Air Quality Permitting
Statement of Basis

July 27, 2006

Permit to Construct No. P-060115

Inland Asphalt Company, Portable

Facility ID No. 777-00303

Prepared by:

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AIR QUALITY DIVISION

Final

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Acronyms, Units, and Chemical Nomenclatures

AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
gr/dscf	grain (1 lb = 7,000 grains) per dry standard cubic foot
HAPs	Hazardous Air Pollutants
HMA	hot-mix asphalt facility
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pound per hour
MMBtu/hr	million British thermal units per hour
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
RAP	Recycled asphalt pavement
SIC	Standard Industrial Classification
SO_2	sulfur dioxide
TAP	toxic air pollutant
T/yr	tons per year
$\mu g/m^3$	micrograms per cubic meter
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PURPOSE

The purpose for this document is to satisfy the requirements of IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing permits to construct.

2. FACILITY DESCRIPTION

Stockpiled aggregate is transferred to five cold feed bins utilizing a front-end loader. Aggregate is dispensed from the bins onto slow moving feeder conveyors, sorted by a scalping screen for proportional size gradations, and finally introduces the aggregate to the drum mix dryer. Aggregate travels through the rotating counter-current drum dryer. The aggregate is then heated, dried and mixed with liquid asphalt cement. The resulting hot-mix asphalt (HMA) is then conveyed to hot storage bins until it can be loaded into dump trucks for transport offsite.

3. FACILITY / AREA CLASSIFICATION

Inland Asphalt Company is defined as a synthetic minor facility because, without permit limits on the potential to emit, the PM_{10} emissions would exceed 100 tons per year. The AIRS classification is "SM".

The facility is a portable facility and may locate anywhere in the state of Idaho.

The AIRS information provided in Appendix A defines the classification for each regulated air pollutant for the Inland Asphalt facility. This information is entered into the EPA AIRS database.

4. APPLICATION SCOPE

This permit to construct is for a modification to the hot-mix asphalt plant, which allows for the combustion of ASTM Grade No. 2 fuel oil, and used oil.

4.1 Application Chronology

April 13, 2006	DEQ received a standard permit to construct application form for HMA's
May 12, 2006	DEQ determined the application complete
July 13, 2006	DEQ provides draft permit to facility and DEQ's Coeur d' Alene Regional Office

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this PTC action.

5.1 Equipment Listing

Hot-Mix Asphalt Plant

Manufacturer: Cedar Rapids, 8830

Type of HMA plant: Drum mix

Design capacity: 350 T/hr

HMA burner fuel type: Propane, Natural gas, ASTM Grade No. 2 fuel oil, and used oil

Emissions Control device: Baghouse, Aesco Madsen #KFD544P

Generator Set

Manufacturer: Detroit 600 kW, 25 gallons per hour of #2 Fuel oil.

5.2 Emissions Inventory

Emission estimates for the hot-mix asphalt plant were made using emissions factors appearing in Section 11.1 of AP-42. Emissions estimates were not provided, nor required for the generator engine since no operational changes/modifications were proposed. Emission estimates for criteria and toxic air pollutants may be seen in Appendix B. Emission estimates from the asphalt plant are based on the requested hourly production rate of 350 tons per hour and 373,616 tons per year (which corresponds to approximately 1,067 hours of operation per year).

5.3 Modeling

DEQ performed air pollutant dispersion modeling using SCREEN3 model. The model assumed flat terrain, accounted for plume downwash by structures at the facility, and that the design concentrations are equal to the maximum downwind concentration. The SCREEN3 modeling results may be seen in Appendix C.

Stack parameters used in the modeling analysis are given in Table 5.1

Table 5.1 STACK PARAMETERS

Stack Parameter	HMA Dryer
Height	7.3 m
Diameter	1.3 m
Velocity	13.5 m/s
Temperature	388.7 K
Emission Rate	0.126 g/s

For modeling purposes each emission units air pollutant emission rate was set to be one pound per hour (0.126 g/s). Using this method SCREEN3 model gives an air pollutant dispersion coefficient in micrograms per cubic meter per pound of emissions. The linear relationship between emission rate and ambient impact is then used to predict actual ambient impact by multiplying the dispersion coefficient by the actual emission rate. The predicted ambient impact is then multiplied by a persistence factor to convert the models one hour concentration to the averaging periods of the ambient standards or toxic air pollutant increments. Appendix C contains a spread sheet that shows the results of these calculations.

Table 5.2 shows the predicted ambient impacts for criteria air pollutants from the facility. Modeling was not conducted for lead emissions, because emission estimates were below the State of Idaho modeling threshold of 0.6 tons per year.

Table 5.2 AMBIENT POLLUTANT CONCENTRATIONS

Pollutant	Averaging period	Maximum Predicted Ambient Impact (µg/m3)	Background Concentration (µg/m3)	Total Ambient Impact (µg/m3)	NAAQS (µg/m3)	Percent of NAAQS
CO	8-hour	162.0	2,300	2,462	10,000	24.6
	1-hour	232.0	3,600	3,832	40,000	9.6
NO_2	Annual	8.0	17	25	100	25.0
SO_2	3-hour	93.0	34	127	1,300	9.8
	24-hour	41.0	26	67	365	18.4
	Annual	8	8	16	80	20.0

[a]Background concentration DEQ modeling coordinator, May 25, 20005
[b]National Ambient Air Quality Standard

The modeled concentrations, including the background, are less than the NAAQS.

Toxic air pollutant emissions ambient impacts are summarized in Table 5.3 for those toxic air pollutants that are estimated to be emitted above the toxic air pollutant screening emission level listed in IDAPA 58.01.01.585 and IDAPA 58.01.01.586. All other toxic air pollutants emissions are below the screening emissions rate and modeling is not required. All toxic air pollutants comply with the toxic air pollutant increments listed IDAPA 58.01.01.585 and IDAPA 58.01.01.586.

