DE/AFS/SF

VALLEY PAVING & ASPHALT, INC.

P.O. Box 308
Cottonwood, ID 83522

(208) 962-3314
Fax: (208) 962-3392

An Equal Opportunity Employer
CCB #0121235

C: ~~D. Pitman~~
~~H. Maurer~~ RO
Kevin Schilling
Rogers (2)
BRO, Herr

May 30, 2006

Department of Environmental Quality
Permit to Construct Fees – Fiscal Office
1410 North Hilton
Boise, Idaho 83706-1255

RE: Permit No. AIRS #777-00086
Application for Permit Modification

Gentlemen,

Attached is our permit application form for modification to our existing permit referenced above. Also enclosed is the required $1,000.00 fee payment. Please give us a call if you have any questions or require additional information.

Sincerely yours,

Thomas C. Riener

Thomas C. Riener
Vice President

Permit No.: P-060024

Facility ID No.: 777-00086

PID: SSBG. PORT

Logged: ✓

RECEIVED

MAY 31 2006

Department of Environmental Quality
State Air Program

AIR QUALITY PERMIT APPLICATION FOR HOT MIX ASPHALT PLANT MODIFICATION

Prepared for:
Valley Paving & Asphalt
P.O. Box 308
Cottonwood, Idaho

Prepared by:
Bison Engineering, Inc.
1400 11th Avenue
Helena, MT 59601
www.bison-eng.com

May 15, 2006

Introduction

Valley Paving & Asphalt, Inc. (Valley) operates a portable hot-mix asphalt plant in the state of Idaho. This asphalt plant is currently operating under Idaho Department of Environmental Quality (IDEQ) Permit #777-00086 issued June 10, 1993. Valley is proposing to modify the operation of the asphalt plant to allow for the combustion of blended/recycled oil in addition to the currently permitted diesel fuel in the drum mixer. Valley is also proposing to change the hourly asphalt production from 200 to 300 tons per hour based on the daily asphalt production divided by daily hours of operation. This modification will not increase either the annual hours of operation (1400 hours per year) or the annual asphalt throughput of 280,000 tons.

The proposed asphalt plant modification requires that Valley submit an air quality permit to construct as detailed in IDAPA (Rules for the Control of Air Pollution in Idaho) if the project is not exempt under provisions of IDAPA 58.01 Sections 220 through 223. This modification is not an exempt source and requires a permit to construct. However, changes to the fuel mix are exempt from the Prevention of Significant Deterioration (PSD) permit program (40 CFR Part 51.166 *et seq.*) since the source does not meet the requirements of a "major modification" under IDAPA 58.01.006 (56).

Application

In accordance with IDEQ requirements, a hot-mix asphalt plant permit to construct application form has been completed and is included as Appendix A. The SCREEN3 model outputs and the latest version of the IDEP screening model calculations as provided by Kevin Schilling of IDEP are included in Appendix B.

The modeling analysis includes an emission inventory comparing the increase from the current permit limits and the potential increase in Toxic Air Pollutants (TAP) for the use of Number 2 diesel fuel oil and recycled oil. The potential increases in emissions due to the addition of recycled oil are summarized in Table 1 below.

Table 1: Potential Emission Increase Comparison

Pollutant	Current Permit 777-0086 (lb/hr)	Increase Due to Used Oil (lb/hr) [a]	Proposed Emission Limits (lb/hr)	Proposed Emission Limits (ton/yr) [b]
PM	5.5	0	5.5	3.8
PM_{10}	1.3	0	1.3	1.2
SO_2	29.2	0	29.2	20.4
NOx	7.2	9.3	16.5	11.6
CO	7.6	31.4	39.0	27.3
VOC	5.6	4.0	9.6	6.7

[a] Based on AP-42 emission factors.
[b] Based on 1,400 hours per year.

APPENDIX A:
Hot Mix Asphalt Forms

PERMIT TO CONSTRUCT (PTC) APPLICATION
For Hot-Mix Asphalt Plants

PTC APPLICATION OVERVIEW

This application is for the construction and operation of portable and stationary hot-mix asphalt plants in all areas of Idaho except the Sandpoint PM_{10} nonattainment area. If you are planning to locate in the Sandpoint PM_{10} nonattainment area, prior to submitting an application please call 208-373-0502 and ask to speak with the Air Quality Permit Coordinator for the Coeur d'Alene region.

PTC APPLICATION INSTRUCTIONS

1. **Application.** Complete the attached PTC application.
2. **Portable Equipment Registration and Relocation Form.** Complete the Portable Equipment Registration and Relocation Form (PERF). An electronic copy of the PERF can be obtained from the DEQ website http://www.deq.idaho.gov/air/permits_forms/forms/forms.cfm. It is important to be aware that in addition to being submitted with this PTC application, a PERF must also be completed and filed at DEQ at least 10 days in advance of relocating any of the equipment covered in this application.
3. **Fees.** In accordance with the *Rules for the Control of Air Pollution in Idaho* (IDAPA 58.01.01.224 and .226), DEQ cannot process this application unless it is accompanied by a one thousand dollar ($1,000) application fee. If the purpose of this permit is to change the name or ownership of the holder of a PTC when DEQ determines no other review or analysis is required, the application fee is waived. The rules can be accessed through the DEQ website http://www.deq.idaho.gov/rules/admin_rules.cfm#links.
4. **Mail.** Please mail the completed PTC application, PERF form, and the $1,000 application fee to the address below. The processing of this PTC application cannot commence without payment.

