# APPENDIX F

# AIR QUALITY/GHG DATA

# CalEEMod Output for Air Quality Analysis

# GE Site Remediation and Redevelopment Project Air Quality Analysis

**Alameda County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 10.00 | 1000sqft | 0.23 | 10,000.00 | 0 |
| Unrefrigerated Warehouse-No Rail | 525.00 | 1000sqft | 12.05 | 525,000.00 | 0 |
| Other Asphalt Surfaces | 10.00 | Acre | 10.00 | 435,600.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 63 |
| **Climate Zone** | 5 | | | **Operational Year** | 2022 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 294 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E's most recent CO2 Intensity Factor value from 2016.

Land Use - Based on project description and information from project applicant.

Construction Phase - Project-specific construction phases corresponding to current construction tasks.

Off-road Equipment - Project-specific information from project applicant.

Off-road Equipment - Project-specific information from project applicant.

Off-road Equipment - Project-specific information from project applicant.

Off-road Equipment - Project-specific information from project applicant.

Off-road Equipment - Project-specific information from project applicant.

Off-road Equipment - Project-specific information from project applicant.

Trips and VMT - Project-specific information from project applicant.

Demolition - Project-specific information from project applicant.

Grading - Project-specific information from project applicant.

Vehicle Trips - Trips rates adjusted based on traffic analysis. Trips for passenger vehicles associated with general office building were reduced by 10 percent based on the Transportation Demand Management Plan.

Water And Wastewater - EBMUD would service the proposed project and applies 100 percent aerobic process and 100 percent cogeneration.

Water Mitigation - CALGreen Code mandatory requirement. These emission reductions are considered unmitigated emissions.

Fleet Mix - Fleet mix adjusted to include only trucks for the warehouse and light passenger vehicles for the general office building.

Energy Use -

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 370.00 | 180.00 |
| tblConstructionPhase | NumDays | 20.00 | 85.00 |
| tblConstructionPhase | NumDays | 35.00 | 45.00 |
| tblConstructionPhase | NumDays | 20.00 | 50.00 |
| tblConstructionPhase | NumDays | 10.00 | 40.00 |
| tblConstructionPhase | NumDays | 10.00 | 35.00 |
| tblFleetMix | HHD | 0.05 | 0.00 |
| tblFleetMix | HHD | 0.05 | 0.23 |

| | | | |
|---|---|---|---|
| tblFleetMix | LDA | 0.56 | 0.62 |
| tblFleetMix | LDA | 0.56 | 0.33 |
| tblFleetMix | LDT1 | 0.04 | 0.04 |
| tblFleetMix | LDT1 | 0.04 | 0.02 |
| tblFleetMix | LDT2 | 0.19 | 0.21 |
| tblFleetMix | LDT2 | 0.19 | 0.11 |
| tblFleetMix | LHD1 | 0.02 | 0.00 |
| tblFleetMix | LHD1 | 0.02 | 0.08 |
| tblFleetMix | LHD2 | 5.2020e-003 | 0.00 |
| tblFleetMix | LHD2 | 5.2020e-003 | 0.03 |
| tblFleetMix | MCY | 5.5240e-003 | 6.1120e-003 |
| tblFleetMix | MCY | 5.5240e-003 | 3.2900e-003 |
| tblFleetMix | MDV | 0.11 | 0.12 |
| tblFleetMix | MDV | 0.11 | 0.06 |
| tblFleetMix | MH | 7.2100e-004 | 0.00 |
| tblFleetMix | MH | 7.2100e-004 | 0.00 |
| tblFleetMix | MHD | 0.02 | 0.00 |
| tblFleetMix | MHD | 0.02 | 0.12 |
| tblFleetMix | OBUS | 2.1840e-003 | 0.00 |
| tblFleetMix | OBUS | 2.1840e-003 | 0.00 |
| tblFleetMix | SBUS | 3.2600e-004 | 0.00 |
| tblFleetMix | SBUS | 3.2600e-004 | 0.00 |
| tblFleetMix | UBUS | 2.5610e-003 | 0.00 |
| tblFleetMix | UBUS | 2.5610e-003 | 0.00 |
| tblGrading | MaterialImported | 0.00 | 44,400.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 3.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 3.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 3.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Demolition |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Building Construction |
| tblOffRoadEquipment | PhaseName | | VIMS |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Demolition |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Building Construction |
| tblOffRoadEquipment | PhaseName | | Paving |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | VIMS |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | PhaseName | | Paving |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Paving |
| tblOffRoadEquipment | PhaseName | | Demolition |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Building Construction |
| tblOffRoadEquipment | PhaseName | | Building Construction |
| tblOffRoadEquipment | PhaseName | | Building Construction |
| tblOffRoadEquipment | PhaseName | | Paving |
| tblOffRoadEquipment | PhaseName | | Demolition |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Building Construction |
| tblOffRoadEquipment | PhaseName | | VIMS |
| tblOffRoadEquipment | PhaseName | | Demolition |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Building Construction |
| tblOffRoadEquipment | PhaseName | | Paving |
| tblOffRoadEquipment | UsageHours | 8.00 | 3.80 |
| tblOffRoadEquipment | UsageHours | 7.00 | 6.20 |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.60 |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.20 |
| tblOffRoadEquipment | UsageHours | 8.00 | 3.30 |
| tblOffRoadEquipment | UsageHours | 8.00 | 4.30 |
| tblOffRoadEquipment | UsageHours | 8.00 | 4.30 |
| tblOffRoadEquipment | UsageHours | 7.00 | 2.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | UsageHours | 7.00 | 6.20 |
| tblProjectCharacteristics | CO2IntensityFactor | 641.35 | 294 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 19.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 140.00 |
| tblTripsAndVMT | HaulingTripNumber | 1,415.00 | 1,590.00 |
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 594.00 |
| tblTripsAndVMT | HaulingTripNumber | 4,390.00 | 4,440.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 10.00 |
| tblTripsAndVMT | WorkerTripNumber | 43.00 | 8.00 |
| tblTripsAndVMT | WorkerTripNumber | 25.00 | 10.00 |
| tblTripsAndVMT | WorkerTripNumber | 407.00 | 40.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 6.00 |
| tblVehicleTrips | ST_TR | 2.46 | 1.61 |
| tblVehicleTrips | ST_TR | 1.68 | 1.40 |
| tblVehicleTrips | SU_TR | 1.05 | 0.69 |
| tblVehicleTrips | SU_TR | 1.68 | 1.40 |
| tblVehicleTrips | WD_TR | 11.03 | 7.20 |
| tblVehicleTrips | WD_TR | 1.68 | 1.40 |
| tblWater | AerobicPercent | 87.46 | 100.00 |
| tblWater | AerobicPercent | 87.46 | 100.00 |
| tblWater | AerobicPercent | 87.46 | 100.00 |
| tblWater | AnaDigestCogenCombDigestGasPercent | 0.00 | 100.00 |
| tblWater | AnaDigestCogenCombDigestGasPercent | 0.00 | 100.00 |
| tblWater | AnaDigestCogenCombDigestGasPercent | 0.00 | 100.00 |
| tblWater | AnaDigestCombDigestGasPercent | 100.00 | 0.00 |
| tblWater | AnaDigestCombDigestGasPercent | 100.00 | 0.00 |
| tblWater | AnaDigestCombDigestGasPercent | 100.00 | 0.00 |

| | | | |
|---|---|---|---|
| tblWater | AnaerobicandFacultativeLagoonsPercent | 2.21 | 0.00 |
| tblWater | AnaerobicandFacultativeLagoonsPercent | 2.21 | 0.00 |
| tblWater | AnaerobicandFacultativeLagoonsPercent | 2.21 | 0.00 |
| tblWater | SepticTankPercent | 10.33 | 0.00 |
| tblWater | SepticTankPercent | 10.33 | 0.00 |
| tblWater | SepticTankPercent | 10.33 | 0.00 |

## 2.0 Emissions Summary

## 2.1 Overall Construction

### Unmitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2020 | 0.4232 | 5.7464 | 2.9842 | 0.0112 | 0.4929 | 0.1771 | 0.6700 | 0.1506 | 0.1654 | 0.3160 | 0.0000 | 1,028.9453 | 1,028.9453 | 0.1540 | 0.0000 | 1,032.7948 |
| 2021 | 0.2039 | 2.4074 | 1.5565 | 4.5600e-003 | 0.1690 | 0.0844 | 0.2534 | 0.0759 | 0.0786 | 0.1546 | 0.0000 | 415.3118 | 415.3118 | 0.0704 | 0.0000 | 417.0720 |
| **Maximum** | **0.4232** | **5.7464** | **2.9842** | **0.0112** | **0.4929** | **0.1771** | **0.6700** | **0.1506** | **0.1654** | **0.3160** | **0.0000** | **1,028.9453** | **1,028.9453** | **0.1540** | **0.0000** | **1,032.7948** |

### Mitigated Construction

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2020 | 0.4232 | 5.7464 | 2.9842 | 0.0112 | 0.4929 | 0.1771 | 0.6700 | 0.1506 | 0.1654 | 0.3160 | 0.0000 | 1,028.9448 | 1,028.9448 | 0.1540 | 0.0000 | 1,032.7943 |
| 2021 | 0.2039 | 2.4074 | 1.5565 | 4.5600e-003 | 0.1690 | 0.0844 | 0.2534 | 0.0759 | 0.0786 | 0.1546 | 0.0000 | 415.3115 | 415.3115 | 0.0704 | 0.0000 | 417.0717 |
| **Maximum** | **0.4232** | **5.7464** | **2.9842** | **0.0112** | **0.4929** | **0.1771** | **0.6700** | **0.1506** | **0.1654** | **0.3160** | **0.0000** | **1,028.9448** | **1,028.9448** | **0.1540** | **0.0000** | **1,032.7943** |

| | **ROG** | **NOx** | **CO** | **SO2** | **Fugitive PM10** | **Exhaust PM10** | **PM10 Total** | **Fugitive PM2.5** | **Exhaust PM2.5** | **PM2.5 Total** | **Bio- CO2** | **NBio-CO2** | **Total CO2** | **CH4** | **N20** | **CO2e** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| 1 | 1-1-2020 | 3-31-2020 | 0.7741 | 0.7741 |
| 2 | 4-1-2020 | 6-30-2020 | 1.7829 | 1.7829 |
| 3 | 7-1-2020 | 9-30-2020 | 2.1107 | 2.1107 |
| 4 | 10-1-2020 | 12-31-2020 | 1.4588 | 1.4588 |
| 5 | 1-1-2021 | 3-31-2021 | 1.2902 | 1.2902 |
| 6 | 4-1-2021 | 6-30-2021 | 0.9288 | 0.9288 |
| 7 | 7-1-2021 | 9-30-2021 | 0.4014 | 0.4014 |
| | | Highest | 2.1107 | 2.1107 |

## 2.2 Overall Operational

### Unmitigated Operational

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 2.4061 | 5.0000e-005 | 5.0200e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 9.7400e-003 | 9.7400e-003 | 3.0000e-005 | 0.0000 | 0.0104 |
| Energy | 4.9800e-003 | 0.0453 | 0.0380 | 2.7000e-004 | | 3.4400e-003 | 3.4400e-003 | | 3.4400e-003 | 3.4400e-003 | 0.0000 | 331.2457 | 331.2457 | 0.0288 | 6.6600e-003 | 333.9488 |
| Mobile | 0.3183 | 6.1492 | 2.9116 | 0.0211 | 0.9003 | 0.0183 | 0.9186 | 0.2474 | 0.0174 | 0.2648 | 0.0000 | 1,991.3103 | 1,991.3103 | 0.1006 | 0.0000 | 1,993.8246 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 102.0639 | 0.0000 | 102.0639 | 6.0318 | 0.0000 | 252.8589 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 43.5826 | 81.1172 | 124.6997 | 0.1580 | 0.0964 | 157.3870 |
| **Total** | **2.7294** | **6.1945** | **2.9547** | **0.0213** | **0.9003** | **0.0218** | **0.9221** | **0.2474** | **0.0209** | **0.2683** | **145.6464** | **2,403.6829** | **2,549.3294** | **6.3192** | **0.1031** | **2,738.0296** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | 2.4061 | 5.0000e-005 | 5.0200e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 9.7400e-003 | 9.7400e-003 | 3.0000e-005 | 0.0000 | 0.0104 |
| Energy | 4.9800e-003 | 0.0453 | 0.0380 | 2.7000e-004 | | 3.4400e-003 | 3.4400e-003 | | 3.4400e-003 | 3.4400e-003 | 0.0000 | 331.2457 | 331.2457 | 0.0288 | 6.6600e-003 | 333.9488 |
| Mobile | 0.3183 | 6.1492 | 2.9116 | 0.0211 | 0.9003 | 0.0183 | 0.9186 | 0.2474 | 0.0174 | 0.2648 | 0.0000 | 1,991.3103 | 1,991.3103 | 0.1006 | 0.0000 | 1,993.8246 |
| Waste | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 102.0639 | 0.0000 | 102.0639 | 6.0318 | 0.0000 | 252.8589 |
| Water | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 34.8660 | 64.9954 | 99.8615 | 0.1264 | 0.0772 | 126.0122 |
| **Total** | **2.7294** | **6.1945** | **2.9547** | **0.0213** | **0.9003** | **0.0218** | **0.9221** | **0.2474** | **0.0209** | **0.2683** | **136.9299** | **2,387.5612** | **2,524.4911** | **6.2876** | **0.0838** | **2,706.6547** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **5.98** | **0.67** | **0.97** | **0.50** | **18.70** | **1.15** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/1/2020 | 4/28/2020 | 5 | 85 | |
| 2 | Remediation | Site Preparation | 4/29/2020 | 6/23/2020 | 5 | 40 | Removal and remediation of contaminated materials |
| 3 | Grading | Grading | 6/24/2020 | 8/25/2020 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 8/26/2020 | 5/4/2021 | 5 | 180 | Construction/Architectural Coatings |
| 5 | Paving | Paving | 5/5/2021 | 7/13/2021 | 5 | 50 | Paving, utility connections, landscaping |
| 6 | VIMS | Site Preparation | 7/14/2021 | 8/31/2021 | 5 | 35 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 70.88**

**Acres of Paving: 10**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Aerial Lifts | 1 | 4.20 | 63 | 0.31 |
| Demolition | Concrete/Industrial Saws | 1 | 3.80 | 81 | 0.73 |
| Demolition | Crushing/Proc. Equipment | 1 | 6.10 | 85 | 0.78 |
| Demolition | Excavators | 1 | 6.60 | 158 | 0.38 |
| Demolition | Off-Highway Trucks | 1 | 1.40 | 402 | 0.38 |
| Demolition | Rubber Tired Dozers | 1 | 3.30 | 247 | 0.40 |
| Demolition | Rubber Tired Loaders | 1 | 7.10 | 203 | 0.36 |
| Demolition | Tractors/Loaders/Backhoes | 1 | 0.30 | 97 | 0.37 |
| Remediation | Aerial Lifts | 1 | 8.00 | 63 | 0.31 |
| Remediation | Bore/Drill Rigs | 1 | 4.00 | 221 | 0.50 |

| | | | | | |
|---|---|---|---|---|---|
| Remediation | Concrete/Industrial Saws | 2 | 6.00 | 81 | 0.73 |
| Remediation | Cranes | 1 | 8.00 | 231 | 0.29 |
| Remediation | Excavators | 3 | 6.70 | 158 | 0.38 |
| Remediation | Forklifts | 3 | 6.00 | 89 | 0.20 |
| Remediation | Off-Highway Trucks | 1 | 4.00 | 402 | 0.38 |
| Remediation | Rubber Tired Loaders | 3 | 6.70 | 203 | 0.36 |
| Remediation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Remediation | Trenchers | 1 | 8.00 | 78 | 0.50 |
| Grading | Excavators | 1 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Off-Highway Tractors | 2 | 4.30 | 124 | 0.44 |
| Grading | Off-Highway Trucks | 1 | 4.00 | 402 | 0.38 |
| Grading | Rubber Tired Dozers | 2 | 4.30 | 247 | 0.40 |
| Grading | Rubber Tired Loaders | 1 | 8.00 | 203 | 0.36 |
| Grading | Scrapers | 2 | 4.30 | 367 | 0.48 |
| Building Construction | Aerial Lifts | 1 | 6.20 | 63 | 0.31 |
| Building Construction | Cranes | 1 | 6.20 | 231 | 0.29 |
| Building Construction | Excavators | 1 | 2.00 | 158 | 0.38 |
| Building Construction | Forklifts | 1 | 6.20 | 89 | 0.20 |
| Building Construction | Off-Highway Trucks | 1 | 0.50 | 402 | 0.38 |
| Building Construction | Paving Equipment | 1 | 7.60 | 132 | 0.36 |
| Building Construction | Pumps | 1 | 7.60 | 84 | 0.74 |
| Building Construction | Rubber Tired Loaders | 2 | 4.10 | 203 | 0.36 |
| Building Construction | Tractors/Loaders/Backhoes | 1 | 2.00 | 97 | 0.37 |
| Building Construction | Tractors/Loaders/Backhoes | 1 | 6.20 | 97 | 0.37 |
| Building Construction | Trenchers | 2 | 4.10 | 78 | 0.50 |
| Paving | Excavators | 1 | 8.00 | 158 | 0.38 |

| | | | | | |
|---|---|---|---|---|---|
| Paving | Graders | 1 | 8.00 | 187 | 0.41 |
| Paving | Off-Highway Tractors | 1 | 8.00 | 124 | 0.44 |
| Paving | Paving Equipment | 1 | 8.00 | 132 | 0.36 |
| Paving | Pumps | 1 | 8.00 | 84 | 0.74 |
| Paving | Trenchers | 1 | 8.00 | 78 | 0.50 |
| VIMS | Aerial Lifts | 1 | 8.00 | 63 | 0.31 |
| VIMS | Forklifts | 1 | 8.00 | 89 | 0.20 |
| VIMS | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| VIMS | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| VIMS | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 8 | 10.00 | 0.00 | 1,590.00 | 10.80 | 7.30 | 19.00 | LD_Mix | HDT_Mix | HHDT |
| Remediation | 17 | 8.00 | 0.00 | 594.00 | 10.80 | 7.30 | 140.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 10 | 10.00 | 0.00 | 4,440.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 13 | 40.00 | 159.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| VIMS | 5 | 6.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Demolition - 2020

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1531 | 0.0000 | 0.1531 | 0.0232 | 0.0000 | 0.0232 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0741 | 0.7040 | 0.5206 | 1.0600e-003 | | 0.0334 | 0.0334 | | 0.0317 | 0.0317 | 0.0000 | 92.5170 | 92.5170 | 0.0222 | 0.0000 | 93.0726 |
| **Total** | **0.0741** | **0.7040** | **0.5206** | **1.0600e-003** | **0.1531** | **0.0334** | **0.1865** | **0.0232** | **0.0317** | **0.0549** | **0.0000** | **92.5170** | **92.5170** | **0.0222** | **0.0000** | **93.0726** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 6.4700e-003 | 0.2241 | 0.0392 | 6.0000e-004 | 0.0128 | 7.1000e-004 | 0.0135 | 3.5200e-003 | 6.7000e-004 | 4.1900e-003 | 0.0000 | 58.2419 | 58.2419 | 3.0000e-003 | 0.0000 | 58.3168 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.4700e-003 | 1.0800e-003 | 0.0111 | 3.0000e-005 | 3.3600e-003 | 2.0000e-005 | 3.3800e-003 | 8.9000e-004 | 2.0000e-005 | 9.2000e-004 | 0.0000 | 2.9871 | 2.9871 | 8.0000e-005 | 0.0000 | 2.9891 |
| **Total** | **7.9400e-003** | **0.2252** | **0.0503** | **6.3000e-004** | **0.0162** | **7.3000e-004** | **0.0169** | **4.4100e-003** | **6.9000e-004** | **5.1100e-003** | **0.0000** | **61.2291** | **61.2291** | **3.0800e-003** | **0.0000** | **61.3059** |

## 3.2 Demolition - 2020

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1531 | 0.0000 | 0.1531 | 0.0232 | 0.0000 | 0.0232 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0741 | 0.7040 | 0.5205 | 1.0600e-003 | | 0.0334 | 0.0334 | | 0.0317 | 0.0317 | 0.0000 | 92.5169 | 92.5169 | 0.0222 | 0.0000 | 93.0725 |
| **Total** | **0.0741** | **0.7040** | **0.5205** | **1.0600e-003** | **0.1531** | **0.0334** | **0.1865** | **0.0232** | **0.0317** | **0.0549** | **0.0000** | **92.5169** | **92.5169** | **0.0222** | **0.0000** | **93.0725** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 6.4700e-003 | 0.2241 | 0.0392 | 6.0000e-004 | 0.0128 | 7.1000e-004 | 0.0135 | 3.5200e-003 | 6.7000e-004 | 4.1900e-003 | 0.0000 | 58.2419 | 58.2419 | 3.0000e-003 | 0.0000 | 58.3168 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.4700e-003 | 1.0800e-003 | 0.0111 | 3.0000e-005 | 3.3600e-003 | 2.0000e-005 | 3.3800e-003 | 8.9000e-004 | 2.0000e-005 | 9.2000e-004 | 0.0000 | 2.9871 | 2.9871 | 8.0000e-005 | 0.0000 | 2.9891 |
| **Total** | **7.9400e-003** | **0.2252** | **0.0503** | **6.3000e-004** | **0.0162** | **7.3000e-004** | **0.0169** | **4.4100e-003** | **6.9000e-004** | **5.1100e-003** | **0.0000** | **61.2291** | **61.2291** | **3.0800e-003** | **0.0000** | **61.3059** |

## 3.3 Remediation - 2020

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0820 | 0.8374 | 0.6315 | 1.3300e-003 | | 0.0399 | 0.0399 | | 0.0372 | 0.0372 | 0.0000 | 116.8868 | 116.8868 | 0.0336 | 0.0000 | 117.7270 |
| **Total** | **0.0820** | **0.8374** | **0.6315** | **1.3300e-003** | **0.0000** | **0.0399** | **0.0399** | **0.0000** | **0.0372** | **0.0372** | **0.0000** | **116.8868** | **116.8868** | **0.0336** | **0.0000** | **117.7270** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0144 | 0.4332 | 0.0862 | 1.4600e-003 | 0.0352 | 1.8500e-003 | 0.0370 | 9.6800e-003 | 1.7700e-003 | 0.0114 | 0.0000 | 140.4429 | 140.4429 | 4.2600e-003 | 0.0000 | 140.5495 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.5000e-004 | 4.1000e-004 | 4.1900e-003 | 1.0000e-005 | 1.2700e-003 | 1.0000e-005 | 1.2700e-003 | 3.4000e-004 | 1.0000e-005 | 3.4000e-004 | 0.0000 | 1.1246 | 1.1246 | 3.0000e-005 | 0.0000 | 1.1253 |
| **Total** | **0.0149** | **0.4336** | **0.0904** | **1.4700e-003** | **0.0364** | **1.8600e-003** | **0.0383** | **0.0100** | **1.7800e-003** | **0.0118** | **0.0000** | **141.5675** | **141.5675** | **4.2900e-003** | **0.0000** | **141.6748** |

## 3.3 Remediation - 2020

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0820 | 0.8374 | 0.6315 | 1.3300e-003 | | 0.0399 | 0.0399 | | 0.0372 | 0.0372 | 0.0000 | 116.8867 | 116.8867 | 0.0336 | 0.0000 | 117.7269 |
| **Total** | **0.0820** | **0.8374** | **0.6315** | **1.3300e-003** | **0.0000** | **0.0399** | **0.0399** | **0.0000** | **0.0372** | **0.0372** | **0.0000** | **116.8867** | **116.8867** | **0.0336** | **0.0000** | **117.7269** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0144 | 0.4332 | 0.0862 | 1.4600e-003 | 0.0352 | 1.8500e-003 | 0.0370 | 9.6800e-003 | 1.7700e-003 | 0.0114 | 0.0000 | 140.4429 | 140.4429 | 4.2600e-003 | 0.0000 | 140.5495 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 5.5000e-004 | 4.1000e-004 | 4.1900e-003 | 1.0000e-005 | 1.2700e-003 | 1.0000e-005 | 1.2700e-003 | 3.4000e-004 | 1.0000e-005 | 3.4000e-004 | 0.0000 | 1.1246 | 1.1246 | 3.0000e-005 | 0.0000 | 1.1253 |
| **Total** | **0.0149** | **0.4336** | **0.0904** | **1.4700e-003** | **0.0364** | **1.8600e-003** | **0.0383** | **0.0100** | **1.7800e-003** | **0.0118** | **0.0000** | **141.5675** | **141.5675** | **4.2900e-003** | **0.0000** | **141.6748** |