Table 5.3 TOXIC AIR POLLUTANT AMBIENT IMPACT ASSESSMENT.

Pollutant	HMA Dryer Emissions (lb/hr)	Total Impact (µg/m3)	Allowable Increment (µg/m3)	Averaging period	Acceptable Impact?	Uncontrolled Emissions Exceed Increment ?
HCl	0.0735	1.50E-01	375	24-hour	YES	no
Acetaldehyde	0.4550	2.90E-01	4.50E-01	Annual	YES	no
Propionaldehyde	0.0455	9.27E-02	2.15E+01	24-hour	YES	no
Quinone	0.0560	1.14E-01	20	24-hour	YES	no
2,3,7,8-TCDD	1.08E-09	6.88E-10	2.20E-08	Annual	YES	no

[m]Emission factors not available

5.4 *Regulatory Review*

This section describes the regulatory analysis of the applicable air quality rules with respect to this PTC.

IDAPA 58.01.01.203 ..... Permit to Construct Required

Inland Asphalt has requested a permit to construct to modify an existing hot-mix asphalt plant to operate as a portable source within the State of Idaho, while firing on ASTM Grade No. 2 fuel oil and used oil.

40 CFR 60 Subpart I ..... Standards of Performance for Hot-Mix Asphalt Facilities

The plant was manufactured in 1985, therefore it is an affected facility as defined by 40 CFR 60 Subpart I.

40 CFR 279 ..... Standards for the Management of Used Oil

Part 279.11 contains specifications for used oil which include allowable levels for arsenic, cadmium, chromium, lead, the flash point, and total halogens. The limit for total halogens is listed at 4,000 ppm maximum. However, used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under § 279.10(b)(1). Such used oil is subject to Subpart H of part 266 of this chapter rather than this part when burned for energy recovery unless the presumption of mixing can be successfully rebutted. Therefore, the permit limits the total halogens to 1,000 ppm. This permit condition is consistent with previous permits issued for hot-mix asphalt plants[1].

Permit Condition 3.9 states that, in accordance with 40 CFR 279.11, used oil burned for energy recovery shall not exceed any of the allowable levels listed in Table 2.3. These permit conditions are considered reasonable permit conditions because they inherently limit air pollution emissions.

[1] PTC-030138 Interstate Concrete, Hayden Lake, 2/18/05 & PTC-040101 Interstate Concrete, Rathdrum, 2/18/05

Table 2.3 USED OIL SPECIFICATIONS[1]

Constituent/property	Allowable level
Arsenic	5 ppm[2] maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Flash point	100 deg. F minimum
Total halogens	1,000 ppm maximum

[1]The specification does not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see 40 CFR 279.10(b)).
[2]Parts per million

This table is based on Table 1 from 40 CFR 279.11, incorporating the 1,000 ppm limit for total halogens as explained above.

DEQ's Waste Program has reviewed and approved the above discussions regarding regulating used oil.

5.5 PERMIT FEES

Inland Asphalt Company paid the $1,000 permit to construct application fee as required in IDAPA 58.01.01.224 on April 13, 2006.

In accordance with IDAPA 58.01.01.225, this general permitting action, which required minimal engineering, requires a PTC processing fee of $500. The PTC processing fee is due prior to the issuance of the modified PTC.

Inland Asphalt Company is not a major facility as defined in IDAPA 58.01.01.008.10. Therefore, registration fees to support the Tier I operating permit program are not applicable in accordance with IDAPA 58.01.01.387.

6. PERMIT CONDITIONS

This section describes only the revisions made to the permit as a result of this permitting action.

All permit sections have been renumbered and reformatted to update the permit to the most current format.

The general provision section has been updated to incorporate the latest language pertaining to those permit conditions.

This permit revises and replaces the terms and conditions of PTC No. P-020107, issued June 13, 2002.

Existing permit conditions are identified as "Existing Permit Conditions," revised permit conditions are identified as "Revised Permit Conditions," and new permit conditions are identified as "New Permit Conditions."

New Permit Condition 3.1

Visible emissions from the hot-mix asphalt facility shall not exhibit 20% opacity, or greater in accordance with 40 CFR 60.92(a)(2). Opacity shall be determined using EPA method 9.

Existing Permit Condition 1.1.1

Particulate matter (PM) emissions from the HMA dryer stack shall not exceed 0.04 grains per dry standard cubic foot (gr/dscf), nor shall PM emissions from the HMA dryer stack exceed any corresponding emission rate limit listed in the appendix.

Revised Permit Condition 3.3

Particulate matter (PM) emissions from the hot-mix asphalt stack shall not exceed 0.04 grains per dry standard cubic foot (gr/dscf) in accordance with 40 CFR 60.92(a)(1).

The reference to 40 CFR 60.92(a)(1) was added, while references to the corresponding PM emissions rate listed in the appendix was removed. Additional PM emission rate limits were incorporated as Permit Condition 3.4.

New Permit Condition 3.4

The PM_{10} emissions from the hot-mix asphalt plant stack shall not exceed any corresponding emissions rate limits listed in Table 3.1.

Table 6.1 ASPHALT PLANT STACK EMISSIONS LIMITS

Source Description	PM_{10}	
	lb/hr[a]	T/yr[b]
Dryer Stack Outlet	5.75	3.07

[a]pounds per hour
[b]tons per consecutive 12-month period

Existing Permit Condition 1.2.2

The burner fuel shall be either natural gas or propane gas only.

Revised Permit Condition 3.8

The fuel used in the hot-mix asphalt drum dryer shall be natural gas, propane, ASTM Grade No. 2 fuel oil or used oil.

The allowable fuels now include ASTM Grade No. 2 fuel oil and used oil, per the applicant's request.

New Permit Condition 3.9

In accordance with 40 CFR 279.11, with the exception of total halogens which are limited to 1,000 ppm, used oil burned for energy recovery shall not exceed any of the allowable levels listed in Table 3.2.

Table 3.2 USED OIL SPECIFICATIONS[1]

Constituent/property	Allowable level
Arsenic	5 ppm[2] maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Flash point	100 deg. F minimum
Total halogens	1,000 ppm maximum

[1]The specification does not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (see 40 CFR 279.10(b)).
[2]parts per million

New Permit Condition 3.10

- No ASTM Grade 2 fuel oil containing sulfur in excess of 0.5% by weight shall be burned in the hot-mix asphalt drum dryer.
- No used oil fuel containing sulfur in excess of 0.5% by weight shall be burned in the hot-mix asphalt drum dryer.

Existing Permit Condition 2.1.1

The production rate of the HMA facility shall not exceed a maximum of 2,325,172 tons per any consecutive 12-month period when located in any attainment or unclassifiable area.

Revised Permit Condition 3.11

The production rate of the hot-mix asphalt plant shall not exceed a maximum of 373,616 tons of hot-mix asphalt per any consecutive 12-month period.

The maximum annual production rate has been reduced to 373,616 per the applicant's request. The facility voluntarily reduced their maximum annual production to allow the combustion of ASTM Grade No. 2 fuel oil and used oil.

Existing Permit Condition 2.1.2

When the HMA is to be collocated with another portable HMA plant, rock-crushing plant, or concrete batch plant, the collocation requirements of Permit Condition 3 must be met.

Revised Permit Condition 3.15

When the HMA is to be collocated with another portable HMA plant, rock-crushing plant, or concrete batch plant, the collocation requirements of Permit Condition 4 must be met.

The reference has been changed from Permit Condition 3 to Permit Condition 4.

New Permit Condition 3.18

The permittee shall conduct an inspection of visible emissions from the hot-mix asphalt drum dryer baghouse stack during daylight hours and under normal operating conditions once during each calendar month that the asphalt plant operates. The inspection shall consist of a see/no see evaluation of visible emissions. If any visible emissions are present from the hot-mix asphalt drum dryer baghouse stack, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20% for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136.

The permittee shall maintain records of the results of each visible emissions inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken. The monthly visible emissions inspection is not required when the facility is not in operation.

Records of each visible emissions inspection shall remain on site for the most recent two-year period and shall be made available to DEQ representatives upon request.

New Permit Condition 3.20

The permittee shall demonstrate compliance with the used oil fuel specifications in Permit Condition 3.9 by obtaining a used oil fuel certification from the used oil fuel supplier on an as-received basis or by having the fuel analyzed by a qualified laboratory. The certification shall include the following information:

- The name and address of the used oil supplier;
- The measured concentration, expressed as ppm, of each constituent listed in Table 3.2;
- The flash point of the used oil expressed as degrees Fahrenheit;

- The analytical method or methods used to determine the concentration of each constituent and property (flash point) listed in Table 3.2;
- The date and location of each sample; and
- The date of each certification analysis.

Records of each certification shall remain on site for the most recent two-year period and shall be made available to DEQ representatives upon request.

New Permit Condition 3.21

The permittee shall maintain purchase records or equivalent from the supplier that show the sulfur content of the fuel oil and used oil delivered to the facility on an as-received basis. Records of this information shall remain on site for the most recent two-year period and shall be made available to DEQ representatives upon request.

Remaining Permit Conditions

The permit conditions that have not been discussed in this document are self explanatory and are not included in this statement of basis.

7. PERMIT REVIEW

7.1 Regional Review of Draft Permit

On July 13, 2006, the Coeur d'Alene Regional Office was e-mailed the draft of the permit and statement of basis for review and comment.

7.2 Facility Review of Draft Permit

On July 13, 2006, the facility was provided the draft permit for review and comment.

7.3 Public Comment

A public comment period on the proposed permit to construct, and application materials was not required, in accordance with IDAPA 58.01.01.209.04, because there is a net decrease in emissions.

8. RECOMMENDATION

Based on review of application materials, and all applicable state and federal rules and regulations, staff recommends that Inland Asphalt Company be issued final PTC No. P-060115 for the modifications to the hot-mix asphalt plant. The project does not involve PSD requirements nor were any public comments required.

SDB/bf Permit No. P-060115

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APPENDIX A

AIRS INFORMATION

P-060115

AIRS/AFS[a] FACILITY-WIDE CLASSIFICATION[b] DATA ENTRY FORM

Facility Name: Inland Asphalt Company
Facility Location: Portable
AIRS Number: 777-00303

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO_2	B							U
NO_x	B							U
CO	B							U
PM_{10}	SM							U
PT (Particulate)	SM		SM					
VOC	B							
THAP (Total HAPs)	B							
			APPLICABLE SUBPART					
			I					

[a] Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

[b] AIRS/AFS Classification Codes:

A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, or each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.

SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.

B = Actual and potential emissions below all applicable major source thresholds.

C = Class is unknown.

ND = Major source thresholds are not defined (e.g., radionuclides).

