

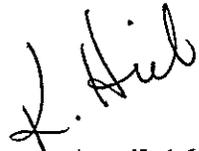
Statement of Basis

Final

Coeur d'Alene Paving, Inc.

ALmix Asphalt Plant

**Facility ID No. 777-00432
Permit to Construct-2010.0004**



**April 16, 2010
Kathleen Hieb
Permit Writer**

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01. et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

Table of Contents

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE	2
FACILITY INFORMATION	3
Description	3
Permitting History.....	3
Application Scope.....	3
Application Chronology	4
TECHNICAL ANALYSIS	4
Ambient Air Quality Impact Analyses	4
REGULATORY ANALYSIS	5
Attainment Designation (40 CFR 81.313).....	5
Permit to Construct (IDAPA 58.01.01.201)	5
Tier II Operating Permit (IDAPA 58.01.01.401).....	5
Visible Emissions (IDAPA 58.01.01.625)	5
Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)	5
PSD Classification (40 CFR 52.21)	6
NSPS Applicability (40 CFR 60).....	6
NESHAP Applicability (40 CFR 61).....	7
MACT Applicability (40 CFR 63).....	7
Permit Conditions Review.....	7
PUBLIC REVIEW	10
Public Comment Opportunity.....	10
APPENDIX A – AMBIENT AIR QUALITY IMPACT ANALYSES	
APPENDIX B – FACILITY DRAFT COMMENTS	
APPENDIX C – PROCESSING FEE	

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

acfm	actual cubic feet per minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
Btu	British thermal unit
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
gr	grain (1 lb = 7,000 grains)
dscf	dry standard cubic feet
EPA	U.S. Environmental Protection Agency
HAP	Hazardous Air Pollutant
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pounds per hour
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
MMBtu	million British thermal units
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
PAH	Polycyclic aromatic hydrocarbon
PC	permit condition
PM	particulate matter
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
POM	Polycyclic organic matter (7-PAH group)
ppm	parts per million
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
RAP	Recycled Asphalt Pavement
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
scfm	standard cubic feet per minute
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SM	Synthetic Minor
SO ₂	sulfur dioxide
SO _x	sulfur oxides
TAP	Toxic Air Pollutant
T/yr	tons per year
UTM	Universal Transverse Mercator
VOC	volatile organic compound

FACILITY INFORMATION

Description

The facility is a portable drum asphalt plant which may operate as a stationary source at 2492 W. Hwy. 53, Rathdrum, Idaho and as a portable source throughout the State of Idaho. The facility consists of a parallel flow drum mix dryer, an asphalt tank heater, a baghouse, an asphalt oil storage tank, and materials transfer equipment. Materials transfer equipment may include front end loaders, storage bins, storage silos, conveyors, stock piles, and haul trucks. The facility has the ability to produce both hot mix asphalt and warm mix asphalt. Warm mix asphalt reduces the mixture temperature by 50 to 100 degrees Fahrenheit. Due to the reduction in temperature there is expected to be a reduction in greenhouse gases and associated energy consumption.

For the parallel flow drum mix dryer process, stockpiled aggregate is transferred to feed bins. The aggregate can be derived from up to 15% recycled asphalt pavement (RAP). Aggregate is dispensed from the bins onto feeder conveyors, which transfer the aggregate to the drum mix dryer. Aggregate travels through the rotating drum dryer, and when dried, it is mixed with liquid asphalt oil. The asphalt oil is heated by the asphalt tank heater to allow it to flow and be mixed with the aggregate. The resulting asphalt is conveyed to hot storage bins until it can be loaded into trucks for transport off site or transferred to silos for temporary storage. Electrical power is supplied to the plant from the local power grid. As part of the operation, a portable rock crusher is co-located at the facility (with a maximum co-located operation of 12 hrs/day and 750,000 T-crushed rock/yr), which also includes operation of a portable diesel-fired IC engine used to power an electrical generator with a maximum co-located operation of 600 hrs/yr.