## 3.4 Grading - 2020

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1852 | 0.0000 | 0.1852 | 0.0844 | 0.0000 | 0.0844 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0885 | 0.9926 | 0.5492 | 1.2400e-003 | | 0.0408 | 0.0408 | | 0.0376 | 0.0376 | 0.0000 | 109.0584 | 109.0584 | 0.0353 | 0.0000 | 109.9402 |
| **Total** | **0.0885** | **0.9926** | **0.5492** | **1.2400e-003** | **0.1852** | **0.0408** | **0.2261** | **0.0844** | **0.0376** | **0.1220** | **0.0000** | **109.0584** | **109.0584** | **0.0353** | **0.0000** | **109.9402** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0188 | 0.6474 | 0.1139 | 1.7600e-003 | 0.0376 | 2.0700e-003 | 0.0397 | 0.0104 | 1.9800e-003 | 0.0123 | 0.0000 | 169.9695 | 169.9695 | 8.5600e-003 | 0.0000 | 170.1835 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.8000e-004 | 5.7000e-004 | 5.8900e-003 | 2.0000e-005 | 1.7800e-003 | 1.0000e-005 | 1.7900e-003 | 4.7000e-004 | 1.0000e-005 | 4.8000e-004 | 0.0000 | 1.5814 | 1.5814 | 4.0000e-005 | 0.0000 | 1.5825 |
| **Total** | **0.0196** | **0.6480** | **0.1197** | **1.7800e-003** | **0.0394** | **2.0800e-003** | **0.0415** | **0.0108** | **1.9900e-003** | **0.0128** | **0.0000** | **171.5509** | **171.5509** | **8.6000e-003** | **0.0000** | **171.7659** |

## 3.4 Grading - 2020

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1852 | 0.0000 | 0.1852 | 0.0844 | 0.0000 | 0.0844 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0885 | 0.9926 | 0.5492 | 1.2400e-003 | | 0.0408 | 0.0408 | | 0.0376 | 0.0376 | 0.0000 | 109.0583 | 109.0583 | 0.0353 | 0.0000 | 109.9401 |
| **Total** | **0.0885** | **0.9926** | **0.5492** | **1.2400e-003** | **0.1852** | **0.0408** | **0.2261** | **0.0844** | **0.0376** | **0.1220** | **0.0000** | **109.0583** | **109.0583** | **0.0353** | **0.0000** | **109.9401** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0188 | 0.6474 | 0.1139 | 1.7600e-003 | 0.0376 | 2.0700e-003 | 0.0397 | 0.0104 | 1.9800e-003 | 0.0123 | 0.0000 | 169.9695 | 169.9695 | 8.5600e-003 | 0.0000 | 170.1835 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 7.8000e-004 | 5.7000e-004 | 5.8900e-003 | 2.0000e-005 | 1.7800e-003 | 1.0000e-005 | 1.7900e-003 | 4.7000e-004 | 1.0000e-005 | 4.8000e-004 | 0.0000 | 1.5814 | 1.5814 | 4.0000e-005 | 0.0000 | 1.5825 |
| **Total** | **0.0196** | **0.6480** | **0.1197** | **1.7800e-003** | **0.0394** | **2.0800e-003** | **0.0415** | **0.0108** | **1.9900e-003** | **0.0128** | **0.0000** | **171.5509** | **171.5509** | **8.6000e-003** | **0.0000** | **171.7659** |

## 3.5 Building Construction - 2020

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1023 | 1.0413 | 0.7891 | 1.4800e-003 | | 0.0542 | 0.0542 | | 0.0506 | 0.0506 | 0.0000 | 129.7403 | 129.7403 | 0.0355 | 0.0000 | 130.6265 |
| **Total** | **0.1023** | **1.0413** | **0.7891** | **1.4800e-003** | | **0.0542** | **0.0542** | | **0.0506** | **0.0506** | **0.0000** | **129.7403** | **129.7403** | **0.0355** | **0.0000** | **130.6265** |

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0275 | 0.8597 | 0.1853 | 2.0200e-003 | 0.0480 | 3.9900e-003 | 0.0520 | 0.0139 | 3.8200e-003 | 0.0177 | 0.0000 | 193.4629 | 193.4629 | 0.0111 | 0.0000 | 193.7410 |
| Worker | 6.3600e-003 | 4.7000e-003 | 0.0481 | 1.4000e-004 | 0.0146 | 1.0000e-004 | 0.0147 | 3.8700e-003 | 9.0000e-005 | 3.9600e-003 | 0.0000 | 12.9325 | 12.9325 | 3.3000e-004 | 0.0000 | 12.9409 |
| **Total** | **0.0338** | **0.8644** | **0.2334** | **2.1600e-003** | **0.0626** | **4.0900e-003** | **0.0667** | **0.0178** | **3.9100e-003** | **0.0217** | **0.0000** | **206.3954** | **206.3954** | **0.0115** | **0.0000** | **206.6819** |

## 3.5 Building Construction - 2020

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.1023 | 1.0413 | 0.7891 | 1.4800e-003 | | 0.0542 | 0.0542 | | 0.0506 | 0.0506 | 0.0000 | 129.7401 | 129.7401 | 0.0355 | 0.0000 | 130.6264 |
| **Total** | **0.1023** | **1.0413** | **0.7891** | **1.4800e-003** | | **0.0542** | **0.0542** | | **0.0506** | **0.0506** | **0.0000** | **129.7401** | **129.7401** | **0.0355** | **0.0000** | **130.6264** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0275 | 0.8597 | 0.1853 | 2.0200e-003 | 0.0480 | 3.9900e-003 | 0.0520 | 0.0139 | 3.8200e-003 | 0.0177 | 0.0000 | 193.4629 | 193.4629 | 0.0111 | 0.0000 | 193.7410 |
| Worker | 6.3600e-003 | 4.7000e-003 | 0.0481 | 1.4000e-004 | 0.0146 | 1.0000e-004 | 0.0147 | 3.8700e-003 | 9.0000e-005 | 3.9600e-003 | 0.0000 | 12.9325 | 12.9325 | 3.3000e-004 | 0.0000 | 12.9409 |
| **Total** | **0.0338** | **0.8644** | **0.2334** | **2.1600e-003** | **0.0626** | **4.0900e-003** | **0.0667** | **0.0178** | **3.9100e-003** | **0.0217** | **0.0000** | **206.3954** | **206.3954** | **0.0115** | **0.0000** | **206.6819** |

## 3.5 Building Construction - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0891 | 0.8977 | 0.7448 | 1.4200e-003 | | 0.0454 | 0.0454 | | 0.0424 | 0.0424 | 0.0000 | 124.1082 | 124.1082 | 0.0338 | 0.0000 | 124.9529 |
| **Total** | **0.0891** | **0.8977** | **0.7448** | **1.4200e-003** | | **0.0454** | **0.0454** | | **0.0424** | **0.0424** | **0.0000** | **124.1082** | **124.1082** | **0.0338** | **0.0000** | **124.9529** |

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0217 | 0.7483 | 0.1585 | 1.9100e-003 | 0.0460 | 1.5600e-003 | 0.0475 | 0.0133 | 1.4900e-003 | 0.0148 | 0.0000 | 183.2746 | 183.2746 | 0.0101 | 0.0000 | 183.5263 |
| Worker | 5.6200e-003 | 4.0100e-003 | 0.0420 | 1.3000e-004 | 0.0139 | 9.0000e-005 | 0.0140 | 3.7000e-003 | 9.0000e-005 | 3.7900e-003 | 0.0000 | 11.9411 | 11.9411 | 2.9000e-004 | 0.0000 | 11.9483 |
| **Total** | **0.0273** | **0.7523** | **0.2005** | **2.0400e-003** | **0.0599** | **1.6500e-003** | **0.0615** | **0.0170** | **1.5800e-003** | **0.0186** | **0.0000** | **195.2158** | **195.2158** | **0.0104** | **0.0000** | **195.4746** |

## 3.5 Building Construction - 2021

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0891 | 0.8977 | 0.7448 | 1.4200e-003 | | 0.0454 | 0.0454 | | 0.0424 | 0.0424 | 0.0000 | 124.1081 | 124.1081 | 0.0338 | 0.0000 | 124.9527 |
| **Total** | **0.0891** | **0.8977** | **0.7448** | **1.4200e-003** | | **0.0454** | **0.0454** | | **0.0424** | **0.0424** | **0.0000** | **124.1081** | **124.1081** | **0.0338** | **0.0000** | **124.9527** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0217 | 0.7483 | 0.1585 | 1.9100e-003 | 0.0460 | 1.5600e-003 | 0.0475 | 0.0133 | 1.4900e-003 | 0.0148 | 0.0000 | 183.2746 | 183.2746 | 0.0101 | 0.0000 | 183.5263 |
| Worker | 5.6200e-003 | 4.0100e-003 | 0.0420 | 1.3000e-004 | 0.0139 | 9.0000e-005 | 0.0140 | 3.7000e-003 | 9.0000e-005 | 3.7900e-003 | 0.0000 | 11.9411 | 11.9411 | 2.9000e-004 | 0.0000 | 11.9483 |
| **Total** | **0.0273** | **0.7523** | **0.2005** | **2.0400e-003** | **0.0599** | **1.6500e-003** | **0.0615** | **0.0170** | **1.5800e-003** | **0.0186** | **0.0000** | **195.2158** | **195.2158** | **0.0104** | **0.0000** | **195.4746** |

## 3.6 Paving - 2021

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0472 | 0.4825 | 0.4256 | 7.6000e-004 | | 0.0236 | 0.0236 | | 0.0221 | 0.0221 | 0.0000 | 66.7092 | 66.7092 | 0.0178 | 0.0000 | 67.1536 |
| Paving | 0.0131 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0603** | **0.4825** | **0.4256** | **7.6000e-004** | | **0.0236** | **0.0236** | | **0.0221** | **0.0221** | **0.0000** | **66.7092** | **66.7092** | **0.0178** | **0.0000** | **67.1536** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.2000e-003 | 8.5000e-004 | 8.9400e-003 | 3.0000e-005 | 2.9700e-003 | 2.0000e-005 | 2.9800e-003 | 7.9000e-004 | 2.0000e-005 | 8.1000e-004 | 0.0000 | 2.5443 | 2.5443 | 6.0000e-005 | 0.0000 | 2.5458 |
| **Total** | **1.2000e-003** | **8.5000e-004** | **8.9400e-003** | **3.0000e-005** | **2.9700e-003** | **2.0000e-005** | **2.9800e-003** | **7.9000e-004** | **2.0000e-005** | **8.1000e-004** | **0.0000** | **2.5443** | **2.5443** | **6.0000e-005** | **0.0000** | **2.5458** |

## 3.6 Paving - 2021

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | 0.0472 | 0.4825 | 0.4256 | 7.6000e-004 | | 0.0236 | 0.0236 | | 0.0221 | 0.0221 | 0.0000 | 66.7091 | 66.7091 | 0.0178 | 0.0000 | 67.1535 |
| Paving | 0.0131 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | **0.0603** | **0.4825** | **0.4256** | **7.6000e-004** | | **0.0236** | **0.0236** | | **0.0221** | **0.0221** | **0.0000** | **66.7091** | **66.7091** | **0.0178** | **0.0000** | **67.1535** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 1.2000e-003 | 8.5000e-004 | 8.9400e-003 | 3.0000e-005 | 2.9700e-003 | 2.0000e-005 | 2.9800e-003 | 7.9000e-004 | 2.0000e-005 | 8.1000e-004 | 0.0000 | 2.5443 | 2.5443 | 6.0000e-005 | 0.0000 | 2.5458 |
| **Total** | **1.2000e-003** | **8.5000e-004** | **8.9400e-003** | **3.0000e-005** | **2.9700e-003** | **2.0000e-005** | **2.9800e-003** | **7.9000e-004** | **2.0000e-005** | **8.1000e-004** | **0.0000** | **2.5443** | **2.5443** | **6.0000e-005** | **0.0000** | **2.5458** |

## 3.7 VIMS - 2021

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1054 | 0.0000 | 0.1054 | 0.0579 | 0.0000 | 0.0579 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0258 | 0.2739 | 0.1741 | 3.0000e-004 | | 0.0137 | 0.0137 | | 0.0126 | 0.0126 | 0.0000 | 26.0219 | 26.0219 | 8.4200e-003 | 0.0000 | 26.2323 |
| **Total** | **0.0258** | **0.2739** | **0.1741** | **3.0000e-004** | **0.1054** | **0.0137** | **0.1190** | **0.0579** | **0.0126** | **0.0705** | **0.0000** | **26.0219** | **26.0219** | **8.4200e-003** | **0.0000** | **26.2323** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.4000e-004 | 2.4000e-004 | 2.5000e-003 | 1.0000e-005 | 8.3000e-004 | 1.0000e-005 | 8.4000e-004 | 2.2000e-004 | 1.0000e-005 | 2.3000e-004 | 0.0000 | 0.7124 | 0.7124 | 2.0000e-005 | 0.0000 | 0.7128 |
| **Total** | **3.4000e-004** | **2.4000e-004** | **2.5000e-003** | **1.0000e-005** | **8.3000e-004** | **1.0000e-005** | **8.4000e-004** | **2.2000e-004** | **1.0000e-005** | **2.3000e-004** | **0.0000** | **0.7124** | **0.7124** | **2.0000e-005** | **0.0000** | **0.7128** |

## 3.7 VIMS - 2021

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | 0.1054 | 0.0000 | 0.1054 | 0.0579 | 0.0000 | 0.0579 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | 0.0258 | 0.2739 | 0.1741 | 3.0000e-004 | | 0.0137 | 0.0137 | | 0.0126 | 0.0126 | 0.0000 | 26.0219 | 26.0219 | 8.4200e-003 | 0.0000 | 26.2323 |
| **Total** | **0.0258** | **0.2739** | **0.1741** | **3.0000e-004** | **0.1054** | **0.0137** | **0.1190** | **0.0579** | **0.0126** | **0.0705** | **0.0000** | **26.0219** | **26.0219** | **8.4200e-003** | **0.0000** | **26.2323** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | 3.4000e-004 | 2.4000e-004 | 2.5000e-003 | 1.0000e-005 | 8.3000e-004 | 1.0000e-005 | 8.4000e-004 | 2.2000e-004 | 1.0000e-005 | 2.3000e-004 | 0.0000 | 0.7124 | 0.7124 | 2.0000e-005 | 0.0000 | 0.7128 |
| **Total** | **3.4000e-004** | **2.4000e-004** | **2.5000e-003** | **1.0000e-005** | **8.3000e-004** | **1.0000e-005** | **8.4000e-004** | **2.2000e-004** | **1.0000e-005** | **2.3000e-004** | **0.0000** | **0.7124** | **0.7124** | **2.0000e-005** | **0.0000** | **0.7128** |

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 0.3183 | 6.1492 | 2.9116 | 0.0211 | 0.9003 | 0.0183 | 0.9186 | 0.2474 | 0.0174 | 0.2648 | 0.0000 | 1,991.3103 | 1,991.3103 | 0.1006 | 0.0000 | 1,993.8246 |
| Unmitigated | 0.3183 | 6.1492 | 2.9116 | 0.0211 | 0.9003 | 0.0183 | 0.9186 | 0.2474 | 0.0174 | 0.2648 | 0.0000 | 1,991.3103 | 1,991.3103 | 0.1006 | 0.0000 | 1,993.8246 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Office Building | 72.00 | 16.10 | 6.90 | 130,754 | 130,754 |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Unrefrigerated Warehouse-No Rail | 735.00 | 735.00 | 735.00 | 2,145,841 | 2,145,841 |
| Total | 807.00 | 751.10 | 741.90 | 2,276,594 | 2,276,594 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| General Office Building | 9.50 | 7.30 | 7.30 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| Other Asphalt Surfaces | 9.50 | 7.30 | 7.30 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Unrefrigerated Warehouse-No | 9.50 | 7.30 | 7.30 | 59.00 | 0.00 | 41.00 | 92 | 5 | 3 |

### 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General Office Building | 0.620015 | 0.043466 | 0.210641 | 0.119765 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.006112 | 0.000000 | 0.000000 |
| Other Asphalt Surfaces | 0.560371 | 0.039285 | 0.190378 | 0.108244 | 0.016023 | 0.005202 | 0.023981 | 0.045200 | 0.002184 | 0.002561 | 0.005524 | 0.000326 | 0.000721 |
| Unrefrigerated Warehouse-No Rail | 0.333600 | 0.023390 | 0.113330 | 0.064440 | 0.081870 | 0.026580 | 0.122540 | 0.230960 | 0.000000 | 0.000000 | 0.003290 | 0.000000 | 0.000000 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 281.9883 | 281.9883 | 0.0278 | 5.7500e-003 | 284.3986 |
| Electricity Unmitigated | | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 281.9883 | 281.9883 | 0.0278 | 5.7500e-003 | 284.3986 |
| NaturalGas Mitigated | 4.9800e-003 | 0.0453 | 0.0380 | 2.7000e-004 | | 3.4400e-003 | 3.4400e-003 | | 3.4400e-003 | 3.4400e-003 | 0.0000 | 49.2575 | 49.2575 | 9.4000e-004 | 9.0000e-004 | 49.5502 |
| NaturalGas Unmitigated | 4.9800e-003 | 0.0453 | 0.0380 | 2.7000e-004 | | 3.4400e-003 | 3.4400e-003 | | 3.4400e-003 | 3.4400e-003 | 0.0000 | 49.2575 | 49.2575 | 9.4000e-004 | 9.0000e-004 | 49.5502 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Office Building | 193300 | 1.0400e-003 | 9.4800e-003 | 7.9600e-003 | 6.0000e-005 | | 7.2000e-004 | 7.2000e-004 | | 7.2000e-004 | 7.2000e-004 | 0.0000 | 10.3152 | 10.3152 | 2.0000e-004 | 1.9000e-004 | 10.3765 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 729750 | 3.9300e-003 | 0.0358 | 0.0301 | 2.1000e-004 | | 2.7200e-003 | 2.7200e-003 | | 2.7200e-003 | 2.7200e-003 | 0.0000 | 38.9422 | 38.9422 | 7.5000e-004 | 7.1000e-004 | 39.1737 |
| **Total** | | **4.9700e-003** | **0.0453** | **0.0380** | **2.7000e-004** | | **3.4400e-003** | **3.4400e-003** | | **3.4400e-003** | **3.4400e-003** | **0.0000** | **49.2575** | **49.2575** | **9.5000e-004** | **9.0000e-004** | **49.5502** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Office Building | 193300 | 1.0400e-003 | 9.4800e-003 | 7.9600e-003 | 6.0000e-005 | | 7.2000e-004 | 7.2000e-004 | | 7.2000e-004 | 7.2000e-004 | 0.0000 | 10.3152 | 10.3152 | 2.0000e-004 | 1.9000e-004 | 10.3765 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 729750 | 3.9300e-003 | 0.0358 | 0.0301 | 2.1000e-004 | | 2.7200e-003 | 2.7200e-003 | | 2.7200e-003 | 2.7200e-003 | 0.0000 | 38.9422 | 38.9422 | 7.5000e-004 | 7.1000e-004 | 39.1737 |
| **Total** | | **4.9700e-003** | **0.0453** | **0.0380** | **2.7000e-004** | | **3.4400e-003** | **3.4400e-003** | | **3.4400e-003** | **3.4400e-003** | **0.0000** | **49.2575** | **49.2575** | **9.5000e-004** | **9.0000e-004** | **49.5502** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| General Office Building | 124800 | 16.6429 | 1.6400e-003 | 3.4000e-004 | 16.7851 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 1.98975e+006 | 265.3454 | 0.0262 | 5.4200e-003 | 267.6135 |
| **Total** | | **281.9883** | **0.0278** | **5.7600e-003** | **284.3986** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| General Office Building | 124800 | 16.6429 | 1.6400e-003 | 3.4000e-004 | 16.7851 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 1.98975e+006 | 265.3454 | 0.0262 | 5.4200e-003 | 267.6135 |
| **Total** | | **281.9883** | **0.0278** | **5.7600e-003** | **284.3986** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | 2.4061 | 5.0000e-005 | 5.0200e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 9.7400e-003 | 9.7400e-003 | 3.0000e-005 | 0.0000 | 0.0104 |
| Unmitigated | 2.4061 | 5.0000e-005 | 5.0200e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 9.7400e-003 | 9.7400e-003 | 3.0000e-005 | 0.0000 | 0.0104 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.2881 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.1176 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 4.7000e-004 | 5.0000e-005 | 5.0200e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 9.7400e-003 | 9.7400e-003 | 3.0000e-005 | 0.0000 | 0.0104 |
| **Total** | **2.4061** | **5.0000e-005** | **5.0200e-003** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | **0.0000** | **9.7400e-003** | **9.7400e-003** | **3.0000e-005** | **0.0000** | **0.0104** |

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | 0.2881 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | 2.1176 | | | | | 0.0000 | 0.0000 | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | 4.7000e-004 | 5.0000e-005 | 5.0200e-003 | 0.0000 | | 2.0000e-005 | 2.0000e-005 | | 2.0000e-005 | 2.0000e-005 | 0.0000 | 9.7400e-003 | 9.7400e-003 | 3.0000e-005 | 0.0000 | 0.0104 |
| **Total** | **2.4061** | **5.0000e-005** | **5.0200e-003** | **0.0000** | | **2.0000e-005** | **2.0000e-005** | | **2.0000e-005** | **2.0000e-005** | **0.0000** | **9.7400e-003** | **9.7400e-003** | **3.0000e-005** | **0.0000** | **0.0104** |

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 99.8615 | 0.1264 | 0.0772 | 126.0122 |
| Unmitigated | 124.6997 | 0.1580 | 0.0964 | 157.3870 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| General Office Building | 1.77734 / 1.08934 | 2.3003 | 2.3300e-003 | 1.4000e-003 | 2.7762 |
| Other Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 121.406 / 0 | 122.3994 | 0.1557 | 0.0950 | 154.6108 |
| **Total** | | **124.6997** | **0.1580** | **0.0964** | **157.3870** |

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| General Office Building | 1.42187 / 1.08934 | 1.9419 | 1.8700e-003 | 1.1200e-003 | 2.3235 |
| Other Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 97.125 / 0 | 97.9195 | 0.1245 | 0.0760 | 123.6886 |
| **Total** | | **99.8614** | **0.1264** | **0.0772** | **126.0122** |

# 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 102.0639 | 6.0318 | 0.0000 | 252.8589 |
| Unmitigated | 102.0639 | 6.0318 | 0.0000 | 252.8589 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| General Office Building | 9.3 | 1.8878 | 0.1116 | 0.0000 | 4.6770 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 493.5 | 100.1760 | 5.9202 | 0.0000 | 248.1819 |
| **Total** | | **102.0639** | **6.0318** | **0.0000** | **252.8589** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| General Office Building | 9.3 | 1.8878 | 0.1116 | 0.0000 | 4.6770 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 493.5 | 100.1760 | 5.9202 | 0.0000 | 248.1819 |
| **Total** | | **102.0639** | **6.0318** | **0.0000** | **252.8589** |

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

**Boilers**

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

# CalEEMod Output for Greenhouse Gas Analysis

# GE Site Remediation and Redevelopment Project GHG Analysis

**Alameda County, Annual**

## 1.0 Project Characteristics

### 1.1 Land Usage

| Land Uses | Size | Metric | Lot Acreage | Floor Surface Area | Population |
|---|---|---|---|---|---|
| General Office Building | 10.00 | 1000sqft | 0.23 | 10,000.00 | 0 |
| Unrefrigerated Warehouse-No Rail | 525.00 | 1000sqft | 12.05 | 525,000.00 | 0 |
| Other Asphalt Surfaces | 10.00 | Acre | 10.00 | 435,600.00 | 0 |

### 1.2 Other Project Characteristics

| | | | | | |
|---|---|---|---|---|---|
| **Urbanization** | Urban | **Wind Speed (m/s)** | 2.2 | **Precipitation Freq (Days)** | 63 |
| **Climate Zone** | 5 | | | **Operational Year** | 2022 |
| **Utility Company** | Pacific Gas & Electric Company | | | | |
| **CO2 Intensity (lb/MWhr)** | 294 | **CH4 Intensity (lb/MWhr)** | 0.029 | **N2O Intensity (lb/MWhr)** | 0.006 |

### 1.3 User Entered Comments & Non-Default Data

Project Characteristics - PG&E's most recent CO2 Intensity Factor value from 2016.

