

Statement of Basis

**Permit to Construct No. P-2013.0025
Project ID 61184**

**Jack B Parson Companies - 029-00009
Soda Springs, Idaho**

Facility ID 029-00009

Final

**June 20, 2013
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Permit Writer**

D.P.

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.

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

| | |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| AAC | acceptable ambient concentrations |
| AACC | acceptable ambient concentrations for carcinogens |
| acfm | actual cubic feet per minute |
| ASTM | American Society for Testing and Materials |
| BACT | Best Available Control Technology |
| BMP | best management practices |
| Btu | British thermal units |
| CAA | Clean Air Act |
| CAM | Compliance Assurance Monitoring |
| CAS No. | Chemical Abstracts Service registry number |
| CBP | concrete batch plant |
| CEMS | continuous emission monitoring systems |
| cfm | cubic feet per minute |
| CFR | Code of Federal Regulations |
| CI | compression ignition |
| CMS | continuous monitoring systems |
| CO | carbon monoxide |
| CO ₂ | carbon dioxide |
| CO ₂ e | CO ₂ equivalent emissions |
| COMS | continuous opacity monitoring systems |
| DEQ | Department of Environmental Quality |
| dscf | dry standard cubic feet |
| EL | screening emission levels |
| EPA | U.S. Environmental Protection Agency |
| FEC | Facility Emissions Cap |
| GHG | greenhouse gases |
| gph | gallons per hour |
| gpm | gallons per minute |
| gr | grains (1 lb = 7,000 grains) |
| HAP | hazardous air pollutants |
| HHV | higher heating value |
| HMA | hot mix asphalt |
| hp | horsepower |
| hr/yr | hours per consecutive 12 calendar month period |
| ICE | internal combustion engines |
| IDAPA | a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act |
| iwg | inches of water gauge |
| km | kilometers |
| lb/hr | pounds per hour |
| lb/qtr | pound per quarter |
| m | meters |
| MACT | Maximum Achievable Control Technology |
| mg/dscm | milligrams per dry standard cubic meter |
| MMBtu | million British thermal units |
| MMscf | million standard cubic feet |
| NAAQS | National Ambient Air Quality Standard |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| NO ₂ | nitrogen dioxide |
| NO _x | nitrogen oxides |
| NSPS | New Source Performance Standards |

| | |
|-------------------|--------------------------------------------------------------------------------------------------|
| O&M | operation and maintenance |
| O ₂ | oxygen |
| PAH | polyaromatic hydrocarbons |
| PC | permit condition |
| PCB | polychlorinated biphenyl |
| 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 |
| POM | polycyclic organic matter |
| ppm | parts per million |
| ppmw | parts per million by weight |
| PSD | Prevention of Significant Deterioration |
| psig | pounds per square inch gauge |
| PTC | permit to construct |
| PTC/T2 | permit to construct and Tier II operating permit |
| PTE | potential to emit |
| PW | process weight rate |
| RAP | recycled asphalt pavement |
| RFO | reprocessed fuel oil |
| RICE | reciprocating internal combustion engines |
| <i>Rules</i> | <i>Rules for the Control of Air Pollution in Idaho</i> |
| scf | standard cubic feet |
| SCL | significant contribution limits |
| SIP | State Implementation Plan |
| SM | synthetic minor |
| SM80 | synthetic minor facility with emissions greater than or equal to 80% of a major source threshold |
| SO ₂ | sulfur dioxide |
| SO _x | sulfur oxides |
| T/day | tons per calendar day |
| T/hr | tons per hour |
| T/yr | tons per consecutive 12 calendar month period |
| T2 | Tier II operating permit |
| TAP | toxic air pollutants |
| TEQ | toxicity equivalent |
| T-RACT | Toxic Air Pollutant Reasonably Available Control Technology |
| ULSD | ultra-low sulfur diesel |
| U.S.C. | United States Code |
| VOC | volatile organic compounds |
| yd ³ | cubic yards |
| µg/m ³ | micrograms per cubic meter |

FACILITY INFORMATION

Description

Jack B Parson Companies operates an existing concrete batch plant which is located at 655 E. Industrial Place in Soda Springs, ID. The concrete batch plant consists of storage bins for the sand and gravel, a storage silo for the cement, weigh bins that weigh each component, a conveyor, a water supply, and a control panel. Sand and gravel are either produced on site or purchased elsewhere. Typically, three or four different mixes of gravel and one or two different sizes of sand are stockpiled for various job specifications. Cement is delivered by truck and pneumatically transferred to its storage silo. A baghouse is mounted above the silo to capture cement as air is displaced in the silo. For this source category, the baghouse is considered process equipment primarily, and air pollution control equipment secondarily. Electricity to operate the facility is provided by the local utility.

After all the storage bins are filled, the production process begins when sand and gravel are drop-fed into their respective weigh bins. A pre-determined amount of sand and gravel is weighed and drop-fed onto an inclined conveyor, which transfers the mixture into a concrete truck. A pre-determined amount of cement is also weighed and drop-fed through a rubber chute into the concrete truck, the rubber chute directing the cement and providing a measure of dust control. Sometimes, a separate baghouse is used to capture cement dust from the cement weigh bin. Water is then added, and the components are mixed in the truck on the way to the job 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).

| | |
|---------------|----------------------------------------------------------------------------------------------------------------------------------|
| July 28, 2006 | T2-060307, Tier II operating permit, Permit status (A, expired on July 28, 2011, but will become S upon issuance of this permit) |
| March 5, 2001 | 029-00009, Tier II operating permit, Permit status (expired on March 5, 2006) |

Application Scope

This permitting project is to convert an existing Tier 2 operating permit into a Permit to Construct. There is no proposed change in emissions units or potential emissions at the facility as a result of this project.

Application Chronology

| | |
|----------------|----------------------------------------------------------------------------------|
| April 4, 2013 | DEQ received an application and an application fee. |
| April 30, 2013 | DEQ determined that the application was complete. |
| May 28, 2013 | DEQ made available the draft permit and statement of basis for applicant review. |
| June 6, 2013 | DEQ received the permit processing fee. |
| June 20, 2013 | DEQ issued the final permit and statement of basis. |

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION

| Source ID No. | Sources | Control Equipment | Emission Point ID No. |
|---------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| N/A | <u>Portable Concrete Batch Plant</u> Manufacturer: Johnson Model: ND5yrd Maximum Capacity (cy/hr): 60 | <u>Cement Storage Silo Baghouse</u> Capture Efficiency: 99.9% | Cement Storage Silo Baghouse Exhaust Exit height: 35 ft (10.67 m) Exit diameter: 2.44 ft (0.74 m) Exit flow rate: 400 acfm |

Emissions Inventories

As discussed previously, there is no proposed change in emissions units or potential emissions at the facility as a result of this project. Therefore, no emissions calculations were performed for this project and facility-wide emissions are assumed to be those calculated for the March 5, 2001 project for permit 029-00009.

Ambient Air Quality Impact Analyses

As discussed previously, there is no proposed change in emissions units or potential emissions at the facility as a result of this project. Therefore, an ambient air quality impact analysis was not performed for this project per DEQ policy.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Caribou County, which is designated as attainment or unclassifiable for PM_{2.5}, PM₁₀, SO₂, NO₂, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

Facility Classification

As discussed previously, there is no proposed change in emissions units or potential emissions at the facility as a result of this project. Therefore, the facility classification is not changing as a result of this project.

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 proposed existing unmodified emissions source. 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 to convert a Tier II operating permit to a Permit to Construct (refer to the Permit to Construct section). Therefore, the procedures of IDAPA 58.01.01.400-410 were not applicable to this permitting action.

Registration Procedures and Requirements for Portable Equipment (IDAPA 58.01.01.500)

IDAPA 58.01.01.500

Registration Procedures and Requirements for Portable Equipment

This facility is subject to the State of Idaho reporting requirements for portable equipment. This requirement is assured by Permit Condition 2.8.

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. This requirement is assured by Permit Condition 2.2.

Rules for Control of Fugitive Dust (IDAPA 58.01.01.650)

IDAPA 58.01.01.650

Rules for Control of Fugitive Dust

The sources of fugitive dust emissions at this facility are subject to the State of Idaho Rules for Control Fugitive Dust. This requirement is assured by Permit Conditions 2.3, 2.5, and 2.7.

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

IDAPA 58.01.01.301

Requirement to Obtain Tier I Operating Permit

As discussed previously, there is no proposed change in emissions units or potential emissions at the facility as a result of this project. Therefore, the facility will not be reclassified as requiring a Title V permit as a result of this project.

PSD Classification (40 CFR 52.21)

40 CFR 52.51

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 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 not subject to any NSPS requirements 40 CFR Part 60.

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.

There are no changes in the permit conditions in this new permit compared to the previous permit except for permit condition 1.3 which explains that this new permit replaces the previous Tier II permit.

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 June 28, 2013:

Facility Comment: I (Pat Clark) had one comment on the SOB under Description: please replace "cement" with "concrete" as shown below: "After all the storage bins are filled, the production process begins when sand and gravel are drop-fed into their respective weigh bins. A pre-determined amount of sand and gravel is weighed and drop-fed onto an inclined conveyor, which transfers the mixture into a ~~cement~~ concrete truck. A pre-determined amount of cement is also weighed and drop-fed through a rubber chute into the ~~cement~~ concrete truck, the rubber chute directing the cement and providing a measure of dust control. Sometimes, a separate baghouse is used to capture cement dust from the cement weigh bin. Water is then added, and the components are mixed in the truck on the way to the job site.

DEQ Response: The requested change will be made the SOB as requested.

APPENDIX B – PROCESSING FEE