8.81E-07**	**5.58E-07**	**2.94E-07**	**3.90E-04**	**5.12E-04**	**8.52E-07**	**-**	**-**	**1.70E-03**	**5.50E-05**	**7.86E-05**
LDA-TOT	-	2.42E-07	-	3.39E-05	1.21E-08	2.42E-07	-	2.42E-07	-	2.42E-07	-	-	2.18E-04	-	2.20E-05	1.13E-05	9.98E-05	4.23E-05	6.37E-05
Dust	6.89E-08	6.36E-08	1.59E-08	2.83E-06	4.51E-09	7.85E-07	6.57E-07	4.24E-06	4.77E-08	6.36E-08	1.06E-08	1.66E-05	1.43E-05	3.76E-07	-	-	-	-	-
	2.31E-06	**8.36E-06**	**1.79E-05**	**1.91E-04**	**2.86E-07**	**1.23E-05**	**1.95E-05**	**2.30E-05**	**1.35E-05**	**8.81E-06**	**4.48E-06**	**5.95E-03**	**8.03E-03**	**1.34E-05**	**1.24E-03**	**4.71E-02**	**2.03E-02**	**2.24E-03**	**9.47E-02**
Hoist/swing/winch	5.04E-07	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	4.43E-07	1.60E-06	3.55E-06	3.05E-05	5.32E-08	2.22E-06	3.72E-06	3.55E-06	2.66E-06	1.68E-06	8.87E-07	1.18E-03	1.55E-03	2.57E-06	4.46E-04	1.73E-02	4.70E-03	7.16E-04	3.45E-02
NA	**8.20E-07**	**2.95E-06**	**6.56E-06**	**5.64E-05**	**9.84E-08**	**4.10E-06**	**6.89E-06**	**6.56E-06**	**4.92E-06**	**3.12E-06**	**1.64E-06**	**2.18E-03**	**2.86E-03**	**4.76E-06**	**-**	**-**	**5.68E-03**	**1.84E-04**	**2.63E-04**
NA	**1.47E-07**	**5.29E-07**	**1.18E-06**	**1.01E-05**	**1.76E-08**	**7.34E-07**	**1.23E-06**	**1.18E-06**	**8.81E-07**	**5.58E-07**	**2.94E-07**	**3.90E-04**	**5.12E-04**	**8.52E-07**	**-**	**-**	**1.70E-03**	**5.50E-05**	**7.86E-05**
LDA-TOT	-	2.42E-07	-	3.39E-05	1.21E-08	2.42E-07	-	2.42E-07	-	2.42E-07	-	-	2.18E-04	-	2.20E-05	1.13E-05	9.98E-05	4.23E-05	6.37E-05
Dust	6.89E-08	6.36E-08	1.59E-08	2.83E-06	4.51E-09	7.85E-07	6.57E-07	4.24E-06	4.77E-08	6.36E-08	1.06E-08	1.66E-05	1.43E-05	3.76E-07	-	-	-	-	-
	1.98E-06	**7.20E-06**	**1.53E-05**	**1.68E-04**	**2.46E-07**	**1.06E-05**	**1.67E-05**	**1.98E-05**	**1.15E-05**	**7.58E-06**	**3.84E-06**	**5.10E-03**	**6.90E-03**	**1.15E-05**	**9.74E-04**	**3.68E-02**	**1.75E-02**	**1.81E-03**	**7.41E-02**
HHDT-DSL	5.79E-08	2.08E-07	4.63E-07	3.98E-06	6.94E-09	2.89E-07	4.86E-07	4.63E-07	3.47E-07	2.20E-07	1.16E-07	1.54E-04	2.02E-04	3.36E-07	3.69E-05	1.43E-03	3.89E-04	5.93E-05	2.86E-03
Dust	7.42E-08	6.85E-08	1.71E-08	3.04E-06	4.85E-09	8.45E-07	7.08E-07	4.57E-06	5.14E-08	6.85E-08	1.14E-08	1.79E-05	1.54E-05	4.05E-07	-	-	-	-	-

Offroad																				
Equipment	ARSENIC	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	1,30E-07	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehy
Category	7440382	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
Graders	3.72E-07	1.34E-06	2.98E-06	2.56E-05	4.47E-08	1.86E-06	3.13E-06	2.98E-06	2.23E-06	1.41E-06	7.45E-07	9.88E-04	1.30E-03	2.16E-06	3.13E-04	1.21E-02	3.29E-03	5.02E-04	2.42E-02
Rollers	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.65E-04	1.03E-02	2.79E-03	4.26E-04	2.05E-02
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	8.63E-07	**2.94E-06**	**6.00E-06**	**7.70E-05**	**1.05E-07**	**5.21E-06**	**7.38E-06**	**1.33E-05**	**4.56E-06**	**3.09E-06**	**1.51E-06**	**2.01E-03**	**2.76E-03**	**4.96E-06**	**6.28E-04**	**2.38E-02**	**6.54E-03**	**1.01E-03**	**4.77E-02**
Tractors/Loaders/Backhoes	2.65E-07	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Trenchers	4.77E-07	1.72E-06	3.81E-06	3.28E-05	5.72E-08	2.38E-06	4.00E-06	3.81E-06	2.86E-06	1.81E-06	9.53E-07	1.26E-03	1.66E-03	2.76E-06	4.08E-04	1.58E-02	4.30E-03	6.55E-04	3.16E-02
LDT2-TOT	-	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	8.05E-07	**2.99E-06**	**5.95E-06**	**9.02E-05**	**1.06E-07**	**4.69E-06**	**6.83E-06**	**1.01E-05**	**4.49E-06**	**3.14E-06**	**1.49E-06**	**1.98E-03**	**2.83E-03**	**4.65E-06**	**6.45E-04**	**2.41E-02**	**6.67E-03**	**1.04E-03**	**4.84E-02**
Crushing/Proc. Equipment	5.11E-07	1.84E-06	4.09E-06	3.52E-05	6.13E-08	2.55E-06	4.29E-06	4.09E-06	3.07E-06	1.94E-06	1.02E-06	1.36E-03	1.78E-03	2.96E-06	4.24E-04	1.64E-02	4.47E-03	6.81E-04	3.28E-02
Rubber Tired Loaders	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.64E-04	1.02E-02	2.78E-03	4.24E-04	2.05E-02
HHDT-DSL	**5.79E-08**	**2.08E-07**	**4.63E-07**	**3.98E-06**	**6.94E-09**	**2.89E-07**	**4.86E-07**	**4.63E-07**	**3.47E-07**	**2.20E-07**	**1.16E-07**	**1.54E-04**	**2.02E-04**	**3.36E-07**	**3.69E-05**	**1.43E-03**	**3.89E-04**	**5.93E-05**	**2.86E-03**
Dust	**7.42E-08**	**6.85E-08**	**1.71E-08**	**3.04E-06**	**4.85E-09**	**8.45E-07**	**7.08E-07**	**4.57E-06**	**5.14E-08**	**6.85E-08**	**1.14E-08**	**1.79E-05**	**1.54E-05**	**4.05E-07**	**-**	**-**	**-**	**-**	**-**
HHDT-DSL	3.31E-08	1.19E-07	2.65E-07	2.28E-06	3.97E-09	1.65E-07	2.78E-07	2.65E-07	1.98E-07	1.26E-07	6.61E-08	8.78E-05	1.15E-04	1.92E-07	2.11E-05	8.16E-04	2.22E-04	3.39E-05	1.63E-03
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
LDT2-TOT	-	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
LDA-TOT	-	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	5.30E-08	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	1.11E-06	**3.78E-06**	**7.39E-06**	**1.13E-04**	**1.38E-07**	**7.06E-06**	**9.53E-06**	**1.94E-05**	**5.64E-06**	**3.96E-06**	**1.87E-06**	**2.48E-03**	**3.51E-03**	**6.37E-06**	**7.71E-04**	**2.89E-02**	**7.97E-03**	**1.25E-03**	**5.79E-02**
Graders	3.72E-07	1.34E-06	2.98E-06	2.56E-05	4.47E-08	1.86E-06	3.13E-06	2.98E-06	2.23E-06	1.41E-06	7.45E-07	9.88E-04	1.30E-03	2.16E-06	3.13E-04	1.21E-02	3.29E-03	5.02E-04	2.42E-02
Rubber Tired Dozers	9.97E-07	3.59E-06	7.97E-06	6.86E-05	1.20E-07	4.98E-06	8.37E-06	7.97E-06	5.98E-06	3.79E-06	1.99E-06	2.64E-03	3.47E-03	5.78E-06	8.74E-04	3.38E-02	9.21E-03	1.40E-03	6.77E-02
Rollers	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.65E-04	1.03E-02	2.79E-03	4.26E-04	2.05E-02
	1.22E-05	1.78E-05	1.98E-05	2.16E-03	6.65E-06	7.01E-05	3.56E-04	5.84E-04	1.02E-05	3.86E-05	1.52E-06	1.89E-03	2.99E-03	1.68E-04	-	-	-	-	-
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	1.39E-05	**2.40E-05**	**3.33E-05**	**2.30E-03**	**6.86E-06**	**7.91E-05**	**3.70E-04**	**6.00E-04**	**2.03E-05**	**4.52E-05**	**4.90E-06**	**6.37E-03**	**9.01E-03**	**1.78E-04**	**1.47E-03**	**5.62E-02**	**1.54E-02**	**2.36E-03**	**1.12E-01**
Tractors/Loaders/Backhoes	2.65E-07	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Pavers	4.34E-07	1.56E-06	3.47E-06	2.99E-05	5.21E-08	2.17E-06	3.65E-06	3.47E-06	2.60E-06	1.65E-06	8.68E-07	1.15E-03	1.51E-03	2.52E-06	3.71E-04	1.44E-02	3.91E-03	5.96E-04	2.87E-02
HHDT-DSL	8.27E-09	2.98E-08	6.61E-08	5.69E-07	9.92E-10	4.13E-08	6.94E-08	6.61E-08	4.96E-08	3.14E-08	1.65E-08	2.19E-05	2.88E-05	4.79E-08	5.27E-06	2.04E-04	5.55E-05	8.47E-06	4.08E-04
Dust	1.06E-08	9.79E-09	2.45E-09	4.35E-07	6.93E-10	1.21E-07	1.01E-07	6.53E-07	7.34E-09	9.79E-09	1.63E-09	2.55E-06	2.20E-06	5.79E-08	-	-	-	-	-
LDT2-TOT	-	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.52E-03	-
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	7.81E-07	**2.88E-06**	**5.67E-06**	**8.83E-05**	**1.03E-07**	**4.64E-06**	**6.65E-06**	**1.05E-05**	**4.29E-06**	**3.02E-06**	**1.43E-06**	**1.89E-03**	**2.72E-03**	**4.51E-06**	**6.13E-04**	**2.29E-02**	**6.33E-03**	**2.51E-03**	**4.59E-02**

Offroad																			
Equipment	ARSENIC	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	1,30E-07	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehy
Category	7440382	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
Trenchers	4.77E-07	1.72E-06	3.81E-06	3.28E-05	5.72E-08	2.38E-06	4.00E-06	3.81E-06	2.86E-06	1.81E-06	9.53E-07	1.26E-03	1.66E-03	2.76E-06	4.08E-04	1.58E-02	4.30E-03	6.55E-04	3.16E-02
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	5.19E-07	**1.90E-06**	**3.82E-06**	**5.54E-05**	**6.74E-08**	**3.01E-06**	**4.41E-06**	**6.57E-06**	**2.89E-06**	**2.00E-06**	**9.60E-07**	**1.27E-03**	**1.80E-03**	**3.00E-06**	**4.22E-04**	**1.58E-02**	**4.36E-03**	**6.81E-04**	**3.17E-02**
HHDT-DSL	1.65E-08	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	3.77E-08	**7.91E-08**	**1.37E-07**	**2.01E-06**	**3.37E-09**	**3.24E-07**	**3.41E-07**	**1.44E-06**	**1.14E-07**	**8.24E-08**	**3.63E-08**	**4.90E-05**	**6.20E-05**	**2.12E-07**	**1.05E-05**	**4.08E-04**	**1.11E-04**	**1.69E-05**	**8.17E-04**
	3.21E-05	**8.94E-05**	**1.70E-04**	**3.93E-03**	**9.18E-06**	**1.79E-04**	**5.27E-04**	**8.05E-04**	**1.23E-04**	**1.14E-04**	**3.92E-05**	**5.19E-02**	**7.13E-02**	**2.84E-04**	**1.49E-02**	**5.67E-01**	**1.77E-01**	**2.62E-02**	**1.14E+00**
Cranes	1.67E-07	6.01E-07	1.33E-06	1.15E-05	2.00E-08	8.34E-07	1.40E-06	1.33E-06	1.00E-06	6.34E-07	3.34E-07	4.43E-04	5.82E-04	9.68E-07	1.73E-04	6.71E-03	1.83E-03	2.78E-04	1.34E-02
Hoist/swing/winch	2.22E-07	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
Concrete/Industrial Saws	1.28E-07	4.60E-07	1.02E-06	8.79E-06	1.53E-08	6.39E-07	1.07E-06	1.02E-06	7.67E-07	4.86E-07	2.56E-07	3.39E-04	4.45E-04	7.41E-07	1.95E-04	7.53E-03	2.05E-03	3.12E-04	1.51E-02
Rubber Tired Loaders	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.64E-04	1.02E-02	2.78E-03	4.24E-04	2.05E-02
LDA-TOT	-	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	5.30E-08	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	8.85E-07	**3.23E-06**	**6.67E-06**	**8.55E-05**	**1.13E-07**	**4.95E-06**	**7.50E-06**	**1.01E-05**	**5.03E-06**	**3.40E-06**	**1.67E-06**	**2.22E-03**	**3.08E-03**	**5.12E-06**	**8.72E-04**	**3.31E-02**	**9.08E-03**	**1.41E-03**	**6.63E-02**
Hoist/swing/winch	5.04E-07	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	2.15E-07	7.75E-07	1.72E-06	1.48E-05	2.58E-08	1.08E-06	1.81E-06	1.72E-06	1.29E-06	8.18E-07	4.31E-07	5.72E-04	7.51E-04	1.25E-06	2.20E-04	8.53E-03	2.32E-03	3.54E-04	1.71E-02
Generator Sets	3.58E-07	1.29E-06	2.87E-06	2.46E-05	4.30E-08	1.79E-06	3.01E-06	2.87E-06	2.15E-06	1.36E-06	7.16E-07	9.51E-04	1.25E-03	2.08E-06	3.46E-04	1.34E-02	3.64E-03	5.55E-04	2.68E-02
Generator Sets	2.67E-07	9.62E-07	2.14E-06	1.84E-05	3.21E-08	1.34E-06	2.25E-06	2.14E-06	1.60E-06	1.02E-06	5.35E-07	7.09E-04	9.32E-04	1.55E-06	2.30E-04	8.91E-03	2.42E-03	3.69E-04	1.78E-02
Hoist/swing/winch	4.43E-07	1.60E-06	3.55E-06	3.05E-05	5.32E-08	2.22E-06	3.72E-06	3.55E-06	2.66E-06	1.68E-06	8.87E-07	1.18E-03	1.55E-03	2.57E-06	4.46E-04	1.73E-02	4.70E-03	7.16E-04	3.45E-02
NA	**8.20E-07**	**2.95E-06**	**6.56E-06**	**5.64E-05**	**9.84E-08**	**4.10E-06**	**6.89E-06**	**6.56E-06**	**4.92E-06**	**3.12E-06**	**1.64E-06**	**2.18E-03**	**2.86E-03**	**4.76E-06**	**-**	**-**	**5.68E-03**	**1.84E-04**	**2.63E-04**
NA	**1.47E-07**	**5.29E-07**	**1.18E-06**	**1.01E-05**	**1.76E-08**	**7.34E-07**	**1.23E-06**	**1.18E-06**	**8.81E-07**	**5.58E-07**	**2.94E-07**	**3.90E-04**	**5.12E-04**	**8.52E-07**	**-**	**-**	**1.70E-03**	**5.50E-05**	**7.86E-05**
LDA-TOT	-	2.42E-07	-	3.39E-05	1.21E-08	2.42E-07	-	2.42E-07	-	2.42E-07	-	-	2.18E-04	-	2.20E-05	1.13E-05	9.98E-05	4.23E-05	6.37E-05
Dust	6.89E-08	6.36E-08	1.59E-08	2.83E-06	4.51E-09	7.85E-07	6.57E-07	4.24E-06	4.77E-08	6.36E-08	1.06E-08	1.66E-05	1.43E-05	3.76E-07	-	-	-	-	-
	2.82E-06	**1.02E-05**	**2.21E-05**	**2.26E-04**	**3.47E-07**	**1.48E-05**	**2.38E-05**	**2.65E-05**	**1.66E-05**	**1.08E-05**	**5.52E-06**	**7.33E-03**	**9.84E-03**	**1.64E-05**	**1.77E-03**	**6.77E-02**	**2.59E-02**	**3.09E-03**	**1.36E-01**
Hoist/swing/winch	5.04E-07	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	4.43E-07	1.60E-06	3.55E-06	3.05E-05	5.32E-08	2.22E-06	3.72E-06	3.55E-06	2.66E-06	1.68E-06	8.87E-07	1.18E-03	1.55E-03	2.57E-06	4.46E-04	1.73E-02	4.70E-03	7.16E-04	3.45E-02
Excavators	3.13E-07	1.13E-06	2.50E-06	2.15E-05	3.76E-08	1.56E-06	2.63E-06	2.50E-06	1.88E-06	1.19E-06	6.26E-07	8.31E-04	1.09E-03	1.82E-06	2.61E-04	1.01E-02	2.75E-03	4.19E-04	2.02E-02
HHDT-DSL	1.65E-08	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
NA	**8.20E-07**	**2.95E-06**	**6.56E-06**	**5.64E-05**	**9.84E-08**	**4.10E-06**	**6.89E-06**	**6.56E-06**	**4.92E-06**	**3.12E-06**	**1.64E-06**	**2.18E-03**	**2.86E-03**	**4.76E-06**	**-**	**-**	**5.68E-03**	**1.84E-04**	**2.63E-04**
NA	**1.47E-07**	**5.29E-07**	**1.18E-06**	**1.01E-05**	**1.76E-08**	**7.34E-07**	**1.23E-06**	**1.18E-06**	**8.81E-07**	**5.58E-07**	**2.94E-07**	**3.90E-04**	**5.12E-04**	**8.52E-07**	**-**	**-**	**1.70E-03**	**5.50E-05**	**7.86E-05**
LDA-TOT	-	2.42E-07	-	3.39E-05	1.21E-08	2.42E-07	-	2.42E-07	-	2.42E-07	-	-	2.18E-04	-	2.20E-05	1.13E-05	9.98E-05	4.23E-05	6.37E-05
Dust	6.89E-08	6.36E-08	1.59E-08	2.83E-06	4.51E-09	7.85E-07	6.57E-07	4.24E-06	4.77E-08	6.36E-08	1.06E-08	1.66E-05	1.43E-05	3.76E-07	-	-	-	-	-
	2.33E-06	**8.40E-06**	**1.80E-05**	**1.92E-04**	**2.87E-07**	**1.25E-05**	**1.97E-05**	**2.37E-05**	**1.35E-05**	**8.85E-06**	**4.50E-06**	**5.98E-03**	**8.06E-03**	**1.35E-05**	**1.25E-03**	**4.73E-02**	**2.04E-02**	**2.24E-03**	**9.51E-02**
Hoist/swing/winch	5.04E-07	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02

Offroad																				
Equipment	ARSENIC	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	1,3-BUTADIENE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehy
Category	7440382	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
Hoist/swing/winch	4.43E-07	1.60E-06	3.55E-06	3.05E-05	5.32E-08	2.22E-06	3.72E-06	3.55E-06	2.66E-06	1.68E-06	8.87E-07	1.18E-03	1.55E-03	2.57E-06	4.46E-04	1.73E-02	4.70E-03	7.16E-04	3.45E-02
NA	**8.20E-07**	**2.95E-06**	**6.56E-06**	**5.64E-05**	**9.84E-08**	**4.10E-06**	**6.89E-06**	**6.56E-06**	**4.92E-06**	**3.12E-06**	**1.64E-06**	**2.18E-03**	**2.86E-03**	**4.76E-06**	-	-	**5.68E-03**	**1.84E-04**	**2.63E-04**
NA	**1.47E-07**	**5.29E-07**	**1.18E-06**	**1.01E-05**	**1.76E-08**	**7.34E-07**	**1.23E-06**	**1.18E-06**	**8.81E-07**	**5.58E-07**	**2.94E-07**	**3.90E-04**	**5.12E-04**	**8.52E-07**	-	-	**1.70E-03**	**5.50E-05**	**7.86E-05**
LDA-TOT	-	2.42E-07	-	3.39E-05	1.21E-08	2.42E-07	-	2.42E-07	-	2.42E-07	-	-	2.18E-04	-	2.20E-05	1.13E-05	9.98E-05	4.23E-05	6.37E-05
Dust	6.89E-08	6.36E-08	1.59E-08	2.83E-06	4.51E-09	7.85E-07	6.57E-07	4.24E-06	4.77E-08	6.36E-08	1.06E-08	1.66E-05	1.43E-05	3.76E-07	-	-	-	-	-
	1.98E-06	**7.20E-06**	**1.53E-05**	**1.68E-04**	**2.46E-07**	**1.06E-05**	**1.67E-05**	**1.98E-05**	**1.15E-05**	**7.58E-06**	**3.84E-06**	**5.10E-03**	**6.90E-03**	**1.15E-05**	**9.74E-04**	**3.68E-02**	**1.75E-02**	**1.81E-03**	**7.41E-02**
Hoist/swing/winch	5.04E-07	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	2.22E-07	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
Generator Sets	2.12E-07	7.62E-07	1.69E-06	1.46E-05	2.54E-08	1.06E-06	1.78E-06	1.69E-06	1.27E-06	8.05E-07	4.24E-07	5.62E-04	7.38E-04	1.23E-06	2.14E-04	8.28E-03	2.25E-03	3.43E-04	1.66E-02
LDA-TOT	-	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	5.30E-08	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	9.90E-07	**3.61E-06**	**7.51E-06**	**9.27E-05**	**1.25E-07**	**5.48E-06**	**8.38E-06**	**1.09E-05**	**5.66E-06**	**3.80E-06**	**1.88E-06**	**2.50E-03**	**3.45E-03**	**5.72E-06**	**9.60E-04**	**3.65E-02**	**1.00E-02**	**1.55E-03**	**7.30E-02**
Excavators	3.13E-07	1.13E-06	2.50E-06	2.15E-05	3.76E-08	1.56E-06	2.63E-06	2.50E-06	1.88E-06	1.19E-06	6.26E-07	8.31E-04	1.09E-03	1.82E-06	2.61E-04	1.01E-02	2.75E-03	4.19E-04	2.02E-02
Rubber Tired Loaders	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.64E-04	1.02E-02	2.78E-03	4.24E-04	2.05E-02
HHDT-DSL	1.65E-08	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	3.00E-08	4.38E-08	4.88E-08	5.31E-06	1.64E-08	1.73E-07	8.76E-07	1.44E-06	2.50E-08	9.50E-08	3.75E-09	4.64E-06	7.37E-06	4.14E-07	-	-	-	-	-
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	7.39E-07	**2.58E-06**	**5.23E-06**	**7.32E-05**	**1.05E-07**	**4.27E-06**	**6.91E-06**	**1.07E-05**	**3.94E-06**	**2.76E-06**	**1.30E-06**	**1.73E-03**	**2.40E-03**	**4.51E-06**	**5.49E-04**	**2.07E-02**	**5.70E-03**	**8.86E-04**	**4.15E-02**
HHDT-DSL	7.44E-08	2.68E-07	5.95E-07	5.12E-06	8.93E-09	3.72E-07	6.25E-07	5.95E-07	4.46E-07	2.83E-07	1.49E-07	1.97E-04	2.59E-04	4.32E-07	4.75E-05	1.84E-03	5.00E-04	7.62E-05	3.68E-03
Dust	9.54E-08	8.81E-08	2.20E-08	3.91E-06	6.24E-09	1.09E-06	9.10E-07	5.87E-06	6.61E-08	8.81E-08	1.47E-08	2.30E-05	1.98E-05	5.21E-07	-	-	-	-	-
Graders	3.72E-07	1.34E-06	2.98E-06	2.56E-05	4.47E-08	1.86E-06	3.13E-06	2.98E-06	2.23E-06	1.41E-06	7.45E-07	9.88E-04	1.30E-03	2.16E-06	3.13E-04	1.21E-02	3.29E-03	5.02E-04	2.42E-02
Rollers	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.65E-04	1.03E-02	2.79E-03	4.26E-04	2.05E-02
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	9.01E-07	**3.02E-06**	**6.13E-06**	**7.90E-05**	**1.08E-07**	**5.53E-06**	**7.72E-06**	**1.47E-05**	**4.67E-06**	**3.17E-06**	**1.55E-06**	**2.06E-03**	**2.82E-03**	**5.18E-06**	**6.39E-04**	**2.42E-02**	**6.65E-03**	**1.03E-03**	**4.85E-02**
Tractors/Loaders/Backhoes	2.65E-07	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Trenchers	4.77E-07	1.72E-06	3.81E-06	3.28E-05	5.72E-08	2.38E-06	4.00E-06	3.81E-06	2.86E-06	1.81E-06	9.53E-07	1.26E-03	1.66E-03	2.76E-06	4.08E-04	1.58E-02	4.30E-03	6.55E-04	3.16E-02
LDT2-TOT	-	1.65E-06	-	2.31E-04	8.27E-08	1.65E-06	-	1.65E-06	-	1.65E-06	-	-	1.49E-03	-	2.87E-05	1.47E-05	1.30E-04	5.52E-05	8.32E-05
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	8.05E-07	**4.53E-06**	**5.95E-06**	**3.06E-04**	**1.83E-07**	**6.23E-06**	**6.83E-06**	**1.16E-05**	**4.49E-06**	**4.68E-06**	**1.49E-06**	**1.98E-03**	**4.22E-03**	**4.65E-06**	**6.66E-04**	**2.42E-02**	**6.76E-03**	**1.08E-03**	**4.84E-02**
Concrete/Industrial Saws	3.42E-07	1.23E-06	2.73E-06	2.35E-05	4.10E-08	1.71E-06	2.87E-06	2.73E-06	2.05E-06	1.30E-06	6.84E-07	9.07E-04	1.19E-03	1.98E-06	2.37E-04	9.16E-03	2.49E-03	3.80E-04	1.83E-02
Rubber Tired Loaders	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.64E-04	1.02E-02	2.78E-03	4.24E-04	2.05E-02
HHDT-DSL	2.31E-07	8.33E-07	1.85E-06	1.59E-05	2.78E-08	1.16E-06	1.94E-06	1.85E-06	1.39E-06	8.80E-07	4.63E-07	6.14E-04	8.07E-04	1.34E-06	1.48E-04	5.71E-03	1.56E-03	2.37E-04	1.14E-02
Dust	2.97E-07	2.74E-07	6.85E-08	1.22E-05	1.94E-08	3.38E-06	2.83E-06	1.83E-05	2.06E-07	2.74E-07	4.57E-08	7.15E-05	6.15E-05	1.62E-06	-	-	-	-	-
HHDT-DSL	**3.31E-08**	**1.19E-07**	**2.65E-07**	**2.28E-06**	**3.97E-09**	**1.65E-07**	**2.78E-07**	**2.65E-07**	**1.98E-07**	**1.26E-07**	**6.61E-08**	**8.78E-05**	**1.15E-04**	**1.92E-07**	**2.11E-05**	**8.16E-04**	**2.22E-04**	**3.39E-05**	**1.63E-03**
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
LDT2-TOT	-	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05

Offroad																			
Equipment	ARSENIC	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	1,30E-07	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehy
Category	7440382	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
LDA-TOT	-	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	5.30E-08	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	1.34E-06	**4.00E-06**	**7.47E-06**	**1.22E-04**	**1.53E-07**	**9.62E-06**	**1.17E-05**	**3.31E-05**	**5.82E-06**	**4.19E-06**	**1.91E-06**	**2.55E-03**	**3.57E-03**	**7.61E-06**	**6.95E-04**	**2.59E-02**	**7.17E-03**	**1.12E-03**	**5.19E-02**
Graders	3.72E-07	1.34E-06	2.98E-06	2.56E-05	4.47E-08	1.86E-06	3.13E-06	2.98E-06	2.23E-06	1.41E-06	7.45E-07	9.88E-04	1.30E-03	2.16E-06	3.13E-04	1.21E-02	3.29E-03	5.02E-04	2.42E-02
Rubber Tired Dozers	9.97E-07	3.59E-06	7.97E-06	6.86E-05	1.20E-07	4.98E-06	8.37E-06	7.97E-06	5.98E-06	3.79E-06	1.99E-06	2.64E-03	3.47E-03	5.78E-06	8.74E-04	3.38E-02	9.21E-03	1.40E-03	6.77E-02
Rollers	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.65E-04	1.03E-02	2.79E-03	4.26E-04	2.05E-02
	1.22E-05	1.78E-05	1.98E-05	2.16E-03	6.65E-06	7.01E-05	3.56E-04	5.84E-04	1.02E-05	3.86E-05	1.52E-06	1.89E-03	2.99E-03	1.68E-04	-	-	-	-	-
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	1.39E-05	**2.40E-05**	**3.33E-05**	**2.30E-03**	**6.86E-06**	**7.91E-05**	**3.70E-04**	**6.00E-04**	**2.03E-05**	**4.52E-05**	**4.90E-06**	**6.37E-03**	**9.01E-03**	**1.78E-04**	**1.47E-03**	**5.62E-02**	**1.54E-02**	**2.36E-03**	**1.12E-01**
Tractors/Loaders/Backhoes	2.65E-07	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Pavers	4.34E-07	1.56E-06	3.47E-06	2.99E-05	5.21E-08	2.17E-06	3.65E-06	3.47E-06	2.60E-06	1.65E-06	8.68E-07	1.15E-03	1.51E-03	2.52E-06	3.71E-04	1.44E-02	3.91E-03	5.96E-04	2.87E-02
HHDT-DSL	8.27E-09	2.98E-08	6.61E-08	5.69E-07	9.92E-10	4.13E-08	6.94E-08	6.61E-08	4.96E-08	3.14E-08	1.65E-08	2.19E-05	2.88E-05	4.79E-08	5.27E-06	2.04E-04	5.55E-05	8.47E-06	4.08E-04
Dust	1.06E-08	9.79E-09	2.45E-09	4.35E-07	6.93E-10	1.21E-07	1.01E-07	6.53E-07	7.34E-09	9.79E-09	1.63E-09	2.55E-06	2.20E-06	5.79E-08	-	-	-	-	-
LDT2-TOT	-	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.52E-03	-
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	7.81E-07	**2.88E-06**	**5.67E-06**	**8.83E-05**	**1.03E-07**	**4.64E-06**	**6.65E-06**	**1.05E-05**	**4.29E-06**	**3.02E-06**	**1.43E-06**	**1.89E-03**	**2.72E-03**	**4.51E-06**	**6.13E-04**	**2.29E-02**	**6.33E-03**	**2.51E-03**	**4.59E-02**
Trenchers	4.77E-07	1.72E-06	3.81E-06	3.28E-05	5.72E-08	2.38E-06	4.00E-06	3.81E-06	2.86E-06	1.81E-06	9.53E-07	1.26E-03	1.66E-03	2.76E-06	4.08E-04	1.58E-02	4.30E-03	6.55E-04	3.16E-02
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	5.19E-07	**1.90E-06**	**3.82E-06**	**5.54E-05**	**6.74E-08**	**3.01E-06**	**4.41E-06**	**6.57E-06**	**2.89E-06**	**2.00E-06**	**9.60E-07**	**1.27E-03**	**1.80E-03**	**3.00E-06**	**4.22E-04**	**1.58E-02**	**4.36E-03**	**6.81E-04**	**3.17E-02**
HHDT-DSL	1.65E-08	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	3.77E-08	**7.91E-08**	**1.37E-07**	**2.01E-06**	**3.37E-09**	**3.24E-07**	**3.41E-07**	**1.44E-06**	**1.14E-07**	**8.24E-08**	**3.63E-08**	**4.90E-05**	**6.20E-05**	**2.12E-07**	**1.05E-05**	**4.08E-04**	**1.11E-04**	**1.69E-05**	**8.17E-04**
	2.80E-05	**7.57E-05**	**1.37E-04**	**3.79E-03**	**8.70E-06**	**1.61E-04**	**4.91E-04**	**7.80E-04**	**9.88E-05**	**9.95E-05**	**3.10E-05**	**4.10E-02**	**5.79E-02**	**2.60E-04**	**1.09E-02**	**4.12E-01**	**1.35E-01**	**1.98E-02**	**8.26E-01**
Excavators	3.13E-07	1.13E-06	2.50E-06	2.15E-05	3.76E-08	1.56E-06	2.63E-06	2.50E-06	1.88E-06	1.19E-06	6.26E-07	8.31E-04	1.09E-03	1.82E-06	2.61E-04	1.01E-02	2.75E-03	4.19E-04	2.02E-02
Rubber Tired Loaders	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.64E-04	1.02E-02	2.78E-03	4.24E-04	2.05E-02
HHDT-DSL	1.65E-08	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	3.00E-07	4.38E-07	4.88E-07	5.31E-05	1.64E-07	1.73E-06	8.76E-06	1.44E-05	2.50E-07	9.50E-07	3.75E-08	4.64E-05	7.37E-05	4.14E-06	-	-	-	-	-
LDA-TOT	-	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	5.30E-08	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	1.02E-06	**3.02E-06**	**5.67E-06**	**1.27E-04**	**2.55E-07**	**5.98E-06**	**1.49E-05**	**2.43E-05**	**4.17E-06**	**3.66E-06**	**1.34E-06**	**1.78E-03**	**2.51E-03**	**8.29E-06**	**5.53E-04**	**2.07E-02**	**5.72E-03**	**8.93E-04**	**4.15E-02**

Offroad																			
Equipment	ARSENIC	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	1,3-BUTADIENE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehy
Category	7440382	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
HHDT-DSL	1.16E-07	4.17E-07	9.26E-07	7.96E-06	1.39E-08	5.79E-07	9.72E-07	9.26E-07	6.94E-07	4.40E-07	2.31E-07	3.07E-04	4.03E-04	6.71E-07	7.38E-05	2.86E-03	7.78E-04	1.19E-04	5.72E-03
Dust	1.48E-07	1.37E-07	3.43E-08	6.09E-06	9.71E-09	1.69E-06	1.42E-06	9.14E-06	1.03E-07	1.37E-07	2.28E-08	3.58E-05	3.07E-05	8.11E-07	-	-	-	-	-
Graders	3.72E-07	1.34E-06	2.98E-06	2.56E-05	4.47E-08	1.86E-06	3.13E-06	2.98E-06	2.23E-06	1.41E-06	7.45E-07	9.88E-04	1.30E-03	2.16E-06	3.13E-04	1.21E-02	3.29E-03	5.02E-04	2.42E-02
Rollers	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.65E-04	1.03E-02	2.79E-03	4.26E-04	2.05E-02
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	9.95E-07	**3.22E-06**	**6.48E-06**	**8.40E-05**	**1.16E-07**	**6.34E-06**	**8.57E-06**	**1.83E-05**	**4.96E-06**	**3.38E-06**	**1.64E-06**	**2.18E-03**	**2.98E-03**	**5.71E-06**	**6.65E-04**	**2.52E-02**	**6.93E-03**	**1.07E-03**	**5.05E-02**
Tractors/Loaders/Backhoes	2.65E-07	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Trenchers	4.77E-07	1.72E-06	3.81E-06	3.28E-05	5.72E-08	2.38E-06	4.00E-06	3.81E-06	2.86E-06	1.81E-06	9.53E-07	1.26E-03	1.66E-03	2.76E-06	4.08E-04	1.58E-02	4.30E-03	6.55E-04	3.16E-02
LDT2-TOT	-	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	8.05E-07	**2.99E-06**	**5.95E-06**	**9.02E-05**	**1.06E-07**	**4.69E-06**	**6.83E-06**	**1.01E-05**	**4.49E-06**	**3.14E-06**	**1.49E-06**	**1.98E-03**	**2.83E-03**	**4.65E-06**	**6.45E-04**	**2.41E-02**	**6.67E-03**	**1.04E-03**	**4.84E-02**
Concrete/Industrial Saws	3.42E-07	1.23E-06	2.73E-06	2.35E-05	4.10E-08	1.71E-06	2.87E-06	2.73E-06	2.05E-06	1.30E-06	6.84E-07	9.07E-04	1.19E-03	1.98E-06	2.37E-04	9.16E-03	2.49E-03	3.80E-04	1.83E-02
Rubber Tired Loaders	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.64E-04	1.02E-02	2.78E-03	4.24E-04	2.05E-02
HHDT-DSL	**2.31E-07**	**8.33E-07**	**1.85E-06**	**1.59E-05**	**2.78E-08**	**1.16E-06**	**1.94E-06**	**1.85E-06**	**1.39E-06**	**8.80E-07**	**4.63E-07**	**6.14E-04**	**8.07E-04**	**1.34E-06**	**1.48E-04**	**5.71E-03**	**1.56E-03**	**2.37E-04**	**1.14E-02**
Dust	**2.97E-07**	**2.74E-07**	**6.85E-08**	**1.22E-05**	**1.94E-08**	**3.38E-06**	**2.83E-06**	**1.83E-05**	**2.06E-07**	**2.74E-07**	**4.57E-08**	**7.15E-05**	**6.15E-05**	**1.62E-06**	**-**	**-**	**-**	**-**	**-**
HHDT-DSL	7.44E-08	2.68E-07	5.95E-07	5.12E-06	8.93E-09	3.72E-07	6.25E-07	5.95E-07	4.46E-07	2.83E-07	1.49E-07	1.97E-04	2.59E-04	4.32E-07	4.75E-05	1.84E-03	5.00E-04	7.62E-05	3.68E-03
Dust	9.54E-08	8.81E-08	2.20E-08	3.91E-06	6.24E-09	1.09E-06	9.10E-07	5.87E-06	6.61E-08	8.81E-08	1.47E-08	2.30E-05	1.98E-05	5.21E-07	-	-	-	-	-
LDT2-TOT	-	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
LDA-TOT	-	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	5.30E-08	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	1.43E-06	**4.20E-06**	**7.82E-06**	**1.27E-04**	**1.61E-07**	**1.04E-05**	**1.25E-05**	**3.67E-05**	**6.11E-06**	**4.39E-06**	**2.00E-06**	**2.67E-03**	**3.72E-03**	**8.14E-06**	**7.21E-04**	**2.70E-02**	**7.45E-03**	**1.17E-03**	**5.40E-02**
Graders	3.72E-07	1.34E-06	2.98E-06	2.56E-05	4.47E-08	1.86E-06	3.13E-06	2.98E-06	2.23E-06	1.41E-06	7.45E-07	9.88E-04	1.30E-03	2.16E-06	3.13E-04	1.21E-02	3.29E-03	5.02E-04	2.42E-02
Rubber Tired Dozers	9.97E-07	3.59E-06	7.97E-06	6.86E-05	1.20E-07	4.98E-06	8.37E-06	7.97E-06	5.98E-06	3.79E-06	1.99E-06	2.64E-03	3.47E-03	5.78E-06	8.74E-04	3.38E-02	9.21E-03	1.40E-03	6.77E-02
Rollers	3.16E-07	1.14E-06	2.53E-06	2.17E-05	3.79E-08	1.58E-06	2.65E-06	2.53E-06	1.90E-06	1.20E-06	6.32E-07	8.39E-04	1.10E-03	1.83E-06	2.65E-04	1.03E-02	2.79E-03	4.26E-04	2.05E-02
	1.22E-05	1.78E-05	1.98E-05	2.16E-03	6.65E-06	7.01E-05	3.56E-04	5.84E-04	1.02E-05	3.86E-05	1.52E-06	1.89E-03	2.99E-03	1.68E-04	-	-	-	-	-
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	1.39E-05	**2.40E-05**	**3.33E-05**	**2.30E-03**	**6.86E-06**	**7.91E-05**	**3.70E-04**	**6.00E-04**	**2.03E-05**	**4.52E-05**	**4.90E-06**	**6.37E-03**	**9.01E-03**	**1.78E-04**	**1.47E-03**	**5.62E-02**	**1.54E-02**	**2.36E-03**	**1.12E-01**
Tractors/Loaders/Backhoes	2.65E-07	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Pavers	4.34E-07	1.56E-06	3.47E-06	2.99E-05	5.21E-08	2.17E-06	3.65E-06	3.47E-06	2.60E-06	1.65E-06	8.68E-07	1.15E-03	1.51E-03	2.52E-06	3.71E-04	1.44E-02	3.91E-03	5.96E-04	2.87E-02
HHDT-DSL	8.27E-09	2.98E-08	6.61E-08	5.69E-07	9.92E-10	4.13E-08	6.94E-08	6.61E-08	4.96E-08	3.14E-08	1.65E-08	2.19E-05	2.88E-05	4.79E-08	5.27E-06	2.04E-04	5.55E-05	8.47E-06	4.08E-04
Dust	1.06E-08	9.79E-09	2.45E-09	4.35E-07	6.93E-10	1.21E-07	1.01E-07	6.53E-07	7.34E-09	9.79E-09	1.63E-09	2.55E-06	2.20E-06	5.79E-08	-	-	-	-	-
LDT2-TOT	-	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.52E-03	-
LDA-TOT	-	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	4.24E-08	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-

Offroad																				
Equipment	ARSENIC	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	1,30E-07	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehy
Category	7440382	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
	7.81E-07	**2.88E-06**	**5.67E-06**	**8.83E-05**	**1.03E-07**	**4.64E-06**	**6.65E-06**	**1.05E-05**	**4.29E-06**	**3.02E-06**	**1.43E-06**	**1.89E-03**	**2.72E-03**	**4.51E-06**	**6.13E-04**	**2.29E-02**	**6.33E-03**	**2.51E-03**	**4.59E-02**
Trenchers	4.77E-07	1.72E-06	3.81E-06	3.28E-05	5.72E-08	2.38E-06	4.00E-06	3.81E-06	2.86E-06	1.81E-06	9.53E-07	1.26E-03	1.66E-03	2.76E-06	4.08E-04	1.58E-02	4.30E-03	6.55E-04	3.16E-02
LDA-TOT	-	9.30E-08	-	1.30E-05	4.65E-09	9.30E-08	-	9.30E-08	-	9.30E-08	-	-	8.37E-05	-	8.46E-06	4.33E-06	3.84E-05	1.63E-05	2.45E-05
Dust	2.65E-08	2.45E-08	6.12E-09	1.09E-06	1.73E-09	3.02E-07	2.53E-07	1.63E-06	1.84E-08	2.45E-08	4.08E-09	6.39E-06	5.49E-06	1.45E-07	-	-	-	-	-
	5.03E-07	**1.83E-06**	**3.82E-06**	**4.69E-05**	**6.36E-08**	**2.78E-06**	**4.26E-06**	**5.54E-06**	**2.88E-06**	**1.93E-06**	**9.57E-07**	**1.27E-03**	**1.75E-03**	**2.91E-06**	**4.17E-04**	**1.58E-02**	**4.34E-03**	**6.72E-04**	**3.16E-02**
Trenchers	4.77E-07	1.72E-06	3.81E-06	3.28E-05	5.72E-08	2.38E-06	4.00E-06	3.81E-06	2.86E-06	1.81E-06	9.53E-07	1.26E-03	1.66E-03	2.76E-06	4.08E-04	1.58E-02	4.30E-03	6.55E-04	3.16E-02
LDA-TOT	-	9.30E-08	-	1.30E-05	4.65E-09	9.30E-08	-	9.30E-08	-	9.30E-08	-	-	8.37E-05	-	8.46E-06	4.33E-06	3.84E-05	1.63E-05	2.45E-05
Dust	2.65E-08	2.45E-08	6.12E-09	1.09E-06	1.73E-09	3.02E-07	2.53E-07	1.63E-06	1.84E-08	2.45E-08	4.08E-09	6.39E-06	5.49E-06	1.45E-07	-	-	-	-	-
	5.03E-07	**1.83E-06**	**3.82E-06**	**4.69E-05**	**6.36E-08**	**2.78E-06**	**4.26E-06**	**5.54E-06**	**2.88E-06**	**1.93E-06**	**9.57E-07**	**1.27E-03**	**1.75E-03**	**2.91E-06**	**4.17E-04**	**1.58E-02**	**4.34E-03**	**6.72E-04**	**3.16E-02**
Air Compressors	7.85E-07	2.83E-06	6.28E-06	5.40E-05	9.42E-08	3.93E-06	6.60E-06	6.28E-06	4.71E-06	2.98E-06	1.57E-06	2.08E-03	2.74E-03	4.55E-06	5.45E-04	2.11E-02	5.74E-03	8.74E-04	4.22E-02
HHDT-DSL	8.27E-09	2.98E-08	6.61E-08	5.69E-07	9.92E-10	4.13E-08	6.94E-08	6.61E-08	4.96E-08	3.14E-08	1.65E-08	2.19E-05	2.88E-05	4.79E-08	5.27E-06	2.04E-04	5.55E-05	8.47E-06	4.08E-04
Dust	1.06E-08	9.79E-09	2.45E-09	4.35E-07	6.93E-10	1.21E-07	1.01E-07	6.53E-07	7.34E-09	9.79E-09	1.63E-09	2.55E-06	2.20E-06	5.79E-08	-	-	-	-	-
HHDT-DSL	1.65E-08	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
Off-Highway Trucks	3.92E-07	1.41E-06	3.14E-06	2.70E-05	4.71E-08	1.96E-06	3.30E-06	3.14E-06	2.35E-06	1.49E-06	7.85E-07	1.04E-03	1.37E-03	2.28E-06	4.50E-04	1.74E-02	4.74E-03	7.23E-04	3.49E-02
Tractors/Loaders/Backhoes	2.65E-07	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Cranes	2.57E-07	9.25E-07	2.06E-06	1.77E-05	3.08E-08	1.29E-06	2.16E-06	2.06E-06	1.54E-06	9.77E-07	5.14E-07	6.82E-04	8.96E-04	1.49E-06	2.18E-04	8.44E-03	2.30E-03	3.50E-04	1.69E-02
Forklifts	1.39E-07	5.01E-07	1.11E-06	9.58E-06	1.67E-08	6.96E-07	1.17E-06	1.11E-06	8.36E-07	5.29E-07	2.79E-07	3.70E-04	4.85E-04	8.08E-07	1.59E-04	6.14E-03	1.67E-03	2.55E-04	1.23E-02
LDA-TOT	-	2.79E-07	-	3.91E-05	1.40E-08	2.79E-07	-	2.79E-07	-	2.79E-07	-	-	2.51E-04	-	2.54E-05	1.30E-05	1.15E-04	4.88E-05	7.36E-05
Dust	7.95E-08	7.34E-08	1.84E-08	3.26E-06	5.20E-09	9.05E-07	7.59E-07	4.89E-06	5.51E-08	7.34E-08	1.22E-08	1.92E-05	1.65E-05	4.34E-07	-	-	-	-	-
	1.97E-06	**7.09E-06**	**1.49E-05**	**1.72E-04**	**2.45E-07**	**1.09E-05**	**1.67E-05**	**2.20E-05**	**1.13E-05**	**7.46E-06**	**3.74E-06**	**4.97E-03**	**6.77E-03**	**1.14E-05**	**1.63E-03**	**6.20E-02**	**1.70E-02**	**2.62E-03**	**1.24E-01**
HHDT-DSL	1.65E-08	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	2.12E-08	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	3.77E-08	**7.91E-08**	**1.37E-07**	**2.01E-06**	**3.37E-09**	**3.24E-07**	**3.41E-07**	**1.44E-06**	**1.14E-07**	**8.24E-08**	**3.63E-08**	**4.90E-05**	**6.20E-05**	**2.12E-07**	**1.05E-05**	**4.08E-04**	**1.11E-04**	**1.69E-05**	**8.17E-04**
	2.20E-05	**5.12E-05**	**8.76E-05**	**3.08E-03**	**7.98E-06**	**1.28E-04**	**4.46E-04**	**7.35E-04**	**6.14E-05**	**7.42E-05**	**1.85E-05**	**2.44E-02**	**3.41E-02**	**2.27E-04**	**7.14E-03**	**2.70E-01**	**7.42E-02**	**1.30E-02**	**5.41E-01**