Land Use - Based on project description and information from project applicant.

Construction Phase - Project-specific construction phases corresponding to current construction tasks.

Off-road Equipment - Project-specific information from project applicant.

Off-road Equipment - Project-specific information from project applicant.

Off-road Equipment - Project-specific information from project applicant.

Off-road Equipment - Project-specific information from project applicant.

Off-road Equipment - Project-specific information from project applicant.

Off-road Equipment - Project-specific information from project applicant.

Trips and VMT - Project-specific information from project applicant.

Demolition - Project-specific information from project applicant.

Grading - Project-specific information from project applicant.

Vehicle Trips - Only heavy-duty truck trips included in GHG analysis. Trips rates adjusted based on traffic analysis. Trips for passenger vehicles and light-duty truck trips excluded to be consistent with SB 375 and SB 743.

Energy Use - According to the project applicant, the project would not use natural gas.

Water And Wastewater - EBMUD would service the proposed project and applies 100 percent aerobic process and 100 percent cogeneration. Assumed no outdoor use based on LEED Gold checklist.

Solid Waste - Reduced default rates to account for 68% waste diversion in the City of Oakland.

Water Mitigation - CALGreen Code mandatory requirement of 20% reduction in indoor water use. According to project applicant, an additional 20% reduction in indoor water use and 50% reduction in outdoor water use will be applied in accrodance with LEED checklist.

Fleet Mix - Fleet mix adjusted to include only heavy-duty trucks for the warehouse.

| Table Name | Column Name | Default Value | New Value |
|---|---|---|---|
| tblConstructionPhase | NumDays | 370.00 | 180.00 |
| tblConstructionPhase | NumDays | 20.00 | 85.00 |
| tblConstructionPhase | NumDays | 35.00 | 45.00 |
| tblConstructionPhase | NumDays | 20.00 | 50.00 |
| tblConstructionPhase | NumDays | 10.00 | 40.00 |
| tblConstructionPhase | NumDays | 10.00 | 35.00 |

| | | | |
|---|---|---|---|
| tblEnergyUse | NT24NG | 1.01 | 0.00 |
| tblEnergyUse | NT24NG | 0.21 | 0.00 |
| tblEnergyUse | T24NG | 18.32 | 0.00 |
| tblEnergyUse | T24NG | 1.18 | 0.00 |
| tblFleetMix | HHD | 0.05 | 0.50 |
| tblFleetMix | LDA | 0.56 | 0.00 |
| tblFleetMix | LDT1 | 0.04 | 0.00 |
| tblFleetMix | LDT2 | 0.19 | 0.00 |
| tblFleetMix | LHD1 | 0.02 | 0.18 |
| tblFleetMix | LHD2 | 5.2020e-003 | 0.06 |
| tblFleetMix | MCY | 5.5240e-003 | 0.00 |
| tblFleetMix | MDV | 0.11 | 0.00 |
| tblFleetMix | MH | 7.2100e-004 | 0.00 |
| tblFleetMix | MHD | 0.02 | 0.27 |
| tblFleetMix | OBUS | 2.1840e-003 | 0.00 |
| tblFleetMix | SBUS | 3.2600e-004 | 0.00 |
| tblFleetMix | UBUS | 2.5610e-003 | 0.00 |
| tblGrading | MaterialImported | 0.00 | 44,400.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 3.00 | 1.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 4.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 3.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 3.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 3.00 |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 2.00 |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00 | 1.00 |
| tblOffRoadEquipment | PhaseName | | Demolition |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Building Construction |
| tblOffRoadEquipment | PhaseName | | VIMS |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Demolition |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Building Construction |
| tblOffRoadEquipment | PhaseName | | Paving |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | VIMS |
| tblOffRoadEquipment | PhaseName | | Paving |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Paving |
| tblOffRoadEquipment | PhaseName | | Demolition |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Building Construction |

| | | | |
|---|---|---|---|
| tblOffRoadEquipment | PhaseName | | Building Construction |
| tblOffRoadEquipment | PhaseName | | Building Construction |
| tblOffRoadEquipment | PhaseName | | Paving |
| tblOffRoadEquipment | PhaseName | | Demolition |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Grading |
| tblOffRoadEquipment | PhaseName | | Building Construction |
| tblOffRoadEquipment | PhaseName | | VIMS |
| tblOffRoadEquipment | PhaseName | | Demolition |
| tblOffRoadEquipment | PhaseName | | Remediation |
| tblOffRoadEquipment | PhaseName | | Building Construction |
| tblOffRoadEquipment | PhaseName | | Paving |
| tblOffRoadEquipment | UsageHours | 8.00 | 3.80 |
| tblOffRoadEquipment | UsageHours | 7.00 | 6.20 |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.60 |
| tblOffRoadEquipment | UsageHours | 8.00 | 6.20 |
| tblOffRoadEquipment | UsageHours | 8.00 | 3.30 |
| tblOffRoadEquipment | UsageHours | 8.00 | 4.30 |
| tblOffRoadEquipment | UsageHours | 8.00 | 4.30 |
| tblOffRoadEquipment | UsageHours | 7.00 | 2.00 |
| tblOffRoadEquipment | UsageHours | 7.00 | 6.20 |
| tblProjectCharacteristics | CO2IntensityFactor | 641.35 | 294 |
| tblSolidWaste | SolidWasteGenerationRate | 9.30 | 6.20 |
| tblSolidWaste | SolidWasteGenerationRate | 493.50 | 330.65 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 19.00 |
| tblTripsAndVMT | HaulingTripLength | 20.00 | 140.00 |
| tblTripsAndVMT | HaulingTripNumber | 1,415.00 | 1,590.00 |

| | | | |
|---|---|---|---|
| tblTripsAndVMT | HaulingTripNumber | 0.00 | 594.00 |
| tblTripsAndVMT | HaulingTripNumber | 4,390.00 | 4,440.00 |
| tblTripsAndVMT | WorkerTripNumber | 20.00 | 10.00 |
| tblTripsAndVMT | WorkerTripNumber | 43.00 | 8.00 |
| tblTripsAndVMT | WorkerTripNumber | 25.00 | 10.00 |
| tblTripsAndVMT | WorkerTripNumber | 407.00 | 40.00 |
| tblTripsAndVMT | WorkerTripNumber | 13.00 | 6.00 |
| tblVehicleTrips | ST_TR | 2.46 | 0.00 |
| tblVehicleTrips | ST_TR | 1.68 | 0.65 |
| tblVehicleTrips | SU_TR | 1.05 | 0.00 |
| tblVehicleTrips | SU_TR | 1.68 | 0.65 |
| tblVehicleTrips | WD_TR | 11.03 | 0.00 |
| tblVehicleTrips | WD_TR | 1.68 | 0.65 |
| tblWater | AerobicPercent | 87.46 | 100.00 |
| tblWater | AerobicPercent | 87.46 | 100.00 |
| tblWater | AerobicPercent | 87.46 | 100.00 |
| tblWater | AnaDigestCogenCombDigestGasPercent | 0.00 | 100.00 |
| tblWater | AnaDigestCogenCombDigestGasPercent | 0.00 | 100.00 |
| tblWater | AnaDigestCogenCombDigestGasPercent | 0.00 | 100.00 |
| tblWater | AnaDigestCombDigestGasPercent | 100.00 | 0.00 |
| tblWater | AnaDigestCombDigestGasPercent | 100.00 | 0.00 |
| tblWater | AnaDigestCombDigestGasPercent | 100.00 | 0.00 |
| tblWater | AnaerobicandFacultativeLagoonsPercent | 2.21 | 0.00 |
| tblWater | AnaerobicandFacultativeLagoonsPercent | 2.21 | 0.00 |
| tblWater | AnaerobicandFacultativeLagoonsPercent | 2.21 | 0.00 |
| tblWater | SepticTankPercent | 10.33 | 0.00 |
| tblWater | SepticTankPercent | 10.33 | 0.00 |

| | | | |
|---|---|---|---|
| tblWater | SepticTankPercent | 10.33 | 0.00 |

## 2.0 Emissions Summary

### 2.1 Overall Construction

**Unmitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2020 | | | | | | | | | | | 0.0000 | 1,028.9453 | 1,028.9453 | 0.1540 | 0.0000 | 1,032.7948 |
| 2021 | | | | | | | | | | | 0.0000 | 415.3118 | 415.3118 | 0.0704 | 0.0000 | 417.0720 |
| **Maximum** | | | | | | | | | | | **0.0000** | **1,028.9453** | **1,028.9453** | **0.1540** | **0.0000** | **1,032.7948** |

**Mitigated Construction**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Year | tons/yr | | | | | | | | | | MT/yr | | | | | |
| 2020 | | | | | | | | | | | 0.0000 | 1,028.9448 | 1,028.9448 | 0.1540 | 0.0000 | 1,032.7943 |
| 2021 | | | | | | | | | | | 0.0000 | 415.3115 | 415.3115 | 0.0704 | 0.0000 | 417.0717 |
| **Maximum** | | | | | | | | | | | **0.0000** | **1,028.9448** | **1,028.9448** | **0.1540** | **0.0000** | **1,032.7943** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** |

| Quarter | Start Date | End Date | Maximum Unmitigated ROG + NOX (tons/quarter) | Maximum Mitigated ROG + NOX (tons/quarter) |
|---|---|---|---|---|
| | | **Highest** | | |

## 2.2 Overall Operational

**Unmitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | | | | | | | | | | | 0.0000 | 9.7400e-003 | 9.7400e-003 | 3.0000e-005 | 0.0000 | 0.0104 |
| Energy | | | | | | | | | | | 0.0000 | 281.9883 | 281.9883 | 0.0278 | 5.7500e-003 | 284.3986 |
| Mobile | | | | | | | | | | | 0.0000 | 1,597.9892 | 1,597.9892 | 0.0887 | 0.0000 | 1,600.2074 |
| Waste | | | | | | | | | | | 68.3775 | 0.0000 | 68.3775 | 4.0410 | 0.0000 | 169.4024 |
| Water | | | | | | | | | | | 43.5826 | 81.1172 | 124.6997 | 0.1580 | 0.0964 | 157.3870 |
| **Total** | | | | | | | | | | | **111.9601** | **1,961.1044** | **2,073.0645** | **4.3156** | **0.1022** | **2,211.4058** |

## 2.2 Overall Operational

**Mitigated Operational**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Area | | | | | | | | | | | 0.0000 | 9.7400e-003 | 9.7400e-003 | 3.0000e-005 | 0.0000 | 0.0104 |
| Energy | | | | | | | | | | | 0.0000 | 281.9883 | 281.9883 | 0.0278 | 5.7500e-003 | 284.3986 |
| Mobile | | | | | | | | | | | 0.0000 | 1,597.9892 | 1,597.9892 | 0.0887 | 0.0000 | 1,600.2074 |
| Waste | | | | | | | | | | | 68.3775 | 0.0000 | 68.3775 | 4.0410 | 0.0000 | 169.4024 |
| Water | | | | | | | | | | | 26.1495 | 48.6195 | 74.7690 | 0.0948 | 0.0579 | 94.3809 |
| **Total** | | | | | | | | | | | **94.5270** | **1,928.6067** | **2,023.1337** | **4.2524** | **0.0636** | **2,148.3997** |

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4 | N20 | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Percent Reduction** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **0.00** | **15.57** | **1.66** | **2.41** | **1.46** | **37.75** | **2.85** |

## 3.0 Construction Detail

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date | Num Days Week | Num Days | Phase Description |
|---|---|---|---|---|---|---|---|
| 1 | Demolition | Demolition | 1/1/2020 | 4/28/2020 | 5 | 85 | |
| 2 | Remediation | Site Preparation | 4/29/2020 | 6/23/2020 | 5 | 40 | Removal and remediation of contaminated materials |
| 3 | Grading | Grading | 6/24/2020 | 8/25/2020 | 5 | 45 | |
| 4 | Building Construction | Building Construction | 8/26/2020 | 5/4/2021 | 5 | 180 | Construction/Architectural Coatings |
| 5 | Paving | Paving | 5/5/2021 | 7/13/2021 | 5 | 50 | Paving, utility connections, landscaping |
| 6 | VIMS | Site Preparation | 7/14/2021 | 8/31/2021 | 5 | 35 | |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 70.88**

**Acres of Paving: 10**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

| Phase Name | Offroad Equipment Type | Amount | Usage Hours | Horse Power | Load Factor |
|---|---|---|---|---|---|
| Demolition | Aerial Lifts | 1 | 4.20 | 63 | 0.31 |
| Demolition | Concrete/Industrial Saws | 1 | 3.80 | 81 | 0.73 |
| Demolition | Crushing/Proc. Equipment | 1 | 6.10 | 85 | 0.78 |
| Demolition | Excavators | 1 | 6.60 | 158 | 0.38 |
| Demolition | Off-Highway Trucks | 1 | 1.40 | 402 | 0.38 |
| Demolition | Rubber Tired Dozers | 1 | 3.30 | 247 | 0.40 |
| Demolition | Rubber Tired Loaders | 1 | 7.10 | 203 | 0.36 |
| Demolition | Tractors/Loaders/Backhoes | 1 | 0.30 | 97 | 0.37 |
| Remediation | Aerial Lifts | 1 | 8.00 | 63 | 0.31 |
| Remediation | Bore/Drill Rigs | 1 | 4.00 | 221 | 0.50 |

| | | | | | |
|---|---|---|---|---|---|
| Remediation | Concrete/Industrial Saws | 2 | 6.00 | 81 | 0.73 |
| Remediation | Cranes | 1 | 8.00 | 231 | 0.29 |
| Remediation | Excavators | 3 | 6.70 | 158 | 0.38 |
| Remediation | Forklifts | 3 | 6.00 | 89 | 0.20 |
| Remediation | Off-Highway Trucks | 1 | 4.00 | 402 | 0.38 |
| Remediation | Rubber Tired Loaders | 3 | 6.70 | 203 | 0.36 |
| Remediation | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |
| Remediation | Trenchers | 1 | 8.00 | 78 | 0.50 |
| Grading | Excavators | 1 | 8.00 | 158 | 0.38 |
| Grading | Graders | 1 | 8.00 | 187 | 0.41 |
| Grading | Off-Highway Tractors | 2 | 4.30 | 124 | 0.44 |
| Grading | Off-Highway Trucks | 1 | 4.00 | 402 | 0.38 |
| Grading | Rubber Tired Dozers | 2 | 4.30 | 247 | 0.40 |
| Grading | Rubber Tired Loaders | 1 | 8.00 | 203 | 0.36 |
| Grading | Scrapers | 2 | 4.30 | 367 | 0.48 |
| Building Construction | Aerial Lifts | 1 | 6.20 | 63 | 0.31 |
| Building Construction | Cranes | 1 | 6.20 | 231 | 0.29 |
| Building Construction | Excavators | 1 | 2.00 | 158 | 0.38 |
| Building Construction | Forklifts | 1 | 6.20 | 89 | 0.20 |
| Building Construction | Off-Highway Trucks | 1 | 0.50 | 402 | 0.38 |
| Building Construction | Paving Equipment | 1 | 7.60 | 132 | 0.36 |
| Building Construction | Pumps | 1 | 7.60 | 84 | 0.74 |
| Building Construction | Rubber Tired Loaders | 2 | 4.10 | 203 | 0.36 |
| Building Construction | Tractors/Loaders/Backhoes | 1 | 2.00 | 97 | 0.37 |
| Building Construction | Tractors/Loaders/Backhoes | 1 | 6.20 | 97 | 0.37 |
| Building Construction | Trenchers | 2 | 4.10 | 78 | 0.50 |
| Paving | Excavators | 1 | 8.00 | 158 | 0.38 |

| | | | | | |
|---|---|---|---|---|---|
| Paving | Graders | 1 | 8.00 | 187 | 0.41 |
| Paving | Off-Highway Tractors | 1 | 8.00 | 124 | 0.44 |
| Paving | Paving Equipment | 1 | 8.00 | 132 | 0.36 |
| Paving | Pumps | 1 | 8.00 | 84 | 0.74 |
| Paving | Trenchers | 1 | 8.00 | 78 | 0.50 |
| VIMS | Aerial Lifts | 1 | 8.00 | 63 | 0.31 |
| VIMS | Forklifts | 1 | 8.00 | 89 | 0.20 |
| VIMS | Rubber Tired Dozers | 1 | 8.00 | 247 | 0.40 |
| VIMS | Skid Steer Loaders | 1 | 8.00 | 65 | 0.37 |
| VIMS | Tractors/Loaders/Backhoes | 1 | 8.00 | 97 | 0.37 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|---|---|---|---|---|---|---|---|---|---|---|
| Demolition | 8 | 10.00 | 0.00 | 1,590.00 | 10.80 | 7.30 | 19.00 | LD_Mix | HDT_Mix | HHDT |
| Remediation | 17 | 8.00 | 0.00 | 594.00 | 10.80 | 7.30 | 140.00 | LD_Mix | HDT_Mix | HHDT |
| Grading | 10 | 10.00 | 0.00 | 4,440.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Building Construction | 13 | 40.00 | 159.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| Paving | 6 | 15.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |
| VIMS | 5 | 6.00 | 0.00 | 0.00 | 10.80 | 7.30 | 20.00 | LD_Mix | HDT_Mix | HHDT |

## 3.1 Mitigation Measures Construction

## 3.2 Demolition - 2020

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | | | | | | | | | | | 0.0000 | 92.5170 | 92.5170 | 0.0222 | 0.0000 | 93.0726 |
| **Total** | | | | | | | | | | | **0.0000** | **92.5170** | **92.5170** | **0.0222** | **0.0000** | **93.0726** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 58.2419 | 58.2419 | 3.0000e-003 | 0.0000 | 58.3168 |
| Vendor | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | | | | | | | | | | | 0.0000 | 2.9871 | 2.9871 | 8.0000e-005 | 0.0000 | 2.9891 |
| **Total** | | | | | | | | | | | **0.0000** | **61.2291** | **61.2291** | **3.0800e-003** | **0.0000** | **61.3059** |

## 3.2 Demolition - 2020

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | | | | | | | | | | | 0.0000 | 92.5169 | 92.5169 | 0.0222 | 0.0000 | 93.0725 |
| **Total** | | | | | | | | | | | **0.0000** | **92.5169** | **92.5169** | **0.0222** | **0.0000** | **93.0725** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 58.2419 | 58.2419 | 3.0000e-003 | 0.0000 | 58.3168 |
| Vendor | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | | | | | | | | | | | 0.0000 | 2.9871 | 2.9871 | 8.0000e-005 | 0.0000 | 2.9891 |
| **Total** | | | | | | | | | | | **0.0000** | **61.2291** | **61.2291** | **3.0800e-003** | **0.0000** | **61.3059** |

## 3.3 Remediation - 2020

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | | | | | | | | | | | 0.0000 | 116.8868 | 116.8868 | 0.0336 | 0.0000 | 117.7270 |
| **Total** | | | | | | | | | | | **0.0000** | **116.8868** | **116.8868** | **0.0336** | **0.0000** | **117.7270** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 140.4429 | 140.4429 | 4.2600e-003 | 0.0000 | 140.5495 |
| Vendor | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | | | | | | | | | | | 0.0000 | 1.1246 | 1.1246 | 3.0000e-005 | 0.0000 | 1.1253 |
| **Total** | | | | | | | | | | | **0.0000** | **141.5675** | **141.5675** | **4.2900e-003** | **0.0000** | **141.6748** |

## 3.3 Remediation - 2020

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | | | | | | | | | | | 0.0000 | 116.8867 | 116.8867 | 0.0336 | 0.0000 | 117.7269 |
| **Total** | | | | | | | | | | | **0.0000** | **116.8867** | **116.8867** | **0.0336** | **0.0000** | **117.7269** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 140.4429 | 140.4429 | 4.2600e-003 | 0.0000 | 140.5495 |
| Vendor | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | | | | | | | | | | | 0.0000 | 1.1246 | 1.1246 | 3.0000e-005 | 0.0000 | 1.1253 |
| **Total** | | | | | | | | | | | **0.0000** | **141.5675** | **141.5675** | **4.2900e-003** | **0.0000** | **141.6748** |

## 3.4 Grading - 2020

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | | | | | | | | | | | 0.0000 | 109.0584 | 109.0584 | 0.0353 | 0.0000 | 109.9402 |
| **Total** | | | | | | | | | | | **0.0000** | **109.0584** | **109.0584** | **0.0353** | **0.0000** | **109.9402** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 169.9695 | 169.9695 | 8.5600e-003 | 0.0000 | 170.1835 |
| Vendor | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | | | | | | | | | | | 0.0000 | 1.5814 | 1.5814 | 4.0000e-005 | 0.0000 | 1.5825 |
| **Total** | | | | | | | | | | | **0.0000** | **171.5509** | **171.5509** | **8.6000e-003** | **0.0000** | **171.7659** |

## 3.4 Grading - 2020

### Mitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | | | | | | | | | | | 0.0000 | 109.0583 | 109.0583 | 0.0353 | 0.0000 | 109.9401 |
| **Total** | | | | | | | | | | | **0.0000** | **109.0583** | **109.0583** | **0.0353** | **0.0000** | **109.9401** |

### Mitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 169.9695 | 169.9695 | 8.5600e-003 | 0.0000 | 170.1835 |
| Vendor | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | | | | | | | | | | | 0.0000 | 1.5814 | 1.5814 | 4.0000e-005 | 0.0000 | 1.5825 |
| **Total** | | | | | | | | | | | **0.0000** | **171.5509** | **171.5509** | **8.6000e-003** | **0.0000** | **171.7659** |

## 3.5 Building Construction - 2020

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | | | | | | | | | | | 0.0000 | 129.7403 | 129.7403 | 0.0355 | 0.0000 | 130.6265 |
| **Total** | | | | | | | | | | | **0.0000** | **129.7403** | **129.7403** | **0.0355** | **0.0000** | **130.6265** |

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | | | | | | | | | | | 0.0000 | 193.4629 | 193.4629 | 0.0111 | 0.0000 | 193.7410 |
| Worker | | | | | | | | | | | 0.0000 | 12.9325 | 12.9325 | 3.3000e-004 | 0.0000 | 12.9409 |
| **Total** | | | | | | | | | | | **0.0000** | **206.3954** | **206.3954** | **0.0115** | **0.0000** | **206.6819** |

## 3.5 Building Construction - 2020

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | | | | | | | | | | | 0.0000 | 129.7401 | 129.7401 | 0.0355 | 0.0000 | 130.6264 |
| **Total** | | | | | | | | | | | **0.0000** | **129.7401** | **129.7401** | **0.0355** | **0.0000** | **130.6264** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | | | | | | | | | | | 0.0000 | 193.4629 | 193.4629 | 0.0111 | 0.0000 | 193.7410 |
| Worker | | | | | | | | | | | 0.0000 | 12.9325 | 12.9325 | 3.3000e-004 | 0.0000 | 12.9409 |
| **Total** | | | | | | | | | | | **0.0000** | **206.3954** | **206.3954** | **0.0115** | **0.0000** | **206.6819** |

