Statement of Basis

Permit to Construct No. P-2011.0017
Project ID 60980

Central Paving, Inc.
Portable, Idaho

Facility ID 777-00085

Final

CZ

February 22, 2012
Carole Zundel
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.

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

ASTM	American Society for Testing and Materials
CFR	Code of Federal Regulations
CI	compression ignition
CO	carbon monoxide
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
HAP	hazardous air pollutants
HMA	hot mix asphalt
hr/yr	hours per consecutive 12 calendar month period
hr/day	hours per consecutive 24-hour period
ICE	internal combustion engines
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
MACT	Maximum Achievable Control Technology
MMBtu/hr	million British thermal units per hour
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	nitrogen oxides
NSPS	New Source Performance Standards
PERF	Portable Equipment Relocation Form
PM	particulate matter
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
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
RFO	reprocessed fuel oil
RICE	reciprocating internal combustion engines
Rules	*Rules for the Control of Air Pollution in Idaho*
SM	synthetic minor
SM80	synthetic minor facility with emissions greater than or equal to 80% of a major source threshold
SO_2	sulfur dioxide
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar month period
TAP	toxic air pollutants
VOC	volatile organic compounds

FACILITY INFORMATION

Description

Stockpiled aggregate is transferred to feed bins. Aggregate may consist of up to 50% percent recycled asphalt pavement (RAP). Aggregate is dispensed from the bins onto feeder conveyors, which transfer the aggregate to the heated drum mixer. Aggregate travels through the rotating HMA drum mixer, and when dried, the aggregate is mixed with liquid asphalt cement. The resulting HMA is then conveyed to hot storage bins or silos until it can be loaded into trucks for transport off site. Other equipment may include a portable sand and gravel and crushed stone operation, which crushes rock and aggregate to reduce material in size to desired specifications. Electrical power will be supplied to the plant equipment while located at the Joplin site and from the local power grid or from portable generators when located away from the Joplin site.

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).

June 24, 2011	P-2011.0017, Increase sulfur fuel limit, Permit status (A, but will become S upon issuance of this permit)

Application Scope

This PTC is a revision of an existing PTC.

The applicant has proposed to:

- Replace the dryer burner with a new, equivalent burner
- Change the drum dryer from a parallel flow drum to a counter flow drum
- Replace the scrubber with a baghouse

Application Chronology

January 17, 2012	DEQ received an application and an application fee.
January 27, 2012	DEQ determined that the application was complete.
January 27, 2012	DEQ made available the draft permit and statement of basis for peer and regional office review.
February 15, 2012	DEQ made available the draft permit and statement of basis for applicant review.
January 17, 2012	DEQ received the permit processing fee.
February 22, 2012	DEQ received comments from facility

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION

Sources		Control Equipment	Emission Point ID No.
Hot Mix Asphalt Dryer			
Manufacturer/model:	CMI UDM 1200R or equivalent[a]		
Manufacture date:	2012		
Burner model:	Hauck SJ360 or equivalent[a]	Baghouse	
Maximum capacity:	350 T/hr and 75.6 MMBtu/hr	Manufacturer: Aesco Madsen HRB-680	Exit height: 37.5 ft
Maximum production:	3,600 T/day and 350,000 T/yr		Exit temperature: 240-260 °F
Fuel:	natural gas, distillate fuel oil ASTM Grades 1 and 2, reprocessed fuel oil		
Asphalt Tank Heater		None	
Electric Heater			
Compression ignition internal combustion engines (CI ICE)			
GEN1			
Manufacturer/model:	John Deer/405TF275 or equivalent[a]		
Manufacture date:	2006		
Maximum capacity:	84 kW		
Maximum operation:	24 hr/day when GEN2 is not used		
Fuel:	distillate fuel oil ASTM Grades 1 and 2		
Fuel consumption:	5.7 gal/hr at full load	None	
GEN2			
Manufacturer/model:	Caterpillar/3412 C-Dita or equivalent[a]		
Manufacture date:	2001 (EPA Tier 1)		
Maximum capacity:	902 kW		
Maximum operation:	16 hr/day		
Fuel:	distillate fuel oil ASTM Grades 1 and 2		
Fuel consumption:	59.6 gal/hr		
Storage tanks			
Model:	above-ground storage tank		
Maximum capacity:	10,000 gallons		
Type:	asphalt oil		
Model:	above-ground storage tank	None	
Maximum capacity:	10,000 gallons		
Type:	asphalt oil		
Model:	above-ground storage tank		
Maximum capacity:	10,000 gallons		
Type:	fuel oil and RFO		

Materials transfer points (includes fugitives) (4) bin aggregate feeders, (2) bin RAP feeders, (2) Truck loading silo, Screen, Conveyors, Aggregate dump to ground, Aggregate dump to conveyor, Aggregate conveyor to elevated storage	Reasonable Control Methods	

Emissions Inventories

There was no proposed increase in emissions. The PM emission factors from the manufacturer for the new baghouse are less than the emission factors that were used to estimate the emissions from the scrubber (the existing scrubber is being replaced by a baghouse).