Offroad												Annual				
Equipment	methanol	methyl ethyl ketone (mek) (2-butanone	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMIN
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956
Cranes	2.74E-05	1.35E-03	5.58E-04	7.76E-05	1.43E-04	3.06E-04	2.37E-03	8.67E-05	5.29E-05	1.34E-03	-	7.30E-03	2.67E-03		-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	9.39E-03	3.55E-03		-	-
Crushing/Proc. Equipment	6.70E-05	3.30E-03	1.36E-03	1.90E-04	3.50E-04	7.48E-04	5.80E-03	2.12E-04	1.29E-04	3.29E-03	-	1.79E-02	8.17E-03		-	-
Rubber Tired Loaders	4.17E-05	2.05E-03	8.50E-04	1.18E-04	2.18E-04	4.66E-04	3.61E-03	1.32E-04	8.07E-05	2.05E-03	-	1.11E-02	5.06E-03		-	-
HHDT-DSL	8.33E-07	4.10E-05	1.70E-05	2.36E-06	4.36E-06	9.30E-06	7.21E-05	2.64E-06	1.61E-06	4.09E-05	-	2.78E-05	1.65E-05		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	8.16E-06		1.06E-10	9.79E-11
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	3.27E-05	3.72E-06		-	1.86E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	4.08E-05		5.30E-10	4.89E-10
	1.76E-04	**8.47E-03**	**3.62E-03**	**4.89E-04**	**9.50E-04**	**1.96E-03**	**1.50E-02**	**5.45E-04**	**3.37E-04**	**8.63E-03**	**4.11E-06**	**4.57E-02**	**1.95E-02**	***1.95E-02***	**6.36E-10**	**2.45E-09**
Excavators	4.12E-05	2.03E-03	8.39E-04	1.17E-04	2.16E-04	4.60E-04	3.57E-03	1.30E-04	7.97E-05	2.02E-03	-	3.30E-02	1.50E-02		-	-
Rubber Tired Loaders	4.17E-05	2.05E-03	8.50E-04	1.18E-04	2.18E-04	4.66E-04	3.61E-03	1.32E-04	8.07E-05	2.05E-03	-	3.34E-02	1.52E-02		-	-
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	1.67E-04	9.92E-05		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	4.89E-05		6.36E-10	5.87E-10
	-	-	-	-	-	-	-	-	-	-	-	-	1.20E-03		2.88E-08	4.20E-08
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	9.82E-05	1.12E-05		-	5.58E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	1.22E-04		1.59E-09	1.47E-09
	8.84E-05	**4.17E-03**	**1.83E-03**	**2.41E-04**	**4.92E-04**	**9.83E-04**	**7.42E-03**	**2.68E-04**	**1.67E-04**	**4.33E-03**	**4.11E-06**	***6.66E-02***	***3.17E-02***	***3.03E-02***	**2.94E-08**	**4.82E-08**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	1.60E-02	6.04E-03		-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	7.04E-03	2.66E-03		-	-
Hoist/swing/winch	2.34E-05	1.15E-03	4.76E-04	6.63E-05	1.22E-04	2.61E-04	2.02E-03	7.41E-05	4.52E-05	1.15E-03	-	4.68E-03	2.13E-03		-	-
Generator Sets	4.07E-05	2.00E-03	8.29E-04	1.15E-04	2.13E-04	4.55E-04	3.52E-03	1.29E-04	7.87E-05	2.00E-03	-	8.14E-03	3.06E-03		-	-
Generator Sets	2.42E-05	1.19E-03	4.93E-04	6.86E-05	1.27E-04	2.71E-04	2.10E-03	7.67E-05	4.68E-05	1.19E-03	-	4.85E-03	2.14E-03		-	-
Generator Sets	3.38E-05	1.66E-03	6.88E-04	9.57E-05	1.77E-04	3.77E-04	2.92E-03	1.07E-04	6.53E-05	1.66E-03	-	6.76E-03	2.54E-03		-	-
LDA-TOT	2.66E-06	3.97E-07	7.74E-05	1.02E-06	3.48E-05	2.69E-05	6.66E-05	-	2.67E-06	1.25E-04	2.88E-06	1.72E-05	1.95E-06		-	9.77E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.14E-05		2.78E-10	2.57E-10
	2.40E-04	**1.17E-02**	**4.91E-03**	**6.73E-04**	**1.28E-03**	**2.68E-03**	**2.06E-02**	**7.51E-04**	**4.61E-04**	**1.18E-02**	**2.88E-06**	***4.74E-02***	***1.86E-02***	***1.86E-02***	**2.78E-10**	**1.23E-09**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	2.13E-02	8.06E-03		-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	7.04E-03	2.66E-03		-	-
Generator Sets	6.32E-05	3.11E-03	1.29E-03	1.79E-04	3.31E-04	7.06E-04	5.47E-03	2.00E-04	1.22E-04	3.10E-03	-	1.69E-02	6.63E-03		-	-
Air Compressors	5.43E-05	2.67E-03	1.11E-03	1.54E-04	2.84E-04	6.06E-04	4.70E-03	1.72E-04	1.05E-04	2.67E-03	-	1.45E-02	5.45E-03		-	-
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	3.27E-05	3.72E-06		-	1.86E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	4.08E-05		5.30E-10	4.89E-10
	2.36E-04	**1.15E-02**	**4.85E-03**	**6.60E-04**	**1.27E-03**	**2.64E-03**	**2.02E-02**	**7.36E-04**	**4.53E-04**	**1.16E-02**	**4.11E-06**	***5.97E-02***	***2.28E-02***	***2.28E-02***	**0.00E+00**	**1.86E-09**

Offroad												Annual				
Equipment	methanol	methyl ethyl ketone (mek) (2-butanone	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMIN
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	5.32E-03	2.01E-03		-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	2.35E-03	8.87E-04		-	-
LDA-TOT	2.66E-06	3.97E-07	7.74E-05	1.02E-06	3.48E-05	2.69E-05	6.66E-05	-	2.67E-06	1.25E-04	2.88E-06	5.73E-06	6.51E-07		-	3.26E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	7.14E-06		9.28E-11	8.57E-11
	1.18E-04	**5.67E-03**	**2.42E-03**	**3.27E-04**	**6.37E-04**	**1.31E-03**	**1.00E-02**	**3.64E-04**	**2.25E-04**	**5.77E-03**	**2.88E-06**	***7.68E-03***	***2.91E-03***	***2.90E-03***	**9.28E-11**	**4.11E-10**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	2.13E-02	8.06E-03		-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	9.39E-03	3.55E-03		-	-
Generator Sets	3.38E-05	1.66E-03	6.88E-04	9.57E-05	1.77E-04	3.77E-04	2.92E-03	1.07E-04	6.53E-05	1.66E-03	-	9.01E-03	3.39E-03		-	-
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	3.27E-05	3.72E-06		-	1.86E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	4.08E-05		5.30E-10	4.89E-10
	1.53E-04	**7.33E-03**	**3.14E-03**	**4.23E-04**	**8.29E-04**	**1.70E-03**	**1.30E-02**	**4.71E-04**	**2.92E-04**	**7.49E-03**	**4.11E-06**	***3.97E-02***	***1.50E-02***	***1.50E-02***	**5.30E-10**	**2.35E-09**
Hoist/swing/winch	**7.99E-05**	**3.93E-03**	**1.63E-03**	**2.26E-04**	**4.18E-04**	**8.92E-04**	**6.91E-03**	**2.53E-04**	**1.54E-04**	**3.92E-03**	-	**3.19E-03**	**1.21E-03**		-	-
Hoist/swing/winch	3.48E-05	1.71E-03	7.09E-04	9.86E-05	1.82E-04	3.89E-04	3.01E-03	1.10E-04	6.73E-05	1.71E-03	-	1.39E-03	5.17E-04		-	-
Generator Sets	5.46E-05	2.69E-03	1.11E-03	1.55E-04	2.86E-04	6.10E-04	4.73E-03	1.73E-04	1.06E-04	2.68E-03	-	2.18E-03	8.60E-04		-	-
Generator Sets	3.63E-05	1.79E-03	7.40E-04	1.03E-04	1.90E-04	4.06E-04	3.15E-03	1.15E-04	7.03E-05	1.78E-03	-	1.45E-03	6.42E-04		-	-
Hoist/swing/winch	7.04E-05	3.47E-03	1.43E-03	1.99E-04	3.68E-04	7.86E-04	6.09E-03	2.23E-04	1.36E-04	3.46E-03	-	2.82E-03	1.06E-03		-	-
NA	**-**	**-**	**1.18E-03**	**1.84E-04**	**4.18E-03**	**8.15E-04**	**1.20E-02**	**-**	**-**	**5.65E-03**	**-**	**1.58E-03**	**9.84E-04**		-	-
NA	**-**	**-**	**3.54E-04**	**5.50E-05**	**1.25E-03**	**2.44E-04**	**3.59E-03**	**-**	**-**	**1.69E-03**	**-**	**4.72E-04**	**1.76E-04**		-	-
LDA-TOT	4.93E-06	7.37E-07	1.44E-04	1.90E-06	6.45E-05	5.00E-05	1.24E-04	-	4.96E-06	2.32E-04	5.35E-06	6.38E-06	7.26E-07		-	3.63E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	7.95E-06		1.03E-10	9.54E-11
	2.81E-04	**1.36E-02**	**7.30E-03**	**1.02E-03**	**6.94E-03**	**4.19E-03**	**3.96E-02**	**8.74E-04**	**5.39E-04**	**2.11E-02**	**5.35E-06**	***1.31E-02***	***5.46E-03***	***4.29E-03***	**1.03E-10**	**4.58E-10**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	3.19E-03	1.21E-03		-	-
Hoist/swing/winch	7.04E-05	3.47E-03	1.43E-03	1.99E-04	3.68E-04	7.86E-04	6.09E-03	2.23E-04	1.36E-04	3.46E-03	-	2.82E-03	1.06E-03		-	-
Excavators	4.12E-05	2.03E-03	8.39E-04	1.17E-04	2.16E-04	4.60E-04	3.57E-03	1.30E-04	7.97E-05	2.02E-03	-	1.65E-03	7.51E-04		-	-
HHDT-DSL	8.33E-07	4.10E-05	1.70E-05	2.36E-06	4.36E-06	9.30E-06	7.21E-05	2.64E-06	1.61E-06	4.09E-05	-	2.78E-06	1.65E-06		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	8.16E-07		1.06E-11	9.79E-12
NA	**-**	**-**	**1.18E-03**	**1.84E-04**	**4.18E-03**	**8.15E-04**	**1.20E-02**	**-**	**-**	**5.65E-03**	**-**	**1.58E-03**	**9.84E-04**		-	-
NA	**-**	**-**	**3.54E-04**	**5.50E-05**	**1.25E-03**	**2.44E-04**	**3.59E-03**	**-**	**-**	**1.69E-03**	**-**	**4.72E-04**	**1.76E-04**		-	-
LDA-TOT	4.93E-06	7.37E-07	1.44E-04	1.90E-06	6.45E-05	5.00E-05	1.24E-04	-	4.96E-06	2.32E-04	5.35E-06	6.38E-06	7.26E-07		-	3.63E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	7.95E-06		1.03E-10	9.54E-11
	1.97E-04	**9.47E-03**	**5.60E-03**	**7.86E-04**	**6.50E-03**	**3.26E-03**	**3.23E-02**	**6.09E-04**	**3.77E-04**	**1.70E-02**	**5.35E-06**	***9.72E-03***	***4.20E-03***	***3.03E-03***	**1.14E-10**	**4.68E-10**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	3.19E-03	1.21E-03		-	-
Hoist/swing/winch	7.04E-05	3.47E-03	1.43E-03	1.99E-04	3.68E-04	7.86E-04	6.09E-03	2.23E-04	1.36E-04	3.46E-03	-	2.82E-03	1.06E-03		-	-
NA	**-**	**-**	**1.18E-03**	**1.84E-04**	**4.18E-03**	**8.15E-04**	**1.20E-02**	**-**	**-**	**5.65E-03**	**-**	**1.58E-03**	**9.84E-04**		-	-
NA	**-**	**-**	**3.54E-04**	**5.50E-05**	**1.25E-03**	**2.44E-04**	**3.59E-03**	**-**	**-**	**1.69E-03**	**-**	**4.72E-04**	**1.76E-04**		-	-
LDA-TOT	4.93E-06	7.37E-07	1.44E-04	1.90E-06	6.45E-05	5.00E-05	1.24E-04	-	4.96E-06	2.32E-04	5.35E-06	6.38E-06	7.26E-07		-	3.63E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	7.95E-06		1.03E-10	9.54E-11
	1.55E-04	**7.40E-03**	**4.74E-03**	**6.67E-04**	**6.28E-03**	**2.79E-03**	**2.87E-02**	**4.76E-04**	**2.95E-04**	**1.50E-02**	**5.35E-06**	***8.07E-03***	***3.44E-03***	***2.27E-03***	**1.03E-10**	**4.58E-10**
HHDT-DSL	5.83E-06	2.87E-04	1.19E-04	1.65E-05	3.05E-05	6.51E-05	5.05E-04	1.85E-05	1.13E-05	2.86E-04	-	1.46E-04	8.68E-05		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	4.28E-05		5.57E-10	5.14E-10

Offroad												Annual				
Equipment	methanol	methyl ethyl ketone (mek) (2-butanone	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMIN
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956
Graders	4.94E-05	2.43E-03	1.01E-03	1.40E-04	2.58E-04	5.51E-04	4.27E-03	1.56E-04	9.54E-05	2.42E-03	-	9.87E-03	4.47E-03		-	-
Rollers	4.19E-05	2.06E-03	8.53E-04	1.19E-04	2.19E-04	4.68E-04	3.63E-03	1.33E-04	8.10E-05	2.06E-03	-	8.38E-03	3.79E-03		-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	1.96E-05	2.23E-06		-	1.12E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.45E-05		3.18E-10	2.94E-10
	1.00E-04	**4.78E-03**	**2.07E-03**	**2.76E-04**	**5.48E-04**	**1.11E-03**	**8.48E-03**	**3.07E-04**	**1.91E-04**	**4.91E-03**	**3.29E-06**	***1.84E-02***	***8.42E-03***	***8.39E-03***	**8.75E-10**	**1.92E-09**
Tractors/Loaders/Backhoes	3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	9.07E-03	4.24E-03		-	-
Trenchers	6.45E-05	3.17E-03	1.31E-03	1.83E-04	3.37E-04	7.20E-04	5.58E-03	2.04E-04	1.25E-04	3.16E-03	-	1.72E-02	7.62E-03		-	-
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	1.54E-05	2.25E-06		-	1.12E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	1.63E-05		2.12E-10	1.96E-10
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	2.62E-05	2.98E-06		-	1.49E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	3.26E-05		4.24E-10	3.92E-10
	1.03E-04	**4.85E-03**	**2.15E-03**	**2.81E-04**	**5.78E-04**	**1.15E-03**	**8.65E-03**	**3.12E-04**	**1.95E-04**	**5.06E-03**	**5.23E-06**	***2.63E-02***	***1.19E-02***	***1.19E-02***	**6.36E-10**	**3.20E-09**
Crushing/Proc. Equipment	6.70E-05	3.30E-03	1.36E-03	1.90E-04	3.50E-04	7.48E-04	5.80E-03	2.12E-04	1.29E-04	3.29E-03	-	1.25E-02	5.72E-03		-	-
Rubber Tired Loaders	4.17E-05	2.05E-03	8.50E-04	1.18E-04	2.18E-04	4.66E-04	3.61E-03	1.32E-04	8.07E-05	2.05E-03	-	7.79E-03	3.54E-03		-	-
HHDT-DSL	**5.83E-06**	**2.87E-04**	**1.19E-04**	**1.65E-05**	**3.05E-05**	**6.51E-05**	**5.05E-04**	**1.85E-05**	**1.13E-05**	**2.86E-04**	**-**	**1.36E-04**	**8.10E-05**		-	-
Dust	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**4.00E-05**		5.20E-10	4.80E-10
HHDT-DSL	3.33E-06	1.64E-04	6.78E-05	9.44E-06	1.74E-05	3.72E-05	2.88E-04	1.05E-05	6.44E-06	1.64E-04	-	-	-			
Dust	-	-	-	-	-	-	-	-	-	-	-	-	-			
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	1.08E-05	1.57E-06		-	7.87E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	1.14E-05		1.48E-10	1.37E-10
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	2.29E-05	2.61E-06		-	1.30E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.86E-05		3.71E-10	3.43E-10
	1.23E-04	**5.80E-03**	**2.56E-03**	**3.36E-04**	**6.90E-04**	**1.37E-03**	**1.03E-02**	**3.73E-04**	**2.33E-04**	**6.05E-03**	**6.05E-06**	***2.05E-02***	***9.43E-03***	***9.34E-03***	**1.04E-09**	**3.05E-09**
Graders	4.94E-05	2.43E-03	1.01E-03	1.40E-04	2.58E-04	5.51E-04	4.27E-03	1.56E-04	9.54E-05	2.42E-03	-	3.29E-03	1.49E-03		-	-
Rubber Tired Dozers	1.38E-04	6.80E-03	2.81E-03	3.91E-04	7.22E-04	1.54E-03	1.19E-02	4.37E-04	2.67E-04	6.78E-03	-	9.20E-03	3.99E-03		-	-
Rollers	4.19E-05	2.06E-03	8.53E-04	1.19E-04	2.19E-04	4.68E-04	3.63E-03	1.33E-04	8.10E-05	2.06E-03	-	2.79E-03	1.26E-03		-	-
	-	-	-	-	-	-	-	-	-	-	-	-	1.02E-02		2.44E-07	3.55E-07
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	6.54E-06	7.44E-07		-	3.72E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	8.16E-06		1.06E-10	9.79E-11
	2.32E-04	**1.13E-02**	**4.76E-03**	**6.51E-04**	**1.24E-03**	**2.59E-03**	**1.99E-02**	**7.26E-04**	**4.46E-04**	**1.14E-02**	**3.29E-06**	***1.53E-02***	***1.69E-02***	***6.74E-03***	**2.44E-07**	**3.56E-07**
Tractors/Loaders/Backhoes	3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	2.27E-03	1.06E-03		-	-
Pavers	5.86E-05	2.88E-03	1.19E-03	1.66E-04	3.07E-04	6.54E-04	5.07E-03	1.86E-04	1.13E-04	2.88E-03	-	3.91E-03	1.74E-03		-	-
HHDT-DSL	8.33E-07	4.10E-05	1.70E-05	2.36E-06	4.36E-06	9.30E-06	7.21E-05	2.64E-06	1.61E-06	4.09E-05	-	6.94E-06	4.13E-06		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.04E-06		2.65E-11	2.45E-11
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	3.86E-06	5.62E-07		-	2.81E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	4.08E-06		5.30E-11	4.89E-11
	-	-	-	-	-	2.44E-03	-	-	-	4.22E-03	-	1.31E-03	-		-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	6.54E-06	7.44E-07		-	3.72E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	8.16E-06		1.06E-10	9.79E-11
	9.83E-05	**4.60E-03**	**2.04E-03**	**2.67E-04**	**5.52E-04**	**3.53E-03**	**8.21E-03**	**2.96E-04**	**1.86E-04**	**9.04E-03**	**5.23E-06**	***7.50E-03***	***2.82E-03***	***2.80E-03***	**1.86E-10**	**8.25E-10**

Offroad												Annual				
Equipment	methanol	methyl ethyl ketone (mek) (2-butanone	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMIN
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956
Trenchers	6.45E-05	3.17E-03	1.31E-03	1.83E-04	3.37E-04	7.20E-04	5.58E-03	2.04E-04	1.25E-04	3.16E-03	-	1.29E-02	5.72E-03		-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	1.96E-05	2.23E-06		-	1.12E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.45E-05		3.18E-10	2.94E-10
	6.75E-05	**3.17E-03**	**1.40E-03**	**1.84E-04**	**3.77E-04**	**7.51E-04**	**5.66E-03**	**2.04E-04**	**1.28E-04**	**3.31E-03**	**3.29E-06**	***1.29E-02***	***5.75E-03***	***5.72E-03***	**3.18E-10**	**1.41E-09**
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	2.78E-04	1.65E-04		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	8.16E-05		1.06E-09	9.79E-10
	1.67E-06	**8.20E-05**	**3.39E-05**	**4.72E-06**	**8.72E-06**	**1.86E-05**	**1.44E-04**	**5.27E-06**	**3.22E-06**	**8.18E-05**	**-**	***2.78E-04***	***2.47E-04***	***1.65E-04***	**1.06E-09**	**9.79E-10**
	2.37E-03	**1.14E-01**	**5.34E-02**	**7.29E-03**	**2.92E-02**	**3.20E-02**	**2.48E-01**	**7.32E-03**	**4.53E-03**	**1.43E-01**	**6.46E-05**	**3.99E-01**	**1.79E-01**	**1.64E-01**	**2.79E-07**	**4.25E-07**
Cranes	2.74E-05	1.35E-03	5.58E-04	7.76E-05	1.43E-04	3.06E-04	2.37E-03	8.67E-05	5.29E-05	1.34E-03	-	3.65E-03	1.33E-03		-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	4.69E-03	1.77E-03		-	-
Concrete/Industrial Saws	3.07E-05	1.51E-03	6.26E-04	8.70E-05	1.61E-04	3.43E-04	2.66E-03	9.73E-05	5.94E-05	1.51E-03	-	4.10E-03	1.02E-03		-	-
Rubber Tired Loaders	4.17E-05	2.05E-03	8.50E-04	1.18E-04	2.18E-04	4.66E-04	3.61E-03	1.32E-04	8.07E-05	2.05E-03	-	5.56E-03	2.53E-03		-	-
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	1.64E-05	1.86E-06		-	9.30E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.04E-05		2.65E-10	2.45E-10
	1.39E-04	**6.65E-03**	**2.86E-03**	**3.84E-04**	**7.56E-04**	**1.55E-03**	**1.18E-02**	**4.28E-04**	**2.65E-04**	**6.81E-03**	**4.11E-06**	***1.80E-02***	***6.68E-03***	***6.66E-03***	**2.65E-10**	**1.18E-09**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	1.06E-02	4.03E-03		-	-
Hoist/swing/winch	3.48E-05	1.71E-03	7.09E-04	9.86E-05	1.82E-04	3.89E-04	3.01E-03	1.10E-04	6.73E-05	1.71E-03	-	4.64E-03	1.72E-03		-	-
Generator Sets	5.46E-05	2.69E-03	1.11E-03	1.55E-04	2.86E-04	6.10E-04	4.73E-03	1.73E-04	1.06E-04	2.68E-03	-	7.28E-03	2.87E-03		-	-
Generator Sets	3.63E-05	1.79E-03	7.40E-04	1.03E-04	1.90E-04	4.06E-04	3.15E-03	1.15E-04	7.03E-05	1.78E-03	-	4.85E-03	2.14E-03		-	-
Hoist/swing/winch	7.04E-05	3.47E-03	1.43E-03	1.99E-04	3.68E-04	7.86E-04	6.09E-03	2.23E-04	1.36E-04	3.46E-03	-	9.39E-03	3.55E-03		-	-
NA	-	-	**1.18E-03**	**1.84E-04**	**4.18E-03**	**8.15E-04**	**1.20E-02**	-	-	**5.65E-03**	-	**5.26E-03**	**3.28E-03**		-	-
NA	-	-	**3.54E-04**	**5.50E-05**	**1.25E-03**	**2.44E-04**	**3.59E-03**	-	-	**1.69E-03**	-	**1.57E-03**	**5.88E-04**		-	-
LDA-TOT	4.93E-06	7.37E-07	1.44E-04	1.90E-06	6.45E-05	5.00E-05	1.24E-04	-	4.96E-06	2.32E-04	5.35E-06	2.13E-05	2.42E-06		-	1.21E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.65E-05		3.45E-10	3.18E-10
	2.81E-04	**1.36E-02**	**7.30E-03**	**1.02E-03**	**6.94E-03**	**4.19E-03**	**3.96E-02**	**8.74E-04**	**5.39E-04**	**2.11E-02**	**5.35E-06**	***4.37E-02***	***1.82E-02***	***1.43E-02***	**3.45E-10**	**1.53E-09**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	1.06E-02	4.03E-03		-	-
Hoist/swing/winch	7.04E-05	3.47E-03	1.43E-03	1.99E-04	3.68E-04	7.86E-04	6.09E-03	2.23E-04	1.36E-04	3.46E-03	-	9.39E-03	3.55E-03		-	-
Excavators	4.12E-05	2.03E-03	8.39E-04	1.17E-04	2.16E-04	4.60E-04	3.57E-03	1.30E-04	7.97E-05	2.02E-03	-	5.49E-03	2.50E-03		-	-
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	1.11E-05	6.61E-06		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	3.26E-06		4.24E-11	3.92E-11
NA	-	-	**1.18E-03**	**1.84E-04**	**4.18E-03**	**8.15E-04**	**1.20E-02**	-	-	**5.65E-03**	-	**5.26E-03**	**3.28E-03**		-	-
NA	-	-	**3.54E-04**	**5.50E-05**	**1.25E-03**	**2.44E-04**	**3.59E-03**	-	-	**1.69E-03**	-	**1.57E-03**	**5.88E-04**		-	-
LDA-TOT	4.93E-06	7.37E-07	1.44E-04	1.90E-06	6.45E-05	5.00E-05	1.24E-04	-	4.96E-06	2.32E-04	5.35E-06	2.13E-05	2.42E-06		-	1.21E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.65E-05		3.45E-10	3.18E-10
	1.98E-04	**9.51E-03**	**5.61E-03**	**7.88E-04**	**6.50E-03**	**3.27E-03**	**3.24E-02**	**6.12E-04**	**3.78E-04**	**1.71E-02**	**5.35E-06**	***3.24E-02***	***1.40E-02***	***1.01E-02***	**3.87E-10**	**1.57E-09**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	1.06E-02	4.03E-03		-	-

Offroad												Annual				
Equipment	methanol	methyl ethyl ketone (mek) (2-butanone	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMIN
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956
Hoist/swing/winch	7.04E-05	3.47E-03	1.43E-03	1.99E-04	3.68E-04	7.86E-04	6.09E-03	2.23E-04	1.36E-04	3.46E-03	-	9.39E-03	3.55E-03		-	-
NA	-	-	**1.18E-03**	**1.84E-04**	**4.18E-03**	**8.15E-04**	**1.20E-02**	-	-	**5.65E-03**	-	**5.26E-03**	**3.28E-03**		-	-
NA	-	-	**3.54E-04**	**5.50E-05**	**1.25E-03**	**2.44E-04**	**3.59E-03**	-	-	**1.69E-03**	-	**1.57E-03**	**5.88E-04**		-	-
LDA-TOT	4.93E-06	7.37E-07	1.44E-04	1.90E-06	6.45E-05	5.00E-05	1.24E-04	-	4.96E-06	2.32E-04	5.35E-06	2.13E-05	2.42E-06		-	1.21E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.65E-05		3.45E-10	3.18E-10
	1.55E-04	**7.40E-03**	**4.74E-03**	**6.67E-04**	**6.28E-03**	**2.79E-03**	**2.87E-02**	**4.76E-04**	**2.95E-04**	**1.50E-02**	**5.35E-06**	***2.69E-02***	***1.15E-02***	***7.58E-03***	**3.45E-10**	**1.53E-09**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	2.13E-02	8.06E-03		-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	9.39E-03	3.55E-03		-	-
Generator Sets	3.38E-05	1.66E-03	6.88E-04	9.57E-05	1.77E-04	3.77E-04	2.92E-03	1.07E-04	6.53E-05	1.66E-03	-	9.01E-03	3.39E-03		-	-
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	3.27E-05	3.72E-06		-	1.86E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	4.08E-05		5.30E-10	4.89E-10
	1.53E-04	**7.33E-03**	**3.14E-03**	**4.23E-04**	**8.29E-04**	**1.70E-03**	**1.30E-02**	**4.71E-04**	**2.92E-04**	**7.49E-03**	**4.11E-06**	***3.97E-02***	***1.50E-02***	***1.50E-02***	**5.30E-10**	**2.35E-09**
Excavators	4.12E-05	2.03E-03	8.39E-04	1.17E-04	2.16E-04	4.60E-04	3.57E-03	1.30E-04	7.97E-05	2.02E-03	-	1.65E-02	7.51E-03		-	-
Rubber Tired Loaders	4.17E-05	2.05E-03	8.50E-04	1.18E-04	2.18E-04	4.66E-04	3.61E-03	1.32E-04	8.07E-05	2.05E-03	-	1.67E-02	7.58E-03		-	-
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	8.33E-05	4.96E-05		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.45E-05		3.18E-10	2.94E-10
	-	-	-	-	-	-	-	-	-	-	-	-	1.50E-04		3.60E-09	5.25E-09
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	3.93E-05	4.47E-06		-	2.23E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	4.89E-05		6.36E-10	5.87E-10
	8.76E-05	**4.17E-03**	**1.81E-03**	**2.41E-04**	**4.82E-04**	**9.76E-04**	**7.40E-03**	**2.68E-04**	**1.67E-04**	**4.30E-03**	**3.29E-06**	***3.33E-02***	***1.54E-02***	***1.51E-02***	**4.55E-09**	**8.36E-09**
HHDT-DSL	7.49E-06	3.69E-04	1.53E-04	2.12E-05	3.92E-05	8.37E-05	6.49E-04	2.37E-05	1.45E-05	3.68E-04	-	1.87E-04	1.12E-04		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	5.51E-05		7.16E-10	6.61E-10
Graders	4.94E-05	2.43E-03	1.01E-03	1.40E-04	2.58E-04	5.51E-04	4.27E-03	1.56E-04	9.54E-05	2.42E-03	-	9.87E-03	4.47E-03		-	-
Rollers	4.19E-05	2.06E-03	8.53E-04	1.19E-04	2.19E-04	4.68E-04	3.63E-03	1.33E-04	8.10E-05	2.06E-03	-	8.38E-03	3.79E-03		-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	1.96E-05	2.23E-06		-	1.12E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.45E-05		3.18E-10	2.94E-10
	1.02E-04	**4.86E-03**	**2.10E-03**	**2.81E-04**	**5.57E-04**	**1.13E-03**	**8.62E-03**	**3.13E-04**	**1.94E-04**	**4.99E-03**	**3.29E-06**	***1.85E-02***	***8.45E-03***	***8.37E-03***	**1.03E-09**	**2.07E-09**
Tractors/Loaders/Backhoes	3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	4.54E-03	2.12E-03		-	-
Trenchers	6.45E-05	3.17E-03	1.31E-03	1.83E-04	3.37E-04	7.20E-04	5.58E-03	2.04E-04	1.25E-04	3.16E-03	-	8.59E-03	3.81E-03		-	-
LDT2-TOT	6.44E-06	9.62E-07	1.88E-04	2.48E-06	8.42E-05	6.52E-05	1.61E-04	-	6.47E-06	3.03E-04	6.98E-06	2.78E-05	1.65E-05		-	8.27E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	8.16E-06		1.06E-10	9.79E-11
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	1.31E-05	1.49E-06		-	7.44E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	1.63E-05		2.12E-10	1.96E-10
	1.08E-04	**4.85E-03**	**2.28E-03**	**2.83E-04**	**6.39E-04**	**1.20E-03**	**8.76E-03**	**3.12E-04**	**2.00E-04**	**5.28E-03**	**1.03E-05**	***1.32E-02***	***5.97E-03***	***5.93E-03***	**3.18E-10**	**9.31E-09**
Concrete/Industrial Saws	3.74E-05	1.84E-03	7.61E-04	1.06E-04	1.96E-04	4.17E-04	3.24E-03	1.18E-04	7.23E-05	1.84E-03	-	2.49E-03	1.37E-03		-	-
Rubber Tired Loaders	4.17E-05	2.05E-03	8.50E-04	1.18E-04	2.18E-04	4.66E-04	3.61E-03	1.32E-04	8.07E-05	2.05E-03	-	2.78E-03	1.26E-03		-	-
HHDT-DSL	2.33E-05	1.15E-03	4.75E-04	6.61E-05	1.22E-04	2.60E-04	2.02E-03	7.38E-05	4.51E-05	1.14E-03	-	1.94E-04	1.16E-04		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	5.71E-05		7.42E-10	6.85E-10
HHDT-DSL	**3.33E-06**	**1.64E-04**	**6.78E-05**	**9.44E-06**	**1.74E-05**	**3.72E-05**	**2.88E-04**	**1.05E-05**	**6.44E-06**	**1.64E-04**	-	**2.78E-05**	**1.65E-05**		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	8.16E-06		1.06E-10	9.79E-11
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	3.86E-06	5.62E-07		-	2.81E-10

Offroad												Annual				
Equipment	methanol	methyl ethyl ketone (mek) (2-butanone	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMIN
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956
Dust	-	-	-	-	-	-	-	-	-	-	-	-	4.08E-06		5.30E-11	4.89E-11
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	8.18E-06	9.30E-07		-	4.65E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	1.02E-05		1.33E-10	1.22E-10
	1.11E-04	**5.21E-03**	**2.32E-03**	**3.02E-04**	**6.27E-04**	**1.24E-03**	**9.30E-03**	**3.35E-04**	**2.10E-04**	**5.46E-03**	**6.05E-06**	***5.51E-03***	***2.84E-03***	***2.75E-03***	**1.03E-09**	**1.70E-09**
Graders	4.94E-05	2.43E-03	1.01E-03	1.40E-04	2.58E-04	5.51E-04	4.27E-03	1.56E-04	9.54E-05	2.42E-03	-	3.29E-03	1.49E-03		-	-
Rubber Tired Dozers	1.38E-04	6.80E-03	2.81E-03	3.91E-04	7.22E-04	1.54E-03	1.19E-02	4.37E-04	2.67E-04	6.78E-03	-	9.20E-03	3.99E-03		-	-
Rollers	4.19E-05	2.06E-03	8.53E-04	1.19E-04	2.19E-04	4.68E-04	3.63E-03	1.33E-04	8.10E-05	2.06E-03	-	2.79E-03	1.26E-03		-	-
	-	-	-	-	-	-	-	-	-	-	-	-	1.02E-02		2.44E-07	3.55E-07
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	6.54E-06	7.44E-07		-	3.72E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	8.16E-06		1.06E-10	9.79E-11
	2.32E-04	**1.13E-02**	**4.76E-03**	**6.51E-04**	**1.24E-03**	**2.59E-03**	**1.99E-02**	**7.26E-04**	**4.46E-04**	**1.14E-02**	**3.29E-06**	***1.53E-02***	***1.69E-02***	***6.74E-03***	**2.44E-07**	**3.56E-07**
Tractors/Loaders/Backhoes	3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	2.27E-03	1.06E-03		-	-
Pavers	5.86E-05	2.88E-03	1.19E-03	1.66E-04	3.07E-04	6.54E-04	5.07E-03	1.86E-04	1.13E-04	2.88E-03	-	3.91E-03	1.74E-03		-	-
HHDT-DSL	8.33E-07	4.10E-05	1.70E-05	2.36E-06	4.36E-06	9.30E-06	7.21E-05	2.64E-06	1.61E-06	4.09E-05	-	6.94E-06	4.13E-06		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.04E-06		2.65E-11	2.45E-11
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	3.86E-06	5.62E-07		-	2.81E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	4.08E-06		5.30E-11	4.89E-11
	-	-	-	-	-	2.44E-03	-	-	-	4.22E-03	-	1.31E-03	-		-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	6.54E-06	7.44E-07		-	3.72E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	8.16E-06		1.06E-10	9.79E-11
	9.83E-05	**4.60E-03**	**2.04E-03**	**2.67E-04**	**5.52E-04**	**3.53E-03**	**8.21E-03**	**2.96E-04**	**1.86E-04**	**9.04E-03**	**5.23E-06**	***7.50E-03***	***2.82E-03***	***2.80E-03***	**1.86E-10**	**8.25E-10**
Trenchers	6.45E-05	3.17E-03	1.31E-03	1.83E-04	3.37E-04	7.20E-04	5.58E-03	2.04E-04	1.25E-04	3.16E-03	-	1.29E-02	5.72E-03		-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	1.96E-05	2.23E-06		-	1.12E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.45E-05		3.18E-10	2.94E-10
	6.75E-05	**3.17E-03**	**1.40E-03**	**1.84E-04**	**3.77E-04**	**7.51E-04**	**5.66E-03**	**2.04E-04**	**1.28E-04**	**3.31E-03**	**3.29E-06**	***1.29E-02***	***5.75E-03***	***5.72E-03***	**3.18E-10**	**1.41E-09**
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	1.94E-04	1.16E-04		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	5.71E-05		7.42E-10	6.85E-10
	1.67E-06	**8.20E-05**	**3.39E-05**	**4.72E-06**	**8.72E-06**	**1.86E-05**	**1.44E-04**	**5.27E-06**	**3.22E-06**	**8.18E-05**	**-**	***1.94E-04***	***1.73E-04***	**1.16E-04**	**7.42E-10**	**6.85E-10**
	1.73E-03	**8.27E-02**	**4.04E-02**	**5.50E-03**	**2.58E-02**	**2.49E-02**	**1.93E-01**	**5.32E-03**	**3.30E-03**	**1.11E-01**	**5.90E-05**	**2.67E-01**	**1.24E-01**	**1.01E-01**	**2.54E-07**	**3.88E-07**
Excavators	4.12E-05	2.03E-03	8.39E-04	1.17E-04	2.16E-04	4.60E-04	3.57E-03	1.30E-04	7.97E-05	2.02E-03	-	1.65E-02	7.51E-03		-	-
Rubber Tired Loaders	4.17E-05	2.05E-03	8.50E-04	1.18E-04	2.18E-04	4.66E-04	3.61E-03	1.32E-04	8.07E-05	2.05E-03	-	1.67E-02	7.58E-03		-	-
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	8.33E-05	4.96E-05		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.45E-05		3.18E-10	2.94E-10
	-	-	-	-	-	-	-	-	-	-	-	-	1.50E-03		3.60E-08	5.25E-08
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	4.91E-05	5.58E-06		-	2.79E-09
Dust	-	-	-	-	-	-	-	-	-	-	-	-	6.12E-05		7.95E-10	7.34E-10
	8.84E-05	**4.17E-03**	**1.83E-03**	**2.41E-04**	**4.92E-04**	**9.83E-04**	**7.42E-03**	**2.68E-04**	**1.67E-04**	**4.33E-03**	**4.11E-06**	***3.33E-02***	***1.67E-02***	**1.51E-02**	**3.71E-08**	**5.63E-08**

Offroad												Annual				
Equipment	methanol	methyl ethyl ketone (mek) (2-butanone	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMIN
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956
HHDT-DSL	1.17E-05	5.74E-04	2.37E-04	3.30E-05	6.10E-05	1.30E-04	1.01E-03	3.69E-05	2.25E-05	5.72E-04	-	1.94E-04	1.16E-04		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	5.71E-05		7.42E-10	6.85E-10
Graders	4.94E-05	2.43E-03	1.01E-03	1.40E-04	2.58E-04	5.51E-04	4.27E-03	1.56E-04	9.54E-05	2.42E-03	-	6.58E-03	2.98E-03		-	-
Rollers	4.19E-05	2.06E-03	8.53E-04	1.19E-04	2.19E-04	4.68E-04	3.63E-03	1.33E-04	8.10E-05	2.06E-03	-	5.59E-03	2.53E-03		-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	1.31E-05	1.49E-06		-	7.44E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	1.63E-05		2.12E-10	1.96E-10
	1.06E-04	**5.07E-03**	**2.18E-03**	**2.93E-04**	**5.78E-04**	**1.18E-03**	**8.99E-03**	**3.26E-04**	**2.02E-04**	**5.20E-03**	**3.29E-06**	***1.24E-02***	***5.70E-03***	***5.62E-03***	**9.54E-10**	**1.63E-09**
Tractors/Loaders/Backhoes	3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	4.54E-03	2.12E-03		-	-
Trenchers	6.45E-05	3.17E-03	1.31E-03	1.83E-04	3.37E-04	7.20E-04	5.58E-03	2.04E-04	1.25E-04	3.16E-03	-	8.59E-03	3.81E-03		-	-
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	7.72E-06	1.12E-06		-	5.62E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	8.16E-06		1.06E-10	9.79E-11
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	1.31E-05	1.49E-06		-	7.44E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	1.63E-05		2.12E-10	1.96E-10
	1.03E-04	**4.85E-03**	**2.15E-03**	**2.81E-04**	**5.78E-04**	**1.15E-03**	**8.65E-03**	**3.12E-04**	**1.95E-04**	**5.06E-03**	**5.23E-06**	***1.32E-02***	***5.96E-03***	***5.93E-03***	**3.18E-10**	**1.60E-09**
Concrete/Industrial Saws	3.74E-05	1.84E-03	7.61E-04	1.06E-04	1.96E-04	4.17E-04	3.24E-03	1.18E-04	7.23E-05	1.84E-03	-	2.49E-03	1.37E-03		-	-
Rubber Tired Loaders	4.17E-05	2.05E-03	8.50E-04	1.18E-04	2.18E-04	4.66E-04	3.61E-03	1.32E-04	8.07E-05	2.05E-03	-	2.78E-03	1.26E-03		-	-
HHDT-DSL	**2.33E-05**	**1.15E-03**	**4.75E-04**	**6.61E-05**	**1.22E-04**	**2.60E-04**	**2.02E-03**	**7.38E-05**	**4.51E-05**	**1.14E-03**	**-**	**1.94E-04**	**1.16E-04**		**-**	**-**
Dust	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**5.71E-05**		**7.42E-10**	**6.85E-10**
HHDT-DSL	7.49E-06	3.69E-04	1.53E-04	2.12E-05	3.92E-05	8.37E-05	6.49E-04	2.37E-05	1.45E-05	3.68E-04	-	6.25E-05	3.72E-05		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	1.84E-05		2.39E-10	2.20E-10
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	3.86E-06	5.62E-07		-	2.81E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	4.08E-06		5.30E-11	4.89E-11
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	8.18E-06	9.30E-07		-	4.65E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	1.02E-05		1.33E-10	1.22E-10
	1.16E-04	**5.41E-03**	**2.40E-03**	**3.14E-04**	**6.48E-04**	**1.28E-03**	**9.66E-03**	**3.48E-04**	**2.18E-04**	**5.66E-03**	**6.05E-06**	***5.54E-03***	***2.88E-03***	***2.75E-03***	**1.17E-09**	**1.82E-09**
Graders	4.94E-05	2.43E-03	1.01E-03	1.40E-04	2.58E-04	5.51E-04	4.27E-03	1.56E-04	9.54E-05	2.42E-03	-	3.29E-03	1.49E-03		-	-
Rubber Tired Dozers	1.38E-04	6.80E-03	2.81E-03	3.91E-04	7.22E-04	1.54E-03	1.19E-02	4.37E-04	2.67E-04	6.78E-03	-	9.20E-03	3.99E-03		-	-
Rollers	4.19E-05	2.06E-03	8.53E-04	1.19E-04	2.19E-04	4.68E-04	3.63E-03	1.33E-04	8.10E-05	2.06E-03	-	2.79E-03	1.26E-03		-	-
	-	-	-	-	-	-	-	-	-	-	-	-	1.02E-02		2.44E-07	3.55E-07
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	6.54E-06	7.44E-07		-	3.72E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	8.16E-06		1.06E-10	9.79E-11
	2.32E-04	**1.13E-02**	**4.76E-03**	**6.51E-04**	**1.24E-03**	**2.59E-03**	**1.99E-02**	**7.26E-04**	**4.46E-04**	**1.14E-02**	**3.29E-06**	***1.53E-02***	***1.69E-02***	***6.74E-03***	**2.44E-07**	**3.56E-07**
Tractors/Loaders/Backhoes	3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	2.27E-03	1.06E-03		-	-
Pavers	5.86E-05	2.88E-03	1.19E-03	1.66E-04	3.07E-04	6.54E-04	5.07E-03	1.86E-04	1.13E-04	2.88E-03	-	3.91E-03	1.74E-03		-	-
HHDT-DSL	8.33E-07	4.10E-05	1.70E-05	2.36E-06	4.36E-06	9.30E-06	7.21E-05	2.64E-06	1.61E-06	4.09E-05	-	6.94E-06	4.13E-06		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	2.04E-06		2.65E-11	2.45E-11
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	3.86E-06	5.62E-07		-	2.81E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	4.08E-06		5.30E-11	4.89E-11
	-	-	-	-	-	2.44E-03	-	-	-	4.22E-03	-	1.31E-03	-		-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	6.54E-06	7.44E-07		-	3.72E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	8.16E-06		1.06E-10	9.79E-11