## 3.5 Building Construction - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | | | | | | | | | | | 0.0000 | 124.1082 | 124.1082 | 0.0338 | 0.0000 | 124.9529 |
| **Total** | | | | | | | | | | | **0.0000** | **124.1082** | **124.1082** | **0.0338** | **0.0000** | **124.9529** |

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | | | | | | | | | | | 0.0000 | 183.2746 | 183.2746 | 0.0101 | 0.0000 | 183.5263 |
| Worker | | | | | | | | | | | 0.0000 | 11.9411 | 11.9411 | 2.9000e-004 | 0.0000 | 11.9483 |
| **Total** | | | | | | | | | | | **0.0000** | **195.2158** | **195.2158** | **0.0104** | **0.0000** | **195.4746** |

## 3.5 Building Construction - 2021

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | | | | | | | | | | | 0.0000 | 124.1081 | 124.1081 | 0.0338 | 0.0000 | 124.9527 |
| **Total** | | | | | | | | | | | **0.0000** | **124.1081** | **124.1081** | **0.0338** | **0.0000** | **124.9527** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | | | | | | | | | | | 0.0000 | 183.2746 | 183.2746 | 0.0101 | 0.0000 | 183.5263 |
| Worker | | | | | | | | | | | 0.0000 | 11.9411 | 11.9411 | 2.9000e-004 | 0.0000 | 11.9483 |
| **Total** | | | | | | | | | | | **0.0000** | **195.2158** | **195.2158** | **0.0104** | **0.0000** | **195.4746** |

## 3.6 Paving - 2021

**Unmitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | | | | | | | | | | | 0.0000 | 66.7092 | 66.7092 | 0.0178 | 0.0000 | 67.1536 |
| Paving | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | | | | | | | | | | **0.0000** | **66.7092** | **66.7092** | **0.0178** | **0.0000** | **67.1536** |

**Unmitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | | | | | | | | | | | 0.0000 | 2.5443 | 2.5443 | 6.0000e-005 | 0.0000 | 2.5458 |
| **Total** | | | | | | | | | | | **0.0000** | **2.5443** | **2.5443** | **6.0000e-005** | **0.0000** | **2.5458** |

## 3.6 Paving - 2021

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Off-Road | | | | | | | | | | | 0.0000 | 66.7091 | 66.7091 | 0.0178 | 0.0000 | 67.1535 |
| Paving | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | | | | | | | | | | **0.0000** | **66.7091** | **66.7091** | **0.0178** | **0.0000** | **67.1535** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | | | | | | | | | | | 0.0000 | 2.5443 | 2.5443 | 6.0000e-005 | 0.0000 | 2.5458 |
| **Total** | | | | | | | | | | | **0.0000** | **2.5443** | **2.5443** | **6.0000e-005** | **0.0000** | **2.5458** |

## 3.7 VIMS - 2021

### Unmitigated Construction On-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | | | | | | | | | | | 0.0000 | 26.0219 | 26.0219 | 8.4200e-003 | 0.0000 | 26.2323 |
| **Total** | | | | | | | | | | | **0.0000** | **26.0219** | **26.0219** | **8.4200e-003** | **0.0000** | **26.2323** |

### Unmitigated Construction Off-Site

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | | | | | | | | | | | 0.0000 | 0.7124 | 0.7124 | 2.0000e-005 | 0.0000 | 0.7128 |
| **Total** | | | | | | | | | | | **0.0000** | **0.7124** | **0.7124** | **2.0000e-005** | **0.0000** | **0.7128** |

## 3.7 VIMS - 2021

**Mitigated Construction On-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Fugitive Dust | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Off-Road | | | | | | | | | | | 0.0000 | 26.0219 | 26.0219 | 8.4200e-003 | 0.0000 | 26.2323 |
| **Total** | | | | | | | | | | | **0.0000** | **26.0219** | **26.0219** | **8.4200e-003** | **0.0000** | **26.2323** |

**Mitigated Construction Off-Site**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Hauling | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Vendor | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Worker | | | | | | | | | | | 0.0000 | 0.7124 | 0.7124 | 2.0000e-005 | 0.0000 | 0.7128 |
| **Total** | | | | | | | | | | | **0.0000** | **0.7124** | **0.7124** | **2.0000e-005** | **0.0000** | **0.7128** |

## 4.0 Operational Detail - Mobile

## 4.1 Mitigation Measures Mobile

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | | | | | | | | | | | 0.0000 | 1,597.9892 | 1,597.9892 | 0.0887 | 0.0000 | 1,600.2074 |
| Unmitigated | | | | | | | | | | | 0.0000 | 1,597.9892 | 1,597.9892 | 0.0887 | 0.0000 | 1,600.2074 |

## 4.2 Trip Summary Information

| | Average Daily Trip Rate | | | Unmitigated | Mitigated |
|---|---|---|---|---|---|
| Land Use | Weekday | Saturday | Sunday | Annual VMT | Annual VMT |
| General Office Building | 0.00 | 0.00 | 0.00 | | |
| Other Asphalt Surfaces | 0.00 | 0.00 | 0.00 | | |
| Unrefrigerated Warehouse-No Rail | 341.25 | 341.25 | 341.25 | 996,283 | 996,283 |
| Total | 341.25 | 341.25 | 341.25 | 996,283 | 996,283 |

## 4.3 Trip Type Information

| | Miles | | | Trip % | | | Trip Purpose % | | |
|---|---|---|---|---|---|---|---|---|---|
| Land Use | H-W or C-W | H-S or C-C | H-O or C-NW | H-W or C-W | H-S or C-C | H-O or C-NW | Primary | Diverted | Pass-by |
| General Office Building | 9.50 | 7.30 | 7.30 | 33.00 | 48.00 | 19.00 | 77 | 19 | 4 |
| Other Asphalt Surfaces | 9.50 | 7.30 | 7.30 | 0.00 | 0.00 | 0.00 | 0 | 0 | 0 |
| Unrefrigerated Warehouse-No | 9.50 | 7.30 | 7.30 | 59.00 | 0.00 | 41.00 | 92 | 5 | 3 |

### 4.4 Fleet Mix

| Land Use | LDA | LDT1 | LDT2 | MDV | LHD1 | LHD2 | MHD | HHD | OBUS | UBUS | MCY | SBUS | MH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| General Office Building | 0.560371 | 0.039285 | 0.190378 | 0.108244 | 0.016023 | 0.005202 | 0.023981 | 0.045200 | 0.002184 | 0.002561 | 0.005524 | 0.000326 | 0.000721 |
| Other Asphalt Surfaces | 0.560371 | 0.039285 | 0.190378 | 0.108244 | 0.016023 | 0.005202 | 0.023981 | 0.045200 | 0.002184 | 0.002561 | 0.005524 | 0.000326 | 0.000721 |
| Unrefrigerated Warehouse-No Rail | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.177234 | 0.057540 | 0.265259 | 0.499967 | 0.000000 | 0.000000 | 0.000000 | 0.000000 | 0.000000 |

## 5.0 Energy Detail

Historical Energy Use: N

### 5.1 Mitigation Measures Energy

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Electricity Mitigated | | | | | | | | | | | 0.0000 | 281.9883 | 281.9883 | 0.0278 | 5.7500e-003 | 284.3986 |
| Electricity Unmitigated | | | | | | | | | | | 0.0000 | 281.9883 | 281.9883 | 0.0278 | 5.7500e-003 | 284.3986 |
| NaturalGas Mitigated | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| NaturalGas Unmitigated | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

## 5.2 Energy by Land Use - NaturalGas

**Unmitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Office Building | 0 | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Other Asphalt Surfaces | 0 | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 0 | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | | | | | | | | | | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

**Mitigated**

| | NaturalGas Use | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Land Use | kBTU/yr | tons/yr | | | | | | | | | | MT/yr | | | | | |
| General Office Building | 0 | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Other Asphalt Surfaces | 0 | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 0 | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| **Total** | | | | | | | | | | | | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** | **0.0000** |

## 5.3 Energy by Land Use - Electricity

**Unmitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| General Office Building | 124800 | 16.6429 | 1.6400e-003 | 3.4000e-004 | 16.7851 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 1.98975e+006 | 265.3454 | 0.0262 | 5.4200e-003 | 267.6135 |
| **Total** | | **281.9883** | **0.0278** | **5.7600e-003** | **284.3986** |

**Mitigated**

| | Electricity Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | kWh/yr | MT/yr | | | |
| General Office Building | 124800 | 16.6429 | 1.6400e-003 | 3.4000e-004 | 16.7851 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 1.98975e+006 | 265.3454 | 0.0262 | 5.4200e-003 | 267.6135 |
| **Total** | | **281.9883** | **0.0278** | **5.7600e-003** | **284.3986** |

# 6.0 Area Detail

## 6.1 Mitigation Measures Area

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Category | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Mitigated | | | | | | | | | | | 0.0000 | 9.7400e-003 | 9.7400e-003 | 3.0000e-005 | 0.0000 | 0.0104 |
| Unmitigated | | | | | | | | | | | 0.0000 | 9.7400e-003 | 9.7400e-003 | 3.0000e-005 | 0.0000 | 0.0104 |

## 6.2 Area by SubCategory

**Unmitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | | | | | | | | | | | 0.0000 | 9.7400e-003 | 9.7400e-003 | 3.0000e-005 | 0.0000 | 0.0104 |
| **Total** | | | | | | | | | | | **0.0000** | **9.7400e-003** | **9.7400e-003** | **3.0000e-005** | **0.0000** | **0.0104** |

**Mitigated**

| | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SubCategory | tons/yr | | | | | | | | | | MT/yr | | | | | |
| Architectural Coating | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Consumer Products | | | | | | | | | | | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Landscaping | | | | | | | | | | | 0.0000 | 9.7400e-003 | 9.7400e-003 | 3.0000e-005 | 0.0000 | 0.0104 |
| **Total** | | | | | | | | | | | **0.0000** | **9.7400e-003** | **9.7400e-003** | **3.0000e-005** | **0.0000** | **0.0104** |

## 7.0 Water Detail

## 7.1 Mitigation Measures Water

Apply Water Conservation Strategy

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| Category | MT/yr | | | |
| Mitigated | 74.7690 | 0.0948 | 0.0579 | 94.3809 |
| Unmitigated | 124.6997 | 0.1580 | 0.0964 | 157.3870 |

## 7.2 Water by Land Use

**Unmitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| General Office Building | 1.77734 / 1.08934 | 2.3003 | 2.3300e-003 | 1.4000e-003 | 2.7762 |
| Other Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 121.406 / 0 | 122.3994 | 0.1557 | 0.0950 | 154.6108 |
| **Total** | | **124.6997** | **0.1580** | **0.0964** | **157.3870** |

**Mitigated**

| | Indoor/Outdoor Use | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | Mgal | MT/yr | | | |
| General Office Building | 1.0664 / 0.544668 | 1.3294 | 1.3900e-003 | 8.4000e-004 | 1.6145 |
| Other Asphalt Surfaces | 0 / 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 72.8438 / 0 | 73.4396 | 0.0934 | 0.0570 | 92.7665 |
| **Total** | | **74.7690** | **0.0948** | **0.0579** | **94.3809** |

# 8.0 Waste Detail

## 8.1 Mitigation Measures Waste

**Category/Year**

| | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|
| | MT/yr | | | |
| Mitigated | 68.3775 | 4.0410 | 0.0000 | 169.4024 |
| Unmitigated | 68.3775 | 4.0410 | 0.0000 | 169.4024 |

## 8.2 Waste by Land Use

**Unmitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| General Office Building | 6.2 | 1.2585 | 0.0744 | 0.0000 | 3.1180 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 330.65 | 67.1190 | 3.9666 | 0.0000 | 166.2844 |
| **Total** | | **68.3775** | **4.0410** | **0.0000** | **169.4024** |

**Mitigated**

| | Waste Disposed | Total CO2 | CH4 | N2O | CO2e |
|---|---|---|---|---|---|
| Land Use | tons | MT/yr | | | |
| General Office Building | 6.2 | 1.2585 | 0.0744 | 0.0000 | 3.1180 |
| Other Asphalt Surfaces | 0 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Unrefrigerated Warehouse-No Rail | 330.65 | 67.1190 | 3.9666 | 0.0000 | 166.2844 |
| **Total** | | **68.3775** | **4.0410** | **0.0000** | **169.4024** |

## 9.0 Operational Offroad

| Equipment Type | Number | Hours/Day | Days/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

## 10.0 Stationary Equipment

**Fire Pumps and Emergency Generators**

| Equipment Type | Number | Hours/Day | Hours/Year | Horse Power | Load Factor | Fuel Type |
|---|---|---|---|---|---|---|

**Boilers**

| Equipment Type | Number | Heat Input/Day | Heat Input/Year | Boiler Rating | Fuel Type |
|---|---|---|---|---|---|

**User Defined Equipment**

| Equipment Type | Number |
|---|---|

## 11.0 Vegetation

# Health Risks Calculations and Figure

**Summary of ISCST3 Model Parameters, Assumptions, and Results for DPM and $PM_{2.5}$ Emissions during Construction**

| ISCST3 Model Parameters and Assumptions | | | |
|---|---|---|---|
| **Source Type** | **Units** | **Value** | **Notes** |
| **Volume Source: Off-Road Equipment Exhaust for Construction** | | | |
| Work Hours/Day | hours/week | 8 | 9AM and 5PM Monday through Friday |
| DPM Emission Rate | gram/second | 0.01782 | Exhaust $PM_{10}$ from off-road equipment |
| Number of Sources | count | 200 | SMAQMD, 2015 |
| Emission Rate/Source | gram/second | 0.000089 | |
| Release Height | meters | 5.0 | SMAQMD, 2015 |
| Length of Side | meters | 10.0 | SMAQMD, 2015 |
| Initial Lateral Dimension | meters | 2.3 | ISCST3 Calculator |
| Initial Vertical Dimension | meters | 1.0 | SMAQMD, 2015 |

| ISCST3 Model Results | | | | |
|---|---|---|---|---|
| Location Type | **Emissions Source** | **Pollutant** | **Annual Average Concentration** | **Notes** |
| Residential | Off-road equipment exhaust during project construction | DPM ($\mu g/m^{3)}$ | 0.033 | MEIR Location (Ground level residential receptor) |
| | | $PM_{2.5}$ ($\mu g/m^{3)}$ | 0.031 | MEIR Location (Ground level residential receptor) |

Notes:
DPM = diesel particulate matter
$PM_{10}$ = particulate matter with aerodynamic resistance diameters equal to or less than 10 microns
$PM_{2.5}$ = particulate matter with aerodynamic resistance diameters equal to or less than 2.5 microns
$\mu g/m^3$ = micrograms per cubic meter
Sacramento Metropolitan Air Quality Management District (SMAQMD), 2015. *Guide to Air Quality Assessment in Sacramento*

**Summary of ISCST3 Model Parameters, Assumptions, and Results for DPM and $PM_{2.5}$ Emissions during Truck Operation**

| ISCST3 Model Parameters and Assumptions | | | |
|---|---|---|---|
| **Source Type** | **Units** | **Value** | **Notes** |
| **Line-Area Source: On-Road Vehicle Exhaust (Project)** | | | |
| Work Hours/Day | hours/day | 8 | 9AM and 5PM Monday through Friday |
| DPM Emission Rate | grams/second | 0.00059 | Exhaust PM10 from on-road vehicles |
| Road length | meters | 760 | Route to International Boulevard |
| DPM Emission Rate per length | grams/second/m2 | 8.62725E-08 | |
| Number of Sources | count | 1 | |
| Length of Side | meters | 9 | ISCST3 Calculator |
| Release Height | meters | 3 | BAAQMD, 2012 |
| Initial Vertical Dimension | meters | 2.8 | ISCST3 Calculator |
| **Line-Area Source: On-Road Vehicle Exhaust (Variant)** | | | |
| Work Hours/Day | hours/day | 8 | 9AM and 5PM Monday through Friday |
| DPM Emission Rate | grams/second | 0.00065 | Exhaust PM10 from on-road vehicles |
| Road length | meters | 1007 | Route to International Boulevard |
| DPM Emission Rate per length | grams/second/m2 | 7.20739E-08 | |
| Number of Sources | count | 1 | |
| Length of Side | meters | 9 | ISCST3 Calculator |
| Release Height | meters | 3 | BAAQMD, 2012 |
| Initial Vertical Dimension | meters | 2.8 | ISCST3 Calculator |

| ISCST3 Model Results | | | | |
|---|---|---|---|---|
| Location Type | **Emissions Source** | **Pollutant** | **Annual Average Concentration** | **Notes** |
| Residential | project truck route | DPM ($\mu g/m^{3)}$ | 0.00039 | MEIR Location (Ground level residential receptor) |
| | | $PM_{2.5}$ ($\mu g/m^{3)}$ | 0.00036 | MEIR Location (Ground level residential receptor) |
| | variant truck route | DPM ($\mu g/m^{3)}$ | 0.00795 | MEIR Location (Ground level residential receptor) |
| | | $PM_{2.5}$ ($\mu g/m^{3)}$ | 0.00742 | MEIR Location (Ground level residential receptor) |

Notes:
DPM = diesel particulate matter
$PM_{10}$ = particulate matter with aerodynamic resistance diameters equal to or less than 10 microns
$PM_{2.5}$ = particulate matter with aerodynamic resistance diameters equal to or less than 2.5 microns
$\mu g/m^3$ = micrograms per cubic meter
Sacramento Metropolitan Air Quality Management District (SMAQMD), 2015. *Guide to Air Quality Assessment in Sacramento*

**Summary of Health Risk Assessment for the MEIR during Construction**

| DPM Emissions from Construction | | | | |
|---|---|---|---|---|
| **Inhalation Cancer Risk Assessment for DPM** | **Units** | **Age Group** | | **Notes** |
| | | **3rd Trimester** | **0-2 Years** | |
| DPM Concentration (C) | $\mu g/m^3$ | 0.033 | 0.033 | ISCST3 Annual Average |
| Daily Breathing Rate (DBR) | L/kg-day | 361 | 1090 | 95th percentile (OEHHA, 2015) |
| Inhalation absorption factor (A) | unitless | 1.0 | 1.0 | OEHHA, 2015 |
| Exposure Frequency (EF) | unitless | 0.96 | 0.96 | 350 days/365 days in a year (OEHHA, 2015) |
| Dose Conversion Factor ($CF_D$) | $mg\text{-}m^3/\mu g\text{-}L$ | 0.000001 | 0.000001 | Conversion of µg to mg and L to $m^3$ |
| Dose (D) | mg/kg/day | 0.000012 | 0.000035 | C*DBR*A*EF*$CF_D$ (OEHHA, 2015) |
| Cancer Potency Factor (CPF) | $(mg/kg/day)^{-1}$ | 1.1 | 1.1 | OEHHA, 2015 |
| Age Sensitivity Factor (ASF) | unitless | 10 | 10 | OEHHA, 2015 |
| Annual Exposure Duration (ED) | years | 0.25 | 1.67 | Based on 87 work weeks (1.67 years) |
| Averaging Time (AT) | years | 70 | 70 | 70 years for residents (OEHHA, 2015) |
| Fraction of time at home (FAH) | unitless | 0.85 | 0.85 | OEHHA, 2015 |
| Cancer Risk Conversion Factor (CF) | unitless | 1000000 | 1000000 | Chances per million (OEHHA, 2015) |
| Cancer Risk | per million | 0.39 | 7.79 | D*CPF*ASF*ED/AT*FAH*CF (OEHHA, 2015) |
| **Total Cancer Risk** | **per million** | **8.18** | | **At MEIR location** |
| **Hazard Index for DPM** | **Units** | **Value** | **Notes** | |
| Chronic REL | $\mu g/m^3$ | 5.0 | OEHHA, 2015 | |
| **Chronic Hazard Index for DPM** | **unitless** | **0.007** | **At Offsite MEIR location** | |

Notes:

DPM = diesel particulate matter

REL = reference exposure level

$\mu g/m^3$ = micrograms per cubic meter

L/kg-day = liters per kilogram-day

$m^3/L$ = cubic meters per liter

$(mg/kg/day)^{-1}$ = 1/milligrams per kilograms per day

MEIR = maximum exposed individual resident

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

**Summary of Health Risk Assessment for the MEIR during Operation**

| DPM Emissions from Operation | | | | | | |
|---|---|---|---|---|---|---|
| **Inhalation Cancer Risk Assessment for DPM** | **Units** | **Age Group** | | | | **Notes** |
| | | **3rd Trimester** | **0-2 Years** | **2-16 Years** | **16 - 70 Years** | |
| DPM Concentration (C) | $\mu g/m^3$ | 0.0004 | 0.0004 | 0.0004 | 0.0004 | ISCST3 Annual Average |
| Daily Breathing Rate (DBR) | L/kg-day | 361 | 1090 | 745 | 290 | 95th percentile (OEHHA, 2015) |
| Inhalation absorption factor (A) | unitless | 1.0 | 1.0 | 1.0 | 1.0 | OEHHA, 2015 |
| Exposure Frequency (EF) | unitless | 0.96 | 0.96 | 0.96 | 0.96 | 350 days/365 days in a year (OEHHA, 2015) |
| Dose Conversion Factor ($CF_D$) | $mg\text{-}m^3/\mu g\text{-}L$ | 0.000001 | 0.000001 | 0.000001 | 0.000001 | Conversion of µg to mg and L to $m^3$ |
| Dose (D) | mg/kg/day | 0.000000 | 0.000000 | 0.000000 | 0.000000 | C*DBR*A*EF*$CF_D$ (OEHHA, 2015) |
| Cancer Potency Factor (CPF) | $(mg/kg/day)^{-1}$ | 1.1 | 1.1 | 1.1 | 1.1 | OEHHA, 2015 |
| Age Sensitivity Factor (ASF) | unitless | 10 | 10 | 3 | 1 | OEHHA, 2015 |
| Annual Exposure Duration (ED) | years | 0.25 | 2.00 | 14.00 | 14.00 | Assume 30 year duration for residents |
| Averaging Time (AT) | years | 70 | 70 | 70 | 70 | 70 years for residents (OEHHA, 2015) |
| Fraction of time at home (FAH) | unitless | 0.85 | 0.85 | 0.72 | 0.73 | OEHHA, 2015 |
| Cancer Risk Conversion Factor (CF) | unitless | 1000000 | 1000000 | 1000000 | 1000000 | Chances per million (OEHHA, 2015) |
| Cancer Risk | per million | 0.00 | 0.11 | 0.13 | 0.02 | D*CPF*ASF*ED/AT*FAH*CF (OEHHA, 2015) |
| **Total Cancer Risk** | **per million** | **0.26** | | | | **At MEIR location** |
| **Hazard Index for DPM** | **Units** | **Value** | **Notes** | | | |
| Chronic REL | $\mu g/m^3$ | 5.0 | OEHHA, 2015 | | | |
| **Chronic Hazard Index for DPM** | **unitless** | **0.000** | **At Offsite MEIR location** | | | |

Notes:

DPM = diesel particulate matter

REL = reference exposure level

$\mu g/m^3$ = micrograms per cubic meter

L/kg-day = liters per kilogram-day

$m^3/L$ = cubic meters per liter

$(mg/kg/day)^{-1}$ = 1/milligrams per kilograms per day

MEIR = maximum exposed individual resident

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

**Summary of Health Risk Assessment for the MEIR during Operation (Variant)**

| DPM Emissions from Operation | | | | | | |
|---|---|---|---|---|---|---|
| **Inhalation Cancer Risk Assessment for DPM** | **Units** | **Age Group** | | | | **Notes** |
| | | **3rd Trimester** | **0-2 Years** | **2-16 Years** | **16 - 70 Years** | |
| DPM Concentration (C) | $\mu g/m^3$ | 0.008 | 0.008 | 0.008 | 0.008 | ISCST3 Annual Average |
| Daily Breathing Rate (DBR) | L/kg-day | 361 | 1090 | 745 | 290 | 95th percentile (OEHHA, 2015) |
| Inhalation absorption factor (A) | unitless | 1.0 | 1.0 | 1.0 | 1.0 | OEHHA, 2015 |
| Exposure Frequency (EF) | unitless | 0.96 | 0.96 | 0.96 | 0.96 | 350 days/365 days in a year (OEHHA, 2015) |
| Dose Conversion Factor ($CF_D$) | $mg\text{-}m^3/\mu g\text{-}L$ | 0.000001 | 0.000001 | 0.000001 | 0.000001 | Conversion of µg to mg and L to $m^3$ |
| Dose (D) | mg/kg/day | 0.000003 | 0.000008 | 0.000006 | 0.000002 | C*DBR*A*EF*$CF_D$ (OEHHA, 2015) |
| Cancer Potency Factor (CPF) | $(mg/kg/day)^{-1}$ | 1.1 | 1.1 | 1.1 | 1.1 | OEHHA, 2015 |
| Age Sensitivity Factor (ASF) | unitless | 10 | 10 | 3 | 1 | OEHHA, 2015 |
| Annual Exposure Duration (ED) | years | 0.25 | 2.00 | 14.00 | 14.00 | Assume 30 year duration for residents |
| Averaging Time (AT) | years | 70 | 70 | 70 | 70 | 70 years for residents (OEHHA, 2015) |
| Fraction of time at home (FAH) | unitless | 0.85 | 0.85 | 0.72 | 0.73 | OEHHA, 2015 |
| Cancer Risk Conversion Factor (CF) | unitless | 1000000 | 1000000 | 1000000 | 1000000 | Chances per million (OEHHA, 2015) |
| Cancer Risk | per million | 0.09 | 2.22 | 2.70 | 0.36 | D*CPF*ASF*ED/AT*FAH*CF (OEHHA, 2015) |
| **Total Cancer Risk** | **per million** | **5.37** | | | | **At MEIR location** |
| **Hazard Index for DPM** | **Units** | **Value** | **Notes** | | | |
| Chronic REL | $\mu g/m^3$ | 5.0 | OEHHA, 2015 | | | |
| **Chronic Hazard Index for DPM** | **unitless** | **0.002** | **At Offsite MEIR location** | | | |

Notes:

DPM = diesel particulate matter

REL = reference exposure level

$\mu g/m^3$ = micrograms per cubic meter

L/kg-day = liters per kilogram-day

$m^3/L$ = cubic meters per liter

$(mg/kg/day)^{-1}$ = 1/milligrams per kilograms per day

MEIR = maximum exposed individual resident

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

# Location of Maximally Exposed Individual Resident and Stationary Sources

# Outputs from Health Risks Beta Calculators for Cumulative Stationary Sources

| Step 1: Enter Facility Data | |
|---|---|
| Plant Name | Future Emergency Generator |
| Plant No. | |

| Step 3: Estimate Distance | |
|---|---|
| What is the distance (m) from the facility boundary to the MEI? | 90 |

| Step 4: Specify Source Type | |
|---|---|
| Does facility have only diesel backup generators? | yes |
| Is this analysis for a gas station? | no |

| Step 5: Read Estimates | |
|---|---|
| Total Cancer Risk | 2.5 |
| Total Chronic Hazard | 0.00 |
| Total PM2.5 Concentration | 0.00 |

Step 2: Enter Emissions Data

| Chemical Name | CAS No. (dashes removed) | Emission Rate (lb/day) | Cancer Risk (# / 1,000,000) | Chronic Hazard (index) | PM2.5 Concentration (µg/m3) |
|---|---|---|---|---|---|
| Fine Particulate Matter (PM2.5) | | 6.75E-03 | | | 0.01 |
| ACETALDEHYDE | 75070 | 0.00E+00 | | | |
| ACETAMIDE | 60355 | 0.00E+00 | | | |
| ACROLEIN | 107028 | 0.00E+00 | | | |
| ACRYLAMIDE | 79061 | 0.00E+00 | | | |
| ACRYLIC ACID | 79107 | 0.00E+00 | | | |
| ACRYLONITRILE | 107131 | 0.00E+00 | | | |
| ALLYL CHLORIDE | 107051 | 0.00E+00 | | | |
| 2-AMINOANTHRAQUINONE | 117793 | 0.00E+00 | | | |
| AMMONIA | 7664417 | 0.00E+00 | | | |
| ANILINE | 62533 | 0.00E+00 | | | |
| ARSENIC AND COMPOUNDS (INORGANIC)[1,2] | 7440382 | 0.00E+00 | | | |
| ARSINE | 7784421 | 0.00E+00 | | | |
| ASBESTOS[3] | 1332214 | 0.00E+00 | | | |
| BENZENE[1] | 71432 | 0.00E+00 | | | |
| BENZIDINE (AND ITS SALTS) values also apply to: | 92875 | 0.00E+00 | | | |
| Benzidine based dyes | 92875 | 0.00E+00 | | | |
| Direct Black 38 | 1937377 | 0.00E+00 | | | |
| Direct Blue 6 | 2602462 | 0.00E+00 | | | |
| Direct Brown 95 (technical grade) | 16071866 | 0.00E+00 | | | |
| BENZYL CHLORIDE | 100447 | 0.00E+00 | | | |
| BERYLLIUM AND COMPOUNDS[2] | 7440417 | 0.00E+00 | | | |
| BIS(2-CHLOROETHYL)ETHER (Dichloroethyl ether) | 111444 | 0.00E+00 | | | |
| BIS(CHLOROMETHYL)ETHER | 542881 | 0.00E+00 | | | |
| BROMINE AND COMPOUNDS see Potassium Bromate | 7758012 | 0.00E+00 | | | |
| 1,3-BUTADIENE | 106990 | 0.00E+00 | | | |
| CADMIUM AND COMPOUNDS[2] | 7440439 | 0.00E+00 | | | |
| CAPROLACTAM | 105602 | 0.00E+00 | | | |
| CARBON DISULFIDE[1] | 75150 | 0.00E+00 | | | |
| CARBON MONOXIDE | 630080 | 0.00E+00 | | | |
| CARBON TETRACHLORIDE[1] (Tetrachloromethane) | 56235 | 0.00E+00 | | | |
| CHLORINATED PARAFFINS | 108171262 | 0.00E+00 | | | |
| CHLORINE | 7782505 | 0.00E+00 | | | |
| CHLORINE DIOXIDE | 10049044 | 0.00E+00 | | | |
| 4-CHLORO-O-PHENYLENEDIAMINE | 95830 | 0.00E+00 | | | |
| CHLOROBENZENE | 108907 | 0.00E+00 | | | |
| CHLOROFORM[1] | 67663 | 0.00E+00 | | | |
| Chlorophenols | 87865 | 0.00E+00 | | | |
| PENTACHLOROPHENOL | 87865 | 0.00E+00 | | | |
| 2,4,6-TRICHLOROPHENOL | 88062 | 0.00E+00 | | | |
| CHLOROPICRIN | 76062 | 0.00E+00 | | | |
| p-CHLORO-o-TOLUIDINE | 95692 | 0.00E+00 | | | |
| CHROMIUM 6+[2] | 18540299 | 0.00E+00 | | | |
| Barium chromate[2] | 10294403 | 0.00E+00 | | | |
| Calcium chromate[2] | 13765190 | 0.00E+00 | | | |
| Lead chromate[2] | 7758976 | 0.00E+00 | | | |
| Sodium dichromate[2] | 10588019 | 0.00E+00 | | | |
| Strontium chromate[2] | 7789062 | 0.00E+00 | | | |
| CHROMIC TRIOXIDE (as chromic acid mist) | 1333820 | 0.00E+00 | | | |
| COPPER AND COMPOUNDS | 7440508 | 0.00E+00 | | | |
| p-CRESIDINE | 120718 | 0.00E+00 | | | |
| CRESOLS | 1319773 | 0.00E+00 | | | |
| M-CRESOL | 108394 | 0.00E+00 | | | |
| O-CRESOL | 95487 | 0.00E+00 | | | |
| P-CRESOL | 106445 | 0.00E+00 | | | |
| CUPFERRON | 135206 | 0.00E+00 | | | |
| Cyanide And Compounds (inorganic) | 57125 | 0.00E+00 | | | |
| HYDROGEN CYANIDE (Hydrocyanic acid) | 74908 | 0.00E+00 | | | |
| 2,4-DIAMINOANISOLE | 615054 | 0.00E+00 | | | |
| 2,4-DIAMINOTOLUENE | 95807 | 0.00E+00 | | | |
| 1,2-DIBROMO-3-CHLOROPROPANE (DBCP) | 96128 | 0.00E+00 | | | |
| 1,4-DICHLOROBENZENE (p-Dichlorobenzene) | 106467 | 0.00E+00 | | | |
| 3,3-DICHLOROBENZIDINE | 91941 | 0.00E+00 | | | |
| 1,1,-DICHLOROETHANE (Ethylidene dichloride) | 75343 | 0.00E+00 | | | |
| DI(2-ETHYLHEXYL)PHTHALATE (DEHP) | 117817 | 0.00E+00 | | | |
| DIETHANOLAMINE | 111422 | 0.00E+00 | | | |
| p-DIMETHYLAMINOAZOBENZENE | 60117 | 0.00E+00 | | | |
| N,N-DIMETHYL FORMAMIDE | 68122 | 0.00E+00 | | | |
| 2,4-DINITROTOLUENE | 121142 | 0.00E+00 | | | |
| 1,4-DIOXANE (1,4-Diethylene dioxide) | 123911 | 0.00E+00 | | | |
| EPICHLOROHYDRIN (1-Chloro-2,3-epoxypropane) | 106898 | 0.00E+00 | | | |
| 1,2-EPOXYBUTANE | 106887 | 0.00E+00 | | | |
| ETHYL BENZENE | 100414 | 0.00E+00 | | | |
| ETHYL CHLORIDE (Chloroethane) | 75003 | 0.00E+00 | | | |
| ETHYLENE DIBROMIDE (1,2-Dibromoethane) | 106934 | 0.00E+00 | | | |
| ETHYLENE DICHLORIDE (1,2-Dichloroethane) | 107062 | 0.00E+00 | | | |
| ETHYLENE GLYCOL | 107211 | 0.00E+00 | | | |
| ETHYLENE OXIDE (1,2-Epoxyethane) | 75218 | 0.00E+00 | | | |
| ETHYLENE THIOUREA | 96457 | 0.00E+00 | | | |
| Fluorides | 1101 | 0.00E+00 | | | |
| HYDROGEN FLUORIDE (Hydrofluoric acid) | 7664393 | 0.00E+00 | | | |
| FORMALDEHYDE | 50000 | 0.00E+00 | | | |
| GLUTARALDEHYDE | 111308 | 0.00E+00 | | | |
| GLYCOL ETHERS | 107211 | 0.00E+00 | | | |
| ETHYLENE GLYCOL BUTYL ETHER – EGBE | 111762 | 0.00E+00 | | | |
| ETHYLENE GLYCOL ETHYL ETHER – EGEE[1] | 110805 | 0.00E+00 | | | |

| Step 1: Enter Facility Data | |
|---|---|
| Plant Name | Future Emergency Generator |
| Plant No. | |

| Step 3: Estimate Distance | |
|---|---|
| What is the distance (m) from the facility boundary to the MEI? | 90 |

| Step 4: Specify Source Type | |
|---|---|
| Does facility have only diesel backup generators? | yes |
| Is this analysis for a gas station? | no |

| Step 5: Read Estimates | |
|---|---|
| Total Cancer Risk | 2.5 |
| Total Chronic Hazard | 0.00 |
| Total PM2.5 Concentration | 0.00 |

Step 2: Enter Emissions Data

| Chemical Name | CAS No. | Emission Rate | Cancer Risk | Chronic Hazard | PM2.5 Concentration |
|---|---|---|---|---|---|
| ETHYLENE GLYCOL ETHYL ETHER ACETATE – EGEEA[1] | 111159 | 0.00E+00 | | | |
| ETHYLENE GLYCOL METHYL ETHER – EGME[1] | 109864 | 0.00E+00 | | | |
| ETHYLENE GLYCOL METHYL ETHER ACETATE – EGMEA | 110496 | 0.00E+00 | | | |
| HEXACHLOROBENZENE | 118741 | 0.00E+00 | | | |
| HEXACHLOROCYCLOHEXANES (mixed or technical grade) | 608731 | 0.00E+00 | | | |
| alpha-HEXACHLOROCYCLOHEXANE | 319846 | 0.00E+00 | | | |
| beta- HEXACHLOROCYCLOHEXANE | 319857 | 0.00E+00 | | | |
| gamma-HEXACHLOROCYCLOHEXANE (Lindane) | 58899 | 0.00E+00 | | | |
| n-HEXANE | 110543 | 0.00E+00 | | | |
| HYDRAZINE | 302012 | 0.00E+00 | | | |
| HYDROCHLORIC ACID (Hydrogen chloride) | 7647010 | 0.00E+00 | | | |
| HYDROGEN SULFIDE | 7783064 | 0.00E+00 | | | |
| ISOPHORONE | 78591 | 0.00E+00 | | | |
| ISOPROPYL ALCOHOL (Isopropanol) | 67630 | 0.00E+00 | | | |
| LEAD AND COMPOUNDS [2,4] (inorganic) *values also apply to:* | 7439921 | 0.00E+00 | | | |
| Lead acetate[2] | 301042 | 0.00E+00 | | | |
| Lead phosphate[2] | 7446277 | 0.00E+00 | | | |
| Lead subacetate[2] | 1335326 | 0.00E+00 | | | |
| LINDANE [see gamma-Hexachlorocyclohexanes] | 58899 | 0.00E+00 | | | |
| MALEIC ANHYDRIDE | 108316 | 0.00E+00 | | | |
| MANGANESE AND COMPOUNDS | 7439965 | 0.00E+00 | | | |
| MERCURY AND COMPOUNDS (INORGANIC) | 7439976 | 0.00E+00 | | | |
| Mercuric chloride | 7487947 | 0.00E+00 | | | |
| METHANOL | 67561 | 0.00E+00 | | | |
| METHYL BROMIDE (Bromomethane) | 74839 | 0.00E+00 | | | |
| METHYL tertiary-BUTYL ETHER | 1634044 | 0.00E+00 | | | |
| METHYL CHLOROFORM (1,1,1-Trichloroethane) | 71556 | 0.00E+00 | | | |
| METHYL ETHYL KETONE (2-Butanone) | 78933 | 0.00E+00 | | | |
| METHYL ISOCYANATE | 624839 | 0.00E+00 | | | |
| 4,4'-METHYLENE BIS (2-CHLOROANILINE) (MOCA) | 101144 | 0.00E+00 | | | |
| METHYLENE CHLORIDE (Dichloromethane) | 75092 | 0.00E+00 | | | |
| 4,4'-METHYLENE DIANILINE (AND ITS DICHLORIDE) | 101779 | 0.00E+00 | | | |
| METHYLENE DIPHENYL ISOCYANATE | 101688 | 0.00E+00 | | | |
| MICHLER'S KETONE (4,4'-Bis(dimethylamino)benzophenone) | 90948 | 0.00E+00 | | | |
| N-NITROSODI-n-BUTYLAMINE | 924163 | 0.00E+00 | | | |
| N-NITROSODI-n-PROPYLAMINE | 621647 | 0.00E+00 | | | |
| N-NITROSODIETHYLAMINE | 55185 | 0.00E+00 | | | |
| N-NITROSODIMETHYLAMINE | 62759 | 0.00E+00 | | | |
| N-NITROSODIPHENYLAMINE | 86306 | 0.00E+00 | | | |
| N-NITROSO-N-METHYLETHYLAMINE | 10595956 | 0.00E+00 | | | |
| N-NITROSOMORPHOLINE | 59892 | 0.00E+00 | | | |
| N-NITROSOPIPERIDINE | 100754 | 0.00E+00 | | | |
| N-NITROSOPYRROLIDINE | 930552 | 0.00E+00 | | | |
| NAPTHALENE [see Polycylcic aromatic hydrocarbons] | 91203 | 0.00E+00 | | | |
| NICKEL AND COMPOUNDS[2] *(values also apply to:)* | 7440020 | 0.00E+00 | | | |
| Nickel acetate[2] | 373024 | 0.00E+00 | | | |
| Nickel carbonate[2] | 3333673 | 0.00E+00 | | | |
| Nickel carbonyl[2] | 13463393 | 0.00E+00 | | | |
| Nickel hydroxide[2] | 12054487 | 0.00E+00 | | | |
| Nickelocene[2] | 1271289 | 0.00E+00 | | | |
| NICKEL OXIDE[2] | 1313991 | 0.00E+00 | | | |
| Nickel refinery dust from the pyrometallurgical process[2] | 1146 | 0.00E+00 | | | |
| Nickel subsulfide[2] | 12035722 | 0.00E+00 | | | |
| NITRIC ACID | 7697372 | 0.00E+00 | | | |
| NITROGEN DIOXIDE | 10102440 | 0.00E+00 | | | |
| p-NITROSODIPHENYLAMINE | 156105 | 0.00E+00 | | | |
| OZONE | 10028156 | 0.00E+00 | | | |
| PARTICULATE EMISSIONS FROM DIESEL-FUELED ENGINES | 85105 | 7.10E-03 | 9.99E+00 | 2.68E-03 | |
| PERCHLOROETHYLENE (Tetrachloroethylene) | 127184 | 0.00E+00 | | | |
| PHENOL | 108952 | 0.00E+00 | | | |
| PHOSGENE | 75445 | 0.00E+00 | | | |
| PHOSPHINE | 7803512 | 0.00E+00 | | | |
| PHOSPHORIC ACID | 7664382 | 0.00E+00 | | | |
| PHTHALIC ANHYDRIDE | 85449 | 0.00E+00 | | | |
| PCB (POLYCHLORINATED BIPHENYLS) | 1336363 | 0.00E+00 | | | |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) (Treated as 2,3,7,8-TCDD for HRA) [2,7] | 1746016 | 0.00E+00 | | | |
| POLYCHLORINATED DIBENZOFURANS (PCDF) (Treated as 2,3,7,8-TCDD for HRA) 2,7 | 1746016 | 0.00E+00 | | | |
| POLYCYCLIC AROMATIC HYDROCARBON[2] (PAH) (AS B(a)P-EQUIV)[5] | 50328 | 0.00E+00 | | | |
| NAPHTHALENE | 91203 | 0.00E+00 | | | |
| POTASSIUM BROMATE | 7758012 | 0.00E+00 | | | |
| 1,3-PROPANE SULTONE | 1120714 | 0.00E+00 | | | |
| PROPYLENE (PROPENE) | 115071 | 0.00E+00 | | | |
| PROPYLENE GLYCOL MONOMETHYL ETHER | 107982 | 0.00E+00 | | | |
| PROPYLENE OXIDE | 75569 | 0.00E+00 | | | |
| SELENIUM AND COMPOUNDS | 7782492 | 0.00E+00 | | | |
| HYDROGEN SELENIDE | 7783075 | 0.00E+00 | | | |
| Selenium sulfide | 7446346 | 0.00E+00 | | | |
| SILICA (Crystalline, Respirable) | 7631869 | 0.00E+00 | | | |
| SODIUM HYDROXIDE | 1310732 | 0.00E+00 | | | |
| STYRENE | 100425 | 0.00E+00 | | | |
| SULFATES | 9960 | 0.00E+00 | | | |
| SULFUR DIOXIDE | 7446095 | 0.00E+00 | | | |
| SULFURIC ACID | 7664939 | 0.00E+00 | | | |

| Step 1: Enter Facility Data | |
|---|---|
| Plant Name | Future Emergency Generator |
| Plant No. | |

| Step 3: Estimate Distance | |
|---|---|
| What is the distance (m) from the facility boundary to the MEI? | 90 |

| Step 4: Specify Source Type | |
|---|---|
| Does facility have only diesel backup generators? | yes |
| Is this analysis for a gas station? | no |

| Step 5: Read Estimates | |
|---|---|
| Total Cancer Risk | 2.5 |
| Total Chronic Hazard | 0.00 |
| Total PM2.5 Concentration | 0.00 |

Step 2: Enter Emissions Data

| Chemical Name | CAS No. | Emission Rate | Cancer Risk | Chronic Hazard | PM2.5 Concentration |
|---|---|---|---|---|---|
| SULFUR TRIOXIDE | 7446719 | 0.00E+00 | | | |
| OLEUM | 8014957 | 0.00E+00 | | | |
| 1,1,2,2-TETRACHLOROETHANE | 79345 | 0.00E+00 | | | |
| THIOACETAMIDE | 62555 | 0.00E+00 | | | |
| TOLUENE | 108883 | 0.00E+00 | | | |
| Toluene diisocyantates | 26471625 | 0.00E+00 | | | |
| TOLUENE-2,4-DIISOCYANATE | 584849 | 0.00E+00 | | | |
| TOLUENE-2,6-DIISOCYANATE | 91087 | 0.00E+00 | | | |
| 1,1,2-TRICHLOROETHANE (Vinyl trichloride) | 79005 | 0.00E+00 | | | |
| TRICHLOROETHYLENE | 79016 | 0.00E+00 | | | |
| TRIETHYLAMINE | 121448 | 0.00E+00 | | | |
| URETHANE (Ethyl carbamate) | 51796 | 0.00E+00 | | | |
| Vanadium Compounds | 7440622 | 0.00E+00 | | | |
| Vanadium (fume or dust) | 7440622 | 0.00E+00 | | | |
| VANADIUM PENTOXIDE | 1314621 | 0.00E+00 | | | |
| VINYL ACETATE | 108054 | 0.00E+00 | | | |
| VINYL CHLORIDE (Chloroethylene) | 75014 | 0.00E+00 | | | |
| VINYLIDENE CHLORIDE (1,1-Dichloroethylene) | 75354 | 0.00E+00 | | | |
| XYLENES (mixed isomers) | 1330207 | 0.00E+00 | | | |
| m-XYLENE | 108383 | 0.00E+00 | | | |
| o-XYLENE | 95476 | 0.00E+00 | | | |
| p-XYLENE | 106423 | 0.00E+00 | | | |
| | | TOTAL UNADJUSTED Risk Values | 9.987 | 0.003 | 1.27E-02 |

| Step 1: Enter Facility Data | |
|---|---|
| Plant Name | E 14th Auto Body Shop |
| Plant No. | 8486 |

| Step 3: Estimate Distance | |
|---|---|
| What is the distance (m) from the facility boundary to the MEI? | 210 |

| Step 4: Specify Source Type | |
|---|---|
| Does facility have only diesel backup generators? | no |
| Is this analysis for a gas station? | no |

| Step 5: Read Estimates | |
|---|---|
| Total Cancer Risk | 0.0 |
| Total Chronic Hazard | 0.00 |
| Total PM2.5 Concentration | 0.00 |