APPENDIX B

EMISSIONS INVENTORY

P-060115

Inland Asphalt Company
Plant 20
Portable Asphalt Plant
4/4/2006

	Total HMA:	373,616	Tons per year
		36,767	acfm @240 F, 4% moisture
Counter Flow Drum Mix Asphalt Plant	Baghouse Exhaust Flow:	23,975	dacfm (adjusted from 240 F, 15% moisture)
Estimated Hours of Operation at Max (hrs/yr)		1067	
Production Rate (Tons/hr HMA)		350	
Modeled Concentration ($\mu g/m^3$) @ 1 lb/hr		5.096	1-hr
		2.0384	24-hr
		0.637	Annual

Fuel Type	Used Oil/Fuel Oil/Natural Gas
Pollution Control Equipment	Baghouse
AP-42 Edition	Mar-04

Pollutant	Natural Gas / Propane Emission Factor (lb/ton)	Natural Gas / Propane Factor Type+	Fuel / Waste Oil Emission Factor (lb/ton)	Fuel / Waste Oil Factor Type+	Emission Factor Reference	Natural Gas / Propane Emissions tons/yr	Natural Gas / Propane Emissions lb/hr	Fuel Oil / Waste Oil Emissions tons/yr	Fuel Oil / Waste Oil Emissions lb/hr	Proposed Increase Emissions tons/yr	Proposed Increase Emissions lb/hr	Idaho EL (lb/hr)	Modeled 24-hour Concentration ($\mu g/m3$)	Modeled Annual Concentration ($\mu g/m3$)	Idaho AAC ($mg/m3$)	Idaho AACC/ AACC ($\mu g/m3$)
NOx	0.098	NG	0.088	FO/WO	AP-42, Table 11.1-7 (3/04)	4.66	9.10	10.27	19.25	5.42	10.15	-	-		-	-
CO	0.13	NG/FO/WO	0.13	NG/FO/WO	AP-42, Table 11.1-7 (3/04)	24.29	45.50	24.29	45.50	0.00	0.00	-	-		-	-
SO2	0.0034	NG	0.058	WO	AP-42, Table 11.1-7 (3/04)	0.64	1.19	10.83	20.30	10.20	19.11	-	-		-	-
VOC	0.032	NG/FO/WO	0.032	NG/FO/WO	AP-42, Table 11.1-8 (3/04)	5.98	11.20	5.98	11.20	0.00	0.00	-	-		-	-
PM	0.04	NG/FO/WO	0.04	NG/FO/WO	guided Manufacturer's spec	4.39	8.22	4.39	8.22	0.00	0.00	-	-		-	-
PM-10	70% of PM based on ratio of AP-42 factors			NG/FO/WO		3.07	5.75	3.07	5.75	0.00	0.00	-	-		-	-
HCl	ND	NG	0.00021	WO	AP-42, Table 11.1-8 (3/04)	0.00	0.0000	0.04	0.07	3.92E-02	7.35E-02	0.05	1.90E-01		0.375	375
2,3,7,8 - TCDD (TEQ see note below)	ND	NG	3.08E-12	FO/WO	AP-42, Table 11.1-10 (3/04)	0.00E+00	0.0000	0.00	0.00	5.77E-10	1.08E-09	1.50E-10		6.66E-10		2.20E-08
Acetaldehyde	ND	NG	0.0013	WO	AP-42, Table 11.1-10 (3/04)	0.0000	0.0000	0.24	0.46	2.43E-01	4.55E-01	0.0030		2.80E-01		0.45
Acrolein	ND	NG	2.80E-05	WO	AP-42, Table 11.1-10 (3/04)	0.0000	0.0000	0.00	0.01	4.86E-03	9.10E-03	0.0170	1.88E-02		0.0125	13
Benzene	0.00039	NG/FO/WO	0.00039	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	0.0728	0.1365	0.07	0.14	0.00E+00	0.00E+00	0.0006		0.00E+00		0.12
Ethylbenzene	0.00024	NG/FO/WO	0.00024	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	0.04	0.0840	0.04	0.08	0.00E+00	0.00E+00	29.00	0.00E+00		21.75	21750
Formaldehyde	0.0331	NG/FO/WO	0.0331	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	0.58	1.0880	0.58	1.09	0.00E+00	0.00E+00	0.00051		0.0000		0.077
Hexane	0.00092	NG/FO/WO	0.00092	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	0.172	0.3220	0.17	0.32	0.00E+00	0.00E+00	12.000	0.00E+00		9.000	9000
Isooctane (2,2,4-trimethylpentane)	4.00E-05	NG/FO/WO	4.00E-05	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	0.007	0.0140	0.01	0.01	0.00E+00	0.00E+00	23.300	0.00E+00		17.500	17500
Methyl Ethyl Ketone	ND	NG	2.80E-05	WO	AP-42, Table 11.1-10 (3/04)	0.000	0.0000	0.00	0.01	3.74E-03	7.00E-03	39.300	1.43E-02		29.500	29500
Propionaldehyde	ND	NG	0.00013	WO	AP-42, Table 11.1-10 (3/04)	0.000	0.0000	0.02	0.05	2.43E-02	4.55E-02	0.0087	9.27E-02		0.0215	21.5
Quinone	ND	NG	0.00016	WO	AP-42, Table 11.1-10 (3/04)	0.000	0.0000	0.03	0.06	2.99E-02	5.60E-02	0.027	1.14E-01		0.030	30
Methyl Chloroform	4.80E-05	NG/FO/WO	4.80E-05	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	0.008	0.0168	0.01	0.02	0.00E+00	0.00E+00	127.000	0.00E+00		88.900	88900
Toluene	0.00018	NG	0.0029	FO/WO	AP-42, Table 11.1-10 (3/04)	0.028	0.0525	0.54	1.02	5.14E-01	9.63E-01	25.000	1.88E+00		16.750	16750
Xylene	0.0002	NG/FO/WO	0.0002	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	0.04	0.0700	0.04	0.07	0.00E+00	0.00E+00	29.00	0.00E+00		21.75	21750
Benzo(a)anthracene	2.10E-07	NB/FO/WO	2.10E-07	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	-	-	0.00	0.00	-	-	*	-		-	-
Benzo(a)pyrene**	5.48E-07	NG/FO/WO	5.48E-07	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	1.02E-04	0.0002	0.00	0.00	0.00E+00	0.00E+00	2.80E-06	0.000000			0.0003
Benzo(b)fluoranthene	1.00E-07	NG/FO/WO	1.00E-07	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	-	-	0.00	0.00	-	-	*	-		-	-
Benzo(k)fluoranthene	4.10E-08	NG/FO/WO	4.10E-08	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	-	-	0.00	0.00	-	-	*	-		-	-
Chrysene	1.80E-07	NG/FO/WO	1.80E-07	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	-	-	0.00	0.00	-	-	*	-		-	-
Indeno(1,2,3-cd)pyrene	7.00E-08	NG/FO/WO	7.00E-08	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	-	-	0.00	0.00	-	-	*	-		-	-
Acetone	ND	NG	0.00083	WO	AP-42, Table 11.1-10 (3/04)	0.00	0.0000	0.16	0.29	1.55E-01	2.91E-01	119.00	0.5922		89.00	89000
Crotonaldehyde	ND	NG	8.80E-05	WO	AP-42, Table 11.1-10 (3/04)	0.000	0.0000	0.02	0.03	1.61E-02	3.01E-02	0.380	0.0914		0.285	285
Heptane	0.0084	NG/FO/WO	0.0084	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	1.8	3.2800	1.76	3.29	0.00E+00	0.00E+00	109.0	0.0000		82.0	82000
n-Pentane	0.00021	NG/FO/WO	0.00021	NG/FO/WO	AP-42, Table 11.1-10 (3/04)	0.039	0.0735	0.04	0.07	0.00E+00	0.00E+00	118.000	0.0000		88.500	88500
Valeraldehyde	ND	NG	6.70E-05	WO	AP-42, Table 11.1-10 (3/04)	0.000	0.0000	0.01	0.02	1.25E-02	2.35E-02	11.700	0.0478		8.780	8780
Antimony	1.80E-07	NG/FO/WO	1.80E-07	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	0.000	0.0001	0.00	0.00	0.00E+00	0.00E+00	0.033	0.0000		0.025	25
Arsenic	5.60E-07	NG/FO/WO	5.60E-07	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	1.08E-04	1.96E-04	0.00	0.00	0.00E+00	0.00E+00	1.80E-06	0.0000		2.30E-04	0.23
Beryllium	0	NG/FO/WO	0	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	-	-	0.00	0.00	decrease	decrease	2.80E-05	-		4.20E-03	4.20
Cadmium	4.10E-07	NG/FO/WO	4.10E-07	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	7.88E-05	1.44E-04	0.00	0.00	0.00E+00	0.00E+00	3.70E-06	0.00000		5.60E-04	0.56
Chromium	5.50E-06	NG/FO/WO	5.50E-06	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	1.03E-03	1.93E-03	0.00	0.00	0.00E+00	0.00E+00	5.60E-07	0.0000		8.30E-05	0.0830
Cobalt	2.80E-08	NG/FO/WO	2.80E-08	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	4.88E-06	9.10E-06	0.00	0.00	0.00E+00	0.00E+00	3.30E-03	0.0000000		2.50E-03	2.5
Copper	3.10E-05	NG/FO/WO	3.10E-05	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	5.78E-04	1.08E-03	0.00	0.00	0.00E+00	0.00E+00	1.30E-02	0.0000		1.80E-02	10
Hexavalent chromium	4.90E-07	NG/FO/WO	4.90E-07	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	8.41E-05	1.58E-04	0.00	0.00	0.00E+00	0.00E+00	5.60E-07	0.00000		8.30E-05	0.083
Manganese	7.70E-06	NG/FO/WO	7.70E-06	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	1.44E-03	2.70E-03	0.00	0.00	0.00E+00	0.00E+00	6.70E-02	0.0000		5.00E-02	50
Mercury	2.40E-07	FO/WO	2.60E-08	FO/WO	AP-42, Table 11.1-12 (3/04)	4.48E-05	8.40E-05	0.00	0.00	4.41E-04	8.26E-04	3.00E-03	0.00168		2.50E-03	2.5
Nickel	8.30E-05	NG/FO/WO	8.30E-05	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	1.18E-02	2.21E-02	0.01	0.02	0.00E+00	0.00E+00	2.70E-05	0.0000		4.20E-03	4.2
Phosphorus	2.60E-05	NG/FO/WO	2.60E-05	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	5.23E-03	9.80E-03	0.01	0.01	0.00E+00	0.00E+00	7.00E-03	0.0000		5.80E-03	5
Selenium	3.50E-07	NG/FO/WO	3.50E-07	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	6.54E-05	1.23E-04	0.00	0.00	0.00E+00	0.00E+00	1.30E-02	0.00000		1.00E-02	10
Silver	4.80E-07	NG/FO/WO	4.80E-07	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	8.97E-05	1.68E-04	0.00	0.00	0.00E+00	0.00E+00	7.00E-03	0.00000		5.00E-03	5
Thallium	4.10E-08	NG/FO/WO	4.10E-08	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	7.68E-07	1.44E-06	0.00	0.00	0.00E+00	0.00E+00	7.00E-03	0.0000000		5.00E-03	5
Zinc	6.10E-05	NG/FO/WO	6.10E-05	NG/FO/WO	AP-42, Table 11.1-12 (3/04)	1.14E-02	2.14E-02	0.01	0.02	0.00E+00	0.00E+00	8.67E-01	0.000		5.00E-01	500

Note: Total Dioxin/Furan is expressed as a Toxic Equivalent Quotient (TEQ) of 2,3,7,8 - TCDD. The TEQ was calculated below by multiplying each individual Dioxin/Furan by their Toxic Equivalency Factor (TEF) and then summing them together

** Total PAHs are considered as equivalents of benzo(a)pyrene. Emission Factors for the compounds with a " * " in the Idaho EL column are added to the benzo(a)pyrene factor.

+ NG: Natural Gas Emission Factor; FO: Fuel Oil Emission Factor; WO: Waste Oil Emission Factor

lb/hr: Pounds per Hour

mg/m^3: Milligrams per Cubic Meter

$\mu g/m^3$: Micrograms per Cubic Meter

EL: Emissions Level

AAC: Acceptable Ambient Concentration

AACC: Acceptable Ambient Concentration for Carcinogens

Toxic Equivalency Quotient Calculation

Pollutant	Emission Factor	Factor Type*	TEF	TEQ	Emission Factor Reference
2,3,7,8-TCDD	2.16E-13	FO/WO	1	2.1E-13	AP-42, Table 11.1-10 (12/00)
1,2,3,7,8-PeCDD	3.10E-13	FO/WO	0.5	1.55E-13	AP-42, Table 11.1-10 (12/00)
1,2,3,4,7,8-HxCDD	4.30E-13	FO/WO	0.1	4.2E-14	AP-42, Table 11.1-10 (12/00)
1,2,3,6,7,8-HxCDD	1.30E-12	FO/WO	0.1	1.3E-13	AP-42, Table 11.1-10 (12/00)
1,2,3,7,8,9-HxCDD	9.60E-13	FO/WO	0.1	9.6E-14	AP-42, Table 11.1-10 (12/00)
1,2,3,4,6,7,8-HpCDD	4.80E-12	FO/WO	0.01	4.8E-14	AP-42, Table 11.1-10 (12/00)
OCDD	2.50E-11	FO/WO	0.001	2.5E-14	AP-42, Table 11.1-10 (12/00)
2,3,7,8-TCDF	9.70E-13	FO/WO	0.1	9.7E-14	AP-42, Table 11.1-10 (12/00)
1,2,3,7,8-PeCDF	4.30E-12	FO/WO	0.05	2.15E-13	AP-42, Table 11.1-10 (12/00)
2,3,4,7,8-PeCDF	8.40E-13	FO/WO	0.5	4.2E-13	AP-42, Table 11.1-10 (12/00)
1,2,3,4,7,8-HxCDF	4.80E-12	FO/WO	0.1	4E-13	AP-42, Table 11.1-10 (12/00)
1,2,3,6,7,8-HxCDF	1.20E-12	FO/WO	0.1	1.2E-13	AP-42, Table 11.1-10 (12/00)
2,3,4,6,7,8-HxCDF	1.80E-12	FO/WO	0.1	1.8E-13	AP-42, Table 11.1-10 (12/00)
1,2,3,7,8,9-HxCDF	8.40E-12	FO/WO	0.1	8.4E-13	AP-42, Table 11.1-10 (12/00)
1,2,3,4,6,7,8-HpCDF	8.90E-12	FO/WO	0.01	8.9E-14	AP-42, Table 11.1-10 (12/00)
1,2,3,4,7,8,9-HpCDF	2.70E-12	FO/WO	0.01	2.7E-14	AP-42, Table 11.1-10 (12/00)
OCDF	4.80E-12	FO/WO	0.001	4.8E-15	AP-42, Table 11.1-10 (12/00)
Total TEQ				3.88E-12	

APPENDIX C

AIR DISPERSION MODELS

P-060115

MEMORANDUM DRAFT

DATE: July 5, 2006

TO: Steve Bacom, Permit Writer, Air Program

FROM: Kevin Schilling, Stationary Source Modeling Coordinator, Air Program

PROJECT NUMBER: P-060115

SUBJECT: Modeling Review for the Inland Asphalt Company Permit to Construct Application for modifications to their Hot Mix Asphalt Plant 20.

1.0 Summary

Inland Asphalt Company (Inland) submitted a Permit to Construct (PTC) application to modify their asphalt facility located in Coeur d'Alene, Idaho. The modification involves allowing the use of used oil as fuel for the asphalt plant dryer. Air quality analyses involving atmospheric dispersion modeling of emissions associated with the modification were submitted in support of a permit application to demonstrate that the facility would not cause or significantly contribute to a violation of any ambient air quality standard (IDAPA 58.01.01.203.02).

A technical review of the submitted air quality analyses was conducted by DEQ. The submitted modeling analyses in combination with DEQ's staff analyses: 1) utilized appropriate methods and models; 2) was conducted using reasonably accurate or conservative model parameters and input data; 3) adhered to established DEQ guidelines for new source review dispersion modeling; 4) showed either a) that predicted pollutant concentrations from emissions associated with the proposed facility were below significant contribution levels (SCLs); or b) that predicted pollutant concentrations from emissions associated with the facility, when appropriately combined with background concentrations, were below applicable air quality standards at all receptor locations. Table 1 presents key assumptions and results that should be considered in the development of the permit.

Table 1. KEY ASSUMPTIONS USED IN MODELING ANALYSES	
Criteria/Assumption/Result	**Explanation/Consideration**
Hourly and annual production will not increase as a result of the modification.	Modeling was only conducted for the increase in emissions associated with burning used oil rather than propane or natural gas.
PM_{10} emissions were not included in the modeling analyses.	There was no PM_{10} emissions increase associated with the modification.

2.0 Background Information

2.1 Applicable Air Quality Impact Limits and Modeling Requirements

This section identifies applicable ambient air quality limits and analyses used to demonstrate compliance.

2.1.1 Area Classification

The Inland facility is located in Coeur d'Alene, Idaho. The area is designated as an attainment or unclassifiable area for sulfur dioxide (SO_2), nitrogen dioxide (NO_2), carbon monoxide (CO), lead (Pb), ozone (O_3), and particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM_{10}).

2.1.2 *Significant and Full Impact Analyses*

If estimated maximum pollutant impacts to ambient air from the emissions sources associated with the HMA modification exceed the significant contribution levels (SCLs) of IDAPA 58.01.01.006.90, then a full impact analysis is necessary to demonstrate compliance with IDAPA 58.01.01.203.02. A full impact analysis for attainment area pollutants involves adding ambient impacts from facility-wide emissions to DEQ-approved background concentration values that are appropriate for the criteria pollutant/averaging-time at the facility location and the area of significant impact. The resulting maximum pollutant concentrations in ambient air are then compared to the National Ambient Air Quality Standards (NAAQS) listed in Table 2. Table 2 also lists SCLs and specifies the modeled value that must be used for comparison to the NAAQS.

Table 2. APPLICABLE REGULATORY LIMITS

Pollutant	Averaging Period	Significant Contribution Levels[a] ($\mu g/m^3$)[b]	Regulatory Limit[c] ($\mu g/m^3$)	Modeled Value Used[d]
PM_{10}[e]	Annual	1.0	50[f]	Maximum 1st highest[g]
	24-hour	5.0	150[h]	Maximum 6th highest[i]
Carbon monoxide (CO)	8-hour	500	10,000[j]	Maximum 2nd highest[g]
	1-hour	2,000	40,000[j]	Maximum 2nd highest[g]
Sulfur Dioxide (SO_2)	Annual	1.0	80[f]	Maximum 1st highest[g]
	24-hour	5	365[j]	Maximum 2nd highest[g]
	3-hour	25	1,300[j]	Maximum 2nd highest[g]
Nitrogen Dioxide (NO_2)	Annual	1.0	100[f]	Maximum 1st highest[g]
Lead (Pb)	Quarterly	NA	1.5[f]	Maximum 1st highest[g]

[a]IDAPA 58.01.01.006.90
[b]Micrograms per cubic meter
[c]IDAPA 58.01.01.577 for criteria pollutants
[d]The maximum 1st highest modeled value is always used for significant impact analysis
[e]Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers
[f]Never expected to be exceeded in any calendar year
[g]Concentration at any modeled receptor
[h]Never expected to be exceeded more than once in any calendar year
[i]Not to be exceeded more than once per year
[j]Concentration at any modeled receptor when using five years of meteorological data

2.2 Background Concentrations

The background pollutant concentration values used in the submitted analyses were not the most recent DEQ approved values. However, the values used were conservatively high and compliance with applicable standards was easily demonstrated. Background concentrations used in these analyses are listed in Table 3.

Background concentrations were revised for all areas of Idaho by DEQ in March 2003[1]. Background concentrations in areas where no monitoring data are available were based on monitoring data from areas with similar population density, meteorology, and emissions sources.

Default background concentrations for rural/agricultural areas are also listed in Table 3.

1 Hardy, Rick and Schilling, Kevin. *Background Concentrations for Use in New Source Review Dispersion Modeling.* Memorandum to Mary Anderson, March 14, 2003.

Table 3. BACKGROUND CONCENTRATIONS		
Pollutant	**Averaging Period**	**Background Concentration[a] ($\mu g/m^3$)[b]**
PM_{10}[c]	24-hour	Not listed[d] (73)
	Annual	Not listed[d] (26)
Sulfur dioxide	3-hour	543 (34)
	24-hour	144 (26)
	annual	24 (8)
Carbon monoxide	1-hour	11,632 (3,600)
	8-hour	5,292 (2,300)
Nitrogen dioxide	annual	40 (17)

[a]Values in parentheses are DEQ default values for rural/agricultural areas

[b]Micrograms per cubic meter

[c]Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers

[d]Background PM_{10} concentrations were not used because the increase in PM_{10} emissions is below DEQ modeling threshold values

3.0 Modeling Impact Assessment

3.1 Modeling Methodology

Table 4 provides a summary of the modeling parameters used in analyses submitted. Aspen Consulting & Engineering, Inc. (Aspen), Inland's consultant, conducted the ambient impact analyses.

Table 4. MODELING PARAMETERS		
Parameter	**Description/Values**	**Documentation/Additional Description**
Model	SCREEN3	Simple screening-level model
Meteorological data	Worst-case	Model generated worst-case meteorology
Terrain	Not considered	Area assumed to be relatively flat
Building downwash	Considered	Building dimensions were input to SCREEN3
Receptor grid	Max concentration	The maximum downwind concentration was determined by the model

3.1.1 Modeling protocol

A protocol was not submitted to and DEQ prior to submission of the application. Modeling was conducted using methods and data presented in the *State of Idaho Air Quality Modeling Guideline.*

3.1.2 Model Selection

SCREEN3 was used by Aspen to conduct the ambient air analyses. SCREEN3 is appropriate for this facility since the modification involves emissions from a single stack.

3.1.3 Meteorological Data

The SCREEN3 option for Full Meteorology was used in the analyses. The model calculates the worst-case meteorology for the emissions characteristics and the downwind receptor location.

3.1.4 Terrain Effects

The model was run assuming the area impacted is effectively flat. This is a reasonable assumption since impacts from the modification are very close to the emissions source. Also, because the facility is portable, terrain at future locations cannot be estimated.

3.1.5 Facility Layout

Facility layout is not an important consideration for these analyses because the modification involves only a single emissions point and the design concentration was based on the location maximum downwind concentration.

3.1.6 Building Downwash

Plume downwash effects caused by structures at the facility were accounted for in the modeling analyses. Dimensions of the nearest building were used in SCREEN3.

3.1.7 Ambient Air Boundary

Because the maximum downwind concentration was used as the design concentration, the distance from the emissions point to the location of ambient air is not used.

3.1.8 Receptor Network

The model was run to calculate the maximum downwind concentration.

3.1.9 Modeling Methods Used

SCREEN3 was run using a unit emissions rate of 1.0 pounds per hour (lb/hr). Model output is given as micrograms per cubic meter ($\mu g/m^3$) for a 1-hour averaging period. Concentrations of specific pollutants for a 1-hour averaging period are calculated by multiplying the model result for 1.0 lb/hr by the requested potential emissions rate in pounds per hour. Concentrations for other averaging periods were calculated by multiplying the pollutant-specific maximum 1-hour concentration by persistence factors. The following are appropriate persistence factors to convert 1-hour concentrations to concentrations for other averaging periods:

- 1-hour to 3-hour factor = 0.9
- 1-hour to 8-hour factor = 0.7
- 1-hour to 24-hour factor = 0.4
- 1-hour to annual factor = 0.08

3.2 Emission Rates

Emissions rates used in the dispersion modeling analyses submitted by the applicant were reviewed against those in the permit application, the engineering technical memorandum, and the proposed permit. The following approach was used for DEQ verification modeling:

- All modeled emissions rates were equal to or greater than the facility's emissions calculated in the PTC application or the permitted allowable rate.
- More extensive review of modeling parameters selected was conducted when model results for specific sources approached applicable thresholds.

Aspen conservatively modeled maximum hourly emissions rates for all pollutants having an increase in emissions, rather than only modeling the emissions increase. Table 5 shows both the emissions increase and the total emissions rates for the dryer.

Table 5. MODELED EMISSIONS RATES CRITERIA POLLUTANTS					
Description		Emission Rates (lb/hr)[a]			
		PM_{10}[b]	SO_2[c]	CO[d]	NOx[e]
Asphalt Plant Dryer	Short term emissions increase	0.0	19.1	0.0	10.15
	Short term total emissions	Not modeled	20.3	45.5	19.25
	Long term emissions increase	0.0	2.33	NA	1.24
	Long term total emissions	Not modeled	2.47	NA	2.34

[a]Pounds per hour emissions rates
[b]Particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers
[c]Sulfur dioxide
[d]Carbon monoxide
[e]Oxides of nitrogen

Table 6 lists applicable TAP emissions increases associated with the HMA modification for those TAPs with an increase exceeding the EL.

Table 6. TAP EMISSIONS RATES USED IN MODELING		
TAP	DRYER TAP Emissions Rates (lb/hr[a])	EL[b] (lb/hr)
2,3,7,8 – TCDD	1.08E-9	1.50E-10
Acetaldehyde	0.455	0.0030
HCl	0.0735	0.05
Propionaldehyde	0.0455	0.0287
Quinone	0.0560	0.027

[a]pounds per hour
[b]Emissions screening level

3.3 Emission Release Parameters

Table 7 provides emissions release parameters, including stack height, stack diameter, exhaust temperature, and exhaust velocity. Most values used in the analyses appeared reasonable and within expected ranges, and additional documentation /verification of these parameters were not required.

Table 7. EMISSIONS AND STACK PARAMETERS					
Release Point /Location	Source Type	Stack Height (m)[a]	Modeled Diameter (m)	Stack Gas Temp. (K)[b]	Stack Gas Flow Velocity (m/sec)[c]
DRYER	Point	7.3	1.3	388.7	13.5

[a]Meters
[b]Kelvin
[c]Meters per second

3.4 Results for Significant Impact Analyses and Full Impact Analyses

Aspen demonstrated compliance with NAAQS for Inland using total emissions from the dryer, rather than the emissions increase. The maximum 1-hour downwind concentration predicted by SCREEN3 when modeling an emissions rate of 1.0 lb/hr was 5.096 $\mu g/m^3$. Results of the full impact analyses are presented in Table 8. Maximum modeled concentrations in Table 8 were calculated by multiplying the SCREEN3 1-hour results by the actual maximum emissions rate and the persistence factor appropriate for the averaging period.

3.5 *Results for TAPs Analyses*

Compliance with TAP increments were demonstrated by modeling uncontrolled TAP emissions (those TAPs with emissions exceeding the ELs) from the dryer. Table 9 summarizes the ambient TAP analyses.

Table 8. RESULTS OF FULL IMPACT ANALYSES

Pollutant	Averaging Period	Maximum Modeled Concentration[a] ($\mu g/m^3$)[b]	Significant Contribution Level ($\mu g/m^3$)	Background Concentration ($\mu g/m^3$)	Total Impact ($\mu g/m^3$)	NAAQS[c] ($\mu g/m^3$)
Sulfur dioxide (SO_2)	3-hour	93 (87[d])	25	34	127 (121[d])	1,300
	24-hour	41 (39[d])	5	26	67 (65[d])	365
	Annual	8 (1.0)(0.95[d])	1.0	8	16 (9[d])	80
Carbon monoxide (CO)	1-hour	232 (0[d])	3,000	3,600	3,832 (3,600[d])	40,000
	8-hour	162 (0[d])	500	2,300	2,462 (2,300[d])	10,000
Nitrogen dioxide (NO_2)	Annual	8 (0.95)	1.0	17	25 (18[d])	100

[a]Values in parentheses are those obtained from DEQ verification modeling
[b]Micrograms per cubic meter
[c]National ambient air quality standards
[d]DEQ result modeling the emissions increase only

Table 9. RESULTS OF TAP ANALYSES

TAP	Averaging Period	Maximum Modeled Concentration ($\mu g/m^3$)[a]	AACC / AAC ($\mu g/m^3$)	Percent of AACC / AAC
2,3,7,8 – TCDD	Annual	6.88E-10	2.2E-8	3
Acetaldehyde	Annual	2.90E-1	4.5E-1	64
HCl	24-hour	0.150	375	0.02
Propionaldehyde	24-hour	0.0927	21.5	0.4
Quinone	24-hour	0.114	20	0.6

[a]Micrograms per cubic meter

4.0 Conclusions

The ambient air impact analysis submitted, in combination with DEQ's review of those analyses, demonstrated to DEQ's satisfaction that emissions from the facility will not cause or significantly contribute to a violation of any air quality standard.