Offroad												Annual				
Equipment	de methanol	methyl ethyl ketone (mek) (2-butanon	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMIN
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956
	9.83E-05	**4.60E-03**	**2.04E-03**	**2.67E-04**	**5.52E-04**	**3.53E-03**	**8.21E-03**	**2.96E-04**	**1.86E-04**	**9.04E-03**	**5.23E-06**	***7.50E-03***	***2.82E-03***	***2.80E-03***	**1.86E-10**	**8.25E-10**
Trenchers	6.45E-05	3.17E-03	1.31E-03	1.83E-04	3.37E-04	7.20E-04	5.58E-03	2.04E-04	1.25E-04	3.16E-03	-	1.29E-02	5.72E-03		-	-
LDA-TOT	1.90E-06	2.84E-07	5.53E-05	7.32E-07	2.48E-05	1.92E-05	4.75E-05	-	1.91E-06	8.94E-05	2.06E-06	1.23E-05	1.40E-06		-	6.98E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	1.53E-05		1.99E-10	1.84E-10
	6.64E-05	**3.17E-03**	**1.37E-03**	**1.83E-04**	**3.62E-04**	**7.39E-04**	**5.63E-03**	**2.04E-04**	**1.27E-04**	**3.25E-03**	**2.06E-06**	***1.29E-02***	***5.74E-03***	***5.72E-03***	**1.99E-10**	**8.81E-10**
Trenchers	6.45E-05	3.17E-03	1.31E-03	1.83E-04	3.37E-04	7.20E-04	5.58E-03	2.04E-04	1.25E-04	3.16E-03	-	4.30E-03	1.91E-03		-	-
LDA-TOT	1.90E-06	2.84E-07	5.53E-05	7.32E-07	2.48E-05	1.92E-05	4.75E-05	-	1.91E-06	8.94E-05	2.06E-06	4.09E-06	4.65E-07		-	2.33E-10
Dust	-	-	-	-	-	-	-	-	-	-	-	-	5.10E-06		6.63E-11	6.12E-11
	6.64E-05	**3.17E-03**	**1.37E-03**	**1.83E-04**	**3.62E-04**	**7.39E-04**	**5.63E-03**	**2.04E-04**	**1.27E-04**	**3.25E-03**	**2.06E-06**	***4.30E-03***	***1.91E-03***	***1.91E-03***	**6.63E-11**	**2.94E-10**
Air Compressors	8.60E-05	4.23E-03	1.75E-03	2.44E-04	4.50E-04	9.60E-04	7.44E-03	2.72E-04	1.66E-04	4.22E-03	-	2.06E-01	1.13E-01		-	-
HHDT-DSL	8.33E-07	4.10E-05	1.70E-05	2.36E-06	4.36E-06	9.30E-06	7.21E-05	2.64E-06	1.61E-06	4.09E-05	-	2.78E-05	1.65E-05		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	8.16E-06		1.06E-10	9.79E-11
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	2.50E-05	1.49E-05		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	7.34E-06		9.54E-11	8.81E-11
Off-Highway Trucks	7.11E-05	3.50E-03	1.45E-03	2.01E-04	3.72E-04	7.94E-04	6.15E-03	2.25E-04	1.37E-04	3.49E-03	-	8.53E-02	2.82E-02		-	-
Tractors/Loaders/Backhoes	3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	8.16E-02	3.81E-02		-	-
Cranes	3.44E-05	1.70E-03	7.01E-04	9.76E-05	1.80E-04	3.84E-04	2.98E-03	1.09E-04	6.66E-05	1.69E-03	-	8.26E-02	3.70E-02		-	-
Forklifts	2.50E-05	1.23E-03	5.10E-04	7.10E-05	1.31E-04	2.80E-04	2.17E-03	7.93E-05	4.84E-05	1.23E-03	-	6.01E-02	2.01E-02		-	-
LDA-TOT	5.69E-06	8.51E-07	1.66E-04	2.20E-06	7.45E-05	5.77E-05	1.43E-04	-	5.72E-06	2.68E-04	6.17E-06	4.42E-04	5.02E-05		-	2.51E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	5.51E-04		7.16E-09	6.61E-09
	2.59E-04	**1.25E-02**	**5.32E-03**	**7.19E-04**	**1.40E-03**	**2.88E-03**	**2.21E-02**	**8.01E-04**	**4.95E-04**	**1.27E-02**	**6.17E-06**	***5.17E-01***	***2.37E-01***	***2.37E-01***	**7.36E-09**	**3.19E-08**
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	1.94E-04	1.16E-04		-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	5.71E-05		7.42E-10	6.85E-10
	1.67E-06	**8.20E-05**	**3.39E-05**	**4.72E-06**	**8.72E-06**	**1.86E-05**	**1.44E-04**	**5.27E-06**	**3.22E-06**	**8.18E-05**	**-**	***1.94E-04***	***1.73E-04***	***1.16E-04***	**7.42E-10**	**6.85E-10**
	1.14E-03	**5.43E-02**	**2.35E-02**	**3.14E-03**	**6.22E-03**	**1.51E-02**	**9.63E-02**	**3.49E-03**	**2.17E-03**	**6.00E-02**	**3.75E-05**	**6.21E-01**	**2.96E-01**	**2.83E-01**	**2.92E-07**	**4.52E-07**

Offroad Equipment	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl eth
Category	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933
Cranes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crushing/Proc. Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	2.45E-11	4.35E-09	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-
LDA-TOT	-	2.61E-07	9.30E-11	1.86E-09	-	1.86E-09	-	1.86E-09	-	-	1.67E-06	-	1.69E-07	8.67E-08	7.68E-07	3.26E-07	4.90E-07	3.79E-08	5.67E-09
Dust	1.22E-10	2.17E-08	3.47E-11	6.04E-09	5.06E-09	3.26E-08	3.67E-10	4.89E-10	8.16E-11	1.28E-07	1.10E-07	2.90E-09	-	-	-	-	-	-	-
	1.47E-10	**2.87E-07**	**1.35E-10**	**9.10E-09**	**6.07E-09**	**4.10E-08**	**4.40E-10**	**2.45E-09**	**9.79E-11**	**1.53E-07**	**1.81E-06**	**3.47E-09**	**1.69E-07**	**8.67E-08**	**7.68E-07**	**3.26E-07**	**4.90E-07**	**3.79E-08**	**5.67E-09**
Excavators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	1.47E-10	2.61E-08	4.16E-11	7.24E-09	6.07E-09	3.92E-08	4.40E-10	5.87E-10	9.79E-11	1.53E-07	1.32E-07	3.47E-09	-	-	-	-	-	-	-
	4.68E-08	5.10E-06	1.57E-08	1.66E-07	8.41E-07	1.38E-06	2.40E-08	9.12E-08	3.60E-09	4.46E-06	7.07E-06	3.97E-07	-	-	-	-	-	-	-
LDA-TOT	-	7.82E-07	2.79E-10	5.58E-09	-	5.58E-09	-	5.58E-09	-	-	5.02E-06	-	5.08E-07	2.60E-07	2.30E-06	9.77E-07	1.47E-06	1.14E-07	1.70E-08
Dust	3.67E-10	6.52E-08	1.04E-10	1.81E-08	1.52E-08	9.79E-08	1.10E-09	1.47E-09	2.45E-10	3.83E-07	3.29E-07	8.69E-09	-	-	-	-	-	-	-
	4.69E-08	**5.91E-06**	**1.60E-08**	**1.78E-07**	**8.47E-07**	**1.42E-06**	**2.44E-08**	**9.74E-08**	**3.70E-09**	**4.61E-06**	**1.22E-05**	**4.01E-07**	**5.08E-07**	**2.60E-07**	**2.30E-06**	**9.77E-07**	**1.47E-06**	**1.14E-07**	**1.70E-08**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	1.37E-07	4.88E-11	9.77E-10	-	9.77E-10	-	9.77E-10	-	-	8.79E-07	-	8.89E-08	4.55E-08	4.03E-07	1.71E-07	2.57E-07	1.99E-08	2.98E-09
Dust	6.42E-11	1.14E-08	1.82E-11	3.17E-09	2.66E-09	1.71E-08	1.93E-10	2.57E-10	4.28E-11	6.70E-08	5.76E-08	1.52E-09	-	-	-	-	-	-	-
	6.42E-11	**1.48E-07**	**6.70E-11**	**4.15E-09**	**2.66E-09**	**1.81E-08**	**1.93E-10**	**1.23E-09**	**4.28E-11**	**6.70E-08**	**9.37E-07**	**1.52E-09**	**8.89E-08**	**4.55E-08**	**4.03E-07**	**1.71E-07**	**2.57E-07**	**1.99E-08**	**2.98E-09**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Air Compressors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	2.61E-07	9.30E-11	1.86E-09	-	1.86E-09	-	1.86E-09	-	-	1.67E-06	-	1.69E-07	8.67E-08	7.68E-07	3.26E-07	4.90E-07	3.79E-08	5.67E-09
Dust	1.22E-10	2.17E-08	3.47E-11	6.04E-09	5.06E-09	3.26E-08	3.67E-10	4.89E-10	8.16E-11	1.28E-07	1.10E-07	2.90E-09	-	-	-	-	-	-	-
	0.00E+00	**2.61E-07**	**9.30E-11**	**1.86E-09**	**0.00E+00**	**1.86E-09**	**0.00E+00**	**1.86E-09**	**0.00E+00**	**0.00E+00**	**1.67E-06**	**0.00E+00**	**1.69E-07**	**8.67E-08**	**7.68E-07**	**3.26E-07**	**4.90E-07**	**3.79E-08**	**5.67E-09**

Offroad																			
Equipment	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl eth
Category	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	4.56E-08	1.63E-11	3.26E-10	-	3.26E-10	-	3.26E-10	-	-	2.93E-07	-	2.96E-08	1.52E-08	1.34E-07	5.70E-08	8.58E-08	6.64E-09	9.92E-10
Dust	2.14E-11	3.80E-09	6.07E-12	1.06E-09	8.85E-10	5.71E-09	6.42E-11	8.57E-11	1.43E-11	2.23E-08	1.92E-08	5.07E-10	-	-	-	-	-	-	-
	2.14E-11	**4.94E-08**	**2.23E-11**	**1.38E-09**	**8.85E-10**	**6.04E-09**	**6.42E-11**	**4.11E-10**	**1.43E-11**	**2.23E-08**	**3.12E-07**	**5.07E-10**	**2.96E-08**	**1.52E-08**	**1.34E-07**	**5.70E-08**	**8.58E-08**	**6.64E-09**	**9.92E-10**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	2.61E-07	9.30E-11	1.86E-09	-	1.86E-09	-	1.86E-09	-	-	1.67E-06	-	1.69E-07	8.67E-08	7.68E-07	3.26E-07	4.90E-07	3.79E-08	5.67E-09
Dust	1.22E-10	2.17E-08	3.47E-11	6.04E-09	5.06E-09	3.26E-08	3.67E-10	4.89E-10	8.16E-11	1.28E-07	1.10E-07	2.90E-09	-	-	-	-	-	-	-
	1.22E-10	**2.82E-07**	**1.28E-10**	**7.90E-09**	**5.06E-09**	**3.45E-08**	**3.67E-10**	**2.35E-09**	**8.16E-11**	**1.28E-07**	**1.78E-06**	**2.90E-09**	**1.69E-07**	**8.67E-08**	**7.68E-07**	**3.26E-07**	**4.90E-07**	**3.79E-08**	**5.67E-09**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	5.08E-08	1.81E-11	3.63E-10	-	3.63E-10	-	3.63E-10	-	-	3.27E-07	-	3.30E-08	1.69E-08	1.50E-07	6.35E-08	9.56E-08	7.40E-09	1.11E-09
Dust	2.39E-11	4.24E-09	6.76E-12	1.18E-09	9.86E-10	6.36E-09	7.16E-11	9.54E-11	1.59E-11	2.49E-08	2.14E-08	5.65E-10	-	-	-	-	-	-	-
	2.39E-11	**5.50E-08**	**2.49E-11**	**1.54E-09**	**9.86E-10**	**6.73E-09**	**7.16E-11**	**4.58E-10**	**1.59E-11**	**2.49E-08**	**3.48E-07**	**5.65E-10**	**3.30E-08**	**1.69E-08**	**1.50E-07**	**6.35E-08**	**9.56E-08**	**7.40E-09**	**1.11E-09**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Excavators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	2.45E-12	4.35E-10	6.93E-13	1.21E-10	1.01E-10	6.53E-10	7.34E-12	9.79E-12	1.63E-12	2.55E-09	2.20E-09	5.79E-11	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	5.08E-08	1.81E-11	3.63E-10	-	3.63E-10	-	3.63E-10	-	-	3.27E-07	-	3.30E-08	1.69E-08	1.50E-07	6.35E-08	9.56E-08	7.40E-09	1.11E-09
Dust	2.39E-11	4.24E-09	6.76E-12	1.18E-09	9.86E-10	6.36E-09	7.16E-11	9.54E-11	1.59E-11	2.49E-08	2.14E-08	5.65E-10	-	-	-	-	-	-	-
	2.63E-11	**5.55E-08**	**2.56E-11**	**1.66E-09**	**1.09E-09**	**7.38E-09**	**7.89E-11**	**4.68E-10**	**1.75E-11**	**2.75E-08**	**3.50E-07**	**6.23E-10**	**3.30E-08**	**1.69E-08**	**1.50E-07**	**6.35E-08**	**9.56E-08**	**7.40E-09**	**1.11E-09**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	5.08E-08	1.81E-11	3.63E-10	-	3.63E-10	-	3.63E-10	-	-	3.27E-07	-	3.30E-08	1.69E-08	1.50E-07	6.35E-08	9.56E-08	7.40E-09	1.11E-09
Dust	2.39E-11	4.24E-09	6.76E-12	1.18E-09	9.86E-10	6.36E-09	7.16E-11	9.54E-11	1.59E-11	2.49E-08	2.14E-08	5.65E-10	-	-	-	-	-	-	-
	2.39E-11	**5.50E-08**	**2.49E-11**	**1.54E-09**	**9.86E-10**	**6.73E-09**	**7.16E-11**	**4.58E-10**	**1.59E-11**	**2.49E-08**	**3.48E-07**	**5.65E-10**	**3.30E-08**	**1.69E-08**	**1.50E-07**	**6.35E-08**	**9.56E-08**	**7.40E-09**	**1.11E-09**
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	1.28E-10	2.28E-08	3.64E-11	6.34E-09	5.31E-09	3.43E-08	3.85E-10	5.14E-10	8.57E-11	1.34E-07	1.15E-07	3.04E-09	-	-	-	-	-	-	-

Offroad																			
Equipment	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl eth
Category	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933
Graders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	1.56E-07	5.58E-11	1.12E-09	-	1.12E-09	-	1.12E-09	-	-	1.00E-06	-	1.02E-07	5.20E-08	4.61E-07	1.95E-07	2.94E-07	2.28E-08	3.40E-09
Dust	7.34E-11	1.30E-08	2.08E-11	3.62E-09	3.03E-09	1.96E-08	2.20E-10	2.94E-10	4.89E-11	7.66E-08	6.59E-08	1.74E-09	-	-	-	-	-	-	-
	2.02E-10	**1.92E-07**	**1.13E-10**	**1.11E-08**	**8.34E-09**	**5.50E-08**	**6.06E-10**	**1.92E-09**	**1.35E-10**	**2.11E-07**	**1.19E-06**	**4.78E-09**	**1.02E-07**	**5.20E-08**	**4.61E-07**	**1.95E-07**	**2.94E-07**	**2.28E-08**	**3.40E-09**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDT2-TOT	-	1.57E-07	5.62E-11	1.12E-09	-	1.12E-09	-	1.12E-09	-	-	1.01E-06	-	7.99E-08	4.09E-08	3.62E-07	1.54E-07	2.31E-07	1.79E-08	2.67E-09
Dust	4.89E-11	8.70E-09	1.39E-11	2.41E-09	2.02E-09	1.31E-08	1.47E-10	1.96E-10	3.26E-11	5.11E-08	4.39E-08	1.16E-09	-	-	-	-	-	-	-
LDA-TOT	-	2.08E-07	7.44E-11	1.49E-09	-	1.49E-09	-	1.49E-09	-	-	1.34E-06	-	1.35E-07	6.93E-08	6.14E-07	2.60E-07	3.92E-07	3.04E-08	4.54E-09
Dust	9.79E-11	1.74E-08	2.77E-11	4.83E-09	4.05E-09	2.61E-08	2.94E-10	3.92E-10	6.53E-11	1.02E-07	8.78E-08	2.32E-09	-	-	-	-	-	-	-
	1.47E-10	**3.92E-07**	**1.72E-10**	**9.86E-09**	**6.07E-09**	**4.18E-08**	**4.40E-10**	**3.20E-09**	**9.79E-11**	**1.53E-07**	**2.48E-06**	**3.47E-09**	**2.15E-07**	**1.10E-07**	**9.76E-07**	**4.14E-07**	**6.24E-07**	**4.83E-08**	**7.21E-09**
Crushing/Proc. Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	1.20E-10	2.13E-08	3.40E-11	5.92E-09	4.96E-09	3.20E-08	3.60E-10	4.80E-10	7.99E-11	1.25E-07	1.08E-07	2.84E-09	-	-	-	-	-	-	-
HHDT-DSL																			
Dust																			
LDT2-TOT	-	1.10E-07	3.94E-11	7.87E-10	-	7.87E-10	-	7.87E-10	-	-	7.08E-07	-	5.59E-08	2.86E-08	2.53E-07	1.08E-07	1.62E-07	1.25E-08	1.87E-09
Dust	3.43E-11	6.09E-09	9.71E-12	1.69E-09	1.42E-09	9.14E-09	1.03E-10	1.37E-10	2.28E-11	3.58E-08	3.07E-08	8.11E-10	-	-	-	-	-	-	-
LDA-TOT	-	1.82E-07	6.51E-11	1.30E-09	-	1.30E-09	-	1.30E-09	-	-	1.17E-06	-	1.19E-07	6.07E-08	5.37E-07	2.28E-07	3.43E-07	2.66E-08	3.97E-09
Dust	8.57E-11	1.52E-08	2.43E-11	4.23E-09	3.54E-09	2.28E-08	2.57E-10	3.43E-10	5.71E-11	8.94E-08	7.69E-08	2.03E-09	-	-	-	-	-	-	-
	2.40E-10	**3.35E-07**	**1.72E-10**	**1.39E-08**	**9.91E-09**	**6.60E-08**	**7.19E-10**	**3.05E-09**	**1.60E-10**	**2.50E-07**	**2.10E-06**	**5.68E-09**	**1.74E-07**	**8.93E-08**	**7.91E-07**	**3.35E-07**	**5.05E-07**	**3.91E-08**	**5.84E-09**
Graders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Dozers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3.96E-07	4.32E-05	1.33E-07	1.40E-06	7.12E-06	1.17E-05	2.03E-07	7.72E-07	3.05E-08	3.77E-05	5.99E-05	3.36E-06	-	-	-	-	-	-	-
LDA-TOT	-	5.21E-08	1.86E-11	3.72E-10	-	3.72E-10	-	3.72E-10	-	-	3.35E-07	-	3.39E-08	1.73E-08	1.54E-07	6.51E-08	9.81E-08	7.59E-09	1.13E-09
Dust	2.45E-11	4.35E-09	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-
	3.96E-07	**4.32E-05**	**1.33E-07**	**1.40E-06**	**7.12E-06**	**1.17E-05**	**2.03E-07**	**7.72E-07**	**3.05E-08**	**3.77E-05**	**6.02E-05**	**3.36E-06**	**3.39E-08**	**1.73E-08**	**1.54E-07**	**6.51E-08**	**9.81E-08**	**7.59E-09**	**1.13E-09**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pavers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	6.12E-12	1.09E-09	1.73E-12	3.02E-10	2.53E-10	1.63E-09	1.84E-11	2.45E-11	4.08E-12	6.39E-09	5.49E-09	1.45E-10	-	-	-	-	-	-	-
LDT2-TOT	-	3.94E-08	1.41E-11	2.81E-10	-	2.81E-10	-	2.81E-10	-	-	2.53E-07	-	2.00E-08	1.02E-08	9.05E-08	3.84E-08	5.78E-08	4.48E-09	6.69E-10
Dust	1.22E-11	2.17E-09	3.47E-12	6.04E-10	5.06E-10	3.26E-09	3.67E-11	4.89E-11	8.16E-12	1.28E-08	1.10E-08	2.90E-10	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.03E-05	-	-	-
LDA-TOT	-	5.21E-08	1.86E-11	3.72E-10	-	3.72E-10	-	3.72E-10	-	-	3.35E-07	-	3.39E-08	1.73E-08	1.54E-07	6.51E-08	9.81E-08	7.59E-09	1.13E-09
Dust	2.45E-11	4.35E-09	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-
	4.28E-11	**9.91E-08**	**4.48E-11**	**2.77E-09**	**1.77E-09**	**1.21E-08**	**1.28E-10**	**8.25E-10**	**2.86E-11**	**4.47E-08**	**6.26E-07**	**1.01E-09**	**5.38E-08**	**2.76E-08**	**2.44E-07**	**3.04E-05**	**1.56E-07**	**1.21E-08**	**1.80E-09**

Offroad																			
Equipment	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl eth
Category	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	1.56E-07	5.58E-11	1.12E-09	-	1.12E-09	-	1.12E-09	-	-	1.00E-06	-	1.02E-07	5.20E-08	4.61E-07	1.95E-07	2.94E-07	2.28E-08	3.40E-09
Dust	7.34E-11	1.30E-08	2.08E-11	3.62E-09	3.03E-09	1.96E-08	2.20E-10	2.94E-10	4.89E-11	7.66E-08	6.59E-08	1.74E-09	-	-	-	-	-	-	-
	7.34E-11	**1.69E-07**	**7.66E-11**	**4.74E-09**	**3.03E-09**	**2.07E-08**	**2.20E-10**	**1.41E-09**	**4.89E-11**	**7.66E-08**	**1.07E-06**	**1.74E-09**	**1.02E-07**	**5.20E-08**	**4.61E-07**	**1.95E-07**	**2.94E-07**	**2.28E-08**	**3.40E-09**
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	2.45E-10	4.35E-08	6.93E-11	1.21E-08	1.01E-08	6.53E-08	7.34E-10	9.79E-10	1.63E-10	2.55E-07	2.20E-07	5.79E-09	-	-	-	-	-	-	-
	2.45E-10	**4.35E-08**	**6.93E-11**	**1.21E-08**	**1.01E-08**	**6.53E-08**	**7.34E-10**	**9.79E-10**	**1.63E-10**	**2.55E-07**	**2.20E-07**	**5.79E-09**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	4.44E-07	**5.15E-05**	**1.50E-07**	**1.66E-06**	**8.02E-06**	**1.35E-05**	**2.32E-07**	**8.91E-07**	**3.51E-08**	**4.38E-05**	**8.77E-05**	**3.79E-06**	**1.91E-06**	**9.80E-07**	**8.68E-06**	**3.40E-05**	**5.54E-06**	**4.29E-07**	**6.41E-08**
Cranes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Concrete/Industrial Saws	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	1.30E-07	4.65E-11	9.30E-10	-	9.30E-10	-	9.30E-10	-	-	8.37E-07	-	8.46E-08	4.33E-08	3.84E-07	1.63E-07	2.45E-07	1.90E-08	2.84E-09
Dust	6.12E-11	1.09E-08	1.73E-11	3.02E-09	2.53E-09	1.63E-08	1.84E-10	2.45E-10	4.08E-11	6.39E-08	5.49E-08	1.45E-09	-	-	-	-	-	-	-
	6.12E-11	**1.41E-07**	**6.39E-11**	**3.95E-09**	**2.53E-09**	**1.72E-08**	**1.84E-10**	**1.18E-09**	**4.08E-11**	**6.39E-08**	**8.92E-07**	**1.45E-09**	**8.46E-08**	**4.33E-08**	**3.84E-07**	**1.63E-07**	**2.45E-07**	**1.90E-08**	**2.84E-09**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	1.69E-07	6.05E-11	1.21E-09	-	1.21E-09	-	1.21E-09	-	-	1.09E-06	-	1.10E-07	5.63E-08	4.99E-07	2.12E-07	3.19E-07	2.47E-08	3.69E-09
Dust	7.95E-11	1.41E-08	2.25E-11	3.92E-09	3.29E-09	2.12E-08	2.39E-10	3.18E-10	5.30E-11	8.30E-08	7.14E-08	1.88E-09	-	-	-	-	-	-	-
	7.95E-11	**1.83E-07**	**8.30E-11**	**5.13E-09**	**3.29E-09**	**2.24E-08**	**2.39E-10**	**1.53E-09**	**5.30E-11**	**8.30E-08**	**1.16E-06**	**1.88E-09**	**1.10E-07**	**5.63E-08**	**4.99E-07**	**2.12E-07**	**3.19E-07**	**2.47E-08**	**3.69E-09**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Excavators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	9.79E-12	1.74E-09	2.77E-12	4.83E-10	4.05E-10	2.61E-09	2.94E-11	3.92E-11	6.53E-12	1.02E-08	8.78E-09	2.32E-10	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	1.69E-07	6.05E-11	1.21E-09	-	1.21E-09	-	1.21E-09	-	-	1.09E-06	-	1.10E-07	5.63E-08	4.99E-07	2.12E-07	3.19E-07	2.47E-08	3.69E-09
Dust	7.95E-11	1.41E-08	2.25E-11	3.92E-09	3.29E-09	2.12E-08	2.39E-10	3.18E-10	5.30E-11	8.30E-08	7.14E-08	1.88E-09	-	-	-	-	-	-	-
	8.93E-11	**1.85E-07**	**8.58E-11**	**5.62E-09**	**3.69E-09**	**2.50E-08**	**2.68E-10**	**1.57E-09**	**5.95E-11**	**9.32E-08**	**1.17E-06**	**2.11E-09**	**1.10E-07**	**5.63E-08**	**4.99E-07**	**2.12E-07**	**3.19E-07**	**2.47E-08**	**3.69E-09**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Offroad																				
Equipment	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl eth
Category	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	1.69E-07	6.05E-11	1.21E-09	-	1.21E-09	-	1.21E-09	-	-	1.09E-06	-	1.10E-07	5.63E-08	4.99E-07	2.12E-07	3.19E-07	2.47E-08	3.69E-09
Dust	7.95E-11	1.41E-08	2.25E-11	3.92E-09	3.29E-09	2.12E-08	2.39E-10	3.18E-10	5.30E-11	8.30E-08	7.14E-08	1.88E-09	-	-	-	-	-	-	-
	7.95E-11	**1.83E-07**	**8.30E-11**	**5.13E-09**	**3.29E-09**	**2.24E-08**	**2.39E-10**	**1.53E-09**	**5.30E-11**	**8.30E-08**	**1.16E-06**	**1.88E-09**	**1.10E-07**	**5.63E-08**	**4.99E-07**	**2.12E-07**	**3.19E-07**	**2.47E-08**	**3.69E-09**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	2.61E-07	9.30E-11	1.86E-09	-	1.86E-09	-	1.86E-09	-	-	1.67E-06	-	1.69E-07	8.67E-08	7.68E-07	3.26E-07	4.90E-07	3.79E-08	5.67E-09
Dust	1.22E-10	2.17E-08	3.47E-11	6.04E-09	5.06E-09	3.26E-08	3.67E-10	4.89E-10	8.16E-11	1.28E-07	1.10E-07	2.90E-09	-	-	-	-	-	-	-
	1.22E-10	**2.82E-07**	**1.28E-10**	**7.90E-09**	**5.06E-09**	**3.45E-08**	**3.67E-10**	**2.35E-09**	**8.16E-11**	**1.28E-07**	**1.78E-06**	**2.90E-09**	**1.69E-07**	**8.67E-08**	**7.68E-07**	**3.26E-07**	**4.90E-07**	**3.79E-08**	**5.67E-09**
Excavators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	7.34E-11	1.30E-08	2.08E-11	3.62E-09	3.03E-09	1.96E-08	2.20E-10	2.94E-10	4.89E-11	7.66E-08	6.59E-08	1.74E-09	-	-	-	-	-	-	-
	5.85E-09	6.38E-07	1.97E-09	2.07E-08	1.05E-07	1.73E-07	3.00E-09	1.14E-08	4.50E-10	5.57E-07	8.84E-07	4.97E-08	-	-	-	-	-	-	-
LDA-TOT	-	3.13E-07	1.12E-10	2.23E-09	-	2.23E-09	-	2.23E-09	-	-	2.01E-06	-	2.03E-07	1.04E-07	9.21E-07	3.91E-07	5.88E-07	4.55E-08	6.80E-09
Dust	1.47E-10	2.61E-08	4.16E-11	7.24E-09	6.07E-09	3.92E-08	4.40E-10	5.87E-10	9.79E-11	1.53E-07	1.32E-07	3.47E-09	-	-	-	-	-	-	-
	6.07E-09	**9.89E-07**	**2.14E-09**	**3.38E-08**	**1.14E-07**	**2.33E-07**	**3.66E-09**	**1.45E-08**	**5.97E-10**	**7.87E-07**	**3.09E-06**	**5.49E-08**	**2.03E-07**	**1.04E-07**	**9.21E-07**	**3.91E-07**	**5.88E-07**	**4.55E-08**	**6.80E-09**
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	1.65E-10	2.93E-08	4.68E-11	8.15E-09	6.83E-09	4.40E-08	4.96E-10	6.61E-10	1.10E-10	1.72E-07	1.48E-07	3.91E-09	-	-	-	-	-	-	-
Graders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	1.56E-07	5.58E-11	1.12E-09	-	1.12E-09	-	1.12E-09	-	-	1.00E-06	-	1.02E-07	5.20E-08	4.61E-07	1.95E-07	2.94E-07	2.28E-08	3.40E-09
Dust	7.34E-11	1.30E-08	2.08E-11	3.62E-09	3.03E-09	1.96E-08	2.20E-10	2.94E-10	4.89E-11	7.66E-08	6.59E-08	1.74E-09	-	-	-	-	-	-	-
	2.39E-10	**1.99E-07**	**1.23E-10**	**1.29E-08**	**9.86E-09**	**6.47E-08**	**7.16E-10**	**2.07E-09**	**1.59E-10**	**2.49E-07**	**1.22E-06**	**5.65E-09**	**1.02E-07**	**5.20E-08**	**4.61E-07**	**1.95E-07**	**2.94E-07**	**2.28E-08**	**3.40E-09**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDT2-TOT	-	1.16E-06	4.13E-10	8.27E-09	-	8.27E-09	-	8.27E-09	-	-	7.44E-06	-	1.44E-07	7.35E-08	6.51E-07	2.76E-07	4.16E-07	3.22E-08	4.81E-09
Dust	2.45E-11	4.35E-09	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-
LDA-TOT	-	1.04E-07	3.72E-11	7.44E-10	-	7.44E-10	-	7.44E-10	-	-	6.70E-07	-	6.77E-08	3.47E-08	3.07E-07	1.30E-07	1.96E-07	1.52E-08	2.27E-09
Dust	4.89E-11	8.70E-09	1.39E-11	2.41E-09	2.02E-09	1.31E-08	1.47E-10	1.96E-10	3.26E-11	5.11E-08	4.39E-08	1.16E-09	-	-	-	-	-	-	-
	7.34E-11	**1.27E-06**	**4.71E-10**	**1.26E-08**	**3.03E-09**	**2.86E-08**	**2.20E-10**	**9.31E-09**	**4.89E-11**	**7.66E-08**	**8.18E-06**	**1.74E-09**	**2.11E-07**	**1.08E-07**	**9.58E-07**	**4.06E-07**	**6.12E-07**	**4.74E-08**	**7.08E-09**
Concrete/Industrial Saws	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	1.71E-10	3.04E-08	4.85E-11	8.45E-09	7.08E-09	4.57E-08	5.14E-10	6.85E-10	1.14E-10	1.79E-07	1.54E-07	4.05E-09	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	2.45E-11	4.35E-09	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-
LDT2-TOT	-	3.94E-08	1.41E-11	2.81E-10	-	2.81E-10	-	2.81E-10	-	-	2.53E-07	-	2.00E-08	1.02E-08	9.05E-08	3.84E-08	5.78E-08	4.48E-09	6.69E-10

Offroad																			
Equipment	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl eth
Category	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933
Dust	1.22E-11	2.17E-09	3.47E-12	6.04E-10	5.06E-10	3.26E-09	3.67E-11	4.89E-11	8.16E-12	1.28E-08	1.10E-08	2.90E-10	-	-	-	-	-	-	-
LDA-TOT	-	6.51E-08	2.33E-11	4.65E-10	-	4.65E-10	-	4.65E-10	-	-	4.19E-07	-	4.23E-08	2.17E-08	1.92E-07	8.14E-08	1.23E-07	9.49E-09	1.42E-09
Dust	3.06E-11	5.43E-09	8.67E-12	1.51E-09	1.26E-09	8.16E-09	9.18E-11	1.22E-10	2.04E-11	3.19E-08	2.74E-08	7.24E-10	-	-	-	-	-	-	-
	2.39E-10	**1.47E-07**	**1.05E-10**	**1.25E-08**	**9.86E-09**	**6.44E-08**	**7.16E-10**	**1.70E-09**	**1.59E-10**	**2.49E-07**	**8.86E-07**	**5.65E-09**	**6.23E-08**	**3.19E-08**	**2.82E-07**	**1.20E-07**	**1.80E-07**	**1.40E-08**	**2.09E-09**
Graders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Dozers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3.96E-07	4.32E-05	1.33E-07	1.40E-06	7.12E-06	1.17E-05	2.03E-07	7.72E-07	3.05E-08	3.77E-05	5.99E-05	3.36E-06	-	-	-	-	-	-	-
LDA-TOT	-	5.21E-08	1.86E-11	3.72E-10	-	3.72E-10	-	3.72E-10	-	-	3.35E-07	-	3.39E-08	1.73E-08	1.54E-07	6.51E-08	9.81E-08	7.59E-09	1.13E-09
Dust	2.45E-11	4.35E-09	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-
	3.96E-07	**4.32E-05**	**1.33E-07**	**1.40E-06**	**7.12E-06**	**1.17E-05**	**2.03E-07**	**7.72E-07**	**3.05E-08**	**3.77E-05**	**6.02E-05**	**3.36E-06**	**3.39E-08**	**1.73E-08**	**1.54E-07**	**6.51E-08**	**9.81E-08**	**7.59E-09**	**1.13E-09**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pavers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	6.12E-12	1.09E-09	1.73E-12	3.02E-10	2.53E-10	1.63E-09	1.84E-11	2.45E-11	4.08E-12	6.39E-09	5.49E-09	1.45E-10	-	-	-	-	-	-	-
LDT2-TOT	-	3.94E-08	1.41E-11	2.81E-10	-	2.81E-10	-	2.81E-10	-	-	2.53E-07	-	2.00E-08	1.02E-08	9.05E-08	3.84E-08	5.78E-08	4.48E-09	6.69E-10
Dust	1.22E-11	2.17E-09	3.47E-12	6.04E-10	5.06E-10	3.26E-09	3.67E-11	4.89E-11	8.16E-12	1.28E-08	1.10E-08	2.90E-10	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.03E-05	-	-	-
LDA-TOT	-	5.21E-08	1.86E-11	3.72E-10	-	3.72E-10	-	3.72E-10	-	-	3.35E-07	-	3.39E-08	1.73E-08	1.54E-07	6.51E-08	9.81E-08	7.59E-09	1.13E-09
Dust	2.45E-11	4.35E-09	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-
	4.28E-11	**9.91E-08**	**4.48E-11**	**2.77E-09**	**1.77E-09**	**1.21E-08**	**1.28E-10**	**8.25E-10**	**2.86E-11**	**4.47E-08**	**6.26E-07**	**1.01E-09**	**5.38E-08**	**2.76E-08**	**2.44E-07**	**3.04E-05**	**1.56E-07**	**1.21E-08**	**1.80E-09**
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	1.56E-07	5.58E-11	1.12E-09	-	1.12E-09	-	1.12E-09	-	-	1.00E-06	-	1.02E-07	5.20E-08	4.61E-07	1.95E-07	2.94E-07	2.28E-08	3.40E-09
Dust	7.34E-11	1.30E-08	2.08E-11	3.62E-09	3.03E-09	1.96E-08	2.20E-10	2.94E-10	4.89E-11	7.66E-08	6.59E-08	1.74E-09	-	-	-	-	-	-	-
	7.34E-11	**1.69E-07**	**7.66E-11**	**4.74E-09**	**3.03E-09**	**2.07E-08**	**2.20E-10**	**1.41E-09**	**4.89E-11**	**7.66E-08**	**1.07E-06**	**1.74E-09**	**1.02E-07**	**5.20E-08**	**4.61E-07**	**1.95E-07**	**2.94E-07**	**2.28E-08**	**3.40E-09**
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	1.71E-10	3.04E-08	4.85E-11	8.45E-09	7.08E-09	4.57E-08	5.14E-10	6.85E-10	1.14E-10	1.79E-07	1.54E-07	4.05E-09	-	-	-	-	-	-	-
	1.71E-10	**3.04E-08**	**4.85E-11**	**8.45E-09**	**7.08E-09**	**4.57E-08**	**5.14E-10**	**6.85E-10**	**1.14E-10**	**1.79E-07**	**1.54E-07**	**4.05E-09**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	4.03E-07	**4.71E-05**	**1.36E-07**	**1.52E-06**	**7.29E-06**	**1.23E-05**	**2.11E-07**	**8.11E-07**	**3.19E-08**	**3.99E-05**	**8.16E-05**	**3.45E-06**	**1.35E-06**	**6.92E-07**	**6.13E-06**	**3.29E-05**	**3.92E-06**	**3.03E-07**	**4.53E-08**
Excavators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	7.34E-11	1.30E-08	2.08E-11	3.62E-09	3.03E-09	1.96E-08	2.20E-10	2.94E-10	4.89E-11	7.66E-08	6.59E-08	1.74E-09	-	-	-	-	-	-	-
	5.85E-08	6.38E-06	1.97E-08	2.07E-07	1.05E-06	1.73E-06	3.00E-08	1.14E-07	4.50E-09	5.57E-06	8.84E-06	4.97E-07	-	-	-	-	-	-	-
LDA-TOT	-	3.91E-07	1.40E-10	2.79E-09	-	2.79E-09	-	2.79E-09	-	-	2.51E-06	-	2.54E-07	1.30E-07	1.15E-06	4.88E-07	7.36E-07	5.69E-08	8.51E-09
Dust	1.84E-10	3.26E-08	5.20E-11	9.05E-09	7.59E-09	4.89E-08	5.51E-10	7.34E-10	1.22E-10	1.92E-07	1.65E-07	4.34E-09	-	-	-	-	-	-	-
	5.88E-08	**6.81E-06**	**1.99E-08**	**2.22E-07**	**1.06E-06**	**1.80E-06**	**3.08E-08**	**1.18E-07**	**4.67E-09**	**5.84E-06**	**1.16E-05**	**5.03E-07**	**2.54E-07**	**1.30E-07**	**1.15E-06**	**4.88E-07**	**7.36E-07**	**5.69E-08**	**8.51E-09**

Offroad																				
Equipment	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl eth
Category	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	1.71E-10	3.04E-08	4.85E-11	8.45E-09	7.08E-09	4.57E-08	5.14E-10	6.85E-10	1.14E-10	1.79E-07	1.54E-07	4.05E-09	-	-	-	-	-	-	-
Graders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	1.04E-07	3.72E-11	7.44E-10	-	7.44E-10	-	7.44E-10	-	-	6.70E-07	-	6.77E-08	3.47E-08	3.07E-07	1.30E-07	1.96E-07	1.52E-08	2.27E-09
Dust	4.89E-11	8.70E-09	1.39E-11	2.41E-09	2.02E-09	1.31E-08	1.47E-10	1.96E-10	3.26E-11	5.11E-08	4.39E-08	1.16E-09	-	-	-	-	-	-	-
	2.20E-10	**1.43E-07**	**9.96E-11**	**1.16E-08**	**9.10E-09**	**5.95E-08**	**6.61E-10**	**1.63E-09**	**1.47E-10**	**2.30E-07**	**8.68E-07**	**5.21E-09**	**6.77E-08**	**3.47E-08**	**3.07E-07**	**1.30E-07**	**1.96E-07**	**1.52E-08**	**2.27E-09**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDT2-TOT	-	7.87E-08	2.81E-11	5.62E-10	-	5.62E-10	-	5.62E-10	-	-	5.06E-07	-	3.99E-08	2.04E-08	1.81E-07	7.68E-08	1.16E-07	8.95E-09	1.34E-09
Dust	2.45E-11	4.35E-09	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-
LDA-TOT	-	1.04E-07	3.72E-11	7.44E-10	-	7.44E-10	-	7.44E-10	-	-	6.70E-07	-	6.77E-08	3.47E-08	3.07E-07	1.30E-07	1.96E-07	1.52E-08	2.27E-09
Dust	4.89E-11	8.70E-09	1.39E-11	2.41E-09	2.02E-09	1.31E-08	1.47E-10	1.96E-10	3.26E-11	5.11E-08	4.39E-08	1.16E-09	-	-	-	-	-	-	-
	7.34E-11	**1.96E-07**	**8.61E-11**	**4.93E-09**	**3.03E-09**	**2.09E-08**	**2.20E-10**	**1.60E-09**	**4.89E-11**	**7.66E-08**	**1.24E-06**	**1.74E-09**	**1.08E-07**	**5.51E-08**	**4.88E-07**	**2.07E-07**	**3.12E-07**	**2.41E-08**	**3.61E-09**
Concrete/Industrial Saws	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	**1.71E-10**	**3.04E-08**	**4.85E-11**	**8.45E-09**	**7.08E-09**	**4.57E-08**	**5.14E-10**	**6.85E-10**	**1.14E-10**	**1.79E-07**	**1.54E-07**	**4.05E-09**	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	5.51E-11	9.78E-09	1.56E-11	2.72E-09	2.28E-09	1.47E-08	1.65E-10	2.20E-10	3.67E-11	5.75E-08	4.94E-08	1.30E-09	-	-	-	-	-	-	-
LDT2-TOT	-	3.94E-08	1.41E-11	2.81E-10	-	2.81E-10	-	2.81E-10	-	-	2.53E-07	-	2.00E-08	1.02E-08	9.05E-08	3.84E-08	5.78E-08	4.48E-09	6.69E-10
Dust	1.22E-11	2.17E-09	3.47E-12	6.04E-10	5.06E-10	3.26E-09	3.67E-11	4.89E-11	8.16E-12	1.28E-08	1.10E-08	2.90E-10	-	-	-	-	-	-	-
LDA-TOT	-	6.51E-08	2.33E-11	4.65E-10	-	4.65E-10	-	4.65E-10	-	-	4.19E-07	-	4.23E-08	2.17E-08	1.92E-07	8.14E-08	1.23E-07	9.49E-09	1.42E-09
Dust	3.06E-11	5.43E-09	8.67E-12	1.51E-09	1.26E-09	8.16E-09	9.18E-11	1.22E-10	2.04E-11	3.19E-08	2.74E-08	7.24E-10	-	-	-	-	-	-	-
	2.69E-10	**1.52E-07**	**1.14E-10**	**1.40E-08**	**1.11E-08**	**7.25E-08**	**8.08E-10**	**1.82E-09**	**1.79E-10**	**2.81E-07**	**9.13E-07**	**6.37E-09**	**6.23E-08**	**3.19E-08**	**2.82E-07**	**1.20E-07**	**1.80E-07**	**1.40E-08**	**2.09E-09**
Graders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Dozers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3.96E-07	4.32E-05	1.33E-07	1.40E-06	7.12E-06	1.17E-05	2.03E-07	7.72E-07	3.05E-08	3.77E-05	5.99E-05	3.36E-06	-	-	-	-	-	-	-
LDA-TOT	-	5.21E-08	1.86E-11	3.72E-10	-	3.72E-10	-	3.72E-10	-	-	3.35E-07	-	3.39E-08	1.73E-08	1.54E-07	6.51E-08	9.81E-08	7.59E-09	1.13E-09
Dust	2.45E-11	4.35E-09	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-
	3.96E-07	**4.32E-05**	**1.33E-07**	**1.40E-06**	**7.12E-06**	**1.17E-05**	**2.03E-07**	**7.72E-07**	**3.05E-08**	**3.77E-05**	**6.02E-05**	**3.36E-06**	**3.39E-08**	**1.73E-08**	**1.54E-07**	**6.51E-08**	**9.81E-08**	**7.59E-09**	**1.13E-09**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pavers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	6.12E-12	1.09E-09	1.73E-12	3.02E-10	2.53E-10	1.63E-09	1.84E-11	2.45E-11	4.08E-12	6.39E-09	5.49E-09	1.45E-10	-	-	-	-	-	-	-
LDT2-TOT	-	3.94E-08	1.41E-11	2.81E-10	-	2.81E-10	-	2.81E-10	-	-	2.53E-07	-	2.00E-08	1.02E-08	9.05E-08	3.84E-08	5.78E-08	4.48E-09	6.69E-10
Dust	1.22E-11	2.17E-09	3.47E-12	6.04E-10	5.06E-10	3.26E-09	3.67E-11	4.89E-11	8.16E-12	1.28E-08	1.10E-08	2.90E-10	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.03E-05	-	-	-
LDA-TOT	-	5.21E-08	1.86E-11	3.72E-10	-	3.72E-10	-	3.72E-10	-	-	3.35E-07	-	3.39E-08	1.73E-08	1.54E-07	6.51E-08	9.81E-08	7.59E-09	1.13E-09
Dust	2.45E-11	4.35E-09	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-

Offroad																			
Equipment	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl eth
Category	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933
	4.28E-11	**9.91E-08**	**4.48E-11**	**2.77E-09**	**1.77E-09**	**1.21E-08**	**1.28E-10**	**8.25E-10**	**2.86E-11**	**4.47E-08**	**6.26E-07**	**1.01E-09**	**5.38E-08**	**2.76E-08**	**2.44E-07**	**3.04E-05**	**1.56E-07**	**1.21E-08**	**1.80E-09**
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	9.77E-08	3.49E-11	6.98E-10	-	6.98E-10	-	6.98E-10	-	-	6.28E-07	-	6.35E-08	3.25E-08	2.88E-07	1.22E-07	1.84E-07	1.42E-08	2.13E-09
Dust	4.59E-11	8.15E-09	1.30E-11	2.26E-09	1.90E-09	1.22E-08	1.38E-10	1.84E-10	3.06E-11	4.79E-08	4.12E-08	1.09E-09	-	-	-	-	-	-	-
	4.59E-11	**1.06E-07**	**4.79E-11**	**2.96E-09**	**1.90E-09**	**1.29E-08**	**1.38E-10**	**8.81E-10**	**3.06E-11**	**4.79E-08**	**6.69E-07**	**1.09E-09**	**6.35E-08**	**3.25E-08**	**2.88E-07**	**1.22E-07**	**1.84E-07**	**1.42E-08**	**2.13E-09**
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	3.26E-08	1.16E-11	2.33E-10	-	2.33E-10	-	2.33E-10	-	-	2.09E-07	-	2.12E-08	1.08E-08	9.59E-08	4.07E-08	6.13E-08	4.74E-09	7.09E-10
Dust	1.53E-11	2.72E-09	4.33E-12	7.55E-10	6.32E-10	4.08E-09	4.59E-11	6.12E-11	1.02E-11	1.60E-08	1.37E-08	3.62E-10	-	-	-	-	-	-	-
	1.53E-11	**3.53E-08**	**1.60E-11**	**9.87E-10**	**6.32E-10**	**4.31E-09**	**4.59E-11**	**2.94E-10**	**1.02E-11**	**1.60E-08**	**2.23E-07**	**3.62E-10**	**2.12E-08**	**1.08E-08**	**9.59E-08**	**4.07E-08**	**6.13E-08**	**4.74E-09**	**7.09E-10**
Air Compressors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	2.45E-11	4.35E-09	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	2.20E-11	3.91E-09	6.24E-12	1.09E-09	9.10E-10	5.87E-09	6.61E-11	8.81E-11	1.47E-11	2.30E-08	1.98E-08	5.21E-10	-	-	-	-	-	-	-
Off-Highway Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cranes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Forklifts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	-	3.52E-06	1.26E-09	2.51E-08	-	2.51E-08	-	2.51E-08	-	-	2.26E-05	-	2.29E-06	1.17E-06	1.04E-05	4.40E-06	6.62E-06	5.12E-07	7.65E-08
Dust	1.65E-09	2.93E-07	4.68E-10	8.15E-08	6.83E-08	4.40E-07	4.96E-09	6.61E-09	1.10E-09	1.72E-06	1.48E-06	3.91E-08	-	-	-	-	-	-	-
	1.70E-09	**3.82E-06**	**1.74E-09**	**1.09E-07**	**7.02E-08**	**4.78E-07**	**5.09E-09**	**3.19E-08**	**1.13E-09**	**1.77E-06**	**2.41E-05**	**4.02E-08**	**2.29E-06**	**1.17E-06**	**1.04E-05**	**4.40E-06**	**6.62E-06**	**5.12E-07**	**7.65E-08**
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	1.71E-10	3.04E-08	4.85E-11	8.45E-09	7.08E-09	4.57E-08	5.14E-10	6.85E-10	1.14E-10	1.79E-07	1.54E-07	4.05E-09	-	-	-	-	-	-	-
	1.71E-10	**3.04E-08**	**4.85E-11**	**8.45E-09**	**7.08E-09**	**4.57E-08**	**5.14E-10**	**6.85E-10**	**1.14E-10**	**1.79E-07**	**1.54E-07**	**4.05E-09**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	4.57E-07	**5.46E-05**	**1.55E-07**	**1.78E-06**	**8.29E-06**	**1.42E-05**	**2.42E-07**	**9.30E-07**	**3.68E-08**	**4.62E-05**	**1.01E-04**	**3.92E-06**	**2.95E-06**	**1.51E-06**	**1.34E-05**	**3.60E-05**	**8.54E-06**	**6.61E-07**	**9.88E-08**

