
Impact Sciences, Inc., "Operational Emissions: URBEMIS2007 Area and Operational Emissions, Entrada Alternative 2" (March 10, 2008)

Combined Summer Emissions Reports (Pounds/Day)

File Name: Z:\Glu\aqNewhall\August 2007 Revision to Newhall\Operational Emissions\URBEMIS2007 Files and Printouts\Entrada and VCC\Entrada\Entrada Alt 2\Entrada Alt 2.urb924

Project Name: Entrada Operational Emissions Alt 2

Project Location: Los Angeles County

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
TOTALS (lbs/day, unmitigated)	100.95	24.60	39.06	0.00	0.13	0.13
TOTALS (lbs/day, mitigated)	100.68	20.96	37.23	0.00	0.12	0.12
Percent Reduction	0.27	14.80	4.69	0.00	7.69	7.69

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
TOTALS (lbs/day, unmitigated)	69.73	59.24	664.28	1.98	323.54	62.73

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
TOTALS (lbs/day, unmitigated)	170.68	83.84	703.34	1.98	323.67	62.86

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

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Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
Natural Gas	1.85	24.28	12.23	0.00	0.05	0.05
Hearth - No Summer Emissions						
Landscape	4.07	0.32	26.83	0.00	0.08	0.08
Consumer Products	88.49					
Architectural Coatings	6.54					
TOTALS (lbs/day, unmitigated)	100.95	24.60	39.06	0.00	0.13	0.13

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
Natural Gas	1.58	20.64	10.40	0.00	0.04	0.04
Hearth - No Summer Emissions						
Landscape	4.07	0.32	26.83	0.00	0.08	0.08
Consumer Products	88.49					
Architectural Coatings	6.54					
TOTALS (lbs/day, mitigated)	100.68	20.96	37.23	0.00	0.12	0.12

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25
Single family housing	9.55	8.36	96.25	0.29	46.84	9.08
Condo/townhouse general	24.29	20.46	235.70	0.70	114.70	22.24
Elementary school	2.14	0.83	9.32	0.03	4.52	0.88
City park	0.04	0.02	0.25	0.00	0.13	0.02
Regnl shop. center	26.98	23.85	260.35	0.78	127.46	24.71
Supermarket	6.73	5.72	62.41	0.18	29.89	5.80
TOTALS (lbs/day, unmitigated)	69.73	59.24	664.28	1.98	323.54	62.73

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 27.57 Nonresidential Trip % Reduction: 19.33

Analysis Year: 2030 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Single family housing	142.67	7.17	dwelling units	428.00	3,068.80	27,143.51
Condo/townhouse general	81.06	5.79	dwelling units	1,297.00	7,514.83	66,468.67
Elementary school		1.17	students	350.00	409.38	2,617.72
City park		2.10	acres	5.00	10.49	72.67
Regnl shop. center		32.32	1000 sq ft	399.00	12,893.69	73,871.32
Supermarket		68.61	1000 sq ft	51.00	3,499.36	17,316.98
					27,396.55	187,490.87

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Elementary school				20.0	10.0	70.0
City park				5.0	2.5	92.5
Regnl shop. center				2.0	1.0	97.0
Supermarket				2.0	1.0	97.0

Combined Winter Emissions Reports (Pounds/Day)

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Project Name: Entrada Operational Emissions Alt 2

Project Location: Los Angeles County

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
TOTALS (lbs/day, unmitigated)	97.51	35.00	16.79	0.07	0.92	0.91
TOTALS (lbs/day, mitigated)	97.24	31.36	14.96	0.07	0.91	0.90
Percent Reduction	0.28	10.40	10.90	0.00	1.09	1.10

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
TOTALS (lbs/day, unmitigated)	75.64	71.10	629.56	1.63	323.54	62.73

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
TOTALS (lbs/day, unmitigated)	173.15	106.10	646.35	1.70	324.46	63.64

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
Natural Gas	1.85	24.28	12.23	0.00	0.05	0.05
Hearth	0.63	10.72	4.56	0.07	0.87	0.86
Landscaping - No Winter Emissions						
Consumer Products	88.49					
Architectural Coatings	6.54					
TOTALS (lbs/day, unmitigated)	97.51	35.00	16.79	0.07	0.92	0.91

Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>
Natural Gas	1.58	20.64	10.40	0.00	0.04	0.04
Hearth	0.63	10.72	4.56	0.07	0.87	0.86
Landscaping - No Winter Emissions						
Consumer Products	88.49					
Architectural Coatings	6.54					
TOTALS (lbs/day, mitigated)	97.24	31.36	14.96	0.07	0.91	0.90

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%

Percentage of residences with wood fireplaces changed from 5% to 0%

Percentage of residences with natural gas fireplaces changed from 85% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25
Single family housing	10.04	10.05	90.12	0.24	46.84	9.08
Condo/townhouse general	25.04	24.60	220.68	0.58	114.70	22.24
Elementary school	1.69	1.00	8.85	0.02	4.52	0.88
City park	0.04	0.03	0.24	0.00	0.13	0.02
Regnl shop. center	30.93	28.57	249.35	0.64	127.46	24.71
Supermarket	7.90	6.85	60.32	0.15	29.89	5.80
TOTALS (lbs/day, unmitigated)	75.64	71.10	629.56	1.63	323.54	62.73

Operational Settings:

Includes correction for passby trips

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 27.57 Nonresidential Trip % Reduction: 19.33

Analysis Year: 2030 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

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Condo/townhouse general	81.06	5.79	dwelling units	1,297.00	7,514.83	66,468.67
Elementary school		1.17	students	350.00	409.38	2,617.72
City park		2.10	acres	5.00	10.49	72.67
Regnl shop. center		32.32	1000 sq ft	399.00	12,893.69	73,871.32
Supermarket		68.61	1000 sq ft	51.00	3,499.36	17,316.98
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Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.7	0.0	100.0	0.0
Light Truck < 3750 lbs	6.7	0.0	100.0	0.0
Light Truck 3751-5750 lbs	23.5	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.6	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.5	32.0	68.0	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	1.0	0.0	90.0	10.0

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commuter	Non-Work	Customer
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Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Elementary school				20.0	10.0	70.0
City park				5.0	2.5	92.5
Regnl shop. center				2.0	1.0	97.0
Supermarket				2.0	1.0	97.0