

APPENDIX C

Air Quality Modeling Data

Construction Emissions

Summary of Construction Emissions Estimated with URBEMIS2007 V.9.2.2

Format of URBEMIS Output

Source	ROG	NO _x	PM ₁₀	PM _{2.5}	CO2
Total (Unmitigated)	16.95	36.80	18.37	4.97	5226.67
Fine Grading - Subtotal	1.36	11.41	17.25	4.01	1015.42
Fugitive Dust	0.00	0.00	16.68	3.48	0.00
Off-Road Diesel Exhaust	1.34	11.38	0.57	0.52	984.85
On-Road Diesel Exhaust	0.00	0.00	0.00	0.00	0.00
Worker Trips	0.02	0.03	0.00	0.00	30.56
Asphalt - Subtotal	0.17	0.69	0.05	0.04	65.22
Paving Off-Gas Emissions	0.09	0.00	0.00	0.00	0.00
Paving Off-Road Diesel Exhaust	0.05	0.32	0.03	0.03	21.82
Paving On-Road Diesel Exhaust	0.03	0.37	0.02	0.02	41.77
Paving Worker Trips	0.00	0.00	0.00	0.00	1.63
Building Construction - Subtotal	2.56	24.69	1.08	0.92	4130.75
Off-Road Diesel Exhaust	1.02	11.92	0.41	0.38	1329.75
Vendor Trips	0.97	11.82	0.57	0.49	1721.97
Worker Trips	0.57	0.95	0.09	0.05	1079.03
Architectural Coatings - Subtotal	12.86	0.01	0.00	0.00	15.29
Architectural Coatings Off-Gas Emissions	12.85	0.00	0.00	0.00	0.00
Architectural Coatings Worker Trips	0.01	0.01	0.00	0.00	15.29
Total Unmitigated	16.95	36.80	18.37	4.97	5226.67
<i>Crosscheck 1 - Total Unmitigated</i>	16.95	36.80	18.38	4.97	5226.67
<i>Crosscheck 2 - Total Unmitigated</i>	16.95	36.80	18.38	4.97	5226.68

Report Format in Word File

Source	ROG	NO _x	PM ₁₀	PM _{2.5}	CO2
Fine Grading					
Fugitive Dust	0.0	0.0	16.7	3.5	0.0
Off-Road Diesel Exhaust	1.3	11.4	0.6	0.5	984.9
On-Road Diesel Exhaust	0.0	0.0	0.0	0.0	0.0
Worker Trips	0.0	0.0	0.0	0.0	30.6
Subtotal Unmitigated	1.4	11.4	17.3	4.0	1015.4
Asphalt					
Paving Off-Gas Emissions	0.1	0.0	0.0	0.0	0.0
Paving Off-Road Diesel Exhaust	0.1	0.3	0.0	0.0	21.8
Paving On-Road Diesel Exhaust	0.0	0.4	0.0	0.0	41.8
Paving Worker Trips	0.0	0.0	0.0	0.0	1.6
Subtotal Unmitigated	0.2	0.7	0.1	0.0	65.2
Building Construction					
Off-Road Diesel Exhaust	1.0	11.9	0.4	0.4	1329.8
Vendor Trips	1.0	11.8	0.6	0.5	1722.0
Worker Trips	0.6	1.0	0.1	0.1	1079.0
Subtotal Unmitigated	2.6	24.7	1.1	0.9	4130.8
Architectural Coatings					
Architectural Coatings Off-Gas Emissions	12.9	0.0	0.0	0.0	0.0
Architectural Coatings Worker Trips	0.0	0.0	0.0	0.0	15.3
Subtotal Unmitigated	12.9	0.0	0.0	0.0	15.3
Total Unmitigated	17.0	36.8	18.4	5.0	5226.7

Applicant/Business Name: Wal-Mart Stores, Inc.
 Project Name: Wal-Mart Merced Distribution Center
 Project Location: City of Merced, CA

230 Total Acreage
 57.50 Max Daily Disturbed

<u>Construction Phase</u>	<u>Equipment Type</u>	<u>URBEMIS Value</u>
Demolition	Rubber Tired Loader	5.75
Grading	Crawler Tractor	28.75
	Grader	5.75
	Off-Highway Truck	17.25
	Rubber Tired Loader	11.50
	Scraper	5.75
	Tractor/Loader/Backhoe	11.50
Building Construction	Other Equipment	17.25
Asphalt	Paver	5.75
	Roller	5.75

To use this spreadsheet:

1. Use this spreadsheet if you do not know specifics of the construction fleet and activity for the construction of your project and want to perform an emissions analysis. The District will use this spreadsheet to calculate construction emissions unless other information is provided.
2. Enter the total acreage to be disturbed in the construction of your project.
3. Print this sheet.
4. Enter the "URBEMIS Value" amounts into the corresponding construction phase of URBEMIS.
 - A. In the Construction Emissions Module, click on the corresponding Construction Phase.
 - B. Locate the "Equip Exhaust" tabs.
 - C. Type the "URBEMIS Value" into the "Total #" field of the "Equip Exhaust" Tab.

Note: Some values may not be whole numbers. Enter in the exact value, even if not a whole number
5. Do NOT change the default construction length in URBEMIS.

This sheet is available at:

http://www.valleyair.org/General_info/ISRLoader.htm

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Urbemis 2007 Version 9.2.2

Detail Report for Annual Construction Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\sacramento\Application Data\Urbemis\Version9a\Projects\Merced Distribution Center\MDC Construction U2007.urb9

Project Name: Merced Distribution Center - Construction Only

Project Location: Merced County

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

CONSTRUCTION EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

	<u>ROG</u>	<u>NOx</u>	<u>PM10 Dust</u>	<u>PM10 Exhaust</u>	<u>PM10 Total</u>	<u>PM2.5 Dust</u>	<u>PM2.5 Exhaust</u>	<u>PM2.5 Total</u>	<u>CO2</u>
2008	16.95	36.80	16.79	1.58	18.37	3.52	1.44	4.97	5,226.67
Fine Grading 01/01/2008-02/10/2008	1.36	11.41	16.68	0.57	17.24	3.48	0.52	4.01	1,015.42
Fine Grading Dust	0.00	0.00	16.68	0.00	16.68	3.48	0.00	3.48	0.00
Fine Grading Off Road Diesel	1.34	11.38	0.00	0.57	0.57	0.00	0.52	0.52	984.85
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.02	0.03	0.00	0.00	0.00	0.00	0.00	0.00	30.56
Asphalt 02/11/2008-02/25/2008	0.17	0.69	0.00	0.04	0.05	0.00	0.04	0.04	65.22
Paving Off-Gas	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	0.05	0.32	0.00	0.03	0.03	0.00	0.03	0.03	21.82
Paving On Road Diesel	0.03	0.37	0.00	0.02	0.02	0.00	0.01	0.02	41.77
Paving Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.63
Building 02/26/2008-12/15/2008	2.56	24.69	0.12	0.96	1.08	0.04	0.88	0.92	4,130.75
Building Off Road Diesel	1.02	11.92	0.00	0.41	0.41	0.00	0.38	0.38	1,329.75
Building Vendor Trips	0.97	11.82	0.06	0.51	0.57	0.02	0.47	0.49	1,721.97
Building Worker Trips	0.57	0.95	0.05	0.04	0.09	0.02	0.03	0.05	1,079.03
Coating 12/16/2008-12/31/2008	12.86	0.01	0.00	0.00	0.00	0.00	0.00	0.00	15.29
Architectural Coating	12.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	15.29

Phase Assumptions

Phase: Fine Grading 1/1/2008 - 2/10/2008 - Default Fine Site Grading Description

Total Acres Disturbed: 230

Maximum Daily Acreage Disturbed: 57.5

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

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On Road Truck Travel (VMT): 0

Off-Road Equipment:

28.8 Crawler Tractors (147 hp) operating at a 0.64 load factor for 8 hours per day

5.8 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day

17.3 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day

11.5 Rubber Tired Loaders (164 hp) operating at a 0.54 load factor for 8 hours per day

5.8 Scrapers (313 hp) operating at a 0.72 load factor for 8 hours per day

11.5 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day

2 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 2/11/2008 - 2/25/2008 - Default Paving Description

Acres to be Paved: 70

Off-Road Equipment:

5.8 Pavers (100 hp) operating at a 0.62 load factor for 8 hours per day

5.8 Rollers (95 hp) operating at a 0.56 load factor for 8 hours per day

Phase: Building Construction 2/26/2008 - 12/15/2008 - Default Building Construction Description

Off-Road Equipment:

17.3 Other Equipment (190 hp) operating at a 0.62 load factor for 8 hours per day

Phase: Architectural Coating 12/16/2008 - 12/31/2008 - 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

Operational Emissions

Detail Report for Annual Area Source Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\sacramento\Application Data\Urbemis\Version9a\Projects\Merced Distribution Center\MDC Area Sources U2007.urb9

Project Name: MDC - Area Sources U2007

Project Location: Merced County

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

AREA SOURCE EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

<u>Source</u>	<u>ROG</u>	<u>NOx</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>
Natural Gas	0.02	0.29	0.00	0.00	344.20
Hearth	0.00	0.00	0.00	0.00	0.00
Landscape	0.01	0.00	0.00	0.00	0.25
Consumer Products	0.00				
Architectural Coatings	1.28				
TOTALS (tons/year, unmitigated)	1.31	0.29	0.00	0.00	344.45

Area Source Changes to Defaults

Urbemis 2007 Version 9.2.2

Detail Report for Annual Operational Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\sacramento\Application Data\Urbemis\Version9a\Projects\Merced Distribution Center\MDC Employee Commute Trips

Project Name: MDC - Employee Commute Trips 2007

Project Location: Merced County

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

<u>Source</u>	ROG	NOX	PM10	PM25	CO2
Warehouse	5.10	3.56	1.63	0.39	2,506.13
TOTALS (tons/year, unmitigated)	5.10	3.56	1.63	0.39	2,506.13

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Season: Annual

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
Warehouse		1.46	1000 sq ft	1,200.00	1,752.00	15,195.97
					1,752.00	15,195.97

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.6	1.9	97.6	0.5
Light Truck < 3750 lbs	22.2	4.1	88.3	7.6
Light Truck 3751-5750 lbs	18.5	1.9	97.6	0.5

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Med Truck 5751-8500 lbs	6.4	0.9	98.2	0.9
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0	70.0	30.0
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0	44.4	55.6
Med-Heavy Truck 14,001-33,000 lbs	0.0	9.1	18.2	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	0.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	1.3	73.0	27.0	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	11.1	77.8	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	100.0	0.0	0.0			

% of Trips - Commercial (by land

use) Warehouse	100.0	0.0	0.0
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Operational Changes to Defaults

Urbemis 2007 Version 9.2.2

Detail Report for Annual Operational Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\sacramento\Application Data\Urbemis\Version9a\Projects\Merced Distribution Center\MDC Outbound Delivery Truck Trips - Proposed U2007.mdb

Project Name: MDC - Outbound Delivery Truck Trips - Proposed U2007

Project Location: Merced County

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

<u>Source</u>	ROG	NOX	PM10	PM25	CO2
Warehouse	11.65	176.09	104.48	22.91	19,758.81
TOTALS (tons/year, unmitigated)	11.65	176.09	104.48	22.91	19,758.81

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Season: Annual

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
Warehouse		0.27	1000 sq ft	1,200.00	324.00	26,892.00
					324.00	26,892.00

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	0.0	1.9	97.6	0.5
Light Truck < 3750 lbs	0.0	4.1	88.3	7.6
Light Truck 3751-5750 lbs	0.0	1.9	97.6	0.5

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Med Truck 5751-8500 lbs	0.0	0.9	98.2	0.9
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0	70.0	30.0
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0	44.4	55.6
Med-Heavy Truck 14,001-33,000 lbs	0.0	9.1	18.2	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	100.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	0.0	73.0	27.0	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	11.1	77.8	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	83.0
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land

Warehouse	0.0	0.0	100.0
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Operational Changes to Defaults

Commercial-based customer urban trip length changed from 7.35 miles to 83 miles

Urbemis 2007 Version 9.2.2

Detail Report for Annual Operational Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\sacramento\Application Data\Urbemis\Version9a\Projects\Merced Distribution Center\MDC Inbound Delivery Truck

Trip - Existing or Proposed Proj: U2007.mdb

Project Name: MDC - Outbound Delivery Truck Trips - Existing U2007

Project Location: Merced County

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

<u>Source</u>	ROG	NOX	PM10	PM25	CO2
Warehouse	12.01	220.47	133.07	28.75	23,528.20
TOTALS (tons/year, unmitigated)	12.01	220.47	133.07	28.75	23,528.20

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Season: Annual

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
Warehouse		0.27	1000 sq ft	1,200.00	324.00	34,408.80
					324.00	34,408.80

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	0.0	1.9	97.6	0.5
Light Truck < 3750 lbs	0.0	4.1	88.3	7.6
Light Truck 3751-5750 lbs	0.0	1.9	97.6	0.5

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Med Truck 5751-8500 lbs	0.0	0.9	98.2	0.9
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0	70.0	30.0
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0	44.4	55.6
Med-Heavy Truck 14,001-33,000 lbs	0.0	9.1	18.2	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	100.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	0.0	73.0	27.0	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	11.1	77.8	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	106.2
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	45.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land

Warehouse	0.0	0.0	100.0
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Operational Changes to Defaults

Commercial-based customer average speed changed from 35 mph to 45 mph

Commercial-based customer urban trip length changed from 7.35 miles to 106.2 miles

Abridged Emfac Run to Determine Emission Rates of On-Site Idling and Travel by Haul Trucks

Title : Wal-Mart Distribution Center in Merced

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2007/07/19 13:18:26

Scen Year: 2009 -- All model years in the range 1965 to 2009 selected

Season : Annual

Area : Merced

Year: 2009 -- Model Years 1965 to 2009 Inclusive --
Emfac2007 Emission Factors: V2.3 Nov 1 2006 Annual County Average

County Average

Merced

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases

Temperature: 40F

Relative Humidity: 30%

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	22.506	23.238	3.173	6.211	0	0	13.448	13.307
3	38.677	6.045	1.05	2.204	173.303	19.093	14.149	14.272
5	38.677	6.045	1.05	2.204	173.303	19.093	14.149	14.272
15	17.254	2.677	0.662	1.144	77.504	8.494	3.815	3.895
45	4.114	0.615	0.281	0.374	18.733	2.003	0.868	0.887

Pollutant Name: Oxides of Nitrogen

Temperature: 40F

Relative Humidity: 30%

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	1.489	1.536	75.051	63.889	0	0	107.309	106.182
3	3.479	3.678	16.791	14.798	31.869	12.524	48.673	48.302
5	3.479	3.678	16.791	14.798	31.869	12.524	48.673	48.302
15	3.832	4.051	11.976	10.77	35.1	13.794	24.007	23.909
45	4.89	5.169	10.185	9.42	44.793	17.603	18.254	18.26

Pollutant Name: Carbon Dioxide

Temperature: 40F

Relative Humidity: 30%

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	4776.9	4776.901	4098	4201.077	0	0	6541.715	6472.982
3	2513.51	2513.51	1505	1658.121	2513.51	2513.51	3845.361	3831.367
5	2513.51	2513.51	1505	1658.121	2513.51	2513.51	3845.361	3831.367
15	1175.484	1175.484	1505	1454.97	1175.484	1175.484	2595.958	2581.033
45	450.085	450.085	1505	1344.833	450.085	450.085	1701.031	1687.887

Abridged Emfac Run to Determine Emission Rates of On-Site Idling and Travel by Haul Trucks

Pollutant Name: PM10

Temperature: 40F

Relative Humidity: 30%

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	0	0	1.227	1.041	0	0	2.08	2.058
3	0.101	0.073	1.18	1.012	0.101	0.096	3.279	3.246
5	0.101	0.073	1.18	1.012	0.101	0.096	3.279	3.246
15	0.045	0.033	0.744	0.636	0.045	0.043	1.448	1.434
45	0.011	0.008	0.315	0.269	0.011	0.01	0.592	0.586

Pollutant Name: PM10 - Tire Wear

Temperature: 40F

Relative Humidity: 30%

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	0	0	0	0	0	0	0	0
3	0.012	0.012	0.012	0.012	0.012	0.012	0.036	0.036
5	0.012	0.012	0.012	0.012	0.012	0.012	0.036	0.036
15	0.012	0.012	0.012	0.012	0.012	0.012	0.036	0.036
45	0.012	0.012	0.012	0.012	0.012	0.012	0.036	0.036

Pollutant Name: PM10 - Break Wear

Temperature: 40F

Relative Humidity: 30%

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	0	0	0	0	0	0	0	0
3	0.013	0.013	0.013	0.013	0.028	0.028	0.028	0.028
5	0.013	0.013	0.013	0.013	0.028	0.028	0.028	0.028
15	0.013	0.013	0.013	0.013	0.028	0.028	0.028	0.028
45	0.013	0.013	0.013	0.013	0.028	0.028	0.028	0.028

Pollutant Name: PM2.5

Temperature: 40F

Relative Humidity: 30%

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	0	0	1.129	0.957	0	0	1.914	1.894
3	0.076	0.067	1.086	0.931	0.076	0.089	3.017	2.986
5	0.076	0.067	1.086	0.931	0.076	0.089	3.017	2.986
15	0.034	0.03	0.684	0.585	0.034	0.04	1.333	1.319
45	0.008	0.007	0.29	0.247	0.008	0.01	0.545	0.539

Abridged Emfac Run to Determine Emission Rates of On-Site Idling and Travel by Haul Trucks

Pollutant Name: PM2.5 - Tire Wear

Temperature: 40F

Relative Humidity: 30%

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	0	0	0	0	0	0	0	0
3	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.009
5	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.009
15	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.009
45	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.009

Pollutant Name: PM2.5 - Break Wear

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	0	0	0	0	0	0	0	0
3	0.005	0.005	0.005	0.005	0.012	0.012	0.012	0.012
5	0.005	0.005	0.005	0.005	0.012	0.012	0.012	0.012
15	0.005	0.005	0.005	0.005	0.012	0.012	0.012	0.012
45	0.005	0.005	0.005	0.005	0.012	0.012	0.012	0.012

Title : Wal-Mart Distribution Center in Merced

Version : Emfac2007 V2.3 Nov 1 2006

Run Date : 2007/02/08 13:18:26

Scen Year: 2009 -- All model years in the range 1965 to 2009 selected

Season : Annual

Area : Merced

Year: 2009 -- Model Years 1965 to 2009 Inclusive --
Emfac2007 Emission Factors: V2.3 Nov 1 2006 Annual County Average

County Average

Merced

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases

Temperature: 80F

Relative Humidity: 30%

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	22.506	23.238	3.173	6.211	0	0	13.448	13.307
3	26.808	7.051	1.05	2.201	120.227	21.415	14.149	14.271
5	26.808	7.051	1.05	2.201	120.227	21.415	14.149	14.271
15	11.943	3.127	0.662	1.143	53.75	9.532	3.815	3.895
45	2.826	0.724	0.281	0.373	12.969	2.253	0.868	0.887

Pollutant Name: Oxides of Nitrogen				Temperature: 80F		Relative Humidity: 30%			
Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL	
0	1.489	1.536	75.051	63.889	0	0	107.309	106.182	
3	2.465	2.727	15.441	13.507	22.576	9.349	44.757	44.391	
5	2.465	2.727	15.441	13.507	22.576	9.349	44.757	44.391	
15	2.714	3.003	11.012	9.793	24.865	10.296	22.075	21.958	
45	3.464	3.833	9.365	8.521	31.731	13.14	16.786	16.756	

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	4776.9	4776.901	4098	4201.077	0	0	6541.715	6472.982
3	2513.51	2513.51	1505	1658.121	2513.51	2513.51	3845.361	3831.367
5	2513.51	2513.51	1505	1658.121	2513.51	2513.51	3845.361	3831.367
15	1175.484	1175.484	1505	1454.97	1175.484	1175.484	2595.958	2581.033
45	450.085	450.085	1505	1344.833	450.085	450.085	1701.031	1687.887

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	0	0	1.227	1.041	0	0	2.08	2.058
3	0.101	0.073	1.18	1.012	0.101	0.096	3.279	3.246
5	0.101	0.073	1.18	1.012	0.101	0.096	3.279	3.246
15	0.045	0.033	0.744	0.636	0.045	0.043	1.448	1.434
45	0.011	0.008	0.315	0.269	0.011	0.01	0.592	0.586

[illegible]

Abridged Emfac Run to Determine Emission Rates of On-Site Idling and Travel by Haul Trucks

Pollutant Name: PM10 - Break Wear

Temperature: 80F

Relative Humidity: 30%

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	0	0	0	0	0	0	0	0
3	0.013	0.013	0.013	0.013	0.028	0.028	0.028	0.028
5	0.013	0.013	0.013	0.013	0.028	0.028	0.028	0.028
15	0.013	0.013	0.013	0.013	0.028	0.028	0.028	0.028
45	0.013	0.013	0.013	0.013	0.028	0.028	0.028	0.028

Pollutant Name: PM2.5

Temperature: 80F

Relative Humidity: 30%

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	0	0	1.129	0.957	0	0	1.914	1.894
3	0.076	0.067	1.086	0.931	0.076	0.089	3.017	2.986
5	0.076	0.067	1.086	0.931	0.076	0.089	3.017	2.986
15	0.034	0.03	0.684	0.585	0.034	0.04	1.333	1.319
45	0.008	0.007	0.29	0.247	0.008	0.01	0.545	0.539

Pollutant Name: PM2.5 - Tire Wear

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	0	0	0	0	0	0	0	0
3	0.003	0.003	0.003	0.003	0.003	0.003	0.009	0.009
5	0.003	0.003	0.003	0.003	0.003	0.003	0.009	0.009
15	0.003	0.003	0.003	0.003	0.003	0.003	0.009	0.009
45	0.003	0.003	0.003	0.003	0.003	0.003	0.009	0.009

Pollutant Name: PM2.5 - Break Wear

Speed MPH	MHD NCAT	MHD CAT	MHD DSL	MHD ALL	HHD NCAT	HHD CAT	HHD DSL	HHD ALL
0	0	0	0	0	0	0	0	0
3	0.005	0.005	0.005	0.005	0.012	0.012	0.012	0.012
5	0.005	0.005	0.005	0.005	0.012	0.012	0.012	0.012
15	0.005	0.005	0.005	0.005	0.012	0.012	0.012	0.012
45	0.005	0.005	0.005	0.005	0.012	0.012	0.012	0.012

On-Site Haul Truck Idling

<u>Traveling</u>	ROG	NOx	PM10	PM2.5	CO2	<u>units</u>	<u>source</u>
emission factor	3.815	24.007	1.512	1.354	2595.958	g/mi	link to HHD DSL at 15 mph from Emfac2007 V2.3
emission rate	0.0084	0.0529	0.0033	0.0030	5.7231	lb/mi	conversion calculation

Conversion Factors

		<u>units</u>	<u>source</u>
weight conversion	453.59237	g/lb	http://www.onlineconversion.com/weight_common.htm

On-Site VMT by Haul Trucks

<u>Travel by Haul Trucks</u>	<u>value</u>	<u>units</u>	<u>source</u>
ingress VMT	75	mi/day	1
egress VMT	77	mi/day	1
travel to stall pick-up/drop-off	73	mi/day	1
travel to and from parking	73	mi/day	1
Subtotal	298	mi/day	summation

Emissions from On-Site Haul Truck Travel

	ROG	NOx	PM10	PM2.5	CO2	<u>units</u>	<u>source</u>
Pounds per Day	2.5064	15.7721	0.9934	0.8895	1705.4861	lb/day	calculation
Tons per Year	0.46	2.88	0.18	0.16	311.25	ton/year	conversion

Notes/Sources

1 - These parameters were determined in the Health Risk Assessment performed for this project.

Conversion Rates

	<u>units</u>
365	days/yr
2000	lb/ton

On-Site Haul Truck Travel

<u>Idling</u>	ROG	NOx	PM10	PM2.5	CO2	<u>units</u>	<u>source</u>
emission factor	13.448	107.309	2.08	1.914	6541.715	g/hr	link to HHD DSL at 0 mph from Emfac2007 V2.3
emission rate	0.0296	0.2366	0.0046	0.0042	14.4220	lb/hr	conversion calculation

<u>Haul Truck Idling Time</u>	<u>value</u>	<u>units</u>	<u>source</u>
entrance gate	322	min/day	1
temporary parking area	1610	min/day	1
weigh scales	1610	min/day	1
stall pick-up/drop-off	3220	min/day	1
Subtotal	6762	min/day	summation
minutes per hour	60	min/hr	
Subtotal	112.70	idle-hr/day	conversion

Emissions from On-Site Haul Truck Idling

	ROG	NOx	PM10	PM2.5	CO2	<u>units</u>	<u>source</u>
Pounds per Day	3.3413	26.6621	0.5168	0.4756	1625.3609	lb/day	calculation
Tons per Year	0.61	4.87	0.09	0.09	296.63	ton/year	conversion

Notes/Sources

1 - These parameters were determined in the Health Risk Assessment performed for this project.

<u>Conversion Rates</u>	<u>units</u>
365	days/yr
2000	lb/ton

Emission Rates for On-Site Yard Trucks

It is assumed that the Off Highway Truck in the URBEMIS equipment list is equivalent to a Yard Truck but with an engine size of 175 hp, which is consistent with the HRA.

Emission factors for the Yard Trucks were developed using a 'dummy' run in URBEMIS2007, MDC_Yard_Truck_U2007.urb9 with the following parameters:

Number of Off-Road trucks	100.0
hrs/day	10.0
Year	2009.0

URBEMIS generated the following emission estimates for "Fine Grading Off-Road Diesel":

	ROG	NOx	PM10	PM2.5	CO2
Annual (tons/year)	13.76	102.07	6.02	5.54	9296.24
Summer (lb/day)	105.46	782.18	46.14	42.45	71235.56
Winter (lb/day)	105.46	782.18	46.36	42.53	73786.12

The above emissions estimates account for both on-site travel and idling.

Conservatively, the maximum seasonal rate was used:

	ROG	NOx	PM10	PM2.5	CO2
Seasonal daily max. (lb/day)	105.46	782.18	46.36	42.53	73786.12

Then, the hourly rate for one single Yard truck was calculated based on the number of trucks and hours per day:

One Single Yard Truck	ROG	NOx	PM10	PM2.5	CO2	<u>units</u>	<u>source</u>
Hourly Emission Rate (lb/hour)	0.105	0.782	0.046	0.043	73.786	lb/hour	calculation

Emissions for On-Site Yard Truck Idling

Yard Truck Idling

docks pick-up/drop-off	1288	min/day	1
stall pick-up/drop-off	1288	min/day	1
Subtotal	2576	min/day	summation
minutes per hour	60	min/hr	conversion calculation
Subtotal idle-hours per day	42.93	idle-hr/day	summation calculation

Emissions	ROG	NOx	PM10	PM2.5	CO2	<u>units</u>	<u>source</u>
pounds per day	4.53	33.58	1.99	1.83	3167.88	lb/year	calculation
tons per year	0.83	6.13	0.36	0.33	578.14	ton/year	calculation

Emissions for On-Site Yard Truck Travel

Yard Truck On-Site Travel

travel to docks pick-up/drop-off	37	mi/day	1	
travel to stall pick-up/drop-off	37	mi/day	1	
Subtotal	74	mi/day	summation	
Avg Speed of on-site travel	7.5	mi/hr	Avg. speed is assumed based on site speed limit of 15 mph.	
Truck-travel hours per day	9.87	truck-hr/day	calculation	

Emissions	ROG	NOx	PM10	PM2.5	CO2	units	source
pounds per day	1.04	7.72	0.46	0.42	728.02	lb/year	calculation
tons per year	0.19	1.41	0.08	0.08	132.86	ton/year	calculation

Conversion Rates

2000	lb/ton
365	days/year

Notes/Sources

1 - These parameters were determined in the Health Risk Assessment performed for this project.

Summary of Emissions of On-Site Truck Activity (tons per year)

	ROG	NOx	PM10	PM2.5	CO2	<u>units</u>
Haul Truck Idling	0.46	2.88	0.18	0.16	311.25	ton/year
Haul Truck Travel	0.61	4.87	0.09	0.09	296.63	ton/year
Yard Truck Idling	0.83	6.13	0.36	0.33	578.14	ton/year
Yard Truck Travel	0.19	1.41	0.08	0.08	132.86	ton/year

Urbemis 2007 Version 9.2.2

Detail Report for Annual Operational Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\sacramento\Application Data\Urbemis\Version9a\Projects\Merced Distribution Center\CO2 - MDC Outbound Delivery

Truck Trips - Proposed U2007 - CO2 Only

Project Name: MDC - Outbound Delivery Truck Trips - Proposed U2007 - CO2 Only

Project Location: Merced County

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

<u>Source</u>	ROG	NOX	PM10	PM25	CO2
Warehouse	12.33	226.49	136.71	29.53	24,170.69
TOTALS (tons/year, unmitigated)	12.33	226.49	136.71	29.53	24,170.69

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Season: Annual

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
Warehouse		0.27	1000 sq ft	1,200.00	324.00	35,348.40
					324.00	35,348.40

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	0.0	1.9	97.6	0.5
Light Truck < 3750 lbs	0.0	4.1	88.3	7.6
Light Truck 3751-5750 lbs	0.0	1.9	97.6	0.5

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Med Truck 5751-8500 lbs	0.0	0.9	98.2	0.9
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0	70.0	30.0
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0	44.4	55.6
Med-Heavy Truck 14,001-33,000 lbs	0.0	9.1	18.2	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	100.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	0.0	73.0	27.0	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	11.1	77.8	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	109.1
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	45.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land

Warehouse	0.0	0.0	100.0
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Operational Changes to Defaults

Commercial-based customer average speed changed from 35 mph to 45 mph

Commercial-based customer urban trip length changed from 7.35 miles to 109.1 miles

Urbemis 2007 Version 9.2.2

Detail Report for Annual Operational Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\sacramento\Application Data\Urbemis\Version9a\Projects\Merced Distribution Center\CO2 - MDC Outbound Delivery
Truck Trips - Existing U2007.urb9

Project Name: MDC - Outbound Delivery Truck Trips - Existing U2007 - CO2 Only

Project Location: Merced County

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

<u>Source</u>	ROG	NOX	PM10	PM25	CO2
Warehouse	10.77	197.79	119.39	25.79	21,108.43
TOTALS (tons/year, unmitigated)	10.77	197.79	119.39	25.79	21,108.43

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Season: Annual

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
Warehouse		0.15	1000 sq ft	1,200.00	180.00	30,870.00
					180.00	30,870.00

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	0.0	1.9	97.6	0.5
Light Truck < 3750 lbs	0.0	4.1	88.3	7.6

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Light Truck 3751-5750 lbs	0.0	1.9	97.6	0.5
Med Truck 5751-8500 lbs	0.0	0.9	98.2	0.9
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0	70.0	30.0
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0	44.4	55.6
Med-Heavy Truck 14,001-33,000 lbs	0.0	9.1	18.2	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	100.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	0.0	73.0	27.0	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	11.1	77.8	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	171.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	45.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Warehouse	0.0	0.0	100.0
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Operational Changes to Defaults

Commercial-based customer average speed changed from 35 mph to 45 mph

Commercial-based customer urban trip length changed from 7.35 miles to 171.5 miles

Urbemis 2007 Version 9.2.2

Detail Report for Annual Operational Unmitigated Emissions (Tons/Year)

File Name: C:\Documents and Settings\sacramento\Application Data\Urbemis\Version9a\Projects\Merced Distribution Center\CO2 - MDC Inbound Delivery

Truck Trips - Existing or Proposed Proj U2007.urb9

Project Name: MDC - Outbound Delivery Truck Trips - Existing U2007 - CO2 Only

Project Location: Merced County

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

Off-Road Vehicle Emissions Based on: OFFROAD2007

OPERATIONAL EMISSION ESTIMATES (Annual Tons Per Year, Unmitigated)

<u>Source</u>	ROG	NOX	CO	SO2	PM10	PM25	CO2
Warehouse	19.39	356.03	96.25	0.36	214.89	46.43	37,995.17
TOTALS (tons/year, unmitigated)	19.39	356.03	96.25	0.36	214.89	46.43	37,995.17

Includes correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2009 Season: Annual

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
Warehouse		0.27	1000 sq ft	1,200.00	324.00	55,566.00
					324.00	55,566.00

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	0.0	1.9	97.6	0.5
Light Truck < 3750 lbs	0.0	4.1	88.3	7.6

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Light Truck 3751-5750 lbs	0.0	1.9	97.6	0.5
Med Truck 5751-8500 lbs	0.0	0.9	98.2	0.9
Lite-Heavy Truck 8501-10,000 lbs	0.0	0.0	70.0	30.0
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0.0	44.4	55.6
Med-Heavy Truck 14,001-33,000 lbs	0.0	9.1	18.2	72.7
Heavy-Heavy Truck 33,001-60,000 lbs	100.0	0.0	0.0	100.0
Other Bus	0.0	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	0.0	73.0	27.0	0.0
School Bus	0.0	0.0	0.0	100.0
Motor Home	0.0	11.1	77.8	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	171.5
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	45.0
% of Trips - Residential	32.9	18.0	49.1			

% of Trips - Commercial (by land use)

Warehouse	0.0	0.0	100.0
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Operational Changes to Defaults

Commercial-based customer average speed changed from 35 mph to 45 mph

Commercial-based customer urban trip length changed from 7.35 miles to 171.5 miles

Health Risk Assessment

Prepared for:
EDAW
Sacramento, CA

Health Risk Assessment to Support Environmental Impact Analysis for the Proposed Wal-Mart Distribution Center, Merced, CA

ENSR Corporation
March 2007
Document No.: 02450-021

Prepared for:
EDAW
Sacramento, CA

Health Risk Assessment to Support Environmental Impact Analysis for the Proposed Wal-Mart Distribution Center, Merced, CA



Prepared By: Greg Wolffe



Reviewed By: Howard Balentine

ENSR Corporation
March 2007
Document No.: 02450-021

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1.0 INTRODUCTION

This health risk assessment (HRA) is a comprehensive analysis of the potential health risks posed by operation of the proposed Wal-Mart Distribution Center (DC) located in Merced, CA. This HRA was conducted in support of the environmental impact analysis required under the California Environmental Quality Act (CEQA) for the proposed action. The assessment evaluates hazardous chemical substances emitted in the environment, the potential for human exposure, and a quantitative assessment of individual health risks associated with those levels of exposure. The principal concerns for public health are associated with emissions of chemical substances into the air during routine operation of the proposed facility.

1.1 Project Background

The project site is located at the southeast end of the city of Merced in eastern Merced County in the San Joaquin Valley. Merced is approximately 118 miles south of Sacramento and 130 miles east of San Francisco. The project site is within the city limits of Merced. Land immediately to the south, north, and west of the site is also within the city limits of Merced. Land immediately to the east is in unincorporated Merced County, but is within the City's sphere of influence. As described above, the project site is designated "Manufacturing Industrial" in the Merced General Plan and "Heavy Industrial District" (I-H) in the zoning ordinance. The site has historically been used for agriculture.

Wal-Mart Corporation supplies the majority of its goods to its retail stores through regional distribution centers. A number of Wal-Mart stores are located throughout the central San Joaquin Valley. Presently, the closest distribution centers are located in Red Bluff and Apple Valley, both of which are in California and located 250 miles and 306 miles, respectively, from Merced.

1.2 Project Description

The proposed project, a Wal-Mart regional distribution center, consists of a warehouse and distribution center and support facilities, located on 230 acres in the city of Merced. The support facilities include offices, a cafeteria, a fire pump house, and aerosol storage (all located within the warehouse building), as well as a truck gate, a truck maintenance garage, a truck fueling station, and parking. The underlying purpose of the project is storage and distribution of non-grocery goods to Wal-Mart retail stores located throughout the region. There are no outdoor recreational facilities, open space, retail commercial, or residential uses proposed as part of the project.

The approximately 230-acre project site is bounded on the north by Childs Avenue, on the East by Tower Road and on the South by Gerard Avenue. Kibby Road, which heads north from this area, terminates at Childs Avenue at the north end of the project site. The future Campus Parkway is approximately 975 feet west of the project site. The site is approximately three miles southeast of downtown Merced and two miles east of State Route 99 (SR 99). Campus Parkway, which is planned to commence construction in March 2007 and be complete by November 2007, would provide access between the site and SR 99 via the new Mission Avenue interchange with SR 99; the interchange is currently under construction and planned to be operational by September 2007.

The land is generally flat but gently slopes to the west and ranges from 185 to 190 feet above mean sea level (msl). The site contains no structures or improvements, except for an irrigation water well. The western one-third of the site contains a walnut orchard, and the eastern two-thirds consist of agricultural fields. The northern, southern, and part of the northeastern boundary of the fields contain irrigation

ditches, which connect to the Wilson Substation (approximately one mile north of the site) along State Route 140 (SR 140). Overhead power lines run through the eastern portion of the site. The area containing these power lines will remain as an easement, and all site development will take place on the approximately 80 percent of the project site located west of this easement. Relocation of the power lines is not proposed as part of this project. The site includes right-of-way for the extension of Kibby Road between Childs Avenue and Gerard Avenue. This section of right-of-way is proposed to be abandoned to allow project uses as part of site development.

The project parcel is bounded by agricultural fields and a few rural residential dwellings across Tower Road to the east and Gerard Avenue to the south. The land east of Tower Road is designated as “Agriculture” in the Merced General Plan, and land to the north, west and south is designated as “Manufacturing Industrial”. Undeveloped open lands and commercial lands are located to the north. To the west is another orchard. Also to the west is a Merced Irrigation District (MID) canal.

2.0 Identification of Air Toxic Contaminants

This section identifies and presents information on the toxic air contaminant (TAC) emissions from the proposed action, potential health hazards associated with the air toxic substances emitted, and their associated cancer risk and/or noncancer health impact evaluation requirement. It addresses the potential environmental impacts associated with human exposure to chemical substances of concern emitted into the air resulting from operation of Wal-Mart.

Air toxic substances were evaluated for long-term cancer and non-cancer chronic health hazard impacts. Because the air toxics evaluated do not have health risk impacts due to exposure routes other than via inhalation; a multipathway exposure assessment is not required. Also, an assessment of acute exposure (short-term) was not required to evaluate health risk impacts because TAC emissions from the proposed action do not have short-term (acute) health risk impacts associated with their exposure.

2.1 Health Risk Assessment Methodology

The methods used to assess potential human health risks are consistent with those prepared by *The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments* (OEHHA, 2003) (OEHHA Guidance Manual) which describes algorithms, exposure methods, and cancer and noncancer health values needed to perform a health risk assessment (HRA) under the Air Toxics Hot Spots Information and Assessment Act of 1987 (Hot Spots or AB 2588, Health and Safety Code Section 44360 et seq.). This Guidance Manual is generally considered the best available reference for conducting human health risk assessment in California. Additional references include the Health Assessment Document for Diesel Engine Exhaust (EPA/600/8-90/057F, May 2002).

Additionally, the SJVAPCD has developed detail instructions for completing air quality modeling analysis, documented in the SVAPCD Guidance for Air Dispersion Modeling, (SJVAPCD, 2006). Appendix A, Section 2.0 of the SJVAPCD Guidance (Guidance), describes recommended methodology for conducting CEQA health risk assessments. This guidance document was followed as well, specifically when attributing source release parameters to truck exhaust and for the estimation of diesel-particulate emissions from truck travel and truck idling. This HRA included all sources of air toxics, including permitted (stationary emergency), and non-permitted (mobile) equipment.

This health risk assessment contains three quantitative determinations: emission estimation, air dispersion analysis, and health risk characterization. Source emissions of toxic air contaminants from the project were estimated using emission factors to quantify facility operations. Exposure calculations were performed using air dispersion modeling analysis to predict ground-level air concentrations, by source. Results of the air modeling exposure predictions were then applied to the emission estimates and, along with the respective cancer health risk factors and chronic and acute noncancer reference exposure levels for each toxic substance, were used to perform a health risk characterization that quantified individual health risks associated with predicted levels of exposure.

2.2 Air Toxic Substances Emitted

The primary air toxic substance evaluated for potential health risks from operation of the Wal-Mart Merced DC is particulate emissions from diesel-fueled engine exhaust. The regulated pollutant surrogate for this air toxic substance is commonly referred to as diesel particulate matter (DPM). Organic gases are also expected to be emitted from the proposed project from operation of an onsite charbroiler.

2.2.1 Sources of Air Toxic Emissions

Particulate emissions from diesel-fueled engines will be generated from truck activity and stationary sources operated at the Wal-Mart DC. Trucks will emit particulate emissions while perform various operations including traveling along lanes within the facility and idling at designated stops. Truck travel and idling are the primary contributors to DPM emission. Secondary sources of DPM emissions include the testing and routine maintenance of an emergency back-up power generator and fire-water pump. It is expected that both engines will be permitted with the SJVAPCD and the time allowed for testing and maintenance of these engines will be limited by permit condition, in accordance with the California Air Toxic Control Measure (ATCM) for stationary emergency engines. Emergency engines will meet Tier 3 standards for engines between 37 and 560 kW (50 and 750 hp) for particulate matter.

Organic gases are expected to be emitted from operation on an onsite cafeteria from the cooking of animal fats and oils. Emissions will be controlled through to an exhaust manifold (hood) to a roof-top vent. In addition, the cafeteria will receive two deliveries per week from transportation refrigeration units (TRU's) that will be unloaded thru a walk door near the cafeteria. The Wal-Mart DC will not receive or be set-up to receive shipment of cold goods through the operation of any TRU's.

Some small forklifts will be operated primarily inside the distribution center and will run on propane. Emissions from forklifts are considered to have an insignificant environmental impact due to their small engine size, use of propane-fueled engines, and primary use within Merced DC buildings. In accordance with the SJVAPCD Modeling Guidance, emissions from vehicles occurring on the roads or highways were not considered in this analysis.

2.2.2 Health Risk Factors

Chemical substance were evaluated in this analysis using health values that have been approved by the OEHHA and the ARB for use in facility health risk assessments conducted for the AB 2588 Air Toxics Hot Spots Program (OEHHA, October 2003). The chemical substances of concern that are addressed in this HRA are listed in Table 2-1, along with their respective published OEHHA health effect values. The table lists the OEHHA adopted inhalation and oral cancer slope factors, noncancer acute Reference Exposure Levels (RELs), and inhalation and oral noncancer chronic RELs. The cancer potency factors and reference exposure levels (RELs) used were obtained from the OEHHA HRA Guidance Document.

Table 2-1
Risk Assessment Health Values for Substances of Potential Concern

Compound (CAS Number)	Cancer Risk		Non-cancer Effects	
	Inhalation Cancer Potency (mg/kg-day) ⁻¹	Inhalation Unit Risk (µg/m3) ⁻¹	Chronic Inhalation Reference Exposure Level (µg/m3)	Acute Inhalation Reference Exposure Level (µg/m3)
PAH (50328) ⁽¹⁾	3.9E+00	1.1E-03	--	--
Naphthalene (91203)	1.2E-01	3.4E-05	9.0E+00	--
Diesel Particulate Matter (9901)	1.1E+00 ⁽²⁾	3.0E-04	5.0 E+00	--

Source: OEHHA, 2003 (Naphthalene updated August, 2004)

⁽¹⁾ Benzo(a)pyrene (CAS number shown) was modeled as a surrogate carcinogen for all PAH emissions.

⁽²⁾ Cancer risk from DPM emissions was evaluated in this HRA by applying an exposure adjustment of 4.1453E-04, which considers exposure assumptions specified in the SJVAPCD Modeling Guidelines.

2.3 Risk Definitions and Significance

Cancer Risk. Cancer risk is the probability or chance of contracting cancer over a human life span, which is assumed to be 70 years. Carcinogens are not assumed to have a threshold below which there would be no human health impact. In other words, any exposure to a carcinogen is assumed to have some probability of causing cancer; the lower the exposure, the lower the cancer risk (i.e., a linear, no-threshold model). Under various state and local regulations, an incremental cancer risk of 10-in-one-million due to a project is considered to be a significant impact on public health. For example, the 10-in-one-million risk level is used by the Air Toxics "Hot Spots" (AB2588) program and California's Proposition 65 as the public notification level for air toxic emissions from existing sources. The SJVAPCD Modeling Guidance states that for permitting purposes, health risk impacts above 10 in a million are considered significant.