Offroad									
Equipment	**yl ketone (mek) (2-butanone**								
	m-xylene	**naphthalene**	**n-hexane**	**o-xylene**	**propene**	**p-xylene**	**styrene**	**toluene**	**acrolein (2**
Category	108383	91203	110543	95476	115071	106423	100425	108883	107028
Cranes	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Crushing/Proc. Equipment	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
LDA-TOT	1.11E-06	1.46E-08	4.96E-07	3.84E-07	9.51E-07	-	3.81E-08	1.79E-06	4.11E-08
Dust	-	-	-	-	-	-	-	-	-
	1.11E-06	**1.46E-08**	**4.96E-07**	**3.84E-07**	**9.51E-07**	**0.00E+00**	**3.81E-08**	**1.79E-06**	**4.11E-08**
Excavators	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
LDA-TOT	3.32E-06	4.39E-08	1.49E-06	1.15E-06	2.85E-06	-	1.14E-07	5.36E-06	1.23E-07
Dust	-	-	-	-	-	-	-	-	-
	3.32E-06	**4.39E-08**	**1.49E-06**	**1.15E-06**	**2.85E-06**	**0.00E+00**	**1.14E-07**	**5.36E-06**	**1.23E-07**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-
LDA-TOT	5.81E-07	7.69E-09	2.61E-07	2.02E-07	4.99E-07	-	2.00E-08	9.38E-07	2.16E-08
Dust	-	-	-	-	-	-	-	-	-
	5.81E-07	**7.69E-09**	**2.61E-07**	**2.02E-07**	**4.99E-07**	**0.00E+00**	**2.00E-08**	**9.38E-07**	**2.16E-08**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-
Air Compressors	-	-	-	-	-	-	-	-	-
LDA-TOT	1.11E-06	1.46E-08	4.96E-07	3.84E-07	9.51E-07	-	3.81E-08	1.79E-06	4.11E-08
Dust	-	-	-	-	-	-	-	-	-
	1.11E-06	**1.46E-08**	**4.96E-07**	**3.84E-07**	**9.51E-07**	**0.00E+00**	**3.81E-08**	**1.79E-06**	**4.11E-08**

Offroad									
Equipment	yl ketone (mek) (2-butanon								
	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2
Category	108383	91203	110543	95476	115071	106423	100425	108883	107028
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
LDA-TOT	1.94E-07	2.56E-09	8.69E-08	6.73E-08	1.66E-07	-	6.67E-09	3.13E-07	7.20E-09
Dust	-	-	-	-	-	-	-	-	-
	1.94E-07	**2.56E-09**	**8.69E-08**	**6.73E-08**	**1.66E-07**	**-**	**6.67E-09**	**3.13E-07**	**7.20E-09**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-
LDA-TOT	1.11E-06	1.46E-08	4.96E-07	3.84E-07	9.51E-07	-	3.81E-08	1.79E-06	4.11E-08
Dust	-	-	-	-	-	-	-	-	-
	1.11E-06	**1.46E-08**	**4.96E-07**	**3.84E-07**	**9.51E-07**	**-**	**3.81E-08**	**1.79E-06**	**4.11E-08**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-
LDA-TOT	2.16E-07	2.86E-09	9.68E-08	7.50E-08	1.85E-07	-	7.44E-09	3.48E-07	8.02E-09
Dust	-	-	-	-	-	-	-	-	-
	2.16E-07	**2.86E-09**	**9.68E-08**	**7.50E-08**	**1.85E-07**	**-**	**7.44E-09**	**3.48E-07**	**8.02E-09**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Excavators	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-
LDA-TOT	2.16E-07	2.86E-09	9.68E-08	7.50E-08	1.85E-07	-	7.44E-09	3.48E-07	8.02E-09
Dust	-	-	-	-	-	-	-	-	-
	2.16E-07	**2.86E-09**	**9.68E-08**	**7.50E-08**	**1.85E-07**	**-**	**7.44E-09**	**3.48E-07**	**8.02E-09**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-
LDA-TOT	2.16E-07	2.86E-09	9.68E-08	7.50E-08	1.85E-07	-	7.44E-09	3.48E-07	8.02E-09
Dust	-	-	-	-	-	-	-	-	-
	2.16E-07	**2.86E-09**	**9.68E-08**	**7.50E-08**	**1.85E-07**	**-**	**7.44E-09**	**3.48E-07**	**8.02E-09**
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-

Offroad									
Equipment	yl ketone (mek) (2-butanone	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2
Category		108383	91203	110543	95476	115071	106423	100425	108883	107028
Graders	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-
LDA-TOT	6.64E-07	8.78E-09	2.98E-07	2.31E-07	5.70E-07	-	2.29E-08	1.07E-06	2.47E-08	
Dust	-	-	-	-	-	-	-	-	-	-
	6.64E-07	**8.78E-09**	**2.98E-07**	**2.31E-07**	**5.70E-07**	**-**	**2.29E-08**	**1.07E-06**	**2.47E-08**	
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-
Trenchers	-	-	-	-	-	-	-	-	-	-
LDT2-TOT	5.22E-07	6.91E-09	2.34E-07	1.81E-07	4.49E-07	-	1.80E-08	8.43E-07	1.94E-08	
Dust	-	-	-	-	-	-	-	-	-	-
LDA-TOT	8.85E-07	1.17E-08	3.97E-07	3.07E-07	7.61E-07	-	3.05E-08	1.43E-06	3.29E-08	
Dust	-	-	-	-	-	-	-	-	-	-
	1.41E-06	**1.86E-08**	**6.31E-07**	**4.89E-07**	**1.21E-06**	**-**	**4.85E-08**	**2.27E-06**	**5.23E-08**	
Crushing/Proc. Equipment	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-
HHDT-DSL										
Dust										
LDT2-TOT	3.65E-07	4.83E-09	1.64E-07	1.27E-07	3.14E-07	-	1.26E-08	5.90E-07	1.36E-08	
Dust	-	-	-	-	-	-	-	-	-	-
LDA-TOT	7.74E-07	1.02E-08	3.48E-07	2.69E-07	6.66E-07	-	2.67E-08	1.25E-06	2.88E-08	
Dust	-	-	-	-	-	-	-	-	-	-
	1.14E-06	**1.51E-08**	**5.11E-07**	**3.96E-07**	**9.79E-07**	**-**	**3.93E-08**	**1.84E-06**	**4.24E-08**	
Graders	-	-	-	-	-	-	-	-	-	-
Rubber Tired Dozers	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
LDA-TOT	2.21E-07	2.93E-09	9.93E-08	7.69E-08	1.90E-07	-	7.63E-09	3.57E-07	8.22E-09	
Dust	-	-	-	-	-	-	-	-	-	-
	2.21E-07	**2.93E-09**	**9.93E-08**	**7.69E-08**	**1.90E-07**	**-**	**7.63E-09**	**3.57E-07**	**8.22E-09**	
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-
Pavers	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-
LDT2-TOT	1.30E-07	1.73E-09	5.86E-08	4.53E-08	1.12E-07	-	4.50E-09	2.11E-07	4.85E-09	
Dust	-	-	-	-	-	-	-	-	-	-
	-	-	-	4.88E-05	-	-	-	8.44E-05	-	
LDA-TOT	2.21E-07	2.93E-09	9.93E-08	7.69E-08	1.90E-07	-	7.63E-09	3.57E-07	8.22E-09	
Dust	-	-	-	-	-	-	-	-	-	-
	3.52E-07	**4.66E-09**	**1.58E-07**	**4.89E-05**	**3.02E-07**	**-**	**1.21E-08**	**8.50E-05**	**1.31E-08**	

Offroad									
Equipment	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2
Category	108383	91203	110543	95476	115071	106423	100425	108883	107028
Trenchers	-	-	-	-	-	-	-	-	-
LDA-TOT	6.64E-07	8.78E-09	2.98E-07	2.31E-07	5.70E-07	-	2.29E-08	1.07E-06	2.47E-08
Dust	-	-	-	-	-	-	-	-	-
	6.64E-07	**8.78E-09**	**2.98E-07**	**2.31E-07**	**5.70E-07**	**-**	**2.29E-08**	**1.07E-06**	**2.47E-08**
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	1.25E-05	**1.66E-07**	**5.61E-06**	**5.32E-05**	**1.07E-05**	**0.00E+00**	**4.31E-07**	**1.05E-04**	**4.65E-07**
Cranes	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Concrete/Industrial Saws	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-
LDA-TOT	5.53E-07	7.32E-09	2.48E-07	1.92E-07	4.75E-07	-	1.91E-08	8.94E-07	2.06E-08
Dust	-	-	-	-	-	-	-	-	-
	5.53E-07	**7.32E-09**	**2.48E-07**	**1.92E-07**	**4.75E-07**	**-**	**1.91E-08**	**8.94E-07**	**2.06E-08**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-
LDA-TOT	7.19E-07	9.52E-09	3.23E-07	2.50E-07	6.18E-07	-	2.48E-08	1.16E-06	2.67E-08
Dust	-	-	-	-	-	-	-	-	-
	7.19E-07	**9.52E-09**	**3.23E-07**	**2.50E-07**	**6.18E-07**	**-**	**2.48E-08**	**1.16E-06**	**2.67E-08**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Excavators	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-
LDA-TOT	7.19E-07	9.52E-09	3.23E-07	2.50E-07	6.18E-07	-	2.48E-08	1.16E-06	2.67E-08
Dust	-	-	-	-	-	-	-	-	-
	7.19E-07	**9.52E-09**	**3.23E-07**	**2.50E-07**	**6.18E-07**	**-**	**2.48E-08**	**1.16E-06**	**2.67E-08**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-

Offroad									
Equipment	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2
Category	108383	91203	110543	95476	115071	106423	100425	108883	107028
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-
LDA-TOT	7.19E-07	9.52E-09	3.23E-07	2.50E-07	6.18E-07	-	2.48E-08	1.16E-06	2.67E-08
Dust	-	-	-	-	-	-	-	-	-
	7.19E-07	**9.52E-09**	**3.23E-07**	**2.50E-07**	**6.18E-07**	**-**	**2.48E-08**	**1.16E-06**	**2.67E-08**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-
LDA-TOT	1.11E-06	1.46E-08	4.96E-07	3.84E-07	9.51E-07	-	3.81E-08	1.79E-06	4.11E-08
Dust	-	-	-	-	-	-	-	-	-
	1.11E-06	**1.46E-08**	**4.96E-07**	**3.84E-07**	**9.51E-07**	**-**	**3.81E-08**	**1.79E-06**	**4.11E-08**
Excavators	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
LDA-TOT	1.33E-06	1.76E-08	5.96E-07	4.61E-07	1.14E-06	-	4.58E-08	2.14E-06	4.93E-08
Dust	-	-	-	-	-	-	-	-	-
	1.33E-06	**1.76E-08**	**5.96E-07**	**4.61E-07**	**1.14E-06**	**-**	**4.58E-08**	**2.14E-06**	**4.93E-08**
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
Graders	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-
LDA-TOT	6.64E-07	8.78E-09	2.98E-07	2.31E-07	5.70E-07	-	2.29E-08	1.07E-06	2.47E-08
Dust	-	-	-	-	-	-	-	-	-
	6.64E-07	**8.78E-09**	**2.98E-07**	**2.31E-07**	**5.70E-07**	**-**	**2.29E-08**	**1.07E-06**	**2.47E-08**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-
Trenchers	-	-	-	-	-	-	-	-	-
LDT2-TOT	9.38E-07	1.24E-08	4.21E-07	3.26E-07	8.07E-07	-	3.23E-08	1.52E-06	3.49E-08
Dust	-	-	-	-	-	-	-	-	-
LDA-TOT	4.42E-07	5.86E-09	1.99E-07	1.54E-07	3.80E-07	-	1.53E-08	7.15E-07	1.64E-08
Dust	-	-	-	-	-	-	-	-	-
	1.38E-06	**1.83E-08**	**6.20E-07**	**4.80E-07**	**1.19E-06**	**-**	**4.76E-08**	**2.23E-06**	**5.13E-08**
Concrete/Industrial Saws	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
LDT2-TOT	1.30E-07	1.73E-09	5.86E-08	4.53E-08	1.12E-07	-	4.50E-09	2.11E-07	4.85E-09

Offroad									
Equipment	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2
Category	108383	91203	110543	95476	115071	106423	100425	108883	107028
Dust	-	-	-	-	-	-	-	-	-
LDA-TOT	2.77E-07	3.66E-09	1.24E-07	9.61E-08	2.38E-07	-	9.53E-09	4.47E-07	1.03E-08
Dust	-	-	-	-	-	-	-	-	-
	4.07E-07	**5.39E-09**	**1.83E-07**	**1.41E-07**	**3.50E-07**	**-**	**1.40E-08**	**6.58E-07**	**1.51E-08**
Graders	-	-	-	-	-	-	-	-	-
Rubber Tired Dozers	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
LDA-TOT	2.21E-07	2.93E-09	9.93E-08	7.69E-08	1.90E-07	-	7.63E-09	3.57E-07	8.22E-09
Dust	-	-	-	-	-	-	-	-	-
	2.21E-07	**2.93E-09**	**9.93E-08**	**7.69E-08**	**1.90E-07**	**-**	**7.63E-09**	**3.57E-07**	**8.22E-09**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-
Pavers	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
LDT2-TOT	1.30E-07	1.73E-09	5.86E-08	4.53E-08	1.12E-07	-	4.50E-09	2.11E-07	4.85E-09
Dust	-	-	-	-	-	-	-	-	-
	-	-	-	4.88E-05	-	-	-	8.44E-05	-
LDA-TOT	2.21E-07	2.93E-09	9.93E-08	7.69E-08	1.90E-07	-	7.63E-09	3.57E-07	8.22E-09
Dust	-	-	-	-	-	-	-	-	-
	3.52E-07	**4.66E-09**	**1.58E-07**	**4.89E-05**	**3.02E-07**	**-**	**1.21E-08**	**8.50E-05**	**1.31E-08**
Trenchers	-	-	-	-	-	-	-	-	-
LDA-TOT	6.64E-07	8.78E-09	2.98E-07	2.31E-07	5.70E-07	-	2.29E-08	1.07E-06	2.47E-08
Dust	-	-	-	-	-	-	-	-	-
	6.64E-07	**8.78E-09**	**2.98E-07**	**2.31E-07**	**5.70E-07**	**-**	**2.29E-08**	**1.07E-06**	**2.47E-08**
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
	8.83E-06	**1.17E-07**	**3.96E-06**	**5.19E-05**	**7.59E-06**	**0.00E+00**	**3.04E-07**	**9.87E-05**	**3.28E-07**
Excavators	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
LDA-TOT	1.66E-06	2.20E-08	7.45E-07	5.77E-07	1.43E-06	-	5.72E-08	2.68E-06	6.17E-08
Dust	-	-	-	-	-	-	-	-	-
	1.66E-06	**2.20E-08**	**7.45E-07**	**5.77E-07**	**1.43E-06**	**-**	**5.72E-08**	**2.68E-06**	**6.17E-08**

Offroad									
Equipment	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2
Category	108383	91203	110543	95476	115071	106423	100425	108883	107028
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
Graders	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-
LDA-TOT	4.42E-07	5.86E-09	1.99E-07	1.54E-07	3.80E-07	-	1.53E-08	7.15E-07	1.64E-08
Dust	-	-	-	-	-	-	-	-	-
	4.42E-07	**5.86E-09**	**1.99E-07**	**1.54E-07**	**3.80E-07**	**-**	**1.53E-08**	**7.15E-07**	**1.64E-08**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-
Trenchers	-	-	-	-	-	-	-	-	-
LDT2-TOT	2.61E-07	3.45E-09	1.17E-07	9.07E-08	2.24E-07	-	8.99E-09	4.22E-07	9.70E-09
Dust	-	-	-	-	-	-	-	-	-
LDA-TOT	4.42E-07	5.86E-09	1.99E-07	1.54E-07	3.80E-07	-	1.53E-08	7.15E-07	1.64E-08
Dust	-	-	-	-	-	-	-	-	-
	7.03E-07	**9.31E-09**	**3.16E-07**	**2.44E-07**	**6.05E-07**	**-**	**2.42E-08**	**1.14E-06**	**2.61E-08**
Concrete/Industrial Saws	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
LDT2-TOT	1.30E-07	1.73E-09	5.86E-08	4.53E-08	1.12E-07	-	4.50E-09	2.11E-07	4.85E-09
Dust	-	-	-	-	-	-	-	-	-
LDA-TOT	2.77E-07	3.66E-09	1.24E-07	9.61E-08	2.38E-07	-	9.53E-09	4.47E-07	1.03E-08
Dust	-	-	-	-	-	-	-	-	-
	4.07E-07	**5.39E-09**	**1.83E-07**	**1.41E-07**	**3.50E-07**	**-**	**1.40E-08**	**6.58E-07**	**1.51E-08**
Graders	-	-	-	-	-	-	-	-	-
Rubber Tired Dozers	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-
LDA-TOT	2.21E-07	2.93E-09	9.93E-08	7.69E-08	1.90E-07	-	7.63E-09	3.57E-07	8.22E-09
Dust	-	-	-	-	-	-	-	-	-
	2.21E-07	**2.93E-09**	**9.93E-08**	**7.69E-08**	**1.90E-07**	**-**	**7.63E-09**	**3.57E-07**	**8.22E-09**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-
Pavers	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
LDT2-TOT	1.30E-07	1.73E-09	5.86E-08	4.53E-08	1.12E-07	-	4.50E-09	2.11E-07	4.85E-09
Dust	-	-	-	-	-	-	-	-	-
	-	-	-	4.88E-05	-	-	-	8.44E-05	-
LDA-TOT	2.21E-07	2.93E-09	9.93E-08	7.69E-08	1.90E-07	-	7.63E-09	3.57E-07	8.22E-09
Dust	-	-	-	-	-	-	-	-	-

Offroad									
Equipment	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2
Category	108383	91203	110543	95476	115071	106423	100425	108883	107028
	3.52E-07	**4.66E-09**	**1.58E-07**	**4.89E-05**	**3.02E-07**	**-**	**1.21E-08**	**8.50E-05**	**1.31E-08**
Trenchers	-	-	-	-	-	-	-	-	-
LDA-TOT	4.15E-07	5.49E-09	1.86E-07	1.44E-07	3.57E-07	-	1.43E-08	6.70E-07	1.54E-08
Dust	-	-	-	-	-	-	-	-	-
	4.15E-07	**5.49E-09**	**1.86E-07**	**1.44E-07**	**3.57E-07**	**-**	**1.43E-08**	**6.70E-07**	**1.54E-08**
Trenchers	-	-	-	-	-	-	-	-	-
LDA-TOT	1.38E-07	1.83E-09	6.21E-08	4.80E-08	1.19E-07	-	4.77E-09	2.23E-07	5.14E-09
Dust	-	-	-	-	-	-	-	-	-
	1.38E-07	**1.83E-09**	**6.21E-08**	**4.80E-08**	**1.19E-07**	**-**	**4.77E-09**	**2.23E-07**	**5.14E-09**
Air Compressors	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
Off-Highway Trucks	-	-	-	-	-	-	-	-	-
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-
Cranes	-	-	-	-	-	-	-	-	-
Forklifts	-	-	-	-	-	-	-	-	-
LDA-TOT	1.49E-05	1.98E-07	6.70E-06	5.19E-06	1.28E-05	-	5.15E-07	2.41E-05	5.55E-07
Dust	-	-	-	-	-	-	-	-	-
	1.49E-05	**1.98E-07**	**6.70E-06**	**5.19E-06**	**1.28E-05**	**-**	**5.15E-07**	**2.41E-05**	**5.55E-07**
HHDT-DSL	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-
	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	1.93E-05	**2.55E-07**	**8.65E-06**	**5.55E-05**	**1.66E-05**	**0.00E+00**	**6.64E-07**	**1.16E-04**	**7.16E-07**

	Al Larson Boat Shop Upgrade										
	Construction Toxics After Mitigation										
		Marine Work									
		Site Civil Work									
		Building Demolition									
						Offroad	**Offroad**	**Peak Day**			
	Item	**Description**	**Major Equipment**	**Equipment**	**Hours/day or**	**Equipment**	**HP**	**ROG**	**PM10**	**Diesel PM**	**ARSENIC**
1				**#**	**Miles/rountrip**	**Category**	*	**lbs/hr**	**lbs/hr**	9901	7440382
2	**Phase 1 Construction (2011)**										
3											
4	1										
5		**Demolish 200' creosote timber wharf**	Derrick Barge	1	8.0	Cranes	195	0.09	0.03		1.67E-07
6			Flat Barge - Main Hoist	1	8.0	Hoist/swing/winch	335	0.12	0.04		2.22E-07
7			Vibratory Hammer	1	8.0	Crushing/Proc. Equipment	175	**0.06**	**0.06**		**2.89E-07**
8			Track Loader	1	8.0	Rubber Tired Loaders	175	**0.08**	**0.06**		**2.89E-07**
9		*Added by CDM*	Haul Trucks - Diesel	1	**1.0**	HHDT-DSL	NA	0.00	0.00		8.27E-09
10			Haul Trucks - Fugitive Dust	1	**1.0**	Dust		-	0.00		1.06E-08
11			*Workers*	10	0.5	LDA-TOT	NA	0.01	0.00		-
12			*Workers - Dust*	10	0.5	Dust		-	0.01		1.06E-07
13			***Subtotal***					***0.35***	***0.20***	***0.20***	**1.09E-06**
14	2	**Demolish buildings D, C1, & H1**									
15			Excavator with Ram-Hoe	1	8.0	Excavators	175	**0.12**	0.06		**2.89E-07**
16			Front End (Wheel) Loader	1	8.0	Rubber Tired Loaders	175	**0.08**	0.06		**2.89E-07**
17			Dump Trucks (2)	2	**1.0**	HHDT-DSL	NA	0.01	0.00		1.65E-08
18			Dump Trucks (2) - Dust		**1.0**	Dust		-	0.00		2.12E-08
19			*Demolition Dust*		8.0			-	0.01		1.20E-07
20			*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00		-
21			*Workers - Dust*	10	0.5	Dust		-	0.00		5.30E-08
22			***Subtotal***					***0.21***	***0***	***0***	**7.36E-07**
23	3	**Install 24" Octagonal Prestressed**									
24		**Concrete Piles**	Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10		5.04E-07
25			Flat Barge - Main Hoist	1	8.0	Hoist/swing/winch	335	0.12	0.04		2.22E-07
26			Flat Barge - Deck Winch	1	8.0	Hoist/swing/winch	120	0.08	0.04		1.77E-07
27			Flat Barge - Generator 1	1	8.0	Generator Sets	229	**0.08**	0.05		**2.55E-07**
28			Flat Barge - Generator 2	1	8.0	Generator Sets	90	**0.03**	0.04		**1.78E-07**
29			Pile-driving Hammer	1	8.0	Generator Sets	190	**0.06**	0.04		**2.12E-07**
30			*Workers*	7	0.5	LDA-TOT	NA	0.00	0.00		-
31			*Workers - Dust*	7	0.5	Dust		-	0.00		3.71E-08
32			***Subtotal***					***0.64***	***0***	***0***	**1.59E-06**
33	4	**Construct finger piers**									
34			Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10		5.04E-07
35			Flat Barge - Main Hoist	1	8.0	Hoist/swing/winch	335	0.12	0.04		2.22E-07
36			Generator Sets	1	8.0	Generator Sets	500	0.21	0.08		4.15E-07
37			Air Compressors	1	8.0	Air Compressors	500	0.18	0.07		3.41E-07
38			*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00		-
39			*Workers - Dust*	10	0.5	Dust		-	0.00		5.30E-08
40			***Subtotal***					***1***	***0***	***0***	**1.48E-06**
41	5	**Install owner furnished 600 ton travel lift**									

							Offroad	Offroad	Peak Day			
	Item	Description	Major Equipment	Equipment	Hours/day or		Equipment	HP	ROG	PM10	Diesel PM	ARSENIC
1				#	Miles/rountrip		Category	*	lbs/hr	lbs/hr	9901	7440382
42			Derrick Barge Crane Hoist	1	8.0		Hoist/swing/winch	564	0.27	0.10		5.04E-07
43			Flat Barge - Main Hoist	1	8.0		Hoist/swing/winch	335	0.12	0.04		2.22E-07
44			*Workers*	7	0.5		LDA-TOT	NA	0.00	0.00		-
45			*Workers - Dust*	7	0.5		Dust		-	0.00		3.71E-08
46			***Subtotal***						***0***	***0***	***0***	**7.62E-07**
47	6	**F & I steel sheet pile wall (CDF Cell #1)**										
48			Derrick Barge Crane Hoist	1	8.0		Hoist/swing/winch	564	0.27	0.10		5.04E-07
49			Flat Barge - Main Hoist	1	8.0		Hoist/swing/winch	335	0.12	0.04		2.22E-07
50			Pile-driving Hammer	1	8.0		Generator Sets	190	0.06	0.04		2.12E-07
51			*Workers*	10	0.5		LDA-TOT	NA	0.00	0.00		-
52			*Workers - Dust*	10	0.5		Dust		-	0.00		5.30E-08
53			***Subtotal***						***0***	***0***	***0***	**9.90E-07**
54	7	**Dredge to elevation -22**										
55			Derrick Barge Crane Hoist	1	8.0		Hoist/swing/winch	564	**0.27**	**0.10**		**5.04E-07**
56			Derrick Barge Deck Winch	1	8.0		Hoist/swing/winch	238	0.12	0.04		2.15E-07
57			Derrick Barge-Generator 1	1	8.0		Generator Sets	432	0.18	0.07		3.58E-07
58			Derrick Barge-Generator 2	1	8.0		Generator Sets	135	**0.04**	0.05		**2.67E-07**
59			2 ea Flat Barges or Dump Scows	2	8.0		Hoist/swing/winch	335	0.23	0.09		4.43E-07
60			Tug Boat - (Main Engine)	1	4.0		NA	702	**0.26**	**0.16**		**8.20E-07**
61			Tug Boat - (Auxiliary Engine)	1	4.0		NA	50	**0.08**	**0.03**		**1.47E-07**
62			*Workers*	13	0.5		LDA-TOT	NA	0.00	0.00		-
63			*Workers - Dust*	13	0.5		Dust		0.00	0.01		6.89E-08
64			***Subtotal***						***1.19***	***0.56***	***0.36***	**2.82E-06**
65	8	**Stabilize dredge material**										
66			Derrick Barge Crane Hoist	1	8.0		Hoist/swing/winch	564	0.27	0.10		5.04E-07
67			2 ea Flat Barges or Dump Scows	2	8.0		Hoist/swing/winch	335	0.23	0.09		4.43E-07
68			Excavator with Ram-Hoe	1	8.0		Excavators	175	0.12	0.06		2.89E-07
69			Cement Trucks	1	**1.0**		HHDT-DSL	NA	0.00	0.00		8.27E-09
70			Cement Trucks - Dust	1	**1.0**		Dust	NA	0.00	0.00		1.06E-08
71			Tug Boat - (Main Engine)	1	4.0		NA	702	**0.26**	**0.16**		**8.20E-07**
72			Tug Boat - (Auxiliary Engine)	1	4.0		NA	50	**0.08**	**0.03**		**1.47E-07**
73			*Workers*	13	0.5		LDA-TOT	NA	0.00	0.00		-
74			*Workers - Dust*	13	0.5		Dust		-	0.01		6.89E-08
75			***Subtotal***						***0.97***	***0.45***	***0.25***	**2.29E-06**
76	9											
77		**Dispose of Dredge material into CDF #1**	Derrick Barge Crane Hoist	1	8.0		Hoist/swing/winch	564	0.27	0.10		5.04E-07
78			2 ea Flat Barges or Dump Scows	2	8.0		Hoist/swing/winch	335	0.23	0.09		4.43E-07
79			Tug Boat - (Main Engine)	1	4.0		NA	702	**0.26**	**0.16**		**8.20E-07**
80			Tug Boat - (Auxiliary Engine)	1	4.0		NA	50	**0.08**	**0.03**		**1.47E-07**
81			*Workers*	13	0.5		LDA-TOT	NA	0.00	0.00		-
82			*Workers - Dust*	13	0.5		Dust		-	0.01		6.89E-08
83			***Subtotal***						***0.85***	***0.39***	***0.19***	**1.98E-06**
84	10	**Import clean soil to bring upland elevation to street level**										
85			Dump Trucks	7	**1.0**		HHDT-DSL	NA	0.02	0.01		5.79E-08
86			*Dust*	3	**1.0**		Dust	NA	-	**0.00**		**3.18E-08**

							Offroad	Offroad	Peak Day			
	Item	Description	Major Equipment	Equipment	Hours/day or	Equipment	HP	ROG	PM10	Diesel PM	ARSENIC
1				#	Miles/rountrip	Category	*	lbs/hr	lbs/hr	9901	7440382
87			Motor blade grader	1	8.0	Graders	175	**0.06**	0.06		**2.89E-07**
88			Drum roller	1	8.0	Rollers	175	**0.06**	0.06		**2.89E-07**
89			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
90			*Workers - Dust*	8	0.5	Dust		-	0.00		4.24E-08
91			***Subtotal***					***0.14***	***0.13***	***0.13***	**7.11E-07**
92	11	**Storm Water System w/ oil-water separator**									
93			Small loader (Backhoe loader)	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05		2.65E-07
94			Trenching Machine	1	8.0	Trenchers	175	**0.06**	0.06		**2.89E-07**
95			Pick up trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00		-
96			*Dust*	2	**1.0**	Dust	NA	-	0.00		2.12E-08
97			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
98			*Workers - Dust*	8	0.5	Dust	NA	-	0.00		4.24E-08
99			***Subtotal***					***0.18***	***0***	***0***	**6.18E-07**
100	12	**Soil Export and Asphalt Removals**									
101			Asphalt breaker	1	8.0	Crushing/Proc. Equipment	175	**0.06**	0.06		**2.89E-07**
102			Front End (Wheel) Loader	1	8.0	Rubber Tired Loaders	175	**0.08**	0.06		**2.89E-07**
103			Dump Trucks - Soil	7	**1.0**	HHDT-DSL	NA	**0.02**	**0.01**		**5.79E-08**
104			Dust	7	**1.0**	Dust	NA	**0.00**	**0.01**		**7.42E-08**
			Dump Trucks - Concrete	4	**1.0**	HHDT-DSL	NA	0.01	0.01		3.31E-08
			Dust	4	**1.0**	Dust	NA	-	0.00		4.24E-08
105			Pick up trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00		-
106			Dust	2	**1.0**	Dust	NA	-	0.00		2.12E-08
107			*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00		-
108			*Workers - Dust*	10	0.5	Dust		-	0.00		5.30E-08
109			***Subtotal***					***0.17***	***0.15***	***0.13***	**8.61E-07**
110	13	**Grading**									
111			Blade grader	1	8.0	Graders	175	**0.06**	0.06		**2.89E-07**
112			Small dozers (2)	2	8.0	Rubber Tired Dozers	175	**0.12**	0.12		**5.79E-07**
113			Roller (Smooth drum)	1	8.0	Rollers	175	**0.06**	0.06		**2.89E-07**
114			*Grading Fugitive Dust*	0.2	8.0			-	0.05		1.22E-06
115			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
116			*Workers - Dust*	8	0.5	Dust		-	0.00		4.24E-08
117			***Subtotal***					***0.23***	***0.29***	***0.23***	**2.42E-06**
118	14	**Paving**									
119			Small loader (Backhoe loader)	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05		2.65E-07
120			Asphalt paver	1	8.0	Pavers	175	**0.06**	0.06		**2.89E-07**
121			On-road Asphalt trucks	1	**1.0**	HHDT-DSL	NA	0.00	0.00		8.27E-09
122			Dust	1	**1.0**	Dust	NA	-	0.00		1.06E-08
123			Pick up trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00		-
124			Dust	2	**1.0**	Dust	NA	-	0.00		2.12E-08
125			*Paving Fugitive VOC*	0.2	8.0			0.07	-		-
126			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
127			*Workers - Dust*	8	0.5	Dust	NA	-	0.00		4.24E-08
128			***Subtotal***					***0.24***	***0.12***	***0.11***	**6.37E-07**
129	15	**Lighting Improvements**									

						Offroad	Offroad	Peak Day			
	Item	Description	Major Equipment	Equipment	Hours/day or	Equipment	HP	ROG	PM10	Diesel PM	ARSENIC
1				#	Miles/rountrip	Category	*	lbs/hr	lbs/hr	9901	7440382
130			Trenching Machine	1	8.0	Trenchers	175	**0.06**	0.06		**2.89E-07**
131			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
132			*Workers - Dust*	8	0.5	Dust	NA	-	0.00		4.24E-08
133			***Subtotal***					***0.06***	***0***	***0***	**3.32E-07**
134	16	**Service Truck (Small Deliveries, Port-a-Potties, Utilities)**									
135			Service trucks (2)	2	**1.0**	HHDT-DSL	NA	0.01	0.00		1.65E-08
136			Dust	2	**1.0**	Dust	NA	-	0.00		2.12E-08
137			***Subtotal***					***0.01***	***0.00***	***0.00***	**3.77E-08**
138		**Total**						**6.85**	**3.55**	**2.82**	**1.94E-05**
139											
140	**Phase 2 Construction**										
141											
142	1	**Demolish finger piers**									
143			Derrick Barge	1	8.0	Cranes	195	0.09	0.03		1.67E-07
144			Flat Barge - Main Hoist	1	8.0	Hoist/swing/winch	335	0.12	0.04		2.22E-07
145			Vibratory Hammer	1	8.0	Concrete/Industrial Saws	45	0.10	0.03		1.28E-07
146			Track Loader	1	8.0	Rubber Tired Loaders	175	**0.08**	0.06		**2.89E-07**
147			*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00		-
148			*Workers - Dust*	10	0.5	Dust		-	0.00		5.30E-08
149			***Subtotal***					***0.39***	***0.17***	***0.16***	**8.59E-07**
150	2	**Dredge to elevation -22**									
151			Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10		5.04E-07
152			Derrick Barge Deck Winch	1	8.0	Hoist/swing/winch	238	0.12	0.04		2.15E-07
153			Derrick Barge-Generator 1	1	8.0	Generator Sets	432	0.18	0.07		3.58E-07
154			Derrick Barge-Generator 2	1	8.0	Generator Sets	135	**0.04**	0.05		**2.67E-07**
155			2 ea Flat Barges or Dump Scows	2	8.0	Hoist/swing/winch	335	0.23	0.09		4.43E-07
156			Tug Boat - (Main Engine)	1	4.0	NA	702	**0.26**	**0.16**		**8.20E-07**
157			Tug Boat - (Auxiliary Engine)	1	4.0	NA	50	**0.08**	**0.03**		**1.47E-07**
158			*Workers*	13	0.5	LDA-TOT	NA	0.00	0.00		-
159			*Workers - Dust*	13	0.5	Dust		-	0.01		6.89E-08
160			***Subtotal***					***1.19***	***0.56***	***0.36***	**2.82E-06**
161	3	**Stabilize dredge material**									
162			Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10		5.04E-07
163			2 ea Flat Barges or Dump Scows	2	8.0	Hoist/swing/winch	335	0.23	0.09		4.43E-07
164			Excavator with Ram-Hoe	1	8.0	Excavators	175	**0.12**	0.06		**2.89E-07**
165			Cement Trucks	2	**1.0**	HHDT-DSL	NA	0.01	0.00		1.65E-08
166			Dust	2	**1.0**	Dust	NA	0.00	0.00		2.12E-08
167			Tug Boat - (Main Engine)	1	4.0	NA	702	**0.26**	**0.16**		**8.20E-07**
168			Tug Boat - (Auxiliary Engine)	1	4.0	NA	50	**0.08**	**0.03**		**1.47E-07**
169			*Workers*	13	0.5	LDA-TOT	NA	0.00	0.00		-
170			*Workers - Dust*	13	0.5	Dust		-	0.01		6.89E-08
171			***Subtotal***					***0.97***	***0.45***	***0.25***	**2.31E-06**
172	4										
173		**Dispose of Dredge material into CDF #1**	Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10		5.04E-07

							Offroad	Offroad	Peak Day			
	Item	Description	Major Equipment	Equipment	Hours/day or	Equipment	HP	ROG	PM10	Diesel PM	ARSENIC
1				#	Miles/rountrip	Category	*	lbs/hr	lbs/hr	9901	7440382
174			2 ea Flat Barges or Dump Scows	2	8.0	Hoist/swing/winch	335	0.23	0.09		4.43E-07
175			Tug Boat - (Main Engine)	1	4.0	NA	702	**0.26**	**0.16**		**8.20E-07**
176			Tug Boat - (Auxiliary Engine)	1	4.0	NA	50	**0.08**	**0.03**		**1.47E-07**
177			*Workers*	13	0.5	LDA-TOT	NA	0.00	0.00		-
178			*Workers - Dust*	13	0.5	Dust		-	0.01		6.89E-08
179			***Subtotal***					***0.85***	***0.39***	***0.19***	**1.98E-06**
180	5										
181		**F & I steel sheet pile wall (CDF Cell #2)**	Derrick Barge Crane Hoist	1	8.0	Hoist/swing/winch	564	0.27	0.10		5.04E-07
182			Flat Barge - Main Hoist	1	8.0	Hoist/swing/winch	335	0.12	0.04		2.22E-07
183			Pile Driving Hammer	1	8.0	Generator Sets	190	**0.06**	0.04		**2.12E-07**
184			*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00		-
185			*Workers - Dust*	10	0.5	Dust		-	0.00		5.30E-08
186			***Subtotal***					***0.45***	***0.19***	***0.19***	**9.90E-07**
187	6	**Demolish building H2**									
188			Excavator with Ram-Hoe	1	8.0	Excavators	175	**0.12**	0.06		**2.89E-07**
189			Front End (Wheel) Loader	1	8.0	Rubber Tired Loaders	175	**0.08**	0.06		**2.89E-07**
190			Dump Trucks (2)	2	**1.0**	HHDT-DSL	NA	0.01	0.00		1.65E-08
191			*Dust*	2	**1.0**	Dust	NA	-	0.00		2.12E-08
192			*Demolition Dust*		8.0			-	0.00		3.00E-08
193			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
194			*Workers - Dust*	8	0.5	Dust	NA	-	0.00		4.24E-08
195			***Subtotal***					***0.21***	***0***	***0***	**6.89E-07**
196	7										
197		**Import clean soil to bring upland elevation to cell elevation and Trench back fill**	Dump Trucks - Soil	9	**1.0**	HHDT-DSL	NA	0.02	0.01		7.44E-08
198			Dust	9	**1.0**	Dust	NA	-	0.01		9.54E-08
199			Motor Blade grader	1	8.0	Graders	175	**0.06**	0.06		**2.89E-07**
200			Drum roller	1	8.0	Rollers	175	**0.06**	0.06		**2.89E-07**
201			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
202			*Workers - Dust*	8	0.5	Dust	NA	-	0.00		4.24E-08
203			***Subtotal***					***0.14***	***0.14***	***0.13***	**7.91E-07**
204	8	**Storm Water System w/ oil-water separator**									
205			Small Loader (Backhoe Loader)	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05		2.65E-07
206			Trenching Machine	1	8.0	Trenchers	175	**0.06**	0.06		**2.89E-07**
207			Pick up Trucks (2)	2	**1.0**	LDT2-TOT	NA	0.01	0.00		-
208			Dust	2	**1.0**	Dust	NA	-	0.00		2.12E-08
209			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
210			*Workers - Dust*	8	0.5	Dust	NA	-	0.00		4.24E-08
211			***Subtotal***					***0.18***	***0***	***0***	**6.18E-07**
212	9	**Soil Export and Asphalt Removals**									
213			Asphalt Breaker	1	8.0	Concrete/Industrial Saws	120	**0.04**	0.06		**2.91E-07**
214			Front End (Wheel) Loader	1	8.0	Rubber Tired Loaders	175	**0.08**	0.06		**2.89E-07**
215			Dump Trucks - Soil	28	**1.0**	HHDT-DSL	NA	0.08	0.05		2.31E-07
216			Dust	28	**1.0**	Dust	NA	-	0.02		2.97E-07
215			Dump Trucks - Concrete	4	**1.0**	HHDT-DSL	NA	**0.01**	**0.01**		**3.31E-08**
216			Dust	4	**1.0**	Dust	NA	-	0.00		4.24E-08
217			Pick up Trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00		-

						Offroad	Offroad	Peak Day			
	Item	Description	Major Equipment	Equipment	Hours/day or	Equipment	HP	ROG	PM10	Diesel PM	ARSENIC
1				#	Miles/rountrip	Category	*	lbs/hr	lbs/hr	9901	7440382
218			Dust	2	**1.0**	Dust	NA	-	0.00		2.12E-08
219			*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00		-
220			*Workers - Dust*	10	0.5	Dust	NA	-	0.00		5.30E-08
221			***Subtotal***					***0.21***	***0.20***	***0.16***	**1.26E-06**
222	10	**Grading**									
223			Blade grader	1	8.0	Graders	175	**0.06**	0.06		**2.89E-07**
224			Small dozers (2)	2	8.0	Rubber Tired Dozers	175	**0.12**	0.12		**5.79E-07**
225			Roller (Smooth drum)	1	8.0	Rollers	175	**0.06**	0.06		**2.89E-07**
226			*Grading Fugitive Dust*	0.14	8.0			-	0.05		1.22E-06
227			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
228			*Workers - Dust*	8	0.5	Dust		-	0.00		4.24E-08
229			***Subtotal***					***0.23***	***0***	***0***	**2.42E-06**
230	11	**Paving**									
231			Small Loader (Backhoe Loader)	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05		2.65E-07
232			Asphalt Paver	1	8.0	Pavers	175	**0.06**	0.06		**2.89E-07**
233			Onroad Asphalt Trucks	1	**1.0**	HHDT-DSL	NA	0.00	0.00		8.27E-09
234			Dust	1	**1.0**	Dust	NA	-	0.00		1.06E-08
235			Pick up Trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00		-
236			Dust	2	**1.0**	Dust	NA	-	0.00		2.12E-08
237			*Paving Fugitive VOC*	0.14	8.0			0.07	-		-
238			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
239			*Workers - Dust*	8	0.5	Dust		-	0.00		4.24E-08
240			***Subtotal***					***0.24***	***0***	***0***	**6.37E-07**
241	12	**Lighting Improvements**									
242			Trenching Machine	1	8.0	Trenchers	175	**0.06**	0.06		**2.89E-07**
243			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
244			*Workers - Dust*	8	0.5	Dust	NA	-	0.00		4.24E-08
245			***Subtotal***					***0.06***	***0***	***0***	**3.32E-07**
246	13	**Service Vehicles and Deliveries**									
247			Service Trucks (2)	2	**1.0**	HHDT-DSL	NA	0.01	0.00		1.65E-08
248				2	**1.0**	Dust	NA	-	0.00		2.12E-08
249			***Subtotal***					***0***	***0***	**0.00**	**3.77E-08**
250		**Total**						**5.13**	**2.81**	**2.07**	**1.57E-05**
251											
252	**Phase 3 Construction**										
253											
254	1	**Demolish buildings A2 & A3**									
255			Excavator with Ram-Hoe	1	8.0	Excavators	175	**0.12**	0.06		**2.89E-07**
256			Front End (Wheel) Loader	1	8.0	Rubber Tired Loaders	175	**0.08**	0.06		**2.89E-07**
257			Dump Trucks (2)	2	**1.0**	HHDT-DSL	NA	0.01	0.00		1.65E-08
258			Dust	2	**1.0**	Dust	NA	-	0.00		2.12E-08
259			*Demolition Dust*		8.0			-	0.01		3.00E-07
260			*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00		-
261			*Workers - Dust*	10	0.5	Dust	NA	-	0.00		5.30E-08
262			***Subtotal***					***0.21***	***0***	**0.12**	**9.69E-07**

						Offroad	Offroad	Peak Day			
	Item	Description	Major Equipment	Equipment	Hours/day or	Equipment	HP	ROG	PM10	Diesel PM	ARSENIC
1				#	Miles/rountrip	Category	*	lbs/hr	lbs/hr	9901	7440382
263	2								-		
264			Dump Trucks	14	**1.0**	HHDT-DSL	NA	0.04	0.02		1.16E-07
265		**Import clean soil to bring upland**	Dust	14	**1.0**	Dust	NA	-	0.01		1.48E-07
266		**elevation to street level, trench backfill**	Motor Blade Grader	1	8.0	Graders	175	**0.06**	0.06		**2.89E-07**
267			Drum Roller	1	8.0	Rollers	175	**0.06**	0.06		**2.89E-07**
268			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
269			*Workers - Dust*	8	0.5	Dust	NA	-	0.00		4.24E-08
270			***Subtotal***					***0.16***	***0***	***0***	**8.85E-07**
271	3	**Storm Water System w/ oil-water**									
272		**separator**	Small Loader (Backhoe Loader)	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05		2.65E-07
273			Trenching Machine	1	8.0	Trenchers	175	**0.06**	0.06		**2.89E-07**
274			Pick Up Trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00		-
275			Dust	2	**1.0**	Dust	NA	-	0.00		2.12E-08
276			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
277			*Workers - Dust*	8	0.5	Dust	NA	-	0.00		4.24E-08
278			***Subtotal***					***0.18***	***0***	***0***	**6.18E-07**
279	4	**Soil Export and Asphalt Removals**									
280			Asphalt Breaker	1	8.0	Concrete/Industrial Saws	120	**0.04**	0.06		**2.91E-07**
281			Front End (Wheel) Loader	1	8.0	Rubber Tired Loaders	175	**0.08**	0.06		**2.89E-07**
282			Dump Trucks - Soil	28	**1.0**	HHDT-DSL	NA	**0.08**	**0.05**		**2.31E-07**
283			Dust	28	**1.0**	Dust	NA	-	0.02		2.97E-07
			Dump Trucks - Concrete	9	**1.0**	HHDT-DSL	NA	0.02	0.01		7.44E-08
			Dust	9	**1.0**	Dust	NA	-	0.01		9.54E-08
284			Pick Up Trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00		-
285			Dust	2	**1.0**	Dust	NA	-	0.00		2.12E-08
286			*Workers*	10	0.5	LDA-TOT	NA	0.00	0.00		-
287			*Workers - Dust*	10	0.5	Dust	NA	-	0.00		5.30E-08
288			***Subtotal***					***0.22***	***0.21***	***0.16***	**1.35E-06**
289	5	**Grading**									
290			Blade Grader	1	8.0	Graders	175	**0.06**	0.06		**2.89E-07**
291			Small Dozers (2)	2	8.0	Rubber Tired Dozers	175	0.46	0.12		5.79E-07
292			Roller (Smooth Drum)	1	8.0	Rollers	175	**0.06**	0.06		**2.89E-07**
293			*Grading Fugitive Dust*	0.12	8.0			-	0.05		1.22E-06
294			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
295			*Workers - Dust*	8	0.5	Dust	NA	-	0.00		4.24E-08
296			***Subtotal***					***0.58***	***0***	***0***	**2.42E-06**
297	6	**Paving**									
298			Small Loader (Backhoe Loader)	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05		2.65E-07
299			Asphalt Paver	1	8.0	Pavers	175	**0.06**	0.06		**2.89E-07**
300			Onroad Asphalt Trucks	1	**1.0**	HHDT-DSL	NA	0.00	0.00		8.27E-09
301			Dust	1	**1.0**	Dust	NA	-	0.00		1.06E-08
302			Pick Up Trucks (2)	2	**1.0**	LDT2-TOT	NA	0.00	0.00		-
303			Dust	2	**1.0**	Dust	NA	-	0.00		2.12E-08
304			*Paving Fugitive VOC*	0.12	8.0			0.07	-		-
305			*Workers*	8	0.5	LDA-TOT	NA	0.00	0.00		-
306			*Workers - Dust*	8	0.5	Dust	NA	-	0.00		4.24E-08

						Offroad	Offroad	Peak Day			
	Item	Description	Major Equipment	Equipment	Hours/day or	Equipment	HP	ROG	PM10	Diesel PM	ARSENIC
1				#	Miles/rountrip	Category	*	lbs/hr	lbs/hr	9901	7440382
307			***Subtotal***					***0.24***	***0***	***0***	**6.37E-07**
308	7	**Lighting Improvements**							-		
309			Trenching Machine	1	8.0	Trenchers	175	**0.06**	0.06		**2.89E-07**
310			*Workers*	5	0.5	LDA-TOT	NA	0.00	0.00		-
311			*Workers - Dust*	5	0.5	Dust	NA	-	0.00		2.65E-08
312			***Subtotal***					***0.06***	***0***	***0***	**3.16E-07**
313	8	**Existing Utility Protection**							-		
314			Trenching Machine	**1**	8.0	Trenchers	175	**0.06**	0.06		**2.89E-07**
315			*Workers*	5	0.5	LDA-TOT	NA	0.00	0.00		-
316			*Workers - Dust*	5	0.5	Dust	NA	-	0.00		2.65E-08
317			***Subtotal***					***0.06***	***0***	***0***	**3.16E-07**
318	9	**Construct Buildings to replace buildings A2, A3, C1, & D**	Compressor (3)	3	8.0	Air Compressors	120	0.29	0.16		7.85E-07
319			Flatbed Truck (20 days)	1	**1.0**	HHDT-DSL	NA	0.00	0.00		8.27E-09
320			Dust	1	**1.0**	Dust	NA	-	0.00		1.06E-08
321			Cement Trucks	2	**1.0**	HHDT-DSL	NA	0.01	0.00		1.65E-08
322			Dust	2	**1.0**	Dust	NA	-	0.00		2.12E-08
323			Boom Truck (90 days)	1	8.0	Off-Highway Trucks	500	0.24	0.08		3.92E-07
324			Small Loader	1	8.0	Tractors/Loaders/Backhoes	175	0.11	0.05		2.65E-07
325			Small Crane	1	8.0	Cranes	175	0.11	0.05		2.57E-07
326			Large Fork Lift	1	8.0	Forklifts	500	0.08	0.03		1.39E-07
327			*Workers*	15	0.5	LDA-TOT	NA	0.00	0.00		-
328			*Workers - Dust*	15	0.5	Dust	NA	-	0.01		7.95E-08
329			***Subtotal***					***1***	***0***	***0***	**1.97E-06**
330	10	**Service Vehicles and Deliveries**									
331			Service Trucks (2)	2	**1.0**	HHDT-DSL	NA	0.01	0.00		1.65E-08
332			Dust	2	**1.0**	Dust	NA	-	0.00		2.12E-08
333			***Subtotal***					***0***	***0***	***0***	**3.77E-08**
334		**Total**						**2.56**	**1.53**	**1.37**	**9.52E-06**

Offroad																		
Equipment	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldeh
Category	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
Cranes	6.01E-07	1.33E-06	1.15E-05	2.00E-08	8.34E-07	1.40E-06	1.33E-06	1.00E-06	6.34E-07	3.34E-07	4.43E-04	5.82E-04	9.68E-07	1.73E-04	6.71E-03	1.83E-03	2.78E-04	1.34E-02
Hoist/swing/winch	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
Crushing/Proc. Equipment	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
Rubber Tired Loaders	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.46E-04**	**5.65E-03**	**1.54E-03**	**2.34E-04**	**1.13E-02**
HHDT-DSL	2.98E-08	6.61E-08	5.69E-07	9.92E-10	4.13E-08	6.94E-08	6.61E-08	4.96E-08	3.14E-08	1.65E-08	2.19E-05	2.88E-05	4.79E-08	5.27E-06	2.04E-04	5.55E-05	8.47E-06	4.08E-04
Dust	9.79E-09	2.45E-09	4.35E-07	6.93E-10	1.21E-07	1.01E-07	6.53E-07	7.34E-09	9.79E-09	1.63E-09	2.55E-06	2.20E-06	5.79E-08	-	-	-	-	-
LDA-TOT	3.72E-07	-	5.21E-05	1.86E-08	3.72E-07	-	3.72E-07	-	3.72E-07	-	-	3.35E-04	-	3.39E-05	1.73E-05	1.54E-04	6.51E-05	9.81E-05
Dust	9.79E-08	2.45E-08	4.35E-06	6.93E-09	1.21E-06	1.01E-06	6.53E-06	7.34E-08	9.79E-08	1.63E-08	2.55E-05	2.20E-05	5.79E-07	-	-	-	-	-
	3.99E-06	**7.83E-06**	**1.24E-04**	**1.43E-07**	**6.58E-06**	**9.31E-06**	**1.54E-05**	**5.93E-06**	**4.19E-06**	**1.97E-06**	**2.62E-03**	**3.76E-03**	**6.30E-06**	**6.91E-04**	**2.55E-02**	**7.08E-03**	**1.12E-03**	**5.10E-02**
Excavators	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**2.32E-04**	**8.98E-03**	**2.44E-03**	**3.72E-04**	**1.80E-02**
Rubber Tired Loaders	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.46E-04**	**5.65E-03**	**1.54E-03**	**2.34E-04**	**1.13E-02**
HHDT-DSL	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	1.75E-07	1.95E-07	2.13E-05	6.55E-08	6.90E-07	3.51E-06	5.75E-06	1.00E-07	3.80E-07	1.50E-08	1.86E-05	2.95E-05	1.66E-06	-	-	-	-	-
LDA-TOT	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	2.52E-06	**4.96E-06**	**8.91E-05**	**1.48E-07**	**4.09E-06**	**8.71E-06**	**1.20E-05**	**3.69E-06**	**2.85E-06**	**1.21E-06**	**1.60E-03**	**2.28E-03**	**5.22E-06**	**4.05E-04**	**1.50E-02**	**4.17E-03**	**6.56E-04**	**3.01E-02**
Hoist/swing/winch	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
Hoist/swing/winch	6.38E-07	1.42E-06	1.22E-05	2.13E-08	8.87E-07	1.49E-06	1.42E-06	1.06E-06	6.74E-07	3.55E-07	4.71E-04	6.18E-04	1.03E-06	1.48E-04	5.73E-03	1.56E-03	2.38E-04	1.15E-02
Generator Sets	**9.19E-07**	**2.04E-06**	**1.76E-05**	**3.06E-08**	**1.28E-06**	**2.14E-06**	**2.04E-06**	**1.53E-06**	**9.70E-07**	**5.11E-07**	**6.77E-04**	**8.90E-04**	**1.48E-06**	**1.44E-04**	**5.57E-03**	**1.52E-03**	**2.31E-04**	**1.11E-02**
Generator Sets	**6.42E-07**	**1.43E-06**	**1.23E-05**	**2.14E-08**	**8.91E-07**	**1.50E-06**	**1.43E-06**	**1.07E-06**	**6.77E-07**	**3.56E-07**	**4.73E-04**	**6.21E-04**	**1.03E-06**	**6.60E-05**	**2.55E-03**	**6.95E-04**	**1.06E-04**	**5.11E-03**
Generator Sets	**7.62E-07**	**1.69E-06**	**1.46E-05**	**2.54E-08**	**1.06E-06**	**1.78E-06**	**1.69E-06**	**1.27E-06**	**8.05E-07**	**4.24E-07**	**5.62E-04**	**7.38E-04**	**1.23E-06**	**1.19E-04**	**4.62E-03**	**1.26E-03**	**1.92E-04**	**9.25E-03**
LDA-TOT	1.30E-07	-	1.82E-05	6.51E-09	1.30E-07	-	1.30E-07	-	1.30E-07	-	-	1.17E-04	-	1.19E-05	6.07E-06	5.37E-05	2.28E-05	3.43E-05
Dust	3.43E-08	8.57E-09	1.52E-06	2.43E-09	4.23E-07	3.54E-07	2.28E-06	2.57E-08	3.43E-08	5.71E-09	8.94E-06	7.69E-06	2.03E-07	-	-	-	-	-
	5.74E-06	**1.24E-05**	**1.26E-04**	**1.95E-07**	**8.29E-06**	**1.34E-05**	**1.48E-05**	**9.31E-06**	**6.05E-06**	**3.10E-06**	**4.12E-03**	**5.52E-03**	**9.18E-06**	**1.22E-03**	**4.67E-02**	**1.28E-02**	**1.96E-03**	**9.34E-02**
Hoist/swing/winch	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
Generator Sets	1.49E-06	3.32E-06	2.85E-05	4.98E-08	2.07E-06	3.48E-06	3.32E-06	2.49E-06	1.58E-06	8.29E-07	1.10E-03	1.45E-03	2.40E-06	4.00E-04	1.55E-02	4.22E-03	6.43E-04	3.10E-02
Air Compressors	1.23E-06	2.73E-06	2.34E-05	4.09E-08	1.70E-06	2.86E-06	2.73E-06	2.04E-06	1.29E-06	6.81E-07	9.04E-04	1.19E-03	1.98E-06	3.44E-04	1.33E-02	3.62E-03	5.52E-04	2.66E-02
LDA-TOT	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	5.52E-06	**1.18E-05**	**1.28E-04**	**1.87E-07**	**7.59E-06**	**1.24E-05**	**1.20E-05**	**8.88E-06**	**5.81E-06**	**2.96E-06**	**3.93E-03**	**5.33E-03**	**8.59E-06**	**1.49E-03**	**5.70E-02**	**1.56E-02**	**2.40E-03**	**1.14E-01**

Offroad																		
Equipment	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldeh
Category	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
Hoist/swing/winch	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
LDA-TOT	1.30E-07	-	1.82E-05	6.51E-09	1.30E-07	-	1.30E-07	-	1.30E-07	-	-	1.17E-04	-	1.19E-05	6.07E-06	5.37E-05	2.28E-05	3.43E-05
Dust	3.43E-08	8.57E-09	1.52E-06	2.43E-09	4.23E-07	3.54E-07	2.28E-06	2.57E-08	3.43E-08	5.71E-09	8.94E-06	7.69E-06	2.03E-07	-	-	-	-	-
	2.78E-06	**5.81E-06**	**6.97E-05**	**9.60E-08**	**4.18E-06**	**6.45E-06**	**8.22E-06**	**4.38E-06**	**2.92E-06**	**1.46E-06**	**1.93E-03**	**2.65E-03**	**4.41E-06**	**7.41E-04**	**2.82E-02**	**7.73E-03**	**1.19E-03**	**5.65E-02**
Hoist/swing/winch	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
Generator Sets	7.62E-07	1.69E-06	1.46E-05	2.54E-08	1.06E-06	1.78E-06	1.69E-06	1.27E-06	8.05E-07	4.24E-07	5.62E-04	7.38E-04	1.23E-06	1.19E-04	4.62E-03	1.26E-03	1.92E-04	9.25E-03
LDA-TOT	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	3.61E-06	**7.51E-06**	**9.27E-05**	**1.25E-07**	**5.48E-06**	**8.38E-06**	**1.09E-05**	**5.66E-06**	**3.80E-06**	**1.88E-06**	**2.50E-03**	**3.45E-03**	**5.72E-06**	**8.65E-04**	**3.28E-02**	**9.01E-03**	**1.39E-03**	**6.57E-02**
Hoist/swing/winch	**1.81E-06**	**4.03E-06**	**3.47E-05**	**6.04E-08**	**2.52E-06**	**4.23E-06**	**4.03E-06**	**3.02E-06**	**1.91E-06**	**1.01E-06**	**1.34E-03**	**1.76E-03**	**2.92E-06**	**5.06E-04**	**1.96E-02**	**5.33E-03**	**8.12E-04**	**3.92E-02**
Hoist/swing/winch	7.75E-07	1.72E-06	1.48E-05	2.58E-08	1.08E-06	1.81E-06	1.72E-06	1.29E-06	8.18E-07	4.31E-07	5.72E-04	7.51E-04	1.25E-06	2.20E-04	8.53E-03	2.32E-03	3.54E-04	1.71E-02
Generator Sets	1.29E-06	2.87E-06	2.46E-05	4.30E-08	1.79E-06	3.01E-06	2.87E-06	2.15E-06	1.36E-06	7.16E-07	9.51E-04	1.25E-03	2.08E-06	3.46E-04	1.34E-02	3.64E-03	5.55E-04	2.68E-02
Generator Sets	**9.62E-07**	**2.14E-06**	**1.84E-05**	**3.21E-08**	**1.34E-06**	**2.25E-06**	**2.14E-06**	**1.60E-06**	**1.02E-06**	**5.35E-07**	**7.09E-04**	**9.32E-04**	**1.55E-06**	**8.48E-05**	**3.28E-03**	**8.93E-04**	**1.36E-04**	**6.57E-03**
Hoist/swing/winch	1.60E-06	3.55E-06	3.05E-05	5.32E-08	2.22E-06	3.72E-06	3.55E-06	2.66E-06	1.68E-06	8.87E-07	1.18E-03	1.55E-03	2.57E-06	4.46E-04	1.73E-02	4.70E-03	7.16E-04	3.45E-02
NA	**2.95E-06**	**6.56E-06**	**5.64E-05**	**9.84E-08**	**4.10E-06**	**6.89E-06**	**6.56E-06**	**4.92E-06**	**3.12E-06**	**1.64E-06**	**2.18E-03**	**2.86E-03**	**4.76E-06**	**-**	**-**	**5.68E-03**	**1.84E-04**	**2.63E-04**
NA	**5.29E-07**	**1.18E-06**	**1.01E-05**	**1.76E-08**	**7.34E-07**	**1.23E-06**	**1.18E-06**	**8.81E-07**	**5.58E-07**	**2.94E-07**	**3.90E-04**	**5.12E-04**	**8.52E-07**	**-**	**-**	**1.70E-03**	**5.50E-05**	**7.86E-05**
LDA-TOT	2.42E-07	-	3.39E-05	1.21E-08	2.42E-07	-	2.42E-07	-	2.42E-07	-	-	2.18E-04	-	2.20E-05	1.13E-05	9.98E-05	4.23E-05	6.37E-05
Dust	6.36E-08	1.59E-08	2.83E-06	4.51E-09	7.85E-07	6.57E-07	4.24E-06	4.77E-08	6.36E-08	1.06E-08	1.66E-05	1.43E-05	3.76E-07	-	-	-	-	-
	1.02E-05	**2.21E-05**	**2.26E-04**	**3.47E-07**	**1.48E-05**	**2.38E-05**	**2.65E-05**	**1.66E-05**	**1.08E-05**	**5.52E-06**	**7.33E-03**	**9.84E-03**	**1.64E-05**	**1.62E-03**	**6.20E-02**	**2.44E-02**	**2.85E-03**	**1.25E-01**
Hoist/swing/winch	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	1.60E-06	3.55E-06	3.05E-05	5.32E-08	2.22E-06	3.72E-06	3.55E-06	2.66E-06	1.68E-06	8.87E-07	1.18E-03	1.55E-03	2.57E-06	4.46E-04	1.73E-02	4.70E-03	7.16E-04	3.45E-02
Excavators	1.04E-06	2.31E-06	1.99E-05	3.47E-08	1.45E-06	2.43E-06	2.31E-06	1.74E-06	1.10E-06	5.79E-07	7.68E-04	1.01E-03	1.68E-06	2.32E-04	8.98E-03	2.44E-03	3.72E-04	1.80E-02
HHDT-DSL	2.98E-08	6.61E-08	5.69E-07	9.92E-10	4.13E-08	6.94E-08	6.61E-08	4.96E-08	3.14E-08	1.65E-08	2.19E-05	2.88E-05	4.79E-08	5.27E-06	2.04E-04	5.55E-05	8.47E-06	4.08E-04
Dust	9.79E-09	2.45E-09	4.35E-07	6.93E-10	1.21E-07	1.01E-07	6.53E-07	7.34E-09	9.79E-09	1.63E-09	2.55E-06	2.20E-06	5.79E-08	-	-	-	-	-
NA	**2.95E-06**	**6.56E-06**	**5.64E-05**	**9.84E-08**	**4.10E-06**	**6.89E-06**	**6.56E-06**	**4.92E-06**	**3.12E-06**	**1.64E-06**	**2.18E-03**	**2.86E-03**	**4.76E-06**	**-**	**-**	**5.68E-03**	**1.84E-04**	**2.63E-04**
NA	**5.29E-07**	**1.18E-06**	**1.01E-05**	**1.76E-08**	**7.34E-07**	**1.23E-06**	**1.18E-06**	**8.81E-07**	**5.58E-07**	**2.94E-07**	**3.90E-04**	**5.12E-04**	**8.52E-07**	**-**	**-**	**1.70E-03**	**5.50E-05**	**7.86E-05**
LDA-TOT	2.42E-07	-	3.39E-05	1.21E-08	2.42E-07	-	2.42E-07	-	2.42E-07	-	-	2.18E-04	-	2.20E-05	1.13E-05	9.98E-05	4.23E-05	6.37E-05
Dust	6.36E-08	1.59E-08	2.83E-06	4.51E-09	7.85E-07	6.57E-07	4.24E-06	4.77E-08	6.36E-08	1.06E-08	1.66E-05	1.43E-05	3.76E-07	-	-	-	-	-
	8.28E-06	**1.77E-05**	**1.89E-04**	**2.83E-07**	**1.22E-05**	**1.93E-05**	**2.28E-05**	**1.33E-05**	**8.72E-06**	**4.44E-06**	**5.89E-03**	**7.94E-03**	**1.33E-05**	**1.21E-03**	**4.60E-02**	**2.00E-02**	**2.19E-03**	**9.25E-02**
Hoist/swing/winch	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	1.60E-06	3.55E-06	3.05E-05	5.32E-08	2.22E-06	3.72E-06	3.55E-06	2.66E-06	1.68E-06	8.87E-07	1.18E-03	1.55E-03	2.57E-06	4.46E-04	1.73E-02	4.70E-03	7.16E-04	3.45E-02
NA	**2.95E-06**	**6.56E-06**	**5.64E-05**	**9.84E-08**	**4.10E-06**	**6.89E-06**	**6.56E-06**	**4.92E-06**	**3.12E-06**	**1.64E-06**	**2.18E-03**	**2.86E-03**	**4.76E-06**	**-**	**-**	**5.68E-03**	**1.84E-04**	**2.63E-04**
NA	**5.29E-07**	**1.18E-06**	**1.01E-05**	**1.76E-08**	**7.34E-07**	**1.23E-06**	**1.18E-06**	**8.81E-07**	**5.58E-07**	**2.94E-07**	**3.90E-04**	**5.12E-04**	**8.52E-07**	**-**	**-**	**1.70E-03**	**5.50E-05**	**7.86E-05**
LDA-TOT	2.42E-07	-	3.39E-05	1.21E-08	2.42E-07	-	2.42E-07	-	2.42E-07	-	-	2.18E-04	-	2.20E-05	1.13E-05	9.98E-05	4.23E-05	6.37E-05
Dust	6.36E-08	1.59E-08	2.83E-06	4.51E-09	7.85E-07	6.57E-07	4.24E-06	4.77E-08	6.36E-08	1.06E-08	1.66E-05	1.43E-05	3.76E-07	-	-	-	-	-
	7.20E-06	**1.53E-05**	**1.68E-04**	**2.46E-07**	**1.06E-05**	**1.67E-05**	**1.98E-05**	**1.15E-05**	**7.58E-06**	**3.84E-06**	**5.10E-03**	**6.90E-03**	**1.15E-05**	**9.74E-04**	**3.68E-02**	**1.75E-02**	**1.81E-03**	**7.41E-02**
HHDT-DSL	2.08E-07	4.63E-07	3.98E-06	6.94E-09	2.89E-07	4.86E-07	4.63E-07	3.47E-07	2.20E-07	1.16E-07	1.54E-04	2.02E-04	3.36E-07	3.69E-05	1.43E-03	3.89E-04	5.93E-05	2.86E-03
Dust	**2.94E-08**	**7.34E-09**	**1.30E-06**	**2.08E-09**	**3.62E-07**	**3.03E-07**	**1.96E-06**	**2.20E-08**	**2.94E-08**	**4.89E-09**	**7.66E-06**	**6.59E-06**	**1.74E-07**	**-**	**-**	**-**	**-**	**-**

Offroad																		
Equipment	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldeh
Category	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75040	71432	100414	50000
Graders	1.04E-06	2.31E-06	1.99E-05	3.47E-08	1.45E-06	2.43E-06	2.31E-06	1.74E-06	1.10E-06	5.79E-07	7.68E-04	1.01E-03	1.68E-06	1.10E-04	4.26E-03	1.16E-03	1.77E-04	8.52E-03
Rollers	1.04E-06	2.31E-06	1.99E-05	3.47E-08	1.45E-06	2.43E-06	2.31E-06	1.74E-06	1.10E-06	5.79E-07	7.68E-04	1.01E-03	1.68E-06	1.10E-04	4.26E-03	1.16E-03	1.77E-04	8.52E-03
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	2.51E-06	5.11E-06	6.77E-05	8.87E-08	4.18E-06	6.06E-06	9.81E-06	3.87E-06	2.64E-06	1.28E-06	1.71E-03	2.37E-03	4.10E-06	2.70E-04	9.95E-03	2.77E-03	4.38E-04	1.99E-02
Tractors/Loaders/Backhoes	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Trenchers	1.04E-06	2.31E-06	1.99E-05	3.47E-08	1.45E-06	2.43E-06	2.31E-06	1.74E-06	1.10E-06	5.79E-07	7.68E-04	1.01E-03	1.68E-06	1.10E-04	4.26E-03	1.16E-03	1.77E-04	8.52E-03
LDT2-TOT	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	2.32E-06	4.45E-06	7.73E-05	8.37E-08	3.76E-06	5.26E-06	8.61E-06	3.37E-06	2.43E-06	1.12E-06	1.49E-03	2.18E-03	3.56E-06	3.47E-04	1.26E-02	3.52E-03	5.64E-04	2.53E-02
Crushing/Proc. Equipment	1.04E-06	2.31E-06	1.99E-05	3.47E-08	1.45E-06	2.43E-06	2.31E-06	1.74E-06	1.10E-06	5.79E-07	7.68E-04	1.01E-03	1.68E-06	1.10E-04	4.26E-03	1.16E-03	1.77E-04	8.52E-03
Rubber Tired Loaders	1.04E-06	2.31E-06	1.99E-05	3.47E-08	1.45E-06	2.43E-06	2.31E-06	1.74E-06	1.10E-06	5.79E-07	7.68E-04	1.01E-03	1.68E-06	1.46E-04	5.65E-03	1.54E-03	2.34E-04	1.13E-02
HHDT-DSL	2.08E-07	4.63E-07	3.98E-06	6.94E-09	2.89E-07	4.86E-07	4.63E-07	3.47E-07	2.20E-07	1.16E-07	1.54E-04	2.02E-04	3.36E-07	3.69E-05	1.43E-03	3.89E-04	5.93E-05	2.86E-03
Dust	6.85E-08	1.71E-08	3.04E-06	4.85E-09	8.45E-07	7.08E-07	4.57E-06	5.14E-08	6.85E-08	1.14E-08	1.79E-05	1.54E-05	4.05E-07	-	-	-	-	-
HHDT-DSL	1.19E-07	2.65E-07	2.28E-06	3.97E-09	1.65E-07	2.78E-07	2.65E-07	1.98E-07	1.26E-07	6.61E-08	8.78E-05	1.15E-04	1.92E-07	2.11E-05	8.16E-04	2.22E-04	3.39E-05	1.63E-03
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
LDT2-TOT	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
LDA-TOT	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	2.89E-06	5.40E-06	9.57E-05	1.08E-07	5.82E-06	7.45E-06	1.74E-05	4.15E-06	3.02E-06	1.37E-06	1.82E-03	2.64E-03	4.93E-06	3.39E-04	1.22E-02	3.42E-03	5.52E-04	2.44E-02
Graders	1.04E-06	2.31E-06	1.99E-05	3.47E-08	1.45E-06	2.43E-06	2.31E-06	1.74E-06	1.10E-06	5.79E-07	7.68E-04	1.01E-03	1.68E-06	1.10E-04	4.26E-03	1.16E-03	1.77E-04	8.52E-03
Rubber Tired Dozers	2.08E-06	4.63E-06	3.98E-05	6.94E-08	2.89E-06	4.86E-06	4.63E-06	3.47E-06	2.20E-06	1.16E-06	1.54E-03	2.02E-03	3.36E-06	2.20E-04	8.51E-03	2.32E-03	3.53E-04	1.70E-02
Rollers	1.04E-06	2.31E-06	1.99E-05	3.47E-08	1.45E-06	2.43E-06	2.31E-06	1.74E-06	1.10E-06	5.79E-07	7.68E-04	1.01E-03	1.68E-06	1.10E-04	4.26E-03	1.16E-03	1.77E-04	8.52E-03
	1.78E-06	1.98E-06	2.16E-04	6.65E-07	7.01E-06	3.56E-05	5.84E-05	1.02E-06	3.86E-06	1.52E-07	1.89E-04	2.99E-04	1.68E-05	-	-	-	-	-
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	6.13E-06	1.12E-05	3.18E-04	8.14E-07	1.34E-05	4.57E-05	7.04E-05	7.99E-06	8.44E-06	2.47E-06	3.27E-03	4.48E-03	2.37E-05	4.53E-04	1.70E-02	4.69E-03	7.32E-04	3.41E-02
Tractors/Loaders/Backhoes	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Pavers	1.04E-06	2.31E-06	1.99E-05	3.47E-08	1.45E-06	2.43E-06	2.31E-06	1.74E-06	1.10E-06	5.79E-07	7.68E-04	1.01E-03	1.68E-06	1.10E-04	4.26E-03	1.16E-03	1.77E-04	8.52E-03
HHDT-DSL	2.98E-08	6.61E-08	5.69E-07	9.92E-10	4.13E-08	6.94E-08	6.61E-08	4.96E-08	3.14E-08	1.65E-08	2.19E-05	2.88E-05	4.79E-08	5.27E-06	2.04E-04	5.55E-05	8.47E-06	4.08E-04
Dust	9.79E-09	2.45E-09	4.35E-07	6.93E-10	1.21E-07	1.01E-07	6.53E-07	7.34E-09	9.79E-09	1.63E-09	2.55E-06	2.20E-06	5.79E-08	-	-	-	-	-
LDT2-TOT	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.52E-03	-
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	2.35E-06	4.52E-06	7.83E-05	8.54E-08	3.92E-06	5.43E-06	9.33E-06	3.43E-06	2.47E-06	1.14E-06	1.51E-03	2.21E-03	3.67E-06	3.52E-04	1.28E-02	3.58E-03	2.09E-03	2.57E-02

Offroad																		
Equipment	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldeh
Category	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
Trenchers	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	1.23E-06	**2.32E-06**	**4.25E-05**	**4.49E-08**	**2.08E-06**	**2.84E-06**	**5.07E-06**	**1.77E-06**	**1.29E-06**	**5.85E-07**	**7.78E-04**	**1.15E-03**	**1.91E-06**	**1.23E-04**	**4.26E-03**	**1.22E-03**	**2.03E-04**	**8.55E-03**
HHDT-DSL	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	7.91E-08	**1.37E-07**	**2.01E-06**	**3.37E-09**	**3.24E-07**	**3.41E-07**	**1.44E-06**	**1.14E-07**	**8.24E-08**	**3.63E-08**	**4.90E-05**	**6.20E-05**	**2.12E-07**	**1.05E-05**	**4.08E-04**	**1.11E-04**	**1.69E-05**	**8.17E-04**
	6.74E-05	**1.39E-04**	**1.90E-03**	**3.00E-06**	**1.07E-04**	**1.92E-04**	**2.65E-04**	**1.04E-04**	**7.30E-05**	**3.44E-05**	**4.56E-02**	**6.28E-02**	**1.23E-04**	**1.11E-02**	**4.19E-01**	**1.37E-01**	**2.02E-02**	**8.41E-01**
Cranes	6.01E-07	1.33E-06	1.15E-05	2.00E-08	8.34E-07	1.40E-06	1.33E-06	1.00E-06	6.34E-07	3.34E-07	4.43E-04	5.82E-04	9.68E-07	1.73E-04	6.71E-03	1.83E-03	2.78E-04	1.34E-02
Hoist/swing/winch	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
Concrete/Industrial Saws	4.60E-07	1.02E-06	8.79E-06	1.53E-08	6.39E-07	1.07E-06	1.02E-06	7.67E-07	4.86E-07	2.56E-07	3.39E-04	4.45E-04	7.41E-07	1.95E-04	7.53E-03	2.05E-03	3.12E-04	1.51E-02
Rubber Tired Loaders	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.46E-04**	**5.65E-03**	**1.54E-03**	**2.34E-04**	**1.13E-02**
LDA-TOT	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	3.14E-06	**6.46E-06**	**8.37E-05**	**1.09E-07**	**4.82E-06**	**7.27E-06**	**9.89E-06**	**4.87E-06**	**3.30E-06**	**1.62E-06**	**2.15E-03**	**2.99E-03**	**4.96E-06**	**7.54E-04**	**2.85E-02**	**7.84E-03**	**1.22E-03**	**5.71E-02**
Hoist/swing/winch	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	7.75E-07	1.72E-06	1.48E-05	2.58E-08	1.08E-06	1.81E-06	1.72E-06	1.29E-06	8.18E-07	4.31E-07	5.72E-04	7.51E-04	1.25E-06	2.20E-04	8.53E-03	2.32E-03	3.54E-04	1.71E-02
Generator Sets	1.29E-06	2.87E-06	2.46E-05	4.30E-08	1.79E-06	3.01E-06	2.87E-06	2.15E-06	1.36E-06	7.16E-07	9.51E-04	1.25E-03	2.08E-06	3.46E-04	1.34E-02	3.64E-03	5.55E-04	2.68E-02
Generator Sets	**9.62E-07**	**2.14E-06**	**1.84E-05**	**3.21E-08**	**1.34E-06**	**2.25E-06**	**2.14E-06**	**1.60E-06**	**1.02E-06**	**5.35E-07**	**7.09E-04**	**9.32E-04**	**1.55E-06**	**8.48E-05**	**3.28E-03**	**8.93E-04**	**1.36E-04**	**6.57E-03**
Hoist/swing/winch	1.60E-06	3.55E-06	3.05E-05	5.32E-08	2.22E-06	3.72E-06	3.55E-06	2.66E-06	1.68E-06	8.87E-07	1.18E-03	1.55E-03	2.57E-06	4.46E-04	1.73E-02	4.70E-03	7.16E-04	3.45E-02
NA	**2.95E-06**	**6.56E-06**	**5.64E-05**	**9.84E-08**	**4.10E-06**	**6.89E-06**	**6.56E-06**	**4.92E-06**	**3.12E-06**	**1.64E-06**	**2.18E-03**	**2.86E-03**	**4.76E-06**	**-**	**-**	**5.68E-03**	**1.84E-04**	**2.63E-04**
NA	**5.29E-07**	**1.18E-06**	**1.01E-05**	**1.76E-08**	**7.34E-07**	**1.23E-06**	**1.18E-06**	**8.81E-07**	**5.58E-07**	**2.94E-07**	**3.90E-04**	**5.12E-04**	**8.52E-07**	**-**	**-**	**1.70E-03**	**5.50E-05**	**7.86E-05**
LDA-TOT	2.42E-07	-	3.39E-05	1.21E-08	2.42E-07	-	2.42E-07	-	2.42E-07	-	-	2.18E-04	-	2.20E-05	1.13E-05	9.98E-05	4.23E-05	6.37E-05
Dust	6.36E-08	1.59E-08	2.83E-06	4.51E-09	7.85E-07	6.57E-07	4.24E-06	4.77E-08	6.36E-08	1.06E-08	1.66E-05	1.43E-05	3.76E-07	-	-	-	-	-
	1.02E-05	**2.21E-05**	**2.26E-04**	**3.47E-07**	**1.48E-05**	**2.38E-05**	**2.65E-05**	**1.66E-05**	**1.08E-05**	**5.52E-06**	**7.33E-03**	**9.84E-03**	**1.64E-05**	**1.62E-03**	**6.20E-02**	**2.44E-02**	**2.85E-03**	**1.25E-01**
Hoist/swing/winch	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	1.60E-06	3.55E-06	3.05E-05	5.32E-08	2.22E-06	3.72E-06	3.55E-06	2.66E-06	1.68E-06	8.87E-07	1.18E-03	1.55E-03	2.57E-06	4.46E-04	1.73E-02	4.70E-03	7.16E-04	3.45E-02
Excavators	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**2.32E-04**	**8.98E-03**	**2.44E-03**	**3.72E-04**	**1.80E-02**
HHDT-DSL	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
NA	**2.95E-06**	**6.56E-06**	**5.64E-05**	**9.84E-08**	**4.10E-06**	**6.89E-06**	**6.56E-06**	**4.92E-06**	**3.12E-06**	**1.64E-06**	**2.18E-03**	**2.86E-03**	**4.76E-06**	**-**	**-**	**5.68E-03**	**1.84E-04**	**2.63E-04**
NA	**5.29E-07**	**1.18E-06**	**1.01E-05**	**1.76E-08**	**7.34E-07**	**1.23E-06**	**1.18E-06**	**8.81E-07**	**5.58E-07**	**2.94E-07**	**3.90E-04**	**5.12E-04**	**8.52E-07**	**-**	**-**	**1.70E-03**	**5.50E-05**	**7.86E-05**
LDA-TOT	2.42E-07	-	3.39E-05	1.21E-08	2.42E-07	-	2.42E-07	-	2.42E-07	-	-	2.18E-04	-	2.20E-05	1.13E-05	9.98E-05	4.23E-05	6.37E-05
Dust	6.36E-08	1.59E-08	2.83E-06	4.51E-09	7.85E-07	6.57E-07	4.24E-06	4.77E-08	6.36E-08	1.06E-08	1.66E-05	1.43E-05	3.76E-07	-	-	-	-	-
	8.32E-06	**1.78E-05**	**1.90E-04**	**2.84E-07**	**1.24E-05**	**1.95E-05**	**2.35E-05**	**1.34E-05**	**8.76E-06**	**4.45E-06**	**5.91E-03**	**7.97E-03**	**1.34E-05**	**1.22E-03**	**4.62E-02**	**2.01E-02**	**2.20E-03**	**9.29E-02**
Hoist/swing/winch	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02

Offroad																		
Equipment	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldeh
Category	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
Hoist/swing/winch	1.60E-06	3.55E-06	3.05E-05	5.32E-08	2.22E-06	3.72E-06	3.55E-06	2.66E-06	1.68E-06	8.87E-07	1.18E-03	1.55E-03	2.57E-06	4.46E-04	1.73E-02	4.70E-03	7.16E-04	3.45E-02
NA	**2.95E-06**	**6.56E-06**	**5.64E-05**	**9.84E-08**	**4.10E-06**	**6.89E-06**	**6.56E-06**	**4.92E-06**	**3.12E-06**	**1.64E-06**	**2.18E-03**	**2.86E-03**	**4.76E-06**	-	-	**5.68E-03**	**1.84E-04**	**2.63E-04**
NA	**5.29E-07**	**1.18E-06**	**1.01E-05**	**1.76E-08**	**7.34E-07**	**1.23E-06**	**1.18E-06**	**8.81E-07**	**5.58E-07**	**2.94E-07**	**3.90E-04**	**5.12E-04**	**8.52E-07**	-	-	**1.70E-03**	**5.50E-05**	**7.86E-05**
LDA-TOT	2.42E-07	-	3.39E-05	1.21E-08	2.42E-07	-	2.42E-07	-	2.42E-07	-	-	2.18E-04	-	2.20E-05	1.13E-05	9.98E-05	4.23E-05	6.37E-05
Dust	6.36E-08	1.59E-08	2.83E-06	4.51E-09	7.85E-07	6.57E-07	4.24E-06	4.77E-08	6.36E-08	1.06E-08	1.66E-05	1.43E-05	3.76E-07	-	-	-	-	-
	7.20E-06	**1.53E-05**	**1.68E-04**	**2.46E-07**	**1.06E-05**	**1.67E-05**	**1.98E-05**	**1.15E-05**	**7.58E-06**	**3.84E-06**	**5.10E-03**	**6.90E-03**	**1.15E-05**	**9.74E-04**	**3.68E-02**	**1.75E-02**	**1.81E-03**	**7.41E-02**
Hoist/swing/winch	1.81E-06	4.03E-06	3.47E-05	6.04E-08	2.52E-06	4.23E-06	4.03E-06	3.02E-06	1.91E-06	1.01E-06	1.34E-03	1.76E-03	2.92E-06	5.06E-04	1.96E-02	5.33E-03	8.12E-04	3.92E-02
Hoist/swing/winch	7.98E-07	1.77E-06	1.53E-05	2.66E-08	1.11E-06	1.86E-06	1.77E-06	1.33E-06	8.42E-07	4.43E-07	5.88E-04	7.73E-04	1.29E-06	2.23E-04	8.63E-03	2.35E-03	3.58E-04	1.73E-02
Generator Sets	**7.62E-07**	**1.69E-06**	**1.46E-05**	**2.54E-08**	**1.06E-06**	**1.78E-06**	**1.69E-06**	**1.27E-06**	**8.05E-07**	**4.24E-07**	**5.62E-04**	**7.38E-04**	**1.23E-06**	**1.19E-04**	**4.62E-03**	**1.26E-03**	**1.92E-04**	**9.25E-03**
LDA-TOT	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	3.61E-06	**7.51E-06**	**9.27E-05**	**1.25E-07**	**5.48E-06**	**8.38E-06**	**1.09E-05**	**5.66E-06**	**3.80E-06**	**1.88E-06**	**2.50E-03**	**3.45E-03**	**5.72E-06**	**8.65E-04**	**3.28E-02**	**9.01E-03**	**1.39E-03**	**6.57E-02**
Excavators	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**2.32E-04**	**8.98E-03**	**2.44E-03**	**3.72E-04**	**1.80E-02**
Rubber Tired Loaders	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.46E-04**	**5.65E-03**	**1.54E-03**	**2.34E-04**	**1.13E-02**
HHDT-DSL	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	4.38E-08	4.88E-08	5.31E-06	1.64E-08	1.73E-07	8.76E-07	1.44E-06	2.50E-08	9.50E-08	3.75E-09	4.64E-06	7.37E-06	4.14E-07	-	-	-	-	-
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	2.39E-06	**4.83E-06**	**6.97E-05**	**9.94E-08**	**4.02E-06**	**6.48E-06**	**1.03E-05**	**3.64E-06**	**2.56E-06**	**1.20E-06**	**1.60E-03**	**2.23E-03**	**4.21E-06**	**4.02E-04**	**1.50E-02**	**4.15E-03**	**6.50E-04**	**3.01E-02**
HHDT-DSL	2.68E-07	5.95E-07	5.12E-06	8.93E-09	3.72E-07	6.25E-07	5.95E-07	4.46E-07	2.83E-07	1.49E-07	1.97E-04	2.59E-04	4.32E-07	4.75E-05	1.84E-03	5.00E-04	7.62E-05	3.68E-03
Dust	8.81E-08	2.20E-08	3.91E-06	6.24E-09	1.09E-06	9.10E-07	5.87E-06	6.61E-08	8.81E-08	1.47E-08	2.30E-05	1.98E-05	5.21E-07	-	-	-	-	-
Graders	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
Rollers	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	2.63E-06	**5.26E-06**	**7.14E-05**	**9.48E-08**	**4.98E-06**	**6.80E-06**	**1.39E-05**	**4.01E-06**	**2.76E-06**	**1.33E-06**	**1.77E-03**	**2.44E-03**	**4.54E-06**	**2.81E-04**	**1.04E-02**	**2.88E-03**	**4.55E-04**	**2.07E-02**
Tractors/Loaders/Backhoes	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Trenchers	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
LDT2-TOT	1.65E-06	-	2.31E-04	8.27E-08	1.65E-06	-	1.65E-06	-	1.65E-06	-	-	1.49E-03	-	2.87E-05	1.47E-05	1.30E-04	5.52E-05	8.32E-05
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	3.86E-06	**4.45E-06**	**2.93E-04**	**1.61E-07**	**5.30E-06**	**5.26E-06**	**1.02E-05**	**3.37E-06**	**3.97E-06**	**1.12E-06**	**1.49E-03**	**3.57E-03**	**3.56E-06**	**3.68E-04**	**1.26E-02**	**3.62E-03**	**6.04E-04**	**2.53E-02**
Concrete/Industrial Saws	**1.05E-06**	**2.33E-06**	**2.00E-05**	**3.49E-08**	**1.46E-06**	**2.44E-06**	**2.33E-06**	**1.75E-06**	**1.11E-06**	**5.82E-07**	**7.72E-04**	**1.01E-03**	**1.69E-06**	**7.54E-05**	**2.92E-03**	**7.94E-04**	**1.21E-04**	**5.84E-03**
Rubber Tired Loaders	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.46E-04**	**5.65E-03**	**1.54E-03**	**2.34E-04**	**1.13E-02**
HHDT-DSL	8.33E-07	1.85E-06	1.59E-05	2.78E-08	1.16E-06	1.94E-06	1.85E-06	1.39E-06	8.80E-07	4.63E-07	6.14E-04	8.07E-04	1.34E-06	1.48E-04	5.71E-03	1.56E-03	2.37E-04	1.14E-02
Dust	2.74E-07	6.85E-08	1.22E-05	1.94E-08	3.38E-06	2.83E-06	1.83E-05	2.06E-07	2.74E-07	4.57E-08	7.15E-05	6.15E-05	1.62E-06	-	-	-	-	-
HHDT-DSL	**1.19E-07**	**2.65E-07**	**2.28E-06**	**3.97E-09**	**1.65E-07**	**2.78E-07**	**2.65E-07**	**1.98E-07**	**1.26E-07**	**6.61E-08**	**8.78E-05**	**1.15E-04**	**1.92E-07**	**2.11E-05**	**8.16E-04**	**2.22E-04**	**3.39E-05**	**1.63E-03**
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
LDT2-TOT	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05

Offroad																		
Equipment	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldeh
Category	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
LDA-TOT	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	3.72E-06	**6.85E-06**	**1.17E-04**	**1.43E-07**	**9.23E-06**	**1.10E-05**	**3.25E-05**	**5.36E-06**	**3.89E-06**	**1.75E-06**	**2.34E-03**	**3.30E-03**	**7.16E-06**	**4.15E-04**	**1.51E-02**	**4.22E-03**	**6.74E-04**	**3.03E-02**
Graders	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
Rubber Tired Dozers	**2.08E-06**	**4.63E-06**	**3.98E-05**	**6.94E-08**	**2.89E-06**	**4.86E-06**	**4.63E-06**	**3.47E-06**	**2.20E-06**	**1.16E-06**	**1.54E-03**	**2.02E-03**	**3.36E-06**	**2.20E-04**	**8.51E-03**	**2.32E-03**	**3.53E-04**	**1.70E-02**
Rollers	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
	1.78E-06	1.98E-06	2.16E-04	6.65E-07	7.01E-06	3.56E-05	5.84E-05	1.02E-06	3.86E-06	1.52E-07	1.89E-04	2.99E-04	1.68E-05	-	-	-	-	-
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	6.13E-06	**1.12E-05**	**3.18E-04**	**8.14E-07**	**1.34E-05**	**4.57E-05**	**7.04E-05**	**7.99E-06**	**8.44E-06**	**2.47E-06**	**3.27E-03**	**4.48E-03**	**2.37E-05**	**4.53E-04**	**1.70E-02**	**4.69E-03**	**7.32E-04**	**3.41E-02**
Tractors/Loaders/Backhoes	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Pavers	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
HHDT-DSL	2.98E-08	6.61E-08	5.69E-07	9.92E-10	4.13E-08	6.94E-08	6.61E-08	4.96E-08	3.14E-08	1.65E-08	2.19E-05	2.88E-05	4.79E-08	5.27E-06	2.04E-04	5.55E-05	8.47E-06	4.08E-04
Dust	9.79E-09	2.45E-09	4.35E-07	6.93E-10	1.21E-07	1.01E-07	6.53E-07	7.34E-09	9.79E-09	1.63E-09	2.55E-06	2.20E-06	5.79E-08	-	-	-	-	-
LDT2-TOT	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.52E-03	-
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	2.35E-06	**4.52E-06**	**7.83E-05**	**8.54E-08**	**3.92E-06**	**5.43E-06**	**9.33E-06**	**3.43E-06**	**2.47E-06**	**1.14E-06**	**1.51E-03**	**2.21E-03**	**3.67E-06**	**3.52E-04**	**1.28E-02**	**3.58E-03**	**2.09E-03**	**2.57E-02**
Trenchers	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	1.23E-06	**2.32E-06**	**4.25E-05**	**4.49E-08**	**2.08E-06**	**2.84E-06**	**5.07E-06**	**1.77E-06**	**1.29E-06**	**5.85E-07**	**7.78E-04**	**1.15E-03**	**1.91E-06**	**1.23E-04**	**4.26E-03**	**1.22E-03**	**2.03E-04**	**8.55E-03**
HHDT-DSL	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	7.91E-08	**1.37E-07**	**2.01E-06**	**3.37E-09**	**3.24E-07**	**3.41E-07**	**1.44E-06**	**1.14E-07**	**8.24E-08**	**3.63E-08**	**4.90E-05**	**6.20E-05**	**2.12E-07**	**1.05E-05**	**4.08E-04**	**1.11E-04**	**1.69E-05**	**8.17E-04**
	5.49E-05	**1.09E-04**	**1.75E-03**	**2.56E-06**	**9.13E-05**	**1.60E-04**	**2.44E-04**	**8.17E-05**	**5.97E-05**	**2.69E-05**	**3.58E-02**	**5.06E-02**	**1.01E-04**	**7.84E-03**	**2.94E-01**	**1.03E-01**	**1.49E-02**	**5.90E-01**
Excavators	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**2.32E-04**	**8.98E-03**	**2.44E-03**	**3.72E-04**	**1.80E-02**
Rubber Tired Loaders	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.46E-04**	**5.65E-03**	**1.54E-03**	**2.34E-04**	**1.13E-02**
HHDT-DSL	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	4.38E-07	4.88E-07	5.31E-05	1.64E-07	1.73E-06	8.76E-06	1.44E-05	2.50E-07	9.50E-07	3.75E-08	4.64E-05	7.37E-05	4.14E-06	-	-	-	-	-
LDA-TOT	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	2.84E-06	**5.27E-06**	**1.23E-04**	**2.49E-07**	**5.73E-06**	**1.45E-05**	**2.39E-05**	**3.87E-06**	**3.47E-06**	**1.24E-06**	**1.64E-03**	**2.33E-03**	**8.00E-06**	**4.05E-04**	**1.50E-02**	**4.17E-03**	**6.56E-04**	**3.01E-02**