Ambient Air Quality Impact Analyses

Because there was no increase in emissions and no change to the stack height or location, air dispersion modeling is not required.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The modeling analysis that was done previously for this facility demonstrates compliance with applicable standards in attainment areas. There are no increases in any emissions with this permit revision.

Facility Classification

"Synthetic Minor" classification for criteria pollutants is defined as the uncontrolled Potential to Emit for criteria pollutants are above the applicable major source thresholds and the Potential to Emit for criteria pollutants fall below the applicable major source thresholds. This facility was determined to be an SM facility in previous permit analyses for this facility.

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 changes to the existing hot mix asphalt plant. 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.

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

IDAPA 58.01.01.301 .....Requirement to Obtain Tier I Operating Permit

Post project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for PM_{10}, SO_2, NO_x, CO, VOC, and HAP or 10 tons per year for any one HAP or 25 tons per year for all HAP combined as demonstrated previously in the Emissions Inventories Section of the analyses for previous permits to construct for this facility. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 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. Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is/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)

The facility is subject to the requirements of 40 CFR 60 Subpart I – Standards of Performance for Hot Mix Asphalt Facilities. This PTC revision permits an equipment change that will not require initial NSPS testing because the change will cost less than 50% of the price of an entire new unit.

40 CFR 60.90 (a) *The affected facility to which the provisions of this subpart apply is each hot mix asphalt facility. For the purpose of this subpart, a hot mix asphalt facility is comprised only of any combination of the following: dryers; 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.*

The dryer and HMA mixing system are new.

40 CFR 60.90 (b) *Any facility under paragraph (a) of this section that commences construction or modification after June 11, 1973, is subject to the requirements of this subpart.*

The facility is not commencing construction or modifying the facility (no increase in emissions).

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 only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

The permit conditions which only regulated the scrubber were deleted because the scrubber is being replaced with a baghouse. Also, the permit conditions have been renumbered to accommodate the removed and added conditions.

New Permit Condition 2

A permit condition was added to explain the citations throughout the permit.

Revised Permit Condition 3

Table 1 was updated to show the baghouse instead of a scrubber for control equipment. The permit condition was also renumbered as Permit Condition 4.

Revised Permit Condition 11

This permit condition was revised to clarify the units. The new part is underlined.

The annual production rate shall not exceed 350,000 tons per any consecutive 12-month period.

New Permit Condition 28

A baghouse/filter system procedures requirement was written to require a procedures document to be prepared that will specify monitoring and making any needed repairs to the baghouse.

Updated Permit Condition 32

There was a performance test requirement to test the HMA aggregate dryer baghouse stack. This was a copy-paste error and was meant for testing the scrubber. Now, this test requirement will apply to the new baghouse. The wording has not been changed, but now it applies to the new baghouse, so the reference date was changed. Also, the permit condition was renumbered to 33.

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 – FACILITY DRAFT COMMENTS

The following comments were received from the facility on February 22, 2012:

Facility Comment: In table one of the Permit to Construct do we need to update the drum even though it is not a source of emissions, it was addressed in the statement of basis.

DEQ Response: The date of construction was added (2012 (estimated)).

Facility Comment: There seems to be a statement "Error! Reference source not found" problem in requirement 11,19,20,23,29,30,31,34.

DEQ Response: This problem was fixed.

APPENDIX B – PROCESSING FEE

PTC Fee Calculation

Instructions:
Fill in the following information and answer the following questions with a Y or N. Enter the emissions increases and decreases for each pollutant in the table.

Company: Central Paving, Inc.
Address: 5040 S. Apple
City: Boise
State: ID
Zip Code: 83634
Facility Contact: Terry McEntee
Title: President
AIRS No.: 777-00085

N	Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N
N	Did this permit require engineering analysis? Y/N
N	Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO_x	0.0	0	0.0
SO_2	0.0	0	0.0
CO	0.0	0	0.0
PM10	0.0	0	0.0
VOC	0.0	0	0.0
TAPS/HAPS	0.0	0	0.0
Total:	0.0	0	**0.0**
Fee Due	**$ 250.00**		

Comments: