

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: C:\Documents and Settings\Sara Gerrick\Application Data\Urbemis\Version9a\Projects\SJCC Construction.urb924

Project Name: SJCC Construction

Project Location: Bay Area Air District

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
2009 TOTALS (lbs/day unmitigated)	1.40	10.41	6.73	0.00	2.13	0.72	2.86	0.45	0.67	1.11	1,083.97
2009 TOTALS (lbs/day mitigated)	1.40	9.19	6.73	0.00	2.13	0.18	2.31	0.45	0.16	0.61	1,083.97
2010 TOTALS (lbs/day unmitigated)	4.76	25.05	13.62	0.00	2.90	1.25	4.16	0.61	1.15	1.76	2,349.23
2010 TOTALS (lbs/day mitigated)	4.41	21.31	13.62	0.00	0.27	0.19	0.46	0.06	0.17	0.23	2,349.23

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
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Time Slice 10/1/2009-12/31/2009	<u>1.40</u>	<u>10.41</u>	<u>6.73</u>	<u>0.00</u>	<u>2.13</u>	<u>0.72</u>	<u>2.86</u>	<u>0.45</u>	<u>0.67</u>	<u>1.11</u>	<u>1,083.97</u>
Active Days: 66											
Demolition 10/01/2009-12/31/2009	1.40	10.41	6.73	0.00	2.13	0.72	2.86	0.45	0.67	1.11	1,083.97
Fugitive Dust	0.00	0.00	0.00	0.00	2.12	0.00	2.12	0.44	0.00	0.44	0.00
Demo Off Road Diesel	1.23	8.15	4.78	0.00	0.00	0.64	0.64	0.00	0.59	0.59	700.30
Demo On Road Diesel	0.13	2.19	0.69	0.00	0.01	0.08	0.09	0.00	0.07	0.08	281.82
Demo Worker Trips	0.04	0.07	1.25	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.85
Time Slice 1/1/2010-1/29/2010	3.04	<u>25.05</u>	<u>13.62</u>	0.00	<u>2.90</u>	<u>1.25</u>	<u>4.16</u>	<u>0.61</u>	<u>1.15</u>	<u>1.76</u>	<u>2,349.23</u>
Active Days: 21											
Fine Grading 01/01/2010-01/31/2010	3.04	25.05	13.62	0.00	2.90	1.25	4.16	0.61	1.15	1.76	2,349.23
Fine Grading Dust	0.00	0.00	0.00	0.00	2.90	0.00	2.90	0.61	0.00	0.61	0.00
Fine Grading Off Road Diesel	3.00	24.99	12.46	0.00	0.00	1.25	1.25	0.00	1.15	1.15	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.04	0.07	1.16	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.91
Time Slice 2/1/2010-5/31/2010	1.28	9.47	6.83	0.00	0.01	0.59	0.60	0.00	0.54	0.54	1,096.81
Active Days: 86											
Building 02/01/2010-12/31/2010	1.28	9.47	6.83	0.00	0.01	0.59	0.60	0.00	0.54	0.54	1,096.81
Building Off Road Diesel	1.21	9.16	4.81	0.00	0.00	0.58	0.58	0.00	0.53	0.53	893.39
Building Vendor Trips	0.01	0.20	0.16	0.00	0.00	0.01	0.01	0.00	0.01	0.01	40.36
Building Worker Trips	0.06	0.10	1.85	0.00	0.01	0.00	0.01	0.00	0.00	0.01	163.06

1/15/2009 10:09:05 AM

Time Slice 6/1/2010-12/31/2010	4.76	9.47	6.88	0.00	0.01	0.59	0.60	0.00	0.54	0.54	1,100.94
Active Days: 154											
Building 02/01/2010-12/31/2010	1.28	9.47	6.83	0.00	0.01	0.59	0.60	0.00	0.54	0.54	1,096.81
Building Off Road Diesel	1.21	9.16	4.81	0.00	0.00	0.58	0.58	0.00	0.53	0.53	893.39
Building Vendor Trips	0.01	0.20	0.16	0.00	0.00	0.01	0.01	0.00	0.01	0.01	40.36
Building Worker Trips	0.06	0.10	1.85	0.00	0.01	0.00	0.01	0.00	0.00	0.01	163.06
Coating 06/01/2010-12/31/2010	3.48	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.14
Architectural Coating	3.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.14

Phase Assumptions

Phase: Demolition 10/1/2009 - 12/31/2009 - Type Your Description Here

Building Volume Total (cubic feet): 299568

Building Volume Daily (cubic feet): 5040

On Road Truck Travel (VMT): 70

Off-Road Equipment:

1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day

1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day

2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

Phase: Fine Grading 1/1/2010 - 1/31/2010 - Default Fine Site Grading Description

Total Acres Disturbed: 1.15

Maximum Daily Acreage Disturbed: 0.29

Fugitive Dust Level of Detail: Default

10 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day

1/15/2009 10:09:05 AM

- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Building Construction 2/1/2010 - 12/31/2010 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