Step 2: Enter Emissions Data

| Chemical Name | CAS No. (dashes removed) | Emission Rate (lb/day) | Cancer Risk (# / 1,000,000) | Chronic Hazard (index) | PM2.5 Concentration (µg/m3) |
|---|---|---|---|---|---|
| Fine Particulate Matter (PM2.5) | | 0.00E+00 | | | |
| ACETALDEHYDE | 75070 | 0.00E+00 | | | |
| ACETAMIDE | 60355 | 0.00E+00 | | | |
| ACROLEIN | 107028 | 0.00E+00 | | | |
| ACRYLAMIDE | 79061 | 0.00E+00 | | | |
| ACRYLIC ACID | 79107 | 0.00E+00 | | | |
| ACRYLONITRILE | 107131 | 0.00E+00 | | | |
| ALLYL CHLORIDE | 107051 | 0.00E+00 | | | |
| 2-AMINOANTHRAQUINONE | 117793 | 0.00E+00 | | | |
| AMMONIA | 7664417 | 0.00E+00 | | | |
| ANILINE | 62533 | 0.00E+00 | | | |
| ARSENIC AND COMPOUNDS (INORGANIC)[1,2] | 7440382 | 0.00E+00 | | | |
| ARSINE | 7784421 | 0.00E+00 | | | |
| ASBESTOS[3] | 1332214 | 0.00E+00 | | | |
| BENZENE[1] | 71432 | 0.00E+00 | | | |
| BENZIDINE (AND ITS SALTS) values also apply to: | 92875 | 0.00E+00 | | | |
| Benzidine based dyes | 92875 | 0.00E+00 | | | |
| Direct Black 38 | 1937377 | 0.00E+00 | | | |
| Direct Blue 6 | 2602462 | 0.00E+00 | | | |
| Direct Brown 95 (technical grade) | 16071866 | 0.00E+00 | | | |
| BENZYL CHLORIDE | 100447 | 0.00E+00 | | | |
| BERYLLIUM AND COMPOUNDS[2] | 7440417 | 0.00E+00 | | | |
| BIS(2-CHLOROETHYL)ETHER (Dichloroethyl ether) | 111444 | 0.00E+00 | | | |
| BIS(CHLOROMETHYL)ETHER | 542881 | 0.00E+00 | | | |
| BROMINE AND COMPOUNDS see Potassium Bromate | 7758012 | 0.00E+00 | | | |
| 1,3-BUTADIENE | 106990 | 0.00E+00 | | | |
| CADMIUM AND COMPOUNDS[2] | 7440439 | 0.00E+00 | | | |
| CAPROLACTAM | 105602 | 0.00E+00 | | | |
| CARBON DISULFIDE[1] | 75150 | 0.00E+00 | | | |
| CARBON MONOXIDE | 630080 | 0.00E+00 | | | |
| CARBON TETRACHLORIDE[1] (Tetrachloromethane) | 56235 | 0.00E+00 | | | |
| CHLORINATED PARAFFINS | 108171262 | 0.00E+00 | | | |
| CHLORINE | 7782505 | 0.00E+00 | | | |
| CHLORINE DIOXIDE | 10049044 | 0.00E+00 | | | |
| 4-CHLORO-O-PHENYLENEDIAMINE | 95830 | 0.00E+00 | | | |
| CHLOROBENZENE | 108907 | 0.00E+00 | | | |
| CHLOROFORM[1] | 67663 | 0.00E+00 | | | |
| Chlorophenols | 87865 | 0.00E+00 | | | |
| PENTACHLOROPHENOL | 87865 | 0.00E+00 | | | |
| 2,4,6-TRICHLOROPHENOL | 88062 | 0.00E+00 | | | |
| CHLOROPICRIN | 76062 | 0.00E+00 | | | |
| p-CHLORO-o-TOLUIDINE | 95692 | 0.00E+00 | | | |
| CHROMIUM 6+[2] | 18540299 | 0.00E+00 | | | |
| Barium chromate[2] | 10294403 | 0.00E+00 | | | |
| Calcium chromate[2] | 13765190 | 0.00E+00 | | | |
| Lead chromate[2] | 7758976 | 0.00E+00 | | | |
| Sodium dichromate[2] | 10588019 | 0.00E+00 | | | |
| Strontium chromate[2] | 7789062 | 0.00E+00 | | | |
| CHROMIC TRIOXIDE (as chromic acid mist) | 1333820 | 0.00E+00 | | | |
| COPPER AND COMPOUNDS | 7440508 | 0.00E+00 | | | |
| p-CRESIDINE | 120718 | 0.00E+00 | | | |
| CRESOLS | 1319773 | 0.00E+00 | | | |
| M-CRESOL | 108394 | 0.00E+00 | | | |
| O-CRESOL | 95487 | 0.00E+00 | | | |
| P-CRESOL | 106445 | 0.00E+00 | | | |
| CUPFERRON | 135206 | 0.00E+00 | | | |
| Cyanide And Compounds (inorganic) | 57125 | 0.00E+00 | | | |
| HYDROGEN CYANIDE (Hydrocyanic acid) | 74908 | 0.00E+00 | | | |
| 2,4-DIAMINOANISOLE | 615054 | 0.00E+00 | | | |
| 2,4-DIAMINOTOLUENE | 95807 | 0.00E+00 | | | |
| 1,2-DIBROMO-3-CHLOROPROPANE (DBCP) | 96128 | 0.00E+00 | | | |
| 1,4-DICHLOROBENZENE (p-Dichlorobenzene) | 106467 | 0.00E+00 | | | |
| 3,3-DICHLOROBENZIDINE | 91941 | 0.00E+00 | | | |
| 1,1,-DICHLOROETHANE (Ethylidene dichloride) | 75343 | 0.00E+00 | | | |
| DI(2-ETHYLHEXYL)PHTHALATE (DEHP) | 117817 | 0.00E+00 | | | |
| DIETHANOLAMINE | 111422 | 0.00E+00 | | | |
| p-DIMETHYLAMINOAZOBENZENE | 60117 | 0.00E+00 | | | |
| N,N-DIMETHYL FORMAMIDE | 68122 | 0.00E+00 | | | |
| 2,4-DINITROTOLUENE | 121142 | 0.00E+00 | | | |
| 1,4-DIOXANE (1,4-Diethylene dioxide) | 123911 | 0.00E+00 | | | |
| EPICHLOROHYDRIN (1-Chloro-2,3-epoxypropane) | 106898 | 0.00E+00 | | | |
| 1,2-EPOXYBUTANE | 106887 | 0.00E+00 | | | |
| ETHYL BENZENE | 100414 | 0.00E+00 | | | |
| ETHYL CHLORIDE (Chloroethane) | 75003 | 0.00E+00 | | | |
| ETHYLENE DIBROMIDE (1,2-Dibromoethane) | 106934 | 0.00E+00 | | | |
| ETHYLENE DICHLORIDE (1,2-Dichloroethane) | 107062 | 0.00E+00 | | | |
| ETHYLENE GLYCOL | 107211 | 0.00E+00 | | | |
| ETHYLENE OXIDE (1,2-Epoxyethane) | 75218 | 0.00E+00 | | | |
| ETHYLENE THIOUREA | 96457 | 0.00E+00 | | | |
| Fluorides | 1101 | 0.00E+00 | | | |
| HYDROGEN FLUORIDE (Hydrofluoric acid) | 7664393 | 0.00E+00 | | | |
| FORMALDEHYDE | 50000 | 0.00E+00 | | | |
| GLUTARALDEHYDE | 111308 | 0.00E+00 | | | |
| GLYCOL ETHERS | 107211 | 0.00E+00 | | | |
| ETHYLENE GLYCOL BUTYL ETHER – EGBE | 111762 | 0.00E+00 | | | |
| ETHYLENE GLYCOL ETHYL ETHER – EGEE[1] | 110805 | 0.00E+00 | | | |

| Step 1: Enter Facility Data | |
|---|---|
| Plant Name | E 14th Auto Body Shop |
| Plant No. | 8486 |

| Step 3: Estimate Distance | |
|---|---|
| What is the distance (m) from the facility boundary to the MEI? | 210 |

| Step 4: Specify Source Type | |
|---|---|
| Does facility have only diesel backup generators? | no |
| Is this analysis for a gas station? | no |

| Step 5: Read Estimates | |
|---|---|
| Total Cancer Risk | 0.0 |
| Total Chronic Hazard | 0.00 |
| Total PM2.5 Concentration | 0.00 |

Step 2: Enter Emissions Data

| Chemical Name | CAS No. (dashes removed) | Emission Rate (lb/day) | Cancer Risk (# / 1,000,000) | Chronic Hazard (index) | PM2.5 Concentration (µg/m3) |
|---|---|---|---|---|---|
| ETHYLENE GLYCOL ETHYL ETHER ACETATE – EGEEA[1] | 111159 | 0.00E+00 | | | |
| ETHYLENE GLYCOL METHYL ETHER – EGME[1] | 109864 | 0.00E+00 | | | |
| ETHYLENE GLYCOL METHYL ETHER ACETATE – EGMEA | 110496 | 0.00E+00 | | | |
| HEXACHLOROBENZENE | 118741 | 0.00E+00 | | | |
| HEXACHLOROCYCLOHEXANES (mixed or technical grade) | 608731 | 0.00E+00 | | | |
| alpha-HEXACHLOROCYCLOHEXANE | 319846 | 0.00E+00 | | | |
| beta- HEXACHLOROCYCLOHEXANE | 319857 | 0.00E+00 | | | |
| gamma-HEXACHLOROCYCLOHEXANE (Lindane) | 58899 | 0.00E+00 | | | |
| n-HEXANE | 110543 | 0.00E+00 | | | |
| HYDRAZINE | 302012 | 0.00E+00 | | | |
| HYDROCHLORIC ACID (Hydrogen chloride) | 7647010 | 0.00E+00 | | | |
| HYDROGEN SULFIDE | 7783064 | 0.00E+00 | | | |
| ISOPHORONE | 78591 | 0.00E+00 | | | |
| ISOPROPYL ALCOHOL (Isopropanol) | 67630 | 0.00E+00 | | | |
| LEAD AND COMPOUNDS[2,4] (inorganic) *values also apply to:* | 7439921 | 0.00E+00 | | | |
| Lead acetate[2] | 301042 | 0.00E+00 | | | |
| Lead phosphate[2] | 7446277 | 0.00E+00 | | | |
| Lead subacetate[2] | 1335326 | 0.00E+00 | | | |
| LINDANE [see gamma-Hexachlorocyclohexanes] | 58899 | 0.00E+00 | | | |
| MALEIC ANHYDRIDE | 108316 | 0.00E+00 | | | |
| MANGANESE AND COMPOUNDS | 7439965 | 0.00E+00 | | | |
| MERCURY AND COMPOUNDS (INORGANIC) | 7439976 | 0.00E+00 | | | |
| Mercuric chloride | 7487947 | 0.00E+00 | | | |
| METHANOL | 67561 | 0.00E+00 | | | |
| METHYL BROMIDE (Bromomethane) | 74839 | 0.00E+00 | | | |
| METHYL tertiary-BUTYL ETHER | 1634044 | 0.00E+00 | | | |
| METHYL CHLOROFORM (1,1,1-Trichloroethane) | 71556 | 0.00E+00 | | | |
| METHYL ETHYL KETONE (2-Butanone) | 78933 | 1.92E-01 | | | |
| METHYL ISOCYANATE | 624839 | 0.00E+00 | | | |
| 4,4'-METHYLENE BIS (2-CHLOROANILINE) (MOCA) | 101144 | 0.00E+00 | | | |
| METHYLENE CHLORIDE (Dichloromethane) | 75092 | 0.00E+00 | | | |
| 4,4'-METHYLENE DIANILINE (AND ITS DICHLORIDE) | 101779 | 0.00E+00 | | | |
| METHYLENE DIPHENYL ISOCYANATE | 101688 | 0.00E+00 | | | |
| MICHLER'S KETONE (4,4'-Bis(dimethylamino)benzophenone) | 90948 | 0.00E+00 | | | |
| N-NITROSODI-n-BUTYLAMINE | 924163 | 0.00E+00 | | | |
| N-NITROSODI-n-PROPYLAMINE | 621647 | 0.00E+00 | | | |
| N-NITROSODIETHYLAMINE | 55185 | 0.00E+00 | | | |
| N-NITROSODIMETHYLAMINE | 62759 | 0.00E+00 | | | |
| N-NITROSODIPHENYLAMINE | 86306 | 0.00E+00 | | | |
| N-NITROSO-N-METHYLETHYLAMINE | 10595956 | 0.00E+00 | | | |
| N-NITROSOMORPHOLINE | 59892 | 0.00E+00 | | | |
| N-NITROSOPIPERIDINE | 100754 | 0.00E+00 | | | |
| N-NITROSOPYRROLIDINE | 930552 | 0.00E+00 | | | |
| NAPTHALENE [see Polycylcic aromatic hydrocarbons] | 91203 | 0.00E+00 | | | |
| NICKEL AND COMPOUNDS[2] *(values also apply to:)* | 7440020 | 0.00E+00 | | | |
| Nickel acetate[2] | 373024 | 0.00E+00 | | | |
| Nickel carbonate[2] | 3333673 | 0.00E+00 | | | |
| Nickel carbonyl[2] | 13463393 | 0.00E+00 | | | |
| Nickel hydroxide[2] | 12054487 | 0.00E+00 | | | |
| Nickelocene[2] | 1271289 | 0.00E+00 | | | |
| NICKEL OXIDE[2] | 1313991 | 0.00E+00 | | | |
| Nickel refinery dust from the pyrometallurgical process[2] | 1146 | 0.00E+00 | | | |
| Nickel subsulfide[2] | 12035722 | 0.00E+00 | | | |
| NITRIC ACID | 7697372 | 0.00E+00 | | | |
| NITROGEN DIOXIDE | 10102440 | 0.00E+00 | | | |
| p-NITROSODIPHENYLAMINE | 156105 | 0.00E+00 | | | |
| OZONE | 10028156 | 0.00E+00 | | | |
| PARTICULATE EMISSIONS FROM DIESEL-FUELED ENGINES | 85105 | 0.00E+00 | | | |
| PERCHLOROETHYLENE (Tetrachloroethylene) | 127184 | 0.00E+00 | | | |
| PHENOL | 108952 | 0.00E+00 | | | |
| PHOSGENE | 75445 | 0.00E+00 | | | |
| PHOSPHINE | 7803512 | 0.00E+00 | | | |
| PHOSPHORIC ACID | 7664382 | 0.00E+00 | | | |
| PHTHALIC ANHYDRIDE | 85449 | 0.00E+00 | | | |
| PCB (POLYCHLORINATED BIPHENYLS) | 1336363 | 0.00E+00 | | | |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) (Treated as 2,3,7,8-TCDD for HRA)[2,7] | 1746016 | 0.00E+00 | | | |
| POLYCHLORINATED DIBENZOFURANS (PCDF) (Treated as 2,3,7,8-TCDD for HRA) 2,7 | 1746016 | 0.00E+00 | | | |
| POLYCYCLIC AROMATIC HYDROCARBON[2] (PAH) (AS B(a)P-EQUIV)[5] | 50328 | 0.00E+00 | | | |
| NAPHTHALENE | 91203 | 0.00E+00 | | | |
| POTASSIUM BROMATE | 7758012 | 0.00E+00 | | | |
| 1,3-PROPANE SULTONE | 1120714 | 0.00E+00 | | | |
| PROPYLENE (PROPENE) | 115071 | 0.00E+00 | | | |
| PROPYLENE GLYCOL MONOMETHYL ETHER | 107982 | 0.00E+00 | | | |
| PROPYLENE OXIDE | 75569 | 0.00E+00 | | | |
| SELENIUM AND COMPOUNDS | 7782492 | 0.00E+00 | | | |
| HYDROGEN SELENIDE | 7783075 | 0.00E+00 | | | |
| Selenium sulfide | 7446346 | 0.00E+00 | | | |
| SILICA (Crystalline, Respirable) | 7631869 | 0.00E+00 | | | |
| SODIUM HYDROXIDE | 1310732 | 0.00E+00 | | | |
| STYRENE | 100425 | 0.00E+00 | | | |
| SULFATES | 9960 | 0.00E+00 | | | |
| SULFUR DIOXIDE | 7446095 | 0.00E+00 | | | |

| Step 1: Enter Facility Data | |
|---|---|
| Plant Name | E 14th Auto Body Shop |
| Plant No. | 8486 |

| Step 3: Estimate Distance | |
|---|---|
| What is the distance (m) from the facility boundary to the MEI? | 210 |

| Step 4: Specify Source Type | |
|---|---|
| Does facility have only diesel backup generators? | no |
| Is this analysis for a gas station? | no |

| Step 5: Read Estimates | |
|---|---|
| Total Cancer Risk | 0.0 |
| Total Chronic Hazard | 0.00 |
| Total PM2.5 Concentration | 0.00 |

Step 2: Enter Emissions Data

| Chemical Name | CAS No. (dashes removed) | Emission Rate (lb/day) | Cancer Risk (# / 1,000,000) | Chronic Hazard (index) | PM2.5 Concentration (µg/m3) |
|---|---|---|---|---|---|
| SULFURIC ACID | 7664939 | 0.00E+00 | | | |
| SULFUR TRIOXIDE | 7446719 | 0.00E+00 | | | |
| OLEUM | 8014957 | 0.00E+00 | | | |
| 1,1,2,2-TETRACHLOROETHANE | 79345 | 0.00E+00 | | | |
| THIOACETAMIDE | 62555 | 0.00E+00 | | | |
| TOLUENE | 108883 | 2.62E-02 | | 1.65E-04 | |
| Toluene diisocyantates | 26471625 | 0.00E+00 | | | |
| TOLUENE-2,4-DIISOCYANATE | 584849 | 0.00E+00 | | | |
| TOLUENE-2,6-DIISOCYANATE | 91087 | 0.00E+00 | | | |
| 1,1,2-TRICHLOROETHANE (Vinyl trichloride) | 79005 | 0.00E+00 | | | |
| TRICHLOROETHYLENE | 79016 | 0.00E+00 | | | |
| TRIETHYLAMINE | 121448 | 0.00E+00 | | | |
| URETHANE (Ethyl carbamate) | 51796 | 0.00E+00 | | | |
| Vanadium Compounds | 7440622 | 0.00E+00 | | | |
| Vanadium (fume or dust) | 7440622 | 0.00E+00 | | | |
| VANADIUM PENTOXIDE | 1314621 | 0.00E+00 | | | |
| VINYL ACETATE | 108054 | 0.00E+00 | | | |
| VINYL CHLORIDE (Chloroethylene) | 75014 | 0.00E+00 | | | |
| VINYLIDENE CHLORIDE (1,1-Dichloroethylene) | 75354 | 0.00E+00 | | | |
| XYLENES (mixed isomers) | 1330207 | 0.00E+00 | | | |
| m-XYLENE | 108383 | 0.00E+00 | | | |
| o-XYLENE | 95476 | 0.00E+00 | | | |
| p-XYLENE | 106423 | 0.00E+00 | | | |
| | | TOTAL UNADJUSTED Risk Values | 0.000 | 0.000 | 0.00E+00 |

| Step 1: Enter Facility Data | |
|---|---|
| Plant Name | Kaiser Permanente |
| Plant No. | 13949 |

| Step 3: Estimate Distance | |
|---|---|
| What is the distance (m) from the facility boundary to the MEI? | |

| Step 4: Specify Source Type | |
|---|---|
| Does facility have only diesel backup generators? | no |
| Is this analysis for a gas station? | no |

| Step 5: Read Estimates | | |
|---|---|---|
| Total Cancer Risk | 33.0 | per 1,000,000 |
| Total Chronic Hazard | 0.01 | |
| Total PM2.5 Concentration | 0.00 | µg/m³ |

Step 2: Enter Emissions Data

| Chemical Name | CAS No. (dashes removed) | Emission Rate (lb/day) | Cancer Risk (# / 1,000,000) | Chronic Hazard (index) | PM2.5 Concentration (µg/m3) |
|---|---|---|---|---|---|
| Fine Particulate Matter (PM2.5) | | 0.00E+00 | | | |
| ACETALDEHYDE | 75070 | 0.00E+00 | | | |
| ACETAMIDE | 60355 | 0.00E+00 | | | |
| ACROLEIN | 107028 | 0.00E+00 | | | |
| ACRYLAMIDE | 79061 | 0.00E+00 | | | |
| ACRYLIC ACID | 79107 | 0.00E+00 | | | |
| ACRYLONITRILE | 107131 | 0.00E+00 | | | |
| ALLYL CHLORIDE | 107051 | 0.00E+00 | | | |
| 2-AMINOANTHRAQUINONE | 117793 | 0.00E+00 | | | |
| AMMONIA | 7664417 | 0.00E+00 | | | |
| ANILINE | 62533 | 0.00E+00 | | | |
| ARSENIC AND COMPOUNDS (INORGANIC)[1,2] | 7440382 | 2.24E-07 | 5.16E-02 | 3.02E-03 | |
| ARSINE | 7784421 | 0.00E+00 | | | |
| ASBESTOS[3] | 1332214 | 0.00E+00 | | | |
| BENZENE[1] | 71432 | 2.57E-04 | 3.29E-02 | 1.62E-04 | |
| BENZIDINE (AND ITS SALTS) values also apply to: | 92875 | 0.00E+00 | | | |
| Benzidine based dyes | 92875 | 0.00E+00 | | | |
| Direct Black 38 | 1937377 | 0.00E+00 | | | |
| Direct Blue 6 | 2602462 | 0.00E+00 | | | |
| Direct Brown 95 (technical grade) | 16071866 | 0.00E+00 | | | |
| BENZYL CHLORIDE | 100447 | 0.00E+00 | | | |
| BERYLLIUM AND COMPOUNDS[2] | 7440417 | 1.31E-07 | 1.41E-03 | 3.54E-05 | |
| BIS(2-CHLOROETHYL)ETHER (Dichloroethyl ether) | 111444 | 0.00E+00 | | | |
| BIS(CHLOROMETHYL)ETHER | 542881 | 0.00E+00 | | | |
| BROMINE AND COMPOUNDS see Potassium Bromate | 7758012 | 0.00E+00 | | | |
| 1,3-BUTADIENE | 106990 | 0.00E+00 | | | |
| CADMIUM AND COMPOUNDS[2] | 7440439 | 5.60E-07 | 1.07E-02 | 1.06E-04 | |
| CAPROLACTAM | 105602 | 0.00E+00 | | | |
| CARBON DISULFIDE[1] | 75150 | 0.00E+00 | | | |
| CARBON MONOXIDE | 630080 | 8.23E-03 | | | |
| CARBON TETRACHLORIDE[1] (Tetrachloromethane) | 56235 | 0.00E+00 | | | |
| CHLORINATED PARAFFINS | 108171262 | 0.00E+00 | | | |
| CHLORINE | 7782505 | 0.00E+00 | | | |
| CHLORINE DIOXIDE | 10049044 | 0.00E+00 | | | |
| 4-CHLORO-O-PHENYLENEDIAMINE | 95830 | 0.00E+00 | | | |
| CHLOROBENZENE | 108907 | 0.00E+00 | | | |
| CHLOROFORM[1] | 67663 | 0.00E+00 | | | |
| Chlorophenols | 87865 | 0.00E+00 | | | |
| PENTACHLOROPHENOL | 87865 | 0.00E+00 | | | |
| 2,4,6-TRICHLOROPHENOL | 88062 | 0.00E+00 | | | |
| CHLOROPICRIN | 76062 | 0.00E+00 | | | |
| p-CHLORO-o-TOLUIDINE | 95692 | 0.00E+00 | | | |
| CHROMIUM 6+[2] | 18540299 | 1.16E-08 | 8.31E-03 | 1.10E-07 | |
| Barium chromate[2] | 10294403 | 0.00E+00 | | | |
| Calcium chromate[2] | 13765190 | 0.00E+00 | | | |
| Lead chromate[2] | 7758976 | 0.00E+00 | | | |
| Sodium dichromate[2] | 10588019 | 0.00E+00 | | | |
| Strontium chromate[2] | 7789062 | 0.00E+00 | | | |
| CHROMIC TRIOXIDE (as chromic acid mist) | 1333820 | 0.00E+00 | | | |
| COPPER AND COMPOUNDS | 7440508 | 0.00E+00 | | | |
| p-CRESIDINE | 120718 | 0.00E+00 | | | |
| CRESOLS | 1319773 | 0.00E+00 | | | |
| M-CRESOL | 108394 | 0.00E+00 | | | |
| O-CRESOL | 95487 | 0.00E+00 | | | |
| P-CRESOL | 106445 | 0.00E+00 | | | |
| CUPFERRON | 135206 | 0.00E+00 | | | |
| Cyanide And Compounds (inorganic) | 57125 | 0.00E+00 | | | |
| HYDROGEN CYANIDE (Hydrocyanic acid) | 74908 | 0.00E+00 | | | |
| 2,4-DIAMINOANISOLE | 615054 | 0.00E+00 | | | |
| 2,4-DIAMINOTOLUENE | 95807 | 0.00E+00 | | | |
| 1,2-DIBROMO-3-CHLOROPROPANE (DBCP) | 96128 | 0.00E+00 | | | |
| 1,4-DICHLOROBENZENE (p-Dichlorobenzene) | 106467 | 0.00E+00 | | | |
| 3,3-DICHLOROBENZIDINE | 91941 | 0.00E+00 | | | |
| 1,1,-DICHLOROETHANE (Ethylidene dichloride) | 75343 | 0.00E+00 | | | |
| DI(2-ETHYLHEXYL)PHTHALATE (DEHP) | 117817 | 0.00E+00 | | | |
| DIETHANOLAMINE | 111422 | 0.00E+00 | | | |
| p-DIMETHYLAMINOAZOBENZENE | 60117 | 0.00E+00 | | | |
| N,N-DIMETHYL FORMAMIDE | 68122 | 0.00E+00 | | | |
| 2,4-DINITROTOLUENE | 121142 | 0.00E+00 | | | |
| 1,4-DIOXANE (1,4-Diethylene dioxide) | 123911 | 0.00E+00 | | | |
| EPICHLOROHYDRIN (1-Chloro-2,3-epoxypropane) | 106898 | 0.00E+00 | | | |
| 1,2-EPOXYBUTANE | 106887 | 0.00E+00 | | | |
| ETHYL BENZENE | 100414 | 0.00E+00 | | | |
| ETHYL CHLORIDE (Chloroethane) | 75003 | 0.00E+00 | | | |
| ETHYLENE DIBROMIDE (1,2-Dibromoethane) | 106934 | 0.00E+00 | | | |
| ETHYLENE DICHLORIDE (1,2-Dichloroethane) | 107062 | 0.00E+00 | | | |
| ETHYLENE GLYCOL | 107211 | 0.00E+00 | | | |
| ETHYLENE OXIDE (1,2-Epoxyethane) | 75218 | 0.00E+00 | | | |
| ETHYLENE THIOUREA | 96457 | 0.00E+00 | | | |
| Fluorides | 1101 | 0.00E+00 | | | |
| HYDROGEN FLUORIDE (Hydrofluoric acid) | 7664393 | 0.00E+00 | | | |
| FORMALDEHYDE | 50000 | 2.13E-05 | 5.72E-04 | 4.47E-06 | |
| GLUTARALDEHYDE | 111308 | 0.00E+00 | | | |
| GLYCOL ETHERS | 107211 | 0.00E+00 | | | |
| ETHYLENE GLYCOL BUTYL ETHER – EGBE | 111762 | 0.00E+00 | | | |
| ETHYLENE GLYCOL ETHYL ETHER – EGEE[1] | 110805 | 0.00E+00 | | | |

| | | | | |
|---|---|---|---|---|
| ETHYLENE GLYCOL ETHYL ETHER ACETATE – EGEEA [1] | 111159 | 0.00E+00 | | |
| ETHYLENE GLYCOL METHYL ETHER – EGME [1] | 109864 | 0.00E+00 | | |
| ETHYLENE GLYCOL METHYL ETHER ACETATE – EGMEA | 110496 | 0.00E+00 | | |
| HEXACHLOROBENZENE | 118741 | 0.00E+00 | | |
| HEXACHLOROCYCLOHEXANES (mixed or technical grade) | 608731 | 0.00E+00 | | |
| alpha-HEXACHLOROCYCLOHEXANE | 319846 | 0.00E+00 | | |
| beta- HEXACHLOROCYCLOHEXANE | 319857 | 0.00E+00 | | |
| gamma-HEXACHLOROCYCLOHEXANE (Lindane) | 58899 | 0.00E+00 | | |
| n-HEXANE | 110543 | 0.00E+00 | | |
| HYDRAZINE | 302012 | 0.00E+00 | | |
| HYDROCHLORIC ACID (Hydrogen chloride) | 7647010 | 0.00E+00 | | |
| HYDROGEN SULFIDE | 7783064 | 0.00E+00 | | |
| ISOPHORONE | 78591 | 0.00E+00 | | |
| ISOPROPYL ALCOHOL (Isopropanol) | 67630 | 0.00E+00 | | |
| LEAD AND COMPOUNDS [2,4] (inorganic) *values also apply to:* | 7439921 | 4.75E-07 | 5.95E-04 | |
| Lead acetate [2] | 301042 | 0.00E+00 | | |
| Lead phosphate [2] | 7446277 | 0.00E+00 | | |
| Lead subacetate [2] | 1335326 | 0.00E+00 | | |
| LINDANE [see gamma-Hexachlorocyclohexanes] | 58899 | 0.00E+00 | | |
| MALEIC ANHYDRIDE | 108316 | 0.00E+00 | | |
| MANGANESE AND COMPOUNDS | 7439965 | 7.46E-07 | | 1.57E-05 |
| MERCURY AND COMPOUNDS (INORGANIC) | 7439976 | 1.58E-07 | | 5.53E-05 |
| Mercuric chloride | 7487947 | 0.00E+00 | | |
| METHANOL | 67561 | 0.00E+00 | | |
| METHYL BROMIDE (Bromomethane) | 74839 | 0.00E+00 | | |
| METHYL tertiary-BUTYL ETHER | 1634044 | 0.00E+00 | | |
| METHYL CHLOROFORM (1,1,1-Trichloroethane) | 71556 | 0.00E+00 | | |
| METHYL ETHYL KETONE (2-Butanone) | 78933 | 0.00E+00 | | |
| METHYL ISOCYANATE | 624839 | 0.00E+00 | | |
| 4,4'-METHYLENE BIS (2-CHLOROANILINE) (MOCA) | 101144 | 0.00E+00 | | |
| METHYLENE CHLORIDE (Dichloromethane) | 75092 | 0.00E+00 | | |
| 4,4'-METHYLENE DIANILINE (AND ITS DICHLORIDE) | 101779 | 0.00E+00 | | |
| METHYLENE DIPHENYL ISOCYANATE | 101688 | 0.00E+00 | | |
| MICHLER'S KETONE (4,4'-Bis(dimethylamino)benzophenone) | 90948 | 0.00E+00 | | |
| N-NITROSODI-n-BUTYLAMINE | 924163 | 0.00E+00 | | |
| N-NITROSODI-n-PROPYLAMINE | 621647 | 0.00E+00 | | |
| N-NITROSODIETHYLAMINE | 55185 | 0.00E+00 | | |
| N-NITROSODIMETHYLAMINE | 62759 | 0.00E+00 | | |
| N-NITROSODIPHENYLAMINE | 86306 | 0.00E+00 | | |
| N-NITROSO-N-METHYLETHYLAMINE | 10595956 | 0.00E+00 | | |
| N-NITROSOMORPHOLINE | 59892 | 0.00E+00 | | |
| N-NITROSOPIPERIDINE | 100754 | 0.00E+00 | | |
| N-NITROSOPYRROLIDINE | 930552 | 0.00E+00 | | |
| NAPTHALENE [see Polycylcic aromatic hydrocarbons] | 91203 | 0.00E+00 | | |
| NICKEL AND COMPOUNDS[2] *(values also apply to:)* | 7440020 | 9.06E-06 | 1.05E-02 | 1.22E-03 |
| Nickel acetate [2] | 373024 | 0.00E+00 | | |
| Nickel carbonate [2] | 3333673 | 0.00E+00 | | |
| Nickel carbonyl [2] | 13463393 | 0.00E+00 | | |
| Nickel hydroxide [2] | 12054487 | 0.00E+00 | | |
| Nickelocene [2] | 1271289 | 0.00E+00 | | |
| NICKEL OXIDE[2] | 1313991 | 0.00E+00 | | |
| Nickel refinery dust from the pyrometallurgical process[2] | 1146 | 0.00E+00 | | |
| Nickel subsulfide [2] | 12035722 | 0.00E+00 | | |
| NITRIC ACID | 7697372 | 0.00E+00 | | |
| NITROGEN DIOXIDE | 10102440 | 1.30E-01 | | |
| p-NITROSODIPHENYLAMINE | 156105 | 0.00E+00 | | |
| OZONE | 10028156 | 0.00E+00 | | |
| PARTICULATE EMISSIONS FROM DIESEL-FUELED ENGINES | 85105 | 2.33E-02 | 3.28E+01 | 8.81E-03 |
| PERCHLOROETHYLENE (Tetrachloroethylene) | 127184 | 0.00E+00 | | |
| PHENOL | 108952 | 0.00E+00 | | |
| PHOSGENE | 75445 | 0.00E+00 | | |
| PHOSPHINE | 7803512 | 0.00E+00 | | |
| PHOSPHORIC ACID | 7664382 | 0.00E+00 | | |
| PHTHALIC ANHYDRIDE | 85449 | 0.00E+00 | | |
| PCB (POLYCHLORINATED BIPHENYLS) | 1336363 | 0.00E+00 | | |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) (Treated as 2,3,7,8-TCDD for HRA) [2,7] | 1746016 | 0.00E+00 | | |
| POLYCHLORINATED DIBENZOFURANS (PCDF) (Treated as 2,3,7,8-TCDD for HRA) 2,7 | 1746016 | 0.00E+00 | | |
| POLYCYCLIC AROMATIC HYDROCARBON [2] (PAH) (AS B(a)P-EQUIV)[5] | 50328 | 1.18E-06 | 1.30E-01 | |
| NAPHTHALENE | 91203 | 0.00E+00 | | |
| POTASSIUM BROMATE | 7758012 | 0.00E+00 | | |
| 1,3-PROPANE SULTONE | 1120714 | 0.00E+00 | | |
| PROPYLENE (PROPENE) | 115071 | 0.00E+00 | | |
| PROPYLENE GLYCOL MONOMETHYL ETHER | 107982 | 0.00E+00 | | |
| PROPYLENE OXIDE | 75569 | 0.00E+00 | | |
| SELENIUM AND COMPOUNDS | 7782492 | 0.00E+00 | | |
| HYDROGEN SELENIDE | 7783075 | 0.00E+00 | | |
| Selenium sulfide | 7446346 | 0.00E+00 | | |
| SILICA (Crystalline, Respirable) | 7631869 | 0.00E+00 | | |
| SODIUM HYDROXIDE | 1310732 | 0.00E+00 | | |
| STYRENE | 100425 | 0.00E+00 | | |
| SULFATES | 9960 | 0.00E+00 | | |
| SULFUR DIOXIDE | 7446095 | 8.40E-05 | | |
| SULFURIC ACID | 7664939 | 0.00E+00 | | |
| SULFUR TRIOXIDE | 7446719 | 0.00E+00 | | |
| OLEUM | 8014957 | 0.00E+00 | | |
| 1,1,2,2-TETRACHLOROETHANE | 79345 | 0.00E+00 | | |
| THIOACETAMIDE | 62555 | 0.00E+00 | | |
| TOLUENE | 108883 | 0.00E+00 | | |
| Toluene diisocyantates | 26471625 | 0.00E+00 | | |
| TOLUENE-2,4-DIISOCYANATE | 584849 | 0.00E+00 | | |
| TOLUENE-2,6-DIISOCYANATE | 91087 | 0.00E+00 | | |
| 1,1,2-TRICHLOROETHANE (Vinyl trichloride) | 79005 | 0.00E+00 | | |
| TRICHLOROETHYLENE | 79016 | 0.00E+00 | | |
| TRIETHYLAMINE | 121448 | 0.00E+00 | | |
| URETHANE (Ethyl carbamate) | 51796 | 0.00E+00 | | |
| Vanadium Compounds | 7440622 | 0.00E+00 | | |
| Vanadium (fume or dust) | 7440622 | 0.00E+00 | | |
| VANADIUM PENTOXIDE | 1314621 | 0.00E+00 | | |
| VINYL ACETATE | 108054 | 0.00E+00 | | |

| | | | | | |
|---|---|---|---|---|---|
| VINYL CHLORIDE (Chloroethylene) | 75014 | 0.00E+00 | | | |
| VINYLIDENE CHLORIDE (1,1-Dichloroethylene) | 75354 | 0.00E+00 | | | |
| XYLENES (mixed isomers) | 1330207 | 0.00E+00 | | | |
| m-XYLENE | 108383 | 0.00E+00 | | | |
| o-XYLENE | 95476 | 0.00E+00 | | | |
| p-XYLENE | 106423 | 0.00E+00 | | | |
| | | **TOTAL UNADJUSTED Risk Values** | **33.022** | **0.013** | **0.00E+00** |

| Step 1: Enter Facility Data | |
|---|---|
| Plant Name | MD Auto Body |
| Plant No. | 15866 |

| Step 3: Estimate Distance | |
|---|---|
| What is the distance (m) from the facility boundary to the MEI? | |

| Step 4: Specify Source Type | |
|---|---|
| Does facility have only diesel backup generators? | no |
| Is this analysis for a gas station? | no |

| Step 5: Read Estimates | | |
|---|---|---|
| Total Cancer Risk | 0.0 | per 1,000,000 |
| Total Chronic Hazard | 0.00 | |
| Total PM2.5 Concentration | 0.00 | µg/m³ |

Step 2: Enter Emissions Data

| Chemical Name | CAS No. (dashes removed) | Emission Rate (lb/day) | Cancer Risk (# / 1,000,000) | Chronic Hazard (index) | PM2.5 Concentration (µg/m3) |
|---|---|---|---|---|---|
| Fine Particulate Matter (PM2.5) | | 0.00E+00 | | | |
| ACETALDEHYDE | 75070 | 0.00E+00 | | | |
| ACETAMIDE | 60355 | 0.00E+00 | | | |
| ACROLEIN | 107028 | 0.00E+00 | | | |
| ACRYLAMIDE | 79061 | 0.00E+00 | | | |
| ACRYLIC ACID | 79107 | 0.00E+00 | | | |
| ACRYLONITRILE | 107131 | 0.00E+00 | | | |
| ALLYL CHLORIDE | 107051 | 0.00E+00 | | | |
| 2-AMINOANTHRAQUINONE | 117793 | 0.00E+00 | | | |
| AMMONIA | 7664417 | 0.00E+00 | | | |
| ANILINE | 62533 | 0.00E+00 | | | |
| ARSENIC AND COMPOUNDS (INORGANIC)[1,2] | 7440382 | 0.00E+00 | | | |
| ARSINE | 7784421 | 0.00E+00 | | | |
| ASBESTOS[3] | 1332214 | 0.00E+00 | | | |
| BENZENE[1] | 71432 | 0.00E+00 | | | |
| BENZIDINE (AND ITS SALTS) values also apply to: | 92875 | 0.00E+00 | | | |
| Benzidine based dyes | 92875 | 0.00E+00 | | | |
| Direct Black 38 | 1937377 | 0.00E+00 | | | |
| Direct Blue 6 | 2602462 | 0.00E+00 | | | |
| Direct Brown 95 (technical grade) | 16071866 | 0.00E+00 | | | |
| BENZYL CHLORIDE | 100447 | 0.00E+00 | | | |
| BERYLLIUM AND COMPOUNDS[2] | 7440417 | 0.00E+00 | | | |
| BIS(2-CHLOROETHYL)ETHER (Dichloroethyl ether) | 111444 | 0.00E+00 | | | |
| BIS(CHLOROMETHYL)ETHER | 542881 | 0.00E+00 | | | |
| BROMINE AND COMPOUNDS see Potassium Bromate | 7758012 | 0.00E+00 | | | |
| 1,3-BUTADIENE | 106990 | 0.00E+00 | | | |
| CADMIUM AND COMPOUNDS[2] | 7440439 | 0.00E+00 | | | |
| CAPROLACTAM | 105602 | 0.00E+00 | | | |
| CARBON DISULFIDE[1] | 75150 | 0.00E+00 | | | |
| CARBON MONOXIDE | 630080 | 0.00E+00 | | | |
| CARBON TETRACHLORIDE[1] (Tetrachloromethane) | 56235 | 0.00E+00 | | | |
| CHLORINATED PARAFFINS | 108171262 | 0.00E+00 | | | |
| CHLORINE | 7782505 | 0.00E+00 | | | |
| CHLORINE DIOXIDE | 10049044 | 0.00E+00 | | | |
| 4-CHLORO-O-PHENYLENEDIAMINE | 95830 | 0.00E+00 | | | |
| CHLOROBENZENE | 108907 | 0.00E+00 | | | |
| CHLOROFORM[1] | 67663 | 0.00E+00 | | | |
| Chlorophenols | 87865 | 0.00E+00 | | | |
| PENTACHLOROPHENOL | 87865 | 0.00E+00 | | | |
| 2,4,6-TRICHLOROPHENOL | 88062 | 0.00E+00 | | | |
| CHLOROPICRIN | 76062 | 0.00E+00 | | | |
| p-CHLORO-o-TOLUIDINE | 95692 | 0.00E+00 | | | |
| CHROMIUM 6+[2] | 18540299 | 0.00E+00 | | | |
| Barium chromate[2] | 10294403 | 0.00E+00 | | | |
| Calcium chromate[2] | 13765190 | 0.00E+00 | | | |
| Lead chromate[2] | 7758976 | 0.00E+00 | | | |
| Sodium dichromate[2] | 10588019 | 0.00E+00 | | | |
| Strontium chromate[2] | 7789062 | 0.00E+00 | | | |
| CHROMIC TRIOXIDE (as chromic acid mist) | 1333820 | 0.00E+00 | | | |
| COPPER AND COMPOUNDS | 7440508 | 0.00E+00 | | | |
| p-CRESIDINE | 120718 | 0.00E+00 | | | |
| CRESOLS | 1319773 | 0.00E+00 | | | |
| M-CRESOL | 108394 | 0.00E+00 | | | |
| O-CRESOL | 95487 | 0.00E+00 | | | |
| P-CRESOL | 106445 | 0.00E+00 | | | |
| CUPFERRON | 135206 | 0.00E+00 | | | |
| Cyanide And Compounds (inorganic) | 57125 | 0.00E+00 | | | |
| HYDROGEN CYANIDE (Hydrocyanic acid) | 74908 | 0.00E+00 | | | |
| 2,4-DIAMINOANISOLE | 615054 | 0.00E+00 | | | |
| 2,4-DIAMINOTOLUENE | 95807 | 0.00E+00 | | | |
| 1,2-DIBROMO-3-CHLOROPROPANE (DBCP) | 96128 | 0.00E+00 | | | |
| 1,4-DICHLOROBENZENE (p-Dichlorobenzene) | 106467 | 0.00E+00 | | | |
| 3,3-DICHLOROBENZIDINE | 91941 | 0.00E+00 | | | |
| 1,1,-DICHLOROETHANE (Ethylidene dichloride) | 75343 | 0.00E+00 | | | |
| DI(2-ETHYLHEXYL)PHTHALATE (DEHP) | 117817 | 0.00E+00 | | | |
| DIETHANOLAMINE | 111422 | 0.00E+00 | | | |
| p-DIMETHYLAMINOAZOBENZENE | 60117 | 0.00E+00 | | | |
| N,N-DIMETHYL FORMAMIDE | 68122 | 0.00E+00 | | | |
| 2,4-DINITROTOLUENE | 121142 | 0.00E+00 | | | |
| 1,4-DIOXANE (1,4-Diethylene dioxide) | 123911 | 0.00E+00 | | | |
| EPICHLOROHYDRIN (1-Chloro-2,3-epoxypropane) | 106898 | 0.00E+00 | | | |
| 1,2-EPOXYBUTANE | 106887 | 0.00E+00 | | | |
| ETHYL BENZENE | 100414 | 0.00E+00 | | | |
| ETHYL CHLORIDE (Chloroethane) | 75003 | 0.00E+00 | | | |
| ETHYLENE DIBROMIDE (1,2-Dibromoethane) | 106934 | 0.00E+00 | | | |
| ETHYLENE DICHLORIDE (1,2-Dichloroethane) | 107062 | 0.00E+00 | | | |
| ETHYLENE GLYCOL | 107211 | 0.00E+00 | | | |
| ETHYLENE OXIDE (1,2-Epoxyethane) | 75218 | 0.00E+00 | | | |
| ETHYLENE THIOUREA | 96457 | 0.00E+00 | | | |
| Fluorides | 1101 | 0.00E+00 | | | |
| HYDROGEN FLUORIDE (Hydrofluoric acid) | 7664393 | 0.00E+00 | | | |
| FORMALDEHYDE | 50000 | 0.00E+00 | | | |
| GLUTARALDEHYDE | 111308 | 0.00E+00 | | | |
| GLYCOL ETHERS | 107211 | 4.40E-01 | | 2.08E-03 | |
| ETHYLENE GLYCOL BUTYL ETHER – EGBE | 111762 | 0.00E+00 | | | |
| ETHYLENE GLYCOL ETHYL ETHER – EGEE[1] | 110805 | 0.00E+00 | | | |

| | | | | |
|---|---|---|---|---|
| ETHYLENE GLYCOL ETHYL ETHER ACETATE – EGEEA [1] | 111159 | 0.00E+00 | | |
| ETHYLENE GLYCOL METHYL ETHER – EGME [1] | 109864 | 0.00E+00 | | |
| ETHYLENE GLYCOL METHYL ETHER ACETATE – EGMEA | 110496 | 0.00E+00 | | |
| HEXACHLOROBENZENE | 118741 | 0.00E+00 | | |
| HEXACHLOROCYCLOHEXANES (mixed or technical grade) | 608731 | 0.00E+00 | | |
| alpha-HEXACHLOROCYCLOHEXANE | 319846 | 0.00E+00 | | |
| beta- HEXACHLOROCYCLOHEXANE | 319857 | 0.00E+00 | | |
| gamma-HEXACHLOROCYCLOHEXANE (Lindane) | 58899 | 0.00E+00 | | |
| n-HEXANE | 110543 | 0.00E+00 | | |
| HYDRAZINE | 302012 | 0.00E+00 | | |
| HYDROCHLORIC ACID (Hydrogen chloride) | 7647010 | 0.00E+00 | | |
| HYDROGEN SULFIDE | 7783064 | 0.00E+00 | | |
| ISOPHORONE | 78591 | 0.00E+00 | | |
| ISOPROPYL ALCOHOL (Isopropanol) | 67630 | 0.00E+00 | | |
| LEAD AND COMPOUNDS [2,4] (inorganic) *values also apply to:* | 7439921 | 0.00E+00 | | |
| Lead acetate [2] | 301042 | 0.00E+00 | | |
| Lead phosphate [2] | 7446277 | 0.00E+00 | | |
| Lead subacetate [2] | 1335326 | 0.00E+00 | | |
| LINDANE [see gamma-Hexachlorocyclohexanes] | 58899 | 0.00E+00 | | |
| MALEIC ANHYDRIDE | 108316 | 0.00E+00 | | |
| MANGANESE AND COMPOUNDS | 7439965 | 0.00E+00 | | |
| MERCURY AND COMPOUNDS (INORGANIC) | 7439976 | 0.00E+00 | | |
| Mercuric chloride | 7487947 | 0.00E+00 | | |
| METHANOL | 67561 | 0.00E+00 | | |
| METHYL BROMIDE (Bromomethane) | 74839 | 0.00E+00 | | |
| METHYL tertiary-BUTYL ETHER | 1634044 | 0.00E+00 | | |
| METHYL CHLOROFORM (1,1,1-Trichloroethane) | 71556 | 0.00E+00 | | |
| METHYL ETHYL KETONE (2-Butanone) | 78933 | 0.00E+00 | | |
| METHYL ISOCYANATE | 624839 | 0.00E+00 | | |
| 4,4'-METHYLENE BIS (2-CHLOROANILINE) (MOCA) | 101144 | 0.00E+00 | | |
| METHYLENE CHLORIDE (Dichloromethane) | 75092 | 0.00E+00 | | |
| 4,4'-METHYLENE DIANILINE (AND ITS DICHLORIDE) | 101779 | 0.00E+00 | | |
| METHYLENE DIPHENYL ISOCYANATE | 101688 | 0.00E+00 | | |
| MICHLER'S KETONE (4,4'-Bis(dimethylamino)benzophenone) | 90948 | 0.00E+00 | | |
| N-NITROSODI-n-BUTYLAMINE | 924163 | 0.00E+00 | | |
| N-NITROSODI-n-PROPYLAMINE | 621647 | 0.00E+00 | | |
| N-NITROSODIETHYLAMINE | 55185 | 0.00E+00 | | |
| N-NITROSODIMETHYLAMINE | 62759 | 0.00E+00 | | |
| N-NITROSODIPHENYLAMINE | 86306 | 0.00E+00 | | |
| N-NITROSO-N-METHYLETHYLAMINE | 10595956 | 0.00E+00 | | |
| N-NITROSOMORPHOLINE | 59892 | 0.00E+00 | | |
| N-NITROSOPIPERIDINE | 100754 | 0.00E+00 | | |
| N-NITROSOPYRROLIDINE | 930552 | 0.00E+00 | | |
| NAPTHALENE [see Polycylcic aromatic hydrocarbons] | 91203 | 0.00E+00 | | |
| NICKEL AND COMPOUNDS[2] *(values also apply to:)* | 7440020 | 0.00E+00 | | |
| Nickel acetate [2] | 373024 | 0.00E+00 | | |
| Nickel carbonate [2] | 3333673 | 0.00E+00 | | |
| Nickel carbonyl [2] | 13463393 | 0.00E+00 | | |
| Nickel hydroxide [2] | 12054487 | 0.00E+00 | | |
| Nickelocene [2] | 1271289 | 0.00E+00 | | |
| NICKEL OXIDE[2] | 1313991 | 0.00E+00 | | |
| Nickel refinery dust from the pyrometallurgical process[2] | 1146 | 0.00E+00 | | |
| Nickel subsulfide [2] | 12035722 | 0.00E+00 | | |
| NITRIC ACID | 7697372 | 0.00E+00 | | |
| NITROGEN DIOXIDE | 10102440 | 0.00E+00 | | |
| p-NITROSODIPHENYLAMINE | 156105 | 0.00E+00 | | |
| OZONE | 10028156 | 0.00E+00 | | |
| PARTICULATE EMISSIONS FROM DIESEL-FUELED ENGINES | 85105 | 0.00E+00 | | |
| PERCHLOROETHYLENE (Tetrachloroethylene) | 127184 | 0.00E+00 | | |
| PHENOL | 108952 | 0.00E+00 | | |
| PHOSGENE | 75445 | 0.00E+00 | | |
| PHOSPHINE | 7803512 | 0.00E+00 | | |
| PHOSPHORIC ACID | 7664382 | 0.00E+00 | | |
| PHTHALIC ANHYDRIDE | 85449 | 0.00E+00 | | |
| PCB (POLYCHLORINATED BIPHENYLS) | 1336363 | 0.00E+00 | | |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) (Treated as 2,3,7,8-TCDD for HRA) [2,7] | 1746016 | 0.00E+00 | | |
| POLYCHLORINATED DIBENZOFURANS (PCDF) (Treated as 2,3,7,8-TCDD for HRA) 2,7 | 1746016 | 0.00E+00 | | |
| POLYCYCLIC AROMATIC HYDROCARBON [2] (PAH) (AS B(a)P-EQUIV)[5] | 50328 | 0.00E+00 | | |
| NAPHTHALENE | 91203 | 0.00E+00 | | |
| POTASSIUM BROMATE | 7758012 | 0.00E+00 | | |
| 1,3-PROPANE SULTONE | 1120714 | 0.00E+00 | | |
| PROPYLENE (PROPENE) | 115071 | 0.00E+00 | | |
| PROPYLENE GLYCOL MONOMETHYL ETHER | 107982 | 0.00E+00 | | |
| PROPYLENE OXIDE | 75569 | 0.00E+00 | | |
| SELENIUM AND COMPOUNDS | 7782492 | 0.00E+00 | | |
| HYDROGEN SELENIDE | 7783075 | 0.00E+00 | | |
| Selenium sulfide | 7446346 | 0.00E+00 | | |
| SILICA (Crystalline, Respirable) | 7631869 | 0.00E+00 | | |
| SODIUM HYDROXIDE | 1310732 | 0.00E+00 | | |
| STYRENE | 100425 | 0.00E+00 | | |
| SULFATES | 9960 | 0.00E+00 | | |
| SULFUR DIOXIDE | 7446095 | 0.00E+00 | | |
| SULFURIC ACID | 7664939 | 0.00E+00 | | |
| SULFUR TRIOXIDE | 7446719 | 0.00E+00 | | |
| OLEUM | 8014957 | 0.00E+00 | | |
| 1,1,2,2-TETRACHLOROETHANE | 79345 | 0.00E+00 | | |
| THIOACETAMIDE | 62555 | 0.00E+00 | | |
| TOLUENE | 108883 | 0.00E+00 | | |
| Toluene diisocyantates | 26471625 | 0.00E+00 | | |
| TOLUENE-2,4-DIISOCYANATE | 584849 | 0.00E+00 | | |
| TOLUENE-2,6-DIISOCYANATE | 91087 | 0.00E+00 | | |
| 1,1,2-TRICHLOROETHANE (Vinyl trichloride) | 79005 | 0.00E+00 | | |
| TRICHLOROETHYLENE | 79016 | 0.00E+00 | | |
| TRIETHYLAMINE | 121448 | 0.00E+00 | | |
| URETHANE (Ethyl carbamate) | 51796 | 0.00E+00 | | |
| Vanadium Compounds | 7440622 | 0.00E+00 | | |
| Vanadium (fume or dust) | 7440622 | 0.00E+00 | | |
| VANADIUM PENTOXIDE | 1314621 | 0.00E+00 | | |
| VINYL ACETATE | 108054 | 0.00E+00 | | |

| | | | | | |
|---|---|---|---|---|---|
| VINYL CHLORIDE (Chloroethylene) | 75014 | 0.00E+00 | | | |
| VINYLIDENE CHLORIDE (1,1-Dichloroethylene) | 75354 | 0.00E+00 | | | |
| XYLENES (mixed isomers) | 1330207 | 0.00E+00 | | | |
| m-XYLENE | 108383 | 0.00E+00 | | | |
| o-XYLENE | 95476 | 0.00E+00 | | | |
| p-XYLENE | 106423 | 0.00E+00 | | | |
| | | **TOTAL UNADJUSTED Risk Values** | **0.000** | **0.002** | **0.00E+00** |

| Step 1: Enter Facility Data | |
|---|---|
| Plant Name | Allied Storage Containers |
| Plant No. | 20385 |

| Step 3: Estimate Distance | |
|---|---|
| What is the distance (m) from the facility boundary to the MEI? | |

| Step 4: Specify Source Type | |
|---|---|
| Does facility have only diesel backup generators? | no |
| Is this analysis for a gas station? | no |

| Step 5: Read Estimates | | |
|---|---|---|
| Total Cancer Risk | 14.6 | per 1,000,000 |
| Total Chronic Hazard | 0.03 | |
| Total PM2.5 Concentration | 0.00 | µg/m³ |

Step 2: Enter Emissions Data

| Chemical Name | CAS No. (dashes removed) | Emission Rate (lb/day) | Cancer Risk (# / 1,000,000) | Chronic Hazard (index) | PM2.5 Concentration (µg/m3) |
|---|---|---|---|---|---|
| Fine Particulate Matter (PM2.5) | | 0.00E+00 | | | |
| ACETALDEHYDE | 75070 | 0.00E+00 | | | |
| ACETAMIDE | 60355 | 0.00E+00 | | | |
| ACROLEIN | 107028 | 0.00E+00 | | | |
| ACRYLAMIDE | 79061 | 0.00E+00 | | | |
| ACRYLIC ACID | 79107 | 0.00E+00 | | | |
| ACRYLONITRILE | 107131 | 0.00E+00 | | | |
| ALLYL CHLORIDE | 107051 | 0.00E+00 | | | |
| 2-AMINOANTHRAQUINONE | 117793 | 0.00E+00 | | | |
| AMMONIA | 7664417 | 0.00E+00 | | | |
| ANILINE | 62533 | 0.00E+00 | | | |
| ARSENIC AND COMPOUNDS (INORGANIC)[1,2] | 7440382 | 0.00E+00 | | | |
| ARSINE | 7784421 | 0.00E+00 | | | |
| ASBESTOS[3] | 1332214 | 0.00E+00 | | | |
| BENZENE[1] | 71432 | 0.00E+00 | | | |
| BENZIDINE (AND ITS SALTS) values also apply to: | 92875 | 0.00E+00 | | | |
| Benzidine based dyes | 92875 | 0.00E+00 | | | |
| Direct Black 38 | 1937377 | 0.00E+00 | | | |
| Direct Blue 6 | 2602462 | 0.00E+00 | | | |
| Direct Brown 95 (technical grade) | 16071866 | 0.00E+00 | | | |
| BENZYL CHLORIDE | 100447 | 0.00E+00 | | | |
| BERYLLIUM AND COMPOUNDS[2] | 7440417 | 0.00E+00 | | | |
| BIS(2-CHLOROETHYL)ETHER (Dichloroethyl ether) | 111444 | 0.00E+00 | | | |
| BIS(CHLOROMETHYL)ETHER | 542881 | 0.00E+00 | | | |
| BROMINE AND COMPOUNDS see Potassium Bromate | 7758012 | 0.00E+00 | | | |
| 1,3-BUTADIENE | 106990 | 0.00E+00 | | | |
| CADMIUM AND COMPOUNDS[2] | 7440439 | 0.00E+00 | | | |
| CAPROLACTAM | 105602 | 0.00E+00 | | | |
| CARBON DISULFIDE[1] | 75150 | 0.00E+00 | | | |
| CARBON MONOXIDE | 630080 | 0.00E+00 | | | |
| CARBON TETRACHLORIDE[1] (Tetrachloromethane) | 56235 | 0.00E+00 | | | |
| CHLORINATED PARAFFINS | 108171262 | 0.00E+00 | | | |
| CHLORINE | 7782505 | 0.00E+00 | | | |
| CHLORINE DIOXIDE | 10049044 | 0.00E+00 | | | |
| 4-CHLORO-O-PHENYLENEDIAMINE | 95830 | 0.00E+00 | | | |
| CHLOROBENZENE | 108907 | 0.00E+00 | | | |
| CHLOROFORM[1] | 67663 | 0.00E+00 | | | |
| Chlorophenols | 87865 | 0.00E+00 | | | |
| PENTACHLOROPHENOL | 87865 | 0.00E+00 | | | |
| 2,4,6-TRICHLOROPHENOL | 88062 | 0.00E+00 | | | |
| CHLOROPICRIN | 76062 | 0.00E+00 | | | |
| p-CHLORO-o-TOLUIDINE | 95692 | 0.00E+00 | | | |
| CHROMIUM 6+[2] | 18540299 | 0.00E+00 | | | |
| Barium chromate[2] | 10294403 | 0.00E+00 | | | |
| Calcium chromate[2] | 13765190 | 0.00E+00 | | | |
| Lead chromate[2] | 7758976 | 0.00E+00 | | | |
| Sodium dichromate[2] | 10588019 | 0.00E+00 | | | |
| Strontium chromate[2] | 7789062 | 0.00E+00 | | | |
| CHROMIC TRIOXIDE (as chromic acid mist) | 1333820 | 0.00E+00 | | | |
| COPPER AND COMPOUNDS | 7440508 | 0.00E+00 | | | |
| p-CRESIDINE | 120718 | 0.00E+00 | | | |
| CRESOLS | 1319773 | 0.00E+00 | | | |
| M-CRESOL | 108394 | 0.00E+00 | | | |
| O-CRESOL | 95487 | 0.00E+00 | | | |
| P-CRESOL | 106445 | 0.00E+00 | | | |
| CUPFERRON | 135206 | 0.00E+00 | | | |
| Cyanide And Compounds (inorganic) | 57125 | 0.00E+00 | | | |
| HYDROGEN CYANIDE (Hydrocyanic acid) | 74908 | 0.00E+00 | | | |
| 2,4-DIAMINOANISOLE | 615054 | 0.00E+00 | | | |
| 2,4-DIAMINOTOLUENE | 95807 | 0.00E+00 | | | |
| 1,2-DIBROMO-3-CHLOROPROPANE (DBCP) | 96128 | 0.00E+00 | | | |
| 1,4-DICHLOROBENZENE (p-Dichlorobenzene) | 106467 | 0.00E+00 | | | |
| 3,3-DICHLOROBENZIDINE | 91941 | 0.00E+00 | | | |
| 1,1,-DICHLOROETHANE (Ethylidene dichloride) | 75343 | 0.00E+00 | | | |
| DI(2-ETHYLHEXYL)PHTHALATE (DEHP) | 117817 | 0.00E+00 | | | |
| DIETHANOLAMINE | 111422 | 0.00E+00 | | | |
| p-DIMETHYLAMINOAZOBENZENE | 60117 | 0.00E+00 | | | |
| N,N-DIMETHYL FORMAMIDE | 68122 | 0.00E+00 | | | |
| 2,4-DINITROTOLUENE | 121142 | 0.00E+00 | | | |
| 1,4-DIOXANE (1,4-Diethylene dioxide) | 123911 | 0.00E+00 | | | |
| EPICHLOROHYDRIN (1-Chloro-2,3-epoxypropane) | 106898 | 0.00E+00 | | | |
| 1,2-EPOXYBUTANE | 106887 | 0.00E+00 | | | |
| ETHYL BENZENE | 100414 | 0.00E+00 | | | |
| ETHYL CHLORIDE (Chloroethane) | 75003 | 0.00E+00 | | | |
| ETHYLENE DIBROMIDE (1,2-Dibromoethane) | 106934 | 0.00E+00 | | | |
| ETHYLENE DICHLORIDE (1,2-Dichloroethane) | 107062 | 0.00E+00 | | | |
| ETHYLENE GLYCOL | 107211 | 0.00E+00 | | | |
| ETHYLENE OXIDE (1,2-Epoxyethane) | 75218 | 0.00E+00 | | | |
| ETHYLENE THIOUREA | 96457 | 0.00E+00 | | | |
| Fluorides | 1101 | 0.00E+00 | | | |
| HYDROGEN FLUORIDE (Hydrofluoric acid) | 7664393 | 0.00E+00 | | | |
| FORMALDEHYDE | 50000 | 0.00E+00 | | | |
| GLUTARALDEHYDE | 111308 | 0.00E+00 | | | |
| GLYCOL ETHERS | 107211 | 1.69E+00 | | 7.96E-03 | |
| ETHYLENE GLYCOL BUTYL ETHER – EGBE | 111762 | 0.00E+00 | | | |
| ETHYLENE GLYCOL ETHYL ETHER – EGEE[1] | 110805 | 0.00E+00 | | | |

| | | | | |
|---|---|---|---|---|
| ETHYLENE GLYCOL ETHYL ETHER ACETATE – EGEEA [1] | 111159 | 0.00E+00 | | |
| ETHYLENE GLYCOL METHYL ETHER – EGME [1] | 109864 | 0.00E+00 | | |
| ETHYLENE GLYCOL METHYL ETHER ACETATE – EGMEA | 110496 | 0.00E+00 | | |
| HEXACHLOROBENZENE | 118741 | 0.00E+00 | | |
| HEXACHLOROCYCLOHEXANES (mixed or technical grade) | 608731 | 0.00E+00 | | |
| alpha-HEXACHLOROCYCLOHEXANE | 319846 | 0.00E+00 | | |
| beta- HEXACHLOROCYCLOHEXANE | 319857 | 0.00E+00 | | |
| gamma-HEXACHLOROCYCLOHEXANE (Lindane) | 58899 | 0.00E+00 | | |
| n-HEXANE | 110543 | 0.00E+00 | | |
| HYDRAZINE | 302012 | 0.00E+00 | | |
| HYDROCHLORIC ACID (Hydrogen chloride) | 7647010 | 0.00E+00 | | |
| HYDROGEN SULFIDE | 7783064 | 0.00E+00 | | |
| ISOPHORONE | 78591 | 0.00E+00 | | |
| ISOPROPYL ALCOHOL (Isopropanol) | 67630 | 0.00E+00 | | |
| LEAD AND COMPOUNDS [2,4] (inorganic) *values also apply to:* | 7439921 | 0.00E+00 | | |
| Lead acetate [2] | 301042 | 0.00E+00 | | |
| Lead phosphate [2] | 7446277 | 0.00E+00 | | |
| Lead subacetate [2] | 1335326 | 0.00E+00 | | |
| LINDANE [see gamma-Hexachlorocyclohexanes] | 58899 | 0.00E+00 | | |
| MALEIC ANHYDRIDE | 108316 | 0.00E+00 | | |
| MANGANESE AND COMPOUNDS | 7439965 | 0.00E+00 | | |
| MERCURY AND COMPOUNDS (INORGANIC) | 7439976 | 0.00E+00 | | |
| Mercuric chloride | 7487947 | 0.00E+00 | | |
| METHANOL | 67561 | 0.00E+00 | | |
| METHYL BROMIDE (Bromomethane) | 74839 | 0.00E+00 | | |
| METHYL tertiary-BUTYL ETHER | 1634044 | 0.00E+00 | | |
| METHYL CHLOROFORM (1,1,1-Trichloroethane) | 71556 | 0.00E+00 | | |
| METHYL ETHYL KETONE (2-Butanone) | 78933 | 0.00E+00 | | |
| METHYL ISOCYANATE | 624839 | 0.00E+00 | | |
| 4,4'-METHYLENE BIS (2-CHLOROANILINE) (MOCA) | 101144 | 0.00E+00 | | |
| METHYLENE CHLORIDE (Dichloromethane) | 75092 | 0.00E+00 | | |
| 4,4'-METHYLENE DIANILINE (AND ITS DICHLORIDE) | 101779 | 0.00E+00 | | |
| METHYLENE DIPHENYL ISOCYANATE | 101688 | 0.00E+00 | | |
| MICHLER'S KETONE (4,4'-Bis(dimethylamino)benzophenone) | 90948 | 0.00E+00 | | |
| N-NITROSODI-n-BUTYLAMINE | 924163 | 0.00E+00 | | |
| N-NITROSODI-n-PROPYLAMINE | 621647 | 0.00E+00 | | |
| N-NITROSODIETHYLAMINE | 55185 | 0.00E+00 | | |
| N-NITROSODIMETHYLAMINE | 62759 | 0.00E+00 | | |
| N-NITROSODIPHENYLAMINE | 86306 | 0.00E+00 | | |
| N-NITROSO-N-METHYLETHYLAMINE | 10595956 | 0.00E+00 | | |
| N-NITROSOMORPHOLINE | 59892 | 0.00E+00 | | |
| N-NITROSOPIPERIDINE | 100754 | 0.00E+00 | | |
| N-NITROSOPYRROLIDINE | 930552 | 0.00E+00 | | |
| NAPTHALENE [see Polycylcic aromatic hydrocarbons] | 91203 | 0.00E+00 | | |
| NICKEL AND COMPOUNDS[2] *(values also apply to:)* | 7440020 | 0.00E+00 | | |
| Nickel acetate [2] | 373024 | 0.00E+00 | | |
| Nickel carbonate [2] | 3333673 | 0.00E+00 | | |
| Nickel carbonyl [2] | 13463393 | 0.00E+00 | | |
| Nickel hydroxide [2] | 12054487 | 0.00E+00 | | |
| Nickelocene [2] | 1271289 | 0.00E+00 | | |
| NICKEL OXIDE[2] | 1313991 | 0.00E+00 | | |
| Nickel refinery dust from the pyrometallurgical process[2] | 1146 | 0.00E+00 | | |
| Nickel subsulfide [2] | 12035722 | 0.00E+00 | | |
| NITRIC ACID | 7697372 | 0.00E+00 | | |
| NITROGEN DIOXIDE | 10102440 | 0.00E+00 | | |
| p-NITROSODIPHENYLAMINE | 156105 | 0.00E+00 | | |
| OZONE | 10028156 | 0.00E+00 | | |
| PARTICULATE EMISSIONS FROM DIESEL-FUELED ENGINES | 85105 | 0.00E+00 | | |
| PERCHLOROETHYLENE (Tetrachloroethylene) | 127184 | 0.00E+00 | | |
| PHENOL | 108952 | 0.00E+00 | | |
| PHOSGENE | 75445 | 0.00E+00 | | |
| PHOSPHINE | 7803512 | 0.00E+00 | | |
| PHOSPHORIC ACID | 7664382 | 0.00E+00 | | |
| PHTHALIC ANHYDRIDE | 85449 | 0.00E+00 | | |
| PCB (POLYCHLORINATED BIPHENYLS) | 1336363 | 0.00E+00 | | |
| POLYCHLORINATED DIBENZO-P-DIOXINS (PCDD) (Treated as 2,3,7,8-TCDD for HRA) [2,7] | 1746016 | 0.00E+00 | | |
| POLYCHLORINATED DIBENZOFURANS (PCDF) (Treated as 2,3,7,8-TCDD for HRA) 2,7 | 1746016 | 0.00E+00 | | |
| POLYCYCLIC AROMATIC HYDROCARBON [2] (PAH) (AS B(a)P-EQUIV)[5] | 50328 | 0.00E+00 | | |
| NAPHTHALENE | 91203 | 9.53E-02 | 1.46E+01 | 2.00E-02 |
| POTASSIUM BROMATE | 7758012 | 0.00E+00 | | |
| 1,3-PROPANE SULTONE | 1120714 | 0.00E+00 | | |
| PROPYLENE (PROPENE) | 115071 | 0.00E+00 | | |
| PROPYLENE GLYCOL MONOMETHYL ETHER | 107982 | 0.00E+00 | | |
| PROPYLENE OXIDE | 75569 | 0.00E+00 | | |
| SELENIUM AND COMPOUNDS | 7782492 | 0.00E+00 | | |
| HYDROGEN SELENIDE | 7783075 | 0.00E+00 | | |
| Selenium sulfide | 7446346 | 0.00E+00 | | |
| SILICA (Crystalline, Respirable) | 7631869 | 0.00E+00 | | |
| SODIUM HYDROXIDE | 1310732 | 0.00E+00 | | |
| STYRENE | 100425 | 0.00E+00 | | |
| SULFATES | 9960 | 0.00E+00 | | |
| SULFUR DIOXIDE | 7446095 | 0.00E+00 | | |
| SULFURIC ACID | 7664939 | 0.00E+00 | | |
| SULFUR TRIOXIDE | 7446719 | 0.00E+00 | | |
| OLEUM | 8014957 | 0.00E+00 | | |
| 1,1,2,2-TETRACHLOROETHANE | 79345 | 0.00E+00 | | |
| THIOACETAMIDE | 62555 | 0.00E+00 | | |
| TOLUENE | 108883 | 0.00E+00 | | |
| Toluene diisocyantates | 26471625 | 0.00E+00 | | |
| TOLUENE-2,4-DIISOCYANATE | 584849 | 0.00E+00 | | |
| TOLUENE-2,6-DIISOCYANATE | 91087 | 0.00E+00 | | |
| 1,1,2-TRICHLOROETHANE (Vinyl trichloride) | 79005 | 0.00E+00 | | |
| TRICHLOROETHYLENE | 79016 | 0.00E+00 | | |
| TRIETHYLAMINE | 121448 | 0.00E+00 | | |
| URETHANE (Ethyl carbamate) | 51796 | 0.00E+00 | | |
| Vanadium Compounds | 7440622 | 0.00E+00 | | |
| Vanadium (fume or dust) | 7440622 | 0.00E+00 | | |
| VANADIUM PENTOXIDE | 1314621 | 0.00E+00 | | |
| VINYL ACETATE | 108054 | 0.00E+00 | | |

| | | | | | |
|---|---|---|---|---|---|
| VINYL CHLORIDE (Chloroethylene) | 75014 | 0.00E+00 | | | |
| VINYLIDENE CHLORIDE (1,1-Dichloroethylene) | 75354 | 0.00E+00 | | | |
| XYLENES (mixed isomers) | 1330207 | 0.00E+00 | | | |
| m-XYLENE | 108383 | 0.00E+00 | | | |
| o-XYLENE | 95476 | 0.00E+00 | | | |
| p-XYLENE | 106423 | 0.00E+00 | | | |
| | | **TOTAL UNADJUSTED Risk Values** | **14.624** | **0.028** | **0.00E+00** |