Permitting History

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

August 17, 2009	P-2009.0099, Removal of the terms 'HMA' and 'Hot Mix Asphalt', the ability to produce Warm Mix Asphalt and adding the capability to use up to 50% RAP, Permit status (A, but will become S upon issuance of this permit)
November 3, 2008	P-2008.0103, Initial PTC for this facility, Permit status (S) by P-2009.0099

Application Scope

This is a revised permit to construct which will allow portability for the warm and hot mix asphalt plant currently located in Rathdrum, Idaho. The stationary source conditions established in P-2009.0099 will apply when the plant is located and operating at 2492 W. Highway 53 in Rathdrum, ID. Portable source conditions added to P-2009.0099 will apply when the plant is operating as a portable source anywhere else in the state of Idaho. The portable source conditions allow the drum mix dryer to burn propane.

Application Chronology

January 19, 2010	DEQ received an application and an application fee.
February 17, 2010	DEQ determined that the application was complete.
April 14, 2010	DEQ made available the draft permit and statement of basis for peer and regional office review.
April 16, 2010	DEQ made available the draft permit and statement of basis for applicant review.
April 26, 2010	DEQ received comments from the facility on the draft permit and statement of basis.
June 17, 2010	DEQ issued a revised modeling memo based on comments from the facility,
July 6, 2010	DEQ received the permit processing fee.
July 16, 2010	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

The scope of this project was to allow the asphalt plant to operate as a portable facility and, when portable, to combust propane in the asphalt drum dryer and asphaltic oil tank heater. There is no change in equipment and there is no increase in emissions.

Site specific ambient air quality impact analysis was performed when the facility was issued the initial PTC P-2008.0108 on November 3, 2008 which allowed stationary operation in Rathdrum. A new ambient air quality impact analysis was performed to account for the portable operation of the asphalt plant. One of the permit conditions required by the analysis is to halve the asphalt production from December 1 – March 31.

For details regarding the emissions units, process descriptions, and the emissions inventory for this facility, refer to the Statement of Basis for PTC No. P-2008.0103, issued on November 3, 2008. The emissions information was not changed as a result of this project.

Ambient Air Quality Impact Analyses

The applicant has demonstrated pre-construction compliance to DEQ's satisfaction that emissions from this facility will not cause or significantly contribute to a violation of any ambient air quality standard. The applicant has also demonstrated pre-construction compliance to DEQ's satisfaction that the emissions increase due to this permitting action will not exceed any acceptable ambient concentration (AAC) or acceptable ambient concentration for carcinogens (AACC) for toxic air pollutants (TAP). A summary of the Ambient Air Impact Analysis for TAPs is provided in Appendix A.

An ambient air quality impact analyses document has been crafted by DEQ based on a review of the modeling analysis submitted in the application. That document is part of the final permit package for this permitting action (see Appendix A).

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

Stationary source operation: The Rathdrum Plant site (2492 W. Highway 53 in Rathdrum, ID) is in Kootenai County (AQCR 62), which is designated as “no designation” for SO₂, and unclassifiable/attainment for CO, PM_{2.5}, PM₁₀, NO_x, for federal and state criteria air pollutants. Reference 40 CFR 81.313.

Portable source operation: Operation elsewhere in the State of Idaho. Because a separate modeling analysis was not provided to demonstrate compliance with applicable standards in nonattainment areas, this portable facility is not permitted for operation in nonattainment areas.

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201

Permit to Construct Required

The permittee has requested that a PTC be issued to the facility for the flexibility of operating either as a stationary source at 2492 W. Highway 53 in Rathdrum, ID or as a portable source elsewhere in the state of Idaho, where the facility is allowed to combust propane in the asphalt dryer. There is no change in the emissions. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

Tier II Operating Permit (IDAPA 58.01.01.401)

IDAPA 58.01.01.401

Tier II Operating Permit

The application was submitted for a permit to construct (refer to the Permit to Construct section), and an optional Tier II operating permit has not been requested. Therefore, the procedures of IDAPA 58.01.01.400–410 were not applicable to this permitting action.

Visible Emissions (IDAPA 58.01.01.625)

IDAPA 58.01.01.625

Visible Emissions

The sources of PM₁₀ emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity.

Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

IDAPA 58.01.01.301

Requirement to Obtain Tier I Operating Permit

Facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for PM₁₀, SO₂, NO_x, CO, or VOC, or 10 tons per year for any single HAP or 25 tons per year for all HAPs combined as demonstrated previously in the Emissions Inventories Section of this analysis. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006.113 and the requirements of IDAPA 58.01.01.301 do not apply.

PSD Classification (40 CFR 52.21)

40 CFR 52.21 Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52.21(b)(1). Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

NSPS Applicability (40 CFR 60)

40 CFR 60, Subpart I..... National Standards of Performance for Hot Mix Asphalt Plants

40 CFR 60.90..... Applicability and designation of affected facility

In accordance with §60.90(a), each hot mix asphalt facility is an affected facility. In accordance with §60.90(b), any hot mix asphalt facility that commences construction or modification after June 11, 1973, is subject to the requirements of Subpart I.

The affected facility includes: the dryer; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler; systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems.

40 CFR 60.91 Definitions

This section contains the definitions of this subpart.

40 CFR 60.92 Standard for particulate matter.

In accordance with §60.92, no owner or operator shall discharge or cause the discharge into the atmosphere from any affected facility any gases which contain particulate matter in excess of 0.04 gr/dscf or exhibit 20% opacity or greater.

40 CFR 60.93 Test methods and procedures

In accordance with §60.93(a), performance tests shall use as reference methods and procedures the test methods in Appendix A of 40 CFR 60.

In accordance with §60.93(b), compliance with the particulate matter standards shall be determined by EPA Reference Method 5, and opacity shall be determined by EPA Reference Method 9.

NESHAP Applicability (40 CFR 61)

The facility is not subject to any NESHAP requirements in 40 CFR 61.

MACT Applicability (40 CFR 63)

The facility is not subject to any MACT standards in 40 CFR Part 63.

Permit Conditions Review

This section describes the permit conditions for this initial permit or only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

COVER PAGE

- Facility ID – changed from 055-00432 to 777-00432 to reflect a portable facility
- Exact plant location – revised to reflect portability
- County - revised to reflect portability

PERMIT TO CONSTRUCT SCOPE – Revised - Reflects purpose of this permitting action

This is a revised permit to construct (PTC) which will allow portability for the warm and hot mix asphalt plant currently located in Rathdrum, Idaho. The stationary source conditions established in P-2009.0099 have been incorporated into this permit and will apply when the plant is located and operating at 2492 W. Highway 53 in Rathdrum, ID. Portable source conditions established in this permit will apply when the plant is operating as a portable source anywhere else in the state of Idaho. The portable source conditions allow the drum mix dryer and asphaltic oil tank heater to combust either propane or natural gas.

This PTC replaces Permit to Construct No. P-2009.0099, issued on August 19, 2009.

NATURAL GAS ASPHALT DRUM DRYER - Revised to: ASPHALT DRUM DRYER This change reflects the allowed combustion of propane when operating as a portable source.

Process Description:

Two sentences were added:

- Due to the reduction in temperature there is expected to be a reduction in volatile gaseous pollutants and associated energy consumption.
- Electrical generators powered by engines are not allowed by this permit.

Additional Emission Limits:

- *Table 3: Asphalt Dryer Emissions Limits*

When operating as a portable source from December 1 – March 31, the asphalt production throughput and RAP usage, and the corresponding lb/hr emissions, are halved in order to comply with ambient air standard. This is reflected in the Emissions Limits table.

Revised Operating Requirement:

Asphalt and RAP Production Limits – Stationary Source Operation

To demonstrate compliance with the emissions limits, the production rate of asphalt shall not exceed either of the following limits:

- 3,600 tons per day (of which 540 tons per day can consist of recycled asphalt pavement (RAP))
- 300,000 tons per any consecutive 12-calendar month period (of which 45,000 tons per any consecutive 12-calendar month period can consist of RAP).

To more accurately reflect the permit condition, the term “and RAP” was inserted.

The term “or” was removed from between the two bulleted limits to clarify the condition.

