

AIR QUALITY

PERMIT TO CONSTRUCT

Permittee Knife River, Inc. 00528
Permit Number P-2013.0016
Project ID 61163
Facility ID 777-00528
Facility Location Portable

Permit Authority

This permit (a) is issued according to the “Rules for the Control of Air Pollution in Idaho” (Rules), IDAPA 58.01.01.200–228; (b) 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; (c) has been granted on the basis of design information presented with the application; (d) does not affect the title of the premises upon which the equipment is to be located; (e) 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; (f) does not release the permittee from compliance with other applicable federal, state, tribal, or local laws, regulations, or ordinances; and (g) in no manner implies or suggests that the Idaho 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. Changes in design, equipment, or operations may be considered a modification subject to DEQ review in accordance with IDAPA 58.01.01.200–228.

Date Issued June XX, 2013

Darrin Pampaian, P.E., Permit Writer

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1 Permit Scope

Purpose

1.1 This is the initial permit to construct (PTC) for a portable asphalt production facility.

Regulated Sources

Table 1.1 lists all sources of regulated emissions in this permit.

Table 1.1 Regulated Sources

Permit Section	Source	Control Equipment
1	<u>Material Transfer Points:</u> Materials handling Asphalt aggregate transfers Truck unloading of aggregate Aggregate conveyor transfers Aggregate handling	Maintaining the moisture content in ¼" or smaller aggregate material at 1.5% by weight, using water sprays, using shrouds, or other emissions controls
2	<u>Asphalt Drum Mixer:</u> Manufacturer: Hauck Model: SJO 4580 E Type: Parallel-flow Manufacture Date: N/A Heat input rating: 95.35676 MMBtu/hr Max. production: 325 T/hr, 3,500 T/day, and 150,000 T/yr Fuel(s): Natural gas, LPG/propane, and #2 fuel oil Liquid fuel sulfur content: 0.0015% by weight	<u>Asphalt Drum Mixer Baghouse:</u> Manufacturer: CMI Model: APM 810 Type: Reverse pulse-jet Flow rate: 72,000 dscf PM ₁₀ control efficiency: 99.9%
	<u>Asphaltic Oil Tank Heater:</u> Heat input rating: 0.5 MMBtu/hr Fuel(s): #2 fuel oil Sulfur content: 0.0015% by weight	N/A
3	<u>Primary IC Engine:</u> Manufacturer: Caterpillar Model: C32 Manufacture Date: 2013 Max. power rating: 1,351.7 bhp Fuel: ULSD (0.0015% S by weight) Daily use limit: 14 hrs/day Annual use limit: 2,500 hrs/yr	N/A
	<u>Secondary IC Engine:</u> Manufacturer: Caterpillar Model: C6.6 Manufacture Date: 2013 Max. power rating: 193.3 bhp Fuel: ULSD (0.0015% S by weight) Daily use limit: N/A Annual use limit: 5,000 hrs/yr	N/A

FACILITY-WIDE CONDITIONS

Fugitive Dust Control

1.2 Reasonable Control of Fugitive Emissions

In accordance with IDAPA 58.01.01.650-651, all reasonable precautions shall be taken to prevent particulate matter from becoming airborne.

The permittee shall monitor and maintain records of the frequency and the method(s) used (e.g., water, chemical dust suppressants) to reasonably control fugitive dust emissions.

The permittee shall maintain records of all fugitive dust complaints received. The permittee shall take appropriate corrective action as expeditiously as practicable after receipt of a valid complaint. The records shall include, at a minimum, the date that each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

The permittee shall conduct a daily facility-wide inspection of potential sources of fugitive dust emissions, during daylight hours and under normal operating conditions to ensure that the methods used to reasonably control fugitive dust emissions are effective. If fugitive dust 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 dust 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 dust emissions, and the date the corrective action was taken.

1.3 Fugitive Emissions Controls

In accordance with IDAPA 58.01.01.808.01 and 808.02, the asphalt plant shall employ efficient fugitive dust controls. The control shall be employed and maintained in such a manner as to satisfactorily control the emission of particulate material from any point other than a stack outlet. These controls include, but are not limited to the:

- Maintaining the moisture content in ¼" or smaller aggregate material at 1.5% by weight, by using water sprays, by using shrouds, or other emissions controls. If this fugitive dust control is employed at this facility the Permittee shall measure the moisture content of smaller aggregate on a weekly basis. In addition, records shall be maintained to demonstrate compliance with this selected method.
- Aggregate Weigh Conveyor(s) - Transfer from the bins to the conveyors and from the conveyors to the scalping screens. If this fugitive dust control is employed at this facility the Permittee shall be able to demonstrate this to DEQ staff.
- Aggregate Scalping Screen(s) - Aggregate flow across the scalping screen onto the conveyors. If this fugitive dust control is employed at this facility the Permittee shall be able to demonstrate this to DEQ staff.
- Aggregate Conveyor(s) to the Asphalt Drum Mixer (e.g., opening of the drum) - Aggregate transfer from the conveyors to the asphalt drum mixer. If this fugitive dust control is employed at this facility the Permittee shall be able to demonstrate this to DEQ staff.

- Operate with a covered conveyor(s) from the asphalt drum mixer to the silo fill transfer point, or if loaded directly into the truck, from the asphalt drum mixer to the truck load out transfer point. If this fugitive dust control is employed at this facility the Permittee shall be able to demonstrate this to DEQ staff.
- Use of a covered conveyor from the HMA drum mixer to the silo/loadout to minimize off-gassing emissions. If this fugitive dust control is employed at this facility the Permittee shall be able to demonstrate this to DEQ staff.
- Good operating practices, including water spraying or other suitable measures, shall be employed to prevent dust generation and atmospheric entrainment during operations such as stockpiling, screen changing and general maintenance. The Permittee shall be able to demonstrate this to DEQ staff.

Relocation Requirements

1.4 Collocation Restrictions

This asphalt plant may collocate with one rock crushing plant and shall not locate within 1,000 feet (\pm 6 feet) of another rock crushing plant, any other asphalt plant, or a concrete batch plant.

1.5 Relocation Requirements

In accordance with IDAPA 58.01.01.500, at least 10 days prior to relocating any of the permitted equipment, the permittee shall submit a completed DEQ Portable Equipment Relocation Form (PERF) to the following address or fax number:

PERF Processing Unit
 DEQ – Air Quality
 1410 N. Hilton
 Boise, ID 83706-1255
 Ph.: (208) 373-0502
 Fax: (208) 373-0340

1.6 Relocation Requirement

The permittee shall relocate the permitted HMA production equipment to a different aggregate pit or storage area once every 12 months.

Non-attainment Area Operations

1.7 Non-attainment Area Operations

The permittee shall not move and operate any equipment authorized by this permit to any air quality non-attainment area in the State of Idaho.

Odors

1.8 Odors

The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids into the atmosphere in such quantities as to cause air pollution in accordance with IDAPA 58.01.01.776.01.

Monitoring and Recordkeeping Requirements

1.9 Fugitive Dust Monitoring and Recordkeeping

The permittee shall conduct a facility-wide inspection of potential sources of visible fugitive emissions during daylight hours and under normal operating conditions once each day that the asphalt plant operates, to demonstrate compliance with the Reasonable Control of Fugitive Emissions and the Fugitive Emissions Controls permit conditions. The inspection shall consist of a see/no see evaluation for each potential source of visible fugitive emissions. If any visible fugitive emissions are present from any source of fugitive emissions, the permittee shall take appropriate corrective action as expeditiously as practicable to mitigate the visible fugitive emissions.

The permittee shall maintain records of the results of each see/no see evaluation of visible fugitive emissions inspection. The records shall include, at a minimum, the date and results of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time visible fugitive emissions are present (if observed), any corrective action taken in response to the visible fugitive emissions, and the date corrective action was taken.

1.10 Collocation Demonstration Recordkeeping

To demonstrate compliance with the collocation requirements at each site the permitted equipment operates, the permittee shall measure and record the minimum distances, to an accuracy of plus or minus six feet, from the exhaust stacks of the asphalt drum mixer, the asphalt tank heater, and the IC engine(s) to the nearest asphalt plant, concrete batch plant, or rock crushing plant. This procedure shall be conducted each time the permitted portable equipment changes location. Measurements greater than 1,100 feet may be recorded as greater than 1,100 feet.

1.11 Relocation Demonstration Recordkeeping

To demonstrate compliance with the relocation requirement the permittee shall record the date and location each time the HMA plant is relocated to a different aggregate pit or storage area.

1.12 Odor Complaints

The permittee shall maintain records of all odor complaints received to demonstrate compliance with the Odors permit condition. The permittee shall take appropriate corrective action as expeditiously as practicable. The records shall include, at a minimum, the date each complaint was received and a description of the following: the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

1.13 Recordkeeping

All monitoring and recordkeeping documentation required by this permit shall be maintained in accordance with the Recordkeeping general provision.

2 Asphalt Production Equipment

Process Description

2.1 Process Description

Asphalt is made at the facility as follows. First, stockpiled aggregate is transferred to feed bins. The Applicant has also requested that recycled asphalt pavement (RAP) be used in the aggregate. Aggregate is then dispensed from the feed bins onto feeder conveyors, which transfer the aggregate to the asphalt drum mixer. The Applicant has requested that the asphalt drum mixer be fired on natural gas, LPG/propane, and #2 diesel fuel. Next, aggregate travels through the rotating drum mixer, and when dried and heated, it is mixed with hot liquid asphaltic oil. The asphaltic oil is heated by the asphalt tank heater to allow it to flow and be mixed with the hot, dry 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 prior to transport off-site.

2.2 Control Device Descriptions

Table 2.1 Asphalt Production Equipment Description

Emissions Units / Processes	Control Devices	Emission Points
Asphalt drum mixer	Asphalt drum mixer baghouse	Asphalt drum mixer baghouse exhaust stack
Asphaltic oil tank heater	N/A	Asphaltic oil tank heater exhaust stack

Emission Limits

2.3 Emission Limits

The emissions from the asphalt drum mixer baghouse and asphaltic oil tank heater stacks shall not exceed any emissions rate limit in the following table.

Table 2.2 Asphalt Production Equipment Emission Limits^a

Source Description	PM _{2.5} ^(b)		SO ₂		NO _x		CO		VOC	
	lb/hr ^(c)	T/yr ^(d)	lb/hr ^(c)	T/yr ^(d)	lb/hr ^(c)	T/yr ^(d)	lb/hr ^(c)	T/yr ^(d)	lb/hr ^(c)	T/yr ^(d)
Asphalt drum mixer	7.48	1.73	1.11	0.26	17.88	4.13	42.25	9.75	10.40	2.40
Asphaltic oil tank heater	0.0084	0.017	0.0007	0.0016	0.088	0.18	0.041	0.082	0.0027	0.0054

a In absence of any other credible evidence, compliance is ensured by complying with permit operating, monitoring, and record keeping requirements.

b Particulate matter with an aerodynamic diameter less than or equal to a nominal two point five (2.5) micrometers, including condensable particulate as defined in IDAPA 58.01.01.006. Note: PM₁₀ and PM_{2.5} have been combined for this source because PM_{2.5} emissions are greater than 95% of PM₁₀ emissions.

c Pounds per hour, as determined by a test method prescribed by IDAPA 58.01.01.157, EPA reference test method, continuous emission monitoring system (CEMS) data, or DEQ-approved alternative.

d Tons per any consecutive 12-calendar month period.

2.4 40 CFR 60, Subpart I – Standard for Particulate Matter

In accordance with 40 CFR 60.92, the emissions from the asphalt drum mixer baghouse stack shall not exceed:

- Particulate matter in excess of 0.04 gr/dscf (90 mg/dscm)
- 20% opacity

2.5 Opacity Limit

Visible emissions from the asphalt drum mixer baghouse stack, the asphaltic oil tank heater stack, the load-out station stack(s), and the silo filling slat conveyor stack, or any other stack, vent, or functionally equivalent opening associated with the asphalt drum mixer baghouse, the asphaltic oil tank heater, the load-out station, and the silo filling slat conveyor processes, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

Operating Requirements

2.6 Asphalt Production Limits

Asphalt production from this facility shall not exceed the following limits:

- 325 tons per hour
- 3,500 tons per day
- 150,000 tons per consecutive 12-months

2.7 Reduced Asphalt Production Limits

Asphalt production from this facility shall not exceed the following limit on days when a collocated portable rock crusher is operated:

- 1,750 tons per day

2.8 Allowable Raw Materials

This facility shall process only aggregate, asphaltic oil, anti-stripping additives (e.g. Superbond[®]), and RAP as raw materials to make asphalt. RAP use shall not exceed 50%, by weight, of the asphalt produced.

2.9 Asphalt Operation Setback Distance Requirements

The permittee shall maintain the following minimum setback distances from the leased or owned property boundary to the asphalt drum mixer baghouse exhaust stack:

- 427 feet (\pm 6 feet) when the IC engines are required to be operated (when there is no line power available to provide electricity to this asphalt production facility).
- 328 feet (\pm 6 feet) when the IC engines are not required to be operated (when line power is available and provides electricity to this asphalt production facility).

2.10 Baghouse System Control Equipment

The permittee shall install, operate, and maintain a baghouse to control emissions from the asphalt drum mixer. The collected particulate from the baghouse shall be routed to the asphalt drum mixer for incorporation into the final asphalt product.

2.11 Seasonal Operation

The permittee shall not operate the HMA plant December 1st through March 31st of the following year.

Fuel Specifications

2.12 Asphalt Drum Mixer Fuel Specifications

The asphalt drum mixer shall only combust the following fuels:

- Natural gas
- Liquefied petroleum gas (LPG)/propane
- Distillate fuel oil which meets ASTM Grades 1 or 2, or a mixture of ASTM Grades 1 and 2, and has a maximum sulfur content of 0.0015% (15 ppm) by weight.

2.13 Asphaltic Oil Tank Heater Fuel Specifications

The asphaltic oil tank heater shall only combust the following fuels:

- Natural gas
- LPG/propane
- Distillate fuel oil which meets ASTM Grades 1 or 2, or a mixture of ASTM Grades 1 and 2, and has a maximum sulfur content of 0.0015% (15 ppm) by weight.

Performance Testing Requirements

2.14 PM_{2.5} and Opacity Performance Testing

Performance testing on the asphalt drum mixer baghouse stack shall be performed within 180 days of permit issuance and no less than once every five years following the date of each test.

The performance test shall measure the PM_{2.5} emission rate in pounds per hour and the opacity to demonstrate compliance with the PM_{2.5} Emissions Limit and Opacity Limit permit conditions.

The performance test shall be conducted under worst-case normal operating conditions and in accordance with IDAPA 58.01.01.157, and Performance Testing General Provision of this permit. The permittee is encouraged to submit a performance testing protocol for approval 30 days prior to conducting the performance tests.

2.15 PM_{2.5} and Opacity Performance Testing Methods and Procedures

The permittee shall use EPA Methods 5 and 202, or EPA Methods 201A and 202, or such comparable and equivalent methods approved in accordance with Subsection 157.02.d, to determine compliance with the PM_{2.5} Emissions Limit permit condition.

The permittee shall use EPA Method 9 to determine compliance with the Opacity Limit permit condition in accordance with IDAPA 58.01.01.625.04.

2.16 Performance Test Monitoring and Recordkeeping

The permittee shall monitor and record the following during each performance test:

- The asphalt production rate, in tons per hour, once every 15 minutes,
- The visible emissions observed,
- The RAP percentage usage,
- The fuel combusted in the asphalt drum mixer.

Monitoring and Recordkeeping Requirements

2.17 Asphalt Production Recordkeeping

For each day that the asphalt drum mixer is operated the Permittee shall maintain the following records:

- The amount of asphalt produced in tons per hour and tons per day to demonstrate compliance with the hourly and daily Asphalt Production Limits permit conditions.

Monthly asphalt production shall be determined by summing daily production over the previous calendar month. Consecutive 12-months of asphalt production shall be determined by summing the monthly production over the previous consecutive 12 month period to demonstrate compliance with the consecutive 12-months Asphalt Production Limits permit condition.