Non-Cancer Risk. Non-cancer health impacts can result from short-term (acute) or long-term (chronic) exposure to chemical substances. In determining potential non-cancer health risks from air toxics, it is assumed that there is a dose of the chemical of concern below which there would be no impact on human health. The air concentration corresponding to this dose is called the reference exposure level (REL). Non-cancer health risks are measured in terms of a hazard index (HI), which is the calculated exposure of each contaminant divided by its REL. Hazard indices for those pollutants affecting the same target organ are typically summed, with the resulting totals expressed as hazard indices for each organ system. Similar to cancer risk, non-cancer impacts also have determined significance thresholds based on the estimated HI for the project. The SJVAPCD Modeling Guidance allows for an incremental HI of less than 1.0 is considered to be an insignificant health risk.

Chronic toxicity is defined as adverse health effects from prolonged chemical exposure, caused by chemicals accumulating in the body. Because chemical accumulation to toxic levels typically occurs slowly, symptoms of chronic effects usually do not appear until long after exposure commences. The lowest no-effect chronic exposure level for a non-cancer air toxic is the chronic REL. Below this threshold, the body is capable of eliminating or detoxifying the chemical rapidly enough to prevent its accumulation. The chronic hazard index was calculated using the hazard indices calculated with model-predicted annual concentrations.

Acute toxicity is defined as adverse health effects caused by a short-term chemical exposure of no more than 24-hours. Short-term impacts were not evaluated in this HRA because air toxic substances emitted from the proposed Wal-Mart DC do not have acute toxicity factors published to evaluate exposure.

CEQA Significance Criteria for Health Impacts. California has not established state-wide significance thresholds for cancer and non-cancer health risk impacts under CEQA. However, most air districts in California have adopted local significance thresholds for health risks in their policy guidance to project proponents. The SJVAPCD Modeling Guidance defines CEQA HRA significance thresholds for cancer health impacts as equal to or greater than 10 (cases) in a million and a significance thresholds for non-cancer health impacts as equal to or greater than 1.0.

3.0 Exposure Assessment

This section describes the information related to the air dispersion modeling process used to estimate ground-level concentrations of air toxic pollutants emitted from the proposed project. Evaluation of potential health risks from the proposed Wal-Mart DC facility was conducted in accordance with the procedures described in the SJVAPCD Modeling Guidelines for facilities for which diesel particulate matter (DPM) is the predominant toxic air contaminant.

3.1 Toxic Air Contaminant Emissions

3.1.1 Particulate Matter from Diesel-Fueled Engines

The predominant potential health risk impact from operation of the Merced DC will be from diesel-fueled internal combustion engines. Several operations contribute to emissions of DPM, including truck travel, truck idling, and stationary emergency equipment. Emissions of DPM from internal combustion engines are summarized in Table 3-1. Emission estimates were determined based on emission factors specified in the SJVAPCD Modeling Guidance, equipment manufacturer, or particulate matter standards for the engine class. Detailed emission calculations are provided in Appendix A.

**Table 3-1
Emissions of Particulate Matter from Diesel-Fueled Engines**

Emission Source Description	Average Emission Rates		
	Hourly Emissions (lbs/hr)	Daily Emissions (lbs/day)	Annual Emissions (lbs/year)
<u>Truck Travel</u>			
Ingress Travel	0.0046	0.1103	40.2
Egress Travel	0.0047	0.1135	41.4
Haul Truck Travel (Yard) ⁽¹⁾	0.0068	0.1621	59.2
Yard Truck Travel (Yard) ⁽²⁾	0.0059	0.1412	51.5
<u>Truck Idle</u>			
Entrance Gate	0.0012	0.028	10.2
Truck Waiting Area	0.0035	0.084	30.7
Temporary Parking Area	0.0058	0.140	51.2
Weigh Scales	0.0058	0.140	51.2
Haul Truck Idle (Yard) ⁽³⁾	0.0093	0.224	81.9
Yard Truck Idle (Yard) ⁽⁴⁾	0.0069	0.166	60.5
<u>Stationary Engines</u>			
Fire Pump	0.0297	0.004	1.5
Emergency Generator	0.0590	0.008	3.1

¹ Haul truck travel (yard) occurs throughout the container yard and includes traveling to and from the western access road, the container area, and the onsite temporary parking area.

² Yard truck travel (yard) occurs throughout the container yard and includes traveling to and from container stalls and loading docks.

³ Haul truck idling (yard) occurs throughout the container yard and includes haul truck idling at container stalls during coupling/decoupling associated with container movement.

⁴ Yard truck idling (yard) occurs throughout the container yard and includes yard truck idling at container stalls and docks during coupling/decoupling associated with container movement.

⁵ Daily emissions calculated as averaged hourly emissions over a seven (7) day meteorological period.

3.1.1.1 Truck Activity

Emissions of DPM from trucks will be generated from traveling and idling activities. The emission factors specified in Appendix A of the SJVAPCD Modeling Guidance for use in conducting CEQA health risk assessments were used to determine particulate emissions generated by on-road (haul) trucks. Truck activity level was based on traffic count data obtained from a study conducted at a Wal-Mart DC facility, similar in size and layout to the proposed project in Merced. Based on the traffic count data, truck activity for the Merced DC was determined to be a total movement of 644 haul trucks per day (322 trucks entering and 322 trucks leaving the facility per day).

Travel for haul trucks (trucks used to ship containers over roads and highways), includes ingress and egress from the Merced DC, travel to and from container stalls, and travel to and from the onsite temporary parking area. Emissions associated with travel to container stalls and parking will occur within the yard area of the Merced DC. Emissions associated with the ingress and egress of trucks to the facility will occur along a north-south access road located on the western side of the property. Distances (in feet) used to estimate emissions from truck travel were determined based on site layout including the length of entrance road, area of container yard, and distance to the onsite truck parking area from the yard. Round-trip distances for truck travel within the yard for both drop-off and pick-up of containers were used to determine emissions where applicable.

Truck idling will occur at several specific locations on the Merced DC site associated with specific truck activities. Idling will occur at the entrance gate upon check-in, at the truck weigh scales, and at the temporary onsite parking area. At each location truck idling will be limited to no more than 5-minutes per truck, in accordance with the idling time limits proposed by the state Air Toxics Control Measure (ATCM) to limit diesel-fueled commercial motor vehicle idling (October, 2005). Truck idling will also occur in the yard turning, coupling, and decoupling of containers.

In addition to haul trucks, yard trucks will be operated within the facility to move containers back and forth from stalls to docks. The most probable yard truck that will be operated at the Merced DC is the Ottawa Commando 30, a non-road truck (not registered by the Department of transportation for use on roads) commonly used for container movement. These trucks will be equipped with engines that have EPA and CARB certification for meeting Tier 2/3 emission standards for particulate matter. Emission estimates for yard trucks were based on information obtained from Cummins, the engine manufacturer for the Ottawa Commando line. A copy of the 2006 Model Year Certificate of Conformity is provided in Appendix B.

Wal-Mart Merced will not operate a cold storage facility for the purpose of goods distribution therefore the project does not include the operation of any transportation refrigeration units (TRU's) for delivery of perishable goods to the Wal-Mart DC. Approximately two deliveries of perishable goods to the cafeteria are expected per week. Based on the operation at other centers perishable goods will unload thru a walk door (not at a dock) near the cafeteria. An average delivery vehicle will have a TRU with a small (approximately 24 hp) cooling and heating unit. Emissions from these operations are considered to be incidental to overall facility operations.

Some small forklifts will be operated primarily inside the distribution center and will run on propane. Emissions from forklifts are considered to have an insignificant environmental impact due to their small engine size, use of propane-fueled engines, and primary use within Merced DC buildings. In accordance with the SJVAPCD Modeling Guidance, emissions that from vehicles occurring on the roads or highways were not considered in this analysis.

3.1.1.2 Emergency Equipment

Other combustion sources include an emergency power generator, and an emergency fire pump. Emissions for these units were based on operating conditions that represent the maximum emissions profile (being permitted) for the Wal-Mart tested facility. The emissions from the emergency generator and the emergency fire pump were quantified for routine water testing and maintenance operation only. The Wal-Mart project will be required to equip the emergency power generator and fire pump with California Tier 2 engines (Tier 3 equivalent) that meet applicable standards for particulate control. Annual estimates were based on an operating limit of 52 hours per year or less for testing. This limit is expected to be an upper-bound permitted condition of operation for the equipment. The engine size (brake-horsepower) and manufacturer was obtained from operating permits for equipment installed at a facility of similar size and requirement. Emission factors for these engines are based on data from the equipment manufacturer.

3.1.2 Organic Gases (PAH and Naphthalene)

Emissions of organic gases from the onsite cafeteria were modeled in the risk assessment using an air toxic pollutant surrogate for the total hourly (lbs/hour) and annual (lbs/year) mass estimate for organic gases, in accordance with SJVAPCD Modeling Guidance for high volume, flat griddle cooking. Benzo(a)pyrene, or B(a)P, was modeled as the surrogate carcinogen for all PAH emissions. Since the B(a)P surrogate for total PAH emissions is the most or nearly-the-most potent carcinogens in the class, use of this cancer potency factor with total emissions will overestimate the risk.

3.2 Dispersion Modeling Methodology

Concentrations of air toxic substances in ambient air are estimated from mass emissions through use of air dispersion modeling analysis. Air concentrations resulting from potential emissions were estimated using the methodology provided in the SJVAPCD Modeling Guidance, and good modeling practice. The section presents the methods used to conduct the air dispersion modeling analysis for estimating concentrations of toxic air pollutants.

3.2.1 Air Dispersion Model

This health risk assessment used the AERMOD Version 07026, the most recent version of this air dispersion model, to determine ground-level air concentrations. AERMOD was used in the rural mode with all model option switches set to regulatory-default settings. Modeling was performed using a Universal Transverse Mercator (UTM), zone 11 NAD83 datum coordinate system.

AERMOD was used exclusively for the evaluation of cancer risk impacts from DPM emissions. Because DPM emissions were evaluated as a single pollutant in AERMOD, actual emission rates from each emission source were modeled in the dispersion analysis. To identify the maximum air concentration from all internal combustion equipment, a single source group “DPM” was used to combine emission impacts and identify the highest combined impact.

In addition to the use of AERMOD, the Hotspots Analysis Reporting Program (HARP) software package (Version 1.3, updated October 2006) developed by the ARB for conducting health risk assessments in California under the Air Toxics Hot Spots Program was also used to evaluate potential health risk due to emission from the operation of the cafeteria. The HARP model uses the Industrial Source Complex

(ISC3) air dispersion model for estimating the dispersion of air pollutants. Although AERMOD recently replaced the ISC3 model as the preferred air dispersion regulatory model, ISC3 is embedded in the HARP application and intended for use when the project modeling commenced. Further, although necessary to fully evaluate health risks from the proposed action, initial health risk modeling for this project (performed prior to December 7, 2006) showed the emissions from DPM was by far the dominant toxic air contaminant and that emissions from the cafeteria would not significantly contribute to potential health risk impacts. Therefore health impacts from the cafeteria were modeled using the ISC3 air dispersion model found in the HARP health risk assessment application.

The TAC emissions specified in the SJVAPCD Modeling Guidance for cafeteria (cooking) emissions are identified by OEHHA as pollutants that may impact public health through multiple pathways including inhalation, dermal, and oral exposure routes. To conduct a multi-pathway health risk analysis, a separate modeling analysis was performed and the results added to the impacts identified for diesel particulate matter to determine total estimated impacts.

3.2.2 Meteorological Data

The modeling analysis for emissions of DPM evaluated each of five years (2000-2004) of sequential hourly meteorological data to determine the highest annual concentrations for use in the HRA. The meteorological data sets were developed by the SJVAPCD for use in air dispersion modeling studies using AERMOD. The meteorological data was obtained from the SJVAPCD website for the Madera monitoring station. The analysis showed that meteorological data for the year 2002 produced the highest annual impacts from emission sources at the Wal-Mart Merced DC, with a maximum variability of approximately 10% between modeled years. For completion of the HARP analysis, air dispersion modeling was performed using a single year of sequential hourly meteorological data obtained from the SJVAPCD meteorological monitoring station located in Modesto, CA.

3.2.3 Emission Factors

Variable emission correction factors were used in the air dispersion modeling analysis to represent the proportionally higher activity level during and between peak daytime hours compared to late evening hour and early morning hours when activity is lower. Hour of day (HROFDY) emission rate scalar instructions were used in the AERMOD dispersion analysis to adjust hourly emissions based on routine daily activity level. The emission factors were developed based on traffic count data obtained from the Wal-Mart DC located in Apple Valley, which has an operating schedule and activity level similar to what is expected at the Wal-Mart Merced DC. The traffic study found that approximately 75% of truck activity occurred during 13 hours of the day, from 7 am to 8 pm. Hourly emissions, calculated for truck activity only, were weighted to these peak hours of operation. Daily and annual emission totals are not affected by the use of hourly emission rate factors. Because the cafeteria is expected to operate around the clock, no emission factors were applied to cafeteria operations.

3.2.4 Modeled Source Release Parameters

In accordance with the SJVAPCD Modeling Guidance, emissions from truck idling were modeled as vertical point source releases and emissions from truck travel were modeled as volume sources. Figure 1 shows modeled emission sources for the Wal-Mart facility.

Figure 1. Modeled Emission Sources on Facility Plot Plan

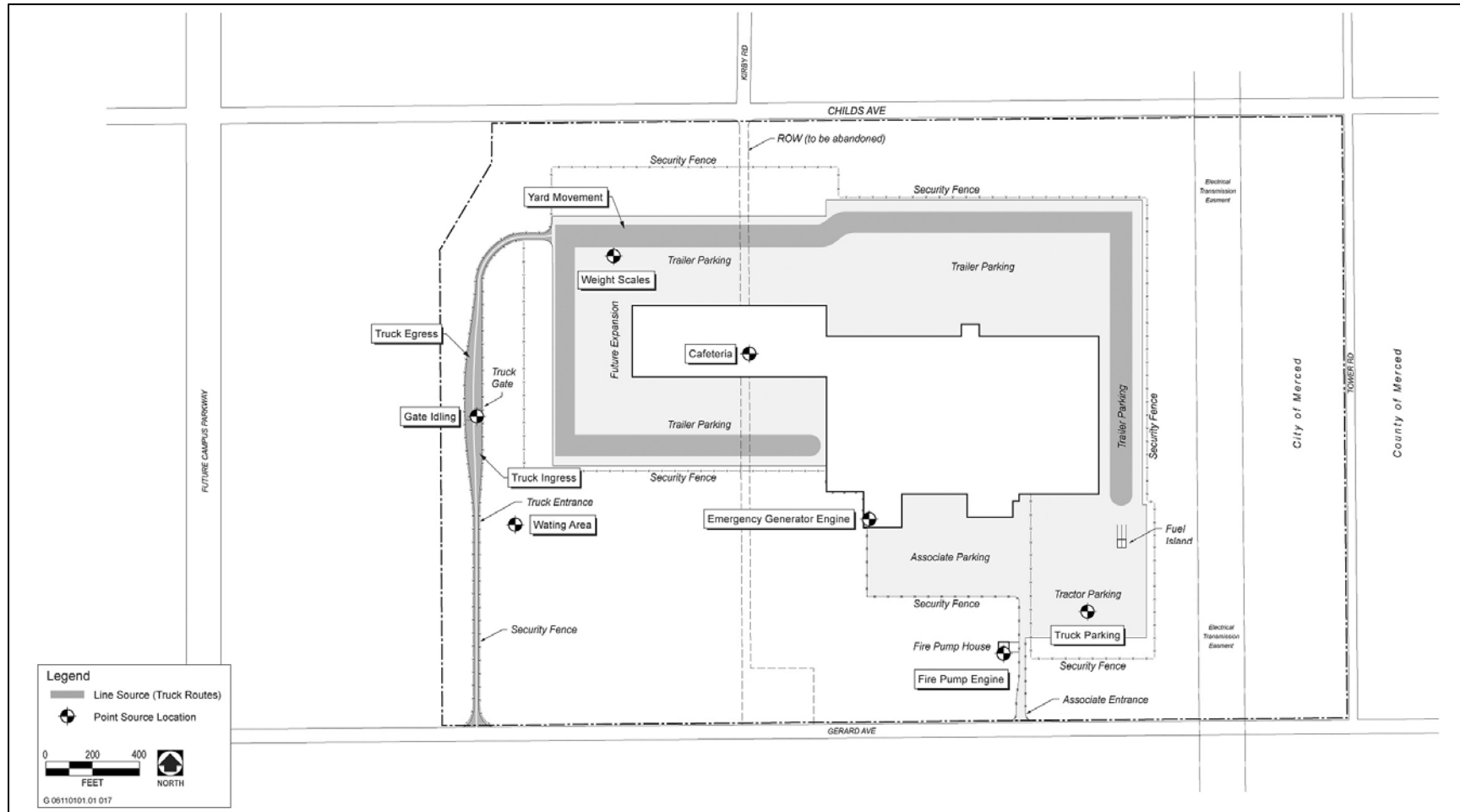


Table 3-2 summarizes the modeled release parameters for all emission sources evaluated in the HRA.

Table 3-2
Modeled Release Parameters for Emission Sources at Wal-Mart Merced DC

	Source Type	Release Height (ft)	Length of Side (ft)	Temperature (K)	Release Velocity (ft/sec)	Vertical Dimension (ft)
Ingress Travel	Line	6	12	-	-	2.79
Egress Travel	Line	6	12	-	-	2.79
Truck Travel (in yard) ⁽¹⁾	Line	6	12	-	-	2.79
Entrance Gate	Point	12.6	-	366	51.71	-
Truck Waiting Area	Point	12.6	-	366	51.71	-
Temporary Parking Area	Point	12.6	-	366	51.71	-
Weigh Scales	Point	12.6	-	366	51.71	-
Truck Idle (in yard) ⁽¹⁾	Point	12.6	-	366	51.71	-
Fire Pump	Point	15.0	-	776	238.1	-
Emergency Generator	Point	12.0	-	776	235.7	-
Charbroiler	Point	31.0	-	294	63.54	-

⁽¹⁾ Yard activities includes haul truck idling and travel, and yard (non-road) truck idling and travel.

3.2.5 Building Downwash

Building Profile Input Program (BPIP) was run to determine dominant structures for building downwash calculations run in AERMOD for point sources. Direction specific building heights and widths of the dominant downwash structure(s) were included in the AERMOD model data input file directly from BPIP results. Building downwash was also modeled in HARP for evaluating emissions from the cafeteria.

3.2.5 Terrain

The terrain surrounding the proposed Wal-Mart Merced DC site is primarily flat agricultural land or light industrial warehousing and distribution centers. Due to the relative flatness of terrain, and that no point source has high plume rise, terrain was not applicable to the air dispersion modeling analysis.

3.2.6 Receptors

Modeled receptors were placed at locations of potential human exposure to identify the maximum exposed individual at an existing residential receptor (MEIR), and the maximum exposed individual at an existing occupational worker receptor (MEIW). In addition, sensitive receptors, locations were a sensitive population segment such as children, elderly, or the infirmed may be exposed were also identified and modeled. Receptor locations within 1-mile of the project site were identified based on orthographic aerial photographs and a physical survey of the proposed project site.

Ten (10) residential receptors were identified and modeled to determine the MEIR. Residential receptors included existing residences located to the east, south and west of the proposed project along Tower Road, Gerard Ave, and in the future community of the Crossing/Sancastle development, respectively. Two (2) occupational receptors were identified and modeled to determine the MEIW. Occupations were located north of the Wal-Mart project. Four (4) schools were evaluated in the area of the project site including three (3) existing schools and one (1) future school siting. Schools were evaluated for health risks using both child exposure factors to assess student impacts, and as an occupational receptor to assess adults working at the schools. Table 3-3 summarizes the receptors evaluated for health risk impacts within 4 kilometers (km), including easting and northing bearing, distance to receptor from the center of the project site, and the receptor number modeled in AERMOD and HARP. Figure 1 shows a map of school, worker, and residential receptors.