Phase: Architectural Coating 6/1/2010 - 12/31/2010 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5</u>	<u>CO2</u>
Time Slice 10/1/2009-12/31/2009	<u>1.40</u>	<u>9.19</u>	<u>6.73</u>	<u>0.00</u>	<u>2.13</u>	<u>0.18</u>	<u>2.31</u>	<u>0.45</u>	<u>0.16</u>	<u>0.61</u>	<u>1,083.97</u>
Active Days: 66											
Demolition 10/01/2009-12/31/2009	1.40	9.19	6.73	0.00	2.13	0.18	2.31	0.45	0.16	0.61	1,083.97
Fugitive Dust	0.00	0.00	0.00	0.00	2.12	0.00	2.12	0.44	0.00	0.44	0.00
Demo Off Road Diesel	1.23	6.93	4.78	0.00	0.00	0.10	0.10	0.00	0.09	0.09	700.30
Demo On Road Diesel	0.13	2.19	0.69	0.00	0.01	0.08	0.09	0.00	0.07	0.08	281.82
Demo Worker Trips	0.04	0.07	1.25	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.85

1/15/2009 10:09:05 AM

Time Slice 1/1/2010-1/29/2010 Active Days: 21	3.04	<u>21.31</u>	<u>13.62</u>	0.00	<u>0.27</u>	<u>0.19</u>	<u>0.46</u>	<u>0.06</u>	<u>0.17</u>	<u>0.23</u>	<u>2,349.23</u>
Fine Grading 01/01/2010-01/31/2010	3.04	21.31	13.62	0.00	0.27	0.19	0.46	0.06	0.17	0.23	2,349.23
Fine Grading Dust	0.00	0.00	0.00	0.00	0.27	0.00	0.27	0.06	0.00	0.06	0.00
Fine Grading Off Road Diesel	3.00	21.24	12.46	0.00	0.00	0.19	0.19	0.00	0.17	0.17	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.04	0.07	1.16	0.00	0.00	0.00	0.01	0.00	0.00	0.00	101.91
Time Slice 2/1/2010-5/31/2010 Active Days: 86	1.28	8.10	6.83	0.00	0.01	0.10	0.11	0.00	0.09	0.09	1,096.81
Building 02/01/2010-12/31/2010	1.28	8.10	6.83	0.00	0.01	0.10	0.11	0.00	0.09	0.09	1,096.81
Building Off Road Diesel	1.21	7.79	4.81	0.00	0.00	0.09	0.09	0.00	0.08	0.08	893.39
Building Vendor Trips	0.01	0.20	0.16	0.00	0.00	0.01	0.01	0.00	0.01	0.01	40.36
Building Worker Trips	0.06	0.10	1.85	0.00	0.01	0.00	0.01	0.00	0.00	0.01	163.06
Time Slice 6/1/2010-12/31/2010 Active Days: 154	<u>4.41</u>	8.10	6.88	<u>0.00</u>	0.01	0.10	0.11	0.00	0.09	0.09	1,100.94
Building 02/01/2010-12/31/2010	1.28	8.10	6.83	0.00	0.01	0.10	0.11	0.00	0.09	0.09	1,096.81
Building Off Road Diesel	1.21	7.79	4.81	0.00	0.00	0.09	0.09	0.00	0.08	0.08	893.39
Building Vendor Trips	0.01	0.20	0.16	0.00	0.00	0.01	0.01	0.00	0.01	0.01	40.36
Building Worker Trips	0.06	0.10	1.85	0.00	0.01	0.00	0.01	0.00	0.00	0.01	163.06
Coating 06/01/2010-12/31/2010	3.13	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.14
Architectural Coating	3.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.14

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Demolition 10/1/2009 - 12/31/2009 - Type Your Description Here

For Concrete/Industrial Saws, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

1/15/2009 10:09:05 AM

For Concrete/Industrial Saws, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Fine Grading 1/1/2010 - 1/31/2010 - Default Fine Site Grading Description

For Soil Stabilizing Measures, the Apply soil stabilizers to inactive areas mitigation reduces emissions by:

PM10: 84% PM25: 84%

For Soil Stabilizing Measures, the Replace ground cover in disturbed areas quickly mitigation reduces emissions by:

PM10: 5% PM25: 5%

For Soil Stabilizing Measures, the Water exposed surfaces 3x daily watering mitigation reduces emissions by:

PM10: 61% PM25: 61%

For Unpaved Roads Measures, the Reduce speed on unpaved roads to less than 15 mph mitigation reduces emissions by:

PM10: 44% PM25: 44%

For Unpaved Roads Measures, the Manage haul road dust 3x daily watering mitigation reduces emissions by:

PM10: 61% PM25: 61%

For Graders, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Graders, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Rubber Tired Dozers, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Rubber Tired Dozers, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

1/15/2009 10:09:05 AM

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Water Trucks, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Water Trucks, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Building Construction 2/1/2010 - 12/31/2010 - Default Building Construction Description

For Cranes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Cranes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Forklifts, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Forklifts, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

For Tractors/Loaders/Backhoes, the Diesel Particulate Filter (DPF) 1st Tier mitigation reduces emissions by:

PM10: 85% PM25: 85%

For Tractors/Loaders/Backhoes, the Diesel Oxidation Catalyst 15% mitigation reduces emissions by:

NOX: 15%

The following mitigation measures apply to Phase: Architectural Coating 6/1/2010 - 12/31/2010 - Default Architectural Coating Description

For Residential Architectural Coating Measures, the Residential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Residential Architectural Coating Measures, the Residential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Exterior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

For Nonresidential Architectural Coating Measures, the Nonresidential Interior: Use Low VOC Coatings mitigation reduces emissions by:

ROG: 10%