Offroad																		
Equipment	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldeh
Category	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
HHDT-DSL	4.17E-07	9.26E-07	7.96E-06	1.39E-08	5.79E-07	9.72E-07	9.26E-07	6.94E-07	4.40E-07	2.31E-07	3.07E-04	4.03E-04	6.71E-07	7.38E-05	2.86E-03	7.78E-04	1.19E-04	5.72E-03
Dust	1.37E-07	3.43E-08	6.09E-06	9.71E-09	1.69E-06	1.42E-06	9.14E-06	1.03E-07	1.37E-07	2.28E-08	3.58E-05	3.07E-05	8.11E-07	-	-	-	-	-
Graders	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
Rollers	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	2.83E-06	**5.60E-06**	**7.64E-05**	**1.03E-07**	**5.79E-06**	**7.65E-06**	**1.75E-05**	**4.30E-06**	**2.96E-06**	**1.42E-06**	**1.89E-03**	**2.59E-03**	**5.07E-06**	**3.07E-04**	**1.14E-02**	**3.15E-03**	**4.98E-04**	**2.28E-02**
Tractors/Loaders/Backhoes	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Trenchers	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
LDT2-TOT	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	2.32E-06	**4.45E-06**	**7.73E-05**	**8.37E-08**	**3.76E-06**	**5.26E-06**	**8.61E-06**	**3.37E-06**	**2.43E-06**	**1.12E-06**	**1.49E-03**	**2.18E-03**	**3.56E-06**	**3.47E-04**	**1.26E-02**	**3.52E-03**	**5.64E-04**	**2.53E-02**
Concrete/Industrial Saws	**1.05E-06**	**2.33E-06**	**2.00E-05**	**3.49E-08**	**1.46E-06**	**2.44E-06**	**2.33E-06**	**1.75E-06**	**1.11E-06**	**5.82E-07**	**7.72E-04**	**1.01E-03**	**1.69E-06**	**7.54E-05**	**2.92E-03**	**7.94E-04**	**1.21E-04**	**5.84E-03**
Rubber Tired Loaders	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.46E-04**	**5.65E-03**	**1.54E-03**	**2.34E-04**	**1.13E-02**
HHDT-DSL	**8.33E-07**	**1.85E-06**	**1.59E-05**	**2.78E-08**	**1.16E-06**	**1.94E-06**	**1.85E-06**	**1.39E-06**	**8.80E-07**	**4.63E-07**	**6.14E-04**	**8.07E-04**	**1.34E-06**	**1.48E-04**	**5.71E-03**	**1.56E-03**	**2.37E-04**	**1.14E-02**
Dust	2.74E-07	6.85E-08	1.22E-05	1.94E-08	3.38E-06	2.83E-06	1.83E-05	2.06E-07	2.74E-07	4.57E-08	7.15E-05	6.15E-05	1.62E-06	-	-	-	-	-
HHDT-DSL	2.68E-07	5.95E-07	5.12E-06	8.93E-09	3.72E-07	6.25E-07	5.95E-07	4.46E-07	2.83E-07	1.49E-07	1.97E-04	2.59E-04	4.32E-07	4.75E-05	1.84E-03	5.00E-04	7.62E-05	3.68E-03
Dust	8.81E-08	2.20E-08	3.91E-06	6.24E-09	1.09E-06	9.10E-07	5.87E-06	6.61E-08	8.81E-08	1.47E-08	2.30E-05	1.98E-05	5.21E-07	-	-	-	-	-
LDT2-TOT	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
LDA-TOT	1.86E-07	-	2.61E-05	9.30E-09	1.86E-07	-	1.86E-07	-	1.86E-07	-	-	1.67E-04	-	1.69E-05	8.67E-06	7.68E-05	3.26E-05	4.90E-05
Dust	4.89E-08	1.22E-08	2.17E-06	3.47E-09	6.04E-07	5.06E-07	3.26E-06	3.67E-08	4.89E-08	8.16E-09	1.28E-05	1.10E-05	2.90E-07	-	-	-	-	-
	3.92E-06	**7.20E-06**	**1.22E-04**	**1.52E-07**	**1.00E-05**	**1.19E-05**	**3.61E-05**	**5.64E-06**	**4.10E-06**	**1.84E-06**	**2.46E-03**	**3.45E-03**	**7.69E-06**	**4.41E-04**	**1.61E-02**	**4.50E-03**	**7.17E-04**	**3.23E-02**
Graders	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
Rubber Tired Dozers	2.08E-06	4.63E-06	3.98E-05	6.94E-08	2.89E-06	4.86E-06	4.63E-06	3.47E-06	2.20E-06	1.16E-06	1.54E-03	2.02E-03	3.36E-06	8.74E-04	3.38E-02	9.21E-03	1.40E-03	6.77E-02
Rollers	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
	1.78E-06	1.98E-06	2.16E-04	6.65E-07	7.01E-06	3.56E-05	5.84E-05	1.02E-06	3.86E-06	1.52E-07	1.89E-04	2.99E-04	1.68E-05	-	-	-	-	-
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-
	6.13E-06	**1.12E-05**	**3.18E-04**	**8.14E-07**	**1.34E-05**	**4.57E-05**	**7.04E-05**	**7.99E-06**	**8.44E-06**	**2.47E-06**	**3.27E-03**	**4.48E-03**	**2.37E-05**	**1.11E-03**	**4.23E-02**	**1.16E-02**	**1.78E-03**	**8.48E-02**
Tractors/Loaders/Backhoes	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Pavers	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
HHDT-DSL	2.98E-08	6.61E-08	5.69E-07	9.92E-10	4.13E-08	6.94E-08	6.61E-08	4.96E-08	3.14E-08	1.65E-08	2.19E-05	2.88E-05	4.79E-08	5.27E-06	2.04E-04	5.55E-05	8.47E-06	4.08E-04
Dust	9.79E-09	2.45E-09	4.35E-07	6.93E-10	1.21E-07	1.01E-07	6.53E-07	7.34E-09	9.79E-09	1.63E-09	2.55E-06	2.20E-06	5.79E-08	-	-	-	-	-
LDT2-TOT	1.12E-07	-	1.57E-05	5.62E-09	1.12E-07	-	1.12E-07	-	1.12E-07	-	-	1.01E-04	-	7.99E-06	4.09E-06	3.62E-05	1.54E-05	2.31E-05
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.52E-03	-
LDA-TOT	1.49E-07	-	2.08E-05	7.44E-09	1.49E-07	-	1.49E-07	-	1.49E-07	-	-	1.34E-04	-	1.35E-05	6.93E-06	6.14E-05	2.60E-05	3.92E-05
Dust	3.92E-08	9.79E-09	1.74E-06	2.77E-09	4.83E-07	4.05E-07	2.61E-06	2.94E-08	3.92E-08	6.53E-09	1.02E-05	8.78E-06	2.32E-07	-	-	-	-	-

Offroad																		
Equipment	BROMINE	CADMIUM	CHLORINE	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldeh
Category	7726956	7440439	7782505	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000
	2.35E-06	**4.52E-06**	**7.83E-05**	**8.54E-08**	**3.92E-06**	**5.43E-06**	**9.33E-06**	**3.43E-06**	**2.47E-06**	**1.14E-06**	**1.51E-03**	**2.21E-03**	**3.67E-06**	**3.52E-04**	**1.28E-02**	**3.58E-03**	**2.09E-03**	**2.57E-02**
Trenchers	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
LDA-TOT	9.30E-08	-	1.30E-05	4.65E-09	9.30E-08	-	9.30E-08	-	9.30E-08	-	-	8.37E-05	-	8.46E-06	4.33E-06	3.84E-05	1.63E-05	2.45E-05
Dust	2.45E-08	6.12E-09	1.09E-06	1.73E-09	3.02E-07	2.53E-07	1.63E-06	1.84E-08	2.45E-08	4.08E-09	6.39E-06	5.49E-06	1.45E-07	-	-	-	-	-
	1.16E-06	**2.32E-06**	**3.40E-05**	**4.11E-08**	**1.84E-06**	**2.68E-06**	**4.04E-06**	**1.75E-06**	**1.22E-06**	**5.83E-07**	**7.74E-04**	**1.10E-03**	**1.82E-06**	**1.18E-04**	**4.26E-03**	**1.20E-03**	**1.93E-04**	**8.54E-03**
Trenchers	**1.04E-06**	**2.31E-06**	**1.99E-05**	**3.47E-08**	**1.45E-06**	**2.43E-06**	**2.31E-06**	**1.74E-06**	**1.10E-06**	**5.79E-07**	**7.68E-04**	**1.01E-03**	**1.68E-06**	**1.10E-04**	**4.26E-03**	**1.16E-03**	**1.77E-04**	**8.52E-03**
LDA-TOT	9.30E-08	-	1.30E-05	4.65E-09	9.30E-08	-	9.30E-08	-	9.30E-08	-	-	8.37E-05	-	8.46E-06	4.33E-06	3.84E-05	1.63E-05	2.45E-05
Dust	2.45E-08	6.12E-09	1.09E-06	1.73E-09	3.02E-07	2.53E-07	1.63E-06	1.84E-08	2.45E-08	4.08E-09	6.39E-06	5.49E-06	1.45E-07	-	-	-	-	-
	1.16E-06	**2.32E-06**	**3.40E-05**	**4.11E-08**	**1.84E-06**	**2.68E-06**	**4.04E-06**	**1.75E-06**	**1.22E-06**	**5.83E-07**	**7.74E-04**	**1.10E-03**	**1.82E-06**	**1.18E-04**	**4.26E-03**	**1.20E-03**	**1.93E-04**	**8.54E-03**
Air Compressors	2.83E-06	6.28E-06	5.40E-05	9.42E-08	3.93E-06	6.60E-06	6.28E-06	4.71E-06	2.98E-06	1.57E-06	2.08E-03	2.74E-03	4.55E-06	5.45E-04	2.11E-02	5.74E-03	8.74E-04	4.22E-02
HHDT-DSL	2.98E-08	6.61E-08	5.69E-07	9.92E-10	4.13E-08	6.94E-08	6.61E-08	4.96E-08	3.14E-08	1.65E-08	2.19E-05	2.88E-05	4.79E-08	5.27E-06	2.04E-04	5.55E-05	8.47E-06	4.08E-04
Dust	9.79E-09	2.45E-09	4.35E-07	6.93E-10	1.21E-07	1.01E-07	6.53E-07	7.34E-09	9.79E-09	1.63E-09	2.55E-06	2.20E-06	5.79E-08	-	-	-	-	-
HHDT-DSL	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
Off-Highway Trucks	1.41E-06	3.14E-06	2.70E-05	4.71E-08	1.96E-06	3.30E-06	3.14E-06	2.35E-06	1.49E-06	7.85E-07	1.04E-03	1.37E-03	2.28E-06	4.50E-04	1.74E-02	4.74E-03	7.23E-04	3.49E-02
Tractors/Loaders/Backhoes	9.53E-07	2.12E-06	1.82E-05	3.18E-08	1.32E-06	2.22E-06	2.12E-06	1.59E-06	1.01E-06	5.30E-07	7.03E-04	9.23E-04	1.54E-06	2.15E-04	8.34E-03	2.27E-03	3.46E-04	1.67E-02
Cranes	9.25E-07	2.06E-06	1.77E-05	3.08E-08	1.29E-06	2.16E-06	2.06E-06	1.54E-06	9.77E-07	5.14E-07	6.82E-04	8.96E-04	1.49E-06	2.18E-04	8.44E-03	2.30E-03	3.50E-04	1.69E-02
Forklifts	5.01E-07	1.11E-06	9.58E-06	1.67E-08	6.96E-07	1.17E-06	1.11E-06	8.36E-07	5.29E-07	2.79E-07	3.70E-04	4.85E-04	8.08E-07	1.59E-04	6.14E-03	1.67E-03	2.55E-04	1.23E-02
LDA-TOT	2.79E-07	-	3.91E-05	1.40E-08	2.79E-07	-	2.79E-07	-	2.79E-07	-	-	2.51E-04	-	2.54E-05	1.30E-05	1.15E-04	4.88E-05	7.36E-05
Dust	7.34E-08	1.84E-08	3.26E-06	5.20E-09	9.05E-07	7.59E-07	4.89E-06	5.51E-08	7.34E-08	1.22E-08	1.92E-05	1.65E-05	4.34E-07	-	-	-	-	-
	7.09E-06	**1.49E-05**	**1.72E-04**	**2.45E-07**	**1.09E-05**	**1.67E-05**	**2.20E-05**	**1.13E-05**	**7.46E-06**	**3.74E-06**	**4.97E-03**	**6.77E-03**	**1.14E-05**	**1.63E-03**	**6.20E-02**	**1.70E-02**	**2.62E-03**	**1.24E-01**
HHDT-DSL	5.95E-08	1.32E-07	1.14E-06	1.98E-09	8.27E-08	1.39E-07	1.32E-07	9.92E-08	6.28E-08	3.31E-08	4.39E-05	5.76E-05	9.59E-08	1.05E-05	4.08E-04	1.11E-04	1.69E-05	8.17E-04
Dust	1.96E-08	4.89E-09	8.70E-07	1.39E-09	2.41E-07	2.02E-07	1.31E-06	1.47E-08	1.96E-08	3.26E-09	5.11E-06	4.39E-06	1.16E-07	-	-	-	-	-
	7.91E-08	**1.37E-07**	**2.01E-06**	**3.37E-09**	**3.24E-07**	**3.41E-07**	**1.44E-06**	**1.14E-07**	**8.24E-08**	**3.63E-08**	**4.90E-05**	**6.20E-05**	**2.12E-07**	**1.05E-05**	**4.08E-04**	**1.11E-04**	**1.69E-05**	**8.17E-04**
	2.99E-05	**5.80E-05**	**1.04E-03**	**1.82E-06**	**5.75E-05**	**1.13E-04**	**1.97E-04**	**4.35E-05**	**3.38E-05**	**1.42E-05**	**1.88E-02**	**2.63E-02**	**6.70E-05**	**4.84E-03**	**1.81E-01**	**5.00E-02**	**9.33E-03**	**3.63E-01**

Offroad												Annual						
Equipment	methanol	methyl ethyl ketone (mek) (2-butanone)	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMINE	CADMIUM	CHLORINE
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956	7440439	7782505
Cranes	2.74E-05	1.35E-03	5.58E-04	7.76E-05	1.43E-04	3.06E-04	2.37E-03	8.67E-05	5.29E-05	1.34E-03	-	0.01	0.00		-	-	-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	0.01	0.00		-	-	-	-
Crushing/Proc. Equipment	**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	**-**	**0.00**	**0.00**		-	-	-	-
Rubber Tired Loaders	**2.31E-05**	**1.14E-03**	**4.70E-04**	**6.53E-05**	**1.21E-04**	**2.57E-04**	**2.00E-03**	**7.30E-05**	**4.46E-05**	**1.13E-03**	**-**	**0.01**	**0.00**		-	-	-	-
HHDT-DSL	8.33E-07	4.10E-05	1.70E-05	2.36E-06	4.36E-06	9.30E-06	7.21E-05	2.64E-06	1.61E-06	4.09E-05	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.06E-10	9.79E-11	2.45E-11	4.35E-09
LDA-TOT	7.59E-06	1.13E-06	2.21E-04	2.93E-06	9.93E-05	7.69E-05	1.90E-04	-	7.63E-06	3.57E-04	8.22E-06	0.00	0.00		-	1.86E-09	-	2.61E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		5.30E-10	4.89E-10	1.22E-10	2.17E-08
	1.11E-04	**5.11E-03**	**2.34E-03**	**2.97E-04**	**6.43E-04**	**1.24E-03**	**9.18E-03**	**3.29E-04**	**2.08E-04**	**5.46E-03**	**8.22E-06**	**2.75E-02**	**1.55E-02**	***0***	**6.36E-10**	**2.45E-09**	**1.47E-10**	**2.87E-07**
Excavators	**3.66E-05**	**1.80E-03**	**7.46E-04**	**1.04E-04**	**1.92E-04**	**4.09E-04**	**3.17E-03**	**1.16E-04**	**7.08E-05**	**1.80E-03**	**-**	**0.03**	**0.01**		-	-	-	-
Rubber Tired Loaders	**2.31E-05**	**1.14E-03**	**4.70E-04**	**6.53E-05**	**1.21E-04**	**2.57E-04**	**2.00E-03**	**7.30E-05**	**4.46E-05**	**1.13E-03**	**-**	**0.02**	**0.01**		-	-	-	-
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		6.36E-10	5.87E-10	1.47E-10	2.61E-08
	-	-	-	-	-	-	-	-	-	-	-	-	0.00		2.88E-08	4.20E-08	4.68E-08	5.10E-06
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	0.00	0.00		-	5.58E-09	-	7.82E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.59E-09	1.47E-09	3.67E-10	6.52E-08
	6.51E-05	**3.02E-03**	**1.36E-03**	**1.75E-04**	**3.71E-04**	**7.24E-04**	**5.41E-03**	**1.94E-04**	**1.22E-04**	**3.19E-03**	**4.11E-06**	***4.80E-02***	***2.93E-02***	***0***	**2.94E-08**	**4.82E-08**	**4.69E-08**	**5.91E-06**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	0.02	0.01		-	-	-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	0.01	0.00		-	-	-	-
Hoist/swing/winch	2.34E-05	1.15E-03	4.76E-04	6.63E-05	1.22E-04	2.61E-04	2.02E-03	7.41E-05	4.52E-05	1.15E-03	-	0.00	0.00		-	-	-	-
Generator Sets	**2.27E-05**	**1.12E-03**	**4.63E-04**	**6.44E-05**	**1.19E-04**	**2.54E-04**	**1.97E-03**	**7.19E-05**	**4.39E-05**	**1.12E-03**	**-**	**0.00**	**0.00**		-	-	-	-
Generator Sets	**1.04E-05**	**5.13E-04**	**2.12E-04**	**2.95E-05**	**5.45E-05**	**1.16E-04**	**9.02E-04**	**3.30E-05**	**2.01E-05**	**5.11E-04**	**-**	**0.00**	**0.00**		-	-	-	-
Generator Sets	**1.88E-05**	**9.28E-04**	**3.84E-04**	**5.34E-05**	**9.86E-05**	**2.10E-04**	**1.63E-03**	**5.97E-05**	**3.64E-05**	**9.26E-04**	**-**	**0.00**	**0.00**		-	-	-	-
LDA-TOT	2.66E-06	3.97E-07	7.74E-05	1.02E-06	3.48E-05	2.69E-05	6.66E-05	-	2.67E-06	1.25E-04	2.88E-06	0.00	0.00		-	9.77E-10	-	1.37E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		2.78E-10	2.57E-10	6.42E-11	1.14E-08
	1.93E-04	**9.38E-03**	**3.96E-03**	**5.41E-04**	**1.03E-03**	**2.15E-03**	**1.66E-02**	**6.03E-04**	**3.71E-04**	**9.48E-03**	**2.88E-06**	***3.81E-02***	***1.86E-02***	***0***	**2.78E-10**	**1.23E-09**	**6.42E-11**	**1.48E-07**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	0.02	0.01		-	-	-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	0.01	0.00		-	-	-	-
Generator Sets	6.32E-05	3.11E-03	1.29E-03	1.79E-04	3.31E-04	7.06E-04	5.47E-03	2.00E-04	1.22E-04	3.10E-03	-	0.02	0.01		-	-	-	-
Air Compressors	5.43E-05	2.67E-03	1.11E-03	1.54E-04	2.84E-04	6.06E-04	4.70E-03	1.72E-04	1.05E-04	2.67E-03	-	0.01	0.01		-	-	-	-
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	0.00	0.00		-	1.86E-09	-	2.61E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		5.30E-10	4.89E-10	1.22E-10	2.17E-08
	2.36E-04	**1.15E-02**	**4.85E-03**	**6.60E-04**	**1.27E-03**	**2.64E-03**	**2.02E-02**	**7.36E-04**	**4.53E-04**	**1.16E-02**	**4.11E-06**	***5.97E-02***	***2.28E-02***	***0***	**0.00E+00**	**1.86E-09**	**0.00E+00**	**2.61E-07**

Offroad												Annual						
Equipment	methanol	methyl ethyl ketone (mek) (2-butan	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMINE	CADMIUM	CHLORINE
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956	7440439	7782505
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	0.01	0.00		-	-	-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	0.00	0.00		-	-	-	-
LDA-TOT	2.66E-06	3.97E-07	7.74E-05	1.02E-06	3.48E-05	2.69E-05	6.66E-05	-	2.67E-06	1.25E-04	2.88E-06	0.00	0.00		-	3.26E-10	-	4.56E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		9.28E-11	8.57E-11	2.14E-11	3.80E-09
	1.18E-04	**5.67E-03**	**2.42E-03**	**3.27E-04**	**6.37E-04**	**1.31E-03**	**1.00E-02**	**3.64E-04**	**2.25E-04**	**5.77E-03**	**2.88E-06**	***7.68E-03***	***2.91E-03***	***0***	**9.28E-11**	**4.11E-10**	**2.14E-11**	**4.94E-08**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	0.02	0.01		-	-	-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	0.01	0.00		-	-	-	-
Generator Sets	1.88E-05	9.28E-04	3.84E-04	5.34E-05	9.86E-05	2.10E-04	1.63E-03	5.97E-05	3.64E-05	9.26E-04	-	0.01	0.00		-	-	-	-
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	0.00	0.00		-	1.86E-09	-	2.61E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		5.30E-10	4.89E-10	1.22E-10	2.17E-08
	1.38E-04	**6.59E-03**	**2.84E-03**	**3.81E-04**	**7.50E-04**	**1.53E-03**	**1.17E-02**	**4.24E-04**	**2.63E-04**	**6.75E-03**	**4.11E-06**	***3.57E-02***	***1.50E-02***	***0***	**5.30E-10**	**2.35E-09**	**1.22E-10**	**2.82E-07**
Hoist/swing/winch	**7.99E-05**	**3.93E-03**	**1.63E-03**	**2.26E-04**	**4.18E-04**	**8.92E-04**	**6.91E-03**	**2.53E-04**	**1.54E-04**	**3.92E-03**	**-**	**0.00**	**0.00**		-	-	-	-
Hoist/swing/winch	3.48E-05	1.71E-03	7.09E-04	9.86E-05	1.82E-04	3.89E-04	3.01E-03	1.10E-04	6.73E-05	1.71E-03	-	0.00	0.00		-	-	-	-
Generator Sets	5.46E-05	2.69E-03	1.11E-03	1.55E-04	2.86E-04	6.10E-04	4.73E-03	1.73E-04	1.06E-04	2.68E-03	-	0.00	0.00		-	-	-	-
Generator Sets	**1.34E-05**	**6.59E-04**	**2.73E-04**	**3.79E-05**	**7.01E-05**	**1.50E-04**	**1.16E-03**	**4.24E-05**	**2.59E-05**	**6.58E-04**	**-**	**0.00**	**0.00**		-	-	-	-
Hoist/swing/winch	7.04E-05	3.47E-03	1.43E-03	1.99E-04	3.68E-04	7.86E-04	6.09E-03	2.23E-04	1.36E-04	3.46E-03	-	0.00	0.00		-	-	-	-
NA	**-**	**-**	**1.18E-03**	**1.84E-04**	**4.18E-03**	**8.15E-04**	**1.20E-02**	**-**	**-**	**5.65E-03**	**-**	**0.00**	**0.00**		-	-	-	-
NA	**-**	**-**	**3.54E-04**	**5.50E-05**	**1.25E-03**	**2.44E-04**	**3.59E-03**	**-**	**-**	**1.69E-03**	**-**	**0.00**	**0.00**		-	-	-	-
LDA-TOT	4.93E-06	7.37E-07	1.44E-04	1.90E-06	6.45E-05	5.00E-05	1.24E-04	-	4.96E-06	2.32E-04	5.35E-06	0.00	0.00		-	3.63E-10	-	5.08E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.03E-10	9.54E-11	2.39E-11	4.24E-09
	2.58E-04	**1.25E-02**	**6.83E-03**	**9.58E-04**	**6.82E-03**	**3.93E-03**	**3.76E-02**	**8.01E-04**	**4.94E-04**	**2.00E-02**	**5.35E-06**	***1.22E-02***	***5.46E-03***	***0***	**1.03E-10**	**4.58E-10**	**2.39E-11**	**5.50E-08**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	0.00	0.00		-	-	-	-
Hoist/swing/winch	7.04E-05	3.47E-03	1.43E-03	1.99E-04	3.68E-04	7.86E-04	6.09E-03	2.23E-04	1.36E-04	3.46E-03	-	0.00	0.00		-	-	-	-
Excavators	3.66E-05	1.80E-03	7.46E-04	1.04E-04	1.92E-04	4.09E-04	3.17E-03	1.16E-04	7.08E-05	1.80E-03	-	0.00	0.00		-	-	-	-
HHDT-DSL	8.33E-07	4.10E-05	1.70E-05	2.36E-06	4.36E-06	9.30E-06	7.21E-05	2.64E-06	1.61E-06	4.09E-05	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.06E-11	9.79E-12	2.45E-12	4.35E-10
NA	**-**	**-**	**1.18E-03**	**1.84E-04**	**4.18E-03**	**8.15E-04**	**1.20E-02**	**-**	**-**	**5.65E-03**	**-**	**0.00**	**0.00**		-	-	-	-
NA	**-**	**-**	**3.54E-04**	**5.50E-05**	**1.25E-03**	**2.44E-04**	**3.59E-03**	**-**	**-**	**1.69E-03**	**-**	**0.00**	**0.00**		-	-	-	-
LDA-TOT	4.93E-06	7.37E-07	1.44E-04	1.90E-06	6.45E-05	5.00E-05	1.24E-04	-	4.96E-06	2.32E-04	5.35E-06	0.00	0.00		-	3.63E-10	-	5.08E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.03E-10	9.54E-11	2.39E-11	4.24E-09
	1.93E-04	**9.24E-03**	**5.50E-03**	**7.73E-04**	**6.48E-03**	**3.20E-03**	**3.19E-02**	**5.94E-04**	**3.68E-04**	**1.68E-02**	**5.35E-06**	***9.53E-03***	***4.14E-03***	***0***	**1.14E-10**	**4.68E-10**	**2.63E-11**	**5.55E-08**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	0.00	0.00		-	-	-	-
Hoist/swing/winch	7.04E-05	3.47E-03	1.43E-03	1.99E-04	3.68E-04	7.86E-04	6.09E-03	2.23E-04	1.36E-04	3.46E-03	-	0.00	0.00		-	-	-	-
NA	-	-	**1.18E-03**	**1.84E-04**	**4.18E-03**	**8.15E-04**	**1.20E-02**	-	-	**5.65E-03**	-	**0.00**	**0.00**		-	-	-	-
NA	-	-	**3.54E-04**	**5.50E-05**	**1.25E-03**	**2.44E-04**	**3.59E-03**	-	-	**1.69E-03**	-	**0.00**	**0.00**		-	-	-	-
LDA-TOT	4.93E-06	7.37E-07	1.44E-04	1.90E-06	6.45E-05	5.00E-05	1.24E-04	-	4.96E-06	2.32E-04	5.35E-06	0.00	0.00		-	3.63E-10	-	5.08E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.03E-10	9.54E-11	2.39E-11	4.24E-09
	1.55E-04	**7.40E-03**	**4.74E-03**	**6.67E-04**	**6.28E-03**	**2.79E-03**	**2.87E-02**	**4.76E-04**	**2.95E-04**	**1.50E-02**	**5.35E-06**	***8.07E-03***	***3.44E-03***	***0***	**1.03E-10**	**4.58E-10**	**2.39E-11**	**5.50E-08**
HHDT-DSL	5.83E-06	2.87E-04	1.19E-04	1.65E-05	3.05E-05	6.51E-05	5.05E-04	1.85E-05	1.13E-05	2.86E-04	-	0.00	0.00		-	-	-	-
Dust	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.00**		2.39E-10	2.20E-10	5.51E-11	9.78E-09

Offroad												Annual						
Equipment	yde methanol	methyl ethyl ketone (mek) (2-buta	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMINE	CADMIUM	CHLORINE
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956	7440439	7782505
Graders	1.74E-05	8.55E-04	3.54E-04	4.92E-05	9.09E-05	1.94E-04	1.50E-03	5.50E-05	3.36E-05	8.52E-04	-	0.00	0.00		-	-	-	-
Rollers	1.74E-05	8.55E-04	3.54E-04	4.92E-05	9.09E-05	1.94E-04	1.50E-03	5.50E-05	3.36E-05	8.52E-04	-	0.00	0.00		-	-	-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00		-	1.12E-09	-	1.56E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		3.18E-10	2.94E-10	7.34E-11	1.30E-08
	4.36E-05	2.00E-03	9.14E-04	1.16E-04	2.52E-04	4.84E-04	3.59E-03	1.28E-04	8.15E-05	2.13E-03	3.29E-06	*7.11E-03*	*7.08E-03*	*0*	5.57E-10	1.63E-09	1.28E-10	1.79E-07
Tractors/Loaders/Backhoes	3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	0.01	0.00		-	-	-	-
Trenchers	1.74E-05	8.55E-04	3.54E-04	4.92E-05	9.09E-05	1.94E-04	1.50E-03	5.50E-05	3.36E-05	8.52E-04	-	0.00	0.00		-	-	-	-
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	0.00	0.00		-	1.12E-09	-	1.57E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		2.12E-10	1.96E-10	4.89E-11	8.70E-09
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00		-	1.49E-09	-	2.08E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		4.24E-10	3.92E-10	9.79E-11	1.74E-08
	5.62E-05	2.53E-03	1.19E-03	1.47E-04	3.32E-04	6.23E-04	4.57E-03	1.63E-04	1.04E-04	2.75E-03	5.23E-06	*1.37E-02*	*8.92E-03*	*0*	6.36E-10	3.20E-09	1.47E-10	3.92E-07
Crushing/Proc. Equipment	1.74E-05	8.55E-04	3.54E-04	4.92E-05	9.09E-05	1.94E-04	1.50E-03	5.50E-05	3.36E-05	8.52E-04	-	0.00	0.00		-	-	-	-
Rubber Tired Loaders	2.31E-05	1.14E-03	4.70E-04	6.53E-05	1.21E-04	2.57E-04	2.00E-03	7.30E-05	4.46E-05	1.13E-03	-	0.00	0.00		-	-	-	-
HHDT-DSL	5.83E-06	2.87E-04	1.19E-04	1.65E-05	3.05E-05	6.51E-05	5.05E-04	1.85E-05	1.13E-05	2.86E-04	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		5.20E-10	4.80E-10	1.20E-10	2.13E-08
HHDT-DSL	3.33E-06	1.64E-04	6.78E-05	9.44E-06	1.74E-05	3.72E-05	2.88E-04	1.05E-05	6.44E-06	1.64E-04	-	-	-		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	0.00	0.00		-	7.87E-10	-	1.10E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.48E-10	1.37E-10	3.43E-11	6.09E-09
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	0.00	0.00		-	1.30E-09	-	1.82E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		3.71E-10	3.43E-10	8.57E-11	1.52E-08
	5.52E-05	2.44E-03	1.17E-03	1.43E-04	3.33E-04	6.10E-04	4.43E-03	1.57E-04	1.01E-04	2.70E-03	6.05E-06	*7.71E-03*	*6.65E-03*	*0*	1.04E-09	3.05E-09	2.40E-10	3.35E-07
Graders	1.74E-05	8.55E-04	3.54E-04	4.92E-05	9.09E-05	1.94E-04	1.50E-03	5.50E-05	3.36E-05	8.52E-04	-	0.00	0.00		-	-	-	-
Rubber Tired Dozers	3.47E-05	1.71E-03	7.07E-04	9.84E-05	1.82E-04	3.88E-04	3.01E-03	1.10E-04	6.71E-05	1.70E-03	-	0.00	0.00		-	-	-	-
Rollers	1.74E-05	8.55E-04	3.54E-04	4.92E-05	9.09E-05	1.94E-04	1.50E-03	5.50E-05	3.36E-05	8.52E-04	-	0.00	0.00		-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	0.00		2.44E-08	3.55E-08	3.96E-08	4.32E-06
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00		-	3.72E-10	-	5.21E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.06E-10	9.79E-11	2.45E-11	4.35E-09
	7.25E-05	3.42E-03	1.50E-03	1.98E-04	4.03E-04	8.06E-04	6.09E-03	2.20E-04	1.37E-04	3.55E-03	3.29E-06	*4.64E-03*	*5.65E-03*	*0*	2.45E-08	3.60E-08	3.96E-08	4.37E-06
Tractors/Loaders/Backhoes	3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	0.00	0.00		-	-	-	-
Pavers	1.74E-05	8.55E-04	3.54E-04	4.92E-05	9.09E-05	1.94E-04	1.50E-03	5.50E-05	3.36E-05	8.52E-04	-	0.00	0.00		-	-	-	-
HHDT-DSL	8.33E-07	4.10E-05	1.70E-05	2.36E-06	4.36E-06	9.30E-06	7.21E-05	2.64E-06	1.61E-06	4.09E-05	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		2.65E-11	2.45E-11	6.12E-12	1.09E-09
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	0.00	0.00		-	2.81E-10	-	3.94E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		5.30E-11	4.89E-11	1.22E-11	2.17E-09
	-	-	-	-	-	2.44E-03	-	-	-	4.22E-03	-	0.00	-		-	-	-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00		-	3.72E-10	-	5.21E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.06E-10	9.79E-11	2.45E-11	4.35E-09
	5.70E-05	2.57E-03	1.20E-03	1.50E-04	3.36E-04	3.07E-03	4.64E-03	1.65E-04	1.06E-04	7.01E-03	5.23E-06	*4.75E-03*	*2.24E-03*	*0*	1.86E-10	8.25E-10	4.28E-11	9.91E-08

Offroad												Annual						
Equipment	methanol	methyl ethyl ketone (mek) (2-buta	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMINE	CADMIUM	CHLORINE
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956	7440439	7782505
Trenchers	**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	**-**	**0.00**	**0.00**		-	-	-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00		-	1.12E-09	-	1.56E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		3.18E-10	2.94E-10	7.34E-11	1.30E-08
	2.04E-05	**8.55E-04**	**4.42E-04**	**5.04E-05**	**1.31E-04**	**2.25E-04**	**1.58E-03**	**5.50E-05**	**3.66E-05**	**9.95E-04**	**3.29E-06**	***3.49E-03***	***3.50E-03***	***0***	**3.18E-10**	**1.41E-09**	**7.34E-11**	**1.69E-07**
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.06E-09	9.79E-10	2.45E-10	4.35E-08
	1.67E-06	**8.20E-05**	**3.39E-05**	**4.72E-06**	**8.72E-06**	**1.86E-05**	**1.44E-04**	**5.27E-06**	**3.22E-06**	**8.18E-05**	**-**	***2.78E-04***	***2.47E-04***	***0.00***	**1.06E-09**	**9.79E-10**	**2.45E-10**	**4.35E-08**
	1.77E-03	**8.42E-02**	**4.13E-02**	**5.59E-03**	**2.61E-02**	**2.54E-02**	**1.96E-01**	**5.42E-03**	**3.37E-03**	**1.13E-01**	**6.87E-05**	**2.88E-01**	**1.51E-01**	**1.5.E-01**	**5.96E-08**	**1.05E-07**	**8.79E-08**	**1.27E-05**
Cranes	2.74E-05	1.35E-03	5.58E-04	7.76E-05	1.43E-04	3.06E-04	2.37E-03	8.67E-05	5.29E-05	1.34E-03	-	0.00	0.00		-	-	-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	0.00	0.00		-	-	-	-
Concrete/Industrial Saws	3.07E-05	1.51E-03	6.26E-04	8.70E-05	1.61E-04	3.43E-04	2.66E-03	9.73E-05	5.94E-05	1.51E-03	-	0.00	0.00		-	-	-	-
Rubber Tired Loaders	**2.31E-05**	**1.14E-03**	**4.70E-04**	**6.53E-05**	**1.21E-04**	**2.57E-04**	**2.00E-03**	**7.30E-05**	**4.46E-05**	**1.13E-03**	**-**	**0.00**	**0.00**		-	-	-	-
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	0.00	0.00		-	9.30E-10	-	1.30E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		2.65E-10	2.45E-10	6.12E-11	1.09E-08
	1.20E-04	**5.73E-03**	**2.48E-03**	**3.31E-04**	**6.59E-04**	**1.34E-03**	**1.02E-02**	**3.68E-04**	**2.29E-04**	**5.89E-03**	**4.11E-06**	***1.55E-02***	***6.47E-03***	***0***	**2.65E-10**	**1.18E-09**	**6.12E-11**	**1.41E-07**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	0.01	0.00		-	-	-	-
Hoist/swing/winch	3.48E-05	1.71E-03	7.09E-04	9.86E-05	1.82E-04	3.89E-04	3.01E-03	1.10E-04	6.73E-05	1.71E-03	-	0.00	0.00		-	-	-	-
Generator Sets	5.46E-05	2.69E-03	1.11E-03	1.55E-04	2.86E-04	6.10E-04	4.73E-03	1.73E-04	1.06E-04	2.68E-03	-	0.01	0.00		-	-	-	-
Generator Sets	**1.34E-05**	**6.59E-04**	**2.73E-04**	**3.79E-05**	**7.01E-05**	**1.50E-04**	**1.16E-03**	**4.24E-05**	**2.59E-05**	**6.58E-04**	**-**	**0.00**	**0.00**		-	-	-	-
Hoist/swing/winch	7.04E-05	3.47E-03	1.43E-03	1.99E-04	3.68E-04	7.86E-04	6.09E-03	2.23E-04	1.36E-04	3.46E-03	-	0.01	0.00		-	-	-	-
NA	**-**	**-**	**1.18E-03**	**1.84E-04**	**4.18E-03**	**8.15E-04**	**1.20E-02**	**-**	**-**	**5.65E-03**	**-**	**0.01**	**0.00**		-	-	-	-
NA	**-**	**-**	**3.54E-04**	**5.50E-05**	**1.25E-03**	**2.44E-04**	**3.59E-03**	**-**	**-**	**1.69E-03**	**-**	**0.00**	**0.00**		-	-	-	-
LDA-TOT	4.93E-06	7.37E-07	1.44E-04	1.90E-06	6.45E-05	5.00E-05	1.24E-04	-	4.96E-06	2.32E-04	5.35E-06	0.00	0.00		-	1.21E-09	-	1.69E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		3.45E-10	3.18E-10	7.95E-11	1.41E-08
	2.58E-04	**1.25E-02**	**6.83E-03**	**9.58E-04**	**6.82E-03**	**3.93E-03**	**3.76E-02**	**8.01E-04**	**4.94E-04**	**2.00E-02**	**5.35E-06**	***4.06E-02***	***1.82E-02***	***0***	**3.45E-10**	**1.53E-09**	**7.95E-11**	**1.83E-07**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	0.01	0.00		-	-	-	-
Hoist/swing/winch	7.04E-05	3.47E-03	1.43E-03	1.99E-04	3.68E-04	7.86E-04	6.09E-03	2.23E-04	1.36E-04	3.46E-03	-	0.01	0.00		-	-	-	-
Excavators	**3.66E-05**	**1.80E-03**	**7.46E-04**	**1.04E-04**	**1.92E-04**	**4.09E-04**	**3.17E-03**	**1.16E-04**	**7.08E-05**	**1.80E-03**	**-**	**0.00**	**0.00**		-	-	-	-
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		4.24E-11	3.92E-11	9.79E-12	1.74E-09
NA	**-**	**-**	**1.18E-03**	**1.84E-04**	**4.18E-03**	**8.15E-04**	**1.20E-02**	**-**	**-**	**5.65E-03**	**-**	**0.01**	**0.00**		-	-	-	-
NA	**-**	**-**	**3.54E-04**	**5.50E-05**	**1.25E-03**	**2.44E-04**	**3.59E-03**	**-**	**-**	**1.69E-03**	**-**	**0.00**	**0.00**		-	-	-	-
LDA-TOT	4.93E-06	7.37E-07	1.44E-04	1.90E-06	6.45E-05	5.00E-05	1.24E-04	-	4.96E-06	2.32E-04	5.35E-06	0.00	0.00		-	1.21E-09	-	1.69E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		3.45E-10	3.18E-10	7.95E-11	1.41E-08
	1.93E-04	**9.28E-03**	**5.52E-03**	**7.75E-04**	**6.48E-03**	**3.21E-03**	**3.20E-02**	**5.97E-04**	**3.70E-04**	**1.68E-02**	**5.35E-06**	***3.18E-02***	***1.38E-02***	***0***	**3.87E-10**	**1.57E-09**	**8.93E-11**	**1.85E-07**
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	0.01	0.00		-	-	-	-

Offroad												Annual					
Equipment	methanol	methyl ethyl ketone (mek) (2-butanone)	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMINE	CADMIUM	CHLORINE
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956	7440439	7782505
Hoist/swing/winch	7.04E-05	3.47E-03	1.43E-03	1.99E-04	3.68E-04	7.86E-04	6.09E-03	2.23E-04	1.36E-04	3.46E-03	-	0.01	0.00		-	-	-	-
NA	-	-	1.18E-03	1.84E-04	4.18E-03	8.15E-04	1.20E-02	-	-	5.65E-03	-	0.01	0.00		-	-	-	-
NA	-	-	3.54E-04	5.50E-05	1.25E-03	2.44E-04	3.59E-03	-	-	1.69E-03	-	0.00	0.00		-	-	-	-
LDA-TOT	4.93E-06	7.37E-07	1.44E-04	1.90E-06	6.45E-05	5.00E-05	1.24E-04	-	4.96E-06	2.32E-04	5.35E-06	0.00	0.00		-	1.21E-09	-	1.69E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		3.45E-10	3.18E-10	7.95E-11	1.41E-08
	1.55E-04	7.40E-03	4.74E-03	6.67E-04	6.28E-03	2.79E-03	2.87E-02	4.76E-04	2.95E-04	1.50E-02	5.35E-06	*2.69E-02*	*1.15E-02*	*0*	3.45E-10	1.53E-09	7.95E-11	1.83E-07
Hoist/swing/winch	7.99E-05	3.93E-03	1.63E-03	2.26E-04	4.18E-04	8.92E-04	6.91E-03	2.53E-04	1.54E-04	3.92E-03	-	0.02	0.01		-	-	-	-
Hoist/swing/winch	3.52E-05	1.73E-03	7.17E-04	9.97E-05	1.84E-04	3.93E-04	3.05E-03	1.11E-04	6.81E-05	1.73E-03	-	0.01	0.00		-	-	-	-
Generator Sets	1.88E-05	9.28E-04	3.84E-04	5.34E-05	9.86E-05	2.10E-04	1.63E-03	5.97E-05	3.64E-05	9.26E-04	-	0.01	0.00		-	-	-	-
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	0.00	0.00		-	1.86E-09	-	2.61E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		5.30E-10	4.89E-10	1.22E-10	2.17E-08
	1.38E-04	6.59E-03	2.84E-03	3.81E-04	7.50E-04	1.53E-03	1.17E-02	4.24E-04	2.63E-04	6.75E-03	4.11E-06	*3.57E-02*	*1.50E-02*	*0*	5.30E-10	2.35E-09	1.22E-10	2.82E-07
Excavators	3.66E-05	1.80E-03	7.46E-04	1.04E-04	1.92E-04	4.09E-04	3.17E-03	1.16E-04	7.08E-05	1.80E-03	-	0.01	0.01		-	-	-	-
Rubber Tired Loaders	2.31E-05	1.14E-03	4.70E-04	6.53E-05	1.21E-04	2.57E-04	2.00E-03	7.30E-05	4.46E-05	1.13E-03	-	0.01	0.01		-	-	-	-
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		3.18E-10	2.94E-10	7.34E-11	1.30E-08
	-	-	-	-	-	-	-	-	-	-	-	-	0.00		3.60E-09	5.25E-09	5.85E-09	6.38E-07
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00		-	2.23E-09	-	3.13E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		6.36E-10	5.87E-10	1.47E-10	2.61E-08
	6.44E-05	3.02E-03	1.34E-03	1.75E-04	3.61E-04	7.16E-04	5.39E-03	1.94E-04	1.22E-04	3.16E-03	3.29E-06	*2.40E-02*	*1.42E-02*	*0*	4.55E-09	8.36E-09	6.07E-09	9.89E-07
HHDT-DSL	7.49E-06	3.69E-04	1.53E-04	2.12E-05	3.92E-05	8.37E-05	6.49E-04	2.37E-05	1.45E-05	3.68E-04	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		7.16E-10	6.61E-10	1.65E-10	2.93E-08
Graders	1.74E-05	8.55E-04	3.54E-04	4.92E-05	9.09E-05	1.94E-04	1.50E-03	5.50E-05	3.36E-05	8.52E-04	-	0.00	0.00		-	-	-	-
Rollers	1.74E-05	8.55E-04	3.54E-04	4.92E-05	9.09E-05	1.94E-04	1.50E-03	5.50E-05	3.36E-05	8.52E-04	-	0.00	0.00		-	-	-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00		-	1.12E-09	-	1.56E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		3.18E-10	2.94E-10	7.34E-11	1.30E-08
	4.53E-05	2.08E-03	9.48E-04	1.21E-04	2.61E-04	5.02E-04	3.73E-03	1.34E-04	8.47E-05	2.22E-03	3.29E-06	*7.15E-03*	*7.14E-03*	*0*	1.03E-09	2.07E-09	2.39E-10	1.99E-07
Tractors/Loaders/Backhoes	3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	0.00	0.00		-	-	-	-
Trenchers	1.74E-05	8.55E-04	3.54E-04	4.92E-05	9.09E-05	1.94E-04	1.50E-03	5.50E-05	3.36E-05	8.52E-04	-	0.00	0.00		-	-	-	-
LDT2-TOT	6.44E-06	9.62E-07	1.88E-04	2.48E-06	8.42E-05	6.52E-05	1.61E-04	-	6.47E-06	3.03E-04	6.98E-06	0.00	0.00		-	8.27E-09	-	1.16E-06
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.06E-10	9.79E-11	2.45E-11	4.35E-09
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00		-	7.44E-10	-	1.04E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		2.12E-10	1.96E-10	4.89E-11	8.70E-09
	6.09E-05	2.53E-03	1.32E-03	1.49E-04	3.93E-04	6.70E-04	4.68E-03	1.63E-04	1.09E-04	2.97E-03	1.03E-05	*6.89E-03*	*4.48E-03*	*0*	3.18E-10	9.31E-09	7.34E-11	1.27E-06
Concrete/Industrial Saws	1.19E-05	5.86E-04	2.42E-04	3.37E-05	6.23E-05	1.33E-04	1.03E-03	3.77E-05	2.30E-05	5.85E-04	-	0.00	0.00		-	-	-	-
Rubber Tired Loaders	2.31E-05	1.14E-03	4.70E-04	6.53E-05	1.21E-04	2.57E-04	2.00E-03	7.30E-05	4.46E-05	1.13E-03	-	0.00	0.00		-	-	-	-
HHDT-DSL	2.33E-05	1.15E-03	4.75E-04	6.61E-05	1.22E-04	2.60E-04	2.02E-03	7.38E-05	4.51E-05	1.14E-03	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		7.42E-10	6.85E-10	1.71E-10	3.04E-08
HHDT-DSL	3.33E-06	1.64E-04	6.78E-05	9.44E-06	1.74E-05	3.72E-05	2.88E-04	1.05E-05	6.44E-06	1.64E-04	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.06E-10	9.79E-11	2.45E-11	4.35E-09
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	0.00	0.00		-	2.81E-10	-	3.94E-08

Offroad												Annual						
Equipment	...yde	methanol	methyl ethyl ketone (mek) (2-buta...	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMINE	CADMIUM	CHLORINE
Category		67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956	7440439	7782505
Dust	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00		5.30E-11	4.89E-11	1.22E-11	2.17E-09
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	0.00	0.00	0.00		-	4.65E-10	-	6.51E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.33E-10	1.22E-10	3.06E-11	5.43E-09
	6.72E-05	**3.03E-03**	**1.42E-03**	**1.77E-04**	**3.95E-04**	**7.44E-04**	**5.47E-03**	**1.95E-04**	**1.25E-04**	**3.29E-03**	**6.05E-06**	***2.56E-03***	***2.53E-03***	***0***	**1.03E-09**	**1.70E-09**	**2.39E-10**	**1.47E-07**
Graders	**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	-	**0.00**	**0.00**			-	-	-	-
Rubber Tired Dozers	**3.47E-05**	**1.71E-03**	**7.07E-04**	**9.84E-05**	**1.82E-04**	**3.88E-04**	**3.01E-03**	**1.10E-04**	**6.71E-05**	**1.70E-03**	-	**0.00**	**0.00**			-	-	-	-
Rollers	**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	-	**0.00**	**0.00**			-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	0.00			2.44E-08	3.55E-08	3.96E-08	4.32E-06
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00			-	3.72E-10	-	5.21E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00			1.06E-10	9.79E-11	2.45E-11	4.35E-09
	7.25E-05	**3.42E-03**	**1.50E-03**	**1.98E-04**	**4.03E-04**	**8.06E-04**	**6.09E-03**	**2.20E-04**	**1.37E-04**	**3.55E-03**	**3.29E-06**	***4.64E-03***	***5.65E-03***	***0***	**2.45E-08**	**3.60E-08**	**3.96E-08**	**4.37E-06**
Tractors/Loaders/Backhoes	3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	0.00	0.00			-	-	-	-
Pavers	**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	-	**0.00**	**0.00**			-	-	-	-
HHDT-DSL	8.33E-07	4.10E-05	1.70E-05	2.36E-06	4.36E-06	9.30E-06	7.21E-05	2.64E-06	1.61E-06	4.09E-05	-	0.00	0.00			-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00		2.65E-11	2.45E-11	6.12E-12	1.09E-09
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-06	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	0.00	0.00			-	2.81E-10	-	3.94E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	-	0.00		5.30E-11	4.89E-11	1.22E-11	2.17E-09
	-	-	-	-	-	2.44E-03	-	-	-	4.22E-03	-	0.00	-			-	-	-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00			-	3.72E-10	-	5.21E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00			1.06E-10	9.79E-11	2.45E-11	4.35E-09
	5.70E-05	**2.57E-03**	**1.20E-03**	**1.50E-04**	**3.36E-04**	**3.07E-03**	**4.64E-03**	**1.65E-04**	**1.06E-04**	**7.01E-03**	**5.23E-06**	***4.75E-03***	***2.24E-03***	***0***	**1.86E-10**	**8.25E-10**	**4.28E-11**	**9.91E-08**
Trenchers	**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	-	**0.00**	**0.00**			-	-	-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00			-	1.12E-09	-	1.56E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00			3.18E-10	2.94E-10	7.34E-11	1.30E-08
	2.04E-05	**8.55E-04**	**4.42E-04**	**5.04E-05**	**1.31E-04**	**2.25E-04**	**1.58E-03**	**5.50E-05**	**3.66E-05**	**9.95E-04**	**3.29E-06**	***3.49E-03***	***3.50E-03***	***0***	**3.18E-10**	**1.41E-09**	**7.34E-11**	**1.69E-07**
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	0.00	0.00			-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00			7.42E-10	6.85E-10	1.71E-10	3.04E-08
	1.67E-06	**8.20E-05**	**3.39E-05**	**4.72E-06**	**8.72E-06**	**1.86E-05**	**1.44E-04**	**5.27E-06**	**3.22E-06**	**8.18E-05**	-	***1.94E-04***	***1.73E-04***	**0.00**	**7.42E-10**	**6.85E-10**	**1.71E-10**	**3.04E-08**
	1.25E-03	**5.91E-02**	**3.06E-02**	**4.14E-03**	**2.33E-02**	**1.96E-02**	**1.52E-01**	**3.80E-03**	**2.37E-03**	**8.77E-02**	**5.90E-05**	**2.04E-01**	**1.05E-01**	**9.2.E-02**	**3.45E-08**	**6.85E-08**	**4.70E-08**	**8.26E-06**
Excavators	**3.66E-05**	**1.80E-03**	**7.46E-04**	**1.04E-04**	**1.92E-04**	**4.09E-04**	**3.17E-03**	**1.16E-04**	**7.08E-05**	**1.80E-03**	-	**0.01**	**0.01**			-	-	-	-
Rubber Tired Loaders	**2.31E-05**	**1.14E-03**	**4.70E-04**	**6.53E-05**	**1.21E-04**	**2.57E-04**	**2.00E-03**	**7.30E-05**	**4.46E-05**	**1.13E-03**	-	**0.01**	**0.01**			-	-	-	-
HHDT-DSL	1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	0.00	0.00			-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00			3.18E-10	2.94E-10	7.34E-11	1.30E-08
	-	-	-	-	-	-	-	-	-	-	-	-	0.00			3.60E-08	5.25E-08	5.85E-08	6.38E-06
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	0.00	0.00			-	2.79E-09	-	3.91E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00			7.95E-10	7.34E-10	1.84E-10	3.26E-08
	6.51E-05	**3.02E-03**	**1.36E-03**	**1.75E-04**	**3.71E-04**	**7.24E-04**	**5.41E-03**	**1.94E-04**	**1.22E-04**	**3.19E-03**	**4.11E-06**	***2.40E-02***	***1.55E-02***	**0.01**	**3.71E-08**	**5.63E-08**	**5.88E-08**	**6.81E-06**

Offroad												Annual						
Equipment	methanol	methyl ethyl ketone (mek) (2-buta	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMINE	CADMIUM	CHLORINE
Category	67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956	7440439	7782505
HHDT-DSL	1.17E-05	5.74E-04	2.37E-04	3.30E-05	6.10E-05	1.30E-04	1.01E-03	3.69E-05	2.25E-05	5.72E-04	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		7.42E-10	6.85E-10	1.71E-10	3.04E-08
Graders	**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	**-**	**0.00**	**0.00**		-	-	-	-
Rollers	**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	**-**	**0.00**	**0.00**		-	-	-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00		-	7.44E-10	-	1.04E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		2.12E-10	1.96E-10	4.89E-11	8.70E-09
	4.94E-05	**2.28E-03**	**1.03E-03**	**1.33E-04**	**2.82E-04**	**5.49E-04**	**4.09E-03**	**1.47E-04**	**9.27E-05**	**2.42E-03**	**3.29E-06**	***4.84E-03***	***4.82E-03***	***0***	**9.54E-10**	**1.63E-09**	**2.20E-10**	**1.43E-07**
Tractors/Loaders/Backhoes	3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	0.00	0.00		-	-	-	-
Trenchers	**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	**-**	**0.00**	**0.00**		-	-	-	-
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	0.00	0.00		-	5.62E-10	-	7.87E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.06E-10	9.79E-11	2.45E-11	4.35E-09
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00		-	7.44E-10	-	1.04E-07
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		2.12E-10	1.96E-10	4.89E-11	8.70E-09
	5.62E-05	**2.53E-03**	**1.19E-03**	**1.47E-04**	**3.32E-04**	**6.23E-04**	**4.57E-03**	**1.63E-04**	**1.04E-04**	**2.75E-03**	**5.23E-06**	***6.87E-03***	***4.46E-03***	***0***	**3.18E-10**	**1.60E-09**	**7.34E-11**	**1.96E-07**
Concrete/Industrial Saws	**1.19E-05**	**5.86E-04**	**2.42E-04**	**3.37E-05**	**6.23E-05**	**1.33E-04**	**1.03E-03**	**3.77E-05**	**2.30E-05**	**5.85E-04**	**-**	**0.00**	**0.00**		-	-	-	-
Rubber Tired Loaders	**2.31E-05**	**1.14E-03**	**4.70E-04**	**6.53E-05**	**1.21E-04**	**2.57E-04**	**2.00E-03**	**7.30E-05**	**4.46E-05**	**1.13E-03**	**-**	**0.00**	**0.00**		-	-	-	-
HHDT-DSL	**2.33E-05**	**1.15E-03**	**4.75E-04**	**6.61E-05**	**1.22E-04**	**2.60E-04**	**2.02E-03**	**7.38E-05**	**4.51E-05**	**1.14E-03**	**-**	**0.00**	**0.00**		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		7.42E-10	6.85E-10	1.71E-10	3.04E-08
HHDT-DSL	7.49E-06	3.69E-04	1.53E-04	2.12E-05	3.92E-05	8.37E-05	6.49E-04	2.37E-05	1.45E-05	3.68E-04	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		2.39E-10	2.20E-10	5.51E-11	9.78E-09
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	0.00	0.00		-	2.81E-10	-	3.94E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		5.30E-11	4.89E-11	1.22E-11	2.17E-09
LDA-TOT	3.79E-06	5.67E-07	1.11E-04	1.46E-06	4.96E-05	3.84E-05	9.51E-05	-	3.81E-06	1.79E-04	4.11E-06	0.00	0.00		-	4.65E-10	-	6.51E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.33E-10	1.22E-10	3.06E-11	5.43E-09
	7.14E-05	**3.24E-03**	**1.50E-03**	**1.88E-04**	**4.17E-04**	**7.91E-04**	**5.83E-03**	**2.08E-04**	**1.33E-04**	**3.49E-03**	**6.05E-06**	***2.60E-03***	***2.57E-03***	***0***	**1.17E-09**	**1.82E-09**	**2.69E-10**	**1.52E-07**
Graders	**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	**-**	**0.00**	**0.00**		-	-	-	-
Rubber Tired Dozers	1.38E-04	6.80E-03	2.81E-03	3.91E-04	7.22E-04	1.54E-03	1.19E-02	4.37E-04	2.67E-04	6.78E-03	-	0.01	0.00		-	-	-	-
Rollers	**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	**-**	**0.00**	**0.00**		-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	0.00		2.44E-08	3.55E-08	3.96E-08	4.32E-06
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00		-	3.72E-10	-	5.21E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.06E-10	9.79E-11	2.45E-11	4.35E-09
	1.76E-04	**8.51E-03**	**3.61E-03**	**4.91E-04**	**9.44E-04**	**1.96E-03**	**1.50E-02**	**5.47E-04**	**3.37E-04**	**8.62E-03**	**3.29E-06**	***1.15E-02***	***5.65E-03***	***0***	**2.45E-08**	**3.60E-08**	**3.96E-08**	**4.37E-06**
Tractors/Loaders/Backhoes	3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	0.00	0.00		-	-	-	-
Pavers	**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	**-**	**0.00**	**0.00**		-	-	-	-
HHDT-DSL	8.33E-07	4.10E-05	1.70E-05	2.36E-06	4.36E-06	9.30E-06	7.21E-05	2.64E-06	1.61E-06	4.09E-05	-	0.00	0.00		-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		2.65E-11	2.45E-11	6.12E-12	1.09E-09
LDT2-TOT	1.79E-06	2.67E-07	5.22E-05	6.91E-07	2.34E-05	1.81E-05	4.49E-05	-	1.80E-06	8.43E-05	1.94E-06	0.00	0.00		-	2.81E-10	-	3.94E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		5.30E-11	4.89E-11	1.22E-11	2.17E-09
	-	-	-	-	-	2.44E-03	-	-	-	4.22E-03	-	0.00	-		-	-	-	-
LDA-TOT	3.04E-06	4.54E-07	8.85E-05	1.17E-06	3.97E-05	3.07E-05	7.61E-05	-	3.05E-06	1.43E-04	3.29E-06	0.00	0.00		-	3.72E-10	-	5.21E-08
Dust	-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.06E-10	9.79E-11	2.45E-11	4.35E-09

Offroad												Annual						
Equipment	yde	methanol	methyl ethyl ketone (mek) (2-butan	m-xylene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)	ROG	PM10	Diesel PM	ARSENIC	BROMINE	CADMIUM	CHLORINE
Category		67561	78933	108383	91203	110543	95476	115071	106423	100425	108883	107028	tons/yr	tons/yr	9901	7440382	7726956	7440439	7782505
		5.70E-05	**2.57E-03**	**1.20E-03**	**1.50E-04**	**3.36E-04**	**3.07E-03**	**4.64E-03**	**1.65E-04**	**1.06E-04**	**7.01E-03**	**5.23E-06**	***4.75E-03***	***2.24E-03***	***0***	**1.86E-10**	**8.25E-10**	**4.28E-11**	**9.91E-08**
Trenchers		**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	**-**	**0.00**	**0.00**		-	-	-	-
LDA-TOT		1.90E-06	2.84E-07	5.53E-05	7.32E-07	2.48E-05	1.92E-05	4.75E-05	-	1.91E-06	8.94E-05	2.06E-06	0.00	0.00		-	6.98E-10	-	9.77E-08
Dust		-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.99E-10	1.84E-10	4.59E-11	8.15E-09
		1.93E-05	**8.55E-04**	**4.09E-04**	**4.99E-05**	**1.16E-04**	**2.13E-04**	**1.55E-03**	**5.50E-05**	**3.55E-05**	**9.42E-04**	**2.06E-06**	***3.48E-03***	***3.49E-03***	***0***	**1.99E-10**	**8.81E-10**	**4.59E-11**	**1.06E-07**
Trenchers		**1.74E-05**	**8.55E-04**	**3.54E-04**	**4.92E-05**	**9.09E-05**	**1.94E-04**	**1.50E-03**	**5.50E-05**	**3.36E-05**	**8.52E-04**	**-**	**0.00**	**0.00**		-	-	-	-
LDA-TOT		1.90E-06	2.84E-07	5.53E-05	7.32E-07	2.48E-05	1.92E-05	4.75E-05	-	1.91E-06	8.94E-05	2.06E-06	0.00	0.00		-	2.33E-10	-	3.26E-08
Dust		-	-	-	-	-	-	-	-	-	-	-	-	0.00		6.63E-11	6.12E-11	1.53E-11	2.72E-09
		1.93E-05	**8.55E-04**	**4.09E-04**	**4.99E-05**	**1.16E-04**	**2.13E-04**	**1.55E-03**	**5.50E-05**	**3.55E-05**	**9.42E-04**	**2.06E-06**	***1.16E-03***	***1.16E-03***	***0***	**6.63E-11**	**2.94E-10**	**1.53E-11**	**3.53E-08**
Air Compressors		8.60E-05	4.23E-03	1.75E-03	2.44E-04	4.50E-04	9.60E-04	7.44E-03	2.72E-04	1.66E-04	4.22E-03	-	0.21	0.11		-	-	-	-
HHDT-DSL		8.33E-07	4.10E-05	1.70E-05	2.36E-06	4.36E-06	9.30E-06	7.21E-05	2.64E-06	1.61E-06	4.09E-05	-	0.00	0.00		-	-	-	-
Dust		-	-	-	-	-	-	-	-	-	-	-	-	0.00		1.06E-10	9.79E-11	2.45E-11	4.35E-09
HHDT-DSL		1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	0.00	0.00		-	-	-	-
Dust		-	-	-	-	-	-	-	-	-	-	-	-	0.00		9.54E-11	8.81E-11	2.20E-11	3.91E-09
Off-Highway Trucks		7.11E-05	3.50E-03	1.45E-03	2.01E-04	3.72E-04	7.94E-04	6.15E-03	2.25E-04	1.37E-04	3.49E-03	-	0.09	0.03		-	-	-	-
Tractors/Loaders/Backhoes		3.40E-05	1.67E-03	6.93E-04	9.64E-05	1.78E-04	3.80E-04	2.94E-03	1.08E-04	6.58E-05	1.67E-03	-	0.08	0.04		-	-	-	-
Cranes		3.44E-05	1.70E-03	7.01E-04	9.76E-05	1.80E-04	3.84E-04	2.98E-03	1.09E-04	6.66E-05	1.69E-03	-	0.08	0.04		-	-	-	-
Forklifts		2.50E-05	1.23E-03	5.10E-04	7.10E-05	1.31E-04	2.80E-04	2.17E-03	7.93E-05	4.84E-05	1.23E-03	-	0.06	0.02		-	-	-	-
LDA-TOT		5.69E-06	8.51E-07	1.66E-04	2.20E-06	7.45E-05	5.77E-05	1.43E-04	-	5.72E-06	2.68E-04	6.17E-06	0.00	0.00		-	2.51E-08	-	3.52E-06
Dust		-	-	-	-	-	-	-	-	-	-	-	-	0.00		7.16E-09	6.61E-09	1.65E-09	2.93E-07
		2.59E-04	**1.25E-02**	**5.32E-03**	**7.19E-04**	**1.40E-03**	**2.88E-03**	**2.21E-02**	**8.01E-04**	**4.95E-04**	**1.27E-02**	**6.17E-06**	***5.17E-01***	***2.37E-01***	***0***	**7.36E-09**	**3.19E-08**	**1.70E-09**	**3.82E-06**
HHDT-DSL		1.67E-06	8.20E-05	3.39E-05	4.72E-06	8.72E-06	1.86E-05	1.44E-04	5.27E-06	3.22E-06	8.18E-05	-	0.00	0.00		-	-	-	-
Dust		-	-	-	-	-	-	-	-	-	-	-	-	0.00		7.42E-10	6.85E-10	1.71E-10	3.04E-08
		1.67E-06	**8.20E-05**	**3.39E-05**	**4.72E-06**	**8.72E-06**	**1.86E-05**	**1.44E-04**	**5.27E-06**	**3.22E-06**	**8.18E-05**	**-**	***1.94E-04***	***1.73E-04***	***0***	**7.42E-10**	**6.85E-10**	**1.71E-10**	**3.04E-08**
		7.74E-04	**3.64E-02**	**1.61E-02**	**2.11E-03**	**4.32E-03**	**1.10E-02**	**6.49E-02**	**2.34E-03**	**1.46E-03**	**4.21E-02**	**3.75E-05**	**5.76E-01**	**2.77E-01**	**3.E-01**	**7.26E-08**	**1.32E-07**	**1.01E-07**	**1.58E-05**

Offroad																		
Equipment	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl ethyl ketone (mek)	m-xylene
Category	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933	108383
Cranes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Crushing/Proc. Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-	-
LDA-TOT	9.30E-11	1.86E-09	-	1.86E-09	-	1.86E-09	-	-	1.67E-06	-	1.69E-07	8.67E-08	7.68E-07	3.26E-07	4.90E-07	3.79E-08	5.67E-09	1.11E-06
Dust	3.47E-11	6.04E-09	5.06E-09	3.26E-08	3.67E-10	4.89E-10	8.16E-11	1.28E-07	1.10E-07	2.90E-09	-	-	-	-	-	-	-	-
	1.35E-10	**9.10E-09**	**6.07E-09**	**4.10E-08**	**4.40E-10**	**2.45E-09**	**9.79E-11**	**1.53E-07**	**1.81E-06**	**3.47E-09**	**1.69E-07**	**8.67E-08**	**7.68E-07**	**3.26E-07**	**4.90E-07**	**3.79E-08**	**5.67E-09**	**1.11E-06**
Excavators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	4.16E-11	7.24E-09	6.07E-09	3.92E-08	4.40E-10	5.87E-10	9.79E-11	1.53E-07	1.32E-07	3.47E-09	-	-	-	-	-	-	-	-
	1.57E-08	1.66E-07	8.41E-07	1.38E-06	2.40E-08	9.12E-08	3.60E-09	4.46E-06	7.07E-06	3.97E-07	-	-	-	-	-	-	-	-
LDA-TOT	2.79E-10	5.58E-09	-	5.58E-09	-	5.58E-09	-	-	5.02E-06	-	5.08E-07	2.60E-07	2.30E-06	9.77E-07	1.47E-06	1.14E-07	1.70E-08	3.32E-06
Dust	1.04E-10	1.81E-08	1.52E-08	9.79E-08	1.10E-09	1.47E-09	2.45E-10	3.83E-07	3.29E-07	8.69E-09	-	-	-	-	-	-	-	-
	1.60E-08	**1.78E-07**	**8.47E-07**	**1.42E-06**	**2.44E-08**	**9.74E-08**	**3.70E-09**	**4.61E-06**	**1.22E-05**	**4.01E-07**	**5.08E-07**	**2.60E-07**	**2.30E-06**	**9.77E-07**	**1.47E-06**	**1.14E-07**	**1.70E-08**	**3.32E-06**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	4.88E-11	9.77E-10	-	9.77E-10	-	9.77E-10	-	-	8.79E-07	-	8.89E-08	4.55E-08	4.03E-07	1.71E-07	2.57E-07	1.99E-08	2.98E-09	5.81E-07
Dust	1.82E-11	3.17E-09	2.66E-09	1.71E-08	1.93E-10	2.57E-10	4.28E-11	6.70E-08	5.76E-08	1.52E-09	-	-	-	-	-	-	-	-
	6.70E-11	**4.15E-09**	**2.66E-09**	**1.81E-08**	**1.93E-10**	**1.23E-09**	**4.28E-11**	**6.70E-08**	**9.37E-07**	**1.52E-09**	**8.89E-08**	**4.55E-08**	**4.03E-07**	**1.71E-07**	**2.57E-07**	**1.99E-08**	**2.98E-09**	**5.81E-07**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Air Compressors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	9.30E-11	1.86E-09	-	1.86E-09	-	1.86E-09	-	-	1.67E-06	-	1.69E-07	8.67E-08	7.68E-07	3.26E-07	4.90E-07	3.79E-08	5.67E-09	1.11E-06
Dust	3.47E-11	6.04E-09	5.06E-09	3.26E-08	3.67E-10	4.89E-10	8.16E-11	1.28E-07	1.10E-07	2.90E-09	-	-	-	-	-	-	-	-
	9.30E-11	**1.86E-09**	**0.00E+00**	**1.86E-09**	**0.00E+00**	**1.86E-09**	**0.00E+00**	**0.00E+00**	**1.67E-06**	**0.00E+00**	**1.69E-07**	**8.67E-08**	**7.68E-07**	**3.26E-07**	**4.90E-07**	**3.79E-08**	**5.67E-09**	**1.11E-06**

Offroad																		
Equipment	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl ethyl ketone (mek)	m-xylene
Category	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933	108383
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	1.63E-11	3.26E-10	-	3.26E-10	-	3.26E-10	-	-	2.93E-07	-	2.96E-08	1.52E-08	1.34E-07	5.70E-08	8.58E-08	6.64E-09	9.92E-10	1.94E-07
Dust	6.07E-12	1.06E-09	8.85E-10	5.71E-09	6.42E-11	8.57E-11	1.43E-11	2.23E-08	1.92E-08	5.07E-10	-	-	-	-	-	-	-	-
	2.23E-11	**1.38E-09**	**8.85E-10**	**6.04E-09**	**6.42E-11**	**4.11E-10**	**1.43E-11**	**2.23E-08**	**3.12E-07**	**5.07E-10**	**2.96E-08**	**1.52E-08**	**1.34E-07**	**5.70E-08**	**8.58E-08**	**6.64E-09**	**9.92E-10**	**1.94E-07**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	9.30E-11	1.86E-09	-	1.86E-09	-	1.86E-09	-	-	1.67E-06	-	1.69E-07	8.67E-08	7.68E-07	3.26E-07	4.90E-07	3.79E-08	5.67E-09	1.11E-06
Dust	3.47E-11	6.04E-09	5.06E-09	3.26E-08	3.67E-10	4.89E-10	8.16E-11	1.28E-07	1.10E-07	2.90E-09	-	-	-	-	-	-	-	-
	1.28E-10	**7.90E-09**	**5.06E-09**	**3.45E-08**	**3.67E-10**	**2.35E-09**	**8.16E-11**	**1.28E-07**	**1.78E-06**	**2.90E-09**	**1.69E-07**	**8.67E-08**	**7.68E-07**	**3.26E-07**	**4.90E-07**	**3.79E-08**	**5.67E-09**	**1.11E-06**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	1.81E-11	3.63E-10	-	3.63E-10	-	3.63E-10	-	-	3.27E-07	-	3.30E-08	1.69E-08	1.50E-07	6.35E-08	9.56E-08	7.40E-09	1.11E-09	2.16E-07
Dust	6.76E-12	1.18E-09	9.86E-10	6.36E-09	7.16E-11	9.54E-11	1.59E-11	2.49E-08	2.14E-08	5.65E-10	-	-	-	-	-	-	-	-
	2.49E-11	**1.54E-09**	**9.86E-10**	**6.73E-09**	**7.16E-11**	**4.58E-10**	**1.59E-11**	**2.49E-08**	**3.48E-07**	**5.65E-10**	**3.30E-08**	**1.69E-08**	**1.50E-07**	**6.35E-08**	**9.56E-08**	**7.40E-09**	**1.11E-09**	**2.16E-07**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Excavators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	6.93E-13	1.21E-10	1.01E-10	6.53E-10	7.34E-12	9.79E-12	1.63E-12	2.55E-09	2.20E-09	5.79E-11	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	1.81E-11	3.63E-10	-	3.63E-10	-	3.63E-10	-	-	3.27E-07	-	3.30E-08	1.69E-08	1.50E-07	6.35E-08	9.56E-08	7.40E-09	1.11E-09	2.16E-07
Dust	6.76E-12	1.18E-09	9.86E-10	6.36E-09	7.16E-11	9.54E-11	1.59E-11	2.49E-08	2.14E-08	5.65E-10	-	-	-	-	-	-	-	-
	2.56E-11	**1.66E-09**	**1.09E-09**	**7.38E-09**	**7.89E-11**	**4.68E-10**	**1.75E-11**	**2.75E-08**	**3.50E-07**	**6.23E-10**	**3.30E-08**	**1.69E-08**	**1.50E-07**	**6.35E-08**	**9.56E-08**	**7.40E-09**	**1.11E-09**	**2.16E-07**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	1.81E-11	3.63E-10	-	3.63E-10	-	3.63E-10	-	-	3.27E-07	-	3.30E-08	1.69E-08	1.50E-07	6.35E-08	9.56E-08	7.40E-09	1.11E-09	2.16E-07
Dust	6.76E-12	1.18E-09	9.86E-10	6.36E-09	7.16E-11	9.54E-11	1.59E-11	2.49E-08	2.14E-08	5.65E-10	-	-	-	-	-	-	-	-
	2.49E-11	**1.54E-09**	**9.86E-10**	**6.73E-09**	**7.16E-11**	**4.58E-10**	**1.59E-11**	**2.49E-08**	**3.48E-07**	**5.65E-10**	**3.30E-08**	**1.69E-08**	**1.50E-07**	**6.35E-08**	**9.56E-08**	**7.40E-09**	**1.11E-09**	**2.16E-07**
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	1.56E-11	2.72E-09	2.28E-09	1.47E-08	1.65E-10	2.20E-10	3.67E-11	5.75E-08	4.94E-08	1.30E-09	-	-	-	-	-	-	-	-

Offroad																		
Equipment	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl ethyl ketone (mek)	m-xylene
Category	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933	108383
Graders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	5.58E-11	1.12E-09	-	1.12E-09	-	1.12E-09	-	-	1.00E-06	-	1.02E-07	5.20E-08	4.61E-07	1.95E-07	2.94E-07	2.28E-08	3.40E-09	6.64E-07
Dust	2.08E-11	3.62E-09	3.03E-09	1.96E-08	2.20E-10	2.94E-10	4.89E-11	7.66E-08	6.59E-08	1.74E-09	-	-	-	-	-	-	-	-
	9.22E-11	**7.45E-09**	**5.31E-09**	**3.54E-08**	**3.85E-10**	**1.63E-09**	**8.57E-11**	**1.34E-07**	**1.12E-06**	**3.04E-09**	**1.02E-07**	**5.20E-08**	**4.61E-07**	**1.95E-07**	**2.94E-07**	**2.28E-08**	**3.40E-09**	**6.64E-07**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDT2-TOT	5.62E-11	1.12E-09	-	1.12E-09	-	1.12E-09	-	-	1.01E-06	-	7.99E-08	4.09E-08	3.62E-07	1.54E-07	2.31E-07	1.79E-08	2.67E-09	5.22E-07
Dust	1.39E-11	2.41E-09	2.02E-09	1.31E-08	1.47E-10	1.96E-10	3.26E-11	5.11E-08	4.39E-08	1.16E-09	-	-	-	-	-	-	-	-
LDA-TOT	7.44E-11	1.49E-09	-	1.49E-09	-	1.49E-09	-	-	1.34E-06	-	1.35E-07	6.93E-08	6.14E-07	2.60E-07	3.92E-07	3.04E-08	4.54E-09	8.85E-07
Dust	2.77E-11	4.83E-09	4.05E-09	2.61E-08	2.94E-10	3.92E-10	6.53E-11	1.02E-07	8.78E-08	2.32E-09	-	-	-	-	-	-	-	-
	1.72E-10	**9.86E-09**	**6.07E-09**	**4.18E-08**	**4.40E-10**	**3.20E-09**	**9.79E-11**	**1.53E-07**	**2.48E-06**	**3.47E-09**	**2.15E-07**	**1.10E-07**	**9.76E-07**	**4.14E-07**	**6.24E-07**	**4.83E-08**	**7.21E-09**	**1.41E-06**
Crushing/Proc. Equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	3.40E-11	5.92E-09	4.96E-09	3.20E-08	3.60E-10	4.80E-10	7.99E-11	1.25E-07	1.08E-07	2.84E-09	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDT2-TOT	3.94E-11	7.87E-10	-	7.87E-10	-	7.87E-10	-	-	7.08E-07	-	5.59E-08	2.86E-08	2.53E-07	1.08E-07	1.62E-07	1.25E-08	1.87E-09	3.65E-07
Dust	9.71E-12	1.69E-09	1.42E-09	9.14E-09	1.03E-10	1.37E-10	2.28E-11	3.58E-08	3.07E-08	8.11E-10	-	-	-	-	-	-	-	-
LDA-TOT	6.51E-11	1.30E-09	-	1.30E-09	-	1.30E-09	-	-	1.17E-06	-	1.19E-07	6.07E-08	5.37E-07	2.28E-07	3.43E-07	2.66E-08	3.97E-09	7.74E-07
Dust	2.43E-11	4.23E-09	3.54E-09	2.28E-08	2.57E-10	3.43E-10	5.71E-11	8.94E-08	7.69E-08	2.03E-09	-	-	-	-	-	-	-	-
	1.72E-10	**1.39E-08**	**9.91E-09**	**6.60E-08**	**7.19E-10**	**3.05E-09**	**1.60E-10**	**2.50E-07**	**2.10E-06**	**5.68E-09**	**1.74E-07**	**8.93E-08**	**7.91E-07**	**3.35E-07**	**5.05E-07**	**3.91E-08**	**5.84E-09**	**1.14E-06**
Graders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Dozers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1.33E-08	1.40E-07	7.12E-07	1.17E-06	2.03E-08	7.72E-08	3.05E-09	3.77E-06	5.99E-06	3.36E-07	-	-	-	-	-	-	-	-
LDA-TOT	1.86E-11	3.72E-10	-	3.72E-10	-	3.72E-10	-	-	3.35E-07	-	3.39E-08	1.73E-08	1.54E-07	6.51E-08	9.81E-08	7.59E-09	1.13E-09	2.21E-07
Dust	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-	-
	1.33E-08	**1.42E-07**	**7.13E-07**	**1.17E-06**	**2.04E-08**	**7.76E-08**	**3.06E-09**	**3.80E-06**	**6.34E-06**	**3.37E-07**	**3.39E-08**	**1.73E-08**	**1.54E-07**	**6.51E-08**	**9.81E-08**	**7.59E-09**	**1.13E-09**	**2.21E-07**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pavers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	1.73E-12	3.02E-10	2.53E-10	1.63E-09	1.84E-11	2.45E-11	4.08E-12	6.39E-09	5.49E-09	1.45E-10	-	-	-	-	-	-	-	-
LDT2-TOT	1.41E-11	2.81E-10	-	2.81E-10	-	2.81E-10	-	-	2.53E-07	-	2.00E-08	1.02E-08	9.05E-08	3.84E-08	5.78E-08	4.48E-09	6.69E-10	1.30E-07
Dust	3.47E-12	6.04E-10	5.06E-10	3.26E-09	3.67E-11	4.89E-11	8.16E-12	1.28E-08	1.10E-08	2.90E-10	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	3.03E-05	-	-	-	-
LDA-TOT	1.86E-11	3.72E-10	-	3.72E-10	-	3.72E-10	-	-	3.35E-07	-	3.39E-08	1.73E-08	1.54E-07	6.51E-08	9.81E-08	7.59E-09	1.13E-09	2.21E-07
Dust	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-	-
	4.48E-11	**2.77E-09**	**1.77E-09**	**1.21E-08**	**1.28E-10**	**8.25E-10**	**2.86E-11**	**4.47E-08**	**6.26E-07**	**1.01E-09**	**5.38E-08**	**2.76E-08**	**2.44E-07**	**3.04E-05**	**1.56E-07**	**1.21E-08**	**1.80E-09**	**3.52E-07**

Offroad																		
Equipment	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl ethyl ketone (mek)	m-xylene
Category	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933	108383
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	5.58E-11	1.12E-09	-	1.12E-09	-	1.12E-09	-	-	1.00E-06	-	1.02E-07	5.20E-08	4.61E-07	1.95E-07	2.94E-07	2.28E-08	3.40E-09	6.64E-07
Dust	2.08E-11	3.62E-09	3.03E-09	1.96E-08	2.20E-10	2.94E-10	4.89E-11	7.66E-08	6.59E-08	1.74E-09	-	-	-	-	-	-	-	-
	7.66E-11	**4.74E-09**	**3.03E-09**	**2.07E-08**	**2.20E-10**	**1.41E-09**	**4.89E-11**	**7.66E-08**	**1.07E-06**	**1.74E-09**	**1.02E-07**	**5.20E-08**	**4.61E-07**	**1.95E-07**	**2.94E-07**	**2.28E-08**	**3.40E-09**	**6.64E-07**
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	6.93E-11	1.21E-08	1.01E-08	6.53E-08	7.34E-10	9.79E-10	1.63E-10	2.55E-07	2.20E-07	5.79E-09	-	-	-	-	-	-	-	-
	6.93E-11	**1.21E-08**	**1.01E-08**	**6.53E-08**	**7.34E-10**	**9.79E-10**	**1.63E-10**	**2.55E-07**	**2.20E-07**	**5.79E-09**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	3.05E-08	**4.00E-07**	**1.61E-06**	**2.96E-06**	**4.87E-08**	**1.96E-07**	**7.63E-09**	**9.77E-06**	**3.38E-05**	**7.68E-07**	**1.91E-06**	**9.80E-07**	**8.68E-06**	**3.40E-05**	**5.54E-06**	**4.29E-07**	**6.41E-08**	**1.25E-05**
Cranes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Concrete/Industrial Saws	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	4.65E-11	9.30E-10	-	9.30E-10	-	9.30E-10	-	-	8.37E-07	-	8.46E-08	4.33E-08	3.84E-07	1.63E-07	2.45E-07	1.90E-08	2.84E-09	5.53E-07
Dust	1.73E-11	3.02E-09	2.53E-09	1.63E-08	1.84E-10	2.45E-10	4.08E-11	6.39E-08	5.49E-08	1.45E-09	-	-	-	-	-	-	-	-
	6.39E-11	**3.95E-09**	**2.53E-09**	**1.72E-08**	**1.84E-10**	**1.18E-09**	**4.08E-11**	**6.39E-08**	**8.92E-07**	**1.45E-09**	**8.46E-08**	**4.33E-08**	**3.84E-07**	**1.63E-07**	**2.45E-07**	**1.90E-08**	**2.84E-09**	**5.53E-07**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	6.05E-11	1.21E-09	-	1.21E-09	-	1.21E-09	-	-	1.09E-06	-	1.10E-07	5.63E-08	4.99E-07	2.12E-07	3.19E-07	2.47E-08	3.69E-09	7.19E-07
Dust	2.25E-11	3.92E-09	3.29E-09	2.12E-08	2.39E-10	3.18E-10	5.30E-11	8.30E-08	7.14E-08	1.88E-09	-	-	-	-	-	-	-	-
	8.30E-11	**5.13E-09**	**3.29E-09**	**2.24E-08**	**2.39E-10**	**1.53E-09**	**5.30E-11**	**8.30E-08**	**1.16E-06**	**1.88E-09**	**1.10E-07**	**5.63E-08**	**4.99E-07**	**2.12E-07**	**3.19E-07**	**2.47E-08**	**3.69E-09**	**7.19E-07**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Excavators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	2.77E-12	4.83E-10	4.05E-10	2.61E-09	2.94E-11	3.92E-11	6.53E-12	1.02E-08	8.78E-09	2.32E-10	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	6.05E-11	1.21E-09	-	1.21E-09	-	1.21E-09	-	-	1.09E-06	-	1.10E-07	5.63E-08	4.99E-07	2.12E-07	3.19E-07	2.47E-08	3.69E-09	7.19E-07
Dust	2.25E-11	3.92E-09	3.29E-09	2.12E-08	2.39E-10	3.18E-10	5.30E-11	8.30E-08	7.14E-08	1.88E-09	-	-	-	-	-	-	-	-
	8.58E-11	**5.62E-09**	**3.69E-09**	**2.50E-08**	**2.68E-10**	**1.57E-09**	**5.95E-11**	**9.32E-08**	**1.17E-06**	**2.11E-09**	**1.10E-07**	**5.63E-08**	**4.99E-07**	**2.12E-07**	**3.19E-07**	**2.47E-08**	**3.69E-09**	**7.19E-07**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Offroad																		
Equipment	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl ethyl ketone (mek)	m-xylene
Category	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933	108383
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	6.05E-11	1.21E-09	-	1.21E-09	-	1.21E-09	-	-	1.09E-06	-	1.10E-07	5.63E-08	4.99E-07	2.12E-07	3.19E-07	2.47E-08	3.69E-09	7.19E-07
Dust	2.25E-11	3.92E-09	3.29E-09	2.12E-08	2.39E-10	3.18E-10	5.30E-11	8.30E-08	7.14E-08	1.88E-09	-	-	-	-	-	-	-	-
	8.30E-11	**5.13E-09**	**3.29E-09**	**2.24E-08**	**2.39E-10**	**1.53E-09**	**5.30E-11**	**8.30E-08**	**1.16E-06**	**1.88E-09**	**1.10E-07**	**5.63E-08**	**4.99E-07**	**2.12E-07**	**3.19E-07**	**2.47E-08**	**3.69E-09**	**7.19E-07**
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	9.30E-11	1.86E-09	-	1.86E-09	-	1.86E-09	-	-	1.67E-06	-	1.69E-07	8.67E-08	7.68E-07	3.26E-07	4.90E-07	3.79E-08	5.67E-09	1.11E-06
Dust	3.47E-11	6.04E-09	5.06E-09	3.26E-08	3.67E-10	4.89E-10	8.16E-11	1.28E-07	1.10E-07	2.90E-09	-	-	-	-	-	-	-	-
	1.28E-10	**7.90E-09**	**5.06E-09**	**3.45E-08**	**3.67E-10**	**2.35E-09**	**8.16E-11**	**1.28E-07**	**1.78E-06**	**2.90E-09**	**1.69E-07**	**8.67E-08**	**7.68E-07**	**3.26E-07**	**4.90E-07**	**3.79E-08**	**5.67E-09**	**1.11E-06**
Excavators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	2.08E-11	3.62E-09	3.03E-09	1.96E-08	2.20E-10	2.94E-10	4.89E-11	7.66E-08	6.59E-08	1.74E-09	-	-	-	-	-	-	-	-
	1.97E-09	2.07E-08	1.05E-07	1.73E-07	3.00E-09	1.14E-08	4.50E-10	5.57E-07	8.84E-07	4.97E-08	-	-	-	-	-	-	-	-
LDA-TOT	1.12E-10	2.23E-09	-	2.23E-09	-	2.23E-09	-	-	2.01E-06	-	2.03E-07	1.04E-07	9.21E-07	3.91E-07	5.88E-07	4.55E-08	6.80E-09	1.33E-06
Dust	4.16E-11	7.24E-09	6.07E-09	3.92E-08	4.40E-10	5.87E-10	9.79E-11	1.53E-07	1.32E-07	3.47E-09	-	-	-	-	-	-	-	-
	2.14E-09	**3.38E-08**	**1.14E-07**	**2.33E-07**	**3.66E-09**	**1.45E-08**	**5.97E-10**	**7.87E-07**	**3.09E-06**	**5.49E-08**	**2.03E-07**	**1.04E-07**	**9.21E-07**	**3.91E-07**	**5.88E-07**	**4.55E-08**	**6.80E-09**	**1.33E-06**
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	4.68E-11	8.15E-09	6.83E-09	4.40E-08	4.96E-10	6.61E-10	1.10E-10	1.72E-07	1.48E-07	3.91E-09	-	-	-	-	-	-	-	-
Graders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	5.58E-11	1.12E-09	-	1.12E-09	-	1.12E-09	-	-	1.00E-06	-	1.02E-07	5.20E-08	4.61E-07	1.95E-07	2.94E-07	2.28E-08	3.40E-09	6.64E-07
Dust	2.08E-11	3.62E-09	3.03E-09	1.96E-08	2.20E-10	2.94E-10	4.89E-11	7.66E-08	6.59E-08	1.74E-09	-	-	-	-	-	-	-	-
	1.23E-10	**1.29E-08**	**9.86E-09**	**6.47E-08**	**7.16E-10**	**2.07E-09**	**1.59E-10**	**2.49E-07**	**1.22E-06**	**5.65E-09**	**1.02E-07**	**5.20E-08**	**4.61E-07**	**1.95E-07**	**2.94E-07**	**2.28E-08**	**3.40E-09**	**6.64E-07**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDT2-TOT	4.13E-10	8.27E-09	-	8.27E-09	-	8.27E-09	-	-	7.44E-06	-	1.44E-07	7.35E-08	6.51E-07	2.76E-07	4.16E-07	3.22E-08	4.81E-09	9.38E-07
Dust	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-	-
LDA-TOT	3.72E-11	7.44E-10	-	7.44E-10	-	7.44E-10	-	-	6.70E-07	-	6.77E-08	3.47E-08	3.07E-07	1.30E-07	1.96E-07	1.52E-08	2.27E-09	4.42E-07
Dust	1.39E-11	2.41E-09	2.02E-09	1.31E-08	1.47E-10	1.96E-10	3.26E-11	5.11E-08	4.39E-08	1.16E-09	-	-	-	-	-	-	-	-
	4.71E-10	**1.26E-08**	**3.03E-09**	**2.86E-08**	**2.20E-10**	**9.31E-09**	**4.89E-11**	**7.66E-08**	**8.18E-06**	**1.74E-09**	**2.11E-07**	**1.08E-07**	**9.58E-07**	**4.06E-07**	**6.12E-07**	**4.74E-08**	**7.08E-09**	**1.38E-06**
Concrete/Industrial Saws	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	4.85E-11	8.45E-09	7.08E-09	4.57E-08	5.14E-10	6.85E-10	1.14E-10	1.79E-07	1.54E-07	4.05E-09	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-	-
LDT2-TOT	1.41E-11	2.81E-10	-	2.81E-10	-	2.81E-10	-	-	2.53E-07	-	2.00E-08	1.02E-08	9.05E-08	3.84E-08	5.78E-08	4.48E-09	6.69E-10	1.30E-07

Offroad																		
Equipment	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl ethyl ketone (mek)	m-xylene
Category	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933	108383
Dust	3.47E-12	6.04E-10	5.06E-10	3.26E-09	3.67E-11	4.89E-11	8.16E-12	1.28E-08	1.10E-08	2.90E-10	-	-	-	-	-	-	-	-
LDA-TOT	2.33E-11	4.65E-10	-	4.65E-10	-	4.65E-10	-	-	4.19E-07	-	4.23E-08	2.17E-08	1.92E-07	8.14E-08	1.23E-07	9.49E-09	1.42E-09	2.77E-07
Dust	8.67E-12	1.51E-09	1.26E-09	8.16E-09	9.18E-11	1.22E-10	2.04E-11	3.19E-08	2.74E-08	7.24E-10	-	-	-	-	-	-	-	-
	1.05E-10	**1.25E-08**	**9.86E-09**	**6.44E-08**	**7.16E-10**	**1.70E-09**	**1.59E-10**	**2.49E-07**	**8.86E-07**	**5.65E-09**	**6.23E-08**	**3.19E-08**	**2.82E-07**	**1.20E-07**	**1.80E-07**	**1.40E-08**	**2.09E-09**	**4.07E-07**
Graders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Dozers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1.33E-08	1.40E-07	7.12E-07	1.17E-06	2.03E-08	7.72E-08	3.05E-09	3.77E-06	5.99E-06	3.36E-07	-	-	-	-	-	-	-	-
LDA-TOT	1.86E-11	3.72E-10	-	3.72E-10	-	3.72E-10	-	-	3.35E-07	-	3.39E-08	1.73E-08	1.54E-07	6.51E-08	9.81E-08	7.59E-09	1.13E-09	2.21E-07
Dust	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-	-
	1.33E-08	**1.42E-07**	**7.13E-07**	**1.17E-06**	**2.04E-08**	**7.76E-08**	**3.06E-09**	**3.80E-06**	**6.34E-06**	**3.37E-07**	**3.39E-08**	**1.73E-08**	**1.54E-07**	**6.51E-08**	**9.81E-08**	**7.59E-09**	**1.13E-09**	**2.21E-07**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pavers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	1.73E-12	3.02E-10	2.53E-10	1.63E-09	1.84E-11	2.45E-11	4.08E-12	6.39E-09	5.49E-09	1.45E-10	-	-	-	-	-	-	-	-
LDT2-TOT	1.41E-11	2.81E-10	-	2.81E-10	-	2.81E-10	-	-	2.53E-07	-	2.00E-08	1.02E-08	9.05E-08	3.84E-08	5.78E-08	4.48E-09	6.69E-10	1.30E-07
Dust	3.47E-12	6.04E-10	5.06E-10	3.26E-09	3.67E-11	4.89E-11	8.16E-12	1.28E-08	1.10E-08	2.90E-10	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	3.03E-05	-	-	-	-
LDA-TOT	1.86E-11	3.72E-10	-	3.72E-10	-	3.72E-10	-	-	3.35E-07	-	3.39E-08	1.73E-08	1.54E-07	6.51E-08	9.81E-08	7.59E-09	1.13E-09	2.21E-07
Dust	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-	-
	4.48E-11	**2.77E-09**	**1.77E-09**	**1.21E-08**	**1.28E-10**	**8.25E-10**	**2.86E-11**	**4.47E-08**	**6.26E-07**	**1.01E-09**	**5.38E-08**	**2.76E-08**	**2.44E-07**	**3.04E-05**	**1.56E-07**	**1.21E-08**	**1.80E-09**	**3.52E-07**
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	5.58E-11	1.12E-09	-	1.12E-09	-	1.12E-09	-	-	1.00E-06	-	1.02E-07	5.20E-08	4.61E-07	1.95E-07	2.94E-07	2.28E-08	3.40E-09	6.64E-07
Dust	2.08E-11	3.62E-09	3.03E-09	1.96E-08	2.20E-10	2.94E-10	4.89E-11	7.66E-08	6.59E-08	1.74E-09	-	-	-	-	-	-	-	-
	7.66E-11	**4.74E-09**	**3.03E-09**	**2.07E-08**	**2.20E-10**	**1.41E-09**	**4.89E-11**	**7.66E-08**	**1.07E-06**	**1.74E-09**	**1.02E-07**	**5.20E-08**	**4.61E-07**	**1.95E-07**	**2.94E-07**	**2.28E-08**	**3.40E-09**	**6.64E-07**
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	4.85E-11	8.45E-09	7.08E-09	4.57E-08	5.14E-10	6.85E-10	1.14E-10	1.79E-07	1.54E-07	4.05E-09	-	-	-	-	-	-	-	-
	4.85E-11	**8.45E-09**	**7.08E-09**	**4.57E-08**	**5.14E-10**	**6.85E-10**	**1.14E-10**	**1.79E-07**	**1.54E-07**	**4.05E-09**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	1.68E-08	**2.57E-07**	**8.80E-07**	**1.77E-06**	**2.79E-08**	**1.16E-07**	**4.51E-09**	**5.91E-06**	**2.77E-05**	**4.22E-07**	**1.35E-06**	**6.92E-07**	**6.13E-06**	**3.29E-05**	**3.92E-06**	**3.03E-07**	**4.53E-08**	**8.83E-06**
Excavators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	2.08E-11	3.62E-09	3.03E-09	1.96E-08	2.20E-10	2.94E-10	4.89E-11	7.66E-08	6.59E-08	1.74E-09	-	-	-	-	-	-	-	-
	1.97E-08	2.07E-07	1.05E-06	1.73E-06	3.00E-08	1.14E-07	4.50E-09	5.57E-06	8.84E-06	4.97E-07	-	-	-	-	-	-	-	-
LDA-TOT	1.40E-10	2.79E-09	-	2.79E-09	-	2.79E-09	-	-	2.51E-06	-	2.54E-07	1.30E-07	1.15E-06	4.88E-07	7.36E-07	5.69E-08	8.51E-09	1.66E-06
Dust	5.20E-11	9.05E-09	7.59E-09	4.89E-08	5.51E-10	7.34E-10	1.22E-10	1.92E-07	1.65E-07	4.34E-09	-	-	-	-	-	-	-	-
	1.99E-08	**2.22E-07**	**1.06E-06**	**1.80E-06**	**3.08E-08**	**1.18E-07**	**4.67E-09**	**5.84E-06**	**1.16E-05**	**5.03E-07**	**2.54E-07**	**1.30E-07**	**1.15E-06**	**4.88E-07**	**7.36E-07**	**5.69E-08**	**8.51E-09**	**1.66E-06**

Offroad																		
Equipment	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl ethyl ketone (mek)	m-xylene
Category	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933	108383
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	4.85E-11	8.45E-09	7.08E-09	4.57E-08	5.14E-10	6.85E-10	1.14E-10	1.79E-07	1.54E-07	4.05E-09	-	-	-	-	-	-	-	-
Graders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	3.72E-11	7.44E-10	-	7.44E-10	-	7.44E-10	-	-	6.70E-07	-	6.77E-08	3.47E-08	3.07E-07	1.30E-07	1.96E-07	1.52E-08	2.27E-09	4.42E-07
Dust	1.39E-11	2.41E-09	2.02E-09	1.31E-08	1.47E-10	1.96E-10	3.26E-11	5.11E-08	4.39E-08	1.16E-09	-	-	-	-	-	-	-	-
	9.96E-11	**1.16E-08**	**9.10E-09**	**5.95E-08**	**6.61E-10**	**1.63E-09**	**1.47E-10**	**2.30E-07**	**8.68E-07**	**5.21E-09**	**6.77E-08**	**3.47E-08**	**3.07E-07**	**1.30E-07**	**1.96E-07**	**1.52E-08**	**2.27E-09**	**4.42E-07**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDT2-TOT	2.81E-11	5.62E-10	-	5.62E-10	-	5.62E-10	-	-	5.06E-07	-	3.99E-08	2.04E-08	1.81E-07	7.68E-08	1.16E-07	8.95E-09	1.34E-09	2.61E-07
Dust	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-	-
LDA-TOT	3.72E-11	7.44E-10	-	7.44E-10	-	7.44E-10	-	-	6.70E-07	-	6.77E-08	3.47E-08	3.07E-07	1.30E-07	1.96E-07	1.52E-08	2.27E-09	4.42E-07
Dust	1.39E-11	2.41E-09	2.02E-09	1.31E-08	1.47E-10	1.96E-10	3.26E-11	5.11E-08	4.39E-08	1.16E-09	-	-	-	-	-	-	-	-
	8.61E-11	**4.93E-09**	**3.03E-09**	**2.09E-08**	**2.20E-10**	**1.60E-09**	**4.89E-11**	**7.66E-08**	**1.24E-06**	**1.74E-09**	**1.08E-07**	**5.51E-08**	**4.88E-07**	**2.07E-07**	**3.12E-07**	**2.41E-08**	**3.61E-09**	**7.03E-07**
Concrete/Industrial Saws	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	4.85E-11	8.45E-09	7.08E-09	4.57E-08	5.14E-10	6.85E-10	1.14E-10	1.79E-07	1.54E-07	4.05E-09	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	1.56E-11	2.72E-09	2.28E-09	1.47E-08	1.65E-10	2.20E-10	3.67E-11	5.75E-08	4.94E-08	1.30E-09	-	-	-	-	-	-	-	-
LDT2-TOT	1.41E-11	2.81E-10	-	2.81E-10	-	2.81E-10	-	-	2.53E-07	-	2.00E-08	1.02E-08	9.05E-08	3.84E-08	5.78E-08	4.48E-09	6.69E-10	1.30E-07
Dust	3.47E-12	6.04E-10	5.06E-10	3.26E-09	3.67E-11	4.89E-11	8.16E-12	1.28E-08	1.10E-08	2.90E-10	-	-	-	-	-	-	-	-
LDA-TOT	2.33E-11	4.65E-10	-	4.65E-10	-	4.65E-10	-	-	4.19E-07	-	4.23E-08	2.17E-08	1.92E-07	8.14E-08	1.23E-07	9.49E-09	1.42E-09	2.77E-07
Dust	8.67E-12	1.51E-09	1.26E-09	8.16E-09	9.18E-11	1.22E-10	2.04E-11	3.19E-08	2.74E-08	7.24E-10	-	-	-	-	-	-	-	-
	1.14E-10	**1.40E-08**	**1.11E-08**	**7.25E-08**	**8.08E-10**	**1.82E-09**	**1.79E-10**	**2.81E-07**	**9.13E-07**	**6.37E-09**	**6.23E-08**	**3.19E-08**	**2.82E-07**	**1.20E-07**	**1.80E-07**	**1.40E-08**	**2.09E-09**	**4.07E-07**
Graders	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rubber Tired Dozers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rollers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	1.33E-08	1.40E-07	7.12E-07	1.17E-06	2.03E-08	7.72E-08	3.05E-09	3.77E-06	5.99E-06	3.36E-07	-	-	-	-	-	-	-	-
LDA-TOT	1.86E-11	3.72E-10	-	3.72E-10	-	3.72E-10	-	-	3.35E-07	-	3.39E-08	1.73E-08	1.54E-07	6.51E-08	9.81E-08	7.59E-09	1.13E-09	2.21E-07
Dust	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-	-
	1.33E-08	**1.42E-07**	**7.13E-07**	**1.17E-06**	**2.04E-08**	**7.76E-08**	**3.06E-09**	**3.80E-06**	**6.34E-06**	**3.37E-07**	**3.39E-08**	**1.73E-08**	**1.54E-07**	**6.51E-08**	**9.81E-08**	**7.59E-09**	**1.13E-09**	**2.21E-07**
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pavers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	1.73E-12	3.02E-10	2.53E-10	1.63E-09	1.84E-11	2.45E-11	4.08E-12	6.39E-09	5.49E-09	1.45E-10	-	-	-	-	-	-	-	-
LDT2-TOT	1.41E-11	2.81E-10	-	2.81E-10	-	2.81E-10	-	-	2.53E-07	-	2.00E-08	1.02E-08	9.05E-08	3.84E-08	5.78E-08	4.48E-09	6.69E-10	1.30E-07
Dust	3.47E-12	6.04E-10	5.06E-10	3.26E-09	3.67E-11	4.89E-11	8.16E-12	1.28E-08	1.10E-08	2.90E-10	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	-	-	3.03E-05	-	-	-	-
LDA-TOT	1.86E-11	3.72E-10	-	3.72E-10	-	3.72E-10	-	-	3.35E-07	-	3.39E-08	1.73E-08	1.54E-07	6.51E-08	9.81E-08	7.59E-09	1.13E-09	2.21E-07
Dust	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-	-

Offroad																		
Equipment	CHROMIUM VI	COPPER	LEAD	MANGANESE	MERCURY	NICKEL	SELENIUM	SULFUR	SULFATES	VANADIUM	1,3-butadiene	acetaldehyde	benzene	ethylbenzene	formaldehyde	methanol	methyl ethyl ketone (mek)	m-xylene
Category	18540299	7440508	7439921	7439965	7439976	7440020	7782492	7704349	9960	7440622	106990	75070	71432	100414	50000	67561	78933	108383
	4.48E-11	**2.77E-09**	**1.77E-09**	**1.21E-08**	**1.28E-10**	**8.25E-10**	**2.86E-11**	**4.47E-08**	**6.26E-07**	**1.01E-09**	**5.38E-08**	**2.76E-08**	**2.44E-07**	**3.04E-05**	**1.56E-07**	**1.21E-08**	**1.80E-09**	**3.52E-07**
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	3.49E-11	6.98E-10	-	6.98E-10	-	6.98E-10	-	-	6.28E-07	-	6.35E-08	3.25E-08	2.88E-07	1.22E-07	1.84E-07	1.42E-08	2.13E-09	4.15E-07
Dust	1.30E-11	2.26E-09	1.90E-09	1.22E-08	1.38E-10	1.84E-10	3.06E-11	4.79E-08	4.12E-08	1.09E-09	-	-	-	-	-	-	-	-
	4.79E-11	**2.96E-09**	**1.90E-09**	**1.29E-08**	**1.38E-10**	**8.81E-10**	**3.06E-11**	**4.79E-08**	**6.69E-07**	**1.09E-09**	**6.35E-08**	**3.25E-08**	**2.88E-07**	**1.22E-07**	**1.84E-07**	**1.42E-08**	**2.13E-09**	**4.15E-07**
Trenchers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	1.16E-11	2.33E-10	-	2.33E-10	-	2.33E-10	-	-	2.09E-07	-	2.12E-08	1.08E-08	9.59E-08	4.07E-08	6.13E-08	4.74E-09	7.09E-10	1.38E-07
Dust	4.33E-12	7.55E-10	6.32E-10	4.08E-09	4.59E-11	6.12E-11	1.02E-11	1.60E-08	1.37E-08	3.62E-10	-	-	-	-	-	-	-	-
	1.60E-11	**9.87E-10**	**6.32E-10**	**4.31E-09**	**4.59E-11**	**2.94E-10**	**1.02E-11**	**1.60E-08**	**2.23E-07**	**3.62E-10**	**2.12E-08**	**1.08E-08**	**9.59E-08**	**4.07E-08**	**6.13E-08**	**4.74E-09**	**7.09E-10**	**1.38E-07**
Air Compressors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	6.93E-12	1.21E-09	1.01E-09	6.53E-09	7.34E-11	9.79E-11	1.63E-11	2.55E-08	2.20E-08	5.79E-10	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	6.24E-12	1.09E-09	9.10E-10	5.87E-09	6.61E-11	8.81E-11	1.47E-11	2.30E-08	1.98E-08	5.21E-10	-	-	-	-	-	-	-	-
Off-Highway Trucks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cranes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Forklifts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LDA-TOT	1.26E-09	2.51E-08	-	2.51E-08	-	2.51E-08	-	-	2.26E-05	-	2.29E-06	1.17E-06	1.04E-05	4.40E-06	6.62E-06	5.12E-07	7.65E-08	1.49E-05
Dust	4.68E-10	8.15E-08	6.83E-08	4.40E-07	4.96E-09	6.61E-09	1.10E-09	1.72E-06	1.48E-06	3.91E-08	-	-	-	-	-	-	-	-
	1.74E-09	**1.09E-07**	**7.02E-08**	**4.78E-07**	**5.09E-09**	**3.19E-08**	**1.13E-09**	**1.77E-06**	**2.41E-05**	**4.02E-08**	**2.29E-06**	**1.17E-06**	**1.04E-05**	**4.40E-06**	**6.62E-06**	**5.12E-07**	**7.65E-08**	**1.49E-05**
HHDT-DSL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dust	4.85E-11	8.45E-09	7.08E-09	4.57E-08	5.14E-10	6.85E-10	1.14E-10	1.79E-07	1.54E-07	4.05E-09	-	-	-	-	-	-	-	-
	4.85E-11	**8.45E-09**	**7.08E-09**	**4.57E-08**	**5.14E-10**	**6.85E-10**	**1.14E-10**	**1.79E-07**	**1.54E-07**	**4.05E-09**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	3.54E-08	**5.19E-07**	**1.88E-06**	**3.68E-06**	**5.88E-08**	**2.35E-07**	**9.42E-09**	**1.23E-05**	**4.68E-05**	**8.99E-07**	**2.95E-06**	**1.51E-06**	**1.34E-05**	**3.60E-05**	**8.54E-06**	**6.61E-07**	**9.88E-08**	**1.93E-05**

Offroad Equipment	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)
Category	91203	110543	95476	115071	106423	100425	108883	107028
Cranes	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-
Crushing/Proc. Equipment	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-
LDA-TOT	1.46E-08	4.96E-07	3.84E-07	9.51E-07	-	3.81E-08	1.79E-06	4.11E-08
Dust	-	-	-	-	-	-	-	-
	1.46E-08	**4.96E-07**	**3.84E-07**	**9.51E-07**	**0.00E+00**	**3.81E-08**	**1.79E-06**	**4.11E-08**
Excavators	-	-	-	-	-	-	-	-
Rubber Tired Loaders	-	-	-	-	-	-	-	-
HHDT-DSL	-	-	-	-	-	-	-	-
Dust	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-
LDA-TOT	4.39E-08	1.49E-06	1.15E-06	2.85E-06	-	1.14E-07	5.36E-06	1.23E-07
Dust	-	-	-	-	-	-	-	-
	4.39E-08	**1.49E-06**	**1.15E-06**	**2.85E-06**	**0.00E+00**	**1.14E-07**	**5.36E-06**	**1.23E-07**
Hoist/swing/winch	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-
LDA-TOT	7.69E-09	2.61E-07	2.02E-07	4.99E-07	-	2.00E-08	9.38E-07	2.16E-08
Dust	-	-	-	-	-	-	-	-
	7.69E-09	**2.61E-07**	**2.02E-07**	**4.99E-07**	**0.00E+00**	**2.00E-08**	**9.38E-07**	**2.16E-08**
Hoist/swing/winch	-	-	-	-	-	-	-	-
Hoist/swing/winch	-	-	-	-	-	-	-	-
Generator Sets	-	-	-	-	-	-	-	-
Air Compressors	-	-	-	-	-	-	-	-
LDA-TOT	1.46E-08	4.96E-07	3.84E-07	9.51E-07	-	3.81E-08	1.79E-06	4.11E-08
Dust	-	-	-	-	-	-	-	-
	1.46E-08	**4.96E-07**	**3.84E-07**	**9.51E-07**	**0.00E+00**	**3.81E-08**	**1.79E-06**	**4.11E-08**

Offroad									
Equipment	2-butan	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)
Category	91203	110543	95476	115071	106423	100425	108883	107028	
Hoist/swing/winch	-	-	-	-	-	-	-	-	
Hoist/swing/winch	-	-	-	-	-	-	-	-	
LDA-TOT	2.56E-09	8.69E-08	6.73E-08	1.66E-07	-	6.67E-09	3.13E-07	7.20E-09	
Dust	-	-	-	-	-	-	-	-	
	2.56E-09	**8.69E-08**	**6.73E-08**	**1.66E-07**	**-**	**6.67E-09**	**3.13E-07**	**7.20E-09**	
Hoist/swing/winch	-	-	-	-	-	-	-	-	
Hoist/swing/winch	-	-	-	-	-	-	-	-	
Generator Sets	-	-	-	-	-	-	-	-	
LDA-TOT	1.46E-08	4.96E-07	3.84E-07	9.51E-07	-	3.81E-08	1.79E-06	4.11E-08	
Dust	-	-	-	-	-	-	-	-	
	1.46E-08	**4.96E-07**	**3.84E-07**	**9.51E-07**	**-**	**3.81E-08**	**1.79E-06**	**4.11E-08**	
Hoist/swing/winch	-	-	-	-	-	-	-	-	
Hoist/swing/winch	-	-	-	-	-	-	-	-	
Generator Sets	-	-	-	-	-	-	-	-	
Generator Sets	-	-	-	-	-	-	-	-	
Hoist/swing/winch	-	-	-	-	-	-	-	-	
NA	-	-	-	-	-	-	-	-	
NA	-	-	-	-	-	-	-	-	
LDA-TOT	2.86E-09	9.68E-08	7.50E-08	1.85E-07	-	7.44E-09	3.48E-07	8.02E-09	
Dust	-	-	-	-	-	-	-	-	
	2.86E-09	**9.68E-08**	**7.50E-08**	**1.85E-07**	**-**	**7.44E-09**	**3.48E-07**	**8.02E-09**	
Hoist/swing/winch	-	-	-	-	-	-	-	-	
Hoist/swing/winch	-	-	-	-	-	-	-	-	
Excavators	-	-	-	-	-	-	-	-	
HHDT-DSL	-	-	-	-	-	-	-	-	
Dust	-	-	-	-	-	-	-	-	
NA	-	-	-	-	-	-	-	-	
NA	-	-	-	-	-	-	-	-	
LDA-TOT	2.86E-09	9.68E-08	7.50E-08	1.85E-07	-	7.44E-09	3.48E-07	8.02E-09	
Dust	-	-	-	-	-	-	-	-	
	2.86E-09	**9.68E-08**	**7.50E-08**	**1.85E-07**	**-**	**7.44E-09**	**3.48E-07**	**8.02E-09**	
Hoist/swing/winch	-	-	-	-	-	-	-	-	
Hoist/swing/winch	-	-	-	-	-	-	-	-	
NA	-	-	-	-	-	-	-	-	
NA	-	-	-	-	-	-	-	-	
LDA-TOT	2.86E-09	9.68E-08	7.50E-08	1.85E-07	-	7.44E-09	3.48E-07	8.02E-09	
Dust	-	-	-	-	-	-	-	-	
	2.86E-09	**9.68E-08**	**7.50E-08**	**1.85E-07**	**-**	**7.44E-09**	**3.48E-07**	**8.02E-09**	
HHDT-DSL	-	-	-	-	-	-	-	-	
Dust	-	-	-	-	-	-	-	-	

Offroad									
Equipment	2-buta	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)
Category	91203	110543	95476	115071	106423	100425	108883	107028	
Graders	-	-	-	-	-	-	-	-	
Rollers	-	-	-	-	-	-	-	-	
LDA-TOT	8.78E-09	2.98E-07	2.31E-07	5.70E-07	-	2.29E-08	1.07E-06	2.47E-08	
Dust	-	-	-	-	-	-	-	-	
	8.78E-09	**2.98E-07**	**2.31E-07**	**5.70E-07**	**-**	**2.29E-08**	**1.07E-06**	**2.47E-08**	
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	
Trenchers	-	-	-	-	-	-	-	-	
LDT2-TOT	6.91E-09	2.34E-07	1.81E-07	4.49E-07	-	1.80E-08	8.43E-07	1.94E-08	
Dust	-	-	-	-	-	-	-	-	
LDA-TOT	1.17E-08	3.97E-07	3.07E-07	7.61E-07	-	3.05E-08	1.43E-06	3.29E-08	
Dust	-	-	-	-	-	-	-	-	
	1.86E-08	**6.31E-07**	**4.89E-07**	**1.21E-06**	**-**	**4.85E-08**	**2.27E-06**	**5.23E-08**	
Crushing/Proc. Equipment	-	-	-	-	-	-	-	-	
Rubber Tired Loaders	-	-	-	-	-	-	-	-	
HHDT-DSL	-	-	-	-	-	-	-	-	
Dust	-	-	-	-	-	-	-	-	
HHDT-DSL	-	-	-	-	-	-	-	-	
Dust	-	-	-	-	-	-	-	-	
LDT2-TOT	4.83E-09	1.64E-07	1.27E-07	3.14E-07	-	1.26E-08	5.90E-07	1.36E-08	
Dust	-	-	-	-	-	-	-	-	
LDA-TOT	1.02E-08	3.48E-07	2.69E-07	6.66E-07	-	2.67E-08	1.25E-06	2.88E-08	
Dust	-	-	-	-	-	-	-	-	
	1.51E-08	**5.11E-07**	**3.96E-07**	**9.79E-07**	**-**	**3.93E-08**	**1.84E-06**	**4.24E-08**	
Graders	-	-	-	-	-	-	-	-	
Rubber Tired Dozers	-	-	-	-	-	-	-	-	
Rollers	-	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	
LDA-TOT	2.93E-09	9.93E-08	7.69E-08	1.90E-07	-	7.63E-09	3.57E-07	8.22E-09	
Dust	-	-	-	-	-	-	-	-	
	2.93E-09	**9.93E-08**	**7.69E-08**	**1.90E-07**	**-**	**7.63E-09**	**3.57E-07**	**8.22E-09**	
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	
Pavers	-	-	-	-	-	-	-	-	
HHDT-DSL	-	-	-	-	-	-	-	-	
Dust	-	-	-	-	-	-	-	-	
LDT2-TOT	1.73E-09	5.86E-08	4.53E-08	1.12E-07	-	4.50E-09	2.11E-07	4.85E-09	
Dust	-	-	-	-	-	-	-	-	
	-	-	4.88E-05	-	-	-	8.44E-05	-	
LDA-TOT	2.93E-09	9.93E-08	7.69E-08	1.90E-07	-	7.63E-09	3.57E-07	8.22E-09	
Dust	-	-	-	-	-	-	-	-	
	4.66E-09	**1.58E-07**	**4.89E-05**	**3.02E-07**	**-**	**1.21E-08**	**8.50E-05**	**1.31E-08**	

Offroad									
Equipment	2-buta	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)
Category		91203	110543	95476	115071	106423	100425	108883	107028
Trenchers		-	-	-	-	-	-	-	-
LDA-TOT		8.78E-09	2.98E-07	2.31E-07	5.70E-07	-	2.29E-08	1.07E-06	2.47E-08
Dust		-	-	-	-	-	-	-	-
		8.78E-09	**2.98E-07**	**2.31E-07**	**5.70E-07**	**-**	**2.29E-08**	**1.07E-06**	**2.47E-08**
HHDT-DSL		-	-	-	-	-	-	-	-
Dust		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
		1.66E-07	**5.61E-06**	**5.32E-05**	**1.07E-05**	**0.00E+00**	**4.31E-07**	**1.05E-04**	**4.65E-07**
Cranes		-	-	-	-	-	-	-	-
Hoist/swing/winch		-	-	-	-	-	-	-	-
Concrete/Industrial Saws		-	-	-	-	-	-	-	-
Rubber Tired Loaders		-	-	-	-	-	-	-	-
LDA-TOT		7.32E-09	2.48E-07	1.92E-07	4.75E-07	-	1.91E-08	8.94E-07	2.06E-08
Dust		-	-	-	-	-	-	-	-
		7.32E-09	**2.48E-07**	**1.92E-07**	**4.75E-07**	**-**	**1.91E-08**	**8.94E-07**	**2.06E-08**
Hoist/swing/winch		-	-	-	-	-	-	-	-
Hoist/swing/winch		-	-	-	-	-	-	-	-
Generator Sets		-	-	-	-	-	-	-	-
Generator Sets		-	-	-	-	-	-	-	-
Hoist/swing/winch		-	-	-	-	-	-	-	-
NA		-	-	-	-	-	-	-	-
NA		-	-	-	-	-	-	-	-
LDA-TOT		9.52E-09	3.23E-07	2.50E-07	6.18E-07	-	2.48E-08	1.16E-06	2.67E-08
Dust		-	-	-	-	-	-	-	-
		9.52E-09	**3.23E-07**	**2.50E-07**	**6.18E-07**	**-**	**2.48E-08**	**1.16E-06**	**2.67E-08**
Hoist/swing/winch		-	-	-	-	-	-	-	-
Hoist/swing/winch		-	-	-	-	-	-	-	-
Excavators		-	-	-	-	-	-	-	-
HHDT-DSL		-	-	-	-	-	-	-	-
Dust		-	-	-	-	-	-	-	-
NA		-	-	-	-	-	-	-	-
NA		-	-	-	-	-	-	-	-
LDA-TOT		9.52E-09	3.23E-07	2.50E-07	6.18E-07	-	2.48E-08	1.16E-06	2.67E-08
Dust		-	-	-	-	-	-	-	-
		9.52E-09	**3.23E-07**	**2.50E-07**	**6.18E-07**	**-**	**2.48E-08**	**1.16E-06**	**2.67E-08**
Hoist/swing/winch		-	-	-	-	-	-	-	-

Offroad									
Equipment	(2-buta…	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)
Category		91203	110543	95476	115071	106423	100425	108883	107028
Hoist/swing/winch		-	-	-	-	-	-	-	-
NA		-	-	-	-	-	-	-	-
NA		-	-	-	-	-	-	-	-
LDA-TOT		9.52E-09	3.23E-07	2.50E-07	6.18E-07	-	2.48E-08	1.16E-06	2.67E-08
Dust		-	-	-	-	-	-	-	-
		9.52E-09	**3.23E-07**	**2.50E-07**	**6.18E-07**	**-**	**2.48E-08**	**1.16E-06**	**2.67E-08**
Hoist/swing/winch		-	-	-	-	-	-	-	-
Hoist/swing/winch		-	-	-	-	-	-	-	-
Generator Sets		-	-	-	-	-	-	-	-
LDA-TOT		1.46E-08	4.96E-07	3.84E-07	9.51E-07	-	3.81E-08	1.79E-06	4.11E-08
Dust		-	-	-	-	-	-	-	-
		1.46E-08	**4.96E-07**	**3.84E-07**	**9.51E-07**	**-**	**3.81E-08**	**1.79E-06**	**4.11E-08**
Excavators		-	-	-	-	-	-	-	-
Rubber Tired Loaders		-	-	-	-	-	-	-	-
HHDT-DSL		-	-	-	-	-	-	-	-
Dust		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
LDA-TOT		1.76E-08	5.96E-07	4.61E-07	1.14E-06	-	4.58E-08	2.14E-06	4.93E-08
Dust		-	-	-	-	-	-	-	-
		1.76E-08	**5.96E-07**	**4.61E-07**	**1.14E-06**	**-**	**4.58E-08**	**2.14E-06**	**4.93E-08**
HHDT-DSL		-	-	-	-	-	-	-	-
Dust		-	-	-	-	-	-	-	-
Graders		-	-	-	-	-	-	-	-
Rollers		-	-	-	-	-	-	-	-
LDA-TOT		8.78E-09	2.98E-07	2.31E-07	5.70E-07	-	2.29E-08	1.07E-06	2.47E-08
Dust		-	-	-	-	-	-	-	-
		8.78E-09	**2.98E-07**	**2.31E-07**	**5.70E-07**	**-**	**2.29E-08**	**1.07E-06**	**2.47E-08**
Tractors/Loaders/Backhoes		-	-	-	-	-	-	-	-
Trenchers		-	-	-	-	-	-	-	-
LDT2-TOT		1.24E-08	4.21E-07	3.26E-07	8.07E-07	-	3.23E-08	1.52E-06	3.49E-08
Dust		-	-	-	-	-	-	-	-
LDA-TOT		5.86E-09	1.99E-07	1.54E-07	3.80E-07	-	1.53E-08	7.15E-07	1.64E-08
Dust		-	-	-	-	-	-	-	-
		1.83E-08	**6.20E-07**	**4.80E-07**	**1.19E-06**	**-**	**4.76E-08**	**2.23E-06**	**5.13E-08**
Concrete/Industrial Saws		-	-	-	-	-	-	-	-
Rubber Tired Loaders		-	-	-	-	-	-	-	-
HHDT-DSL		-	-	-	-	-	-	-	-
Dust		-	-	-	-	-	-	-	-
HHDT-DSL		-	-	-	-	-	-	-	-
Dust		-	-	-	-	-	-	-	-
LDT2-TOT		1.73E-09	5.86E-08	4.53E-08	1.12E-07	-	4.50E-09	2.11E-07	4.85E-09

Offroad									
Equipment	1,2-butadiene	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)
Category	106990	91203	110543	95476	115071	106423	100425	108883	107028
Dust	-	-	-	-	-	-	-	-	-
LDA-TOT	3.66E-09	1.24E-07	9.61E-08	2.38E-07	-	9.53E-09	4.47E-07	1.03E-08	
Dust	-	-	-	-	-	-	-	-	-
	5.39E-09	**1.83E-07**	**1.41E-07**	**3.50E-07**	**-**	**1.40E-08**	**6.58E-07**	**1.51E-08**	
Graders	-	-	-	-	-	-	-	-	
Rubber Tired Dozers	-	-	-	-	-	-	-	-	
Rollers	-	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	
LDA-TOT	2.93E-09	9.93E-08	7.69E-08	1.90E-07	-	7.63E-09	3.57E-07	8.22E-09	
Dust	-	-	-	-	-	-	-	-	
	2.93E-09	**9.93E-08**	**7.69E-08**	**1.90E-07**	**-**	**7.63E-09**	**3.57E-07**	**8.22E-09**	
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	
Pavers	-	-	-	-	-	-	-	-	
HHDT-DSL	-	-	-	-	-	-	-	-	
Dust	-	-	-	-	-	-	-	-	
LDT2-TOT	1.73E-09	5.86E-08	4.53E-08	1.12E-07	-	4.50E-09	2.11E-07	4.85E-09	
Dust	-	-	-	-	-	-	-	-	
	-	-	4.88E-05	-	-	-	8.44E-05	-	
LDA-TOT	2.93E-09	9.93E-08	7.69E-08	1.90E-07	-	7.63E-09	3.57E-07	8.22E-09	
Dust	-	-	-	-	-	-	-	-	
	4.66E-09	**1.58E-07**	**4.89E-05**	**3.02E-07**	**-**	**1.21E-08**	**8.50E-05**	**1.31E-08**	
Trenchers	-	-	-	-	-	-	-	-	
LDA-TOT	8.78E-09	2.98E-07	2.31E-07	5.70E-07	-	2.29E-08	1.07E-06	2.47E-08	
Dust	-	-	-	-	-	-	-	-	
	8.78E-09	**2.98E-07**	**2.31E-07**	**5.70E-07**	**-**	**2.29E-08**	**1.07E-06**	**2.47E-08**	
HHDT-DSL	-	-	-	-	-	-	-	-	
Dust	-	-	-	-	-	-	-	-	
	-	**-**	**-**	**-**	**-**	**-**	**-**	**-**	
	1.17E-07	**3.96E-06**	**5.19E-05**	**7.59E-06**	**0.00E+00**	**3.04E-07**	**9.87E-05**	**3.28E-07**	
Excavators	-	-	-	-	-	-	-	-	
Rubber Tired Loaders	-	-	-	-	-	-	-	-	
HHDT-DSL	-	-	-	-	-	-	-	-	
Dust	-	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	
LDA-TOT	2.20E-08	7.45E-07	5.77E-07	1.43E-06	-	5.72E-08	2.68E-06	6.17E-08	
Dust	-	-	-	-	-	-	-	-	
	2.20E-08	**7.45E-07**	**5.77E-07**	**1.43E-06**	**-**	**5.72E-08**	**2.68E-06**	**6.17E-08**	

Offroad									
Equipment	(2-buta	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)
Category		91203	110543	95476	115071	106423	100425	108883	107028
HHDT-DSL		-	-	-	-	-	-	-	-
Dust		-	-	-	-	-	-	-	-
Graders		-	-	-	-	-	-	-	-
Rollers		-	-	-	-	-	-	-	-
LDA-TOT		5.86E-09	1.99E-07	1.54E-07	3.80E-07	-	1.53E-08	7.15E-07	1.64E-08
Dust		-	-	-	-	-	-	-	-
		5.86E-09	**1.99E-07**	**1.54E-07**	**3.80E-07**	**-**	**1.53E-08**	**7.15E-07**	**1.64E-08**
Tractors/Loaders/Backhoes		-	-	-	-	-	-	-	-
Trenchers		-	-	-	-	-	-	-	-
LDT2-TOT		3.45E-09	1.17E-07	9.07E-08	2.24E-07	-	8.99E-09	4.22E-07	9.70E-09
Dust		-	-	-	-	-	-	-	-
LDA-TOT		5.86E-09	1.99E-07	1.54E-07	3.80E-07	-	1.53E-08	7.15E-07	1.64E-08
Dust		-	-	-	-	-	-	-	-
		9.31E-09	**3.16E-07**	**2.44E-07**	**6.05E-07**	**-**	**2.42E-08**	**1.14E-06**	**2.61E-08**
Concrete/Industrial Saws		-	-	-	-	-	-	-	-
Rubber Tired Loaders		-	-	-	-	-	-	-	-
HHDT-DSL		-	-	-	-	-	-	-	-
Dust		-	-	-	-	-	-	-	-
HHDT-DSL		-	-	-	-	-	-	-	-
Dust		-	-	-	-	-	-	-	-
LDT2-TOT		1.73E-09	5.86E-08	4.53E-08	1.12E-07	-	4.50E-09	2.11E-07	4.85E-09
Dust		-	-	-	-	-	-	-	-
LDA-TOT		3.66E-09	1.24E-07	9.61E-08	2.38E-07	-	9.53E-09	4.47E-07	1.03E-08
Dust		-	-	-	-	-	-	-	-
		5.39E-09	**1.83E-07**	**1.41E-07**	**3.50E-07**	**-**	**1.40E-08**	**6.58E-07**	**1.51E-08**
Graders		-	-	-	-	-	-	-	-
Rubber Tired Dozers		-	-	-	-	-	-	-	-
Rollers		-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	-
LDA-TOT		2.93E-09	9.93E-08	7.69E-08	1.90E-07	-	7.63E-09	3.57E-07	8.22E-09
Dust		-	-	-	-	-	-	-	-
		2.93E-09	**9.93E-08**	**7.69E-08**	**1.90E-07**	**-**	**7.63E-09**	**3.57E-07**	**8.22E-09**
Tractors/Loaders/Backhoes		-	-	-	-	-	-	-	-
Pavers		-	-	-	-	-	-	-	-
HHDT-DSL		-	-	-	-	-	-	-	-
Dust		-	-	-	-	-	-	-	-
LDT2-TOT		1.73E-09	5.86E-08	4.53E-08	1.12E-07	-	4.50E-09	2.11E-07	4.85E-09
Dust		-	-	-	-	-	-	-	-
		-	-	4.88E-05	-	-	-	8.44E-05	-
LDA-TOT		2.93E-09	9.93E-08	7.69E-08	1.90E-07	-	7.63E-09	3.57E-07	8.22E-09
Dust		-	-	-	-	-	-	-	-

Offroad									
Equipment	(2-buta	naphthalene	n-hexane	o-xylene	propene	p-xylene	styrene	toluene	acrolein (2-propenal)
Category	91203	110543	95476	115071	106423	100425	108883	107028	
	4.66E-09	**1.58E-07**	**4.89E-05**	**3.02E-07**	**-**	**1.21E-08**	**8.50E-05**	**1.31E-08**	
Trenchers	-	-	-	-	-	-	-	-	
LDA-TOT	5.49E-09	1.86E-07	1.44E-07	3.57E-07	-	1.43E-08	6.70E-07	1.54E-08	
Dust	-	-	-	-	-	-	-	-	
	5.49E-09	**1.86E-07**	**1.44E-07**	**3.57E-07**	**-**	**1.43E-08**	**6.70E-07**	**1.54E-08**	
Trenchers	-	-	-	-	-	-	-	-	
LDA-TOT	1.83E-09	6.21E-08	4.80E-08	1.19E-07	-	4.77E-09	2.23E-07	5.14E-09	
Dust	-	-	-	-	-	-	-	-	
	1.83E-09	**6.21E-08**	**4.80E-08**	**1.19E-07**	**-**	**4.77E-09**	**2.23E-07**	**5.14E-09**	
Air Compressors	-	-	-	-	-	-	-	-	
HHDT-DSL	-	-	-	-	-	-	-	-	
Dust	-	-	-	-	-	-	-	-	
HHDT-DSL	-	-	-	-	-	-	-	-	
Dust	-	-	-	-	-	-	-	-	
Off-Highway Trucks	-	-	-	-	-	-	-	-	
Tractors/Loaders/Backhoes	-	-	-	-	-	-	-	-	
Cranes	-	-	-	-	-	-	-	-	
Forklifts	-	-	-	-	-	-	-	-	
LDA-TOT	1.98E-07	6.70E-06	5.19E-06	1.28E-05	-	5.15E-07	2.41E-05	5.55E-07	
Dust	-	-	-	-	-	-	-	-	
	1.98E-07	**6.70E-06**	**5.19E-06**	**1.28E-05**	**-**	**5.15E-07**	**2.41E-05**	**5.55E-07**	
HHDT-DSL	-	-	-	-	-	-	-	-	
Dust	-	-	-	-	-	-	-	-	
	-	-	-	-	-	-	-	-	
	2.55E-07	**8.65E-06**	**5.55E-05**	**1.66E-05**	**0.00E+00**	**6.64E-07**	**1.16E-04**	**7.16E-07**	

Appendix H

Boatyard Analysis – A Review of Boatyard Market Demand Data

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BOATYARD ANALYSIS

A Review of Boatyard Market Demand Data

January 2012

THE PORT OF LOS ANGELES

Prepared by the Business Development Bureau

BOATYARD ANALYSIS REPORT

January 2012

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2 BACKGROUND 1
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1 EXECUTIVE SUMMARY

The Port of Los Angeles (Port) currently has sufficient capacity to accommodate most of the commercial vessel services within the Port. There is limited capacity to accommodate demand from recreational vessels berthed at the Port, but these vessels do have access to boatyard facilities elsewhere in the region. For those commercial vessels that cannot be accommodated by boatyards within the Port, there are no comparable facilities within the local region. As future demand for commercial boatyard service increases, the existing capacity at the Port will become increasingly strained, and so the Port should identify sites for potential boatyard expansion. This capacity can also be used to accommodate market demand from local recreational vessels.

2 BACKGROUND

As part of the Terminal Island planning process, this report provides a general overview of the potential demand for additional boatyard capacity. The Los Angeles Harbor Department (LAHD) has been directed by the Los Angeles City Council to identify potential boatyard sites on Terminal Island; in addition, the Port Community Advisory Committee (PCAC) has asked the LAHD to examine existing boatyard capacity. In response, LAHD staff have reviewed data from the Marine Exchange and the U.S. Coast Guard and interviewed shipyard and boatyard operators both locally and throughout the West Coast.

3 COMPETITIVE ENVIRONMENT

The Port currently supports one large ship repair facility with the ability to haul out vessels up to 250 feet and service vessels in-water up to 450 feet, Al Larson Boat Shop. There are two smaller repair facilities that service ships under 100 feet: Colonial Yacht Anchorage and Wilmington Boat Repair. In addition, Gambol Industries has a facility in the Port of Long Beach with the ability to haul vessels up to 150 feet and service vessels in-water up to 350 feet. There are also smaller ship repair firms that provide in-water service, including Oceanwide Ship Repair in Long Beach and Dockside Machine and Ship Repair in Wilmington. Al Larson submitted an application to the LAHD in June 2008 to expand and upgrade their existing facilities, which would increase the capacity for ship repairs in the San Pedro Bay, provide jobs and potentially reduce costs for larger ships seeking repairs outside of their normal schedules. Consistent with the LAHD's Leasing Policy, LAHD is working with Al Larson Boat Shop, an existing long-term tenant, on their proposal.

In addition, the U.S. West Coast is home to 2 major shipbuilding yards and 12 major repair yards. San Diego is a major ship repair location; the shipbuilding and ship repair industries support 10,000 jobs in the San Diego region. Approximately 70% of the shipbuilding and ship repair work is performed for the U.S. Navy. As the U.S. Navy's demand for ship services has declined since the 1990s, San Diego's facilities have moved into civilian shipbuilding and ship repair. General Dynamics/NASSCO in San Diego is currently building 9 double-hulled PC1 Product/Chemical Tankers.

4 MARKET HISTORY

The shipbuilding and ship repair industries in the San Pedro Bay have been closely tied to the presence of the U.S. Navy. Without the presence of the U.S. Navy, the amount of work available was not sufficient to sustain the ship service industry at San Pedro Bay's historical levels. In 1983 the Port reported 6,018 workers employed at shipyards and boatworks. By 1986, that number had fallen to 4,034 workers. In 1991, the Port of Los Angeles' employment survey showed 1,164 full- and part-time workers in the shipbuilding and repair industries. By 1993 this number had fallen to 300 workers. In 1995, Southwest Marine exited the shipbuilding and repair market. Since that time, full- and part-time employment in the remaining boat repair industries has remained steady at about 400 full- and part-time workers.

5 MARKET DEMAND

The Marine Exchange records data for all ocean-going vessels calling at the Port, including their flag registry, size, previous port, previous foreign port, and destination. A review of one year's data showed 811 commercial vessel calls between 200 and 650 feet in length. Of these calls, 592 were performed by vessels that either came from or were going to another port not located on the North American West Coast. These ships presumably have easy access to lower cost foreign ship repair facilities. Only 219 calls, or 27% of the total number of calls, were performed by ships that were engaged in the coastal trade, (i.e., ships coming from and then going to another North American West Coast port). For most of these, their routes take them past the major shipyards of Portland or San Diego.

In addition to vessels engaged in the coastal trade, the market for commercial vessel boatyard services includes tugs and barges that are homeported in the San Pedro Bay. Ten barges larger than 270 feet currently travel to San Diego or Portland for servicing; however, 90% of the barges in San Pedro Bay are below this size and are currently served by existing ship repair facilities in San Pedro Bay, including Al Larson Boat Shop.

Interviews with West Coast shipbuilders and ship repair yards (in Seattle, San Diego, and Portland) indicated that U.S. shipbuilders face strong competition from foreign shipbuilders, and are operating on very tight profit margins. U.S. Navy requires that vessels be serviced in their homeports limits growth in areas with little to no naval presence, and foreign commercial ships are serviced in lower-cost foreign facilities. The only market for growth in boatyard services for commercial vessels appears to be barges and tugs. Such sized vessels could be serviced in-water or at the Al Larson facility assuming the company's expansion proposal is approved.

Besides commercial vessels, the Port is home to over 3,500 recreational vessels berthed at its 18 marinas. While some repair and maintenance work can be performed in-water, recreational boats also need the services of a dedicated boatyard facility. Existing boatyard facilities have limited slots available to

perform haul-out work, and scheduling conflicts can arise. Unlike commercial vessels, which can only find comparable boatyard facilities in San Diego, Northern California, or the Pacific Northwest, recreational vessels have access to regional boatyard facilities.

Existing boatyard facilities currently have capacity to accommodate the majority of the commercial vessels operating within the Port, and this capacity can be increased through existing proposed expansion projects. For long-term planning purposes, though, an estimate of capacity and demand needs to incorporate future growth projections. Cargo volumes through the Port may triple over the next 30 years. Because the average vessel size is also expected to increase over this time period, it is not the case that the need for barges and tugs at the Port will also triple over the same time period. However, the number of barges and tugs operating within the Port is certain to grow over the next 30 years, and boatyard capacity will need to expand to meet the resulting demand in boatyard services. Barge and tug services, and the repair facilities that sustain them, are essentially a support system for the movement of cargo through the Port, and long-term development plans should provide for the growth of the support system alongside the growth of the cargo terminals to avoid any future impacts to the Port's ability to provide competitive and efficient goods movement.

While the development of recreational boatyards is less central to the Port's strategic goal of remaining the nation's predominant ocean cargo gateway, and therefore has a lesser claim on the Port's limited land resources, the large number of recreational vessels at the Port provides an additional local market that could support an expansion of future boatyard capacity.

6 CONCLUSION

To accommodate marine support services in the future, as well as potentially improve the boatyard service levels available to the recreational boating community at the Port, the proposed Terminal Island Plan should designate additional land area for boatyard expansion. This land area should be considered to be an "opportunity site"; when market demand grows great enough to support boatyard capacity expansion, this additional land area will be available for this use.