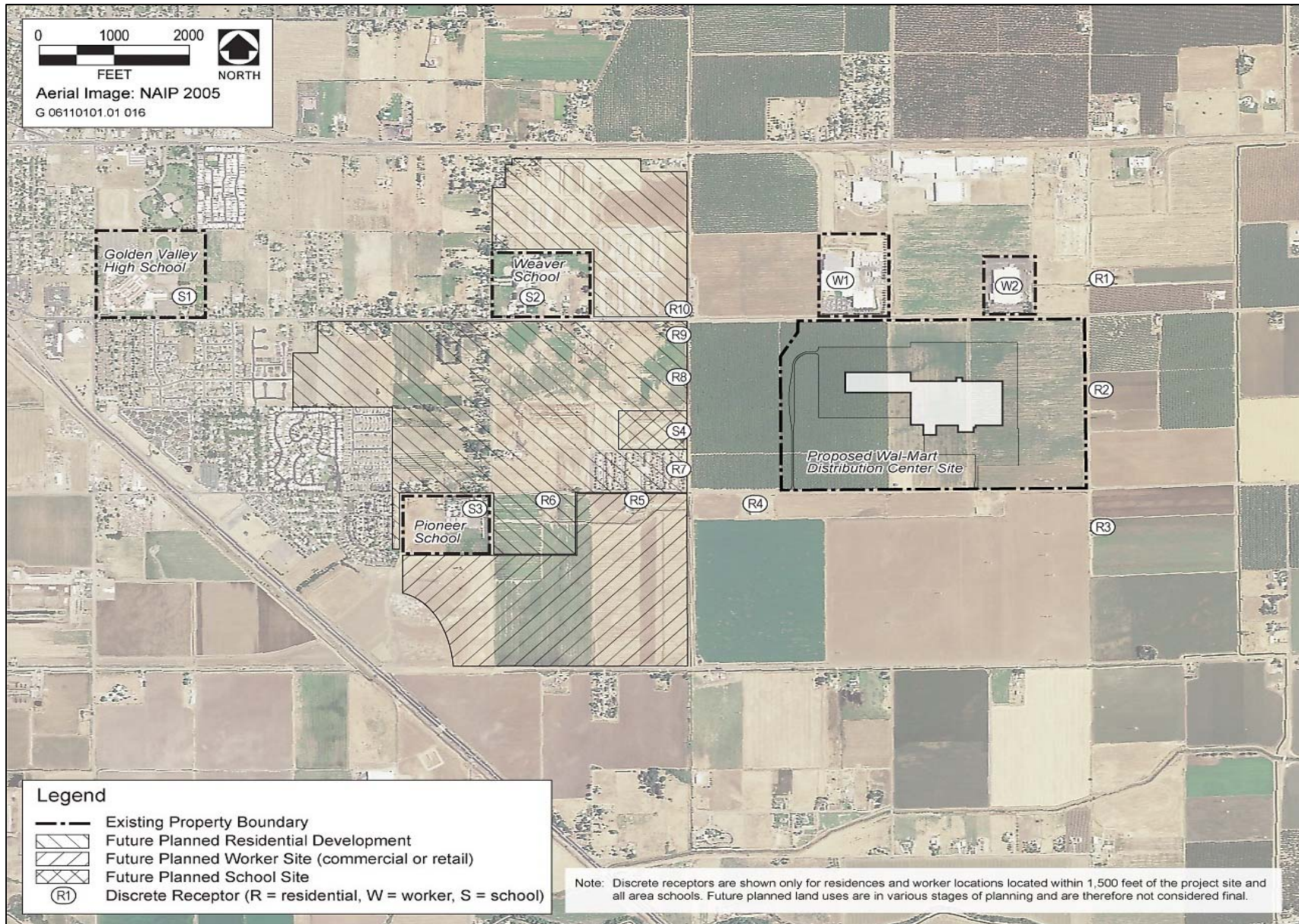
Table 3-3
Receptors Located Within 4-km of the Wal-Mart Merced DC

Receptor Type Number on map	Easting ⁽¹⁾ (meters)	Northing (meters)	Distance from Site (km)	Direction from Site	HARP Receptor Number ⁽²⁾
Residential					
R1 (Existing)	730282	4130145	1.0	Northeast	SR014
R2 (Existing)	730265	4129639	0.8	East	SR008
R3 (Existing)	730311	4128992	1.0	Southwest	SR007
R4 (Existing)	728554	4129092	1.0	Southwest	SR015
R5 (Existing)	727976	4129122	1.5	Southwest	SR012
R6 (Future)	727557	4129117	2.0	West	SR013
R7 (Future)	728209	4129260	1.3	West	SR011
R8 (Future)	728203	4129686	1.2	West	SR009
R9 (Future)	728203	4129871	1.3	West	SR010
R10 (Future)	728184	4130003	1.4	Northwest	SR016
Occupational					
W1 (Existing)	729106	4130043	0.8	North	SR005
W2 (Existing)	729818	4130082	0.7	North	SR006
School					
S1 (Existing)	725743	4130067	3.7	Northwest	SR004
S2 (Existing)	727460	4130055	2.0	Northwest	SR003
S3 (Existing)	727173	4129072	2.3	Southwest	SR001
S4 (Future)	728198	4129435	1.2	West	SR002

⁽¹⁾ All receptors modeled using UTM Zone 11 North NAD 83 Coordinates (meters)

⁽²⁾ HARP is programmed to assign sensitive receptor (SR) numbers; AERMOD identifies receptors by UTM coordinate.

Figure 2. Modeled Receptors on Aerial Photograph of Area



4.0 Health Risk Assessment Results

The Wal-Mart HRA evaluated cancer risk and chronic non-cancer health hazards at specific nearby locations where people may experience an actual exposure. Carcinogenic risks and potential chronic non-cancer health effects were assessed using the dispersion modeling and numerical values of toxicity provided by OEHHA as described in the preceding sections. The health risk assessment evaluated cancer and non-cancer health effects from inhalation exposure at individual residential, occupational, and sensitive receptors. Because the pollutants of concern do not have published toxicity factors for short-term (acute) exposure, this HRA evaluated only potential long-term health impacts.

Health risk impacts were identified at actual locations of residential and occupational receptors within a 1-mile radius of the proposed project site. A summary of maximum cancer risk and non-cancer health impacts values is shown in Table 4-1. Results of the health risk assessment are discussed below.

Table 4-1
Summary of Maximum Health Risk Impacts by Individual Receptor

Individual Receptor Type	Health Risk Impact ⁽¹⁾	
	Cancer Risk	Non-cancer Chronic
Residential Receptors		
Maximum Exposed Individual Receptor (MEIR)	7.3	0.0086
Occupational Receptors		
Maximum Exposed Individual Worker (MEIW)	2.4	0.0034
School Receptors		
Maximum Exposed Individual Child (MEIC)	0.18 ^(c) , 1.3 ^(w)	0.000054 ^(c) , 0.0019 ^(w)

⁽¹⁾ Cancer risk shown is total cancer risk, expressed in cases per million, from diesel particulate matter, PAH's and naphthalene. Cancer risk for residential receptor is based on a 70-year exposure. Cancer risk for worker receptors is based on an adjusted worker exposure in accordance with OEHHA and the SJVAPCD Modeling Guidance. Two cancer risk impacts were estimated for the schools. The first cancer risk shown (c) is based on a 9-year student exposure using inhalation and body weight factors developed by OEHHA for children. The second (w) cancer risk is based on a 40-year worker exposure.

Of the ten (10) residential locations identified for evaluating maximum individual health risk impacts, cancer risk at the MEIR was determined to be 7.3 in one million. Non-cancer chronic health impact at the MEIR was determined to be 0.0086. The MEIR for cancer risk and chronic health impacts occurred at the same residential receptor, located approximately 1 kilometer southwest of proposed project. The MEIR is located at an existing residential receptor. Therefore maximum residential impacts are not expected to increase due to exposures at new developments in the area surrounding the proposed action.

Two (2) occupational locations were identified for evaluating maximum individual health risk impacts at the MEIW. Cancer risk at the MEIW, based on worker exposure assumptions, was determined to be 2.4 in one million. Non-cancer chronic health impact at the MEIW was determined to be 0.0034. The occupational receptor occurs north of the project site along Childs Ave.

Four (4) sensitive receptors were identified within 4-kilometers of the proposed Wal-Mart site. The schools are located west of the project. For evaluating school receptors, two health risk analyses were conducted. The first was to evaluate potential health risk impacts to children that may be attending the school. The health risk assessment used the 9-year exposure scenario available in the HARP model to estimate health risk to children. This exposure scenario accounts for the higher breathing rate to body mass ratio of a child compared to an adult and is appropriate for use in estimating child exposure. The second assessment was of the school as an occupational (worker) receptor, similar to the analysis performed identification of impacts at the MEIW.

Estimated cancer risks at all receptors evaluated in this health risk analysis were determined to be less than the SJVAPCD significance level of 10 in one million. Detailed health risk calculations for all health risk results are provided in Appendix C.

5.0 Risk Assessment Uncertainty

Sources of uncertainty in the assessment of risks to public health include emissions estimates, dispersion modeling, exposure characteristics, and extrapolation of toxicity data in animals to humans. To address this uncertainty, highly conservative assumptions were used in this risk assessment, as discussed below.

Emissions. There are inherent uncertainties in the quantification of emissions from truck travel and idling activities. Uncertainty in the emissions quantification process was minimized by using actual daily truck traffic volumes as observed through operation of a similar Wal-Mart distribution center. However the mass emission of diesel-particulate matter varies based on engine type and age of equipment. Emission factors based on the SJVAPCD Modeling Guideline for truck idling are based on mobile “on-road” diesel engines (vehicle engines in haul trucks) developed from the California Air Resources Board (ARB) on-road emissions factor model (EMFAC). These composite factors include older and newer engines with newer engines designed with cleaner, more fuel-efficient combustion technology. The truck fleet that will be servicing the on-road transporting of containers at the Wal-Mart DC in Merced will be composed of model year 2002 through 2007 trucks, with all domiciled trucks being of 2007 make. However, the emission factors used include a wider range of non-fleet engines as well, whose emissions are higher than the newer engines of the Wal-Mart fleet. Therefore, the emission estimates have uncertainties, but tend to over-estimate exposures resulting from those emissions.

Air Dispersion Modeling. In general, EPA- dispersion models such as AERMOD are designed to generally to over-predict concentrations rather than under-predict. For example, the model algorithms assume chemical emissions are not transformed in the atmosphere into other chemical compounds. For certain pollutants, conversion may occur quickly enough to reduce concentrations from the conservative model predictions.

Exposure Assessment. The most important uncertainties related to exposure include the definitions of exposed populations and their exposure characteristics. The chief exposure assumption is one of continuous exposure to the TAC concentrations produced by continuous emissions at the maximum emission rates over a 70-year period at each receptor location. The choice of a “residential” maximally exposed individual is very conservative in the sense that no real person is likely to spend 24 hours a day, 365 days a year over a 70-year period at exactly the point of highest toxicity-weighted annual average air concentration. The actual risks are not expected to be any higher than the predicted risks and are likely to be substantially lower. The cancer risk for an inhaled air toxic is estimated by multiplying the exposure concentration by the breathing rate (L/kg-day) times the inhalation cancer potency factor (mg/kg-day)⁻¹.

The averaging time for the cancer risk estimate is usually 70 years, which is used to represent a lifetime exposure. An additional conservative assumption was the use of the OEHHA-defined 95th percentile breathing rate of 393 liters of air/kg-day.

Toxicity Assessment. Another area of uncertainty is in the use of toxicity data in risk estimation. Estimates of toxicity for the health risk assessment obtained from OEHHA are conservative compilations of toxicity information. Toxicity estimates are derived either from observations in humans or from projections derived from experiments with laboratory animals. When toxicity estimates are derived from animal data, they usually involve extra safety factors to account for possibly greater sensitivity in humans, and the less-than-human-lifetime observations in animals. Overall, the toxicity assumptions and criteria used in the proposed project risk assessment are biased toward over-estimating risk. The amount of the bias is unknown, but could be substantial.

Diesel Particulate Unit Risk Factor. The diesel exhaust inhalation potency factor is a best-estimate value established by the ARB Scientific Review Panel (SRP) based on review of more than 30 diesel exposure studies. The established potency risk factor is a 95th percentile upper confidence limit value, implying that there is only a 5% chance that the value is underestimated (too low). In addition, the most significant of the studies reviewed by the SRP are occupational studies of exposure of diesel exhaust by railroad workers. The occupational results were then extrapolated to the general population, which includes more sensitive individuals than healthy railroad workers.

6.0 REFERENCES

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Appendix A

Detailed Emission Calculations

Wal-Mart Merced Distribution Center - Health Risk Assessment

Summary of Particulate Emissions from Diesel-Fueled Engines

Sources Description	Emissions		
	(lbs/hr)	(lbs/day)	(lbs/yr)
<u>Truck Travel</u>			
Ingress Travel	0.0046	0.1103	40.2
Egress Travel	0.0047	0.1135	41.4
Haul Truck Travel (Yard)	0.0068	0.1621	59.2
Yard Truck Travel (Yard)	0.0059	0.1412	51.5
Subtotal	0.0220	0.5271	192.4
<u>Truck Idle</u>			
Entrance Gate	0.0012	0.028	10.2
Truck Waiting Area	0.0035	0.084	30.7
Temporary Parking Area	0.0058	0.140	51.2
Weigh Scales	0.0058	0.140	51.2
Haul Truck Idle (Yard)	0.0093	0.224	81.9
Yard Truck Idle (Yard)	0.0069	0.166	60.5
Subtotal	0.0326	0.783	285.6
<u>Stationary Engines</u>			
Fire Pump	0.0297	0.004	1.5
Emergency Generator	0.0590	0.008	3.1
Subtotal	0.0886	0.013	4.61
Grand Total	0.143	1.32	482.6

Wal-Mart, Merced DC - Health Risk Assessment

Ingress / Egress (Line Sources)

Emissions Summary:

	Emissions		
	(lbs/hr)	(lbs/day)	(lbs/year)
Ingress Travel	0.0046	0.1103	40.24
Egress Travel	0.0047	0.1135	41.43
Total:	0.0093	0.224	81.7

General Assumptions:

Project Generated Trips:	644 trucks/day (daily yard movement) 322 trucks/day (single movement: ingress or egress)
Yard Operation:	24 hrs/day

Emission Factors:

Haul Truck Emission Factor⁽¹⁾ 0.670 g/mile

¹ SJVAPCD Modeling Guidance, Emission Factor for Truck Travel

Emission Calculation:

Ingress Travel

Travel Rate:

Average Travel Distance:	1224 feet/truck trip ¹
Average Daily Truck Trips:	322 truck trips/day
Daily Travel Distance:	75 miles/day
Travel Rate:	3.1 miles/hour

Emissions: **0.0046 lbs/hr**

¹ Travel distance determined by multiplying the number of ingress volumes in the line source (102) by the per volume side length of 12 feet.

Egress Travel

Assumptions:

Average Travel Distance:	1260 feet/truck trip ²
Average Daily Truck Trips:	322 truck trips/day
Daily Travel Distance:	77 miles/day
Travel Rate:	3.2 miles/hour

Emissions: **0.0047 lbs/hr**

² Travel distance determined by multiplying the number of egress volumes in the line source (105) by the per volume side length of 12 feet.

Wal-Mart, Merced DC - Health Risk Assessment

Truck Idling (Point Sources)

Emissions Summary:

	Emissions		
	(lbs/hour)	(lbs/day)	(lbs/year)
Entrance Gate	0.0012	0.028	10.2
Truck Waiting Area	0.0035	0.084	30.7
Temporary Parking Area	0.0058	0.140	51.2
Weigh Scales	0.0058	0.140	51.2
Total	0.0164	0.393	143.3

General Assumptions:

Project Generated Trips: 644 trucks/day (daily yard movement)
322 trucks/day (single movement: parking idle)

Emission Factor:

Haul Truck Emission Factor⁽¹⁾ 2.37 g/idle-hr

¹ SJVAPCD Modeling Guidance, Emission Factor for Truck Idle

Emission Calculation:

Entrance Gate

General Assumptions:

Engine Warm-up: 1 minutes/idle
Idle rate: 322 idle minutes/day
0.22 idle-hrs/hr
0.00117 lbs/hr

Truck Waiting Area

General Assumptions:

Engine Warm-up: 3 minutes/idle
Idle rate: 966 idle minutes/day
0.67 idle-hrs/hr
0.00351 lbs/hr

Temporary Parking Area

General Assumptions:

Engine Warm-up: 5 minutes/idle
Idle rate: 1610 idle minutes/day
1.12 idle-hrs/hr
0.00584 lbs/hr

Weigh Scales

General Assumptions:

Engine Warm-up: 5 minutes/idle
Idle rate: 1610 idle minutes/day
1.12 idle-hrs/hr
0.00584 lbs/hr

Wal-Mart, Merced DC - Health Risk Assessment

Truck Travel - Yard Movement (Line Source)

Emissions Summary:

	Emissions		
	(lbs/hour)	(lbs/day)	(lbs/year)
Haul Truck Travel (Yard)			
Travel to Stall Pick-up/Drop-off (Haul Trucks)	0.0034	0.081	29.6
Travel to and from Parking (Haul Trucks)	0.0034	0.081	29.6
	0.0068	0.162	59.2
Yard Truck Travel (Yard)			
Travel to Docks Pick-up/Drop-off (Yard Trucks)	0.0029	0.071	25.8
Travel to Stall Pick-up/Drop-off (Yard Trucks)	0.0029	0.071	25.8
	0.0059	0.141	51.5
Total	0.0126	0.303	110.7

Movement Assumptions:

Project Generated Truck Trips: 644 trucks/day (daily yard movement)
322 trucks/day (single movement: pick-up or drop-off)
Yard Operation: 24 hrs/day
8760 hrs/yr

Emission Factors:

Haul Truck Emission Factor⁽¹⁾ 0.670 g/mile

Yard Truck Emission Factor⁽²⁾ 1.750 g/mile

¹ SJVAPCD Modeling Guidance, Emission Factor for Truck Travel

² Based on federal PM10 emission standards for Tier II/III engines of 0.15 g/bhp-hr.

Emission Calculation:

Travel to Stall Pick-up/Drop-off (Haul Trucks)

Average Travel Distance: 450 feet/truck trip
Average Daily Truck Trips: 644 truck trips/day
Daily Travel Distance: 55 miles/day
Travel Rate: 2.3 miles/hour
0.0034 lbs/hr

Travel to and from Parking (Haul Trucks)

Average Travel Distance: 450 feet/truck trip
Average Daily Truck Trips: 644 truck trips/day
Daily Travel Distance: 55 miles/day
Travel Rate: 2.3 miles/hour
0.0034 lbs/hr

Travel to Docks Pick-up/Drop-off (Yard Trucks)

Average Travel Distance: 300 feet/truck trip
Average Daily Truck Trips: 322 truck trips/day
Daily Travel Distance: 18 miles/day
Travel Rate: 0.8 miles/hour
0.0029 lbs/hr

Travel to Stall Pick-up/Drop-off (Yard Trucks)

Average Travel Distance: 300 feet/truck trip
Average Daily Truck Trips: 322 truck trips/day
Daily Travel Distance: 18 miles/day
Travel Rate: 0.8 miles/hour
0.0029 lbs/hr

Wal-Mart, Merced DC - Health Risk Assessment

Truck Idle - Yard Movement (Line Source)

Emissions Summary:

	Emissions		
	(lbs/hour)	(lbs/day)	(lbs/year)
Haul Truck Idle (Yard)			
Idle at Stall Pick-up/Drop-off (Haul Trucks)	0.0093	0.224	81.9
Yard Truck Idle (Yard)			
Idle at Docks Pick-up/Drop-off (Yard Trucks)	0.0035	0.083	30.2
Idle at Stall Pick-up/Drop-off (Yard Trucks)	0.0035	0.083	30.2
	0.0069	0.166	60.5
Total	0.0162	0.390	142.3

Movement Assumptions:

Project Generated Trips: 644 trucks/day (daily yard movement)
322 trucks/day (single movement: pick-up or drop-off)
4 idle minutes/movement haul trucks
2 idle minutes/movement yard trucks

Emission Factors:

Haul Truck Emission Factor⁽¹⁾ 2.37 g/idle-hr
Yard Truck Emission Factor⁽²⁾ 1.75 g/idle-hr

¹ SJVAPCD Modeling Guidance, Emission Factor for Truck Travel

² Based on federal PM10 emission standards for Tier II/III engines of 0.15 g/bhp-hr.

Emission Calculation:

Idle at Stall Pick-up/Drop-off (Haul Trucks)

Idle Rate: 2576 idle minutes/day ¹
1.79 idle-hrs/hr
0.0093 lbs/hr

Idle at Docks Pick-up/Drop-off (Yard Trucks)

Idle Rate: 1288 idle minutes/day ¹
0.89 idle-hrs/hr
0.0035 lbs/hr

Idle at Stall Pick-up/Drop-off (Yard Trucks)

Idle Rate: 1288 idle minutes/day ¹
0.89 idle-hrs/hr
0.0035 lbs/hr

¹ Idle minutes determined by multiplying the total daily truck movement (644 trucks/day) by the idle minutes per truck.

Wal-Mart, Merced DC - Health Risk Assessment

Stationary Emergency Engines (Point Sources)

Emissions Summary:

	Emissions		
	(lbs/hour)	(lbs/day) ¹	(lbs/year)
Fire Pump	0.030	0.00424	1.54
Emergency Generator	0.059	0.00842	3.07
Total	0.089	0.0127	4.61

¹ Annual average emissions modeled by using an emission factor of 0.1429 applied to hourly emissions from weekly testing and maintenance.

General Assumptions:

Operational Time	52.0 hrs/yr
Load Factor	1.0 load factor (%/100)
Emission factor:	0.1429 (intermittent use) ¹

¹ Intermittent use emission factor based on an operating schedule of 1 hour/week for routine testing and maintenance purposes.

Emission Calculation:

Fire Pump

Average Rated Horsepower	354.0
PM10 Emission Factor:	0.038 g/bhp-hr
Load Factor (% / 100)	1.0
	13.5 g/hr
	0.030 lbs/hr
	0.00424 lbs/hr (weekly average)

Emergency Generator

Average Rated Horsepower	764.0
PM10 Emission Factor:	0.035
Load Factor (% / 100)	1.0
	26.7 g/hr
	0.059 lbs/hr
	0.00842 lbs/hr (weekly average)

Appendix B

Copy of 2006 Model Year Certificate of Conformity

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

2006 Model Year Certificate of Conformity

Manufacturer: CUMMINS INC.
Engine Family: 6CEXL0409AAB
Certificate Number: CEX-NRCI-06-21
Intended Service Class: NR 6 (130-225)
Fuel Type: DIESEL
FELs: g/kW-hr NMHC+NOx: N/A NOx: N/A PM: N/A
Effective Date: 11/16/2005
Date Issued: NOV 16 2005



Merrylin Zaw-Mon, Director
Compliance and Innovative Strategies Division
Office of Transportation and Air Quality

Pursuant to Section 213 of the Clean Air Act (42 U.S.C. section 7547) and 40 CFR Part 89, and subject to the terms and conditions prescribed in those provisions, this certificate of conformity is hereby issued with respect to the test engines which have been found to conform to applicable requirements and which represent the following nonroad engines, by engine family, more fully described in the documentation required by 40 CFR Part 89 and produced in the stated model year.

This certificate of conformity covers only those new nonroad compression-ignition engines which conform in all material respects to the design specifications that applied to those engines described in the documentation required by 40 CFR Part 89 and which are produced during the model year stated on this certificate of the said manufacturer, as defined in 40 CFR Part 89.

It is a term of this certificate that the manufacturer shall consent to all inspections described in 40 CFR 89.129-96 and 89.506-96 and authorized in a warrant or court order. Failure to comply with the requirements of such a warrant or court order may lead to revocation or suspension of this certificate for reasons specified in 40 CFR Part 89. It is also a term of this certificate that this certificate may be revoked or suspended or rendered void ab initio for other reasons specified in 40 CFR Part 89.

This certificate does not cover nonroad engines sold, offered for sale, or introduced, or delivered for introduction, into commerce in the U.S. prior to the effective date of the certificate.

Test Information FormManufacturer: **Cummins Inc.**Engine category: **Nonroad CI**Cert contact: **Scott Keen**

1. EPA Standard Engine Family: **6CEXL0409AAB** 9. Torque (ft-lb) @ **730** @
 Engine RPM: **1500**

2. Process Code: **CARB Confirmatory**

3. Test Data Set: **1** 10. WAIVERS: **CO** **PM** **Smoke** **Idle Co**
No **No** **No** **No**

4. Engine Code: **CPL 8611**

5. Engine Model: **QSB6.7**

6. Displacement(s)
 (cid Or Liters): **409 CID** 11. Cold Start? **Yes**

7. Engine I.d. Number: **46436339** 12. Certification Fuel: **Diesel (Part 89, Sub D, Appdx A, Table 5)**

8. Rated HP @ **275** @ 13. Special Test Device **No**
 Rated RPM: **2500** 14. Test Procedure: **Nonroad, 8 Mode & Smoke**

15. Official Test ResultsDate: **11/18/2004** **11/18/2004****16. Deterioration Factors**

	Test 1	Test 2	Test 3
HC/OMHCE	0.12	0.10	0.078
NMHC/OMNMHCE			
HC + NOx			
CARBON MONOXIDE	1.58	1.53	0.000
OXIDE OF NITROGEN	3.35	3.38	0.000
PARTICULATE	0.168	0.158	0.000
FORMALDEHYDE			
ACCELERATION (%speedy)	6.1		0.0
LUGGING (Gen) (%speedy)	2.0		0.0
PEAK (%speedy)	13.5		0.0
IDLE CO %			
CO2			

**17. Certification Levels
(Rounded Test Results)**

Units-- g/kW-hr --Units

STDs FELs
g/BHP-hr g/kW-hr

HC/OMHCE				
NMHC/OMNMHCE				
NMHC + NOx	3.5	3.6	3.0	4.0 NA
CARBON MONOXIDE	1.6	1.5	2.6	3.5
OXIDE OF NITROGEN				
PARTICULATE	0.17	0.16	0.15	0.20 NA
FORMALDEHYDE				
ACCELERATION (%speedy)	6		20	
LUGGING (Gen) (%speedy)	2		15	
PEAK (%speedy)	14		50	
IDLE CO%				

 AIR RESOURCES BOARD	CUMMINS INC.	EXECUTIVE ORDER U-R-002-0329 New Off-Road Compression-Ignition Engines
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Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engine and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2006	6CEXL0409AAB	6.7	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Modules			Loader, Tractor, Dozer, Pump and Compressor	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ kW < 225	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT	--	--	3.6	1.6	0.17	6	2	14

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this 22ND day of November 2005.


 Allen Lyons, Chief
 Mobile Source Operations Division

Appendix C

Detailed Health Risk Calculations

Residential Receptor Exposure Quantification of Carcinogenic Risks and Noncarcinogenic Hazards

Receptor Type	Annual Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk			Chronic Noncarcinogenic Hazard Toxicological Endpoints ⁽²⁾		
	(ug/m3)	(mg/m3)			URF (ug/m3)	CPF (mg/kg/day)	RISK ⁽¹⁾	REL (ug/m3)	RfD (mg/kg/day)	RESP ⁽³⁾
Maximum Residential Receptors	1.77E-02	1.77E-05	1.00E+00	Diesel Particulate	4.1453E-04	1.1E+00	7.3E-06	5.0E+00	2.0E-03	8.6E-03
	-	-	-	B(a)P / Naphthalene	-	-	2.7E-09	-	-	3.9E-07
				Total			7.3E-06			8.6E-03

⁽¹⁾ Risk for naphthalene and benzo(a)pyrene were obtained from HARP modeling output files that evaluated cancer risk based on a 70-year residential exposure using "Derived (Adjusted)" analysis method. Exposure factors used to calculate contaminant intake for diesel particulates, in accordance with SJVAPCD Modeling Guidelines, are as follows:

exposure frequency (days/year)	350	
exposure duration (years)	70	
inhalation rate (m3/day)	27.5	(393 L/kg BW*day)
average body weight (kg)	70	
averaging time _(cancer) (days)	25550	
averaging time _(noncancer) (days)	25550	

⁽²⁾ Chronic non-cancer impacts are combined result from diesel particulate matter and naphthalene. OEHHA has not published factors for the evaluation of non-cancer risk impacts due to emissions of B(a)P.

⁽³⁾ RESP = Respiratory System (only target organ for diesel particulates and naphthalene)

Worker Receptor Exposure Quantification of Carcinogenic Risks and Noncarcinogenic Hazards

Receptor Type	Annual Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk			Chronic Noncarcinogenic Hazard Toxicological Endpoints ⁽²⁾		
	(ug/m3)	(mg/m3)			URF (ug/m3)	CPF (mg/kg/day)	RISK ⁽¹⁾	REL (ug/m3)	RfD (mg/kg/day)	RESP ⁽³⁾
Maximum Worker Receptor	1.50E-02	1.50E-05	1.00E+00	Diesel Particulate	1.5716E-04	1.1E+00	2.4E-06	5.0E+00	2.9E-03	3.4E-03
	-	-	-	B(a)P / Naphthalene	-	-	1.5E-10	-	-	2.4E-07
				Total			2.4E-06			3.4E-03
Maximum School Worker Receptor	8.09E-03	8.09E-06	1.00E+00	Diesel Particulate	1.5716E-04	1.1E+00	1.3E-06	5.0E+00	2.9E-03	1.9E-03
	-	-	-	B(a)P / Naphthalene	-	-	2.3E-11	-	-	3.6E-08
				Total			1.3E-06			1.9E-03

⁽¹⁾ Exposure factors used to calculate contaminant intake:

exposure frequency (days/year)	240
exposure duration (years)	40
inhalation rate (m3/day)	16.2
average body weight (kg)	70
averaging time _(cancer) (days)	14600
averaging time _(noncancer) (days)	14600

⁽²⁾ Chronic non-cancer impacts are combined result from diesel particulate matter and naphthalene. OEHA has not published factors for the evaluation of non-cancer risk impacts due to emissions of B(a)P.

⁽³⁾ RESP = Respiratory System (only target organ for diesel particulates and naphthalene)

School Receptor Exposure Quantification of Carcinogenic Risks and Noncarcinogenic Hazards

Receptor Type	Annual Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk			Chronic Noncarcinogenic Hazard Toxicological Endpoints ⁽²⁾		
	(ug/m3)	(mg/m3)			URF (ug/m3)	CPF (mg/kg/day)	RISK ⁽¹⁾	REL (ug/m3)	RfD (mg/kg/day)	RESP ⁽³⁾
Maximum Child (Student) Receptor	8.09E-03	1.40E-06	1.00E+00	Diesel Particulate	4.1453E-04	1.1E+00	1.8E-07	5.0E+00	1.0E-03	5.4E-05
	-	-	-	B(a)P / Naphthalene	-	-	4.6E-11	-	-	3.6E-08
				Total			1.8E-07			5.4E-05

⁽¹⁾ Exposure factors used to calculate contaminant intake for child receptor:

exposure frequency (days/year)	180
exposure duration (years)	9
inhalation rate (m3/day)	14.2
average body weight (kg)	61.2
averaging time _(cancer) (days)	3285
averaging time _(noncancer) (days)	3285

⁽²⁾ Chronic non-cancer impacts are combined result from diesel particulate matter and naphthalene. OEHHA has not published factors for the evaluation of non-cancer risk impacts due to emissions of B(a)P.

⁽³⁾ RESP = Respiratory System (only target organ for diesel particulates and naphthalene)

Appendix D

AERMOD Modeling Files

- Modeling and meteorological data files for all 5 years of analysis
(Electronic copy)

Year	Input File	Output File	Surface File	Upper Air File
2000	WAL_HRA0.ADI	WAL_HRA0.ADO	M0.SFC	M0.PFL
2001	WAL_HRA1.ADI	WAL_HRA1.ADO	M1.SFC	M1.PFL
2002	WAL_HRA2.ADI	WAL_HRA2.ADO	M2.SFC	M2.PFL
2003	WAL_HRA3.ADI	WAL_HRA3.ADO	M3.SFC	M3.PFL
2004	WAL_HRA4.ADI	WAL_HRA4.ADO	M4.SFC	M4.PFL

- Input/Output file for BPIP (BPI, PRO, SUP)
- Output file for highest impact, worst-case year 2002 (WAL_HRA2.ADO)
(Abridged hardcopy)

*** AERMOD - VERSION 07026 *** *** C:\0PROJECTS\WALMART\WAL_HRA2.ISC

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**MODELOPTs:

CONC DFAULT ELEV

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --

**Model Uses NO DRY DEPLETION. DDPLETE = F

**Model Uses NO WET DEPLETION. WDPLETE = F

**NO GAS DRY DEPOSITION Data Provided.

**Model Uses RURAL Dispersion Only.

**Model Uses Regulatory DEFAULT Options:

1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay

**Model Assumes No FLAGPOLE Receptor Heights.

**Model Calculates PERIOD Averages Only

**This Run Includes: 479 Source(s); 11 Source Group(s); and 16 Receptor(s)

**The Model Assumes A Pollutant Type of: TOX

**Model Set To Continue RUNning After the Setup Testing.

**Output Options Selected:

Model Outputs Tables of PERIOD Averages by Receptor

Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
 m for Missing Hours
 b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 10.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
 Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
 Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 1.7 MB of RAM.

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**MODELOPTs:
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DFAULT ELEV

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR	EMIS RATE SCALAR VARY BY
GENSET	0	0.10609E-02	729413.4	4129453.5	0.0	3.66	775.93	71.83	0.20	NO	NO	NO	HROFDY
PUMP	0	0.53423E-03	729626.9	4129268.2	0.0	4.57	775.93	72.57	0.10	YES	NO	NO	HROFDY
GATE	0	0.14742E-03	728752.2	4129571.0	0.0	3.84	366.00	51.71	0.10	NO	NO	NO	HROFDY
PARKING	0	0.73079E-03	729764.1	4129315.2	0.0	3.66	366.00	51.71	0.10	NO	NO	NO	HROFDY
SCALE	0	0.73079E-03	728978.3	4129771.2	0.0	3.66	366.00	51.71	0.10	NO	NO	NO	HROFDY
WAITING	0	0.14742E-03	728813.8	4129431.2	0.0	3.84	366.00	51.71	0.10	NO	NO	NO	HROFDY

**MODELOPTs:

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CONC

DFAULT ELEV

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005900	0	0.14082E-04	728755.1	4129175.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005901	0	0.14082E-04	728755.1	4129183.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005902	0	0.14082E-04	728755.0	4129190.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005903	0	0.14082E-04	728755.0	4129197.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005904	0	0.14082E-04	728754.9	4129204.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005905	0	0.14082E-04	728754.9	4129212.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005906	0	0.14082E-04	728754.9	4129219.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005907	0	0.14082E-04	728754.9	4129226.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005908	0	0.14082E-04	728754.9	4129233.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005909	0	0.14082E-04	728754.9	4129241.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005910	0	0.14082E-04	728754.8	4129248.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005911	0	0.14082E-04	728754.8	4129255.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005912	0	0.14082E-04	728754.8	4129262.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005913	0	0.14082E-04	728754.8	4129270.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005914	0	0.14082E-04	728754.8	4129277.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005915	0	0.14082E-04	728754.8	4129284.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005916	0	0.14082E-04	728754.7	4129291.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005917	0	0.14082E-04	728754.7	4129299.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005918	0	0.14082E-04	728754.7	4129306.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005919	0	0.14082E-04	728754.6	4129313.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005920	0	0.14082E-04	728754.6	4129320.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005921	0	0.14082E-04	728754.6	4129328.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005922	0	0.14082E-04	728754.6	4129335.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005923	0	0.14082E-04	728754.6	4129342.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005924	0	0.14082E-04	728754.5	4129349.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005925	0	0.14082E-04	728754.5	4129357.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005926	0	0.14082E-04	728754.5	4129364.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005927	0	0.14082E-04	728754.4	4129371.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005928	0	0.14082E-04	728754.4	4129378.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005929	0	0.14082E-04	728754.4	4129385.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005930	0	0.14082E-04	728754.4	4129393.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005931	0	0.14082E-04	728754.4	4129400.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005932	0	0.14082E-04	728754.4	4129407.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005933	0	0.14082E-04	728754.3	4129414.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005934	0	0.14082E-04	728754.3	4129422.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005935	0	0.14082E-04	728754.2	4129429.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005936	0	0.14082E-04	728754.2	4129436.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005937	0	0.14082E-04	728754.2	4129443.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005938	0	0.14082E-04	728754.2	4129451.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005939	0	0.14082E-04	728754.2	4129458.2	0.0	1.83	3.37	0.20	NO	HROFDY

**MODELOPTs:

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DFAULT ELEV

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005940	0	0.14082E-04	728754.2	4129465.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005941	0	0.14082E-04	728754.1	4129472.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005942	0	0.14082E-04	728754.1	4129480.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005943	0	0.14082E-04	728754.1	4129487.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005944	0	0.14082E-04	728754.1	4129494.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005945	0	0.14082E-04	728754.1	4129501.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005946	0	0.14082E-04	728754.1	4129509.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005947	0	0.14082E-04	728754.0	4129516.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005948	0	0.14082E-04	728754.0	4129523.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005949	0	0.14082E-04	728753.9	4129530.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005950	0	0.14082E-04	728753.9	4129538.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005951	0	0.14082E-04	728753.9	4129545.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005952	0	0.14082E-04	728753.9	4129552.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005953	0	0.14082E-04	728753.9	4129559.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005954	0	0.14082E-04	728753.9	4129567.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005955	0	0.14082E-04	728753.8	4129574.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005956	0	0.14082E-04	728753.8	4129581.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005957	0	0.14082E-04	728753.8	4129588.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005958	0	0.14082E-04	728753.8	4129595.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005959	0	0.14082E-04	728753.8	4129603.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005960	0	0.14082E-04	728753.8	4129610.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005961	0	0.14082E-04	728753.7	4129617.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005962	0	0.14082E-04	728753.7	4129624.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005963	0	0.14082E-04	728753.6	4129632.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005964	0	0.14082E-04	728753.6	4129639.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005965	0	0.14082E-04	728753.6	4129646.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005966	0	0.14082E-04	728753.6	4129653.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005967	0	0.14082E-04	728753.6	4129661.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005968	0	0.14082E-04	728753.6	4129668.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005969	0	0.14082E-04	728753.5	4129675.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005970	0	0.14082E-04	728753.5	4129682.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005971	0	0.14082E-04	728753.5	4129690.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005972	0	0.14082E-04	728753.4	4129697.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005973	0	0.14082E-04	728753.4	4129704.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005974	0	0.14082E-04	728753.4	4129711.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005975	0	0.14082E-04	728753.4	4129719.0	0.0	1.83	3.37	0.20	NO	HROFDY
L0005976	0	0.14082E-04	728753.4	4129726.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005977	0	0.14082E-04	728753.4	4129733.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005978	0	0.14082E-04	728753.3	4129740.8	0.0	1.83	3.37	0.20	NO	HROFDY
L0005979	0	0.14082E-04	728753.3	4129748.0	0.0	1.83	3.37	0.20	NO	HROFDY

**MODELOPTs:

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DFAULT ELEV

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0005980	0	0.14082E-04	728753.2	4129755.2	0.0	1.83	3.37	0.20	NO	HROFDY
L0005981	0	0.14082E-04	728753.2	4129762.5	0.0	1.83	3.37	0.20	NO	HROFDY
L0005982	0	0.14082E-04	728757.3	4129767.0	0.0	1.83	3.11	0.20	NO	HROFDY
L0005983	0	0.14082E-04	728762.9	4129770.8	0.0	1.83	3.11	0.20	NO	HROFDY
L0005984	0	0.14082E-04	728768.4	4129774.2	0.0	1.83	3.11	0.20	NO	HROFDY
L0005985	0	0.14082E-04	728774.0	4129778.0	0.0	1.83	3.11	0.20	NO	HROFDY
L0005986	0	0.14082E-04	728779.6	4129781.8	0.0	1.83	3.11	0.20	NO	HROFDY
L0005987	0	0.14082E-04	728785.1	4129785.5	0.0	1.83	3.11	0.20	NO	HROFDY
L0005988	0	0.14082E-04	728790.7	4129789.2	0.0	1.83	3.11	0.20	NO	HROFDY
L0005989	0	0.14082E-04	728796.2	4129792.8	0.0	1.83	3.11	0.20	NO	HROFDY
L0005990	0	0.14082E-04	728801.8	4129796.5	0.0	1.83	3.11	0.20	NO	HROFDY
L0005991	0	0.14082E-04	728807.4	4129800.2	0.0	1.83	3.11	0.20	NO	HROFDY
L0005992	0	0.14082E-04	728813.8	4129801.5	0.0	1.83	3.16	0.20	NO	HROFDY
L0005993	0	0.14082E-04	728820.6	4129801.8	0.0	1.83	3.16	0.20	NO	HROFDY
L0005994	0	0.14082E-04	728827.4	4129802.2	0.0	1.83	3.16	0.20	NO	HROFDY
L0005995	0	0.14082E-04	728834.2	4129802.5	0.0	1.83	3.16	0.20	NO	HROFDY
L0005996	0	0.14082E-04	728841.0	4129803.0	0.0	1.83	3.16	0.20	NO	HROFDY
L0005997	0	0.14082E-04	728847.8	4129803.2	0.0	1.83	3.16	0.20	NO	HROFDY
L0005998	0	0.14082E-04	728854.6	4129803.5	0.0	1.83	3.16	0.20	NO	HROFDY
L0005999	0	0.14082E-04	728861.4	4129804.0	0.0	1.83	3.16	0.20	NO	HROFDY
L0006000	0	0.14082E-04	728868.1	4129804.2	0.0	1.83	3.16	0.20	NO	HROFDY
L0006001	0	0.14082E-04	728874.9	4129804.8	0.0	1.83	3.16	0.20	NO	HROFDY
L0006534	0	0.56399E-05	728740.2	4129173.8	0.0	1.83	3.38	0.20	NO	HROFDY
L0006535	0	0.56399E-05	728740.3	4129181.0	0.0	1.83	3.38	0.20	NO	HROFDY
L0006536	0	0.56399E-05	728740.4	4129188.2	0.0	1.83	3.38	0.20	NO	HROFDY
L0006537	0	0.56399E-05	728740.4	4129195.5	0.0	1.83	3.38	0.20	NO	HROFDY
L0006538	0	0.56399E-05	728740.4	4129202.8	0.0	1.83	3.38	0.20	NO	HROFDY
L0006539	0	0.56399E-05	728740.5	4129210.0	0.0	1.83	3.38	0.20	NO	HROFDY
L0006540	0	0.56399E-05	728740.5	4129217.5	0.0	1.83	3.38	0.20	NO	HROFDY
L0006541	0	0.56399E-05	728740.6	4129224.8	0.0	1.83	3.38	0.20	NO	HROFDY
L0006542	0	0.56399E-05	728740.6	4129232.0	0.0	1.83	3.38	0.20	NO	HROFDY
L0006543	0	0.56399E-05	728740.6	4129239.2	0.0	1.83	3.38	0.20	NO	HROFDY
L0006544	0	0.56399E-05	728740.7	4129246.5	0.0	1.83	3.38	0.20	NO	HROFDY
L0006545	0	0.56399E-05	728740.8	4129253.8	0.0	1.83	3.38	0.20	NO	HROFDY
L0006546	0	0.56399E-05	728740.8	4129261.0	0.0	1.83	3.38	0.20	NO	HROFDY
L0006547	0	0.56399E-05	728740.8	4129268.2	0.0	1.83	3.38	0.20	NO	HROFDY
L0006548	0	0.56399E-05	728740.9	4129275.5	0.0	1.83	3.38	0.20	NO	HROFDY
L0006549	0	0.56399E-05	728740.9	4129282.8	0.0	1.83	3.38	0.20	NO	HROFDY
L0006550	0	0.56399E-05	728740.9	4129290.0	0.0	1.83	3.38	0.20	NO	HROFDY
L0006551	0	0.56399E-05	728741.0	4129297.2	0.0	1.83	3.38	0.20	NO	HROFDY

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DFAULT ELEV

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0006552	0	0.56399E-05	728741.0	4129304.5	0.0	1.83	3.38	0.20	NO	HROFDY
L0006553	0	0.56399E-05	728741.1	4129311.8	0.0	1.83	3.38	0.20	NO	HROFDY
L0006554	0	0.56399E-05	728741.1	4129319.0	0.0	1.83	3.38	0.20	NO	HROFDY
L0006555	0	0.56399E-05	728741.1	4129326.2	0.0	1.83	3.38	0.20	NO	HROFDY
L0006556	0	0.56399E-05	728741.2	4129333.5	0.0	1.83	3.38	0.20	NO	HROFDY
L0006557	0	0.56399E-05	728741.2	4129340.8	0.0	1.83	3.38	0.20	NO	HROFDY
L0006558	0	0.56399E-05	728741.2	4129348.0	0.0	1.83	3.38	0.20	NO	HROFDY
L0006559	0	0.56399E-05	728741.3	4129355.2	0.0	1.83	3.38	0.20	NO	HROFDY
L0006560	0	0.56399E-05	728741.4	4129362.5	0.0	1.83	3.38	0.20	NO	HROFDY
L0006561	0	0.56399E-05	728741.4	4129369.8	0.0	1.83	3.38	0.20	NO	HROFDY
L0006562	0	0.56399E-05	728741.4	4129377.0	0.0	1.83	3.38	0.20	NO	HROFDY
L0006563	0	0.56399E-05	728741.5	4129384.2	0.0	1.83	3.38	0.20	NO	HROFDY
L0006564	0	0.56399E-05	728741.5	4129391.5	0.0	1.83	3.38	0.20	NO	HROFDY
L0006565	0	0.56399E-05	728741.6	4129398.8	0.0	1.83	3.38	0.20	NO	HROFDY
L0006566	0	0.56399E-05	728741.6	4129406.0	0.0	1.83	3.38	0.20	NO	HROFDY
L0006567	0	0.56399E-05	728741.6	4129413.2	0.0	1.83	3.38	0.20	NO	HROFDY
L0006568	0	0.56399E-05	728741.7	4129420.5	0.0	1.83	3.38	0.20	NO	HROFDY
L0006569	0	0.56399E-05	728741.8	4129427.8	0.0	1.83	3.38	0.20	NO	HROFDY
L0006570	0	0.56399E-05	728741.8	4129435.0	0.0	1.83	3.38	0.20	NO	HROFDY
L0006571	0	0.56399E-05	728741.8	4129442.2	0.0	1.83	3.38	0.20	NO	HROFDY
L0006572	0	0.56399E-05	728741.9	4129449.8	0.0	1.83	3.38	0.20	NO	HROFDY
L0006573	0	0.56399E-05	728741.9	4129457.0	0.0	1.83	3.38	0.20	NO	HROFDY
L0006574	0	0.56399E-05	728741.9	4129464.2	0.0	1.83	3.38	0.20	NO	HROFDY
L0006575	0	0.56399E-05	728742.0	4129471.5	0.0	1.83	3.38	0.20	NO	HROFDY
L0006576	0	0.56399E-05	728742.0	4129478.8	0.0	1.83	3.38	0.20	NO	HROFDY
L0006577	0	0.56399E-05	728742.1	4129486.0	0.0	1.83	3.38	0.20	NO	HROFDY
L0006578	0	0.56399E-05	728741.1	4129492.2	0.0	1.83	2.98	0.20	NO	HROFDY
L0006579	0	0.56399E-05	728739.7	4129498.5	0.0	1.83	2.98	0.20	NO	HROFDY
L0006580	0	0.56399E-05	728738.3	4129504.8	0.0	1.83	2.98	0.20	NO	HROFDY
L0006581	0	0.56399E-05	728736.9	4129511.0	0.0	1.83	2.98	0.20	NO	HROFDY
L0006582	0	0.56399E-05	728735.5	4129517.2	0.0	1.83	2.98	0.20	NO	HROFDY
L0006583	0	0.56399E-05	728734.1	4129523.5	0.0	1.83	2.98	0.20	NO	HROFDY
L0006584	0	0.56399E-05	728732.8	4129529.8	0.0	1.83	2.98	0.20	NO	HROFDY
L0006585	0	0.56399E-05	728731.3	4129536.0	0.0	1.83	2.98	0.20	NO	HROFDY
L0006586	0	0.56399E-05	728731.1	4129542.8	0.0	1.83	3.21	0.20	NO	HROFDY
L0006587	0	0.56399E-05	728731.2	4129549.8	0.0	1.83	3.21	0.20	NO	HROFDY
L0006588	0	0.56399E-05	728731.3	4129556.5	0.0	1.83	3.21	0.20	NO	HROFDY
L0006589	0	0.56399E-05	728731.4	4129563.5	0.0	1.83	3.21	0.20	NO	HROFDY
L0006590	0	0.56399E-05	728731.6	4129570.5	0.0	1.83	3.21	0.20	NO	HROFDY
L0006591	0	0.56399E-05	728731.7	4129577.2	0.0	1.83	3.21	0.20	NO	HROFDY

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DFAULT ELEV

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0006592	0	0.56399E-05	728731.8	4129584.2	0.0	1.83	3.21	0.20	NO	HROFDY
L0006593	0	0.56399E-05	728732.0	4129591.0	0.0	1.83	3.21	0.20	NO	HROFDY
L0006594	0	0.56399E-05	728732.1	4129598.0	0.0	1.83	3.21	0.20	NO	HROFDY
L0006595	0	0.56399E-05	728732.2	4129604.8	0.0	1.83	3.21	0.20	NO	HROFDY
L0006596	0	0.56399E-05	728732.4	4129611.8	0.0	1.83	3.21	0.20	NO	HROFDY
L0006597	0	0.56399E-05	728732.5	4129618.8	0.0	1.83	3.21	0.20	NO	HROFDY
L0006598	0	0.56399E-05	728732.6	4129625.5	0.0	1.83	3.21	0.20	NO	HROFDY
L0006599	0	0.56399E-05	728732.8	4129632.5	0.0	1.83	3.21	0.20	NO	HROFDY
L0006600	0	0.56399E-05	728734.1	4129639.5	0.0	1.83	3.34	0.20	NO	HROFDY
L0006601	0	0.56399E-05	728735.7	4129646.5	0.0	1.83	3.34	0.20	NO	HROFDY
L0006602	0	0.56399E-05	728737.3	4129653.5	0.0	1.83	3.34	0.20	NO	HROFDY
L0006603	0	0.56399E-05	728739.0	4129660.5	0.0	1.83	3.34	0.20	NO	HROFDY
L0006604	0	0.56399E-05	728740.6	4129667.5	0.0	1.83	3.34	0.20	NO	HROFDY
L0006605	0	0.56399E-05	728742.2	4129674.5	0.0	1.83	3.34	0.20	NO	HROFDY
L0006606	0	0.56399E-05	728743.9	4129681.5	0.0	1.83	3.34	0.20	NO	HROFDY
L0006607	0	0.56399E-05	728745.6	4129688.5	0.0	1.83	3.34	0.20	NO	HROFDY
L0006608	0	0.56399E-05	728747.2	4129695.5	0.0	1.83	3.34	0.20	NO	HROFDY
L0006609	0	0.56399E-05	728747.5	4129702.5	0.0	1.83	3.28	0.20	NO	HROFDY
L0006610	0	0.56399E-05	728747.3	4129709.5	0.0	1.83	3.28	0.20	NO	HROFDY
L0006611	0	0.56399E-05	728747.1	4129716.5	0.0	1.83	3.28	0.20	NO	HROFDY
L0006612	0	0.56399E-05	728746.9	4129723.5	0.0	1.83	3.28	0.20	NO	HROFDY
L0006613	0	0.56399E-05	728746.8	4129730.8	0.0	1.83	3.28	0.20	NO	HROFDY
L0006614	0	0.56399E-05	728746.6	4129737.8	0.0	1.83	3.28	0.20	NO	HROFDY
L0006615	0	0.56399E-05	728746.4	4129744.8	0.0	1.83	3.28	0.20	NO	HROFDY
L0006616	0	0.56399E-05	728746.2	4129751.8	0.0	1.83	3.28	0.20	NO	HROFDY
L0006617	0	0.56399E-05	728746.1	4129758.8	0.0	1.83	3.28	0.20	NO	HROFDY
L0006618	0	0.56399E-05	728745.9	4129766.0	0.0	1.83	3.28	0.20	NO	HROFDY
L0006619	0	0.56399E-05	728750.1	4129771.0	0.0	1.83	3.33	0.20	NO	HROFDY
L0006620	0	0.56399E-05	728755.9	4129775.2	0.0	1.83	3.33	0.20	NO	HROFDY
L0006621	0	0.56399E-05	728761.6	4129779.5	0.0	1.83	3.33	0.20	NO	HROFDY
L0006622	0	0.56399E-05	728767.4	4129783.8	0.0	1.83	3.33	0.20	NO	HROFDY
L0006623	0	0.56399E-05	728773.1	4129788.0	0.0	1.83	3.33	0.20	NO	HROFDY
L0006624	0	0.56399E-05	728778.9	4129792.2	0.0	1.83	3.33	0.20	NO	HROFDY
L0006625	0	0.56399E-05	728784.6	4129796.5	0.0	1.83	3.33	0.20	NO	HROFDY
L0006626	0	0.56399E-05	728790.4	4129800.8	0.0	1.83	3.33	0.20	NO	HROFDY
L0006627	0	0.56399E-05	728796.1	4129805.2	0.0	1.83	3.33	0.20	NO	HROFDY
L0006628	0	0.56399E-05	728801.9	4129809.5	0.0	1.83	3.33	0.20	NO	HROFDY
L0006629	0	0.56399E-05	728808.4	4129810.5	0.0	1.83	3.19	0.20	NO	HROFDY
L0006630	0	0.56399E-05	728815.2	4129810.5	0.0	1.83	3.19	0.20	NO	HROFDY
L0006631	0	0.56399E-05	728822.1	4129810.5	0.0	1.83	3.19	0.20	NO	HROFDY

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DFAULT ELEV

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0006632	0	0.56399E-05	728828.9	4129810.5	0.0	1.83	3.19	0.20	NO	HROFDY
L0006633	0	0.56399E-05	728835.8	4129810.5	0.0	1.83	3.19	0.20	NO	HROFDY
L0006634	0	0.56399E-05	728842.7	4129810.5	0.0	1.83	3.19	0.20	NO	HROFDY
L0006635	0	0.56399E-05	728849.6	4129810.5	0.0	1.83	3.19	0.20	NO	HROFDY
L0006636	0	0.56399E-05	728856.4	4129810.5	0.0	1.83	3.19	0.20	NO	HROFDY
L0006637	0	0.56399E-05	728863.3	4129810.5	0.0	1.83	3.19	0.20	NO	HROFDY
L0006638	0	0.56399E-05	728870.2	4129810.5	0.0	1.83	3.19	0.20	NO	HROFDY
L0006905	0	0.13689E-04	729305.6	4129529.2	0.0	1.83	3.40	0.40	NO	HROFDY
L0006906	0	0.13689E-04	729298.3	4129529.2	0.0	1.83	3.40	0.40	NO	HROFDY
L0006907	0	0.13689E-04	729291.0	4129529.2	0.0	1.83	3.40	0.40	NO	HROFDY
L0006908	0	0.13689E-04	729283.7	4129529.2	0.0	1.83	3.40	0.40	NO	HROFDY
L0006909	0	0.13689E-04	729276.4	4129529.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006910	0	0.13689E-04	729269.1	4129529.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006911	0	0.13689E-04	729261.8	4129529.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006912	0	0.13689E-04	729254.4	4129529.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006913	0	0.13689E-04	729247.1	4129529.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006914	0	0.13689E-04	729239.8	4129529.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006915	0	0.13689E-04	729232.6	4129529.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006916	0	0.13689E-04	729225.2	4129529.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006917	0	0.13689E-04	729217.9	4129529.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006918	0	0.13689E-04	729210.6	4129529.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006919	0	0.13689E-04	729203.3	4129529.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006920	0	0.13689E-04	729196.0	4129529.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006921	0	0.13689E-04	729188.7	4129529.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006922	0	0.13689E-04	729181.4	4129529.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006923	0	0.13689E-04	729174.1	4129529.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006924	0	0.13689E-04	729166.8	4129529.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006925	0	0.13689E-04	729159.4	4129530.0	0.0	1.83	3.40	0.40	NO	HROFDY
L0006926	0	0.13689E-04	729152.1	4129530.0	0.0	1.83	3.40	0.40	NO	HROFDY
L0006927	0	0.13689E-04	729144.9	4129530.0	0.0	1.83	3.40	0.40	NO	HROFDY
L0006928	0	0.13689E-04	729137.6	4129530.0	0.0	1.83	3.40	0.40	NO	HROFDY
L0006929	0	0.13689E-04	729130.2	4129530.0	0.0	1.83	3.40	0.40	NO	HROFDY
L0006930	0	0.13689E-04	729122.9	4129530.0	0.0	1.83	3.40	0.40	NO	HROFDY
L0006931	0	0.13689E-04	729115.6	4129530.0	0.0	1.83	3.40	0.40	NO	HROFDY
L0006932	0	0.13689E-04	729108.3	4129530.0	0.0	1.83	3.40	0.40	NO	HROFDY
L0006933	0	0.13689E-04	729101.0	4129530.2	0.0	1.83	3.40	0.40	NO	HROFDY
L0006934	0	0.13689E-04	729093.7	4129530.2	0.0	1.83	3.40	0.40	NO	HROFDY
L0006935	0	0.13689E-04	729086.4	4129530.2	0.0	1.83	3.40	0.40	NO	HROFDY
L0006936	0	0.13689E-04	729079.1	4129530.2	0.0	1.83	3.40	0.40	NO	HROFDY
L0006937	0	0.13689E-04	729071.8	4129530.2	0.0	1.83	3.40	0.40	NO	HROFDY

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0006938	0	0.13689E-04	729064.4	4129530.2	0.0	1.83	3.40	0.40	NO	HROFDY
L0006939	0	0.13689E-04	729057.2	4129530.2	0.0	1.83	3.40	0.40	NO	HROFDY
L0006940	0	0.13689E-04	729049.9	4129530.2	0.0	1.83	3.40	0.40	NO	HROFDY
L0006941	0	0.13689E-04	729042.6	4129530.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006942	0	0.13689E-04	729035.2	4129530.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006943	0	0.13689E-04	729027.9	4129530.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006944	0	0.13689E-04	729020.6	4129530.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006945	0	0.13689E-04	729013.3	4129530.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006946	0	0.13689E-04	729006.0	4129530.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006947	0	0.13689E-04	728998.7	4129530.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006948	0	0.13689E-04	728991.4	4129530.5	0.0	1.83	3.40	0.40	NO	HROFDY
L0006949	0	0.13689E-04	728984.1	4129530.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006950	0	0.13689E-04	728976.8	4129530.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006951	0	0.13689E-04	728969.5	4129530.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006952	0	0.13689E-04	728962.2	4129530.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006953	0	0.13689E-04	728954.9	4129530.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006954	0	0.13689E-04	728947.6	4129530.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006955	0	0.13689E-04	728940.2	4129530.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006956	0	0.13689E-04	728932.9	4129530.8	0.0	1.83	3.40	0.40	NO	HROFDY
L0006957	0	0.13689E-04	728925.6	4129531.0	0.0	1.83	3.40	0.40	NO	HROFDY
L0006958	0	0.13689E-04	728918.3	4129531.0	0.0	1.83	3.40	0.40	NO	HROFDY
L0006959	0	0.13689E-04	728911.0	4129531.0	0.0	1.83	3.40	0.40	NO	HROFDY
L0006960	0	0.13689E-04	728903.7	4129531.0	0.0	1.83	3.40	0.40	NO	HROFDY
L0006961	0	0.13689E-04	728901.9	4129536.5	0.0	1.83	3.36	0.40	NO	HROFDY
L0006962	0	0.13689E-04	728901.8	4129543.8	0.0	1.83	3.36	0.40	NO	HROFDY
L0006963	0	0.13689E-04	728901.8	4129550.8	0.0	1.83	3.36	0.40	NO	HROFDY
L0006964	0	0.13689E-04	728901.8	4129558.0	0.0	1.83	3.36	0.40	NO	HROFDY
L0006965	0	0.13689E-04	728901.7	4129565.2	0.0	1.83	3.36	0.40	NO	HROFDY
L0006966	0	0.13689E-04	728901.6	4129572.5	0.0	1.83	3.36	0.40	NO	HROFDY
L0006967	0	0.13689E-04	728901.6	4129579.8	0.0	1.83	3.36	0.40	NO	HROFDY
L0006968	0	0.13689E-04	728901.6	4129587.0	0.0	1.83	3.36	0.40	NO	HROFDY
L0006969	0	0.13689E-04	728901.6	4129594.2	0.0	1.83	3.36	0.40	NO	HROFDY
L0006970	0	0.13689E-04	728901.5	4129601.5	0.0	1.83	3.36	0.40	NO	HROFDY
L0006971	0	0.13689E-04	728901.4	4129608.8	0.0	1.83	3.36	0.40	NO	HROFDY
L0006972	0	0.13689E-04	728901.4	4129616.0	0.0	1.83	3.36	0.40	NO	HROFDY
L0006973	0	0.13689E-04	728901.4	4129623.2	0.0	1.83	3.36	0.40	NO	HROFDY
L0006974	0	0.13689E-04	728901.3	4129630.5	0.0	1.83	3.36	0.40	NO	HROFDY
L0006975	0	0.13689E-04	728901.3	4129637.5	0.0	1.83	3.36	0.40	NO	HROFDY
L0006976	0	0.13689E-04	728901.2	4129644.8	0.0	1.83	3.36	0.40	NO	HROFDY
L0006977	0	0.13689E-04	728901.2	4129652.0	0.0	1.83	3.36	0.40	NO	HROFDY

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0006978	0	0.13689E-04	728901.2	4129659.2	0.0	1.83	3.36	0.40	NO	HROFDY
L0006979	0	0.13689E-04	728901.1	4129666.5	0.0	1.83	3.36	0.40	NO	HROFDY
L0006980	0	0.13689E-04	728901.1	4129673.8	0.0	1.83	3.36	0.40	NO	HROFDY
L0006981	0	0.13689E-04	728901.1	4129681.0	0.0	1.83	3.36	0.40	NO	HROFDY
L0006982	0	0.13689E-04	728901.0	4129688.2	0.0	1.83	3.36	0.40	NO	HROFDY
L0006983	0	0.13689E-04	728901.0	4129695.5	0.0	1.83	3.36	0.40	NO	HROFDY
L0006984	0	0.13689E-04	728900.9	4129702.8	0.0	1.83	3.36	0.40	NO	HROFDY
L0006985	0	0.13689E-04	728900.9	4129710.0	0.0	1.83	3.36	0.40	NO	HROFDY
L0006986	0	0.13689E-04	728900.9	4129717.2	0.0	1.83	3.36	0.40	NO	HROFDY
L0006987	0	0.13689E-04	728900.8	4129724.2	0.0	1.83	3.36	0.40	NO	HROFDY
L0006988	0	0.13689E-04	728900.8	4129731.5	0.0	1.83	3.36	0.40	NO	HROFDY
L0006989	0	0.13689E-04	728900.8	4129738.8	0.0	1.83	3.36	0.40	NO	HROFDY
L0006990	0	0.13689E-04	728900.8	4129746.0	0.0	1.83	3.36	0.40	NO	HROFDY
L0006991	0	0.13689E-04	728900.7	4129753.2	0.0	1.83	3.36	0.40	NO	HROFDY
L0006992	0	0.13689E-04	728900.6	4129760.5	0.0	1.83	3.36	0.40	NO	HROFDY
L0006993	0	0.13689E-04	728900.6	4129767.8	0.0	1.83	3.36	0.40	NO	HROFDY
L0006994	0	0.13689E-04	728900.6	4129775.0	0.0	1.83	3.36	0.40	NO	HROFDY
L0006995	0	0.13689E-04	728900.5	4129782.2	0.0	1.83	3.36	0.40	NO	HROFDY
L0006996	0	0.13689E-04	728900.5	4129789.5	0.0	1.83	3.36	0.40	NO	HROFDY
L0006997	0	0.13689E-04	728900.4	4129796.8	0.0	1.83	3.36	0.40	NO	HROFDY
L0006998	0	0.13689E-04	728905.9	4129798.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0006999	0	0.13689E-04	728913.2	4129798.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007000	0	0.13689E-04	728920.5	4129798.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007001	0	0.13689E-04	728927.8	4129798.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007002	0	0.13689E-04	728935.1	4129798.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007003	0	0.13689E-04	728942.3	4129798.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007004	0	0.13689E-04	728949.6	4129798.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007005	0	0.13689E-04	728956.9	4129798.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007006	0	0.13689E-04	728964.2	4129798.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007007	0	0.13689E-04	728971.5	4129799.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007008	0	0.13689E-04	728978.8	4129799.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007009	0	0.13689E-04	728986.1	4129799.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007010	0	0.13689E-04	728993.4	4129799.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007011	0	0.13689E-04	729000.6	4129799.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007012	0	0.13689E-04	729007.9	4129799.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007013	0	0.13689E-04	729015.2	4129799.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007014	0	0.13689E-04	729022.5	4129799.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007015	0	0.13689E-04	729029.8	4129799.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007016	0	0.13689E-04	729037.1	4129799.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007017	0	0.13689E-04	729044.4	4129799.2	0.0	1.83	3.39	0.40	NO	HROFDY

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0007018	0	0.13689E-04	729051.7	4129799.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007019	0	0.13689E-04	729058.9	4129799.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007020	0	0.13689E-04	729066.2	4129799.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007021	0	0.13689E-04	729073.5	4129799.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007022	0	0.13689E-04	729080.8	4129799.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007023	0	0.13689E-04	729088.1	4129799.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007024	0	0.13689E-04	729095.4	4129799.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007025	0	0.13689E-04	729102.7	4129799.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007026	0	0.13689E-04	729110.0	4129799.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007027	0	0.13689E-04	729117.2	4129799.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007028	0	0.13689E-04	729124.6	4129799.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007029	0	0.13689E-04	729131.8	4129799.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007030	0	0.13689E-04	729139.1	4129799.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007031	0	0.13689E-04	729146.4	4129800.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007032	0	0.13689E-04	729153.7	4129800.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007033	0	0.13689E-04	729161.0	4129800.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007034	0	0.13689E-04	729168.2	4129800.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007035	0	0.13689E-04	729175.6	4129800.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007036	0	0.13689E-04	729182.9	4129800.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007037	0	0.13689E-04	729190.1	4129800.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007038	0	0.13689E-04	729197.4	4129800.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007039	0	0.13689E-04	729204.8	4129800.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007040	0	0.13689E-04	729212.0	4129800.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007041	0	0.13689E-04	729219.3	4129800.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007042	0	0.13689E-04	729226.6	4129800.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007043	0	0.13689E-04	729233.9	4129800.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007044	0	0.13689E-04	729241.2	4129800.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007045	0	0.13689E-04	729248.4	4129800.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007046	0	0.13689E-04	729255.8	4129800.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007047	0	0.13689E-04	729263.0	4129800.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007048	0	0.13689E-04	729270.3	4129800.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007049	0	0.13689E-04	729277.6	4129800.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007050	0	0.13689E-04	729284.9	4129800.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007051	0	0.13689E-04	729292.2	4129800.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007052	0	0.13689E-04	729299.5	4129800.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007053	0	0.13689E-04	729306.8	4129800.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007054	0	0.13689E-04	729314.1	4129800.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007055	0	0.13689E-04	729321.3	4129801.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007056	0	0.13689E-04	729328.6	4129801.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007057	0	0.13689E-04	729335.9	4129801.0	0.0	1.83	3.39	0.40	NO	HROFDY

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*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0007058	0	0.13689E-04	729343.2	4129801.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007059	0	0.13689E-04	729350.5	4129801.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007060	0	0.13689E-04	729357.8	4129801.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007061	0	0.13689E-04	729365.1	4129801.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007062	0	0.13689E-04	729372.4	4129801.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007063	0	0.13689E-04	729379.6	4129801.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007064	0	0.13689E-04	729386.9	4129801.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007065	0	0.13689E-04	729394.2	4129801.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007066	0	0.13689E-04	729401.5	4129801.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007067	0	0.13689E-04	729408.8	4129801.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007068	0	0.13689E-04	729416.1	4129801.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007069	0	0.13689E-04	729423.4	4129801.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007070	0	0.13689E-04	729430.7	4129801.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007071	0	0.13689E-04	729437.9	4129801.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007072	0	0.13689E-04	729445.2	4129801.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007073	0	0.13689E-04	729452.5	4129801.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007074	0	0.13689E-04	729459.8	4129801.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007075	0	0.13689E-04	729467.1	4129801.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007076	0	0.13689E-04	729474.4	4129801.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007077	0	0.13689E-04	729481.7	4129801.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007078	0	0.13689E-04	729488.9	4129801.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007079	0	0.13689E-04	729496.2	4129802.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007080	0	0.13689E-04	729503.6	4129802.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007081	0	0.13689E-04	729510.8	4129802.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007082	0	0.13689E-04	729518.1	4129802.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007083	0	0.13689E-04	729525.4	4129802.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007084	0	0.13689E-04	729532.7	4129802.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007085	0	0.13689E-04	729540.0	4129802.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007086	0	0.13689E-04	729547.2	4129802.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007087	0	0.13689E-04	729554.6	4129802.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007088	0	0.13689E-04	729561.9	4129802.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007089	0	0.13689E-04	729569.1	4129802.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007090	0	0.13689E-04	729576.4	4129802.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007091	0	0.13689E-04	729583.7	4129802.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007092	0	0.13689E-04	729591.0	4129802.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007093	0	0.13689E-04	729598.3	4129802.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007094	0	0.13689E-04	729605.6	4129802.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007095	0	0.13689E-04	729612.9	4129802.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007096	0	0.13689E-04	729620.2	4129802.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007097	0	0.13689E-04	729627.4	4129802.5	0.0	1.83	3.39	0.40	NO	HROFDY

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DFAULT ELEV

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0007098	0	0.13689E-04	729634.8	4129802.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007099	0	0.13689E-04	729642.0	4129802.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007100	0	0.13689E-04	729649.3	4129802.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007101	0	0.13689E-04	729656.6	4129802.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007102	0	0.13689E-04	729663.9	4129802.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007103	0	0.13689E-04	729671.2	4129802.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007104	0	0.13689E-04	729678.4	4129803.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007105	0	0.13689E-04	729685.8	4129803.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007106	0	0.13689E-04	729693.1	4129803.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007107	0	0.13689E-04	729700.3	4129803.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007108	0	0.13689E-04	729707.6	4129803.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007109	0	0.13689E-04	729714.9	4129803.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007110	0	0.13689E-04	729722.2	4129803.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007111	0	0.13689E-04	729729.5	4129803.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007112	0	0.13689E-04	729736.8	4129803.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007113	0	0.13689E-04	729744.1	4129803.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007114	0	0.13689E-04	729751.4	4129803.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007115	0	0.13689E-04	729758.6	4129803.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007116	0	0.13689E-04	729765.9	4129803.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007117	0	0.13689E-04	729773.2	4129803.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007118	0	0.13689E-04	729780.5	4129803.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007119	0	0.13689E-04	729787.8	4129803.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007120	0	0.13689E-04	729795.1	4129803.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007121	0	0.13689E-04	729802.4	4129803.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007122	0	0.13689E-04	729809.7	4129803.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007123	0	0.13689E-04	729816.9	4129803.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007124	0	0.13689E-04	729824.2	4129803.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007125	0	0.13689E-04	729826.1	4129798.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007126	0	0.13689E-04	729826.0	4129791.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007127	0	0.13689E-04	729825.9	4129783.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007128	0	0.13689E-04	729825.9	4129776.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007129	0	0.13689E-04	729825.9	4129769.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007130	0	0.13689E-04	729825.8	4129761.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007131	0	0.13689E-04	729825.8	4129754.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007132	0	0.13689E-04	729825.8	4129747.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007133	0	0.13689E-04	729825.7	4129740.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007134	0	0.13689E-04	729825.7	4129732.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007135	0	0.13689E-04	729825.6	4129725.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007136	0	0.13689E-04	729825.6	4129718.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007137	0	0.13689E-04	729825.6	4129710.8	0.0	1.83	3.39	0.40	NO	HROFDY

**MODELOPTs:

CONC

DFAULT ELEV

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0007138	0	0.13689E-04	729825.5	4129703.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007139	0	0.13689E-04	729825.5	4129696.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007140	0	0.13689E-04	729825.4	4129689.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007141	0	0.13689E-04	729825.4	4129681.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007142	0	0.13689E-04	729825.4	4129674.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007143	0	0.13689E-04	729825.3	4129667.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007144	0	0.13689E-04	729825.3	4129659.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007145	0	0.13689E-04	729825.2	4129652.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007146	0	0.13689E-04	729825.2	4129645.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007147	0	0.13689E-04	729825.2	4129637.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007148	0	0.13689E-04	729825.1	4129630.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007149	0	0.13689E-04	729825.1	4129623.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007150	0	0.13689E-04	729825.1	4129616.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007151	0	0.13689E-04	729825.0	4129608.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007152	0	0.13689E-04	729825.0	4129601.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007153	0	0.13689E-04	729824.9	4129594.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007154	0	0.13689E-04	729824.9	4129586.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007155	0	0.13689E-04	729824.9	4129579.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007156	0	0.13689E-04	729824.8	4129572.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007157	0	0.13689E-04	729824.8	4129565.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007158	0	0.13689E-04	729824.8	4129557.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007159	0	0.13689E-04	729824.7	4129550.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007160	0	0.13689E-04	729824.6	4129543.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007161	0	0.13689E-04	729824.6	4129535.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007162	0	0.13689E-04	729824.6	4129528.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007163	0	0.13689E-04	729824.6	4129521.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007164	0	0.13689E-04	729824.5	4129513.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007165	0	0.13689E-04	729824.4	4129506.5	0.0	1.83	3.39	0.40	NO	HROFDY
L0007166	0	0.13689E-04	729824.4	4129499.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007167	0	0.13689E-04	729824.4	4129492.0	0.0	1.83	3.39	0.40	NO	HROFDY
L0007168	0	0.13689E-04	729824.3	4129484.8	0.0	1.83	3.39	0.40	NO	HROFDY
L0007169	0	0.13689E-04	729824.3	4129477.2	0.0	1.83	3.39	0.40	NO	HROFDY
L0007170	0	0.13689E-04	729824.2	4129470.0	0.0	1.83	3.39	0.40	NO	HROFDY

**MODELOPTs:
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DFAULT ELEV

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

DPM GENSET , PUMP , GATE , PARKING , SCALE , WAITING , L0005900, L0005901, L0005902, L0005903, L0005904, L0005905,
L0005906, L0005907, L0005908, L0005909, L0005910, L0005911, L0005912, L0005913, L0005914, L0005915, L0005916, L0005917,
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**MODELOPTs:
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DFAULT ELEV

*** SOURCE IDs DEFINING SOURCE GROUPS ***

GROUP ID

SOURCE IDs

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L0007160, L0007161, L0007162, L0007163, L0007164, L0007165, L0007166, L0007167, L0007168, L0007169, L0007170,

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DFAULT ELEV

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: PUMP

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	4.6,	21.7,	18.4,	-8.1,	0.4,	2	4.6,	23.4,	20.9,	-9.5,	0.6,
3	4.6,	24.3,	22.9,	-10.5,	0.7,	4	4.6,	24.6,	24.1,	-11.3,	0.9,
5	4.6,	24.1,	24.6,	-11.7,	1.0,	6	4.6,	22.9,	24.3,	-11.8,	1.1,
7	4.6,	20.9,	23.4,	-11.5,	1.1,	8	4.6,	18.4,	21.7,	-10.8,	1.1,
9	4.6,	15.2,	19.3,	-9.9,	1.1,	10	4.6,	18.4,	21.7,	-11.2,	1.1,
11	4.6,	20.9,	23.4,	-12.2,	1.0,	12	4.6,	22.9,	24.3,	-12.9,	0.9,
13	4.6,	24.1,	24.6,	-13.2,	0.7,	14	4.6,	24.6,	24.1,	-13.0,	0.6,
15	4.6,	24.3,	22.9,	-12.5,	0.4,	16	4.6,	23.4,	20.9,	-11.6,	0.2,
17	4.6,	21.7,	18.4,	-10.3,	0.0,	18	4.6,	19.3,	15.2,	-8.8,	-0.2,
19	4.6,	21.7,	18.4,	-10.3,	-0.4,	20	4.6,	23.4,	20.9,	-11.5,	-0.6,
21	4.6,	24.3,	22.9,	-12.3,	-0.7,	22	4.6,	24.6,	24.1,	-12.8,	-0.9,
23	4.6,	24.1,	24.6,	-12.9,	-1.0,	24	4.6,	22.9,	24.3,	-12.6,	-1.1,
25	4.6,	20.9,	23.4,	-11.9,	-1.1,	26	4.6,	18.4,	21.7,	-10.8,	-1.1,
27	4.6,	15.2,	19.3,	-9.4,	-1.1,	28	4.6,	18.4,	21.7,	-10.4,	-1.1,
29	4.6,	20.9,	23.4,	-11.1,	-1.0,	30	4.6,	22.9,	24.3,	-11.4,	-0.9,
31	4.6,	24.1,	24.6,	-11.4,	-0.7,	32	4.6,	24.6,	24.1,	-11.0,	-0.6,
33	4.6,	24.3,	22.9,	-10.3,	-0.4,	34	4.6,	23.4,	20.9,	-9.3,	-0.2,
35	4.6,	21.7,	18.4,	-8.0,	0.0,	36	4.6,	19.3,	15.2,	-6.5,	0.2,

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DFAULT ELEV

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(730310.6, 4128991.8,	0.0,	0.0,	0.0);	(730265.0, 4129639.0,	0.0,	0.0,	0.0);
(727173.4, 4129072.5,	0.0,	0.0,	0.0);	(728203.1, 4129686.0,	0.0,	0.0,	0.0);
(728203.1, 4129871.5,	0.0,	0.0,	0.0);	(728198.6, 4129435.2,	0.0,	0.0,	0.0);
(728209.2, 4129260.2,	0.0,	0.0,	0.0);	(727975.9, 4129122.5,	0.0,	0.0,	0.0);
(727557.2, 4129117.2,	0.0,	0.0,	0.0);	(730281.7, 4130145.5,	0.0,	0.0,	0.0);
(728553.7, 4129092.8,	0.0,	0.0,	0.0);	(729106.3, 4130042.8,	0.0,	0.0,	0.0);
(729817.9, 4130082.5,	0.0,	0.0,	0.0);	(728184.0, 4130003.0,	0.0,	0.0,	0.0);
(727460.4, 4130054.8,	0.0,	0.0,	0.0);	(725743.1, 4130066.8,	0.0,	0.0,	0.0);

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**MODELOPTs:

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DFAULT ELEV

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

Surface file: M2.SFC Met Version: 06341
Profile file: M2.PFL
Surface format: (3(I2,1X),I3,1X,I2,1X,F6.1,1X,3(F6.3,1X),2(F5.0,1X),F8.1,1X,F6.3,1X,2(F6.2,1X),F7.2,1X,F5.0,3(1X,F6.1))
Profile format: (4(I2,1X),F6.1,1X,I1,1X,F5.0,1X,F7.2,1X,F7.2,1X,F6.1,1X,F7.2)
Surface station no.: 93242 Upper air station no.: 23230
Name: UNKNOWN Name: OAKLAND/WSO_AP
Year: 2002 Year: 2002

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-0	LEN	Z0	BOWEN	ALBEDO	REF	WS	WD	HT	REF	TA	HT
02	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.40	3.28	1.00	999.00	999.	0.0	283.1	2.0			
02	01	01	1	02	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.40	3.28	1.00	999.00	999.	0.0	283.1	2.0			
02	01	01	1	03	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.40	3.28	1.00	999.00	999.	0.0	283.1	2.0			
02	01	01	1	04	-48.6	0.491	-9.000	-9.000	-999.	791.	220.0	0.67	3.70	1.00	3.60	83.	10.0	282.0	2.0			
02	01	01	1	05	-13.0	0.127	-9.000	-9.000	-999.	320.	14.3	0.37	4.20	1.00	2.10	103.	10.0	282.0	2.0			
02	01	01	1	06	-33.4	0.309	-9.000	-9.000	-999.	396.	80.1	0.65	2.00	1.00	2.60	242.	10.0	282.0	2.0			
02	01	01	1	07	-12.8	0.228	-9.000	-9.000	-999.	252.	83.2	0.46	6.60	1.00	2.10	135.	10.0	283.1	2.0			
02	01	01	1	08	-7.9	0.143	-9.000	-9.000	-999.	126.	33.3	0.67	3.70	0.68	1.50	73.	10.0	283.1	2.0			
02	01	01	1	09	7.8	0.323	0.185	0.008	29.	423.	-390.4	0.37	4.20	0.39	2.60	117.	10.0	284.2	2.0			
02	01	01	1	10	90.7	0.418	0.845	0.006	240.	621.	-72.6	0.37	4.20	0.29	3.10	101.	10.0	285.4	2.0			
02	01	01	1	11	29.6	0.339	0.619	0.007	289.	457.	-119.0	0.37	4.20	0.25	2.60	114.	10.0	285.9	2.0			
02	01	01	1	12	32.5	0.186	0.676	0.009	343.	199.	-18.0	0.05	2.00	0.21	2.10	186.	10.0	287.0	2.0			
02	01	01	1	13	39.5	0.366	0.765	0.007	409.	509.	-111.9	0.46	6.60	0.26	2.60	153.	10.0	288.1	2.0			
02	01	01	1	14	76.1	0.323	1.063	0.007	571.	424.	-40.1	0.46	6.60	0.27	2.10	139.	10.0	289.2	2.0			
02	01	01	1	15	51.5	0.430	0.952	0.005	605.	649.	-139.9	0.46	6.60	0.31	3.10	142.	10.0	290.4	2.0			
02	01	01	1	16	18.6	0.414	0.680	0.006	611.	614.	-345.7	0.46	6.60	0.39	3.10	154.	10.0	289.2	2.0			
02	01	01	1	17	-32.6	0.323	-9.000	-9.000	-999.	426.	93.0	0.37	4.20	0.63	3.10	111.	10.0	287.0	2.0			
02	01	01	1	18	-43.3	0.387	-9.000	-9.000	-999.	554.	121.3	0.37	4.20	1.00	3.60	97.	10.0	285.4	2.0			
02	01	01	1	19	-50.8	0.455	-9.000	-9.000	-999.	706.	167.8	0.37	4.20	1.00	4.10	114.	10.0	285.9	2.0			
02	01	01	1	20	-64.0	0.586	-9.000	-9.000	-999.	1031.	284.2	0.37	4.20	1.00	5.10	107.	10.0	285.4	2.0			
02	01	01	1	21	-58.2	0.521	-9.000	-9.000	-999.	869.	219.2	0.37	4.20	1.00	4.60	110.	10.0	285.4	2.0			
02	01	01	1	22	-64.0	0.586	-9.000	-9.000	-999.	1031.	284.2	0.37	4.20	1.00	5.10	132.	10.0	285.4	2.0			
02	01	01	1	23	-64.0	0.586	-9.000	-9.000	-999.	1032.	284.2	0.37	4.20	1.00	5.10	120.	10.0	285.9	2.0			
02	01	01	1	24	-64.0	0.586	-9.000	-9.000	-999.	1032.	284.2	0.37	4.20	1.00	5.10	110.	10.0	285.4	2.0			

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
02	01	01	01	10.0	1	-999.	-99.00	283.2	99.0	-99.00	-99.00

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

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**MODELOPTs:
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DFAULT ELEV

*** THE PERIOD (8760 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: DPM ***
INCLUDING SOURCE(S): GENSET , PUMP , GATE , PARKING , SCALE , WAITING , L0005900,
L0005901, L0005902, L0005903, L0005904, L0005905, L0005906, L0005907, L0005908, L0005909, L0005910, L0005911, L0005912,
L0005913, L0005914, L0005915, L0005916, L0005917, L0005918, L0005919, L0005920, L0005921, L0005922, L0005923, . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF TOX			IN MICROGRAMS/M**3			**		
X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
730310.56	4128991.75	0.01772	730265.00	4129639.00	0.01183			
727173.44	4129072.50	0.00165	728203.06	4129686.00	0.01022			
728203.06	4129871.50	0.01012	728198.56	4129435.25	0.00809			
728209.19	4129260.25	0.00616	727975.94	4129122.50	0.00337			
727557.19	4129117.25	0.00225	730281.69	4130145.50	0.00282			
728553.69	4129092.75	0.00798	729106.31	4130042.75	0.01497			
729817.94	4130082.50	0.00719	728184.00	4130003.00	0.00806			
727460.44	4130054.75	0.00372	725743.06	4130066.75	0.00129			

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**MODELOPTs:

CONC

DFAULT ELEV

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF TOX

IN MICROGRAMS/M**3

**

GROUP ID		AVERAGE CONC		RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)				NETWORK OF TYPE	GRID-ID
DPM	1ST HIGHEST VALUE IS	0.01772	AT (	730310.56,	4128991.75,	0.00,	0.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.01497	AT (	729106.31,	4130042.75,	0.00,	0.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.01183	AT (	730265.00,	4129639.00,	0.00,	0.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.01022	AT (	728203.06,	4129686.00,	0.00,	0.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.01012	AT (	728203.06,	4129871.50,	0.00,	0.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.00809	AT (	728198.56,	4129435.25,	0.00,	0.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.00806	AT (	728184.00,	4130003.00,	0.00,	0.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.00798	AT (	728553.69,	4129092.75,	0.00,	0.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.00719	AT (	729817.94,	4130082.50,	0.00,	0.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.00616	AT (	728209.19,	4129260.25,	0.00,	0.00,	0.00)	DC
INGRESS	1ST HIGHEST VALUE IS	0.00342	AT (	728553.69,	4129092.75,	0.00,	0.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.00332	AT (	728203.06,	4129686.00,	0.00,	0.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.00304	AT (	728198.56,	4129435.25,	0.00,	0.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.00293	AT (	728203.06,	4129871.50,	0.00,	0.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.00235	AT (	728209.19,	4129260.25,	0.00,	0.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.00208	AT (	728184.00,	4130003.00,	0.00,	0.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.00202	AT (	729106.31,	4130042.75,	0.00,	0.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.00162	AT (	730310.56,	4128991.75,	0.00,	0.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.00109	AT (	727975.94,	4129122.50,	0.00,	0.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.00088	AT (	727460.44,	4130054.75,	0.00,	0.00,	0.00)	DC
EGRESS	1ST HIGHEST VALUE IS	0.00148	AT (	728553.69,	4129092.75,	0.00,	0.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.00142	AT (	728203.06,	4129686.00,	0.00,	0.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.00129	AT (	728198.56,	4129435.25,	0.00,	0.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.00123	AT (	728203.06,	4129871.50,	0.00,	0.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.00100	AT (	728209.19,	4129260.25,	0.00,	0.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.00088	AT (	728184.00,	4130003.00,	0.00,	0.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.00082	AT (	729106.31,	4130042.75,	0.00,	0.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.00066	AT (	730310.56,	4128991.75,	0.00,	0.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.00046	AT (	727975.94,	4129122.50,	0.00,	0.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.00037	AT (	727460.44,	4130054.75,	0.00,	0.00,	0.00)	DC

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**MODELOPTs:

CONC

DFAULT ELEV

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF TOX

IN MICROGRAMS/M**3

**

GROUP ID		AVERAGE CONC		RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)				NETWORK	
								OF TYPE	GRID-ID
GATE	1ST HIGHEST VALUE IS	0.00032	AT (	728203.06,	4129686.00,	0.00,	0.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.00021	AT (	728198.56,	4129435.25,	0.00,	0.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.00019	AT (	728203.06,	4129871.50,	0.00,	0.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.00017	AT (	730310.56,	4128991.75,	0.00,	0.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.00014	AT (	728184.00,	4130003.00,	0.00,	0.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.00013	AT (	728553.69,	4129092.75,	0.00,	0.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.00013	AT (	728209.19,	4129260.25,	0.00,	0.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.00008	AT (	729106.31,	4130042.75,	0.00,	0.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.00008	AT (	727460.44,	4130054.75,	0.00,	0.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.00007	AT (	727975.94,	4129122.50,	0.00,	0.00,	0.00)	DC
GENSET	1ST HIGHEST VALUE IS	0.00002	AT (	730310.56,	4128991.75,	0.00,	0.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.00001	AT (	729106.31,	4130042.75,	0.00,	0.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.00001	AT (	730265.00,	4129639.00,	0.00,	0.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.00001	AT (	729817.94,	4130082.50,	0.00,	0.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.00000	AT (	730281.69,	4130145.50,	0.00,	0.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.00000	AT (	728184.00,	4130003.00,	0.00,	0.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.00000	AT (	728203.06,	4129871.50,	0.00,	0.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.00000	AT (	728553.69,	4129092.75,	0.00,	0.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.00000	AT (	728203.06,	4129686.00,	0.00,	0.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.00000	AT (	728198.56,	4129435.25,	0.00,	0.00,	0.00)	DC
PUMP	1ST HIGHEST VALUE IS	0.00002	AT (	730310.56,	4128991.75,	0.00,	0.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.00000	AT (	730265.00,	4129639.00,	0.00,	0.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.00000	AT (	729106.31,	4130042.75,	0.00,	0.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.00000	AT (	729817.94,	4130082.50,	0.00,	0.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.00000	AT (	730281.69,	4130145.50,	0.00,	0.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.00000	AT (	728553.69,	4129092.75,	0.00,	0.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.00000	AT (	728184.00,	4130003.00,	0.00,	0.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.00000	AT (	728203.06,	4129871.50,	0.00,	0.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.00000	AT (	728203.06,	4129686.00,	0.00,	0.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.00000	AT (	728198.56,	4129435.25,	0.00,	0.00,	0.00)	DC

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**MODELOPTs:

CONC

DFAULT ELEV

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF TOX

IN MICROGRAMS/M**3

**

GROUP ID		AVERAGE CONC		RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)				NETWORK OF TYPE	GRID-ID
SCALE	1ST HIGHEST VALUE IS	0.00108	AT (	730310.56,	4128991.75,	0.00,	0.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.00107	AT (	728203.06,	4129871.50,	0.00,	0.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.00102	AT (	729106.31,	4130042.75,	0.00,	0.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.00094	AT (	728184.00,	4130003.00,	0.00,	0.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.00078	AT (	728203.06,	4129686.00,	0.00,	0.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.00065	AT (	730265.00,	4129639.00,	0.00,	0.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.00047	AT (	728198.56,	4129435.25,	0.00,	0.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.00043	AT (	727460.44,	4130054.75,	0.00,	0.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.00034	AT (	728209.19,	4129260.25,	0.00,	0.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.00033	AT (	729817.94,	4130082.50,	0.00,	0.00,	0.00)	DC
PARKING	1ST HIGHEST VALUE IS	0.00397	AT (	730310.56,	4128991.75,	0.00,	0.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.00062	AT (	730265.00,	4129639.00,	0.00,	0.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.00040	AT (	728203.06,	4129686.00,	0.00,	0.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.00040	AT (	728198.56,	4129435.25,	0.00,	0.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.00039	AT (	729106.31,	4130042.75,	0.00,	0.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.00037	AT (	728553.69,	4129092.75,	0.00,	0.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.00033	AT (	728203.06,	4129871.50,	0.00,	0.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.00032	AT (	728209.19,	4129260.25,	0.00,	0.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.00031	AT (	729817.94,	4130082.50,	0.00,	0.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.00027	AT (	728184.00,	4130003.00,	0.00,	0.00,	0.00)	DC
YARD	1ST HIGHEST VALUE IS	0.01063	AT (	729106.31,	4130042.75,	0.00,	0.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.01007	AT (	730310.56,	4128991.75,	0.00,	0.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.00966	AT (	730265.00,	4129639.00,	0.00,	0.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.00576	AT (	729817.94,	4130082.50,	0.00,	0.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.00431	AT (	728203.06,	4129871.50,	0.00,	0.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.00386	AT (	728203.06,	4129686.00,	0.00,	0.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.00370	AT (	728184.00,	4130003.00,	0.00,	0.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.00246	AT (	728198.56,	4129435.25,	0.00,	0.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.00214	AT (	728553.69,	4129092.75,	0.00,	0.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.00200	AT (	730281.69,	4130145.50,	0.00,	0.00,	0.00)	DC

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**MODELOPTs:

CONC

DFAULT ELEV

*** THE SUMMARY OF MAXIMUM PERIOD (8760 HRS) RESULTS ***

** CONC OF TOX

IN MICROGRAMS/M**3

**

GROUP ID		AVERAGE CONC		RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)				NETWORK OF TYPE	GRID-ID
WAITING	1ST HIGHEST VALUE IS	0.00026	AT (	728198.56,	4129435.25,	0.00,	0.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.00021	AT (	728203.06,	4129686.00,	0.00,	0.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.00018	AT (	728209.19,	4129260.25,	0.00,	0.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.00017	AT (	730310.56,	4128991.75,	0.00,	0.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.00017	AT (	728553.69,	4129092.75,	0.00,	0.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.00013	AT (	728203.06,	4129871.50,	0.00,	0.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.00011	AT (	728184.00,	4130003.00,	0.00,	0.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.00010	AT (	727975.94,	4129122.50,	0.00,	0.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.00007	AT (	727557.19,	4129117.25,	0.00,	0.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.00006	AT (	727460.44,	4130054.75,	0.00,	0.00,	0.00)	DC
ALL	1ST HIGHEST VALUE IS	0.01772	AT (	730310.56,	4128991.75,	0.00,	0.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.01497	AT (	729106.31,	4130042.75,	0.00,	0.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.01183	AT (	730265.00,	4129639.00,	0.00,	0.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.01022	AT (	728203.06,	4129686.00,	0.00,	0.00,	0.00)	DC
	5TH HIGHEST VALUE IS	0.01012	AT (	728203.06,	4129871.50,	0.00,	0.00,	0.00)	DC
	6TH HIGHEST VALUE IS	0.00809	AT (	728198.56,	4129435.25,	0.00,	0.00,	0.00)	DC
	7TH HIGHEST VALUE IS	0.00806	AT (	728184.00,	4130003.00,	0.00,	0.00,	0.00)	DC
	8TH HIGHEST VALUE IS	0.00798	AT (	728553.69,	4129092.75,	0.00,	0.00,	0.00)	DC
	9TH HIGHEST VALUE IS	0.00719	AT (	729817.94,	4130082.50,	0.00,	0.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.00616	AT (	728209.19,	4129260.25,	0.00,	0.00,	0.00)	DC

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

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**MODELOPTs:

CONC DFAULT ELEV

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

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

A Total of 0 Fatal Error Message(s)
A Total of 7 Warning Message(s)
A Total of 2306 Informational Message(s)

A Total of 1079 Calm Hours Identified

A Total of 1227 Missing Hours Identified (14.01 Percent)

CAUTION!: Number of Missing Hours Exceeds 10 Percent of Total!
Data May Not Be Acceptable for Regulatory Applications.
See Section 5.3.2 of "Meteorological Monitoring Guidance
for Regulatory Modeling Applications" (EPA-454/R-99-005).

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

***** WARNING MESSAGES *****
SO W320 572 PPARM :Input Parameter May Be Out-of-Range for Parameter VS
SO W320 573 PPARM :Input Parameter May Be Out-of-Range for Parameter VS
SO W320 574 PPARM :Input Parameter May Be Out-of-Range for Parameter VS
SO W320 575 PPARM :Input Parameter May Be Out-of-Range for Parameter VS
SO W320 576 PPARM :Input Parameter May Be Out-of-Range for Parameter VS
SO W320 577 PPARM :Input Parameter May Be Out-of-Range for Parameter VS
OU W565 3387 PERPLT:Possible Conflict With Dynamically Allocated FUNIT PLOTFILE

*** AERMOD Finishes Successfully ***

Appendix E

HARP Modeling Files

- Dispersion Analysis Files (electronic copy only)
 - WALMART Project Files: ISC, INP, OUT, SRC, XOQ, PLT, BPIP, and SIT
- Risk Analysis Output Files (hardcopy and electronic copy)
 - Rep_Can_70yr_DerAdj_AllRec_AllSrc_AllCh_ByRec_Site.txt
 - Rep_Can_WRK_Avg_AllRec_AllSrc_AllCh_ByRec_Site.txt
 - Rep_Can_9yrC_DerOEH_AllRec_AllSrc_AllCh_ByRec_Site.txt
 - Rep_Chr_Res_DerOEH_AllRec_AllSrc_AllCh_ByRec_Site.txt
- Transaction File (electronic copy only)
 - WALMART Project Files: TRA
- Receptor File (electronic copy only)
 - WALMART Project Files: REC
- Meteorological Data File (electronic copy only)

This file: C:\0Projects\WalMart\0HARP\Rep_Can_70yr_DerAdj_AllRec_AllSrc_AllCh_ByRec_Site.txt

Created by HARP Version 1.3 Build 23.04.05
Uses ISC Version 99155
Uses BPIP (Dated: 04112)
Creation date: 3/21/2007 10:21:29 PM

EXCEPTION REPORT

(there have been no changes or exceptions)

INPUT FILES:

Source-Receptor file: C:\0Projects\WalMart\0HARP\WALMART.SRC
Averaging period adjustment factors file: not applicable
Emission rates file: database
Site parameters file: C:\0Projects\WalMart\0HARP\project.sit

Coordinate system: UTM NAD83

Screening mode is OFF

Exposure duration: 70 year (adult resident)
Analysis method: Derived (Adjusted) Method
Health effect: Cancer Risk
Receptor(s): All
Sources(s): All
Chemicals(s): All

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s)	0.05
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DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

HUMAN INGESTION

Fraction of ingested leafy vegetable	
from home grown source	0.15
Fraction of ingested exposed vegetable	
from home grown source	0.15
Fraction of ingested protected vegetable	
from home grown source	0.15
Fraction of ingested root vegetable	
from home grown source	0.15

PIGS, CHICKENS AND EGGS

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway enabled ***

SOIL INGESTION

*** Pathway enabled ***

MOTHER'S MILK

*** Pathway disabled ***

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM	CAS	ABBREVIATION	POLLUTANT NAME	BACKGROUND (ug/m^3)
0001	91203	Naphthalene	Naphthalene	0.000E+00
0002	50328	B[a]P	Benzo[a]pyrene	0.000E+00

EMISSIONS DATA SOURCE: Emission rates loaded from database

CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1000 CO=100 DEV=101 PRO=101 STK=1 NAME=WAL-MART DC STACK 101 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
91203	Naphthalene	1	0	0.17	0
50328	B[a]P	1	0	0.000757	0

CANCER RISK REPORT

REC	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL
0001	4.54E-12	1.73E-11	2.60E-12	0.00E+00	0.00E+00	0.00E+00	6.34E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.34E-11	8.79E-11
0002	1.27E-11	4.85E-11	7.26E-12	0.00E+00	0.00E+00	0.00E+00	1.77E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.33E-10	2.46E-10
0003	3.13E-11	1.20E-10	1.79E-11	0.00E+00	0.00E+00	0.00E+00	4.38E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.76E-10	6.07E-10
0004	5.87E-12	2.24E-11	3.36E-12	0.00E+00	0.00E+00	0.00E+00	8.21E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.08E-10	1.14E-10
0005	8.34E-11	3.19E-10	4.77E-11	0.00E+00	0.00E+00	0.00E+00	1.17E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.53E-09	1.62E-09
0006	1.49E-11	5.70E-11	8.54E-12	0.00E+00	0.00E+00	0.00E+00	2.09E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.74E-10	2.89E-10
0007	1.38E-10	5.26E-10	7.88E-11	0.00E+00	0.00E+00	0.00E+00	1.92E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.53E-09	2.67E-09
0008	2.86E-11	1.09E-10	1.64E-11	0.00E+00	0.00E+00	0.00E+00	4.00E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.26E-10	5.55E-10
0009	1.79E-11	6.83E-11	1.02E-11	0.00E+00	0.00E+00	0.00E+00	2.50E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.29E-10	3.47E-10
0010	4.51E-11	1.72E-10	2.58E-11	0.00E+00	0.00E+00	0.00E+00	6.31E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.29E-10	8.74E-10
0011	1.04E-11	3.97E-11	5.95E-12	0.00E+00	0.00E+00	0.00E+00	1.45E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.91E-10	2.01E-10
0012	7.38E-12	2.82E-11	4.22E-12	0.00E+00	0.00E+00	0.00E+00	1.03E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.36E-10	1.43E-10
0013	6.91E-12	2.64E-11	3.95E-12	0.00E+00	0.00E+00	0.00E+00	9.66E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.27E-10	1.34E-10
0014	8.51E-12	3.25E-11	4.87E-12	0.00E+00	0.00E+00	0.00E+00	1.19E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.56E-10	1.65E-10
0015	1.38E-11	5.26E-11	7.88E-12	0.00E+00	0.00E+00	0.00E+00	1.92E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.53E-10	2.67E-10
0016	9.62E-11	3.67E-10	5.50E-11	0.00E+00	0.00E+00	0.00E+00	1.34E-09	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-09	1.86E-09

This file: C:\0Projects\WalMart\0HARP\Rep_Can_WRK_Avg_AllRec_AllSrc_AllCh_ByRec_Site.txt

Created by HARP Version 1.3 Build 23.04.05
Uses ISC Version 99155
Uses BPIP (Dated: 04112)
Creation date: 3/21/2007 10:30:52 PM

EXCEPTION REPORT

(there have been no changes or exceptions)

INPUT FILES:

Source-Receptor file: C:\0Projects\WalMart\0HARP\WALMART.SRC
Averaging period adjustment factors file: not applicable
Emission rates file: database
Site parameters file: C:\0Projects\WalMart\0HARP\project.sit

Coordinate system: UTM NAD83

Screening mode is OFF

Exposure duration: Standard work schedule (49 wks/yr, 5 days/wk, 8 hrs/day, 40 yrs)

Analysis method: Point estimate

Health effect: Cancer Risk

Receptor(s): All

Sources(s): All

Chemicals(s): All

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s)	0.05
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DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

HUMAN INGESTION

Fraction of ingested leafy vegetable

from home grown source	0.15
------------------------	------

Fraction of ingested exposed vegetable

from home grown source	0.15
------------------------	------

Fraction of ingested protected vegetable

from home grown source	0.15
------------------------	------

Fraction of ingested root vegetable

from home grown source	0.15
------------------------	------

PIGS, CHICKENS AND EGGS

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway enabled ***

SOIL INGESTION

*** Pathway enabled ***

MOTHER'S MILK

*** Pathway disabled ***

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM	CAS	ABBREVIATION	POLLUTANT NAME	BACKGROUND (ug/m^3)
0001	91203	Naphthalene	Naphthalene	0.000E+00
0002	50328	B[a]P	Benzo[a]pyrene	0.000E+00

EMISSIONS DATA SOURCE: Emission rates loaded from database

CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1000 CO=100 DEV=101 PRO=101 STK=1 NAME=WAL-MART DC STACK 101 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
91203	Naphthalene	1	0	0.17	0
50328	B[a]P	1	0	0.000757	0

CANCER RISK REPORT

REC	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL
0001	9.07E-13	6.58E-12	8.56E-13	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.44E-12	8.35E-12
0002	2.54E-12	1.84E-11	2.39E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-11	2.33E-11
0003	6.26E-12	4.54E-11	5.91E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.13E-11	5.76E-11
0004	1.17E-12	8.52E-12	1.11E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.63E-12	1.08E-11
0005	1.67E-11	1.21E-10	1.57E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.37E-10	1.53E-10
0006	2.98E-12	2.16E-11	2.81E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E-11	2.74E-11
0007	2.75E-11	2.00E-10	2.59E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-10	2.53E-10
0008	5.72E-12	4.15E-11	5.40E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.69E-11	5.26E-11
0009	3.58E-12	2.59E-11	3.37E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.93E-11	3.29E-11
0010	9.02E-12	6.55E-11	8.51E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.40E-11	8.30E-11
0011	2.08E-12	1.51E-11	1.96E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E-11	1.91E-11
0012	1.47E-12	1.07E-11	1.39E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.21E-11	1.36E-11
0013	1.38E-12	1.00E-11	1.30E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.13E-11	1.27E-11
0014	1.70E-12	1.23E-11	1.60E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.39E-11	1.56E-11
0015	2.75E-12	2.00E-11	2.60E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-11	2.53E-11
0016	1.92E-11	1.39E-10	1.81E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.58E-10	1.77E-10

This file: C:\0Projects\WalMart\0HARP\Rep_Can_9yrC_DerOEH_AllRec_AllSrc_AllCh_ByRec_Site.txt

Created by HARP Version 1.3 Build 23.04.05
Uses ISC Version 99155
Uses BPIP (Dated: 04112)
Creation date: 3/21/2007 10:25:55 PM

EXCEPTION REPORT

(there have been no changes or exceptions)

INPUT FILES:

Source-Receptor file: C:\0Projects\WalMart\0HARP\WALMART.SRC
Averaging period adjustment factors file: not applicable
Emission rates file: database
Site parameters file: C:\0Projects\WalMart\0HARP\project.sit

Coordinate system: UTM NAD83

Screening mode is OFF

Exposure duration: 9 year (child resident)
Analysis method: Derived (OEHHA) Method
Health effect: Cancer Risk
Receptor(s): All
Sources(s): All
Chemicals(s): All

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s) 0.05

DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

HUMAN INGESTION

Fraction of ingested leafy vegetable
from home grown source 0.15
Fraction of ingested exposed vegetable
from home grown source 0.15
Fraction of ingested protected vegetable
from home grown source 0.15
Fraction of ingested root vegetable
from home grown source 0.15

PIGS, CHICKENS AND EGGS

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway enabled ***

SOIL INGESTION

*** Pathway enabled ***

MOTHER'S MILK

*** Pathway disabled ***

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM	CAS	ABBREVIATION	POLLUTANT NAME	BACKGROUND (ug/m^3)
0001	91203	Naphthalene	Naphthalene	0.000E+00
0002	50328	B[a]P	Benzo[a]pyrene	0.000E+00

EMISSIONS DATA SOURCE: Emission rates loaded from database

CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1000 CO=100 DEV=101 PRO=101 STK=1 NAME=WAL-MART DC STACK 101 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
91203	Naphthalene	1	0	0.17	0
50328	B[a]P	1	0	0.000757	0

CANCER RISK REPORT

REC	INHAL	DERM	SOIL	MOTHER	FISH	WATER	VEG	DAIRY	BEEF	CHICK	PIG	EGG	MEAT	ORAL	TOTAL
0001	1.11E-12	4.32E-12	1.71E-12	0.00E+00	0.00E+00	0.00E+00	9.19E-12	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.52E-11	1.63E-11
0002	3.09E-12	1.21E-11	4.78E-12	0.00E+00	0.00E+00	0.00E+00	2.57E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.25E-11	4.56E-11
0003	7.63E-12	2.98E-11	1.18E-11	0.00E+00	0.00E+00	0.00E+00	6.34E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.05E-10	1.13E-10
0004	1.43E-12	5.59E-12	2.21E-12	0.00E+00	0.00E+00	0.00E+00	1.19E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-11	2.11E-11
0005	2.03E-11	7.94E-11	3.14E-11	0.00E+00	0.00E+00	0.00E+00	1.69E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.80E-10	3.00E-10
0006	3.64E-12	1.42E-11	5.62E-12	0.00E+00	0.00E+00	0.00E+00	3.02E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.00E-11	5.37E-11
0007	3.35E-11	1.31E-10	5.18E-11	0.00E+00	0.00E+00	0.00E+00	2.79E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.61E-10	4.95E-10
0008	6.97E-12	2.72E-11	1.08E-11	0.00E+00	0.00E+00	0.00E+00	5.80E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.60E-11	1.03E-10
0009	4.36E-12	1.70E-11	6.74E-12	0.00E+00	0.00E+00	0.00E+00	3.62E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.00E-11	6.43E-11
0010	1.10E-11	4.30E-11	1.70E-11	0.00E+00	0.00E+00	0.00E+00	9.14E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.51E-10	1.62E-10
0011	2.53E-12	9.89E-12	3.91E-12	0.00E+00	0.00E+00	0.00E+00	2.10E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.49E-11	3.74E-11
0012	1.80E-12	7.02E-12	2.78E-12	0.00E+00	0.00E+00	0.00E+00	1.49E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-11	2.65E-11
0013	1.68E-12	6.57E-12	2.60E-12	0.00E+00	0.00E+00	0.00E+00	1.40E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.32E-11	2.48E-11
0014	2.07E-12	8.10E-12	3.20E-12	0.00E+00	0.00E+00	0.00E+00	1.72E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.85E-11	3.06E-11
0015	3.35E-12	1.31E-11	5.18E-12	0.00E+00	0.00E+00	0.00E+00	2.79E-11	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.62E-11	4.95E-11
0016	2.34E-11	9.15E-11	3.62E-11	0.00E+00	0.00E+00	0.00E+00	1.95E-10	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.22E-10	3.46E-10

This file: C:\0Projects\WalMart\0HARP\Rep_Chrr_Res_DerOEH_AllRec_AllSrc_AllCh_ByRec_Site.txt

Created by HARP Version 1.3 Build 23.04.05
Uses ISC Version 99155
Uses BPIP (Dated: 04112)
Creation date: 3/21/2007 10:21:46 PM

EXCEPTION REPORT

(there have been no changes or exceptions)

INPUT FILES:

Source-Receptor file: C:\0Projects\WalMart\0HARP\WALMART.SRC
Averaging period adjustment factors file: not applicable
Emission rates file: database
Site parameters file: C:\0Projects\WalMart\0HARP\project.sit

Coordinate system: UTM NAD83

Screening mode is OFF

Exposure duration: resident
Analysis method: Derived (OEHHA) Method
Health effect: Chronic HI
Receptor(s): All
Sources(s): All
Chemicals(s): All

SITE PARAMETERS

DEPOSITION

Deposition rate (m/s) 0.05

DRINKING WATER

*** Pathway disabled ***

FISH

*** Pathway disabled ***

PASTURE

*** Pathway disabled ***

HOME GROWN PRODUCE

HUMAN INGESTION

Fraction of ingested leafy vegetable
from home grown source 0.15
Fraction of ingested exposed vegetable
from home grown source 0.15
Fraction of ingested protected vegetable
from home grown source 0.15
Fraction of ingested root vegetable
from home grown source 0.15

PIGS, CHICKENS AND EGGS

*** Pathway disabled ***

DERMAL ABSORPTION

*** Pathway enabled ***

SOIL INGESTION

*** Pathway enabled ***

MOTHER'S MILK

*** Pathway disabled ***

CHEMICAL CROSS-REFERENCE TABLE AND BACKGROUND CONCENTRATIONS

CHEM	CAS	ABBREVIATION	POLLUTANT NAME	BACKGROUND (ug/m^3)
0001	91203	Naphthalene	Naphthalene	0.000E+00
0002	50328	B[a]P	Benzo[a]pyrene	0.000E+00

EMISSIONS DATA SOURCE: Emission rates loaded from database

CHEMICALS ADDED OR DELETED: none

EMISSIONS FOR FACILITY FAC=1000 CO=100 DEV=101 PRO=101 STK=1 NAME=WAL-MART DC STACK 101 EMS (lbs/yr)

SOURCE MULTIPLIER=1

CAS	ABBREV	MULTIPLIER	BG (ug/m^3)	AVRG (lbs/yr)	MAX (lbs/hr)
91203	Naphthalene	1	0	0.17	0
50328	B[a]P	1	0	0.000757	0

CHRONIC HI REPORT

REC	CV	CNS	BONE	DEVEL	ENDO	EYE	GILV	IMMUN	KIDN	REPRO	RESP	SKIN	BLOOD	MAX
0001	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.28E-08	0.00E+00	0.00E+00	1.28E-08
0002	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.59E-08	0.00E+00	0.00E+00	3.59E-08
0003	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.86E-08	0.00E+00	0.00E+00	8.86E-08
0004	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-08	0.00E+00	0.00E+00	1.66E-08
0005	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E-07	0.00E+00	0.00E+00	2.36E-07
0006	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.22E-08	0.00E+00	0.00E+00	4.22E-08
0007	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.89E-07	0.00E+00	0.00E+00	3.89E-07
0008	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.10E-08	0.00E+00	0.00E+00	8.10E-08
0009	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.06E-08	0.00E+00	0.00E+00	5.06E-08
0010	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.28E-07	0.00E+00	0.00E+00	1.28E-07
0011	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-08	0.00E+00	0.00E+00	2.94E-08
0012	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-08	0.00E+00	0.00E+00	2.09E-08
0013	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-08	0.00E+00	0.00E+00	1.95E-08
0014	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.41E-08	0.00E+00	0.00E+00	2.41E-08
0015	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.90E-08	0.00E+00	0.00E+00	3.90E-08
0016	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.72E-07	0.00E+00	0.00E+00	2.72E-07