STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706-1255 • (208) 373-0502

Dirk Kempthorne, Governor
Toni Hardesty, Director

March 28, 2005

Certified Mail No. 7000 0520 0016 0850 4004

Mr. Norm Rudolph
Safety/HR Director
Idaho Sand and Gravel Company
P.O. Box 1310
Nampa, ID 83653-1310

RE: Facility ID No. 777-00351, Idaho Sand and Gravel Company, Nampa
Final Permit to Construct

Dear Mr. Rudolph:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-040045 for Idaho Sand and Gravel Company in accordance with IDAPA 58.01.01.200 through 228, (*Rules for the Control of Air Pollution in Idaho*). This PTC is effective immediately and is based on your permit application received December 17, 2004.

This permit does not release Idaho Sand and Gravel from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances. Please refer to the appropriate permit number when submitting reports required in the Reporting Requirements section of the permit.

A representative of the Boise Regional Office will contact you regarding a meeting with DEQ to discuss the permit terms and requirements. In addition to your facility's plant manager, DEQ recommends the following representatives attend the meeting: your responsible official, environmental contact, and any operations staff responsible for day-to-day compliance with the permit conditions.

Pursuant to IDAPA 58.01.23, you, as well as any other entity, may have the right to appeal this final agency action within 35 days of the date of this decision. However, prior to filing a petition for a contested case, I encourage you to call Bill Rogers at (208) 373-0502 to address any questions or concerns you may have with the enclosed permit.

If you have any questions about the enclosed permit or the permitting process, please contact Bill Rogers at (208) 373-0502 or wrogers@deq.idaho.gov.

Sincerely,

Martin Bauer, Administrator
Air Quality Division

MB/HE/sd
Enclosures

Permit No. P-040045

Air Quality **PERMIT TO CONSTRUCT** **State of Idaho** **Department of Environmental Quality**	**PERMIT No.:** P-040045 **FACILITY ID No.:** 777-00351 **AQCR:** **CLASS:** SM80 **SIC:** 2951 **ZONE:** **UTM COORDINATE (km):**

1. **PERMITTEE** Idaho Sand and Gravel Company			
2. **PROJECT** Portable ASTEC Hot Mix Asphalt Plant			
3. **MAILING ADDRESS** P.O. Box 1310	**CITY** Nampa	**STATE** Idaho	**ZIP** 83653
4. **FACILITY CONTACT** Norm Rudolph	**TITLE** Safety/HR Director	**TELEPHONE** (208) 466-5001	
5. **RESPONSIBLE OFFICIAL** Norm Rudolph	**TITLE** Safety/HR Director	**TELEPHONE** (208) 466-5001	
6. **EXACT PLANT LOCATION** Portable		**COUNTY** Portable	
7. **GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS** Production of graded aggregates, hot-mix asphalt, and concrete			

8. GENERAL CONDITIONS

This permit is issued according to IDAPA 58.01.01.200, *Rules for the Control of Air Pollution in Idaho*, and pertains only to emissions of air contaminants regulated by the state of Idaho and to the sources specifically allowed to be constructed or modified by this permit.

This permit (a) does not affect the title of the premises upon which the equipment is to be located; (b) does not release the permittee from any liability for any loss due to damage to person or property caused by, resulting from, or arising out of the design, installation, maintenance, or operation of the proposed equipment; (c) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; (d) in no manner implies or suggests that the Department of Environmental Quality (DEQ) or its officers, agents, or employees, assume any liability, directly or indirectly, for any loss due to damage to person or property caused by, resulting from, or arising out of design, installation, maintenance, or operation of the proposed equipment.

This permit is not transferable to another person, place, or piece or set of equipment. This permit will expire if construction has not begun within two years of its issue date or if construction is suspended for one year.

This permit has been granted on the basis of design information presented with its application. Changes of design or equipment may require DEQ approval pursuant to the *Rules for the Control of Air Pollution in Idaho,* IDAPA 58.01.01.200, et seq.

Toni

TONI HARDESTY, DIRECTOR
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED: **March 28, 2005**

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Acronyms, Units, and Chemical Nomenclature

ASTM	American Society for Testing and Materials
AQCR	Air Quality Control Region
CO	carbon monoxide
DEQ	Idaho Department of Environmental Quality
gr/dscf	grain per dry standard cubic foot
HMA	hot mix asphalt
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
kW	kilowatts
lb/hr	pound per hour
O&M	operations and maintenance
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
ppm	parts per million
PTC	permit to construct
SIC	Standard Industrial Classification
T/hr	tons per hour
T/yr	tons per any consecutive 12-month period
UTM	Universal Transverse Mercator

1. PERMIT TO CONSTRUCT SCOPE

Purpose

- This permit to construct (PTC) is for the construction of a new portable hot mix asphalt plant and a diesel-fired electrical generator.

Regulated Sources

- Table 1.1 lists all sources of emissions that are regulated in this PTC.

Table 1.1 REGULATED EMISSIONS SOURCES

Permit Sections	Source Description	Emissions Control(s)
2	Hot mix asphalt plant double barrel counter-flow dryer Manufacturer: ASTEC PDDC-835-C (S94-079) Type of HMA plant: Drum mix Maximum hot mix asphalt production rate: 400 T/hr HMA burner fuel type: Natural gas, propane, ASTM Grade 2 fuel oil, and used oil Drum dryer maximum rated heat input capacity: 120 MMBtu/hr	Baghouse Manufacturer: ASTEC Model: PBH-64:DB
2	1250 kilowatts diesel-fired electrical generator Manufacturer: Caterpillar Model: 3516 TA Fuel: ASTM Grade 2 fuel oil	None

2. HOT MIX ASPHALT PLANT AND GENERATOR

2.1 Process Description

Stockpiled aggregate is transferred to eight cold feed bins. Aggregate is dispensed from the bins onto slow moving feeder conveyors, which transfer the aggregate to the inner barrel of the dryer, where heat is introduced. Only virgin aggregates are heated in the dryer. Recycled asphalt pavement (RAP) is transferred from stockpiles to a live bottom bin. The bin feeds onto a conveyor to a hammer mill which breaks up the lumps. From the mill, a conveyor feeds the RAP into the outer shell, (barrel), of the dryer where the pre-heated aggregate and the RAP are mixed with the liquid asphalt cement. The resulting hot mix asphalt (HMA) is then conveyed to heated storage silos until it can be loaded into trucks for transport off site. The HMA has a maximum production rate of 400 tons per hour (T/hr). When the facility is located in an area without power, a 1250-kilowatt (kW) diesel-fired electrical generator is used to produce power.

2.2 Emissions Control Description

Particulate matter (PM) emissions from the hot-mix asphalt drum dryer are controlled by a baghouse. Emissions from the generator are uncontrolled.

Emissions Limits

2.3 Asphalt Dryer PM Emissions Limits

Particulate matter (PM) emissions from the hot-mix asphalt drum dryer baghouse stack, or any other stack, vent, or other functionally equivalent opening associated with the hot-mix asphalt drum dryer, shall not exceed 0.04 grains per dry standard cubic foot (gr/dscf) or exhibit 20% opacity or greater in accordance with 40 CFR Part 60.92(a)(1).

2.4 Other PM Emissions Limits

Gases from systems for screening, handling, storing, and weighing hot aggregate, including those affected facilities associated with the RAP process line, shall not discharge into the atmosphere any gases which exhibit 20% opacity or greater as required by 40 CFR Part 60.92(a)(2). Opacity shall be determined by procedures contained in IDAPA 58.01.01.625.04.

2.5 Asphalt Dryer and Generator CO and NO_x Emissions Limits

Carbon monoxide (CO) and oxides of nitrogen (NO_x) emissions from the hot-mix asphalt drum dryer baghouse stack and the generator stack shall not exceed any corresponding emissions rate limits listed in Table 2.1.

Table 2.1 EMISSIONS LIMITS FROM HMA DRUM DRYER BAGHOUSE STACK AND GENERATOR STACK

Source Description	CO[a]	NO_x[b]
	T/yr	T/yr
HMA drum dryer baghouse stack	46.8	19.8
Diesel-fired electrical generator stack	17.0	64.0

[a] Carbon monoxide
[b] Oxides of nitrogen

2.6 Visible Emissions Limit

A person shall not discharge any air pollutant into the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as required by IDAPA 58.01.01.625.

Operating Requirements

2.7 Reasonable Control of Fugitive Emissions

All reasonable precautions shall be taken to prevent particulate matter (PM) from becoming airborne in accordance with IDAPA 58.01.01.650-651. In determining what is reasonable, considerations will be given to factors such as the proximity of dust-emitting operations to human habitations and/or activities and atmospheric conditions that might affect the movement of PM. Some of the reasonable precautions include, but are not limited to, the following:

- Use, where practical, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of lands.
- Application, where practical, of asphalt, oil, water, or suitable chemicals to, or covering of, dirt roads, material stockpiles, and other surfaces which can create dust.
- Installation and use, where practical, of hoods, fans, and fabric filters or equivalent systems to enclose and vent the handling of dusty materials. Adequate containment methods should be employed during sandblasting or other operations.
- Covering, where practical, of open-bodied trucks transporting materials likely to give rise to airborne dusts.
- Paving of roadways and their maintenance in a clean condition, where practical.
- Prompt removal of earth or other stored material from streets, where practical.

2.8 Dryer Burner Fuel

The fuel supplied to the hot-mix asphalt drum dryer shall be natural gas, liquefied petroleum gas (propane), ASTM Grade 2 fuel oil, or used oil. Any used oil supplied to the hot-mix asphalt drum dryer shall meet the specifications in 40 CFR 279.11, with the exception of total halogens, as provided in Permit Condition 2.9. Total halogens are limited to 1,000 ppm.

2.9 Used Oil Fuel Specifications

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 of the constituents and property listed in Table 2.2.

Table 2.2 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

2.10 Fuel Oil and Used Oil Sulfur Content Limit

- 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.

2.11 Hot Mix Asphalt Production Limit

The production rate of the hot mix asphalt plant shall not exceed a maximum of 720,000 tons of hot mix asphalt in any consecutive 12-month period.

2.12 Operation of the Generator in PM_{10} Nonattainment Areas

The permittee shall not operate the 1250 kW generator using ASTM Grade 2 fuel oil in any PM_{10} nonattainment area or proposed nonattainment area without first obtaining a permit which specifically allows for operations in a PM_{10} nonattainment area or proposed PM_{10} nonattainment area.

2.13 Baghouse Monitoring Equipment

The permittee shall, in accordance with manufacturer specifications, install, calibrate, maintain, and operate equipment to continuously measure the pressure differential across the hot mix asphalt drum dryer baghouse.

2.14 Operations and Maintenance Manual

Within 60 days of permit issuance, the permittee shall have developed an O&M manual for the baghouse, which controls the PM emissions from the hot mix asphalt drum dryer. The O&M manual shall describe the procedures that will be followed to comply with General Provision 2 and the manufacturer specifications for the baghouse. The manual shall contain, at a minimum, the pressure drop range for the baghouse. The manual shall remain on site at all times and shall be made available to DEQ representatives upon request. Within 30 days of O&M manual development the permittee shall submit a copy of the manual to DEQ.

2.15 Pressure Drop Across the Baghouse

The pressure drop across the baghouse shall be maintained within manufacturer and O&M manual specifications. Documentation of both the manufacturer and O&M manual operating pressure drop specifications shall remain on site at all times and shall be made available to DEQ representatives upon request.

2.16 Hours of Operation Limit

- The hot mix asphalt plant shall not operate more than 12 hours per any 24-hour period while operating in any PM_{10} nonattainment area.
- The 1250 kW generator shall not operate more than 3,650 hours in any consecutive 12-month period.

Monitoring and Recordkeeping Requirements

2.17 Operating Parameters

The following parameters shall be monitored and recorded. 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.

- Pressure drop across the baghouse once daily when the drum dryer is operating.
- Hot mix asphalt production in tons per month and tons per any consecutive 12 month period (tons per year).
- Generator hours of operation per any consecutive 12 month period (hours per year).
- Hot mix asphalt hours of operation per any consecutive 24-hour period when operating in a PM_{10} nonattainment area.

2.18 Reasonable Control Measures

The permittee shall conduct a monthly facility-wide inspection of potential sources of fugitive emissions during daylight hours and under normal operating conditions to ensure that the methods used to reasonably control fugitive emissions are effective. If fugitive emissions are not being reasonably controlled, the permittee shall take corrective action as expeditiously as practicable. The permittee shall maintain records of the results of each fugitive emissions inspection. The records shall include, at a minimum, the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time fugitive emissions were present (if observed), any corrective action taken in response to the fugitive emissions, and the date the corrective action was taken. The monthly inspection is not required when the facility is not in operation.

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

2.19 Visible Emissions Monitoring

The permittee shall conduct a monthly inspection of visible emissions from the hot mix asphalt drum dryer baghouse stack and the generator stack during daylight hours and under normal operating conditions. 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 and the generator 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 facility-wide visible emissions inspection shall remain on site for the most recent two-year period and shall be made available to DEQ representatives upon request.

2.20 Performance Testing Requirements

2.20.1 Within 60 days after achieving the maximum production rate at which the affected facility will operate but not later than 180 days after initial start up of the source, a performance test shall be conducted on the hot mix asphalt plant under worst-case normal operating conditions in accordance with 40 CFR 60.93, IDAPA 58.01.01.157, and General Provision 6 of this permit. The performance test shall be conducted to demonstrate compliance with the applicable PM standards defined in 40 CFR 60.92. The following shall be monitored and recorded during the performance tests:

- The hourly production rate of the hot mix asphalt plant expressed as tons per hour
- The pressure drop across the baghouse
- The visible emissions observed during the performance tests

2.20.2 The permittee shall conduct performance tests at a frequency of no less than once every five years to demonstrate compliance with both the 0.04 gr/dscf and the 20% opacity NSPS emission limits for Hot Mix Asphalt Plants.

2.21 Used Oil Fuel Certification

The permittee shall demonstrate compliance with the used oil fuel specifications in Permit Condition 2.9 by obtaining a used oil fuel certification from the used oil fuel supplier on an as-received basis. 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 2.2
- 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 2.2
- The date and location of each sample
- 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.

Reporting Requirements

2.22 Performance Test Protocol

At least 30 days prior to conducting any emission test, the permittee is encouraged to submit a written performance test protocol to DEQ in accordance with IDAPA 58.01.01.157.01.a.

2.23 Performance Test Report

In accordance with IDAPA 58.01.01.157.04, the permittee shall submit a written report of the performance test results to DEQ within 30 days of completion of the test.

2.24 Sulfur Content Monitoring

The permittee shall maintain purchase records or equivalent from the manufacturer 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.

3. PERMIT TO CONSTRUCT GENERAL PROVISIONS

1. The permittee has a continuing duty to comply with all terms and conditions of this permit. All emissions authorized herein shall be consistent with the terms and conditions of this permit and the *Rules for the Control of Air Pollution in Idaho*. The emissions of any pollutant in excess of the limitations specified herein, or noncompliance with any other condition or limitation contained in this permit, shall constitute a violation of this permit and the *Rules for the Control of Air Pollution in Idaho*, and the Environmental Protection and Health Act, Idaho Code §39-101, et seq.

2. The permittee shall at all times (except as provided in the *Rules for the Control of Air Pollution in Idaho*) maintain in good working order and operate as efficiently as practicable, all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit and other applicable Idaho laws for the control of air pollution.

3. The permittee shall allow the director, and/or the authorized representative(s), upon the presentation of credentials:

   - To enter, at reasonable times, upon the premises where an emissions source is located, or in which any records are required to be kept under the terms and conditions of this permit.
   - At reasonable times, to have access to and copy any records required to be kept under the terms and conditions of this permit, to inspect any monitoring methods required in this permit, and require stack compliance testing in conformance with IDAPA 58.01.01.157 when deemed appropriate by the director.

4. Nothing in this permit is intended to relieve or exempt the permittee from compliance with any applicable federal, state, or local law or regulation, except as specifically provided herein.

5. The permittee shall notify DEQ, in writing, of the required information for the following events within 5 working days after occurrence:

   - Initiation of Construction - Date
   - Completion/Cessation of Construction - Date
   - Actual Production Startup - Date
   - Initial Date of Achieving Maximum Production Rate - Production Rate and Date

6. If performance testing (air emissions source test) is required by this permit, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test date or shorter time period as approved by DEQ. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests that such testing not be performed on weekends or state holidays.

   All performance testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, at least 30 days prior to conducting any performance test, the permittee is encouraged to submit a performance test protocol to DEQ for approval. The written protocol shall include a description of the test method(s) to be used, an explanation of any or unusual circumstances regarding the proposed test, and the proposed test schedule for conducting and reporting the test.

Within 30 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

7. The provisions of this permit are severable, and if any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

8. In accordance with IDAPA 58.01.01.123, all documents submitted to DEQ, including, but not limited to, records, monitoring data, supporting information, requests for confidential treatment, testing reports, or compliance certification shall contain a certification by a responsible official. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.