Additional Operating Requirements:

• *Asphalt and RAP Production Limits – Portable Source Operation*

To demonstrate compliance with the emissions limits, the production rate of asphalt shall not exceed either of the following limits:

- *April 1 – November 30:*
 - *3,600 tons per day (of which 540 tons per day can consist of RAP)*
- *December 1 – March 31:*
 - *1,800 tons per day (of which 270 tons per day can consist of RAP)*
- *300,000 tons per any consecutive 12-calendar month period (of which 45,000 tons per any consecutive 12-calendar month period can consist of RAP).*

Asphalt production and RAP usage, and the corresponding lb/hr emissions are halved from December 1 – March 31, in order to comply with ambient air standards.

• *Operating Hours – Portable Source Operation*

The permittee requested a limit be placed on the annual asphalt plant operating hours.

• *Permitted Fuel – Portable Source Operation*

The asphalt dryer may combust only natural gas when operating as a stationary source. However, the scope of this project was to allow for the combustion of propane when operating as a portable source.

• *Asphalt Operation Setback Requirements - Portable Source Operation*

Ambient air impact analysis determined the setback distances based on the same emissions inventory presented for the stationary source operations, but with meteorological data from various sites across the state.

• *Portable Rock Crusher Operation Co-Location Limitation – Portable Source Operation*

Compliance with ambient air standards is based on the requirements stated in the permit.

- *Concurrent operation of the asphalt plant and rock crusher is prohibited*
- *The rock crusher production may not exceed the annual production limits of the asphalt plant.*

• *Co-location – Portable Source Operation*

Ambient air impact analysis does not allow co-location of any other emissions sources within 1000 feet the asphalt plant.

- *Operation in PM_{2.5} or PM₁₀ Nonattainment Areas – Portable Source Operation*

Ambient air impact analysis does not allow for operation in PM_{2.5} or PM₁₀ Nonattainment Areas.

Revision of Baghouse/Filter System Procedures:

The Baghouse Filter System Procedures document shall describe the procedures that will be followed to comply with the PM₁₀, NO_x, CO, and VOC Emissions Limits and shall contain requirements for monthly see/no-see visible emissions inspections of the baghouse. The inspection shall occur during daylight hours and under normal operating conditions.

Baghouse/Filter Systems do not control NO_x, CO, and VOC emissions. This part of the sentence has been removed.

Additional Monitoring and Recordkeeping Requirements:

- *Operating Hours – Portable Source Operation*

Monitoring and recordkeeping are required to ensure compliance with the permittee-imposed operating hour limit of 2000 hr/yr.

- *Asphalt Operation Setback Records – Portable Source Operation*

As required during stationary source operation, the setback distances need to be monitored and recorded to demonstrate compliance with the setback requirements.

- *Portable Rock Crusher Co-Location Operation Records – Portable Source Operation*

As required during stationary source operation, monitoring and recordkeeping is required to demonstrate compliance with crusher co-location and generator permit conditions.

NATURAL GAS-FIRED ASPHALTIC OIL TANK HEATER

The term “natural gas-fired” has been removed from this permit section. This change reflects the allowed combustion of propane when operating as a portable source.

Revisions to reflect combustion of propane when operating as a portable source:

- *Process Description: The asphaltic oil tank heater operation consists of an asphaltic oil storage tank that is heated by a burner combusting either natural gas or, only during portable operation, propane.*

<i>Emissions Unit/Process</i>	<i>Emissions Control Device</i>
<i>Asphaltic oil tank heater (HOTOIL) Stationary source fuel: natural gas Portable source fuels: natural gas or propane</i>	<i>N/A</i>

- *Permitted Fuel – Portable Source Operation*

When operating as a portable source, the asphaltic oil tank heater shall only combust natural gas or propane.

- Deleted Emission Limit table.

Emissions Limits

The PM₁₀, SO₂, NO_x, CO, VOC, and Lead emissions from the asphaltic oil tank heater stack shall not exceed any corresponding emissions rate limits listed in the following table.