   Department of Environmental Quality
   Permit to Construct Fees – Fiscal Office
   1410 North Hilton
   Boise, ID 83706-1255

PERMIT TO CONSTRUCT (PTC) APPLICATION
For Hot-Mix Asphalt Plants

FORM AQ-F-P007

Please be sure to read the instructions on page one prior to completing this application form.

GENERAL INFORMATION

Company Name:	Valley Paving and Asphalt		
Mailing Address:	PO Box 57		
City:	Cottonwood	**State:**	ID
Zip Code:	83522	**County:**	Valley
General Nature of Business & Products:	Asphalt		

Contact Name, Title:	Chris Seubert President		
Phone:	1-208-634-2540	**Cell:**	1-208-469-9275
Email:			

Owner or Responsible Official Name, Title:	Chris Seubert President
Phone:	1-208-634-2540
Email:	

Proposed Initial Plant Location:	McCall, Idaho		
Nearest City:	McCall, Idaho	**Estimated Startup Date:**	Spring 2006
County:			

Reason for Application:

- ☐ Permit to construct a new source
- ☐ Permit to operate an existing unpermitted source
- ☒ Permit to modify/revise an existing permitted source (identify the permit below)

Permit No.: AIRS #777-00086
Issue Date: June 10, 1993
Facility ID: Valley PAving (McCall) P-930502

☒ Check here to indicate you would like to review a draft permit prior to final issuance.

Comments:

Valley Paving and Asphalt is requesting a change in operations at the McCall, Idaho asphalt facility that willl allow the combustion of used oil in the dryer. In addition to the fuel change Valley is requesting that the material throughput be increased from 200 to 300 tons per hour based on the daily asphalt production divided by daily hours of operation.

PERMIT TO CONSTRUCT (PTC) APPLICATION
For Hot-Mix Asphalt Plants

FORM AQ-F-P007

HOT-MIX ASPHALT PLANT INFORMATION

Manufacturer:	AESCO	**Model:**	NA
Manufacture Date:	NA	**Type HMA Plant:**	☒ Drum Mix ☐ Batch Mix
Maximum Hourly Asphalt Production:	300 Daily Average (tons/hour)		
Requested Annual Asphalt Production:	280,000 (tons/year)		
Burner Fuel Type:	#2 Diesel or Blended/Recycled Oil (natural gas, #2 fuel oil, etc)		
Maximum Burner Fuel Usage Rate:	511 ☐ scf/hour or ☒ gallons/hour		
Type Air Pollution Control Device:	Wet Scrubber (baghouse, scrubber, etc.)		
Control Device Manufacturer:	NA	**Model:**	NA
Stack Parameters:	Stack Height from Ground (ft): 24	Stack Exhaust Flow Rate (acfm):	28000
	Stack Inside Diameter (ft): 3.25*3	Stack Exhaust Gas Temperature (°F):	~140

ASPHALT TANK HEATER

Fuel Type:	NA- Electric (natural gas, #2 fuel oil, etc)		
Maximum Fuel Usage Rate:	(units/hour) (units/year) ☐ gallons ☐ ft^3 ☐ other:		
Type Air Pollution Control Device:	☐ MMBtu ☐ HP		
Stack Parameters:	Stack Height from Ground (ft): _____	Stack Exhaust Flow Rate (acfm):	_____
	Stack Inside Diameter (ft): _____	Stack Exhaust Gas Temperature (°F):	_____

Is this an NSPS-affected facility? ☐ Yes ☒ No

To determine if the HMA facility is a New Source Performance Standards (NSPS)-affected facility, consider the following:

Were any of the following constructed or modified after June 11, 1973, such that the equipment becomes an affected facility as defined in 40 Code of Federal Regulations, Part 60, Section 90 (40 CFR 60.90) *Standards of Performance for Hot-Mix Asphalt Facilities*:

- Dryers
- Systems for screening, handling, storing, and weighing of hot aggregate
- Systems for loading, transferring, and storing of mineral filler
- Systems for mixing hot-mix asphalt
- Leading, transfer, and storage systems associated with emission control systems

Modification is defined in 40 CFR 60.14. The Code of Federal Regulations can be accessed from the website http://www.gpoaccess.gov/cfr/.

Has a performance test been conducted in accordance with 40 CFR 60.93 that demonstrates particulate matter emissions are less than or equal to 0.04 gr/dscf (grains per dry standard cubic foot) at the HMA stack?

☒ Yes ☐ No

If Yes, state the date the test was conducted: 9/20/1993.

Provide a copy of the performance test results with this application if you want DEQ to consider it in determining the frequency of performance testing requirements for your hot-mix asphalt plant.

PERMIT TO CONSTRUCT (PTC) APPLICATION
For Hot-Mix Asphalt Plants

FORM AQ-F-P007

ELECTRICAL GENERATOR SET INFORMATION (IF APPLICABLE)

Manufacturer:	NOT APPLICABLE	**Model:**	
Maximum Rated Capacity:	☐ Hp ☐ kW		
Fuel Type:	☐ Gasoline ☐ Diesel ☐ Natural Gas ☐ Propane		
Maximum Fuel Usage Rate:	☐ gal./hr. ☐ cfh		
Maximum Daily Hrs. of Operations:	(hours/day)		
Maximum Annual Hrs. of Operations:	(hours/year)		
Stack Parameters:	Stack Height from Ground (ft): _____	Stack Exhaust Flow Rate (acfm): _____	
	Stack Inside Diameter (ft): _____	Stack Exhaust Gas Temperature (°F): _____	

Manufacturer:	NOT APPLICABLE	**Model:**	
Maximum Rated Capacity:	☐ Hp ☐ kW		
Fuel Type:	☐ Gasoline ☐ Diesel ☐ Natural Gas ☐ Propane		
Maximum Fuel Usage Rate:	☐ gal./hr. ☐ cfh		
Maximum Daily Hrs. of Operations:	(hours/day)		
Maximum Annual Hrs. of Operations:	(hours/year)		
Stack Parameters:	Stack Height from Ground (ft): _____	Stack Exhaust Flow Rate (acfm): _____	
	Stack Inside Diameter (ft): _____	Stack Exhaust Gas Temperature (°F): _____	

☒ **$1,000 PTC application fee enclosed**

Certification of Truth, Accuracy, and Completeness (by Responsible Official)
I hereby certify that based on information and belief formed after reasonable inquiry, the statements and information contained in this and any attached and/or referenced document(s) are true, accurate, and complete in accordance with IDAPA 58.01.01.123-124.

Responsible Official Signature	President *Responsible Official Title*	5/15/2006 *Date*
Chris Seubert *Print or Type Responsible Official Name*		

APPENDIX B:
Emission Inventory and Modeling Analysis

Valley Paving & Asphalt
McCall Idaho
Hot Mix Asphalt Plant

Initial Information

Permit To Construct #777-00086
Appendix B
Emission Limits

Valley Paving & Asphalt
McCall Idaho
Hot Mix Asphalt Plant

Source Description	PM		PM-10		SO2		NOx		VOC		CO	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
AESCO Manufacturing Asphalt Plant Stack Permit # 777-00086	5.5	3.8	1.8	1.2	29.2	20.4	7.2	5	5.6	3.9	7.6	5.3
AESCO Manufacturing Asphalt Plant Stack Requested Change	0	0	0	0	0	0	9.3	6.6	4.0	2.8	31.4	22.0
AESCO Manufacturing Asphalt Plant Stack Permit Emissions	5.5	3.8	1.8	1.2	29.2	20.4	16.5	11.6	9.6	6.7	39.0	27.3

Valley Paving & Asphalt
McCall Idaho
Hot Mix Asphalt Plant

Maximum Annual Hours	**1,400**	**hour/yr**
Average Daily Hourly Throughput	**300**	**ton/hr**
Annual Throughput	**280,000**	**ton/yr**

Delta Change in TAP emissions Used oil to Diesel Fuel					**IDEP TAP Standards**									
					Carcinogenic Increments (Annual)					**Non-Carcinogens Increments (24 HR)**				
	EF	Units	Emissions (lb/hr)	Emissions (lb/hr/yr)	URF	EL (lb/hr)	AACC (ug/m3)	EI Check	Modeled Limit (ug/m3)[a]	OEL (mg/m3)	EL (lb/hr)	ACC (mg/m3)	EI Check	Modeled Limit (mg/m3)[b]
HCl	0.00021	lb/ton HMA	0.063	0.0441					**1.216**					**0.001216**
Non-PAH HAPs										7.5	0.05	0.375	Analyze	5.36E-05
Acetaldehyde	0.0013	lb/ton HMA	3.90E-01	6.23E-02	2.20E-06	3.00E-03	4.50E-01	Analyze	0.076					
Acrolein	0.000026	lb/ton HMA	7.80E-03	1.25E-03						0.25	0.017	0.0125	OK	
Methyl Ethyl Ketone	0.00002	lb/ton HMA	6.00E-03	9.59E-04						590	39.3	29.5	OK	
Propionaldehyde	0.00013	lb/ton HMA	3.90E-02	6.23E-03						0.43	0.0287	0.0215	Analyze	7.58E-06
Quinone	0.00016	lb/ton HMA	4.80E-02	7.67E-03						0.4	0.027	0.02	Analyze	9.33E-06
PAH HAPS														
Non-Hap Organics														
Acetonef	0.00083	lb/ton HMA	2.49E-01	3.98E-02						1780	119	89	OK	
Benzaldehyde	0.00011	lb/ton HMA	3.30E-02	5.27E-03										
Butyraldehyde	0.00016	lb/ton HMA	4.80E-02	7.67E-03										
Crotonaldehyde	0.000086	lb/ton HMA	2.58E-02	4.12E-03						5.7	0.38	0.285	OK	
Hexanal	0.00011	lb/ton HMA	3.30E-02	5.27E-03										
Isovaleraldehyde	0.000032	lb/ton HMA	9.60E-03	1.53E-03										
Valeraldehyde	0.000067	lb/ton HMA	2.01E-02	3.21E-03						175	11.7	8.75	OK	
Metals														
			9.72E-01	1.55E-01				TAP Total	0.076				TAP Total	0.071

a Modeled concentration from IDEP Model Sum Tab
b Modeled concentration from IDEP Model Sum Tab multiplied by 1,000 to get mg/m3

Valley Paving & Asphalt
McCall Idaho
Hot Mix Asphalt Plant

Maximum Annual Hours	**1,400**	**hour/yr**
Average Daily Hourly Throughput	**300**	**ton/hr**
Annual Throughput	**280,000**	**ton/yr**