Table 6 ASPHALTIC OIL TANK HEATER EMISSIONS LIMITS ^{a)}

Source Description	PM ₁₀ ^{b)}		SO ₂		NO _x		CO		VOC		Lead	
	lb/hr ^{c)}	T/yr ^{d)}	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
HOTOIL (HOTOIL)	0.00522	0.0125	0.000412	0.000988	0.0686	0.165	0.0576	0.138	0.00377	0.00906	3.43E-07	8.24E-07

- a) In absence of any other credible evidence, compliance is assured by complying with permit operating, monitoring, and record keeping requirements.
- b) Particulate matter with an aerodynamic diameter less than or equal to a nominal ten (10) micrometers, including condensable particulate as defined in IDAPA 58.01.01.006.81.
- c) Pounds per hour, as determined by a test method prescribed by IDAPA 58.01.01.157, EPA reference method, or DEQ-approved alternative.
- d) Tons per any consecutive 12-calendar month period.

The values in the table are exceptionally low and it is reasonable to assume that limiting the fuels to natural gas and propane is sufficient to protect ambient air quality. There was no associated performance tests required.

PUBLIC REVIEW

Public Comment Opportunity

Because this permitting action does not authorize an increase in emissions, an opportunity for public comment period was not required or provided in accordance with IDAPA 58.01.01.209.04 or IDAPA 58.01.01.404.04.

APPENDIX A – AMBIENT AIR QUALITY IMPACT ANALYSES

APPENDIX B – FACILITY DRAFT COMMENTS

The following comments were received from the facility on April 26, 2010:

Facility Comment #1:

We have reviewed the Draft Permit to Construct and have a few comments prior to the Final Permit to be issued. First, we would like to see HMA removed and replaced with Asphalt Plant as we have the capability to operate as either a Warm Mix or Hot Mix facility and do not want to be constrained to only producing Hot Mix.

DEQ Response #1:

The term "hot mix" was found 1 time in the permit: Table 2 description. The term "hot mix" was changed to "asphalt".

The term "hot mix" was correctly used, and therefore not changed, in the statement of basis in the facility description, permitting history, application scope, and NSPS applicability of Subpart I. The term "HMA" was not found in the permit.

The term "HMA" was correctly used, and therefore not changed, in the statement of basis in the permitting history.

Facility Comment #2:

Our second request would be that the Asphalt Tank Heater is "fired only with natural gas" be removed and replaced with Natural Gas/Propane or electric. A portable plant may have no access to Natural Gas, however, the ability to bring Propane to the site or the use of existing power would be a viable option. In our pre-application conference with DEQ personnel this was discussed thoroughly that either Natural Gas or Propane would be acceptable for the Drum Dryer and the Asphalt Tank Heater.

DEQ Response #2:

This facility draft permit allows for the both the asphalt drum dryer and asphaltic oil tank heater to combust either natural gas or propane. The term "fired only with natural gas" was not found in either the permit or the statement of basis.

The Asphalt Drum Dryer section of the facility draft permit specifically states: "Electrical power is supplied to the plant from the local power grid. Electrical generators powered by engines are not allowed by this permit."

For clarification, this comment was incorporated into the Permit to Construct Scope and the Asphaltic Oil Tank Heater sections as well.

Facility Comment #3:

In the Asphalt Silo Filling section it states that "silo filling emissions are captured and routed back through the dryer". This is incorrect and should be removed as part of the Final Permit.

DEQ Response #3:

This comment does not appear in the permit; it appears in the modeling memo. This statement has been removed from the modeling memo. DEQ is re-modeling based on this new information. This remodel was completed on June 17, 2010.

Facility Comment #4:

Additionally, we request the ability to operate with 15% RAP and Warm Mix and/or Hot Mix as our current permit allows.

DEQ Response #4:

The facility draft used 15% RAP in both stationary and portable operations. No changes were made to the permit based on this comment.

APPENDIX C – PROCESSING FEE

The following table lists the processing fee associated with this permitting action. In accordance with IDAPA 58.01.01.225 the facility is subject to a processing fee of \$250.00 because adding permit conditions which allow portability and the option of combusting propane in the asphalt drum did not require engineering analysis. The emissions of the facility did not change. Refer to the chronology for fee receipt dates.

PTC PROCESSING FEE TABLE

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
PM ₁₀	0	0	0
SO ₂	0	0	0
NO _x	0	0	0
CO	0	0	0
VOC	0	0	0
HAPS	0	0	0
Totals:	0	0	0
Fee Due	\$250.00		