Valley Paving & Asphalt

McCall Idaho

Hot Mix Asphalt Plant
Used Oil Emissions Drum Mix Hot Asphalt Plant

Pollutant	EF	Units	Emissions (lb/hr)	Emissions (ton/yr)	EF Reference
PM	0.04	grain/dscf	5.5	3.9	Permit
PM-10	0.04	grain/dscf	1.8	1.3	Permit
SO2	0.058	lb/ton HMA	17.4	12.2	AP-42 Table 11.1-7 (3/04) Waste oil-fired Dryer
NOx	0.055	lb/ton HMA	16.5	11.6	AP-42 Table 11.1-7 (3/04) Waste oil-fired Dryer
CO	0.13	lb/ton HMA	39	27.3	AP-42 Table 11.1-7 (3/04) Waste oil-fired Dryer
VOC	0.032	lb/ton HMA	9.6	6.7	AP-42 Table 11.1-8 (3/04) Waste oil-fired Dryer
HCl	0.00021	lb/ton HMA	0.063	0.0441	AP-42 Table 11.1-8 (3/04) Waste oil-fired Dryer

Used Oil

Non-PAH HAPs	EF	Units	Emissions (lb/hr)	Emissions (lb/hr/yr)	EF Reference
Acetaldehyde	1.30E-03	lb/ton HMA	3.90E-01	6.23E-02	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Acrolein	2.60E-05	lb/ton HMA	7.80E-03	1.25E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Benzene	[illegible]	lb/ton HMA	1.17E-01	1.87E-02	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Ethylbenzene	[illegible]	lb/ton HMA	7.20E-02	1.15E-02	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Formaldehyde	[illegible]	lb/ton HMA	9.30E-01	1.49E-01	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Hexane	[illegible]	lb/ton HMA	2.76E-01	4.41E-02	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Isooctane (2,2,4-trimethylpentane)	[illegible]	lb/ton HMA	1.20E-02	1.92E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Methyl Ethyl Ketone	2.00E-05	lb/ton HMA	6.00E-03	9.59E-04	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Propionaldehyde	1.30E-04	lb/ton HMA	3.90E-02	6.23E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Quinone	1.60E-04	lb/ton HMA	4.80E-02	7.67E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Methyl chloroform	[illegible]	lb/ton HMA	1.44E-02	2.30E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Toluene	[illegible]	lb/ton HMA	8.70E-01	1.39E-01	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Xylene	[illegible]	lb/ton HMA	6.00E-02	9.59E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
PAH HAPS					
2-Methylnaphthalene	[illegible]	lb/ton HMA	5.10E-02	8.15E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Acenaphthene	[illegible]	lb/ton HMA	4.20E-04	6.71E-05	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Acenaphthylene	[illegible]	lb/ton HMA	6.60E-03	1.05E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Anthracene	[illegible]	lb/ton HMA	9.30E-04	1.49E-04	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Benzo(a)anthracene	[illegible]	lb/ton HMA	6.30E-05	1.01E-05	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Benzo(a)pyrene	[illegible]	lb/ton HMA	2.94E-06	4.70E-07	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Benzo(b)fluoranthene	[illegible]	lb/ton HMA	3.00E-05	4.79E-06	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Benzo(e)pyrene	[illegible]	lb/ton HMA	3.30E-05	5.27E-06	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Benzo(g,h,i)perylene	[illegible]	lb/ton HMA	1.20E-05	1.92E-06	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Benzo(k)fluoranthene	[illegible]	lb/ton HMA	1.23E-05	1.97E-06	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Chrysene	[illegible]	lb/ton HMA	5.40E-05	8.63E-06	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Fluorantheneg	[illegible]	lb/ton HMA	1.83E-04	2.92E-05	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Fluoreneg	[illegible]	lb/ton HMA	3.30E-03	5.27E-04	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Indeno(1,2,3-cd)pyrene	[illegible]	lb/ton HMA	2.10E-06	3.36E-07	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Naphthalene	[illegible]	lb/ton HMA	1.95E-01	3.12E-02	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Perylene	[illegible]	lb/ton HMA	2.64E-06	4.22E-07	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Phenanthrene	[illegible]	lb/ton HMA	6.90E-03	1.10E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Pyreneg	[illegible]	lb/ton HMA	9.00E-04	1.44E-04	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer

Non-Hap Organics					
Acetone	8.30E-04	lb/ton HMA	2.49E-01	3.98E-02	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Benzaldehyde	1.10E-04	lb/ton HMA	3.30E-02	5.27E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Butane	[illegible]	lb/ton HMA	2.01E-01	3.21E-02	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Butyraldehyde	1.60E-04	lb/ton HMA	4.80E-02	7.67E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Crotonaldehyde	8.60E-05	lb/ton HMA	2.58E-02	4.12E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Ethylene	[illegible]	lb/ton HMA	2.10E+00	3.36E-01	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Heptane	[illegible]	lb/ton HMA	2.82E+00	4.51E-01	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Hexanal	1.10E-04	lb/ton HMA	3.30E-02	5.27E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Isovaleraldehyde	3.20E-05	lb/ton HMA	9.60E-03	1.53E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
2-Methyl-1-pentene	[illegible]	lb/ton HMA	1.20E+00	1.92E-01	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
2-Methyl-2-butene	[illegible]	lb/ton HMA	1.74E-01	2.78E-02	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
3-Methylpentane	[illegible]	lb/ton HMA	5.70E-02	9.11E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
1-Pentene	[illegible]	lb/ton HMA	6.60E-01	1.05E-01	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
n-Pentane	[illegible]	lb/ton HMA	6.30E-02	1.01E-02	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Valeraldehyde	6.70E-05	lb/ton HMA	2.01E-02	3.21E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Metals					
Antimony	[illegible]	lb/ton HMA	5.40E-05	8.63E-06	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Arsenic	[illegible]	lb/ton HMA	1.68E-04	2.68E-05	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Barium	[illegible]	lb/ton HMA	1.74E-03	2.78E-04	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Beryllium	[illegible]	lb/ton HMA	0.00E+00	0.00E+00	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Cadmium	[illegible]	lb/ton HMA	1.23E-04	1.97E-05	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Chromium	[illegible]	lb/ton HMA	1.65E-03	2.64E-04	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Cobalt	[illegible]	lb/ton HMA	7.80E-06	1.25E-06	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Copper	[illegible]	lb/ton HMA	9.30E-04	1.49E-04	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Hexavalent chromium	[illegible]	lb/ton HMA	1.35E-04	2.16E-05	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Lead	[illegible]	lb/ton HMA	4.50E-03	7.19E-04	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Manganese	[illegible]	lb/ton HMA	2.31E-03	3.69E-04	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Mercury	[illegible]	lb/ton HMA	7.80E-04	1.25E-04	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Nickel	[illegible]	lb/ton HMA	1.89E-02	3.02E-03	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Phosphorus	[illegible]	lb/ton HMA	8.40E-03	1.34E-03	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Silver	[illegible]	lb/ton HMA	1.44E-04	2.30E-05	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Selenium	[illegible]	lb/ton HMA	1.05E-04	1.68E-05	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Thallium	[illegible]	lb/ton HMA	1.23E-06	1.97E-07	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Zinc	[illegible]	lb/ton HMA	1.83E-02	2.92E-03	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer

Diesel Oil Emissions Drum Mix Hot Asphalt Plant

Pollutant	EF	Units	Emissions (lb/hr)	Emissions (ton/yr)	EF Reference
PM	0.04	grain/dscf	5.5	3.9	Permit
PM-10	0.04	grain/dscf	1.8	1.3	Permit
SO2			29.2	20.4	Permit
NOx			7.2	5.0	Permit
CO			7.6	5.3	Permit
VOC			4	2.8	Permit
HCl	NA	lb/ton HMA			

Diesel Fuel

Non-PAH HAPs	EF	Units	Emissions (lb/hr)	Emissions (lb/hr/yr)	EF Reference
Acetaldehyde	NA	lb/ton HMA			
Acrolein	NA	lb/ton HMA			
Benzene		lb/ton HMA	1.17E-01	1.87E-02	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Ethylbenzene		lb/ton HMA	7.20E-02	1.15E-02	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Formaldehydee		lb/ton HMA	9.30E-01	1.49E-01	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Hexane		lb/ton HMA	2.76E-01	4.41E-02	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Isooctane (2,2,4-trimethylpentane)		lb/ton HMA	1.20E-02	1.92E-03	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Methyl Ethyl Ketone	NA	lb/ton HMA			
Propionaldehyde	NA	lb/ton HMA			
Quinone	NA	lb/ton HMA			
Methyl chloroform		lb/ton HMA	1.44E-02	2.30E-03	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Toluene		lb/ton HMA	8.70E-01	1.39E-01	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Xylene		lb/ton HMA	6.00E-02	9.59E-03	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
PAH HAPS					
2-Methylnaphthaleneg		lb/ton HMA	5.10E-02	8.15E-03	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Acenaphtheneg		lb/ton HMA	4.20E-04	6.71E-05	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Acenaphthyleneg		lb/ton HMA	6.60E-03	1.05E-03	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Anthraceneg		lb/ton HMA	9.30E-04	1.49E-04	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Benzo(a)anthraceneg		lb/ton HMA	6.30E-05	1.01E-05	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Benzo(a)pyreneg		lb/ton HMA	2.94E-06	4.70E-07	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Benzo(b)fluoranthene g		lb/ton HMA	3.00E-05	4.79E-06	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Benzo(e)pyreneg		lb/ton HMA	3.30E-05	5.27E-06	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Benzo(g,h,i)peryleneg		lb/ton HMA	1.20E-05	1.92E-06	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Benzo(k)fluoranthene g		lb/ton HMA	1.23E-05	1.97E-06	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Chryseneg		lb/ton HMA	5.40E-05	8.63E-06	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Fluoranthene g		lb/ton HMA	1.83E-04	2.92E-05	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Fluoreneg		lb/ton HMA	3.30E-03	5.27E-04	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Indeno(1,2,3-cd)pyreneg		lb/ton HMA	2.10E-06	3.36E-07	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Naphthaleneg		lb/ton HMA	1.95E-01	3.12E-02	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Peryleneg		lb/ton HMA	2.64E-06	4.22E-07	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Phenanthreneg		lb/ton HMA	6.90E-03	1.10E-03	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer
Pyreneg		lb/ton HMA	9.00E-04	1.44E-04	AP-42 Table 11.1-10 (3/04) #2 Fuel oil-fired Dryer

Non-Hap Organics					
Acetonef	NA	lb/ton HMA			AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Benzaldehyde	NA	lb/ton HMA			AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Butane	[illegible]	lb/ton HMA	2.01E-01	3.21E-02	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Butyraldehyde	NA	lb/ton HMA			AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Crotonaldehyde	NA	lb/ton HMA			AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Ethylene	[illegible]	lb/ton HMA	2.10E+00	3.36E-01	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Heptane	[illegible]	lb/ton HMA	2.82E+00	4.51E-01	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Hexanal	NA	lb/ton HMA			AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Isovaleraldehyde	NA	lb/ton HMA			AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
2-Methyl-1-pentene	[illegible]	lb/ton HMA	1.20E+00	1.92E-01	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
2-Methyl-2-butene	[illegible]	lb/ton HMA	1.74E-01	2.78E-02	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
3-Methylpentane	[illegible]	lb/ton HMA	5.70E-02	9.11E-03	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
1-Pentene	[illegible]	lb/ton HMA	6.60E-01	1.05E-01	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
n-Pentane	[illegible]	lb/ton HMA	6.30E-02	1.01E-02	AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Valeraldehyde	NA	lb/ton HMA			AP-42 Table 11.1-10 (3/04) Waste oil-fired Dryer
Metals				1.16E+00	
Antimony	[illegible]	lb/ton HMA	5.40E-05	8.63E-06	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Arsenic[b]	[illegible]	lb/ton HMA	1.68E-04	2.68E-05	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Barium	[illegible]	lb/ton HMA	1.74E-03	2.78E-04	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Beryllium[b]	[illegible]	lb/ton HMA	0.00E+00	0.00E+00	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Cadmium[b]	[illegible]	lb/ton HMA	1.23E-04	1.97E-05	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Chromium[b]	[illegible]	lb/ton HMA	1.65E-03	2.64E-04	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Cobalt[b]	[illegible]	lb/ton HMA	7.80E-06	1.25E-06	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Copper	[illegible]	lb/ton HMA	9.30E-04	1.49E-04	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Hexavalent chromium[b]	[illegible]	lb/ton HMA	1.35E-04	2.16E-05	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Lead[b]	[illegible]	lb/ton HMA	4.50E-03	7.19E-04	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Manganese[b]	[illegible]	lb/ton HMA	2.31E-03	3.69E-04	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Mercury[b]	[illegible]	lb/ton HMA	7.80E-04	1.25E-04	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Nickel[b]	[illegible]	lb/ton HMA	1.89E-02	3.02E-03	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Phosphorus[b]	[illegible]	lb/ton HMA	8.40E-03	1.34E-03	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Silver	[illegible]	lb/ton HMA	1.44E-04	2.30E-05	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Selenium[b]	[illegible]	lb/ton HMA	1.05E-04	1.68E-05	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Thallium	[illegible]	lb/ton HMA	1.23E-06	1.97E-07	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer
Zinc	[illegible]	lb/ton HMA	1.83E-02	2.92E-03	AP-42 Table 11.1-12 (3/04) Waste oil-fired Dryer

Change in Emissions Drum Mix Hot Asphalt Plant

Pollutant	EF	Units	Emissions (lb/hr)	Emissions (ton/yr)
PM			0	0.0
PM-10			0	0.0
SO2			0	0.0
NOx			9.3	6.5
CO			31.4	22.0
VOC	0.032	lb/ton HMA	9.6	6.7
HCl	0.00021	lb/ton HMA	0.063	0.0441

Delta Change in TAP Emissions Used Oil to Diesel Fuel

Non-PAH HAPs	EF	Units	Emissions (lb/hr)	Emissions (lb/hr/yr)
Acetaldehyde	0.0013	lb/ton HMA	3.90E-01	6.23E-02
Acrolein	0.000026	lb/ton HMA	7.80E-03	1.25E-03
Benzene	0	lb/ton HMA		
Ethylbenzene	0	lb/ton HMA		
Formaldehydee	0	lb/ton HMA		
Hexane	0	lb/ton HMA		
Isooctane (2,2,4-trimethylpentane)	0	lb/ton HMA		
Methyl Ethyl Ketone	0.00002	lb/ton HMA	6.00E-03	9.59E-04
Propionaldehyde	0.00013	lb/ton HMA	3.90E-02	6.23E-03
Quinone	0.00016	lb/ton HMA	4.80E-02	7.67E-03
Methyl chloroform	0	lb/ton HMA		
Toluene	0	lb/ton HMA		
Xylene	0	lb/ton HMA		
PAH HAPS				
2-Methylnaphthaleneg	0	lb/ton HMA		
Acenaphtheneg	0	lb/ton HMA		
Acenaphthyleneg	0	lb/ton HMA		
Anthraceneg	0	lb/ton HMA		
Benzo(a)anthraceneg	0	lb/ton HMA		
Benzo(a)pyreneg	0	lb/ton HMA		
Benzo(b)fluoranthenеg	0	lb/ton HMA		
Benzo(e)pyreneg	0	lb/ton HMA		
Benzo(g,h,i)peryleneg	0	lb/ton HMA		
Benzo(k)fluoranthenеg	0	lb/ton HMA		
Chryseneg	0	lb/ton HMA		
Fluoranthenеg	0	lb/ton HMA		
Fluoreneg	0	lb/ton HMA		
Indeno(1,2,3-cd)pyreneg	0	lb/ton HMA		
Naphthaleneg	0	lb/ton HMA		
Peryleneg	0	lb/ton HMA		
Phenanthreneg	0	lb/ton HMA		
Pyreneg	0	lb/ton HMA		

Non-Hap Organics				
Acetonef	0.00083	lb/ton HMA	2.49E-01	3.98E-02
Benzaldehyde	0.00011	lb/ton HMA	3.30E-02	5.27E-03
Butane	0	lb/ton HMA		
Butyraldehyde	0.00016	lb/ton HMA	4.80E-02	7.67E-03
Crotonaldehyde	0.000086	lb/ton HMA	2.58E-02	4.12E-03
Ethylene	0	lb/ton HMA		
Heptane	0	lb/ton HMA		
Hexanal	0.00011	lb/ton HMA	3.30E-02	5.27E-03
Isovaleraldehyde	0.000032	lb/ton HMA	9.60E-03	1.53E-03
2-Methyl-1-pentene	0	lb/ton HMA		
2-Methyl-2-butene	0	lb/ton HMA		
3-Methylpentane	0	lb/ton HMA		
1-Pentene	0	lb/ton HMA		
n-Pentane	0	lb/ton HMA		
Valeraldehyde	0.000067	lb/ton HMA	2.01E-02	3.21E-03
Metals				
Antimony	0	lb/ton HMA		
Arsenic[b]	0	lb/ton HMA		
Barium	0	lb/ton HMA		
Beryllium[b]	0	lb/ton HMA		
Cadmium[b]	0	lb/ton HMA		
Chromium[b]	0	lb/ton HMA		
Cobalt[b]	0	lb/ton HMA		
Copper	0	lb/ton HMA		
Hexavalent chromium[b]	0	lb/ton HMA		
Lead[b]	0	lb/ton HMA		
Manganese[b]	0	lb/ton HMA		
Mercury[b]	0	lb/ton HMA		
Nickel[b]	0	lb/ton HMA		
Phosphorus[b]	0	lb/ton HMA		
Silver	0	lb/ton HMA		
Selenium[b]	0	lb/ton HMA		
Thallium	0	lb/ton HMA		
Zinc	0	lb/ton HMA		

IDEP TAP Standards

Carcinogenic Increments (Annual)					Non-Carcinogens Increments (24 HR)				
URF	EL (lb/hr)	AACC (ug/m3)	EI Check	Modeled Limit (ug/m3)[a]	OEL (mg/m3)	EL (lb/hr)	ACC (mg/m3)	EI Check	Modeled Limit (mg/m3)[a]
				1.216					0.001216
					7.5	0.05	0.375	Analyze	5.36E-05
2.20E-06	3.00E-03	4.50E-01	Analyze	0.076					
					0.25	0.017	0.0125	OK	
8.30E-06	8.00E-04	1.20E-01	Ok						
					435	29	21.75	Ok	
1.30E-05	5.10E-04	7.70E-02	Ok						
					180	12	9	Ok	
					350	23.3	17.5	Ok	
					590	39.3	29.5	OK	
					0.43	0.0287	0.0215	Analyze	7.58E-06
					0.4	0.027	0.02	Analyze	9.33E-06
					1910	127	95.5	Ok	
					375	25	18.75	Ok	
					435	29	21.75	Ok	
7.30E-05	9.10E-05	1.40E-02	Ok						
3.30E-03	2.00E-06	3.00E-04	Ok						
					2	0.133	0.1	Ok	
					50	3.33	2.5	Ok	

					1780	119	89	OK	
					5.7	0.38	0.285	OK	
					1640	109	82	Ok	
					1770	118	88.5	Ok	
					175	11.7	8.75	OK	
					0.5	0.033	0.025	Ok	
4.30E-03	1.50E-06	2.30E-04	Ok						
					0.5	0.033	0.025	Ok	
2.40E-04	2.80E-05	4.20E-03	Ok						
1.80E-03	3.70E-06	5.60E-04	Ok						
					0.5	0.033	0.025	Ok	
					0.05	0.0033	0.0025	Ok	
					1	0.067	0.05	Ok	
1.20E-02	5.60E-07	8.30E-05	Ok						
					5	0.333	0.25	Ok	
					0.1	0.007	0.005	Ok	
2.40E-04	2.70E-05	4.20E-03	Ok						
					0.1	0.007	0.005	Ok	
					0.1	0.007	0.005	Ok	
					0.2	0.013	0.01	Ok	
					--	0.667	0.5	Ok	
			TAP Total	0.076				TAP Total	0.071

Valley Paving & Asphalt
McCall Idaho
Hot Mix Asphalt Plant

Emissions Summary for Model Imput

Point Sources

Main Stack	PM_{10} Maximum Daily Emissions		1.8	lb/day	1.8 lb/hr[a]
	PM_{10} Maximum Annual Emissions		2520	lb/yr	0.29 lb/hr[b]
	SO_2 Maximum Hourly Emissions		29.2	lb/hr	
	SO_2 Maximum Daily Emissions		292	lb/day	292 lb/hr[a]
	SO_2 Maximum Annual Emissions		40880	lb/yr	4.67 lb/hr[b]
	CO Maximum Hourly Emissions		39	lb/hr	
	NO_2 Maximum Annual Emissions		11700	lb/yr	1.34 lb/hr[b]
	TAPs Maximum Annual Emissions[c]		1361.22	lb/yr	0.97 lb/hr[b]
Stack parameters: stack height		7.3152 m		stack inside diameter	1.0729 m
average stack temp		333.15 k		Stack gas exit velocity[d]	14.6166 m/sec
Hot Oil System Stack	CO Maximum Hourly Emissions		NA	lb/hr	
	TAPs Maximum Annual Emissions[c]			lb/yr	lb/hr[b]
Stack parameters: stack height			m	stack inside diameter	m
average stack temp			k	Stack gas exit velocity[d]	m/sec
Generator Stack	PM_{10} Maximum Daily Emissions		NA	lb/day	lb/hr[a]
	PM_{10} Maximum Annual Emissions			lb/yr	lb/hr[b]
	SO_2 Maximum Hourly Emissions			lb/hr	
	SO_2 Maximum Daily Emissions			lb/day	lb/hr[a]
	SO_2 Maximum Annual Emissions			lb/yr	lb/hr[b]
	CO Maximum Hourly Emissions			lb/hr	
	NO_2 Maximum Annual Emissions			lb/yr	lb/hr[b]
	TAPs Maximum Annual Emissions[c]			lb/yr	lb/hr[b]
Stack parameters: stack height			m	stack inside diameter	m
average stack temp			k	Stack gas exit velocity[d]	m/sec

Mix Plant Loadout and Silo Filling CALCULATED IMPACTS on IDEP MODEL SUM TAB

Mix Plant Loadout	PM_{10} Maximum Daily Emissions	lb/day	lb/hr[a]
	PM_{10} Maximum Annual Emissions	lb/yr	lb/hr[b]
	CO Maximum Hourly Emissions	lb/hr	
	TAPs Maximum Annual Emissions	lb/yr	lb/hr[b]
Silo Filling	PM_{10} Maximum Daily Emissions	lb/day	lb/hr[a]
	PM_{10} Maximum Annual Emissions	lb/yr	lb/hr[b]
	CO Maximum Hourly Emissions	lb/hr	
	TAPs Maximum Annual Emissions	lb/yr	lb/hr[b]
Combined Emissions[e]	PM_{10} Maximum Daily Emissions	lb/day	lb/hr[a]
	PM_{10} Maximum Annual Emissions	lb/yr	lb/hr[b]
	CO Maximum Hourly Emissions	lb/hr	
	TAPs Maximum Annual Emissions	lb/yr	lb/hr[b]

[a] Calculated by: (max lbs/day) / (24 hr/day)
[b] Calculated by: (max lbs/year) / (8760 hr/year)
[c] Include TAPs on a separate sheet
[d] Any values exceeding 50 m/sec should be reviewed by DEQ modeling staff
[e] Mix plant loadout + silo filling

Valley Paving & Asphalt
McCall Idaho
Hot Mix Asphalt Plant

Modeling Summary Sheet

Main Stack

Maximum screening modeling impact for 1.0 lb/hr 9.72931 µg/m3

	Max 1-hr Impact[a] ($\mu g/m^3$)		Persist. Factor		Impact for Avg Period[b] ($\mu g/m^3$)
PM_{10} Maximum 24-Hour Impact	17.512758	X	0.4	=	12.609 Existiing Permit
PM_{10} Maximum Annual Impact	8.44	X	0.08	=	0.675 Existiing Permit
SO_2 Maximum 3-Hour Impact	284.095852	X	0.9	=	255.686 Existiing Permit
SO_2 Maximum 24-Hour Impact	284.095852	X	0.4	=	113.638 Existiing Permit
SO_2 Maximum Annual Impact	284.095852	X	0.08	=	22.728 Existiing Permit
CO Maximum 1-Hour Impact	379.44309	X	1	=	379.443
CO Maximum 8-Hour Impact	379.44309	X	0.7	=	265.610
NO_2 Maximum Annual Impact	93.401376	X	0.08	=	7.472
TAPs Maximum Annual Impact	9.72931	X	0.125	=	1.216

Hot Oil System Stack

Maximum screening modeling impact for 1.0 lb/hr µg/m3

	Max 1-hr Impact[a] ($\mu g/m^3$)		Persist. Factor		Impact for Avg Period[b] ($\mu g/m^3$)
CO Maximum 1-Hour Impact	0	X	1	=	
CO Maximum 8-Hour Impact	0	X	0.7	=	
TAPs Maximum Annual Impact	0	X	0.125	=	

Generator Stack

Maximum screening modeling impact for 1.0 lb/hr µg/m3

	Max 1-hr Impact[a] ($\mu g/m^3$)		Persist. Factor		Impact for Avg Period[b] ($\mu g/m^3$)
PM_{10} Maximum 24-Hour Impact	0	X	0.4	=	0
PM_{10} Maximum Annual Impact	0	X	0.08	=	0
SO_2 Maximum 3-Hour Impact	0	X	0.9	=	0
SO_2 Maximum 24-Hour Impact	0	X	0.4	=	0
SO_2 Maximum Annual Impact	0	X	0.08	=	0
CO Maximum 1-Hour Impact	0	X	1	=	0
CO Maximum 8-Hour Impact	0	X	0.7	=	0
NO_2 Maximum Annual Impact	0	X	0.08	=	0
TAPs Maximum Annual Impact	0	X	0.125	=	0

Loadout and Silo Filling EXISTING

	Dispersion Factor		Hr Rate[c] (ton/hr)		An Rate[d] (hr/yr)		Impact for Avg Period[e] ($\mu g/m^3$)
PM_{10} Maximum 24-Hour Impact	0.0739	X	300	X	NA	=	22.17
PM_{10} Maximum Annual Impact	1.75E-06	X	200	X	1400	=	0.48916
CO Maximum 1-Hour Impact	1.895	X	300	X	NA	=	568.5
CO Maximum 8-Hour Impact	0.3973	X	300	X	NA	=	119.19
POM Annual Impact	1.76E-09	X	200	X	1400	=	0.0004928
Formaldehyde Annual Impact	1.23E-07	X	200	X	1400	=	0.034356
Benzene Annual Impact	9.27E-09	X	200	X	1400	=	0.00259476

Miscellaneous Material Handling EXISTING

	Dispersion Factor		Hr Rate[c] (ton/hr)		An Rate[d] (hr/yr)		Impact for Avg Period[e] ($\mu g/m^3$)
PM_{10} Maximum 24-Hour Impact	0.1252	X	300	X	NA	=	37.56
PM_{10} Maximum Annual Impact	3.74E-06	X	300	X	1400	=	1.5708

a. Impact from screening modeling using a 1.0 lb/hr emissions rate
b. Obtained by multiplying the 1-hr impact value by the persistence factor
c. Maximum allowable hourly throughput in tons per hour of product produced
d. Maximum allowable annual operating rate in hours per year
e. Obtained by multiplying the dispersion factor by the Hr Rate for short term impacts and the Hr Rate and the An Rate for long term impacts