2.18 RAP Weight Percentage Recordkeeping

For each day that the asphalt drum mixer is operated using RAP, the Permittee shall record the amount of RAP used and the total batch weight for each batch of asphalt produced to demonstrate compliance with the Allowable Raw Materials permit condition.

The weight percentage of RAP used (on a per batch basis) shall be calculated as follows:

Weight percentage of RAP = $\frac{\text{RAP material used in the batch (tons-RAP)}}{\text{total asphalt batch weight produced (tons-asphalt)}} \times 100$

2.19 Asphalt Operation Setback Distance Recordkeeping

The permittee shall measure and record the distance, to an accuracy of plus or minus six feet, between the leased or owned property boundary and the asphalt drum mixer baghouse exhaust stack each time the asphalt drum mixer baghouse is moved to demonstrate compliance with the Asphalt Operation Setback Distance Requirements permit condition. In addition, the permittee shall record whether the site has line power or is using the IC engines to generate power at the site.

2.20 Baghouse/Filter System Procedures

Within 60 days of permit issuance, the permittee shall have developed a Baghouse Filter System Procedures document for the inspection and operation of the baghouse filter system which controls particulate matter emissions from the asphalt drum mixer. The Baghouse Filter System Procedures document shall be a permittee-developed document independent of the manufacturer supplied operating manual but may include summaries of procedures included in the manufacturer supplied operating manual.

The Baghouse Filter System Procedures document shall describe the procedures that will be followed to comply with the General Compliance General Provisions 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.

The Baghouse/Filter System Procedures document shall include a schedule and procedures for corrective action that will be taken if visible emissions are present from the asphalt drum mixer baghouse at any time. At a minimum the document shall include:

- Procedures to determine if bags or cartridges are ruptured; and
- Procedures to determine if bags or cartridges are not appropriately secured in place.

The permittee shall maintain records of the results of each baghouse filter system inspection. The records shall include, but not be limited to, the following:

- Date and time of inspection,
- Equipment inspected (e.g. exterior housing of baghouse, fan motor, auger, inlet air ducting);
- Description of whether visible emissions were present, and if visible emissions were present a description of the corrective action that was taken.
- Date correction action was taken.

The Baghouse Filter System Procedures document shall be submitted to DEQ within 60 days after permit issuance and shall contain a certification by a responsible official. Any changes to the Baghouse Filter System Procedures document shall be submitted within 15 days of the change.

The Baghouse Filter System Procedures document shall remain on-site at all times and shall be made available to DEQ representatives upon request.

The operating, monitoring, and recordkeeping requirements specified in the Baghouse Filter System Procedures document are incorporated by reference into this permit and are enforceable permit conditions.

2.21 Distillate Fuel Oil Specifications Recordkeeping

On an as-received basis for each shipment of distillate fuel oil, the permittee shall maintain the following supplier verified and certified information:

- ASTM grade
- Percent sulfur content by weight

2.22 Seasonal Operation Recordkeeping

The permittee shall monitor and record daily operation of the HMA plant when it is operating (for any day that asphalt is produced), to demonstrate compliance with the Seasonal Operation permit condition.

2.23 Recordkeeping

All monitoring and recordkeeping documentation required by this permit shall be maintained in accordance with the Recordkeeping general provision.

Reporting Requirements

2.24 Performance Test Reporting

Performance test reports shall include records of the monitoring and recordkeeping required by the Performance Test Monitoring and Recordkeeping permit condition, and documentation that the performance test was conducted in accordance with the Initial 40 CFR 60, Subpart I – Standard for Particulate Matter Performance Test and the Periodic PM₁₀ Performance Testing permit conditions. Performance test reports shall be submitted by the permittee to the following address:

Air Quality Permit Compliance
Department of Environmental Quality
Boise Regional Office
1445 N. Orchard
Boise, ID 83706

Phone: (208) 373-0550
Fax: (208) 373-0287

2.25 Incorporation of Federal Requirements by Reference

Unless expressly provided otherwise, any reference in this permit to any document identified in IDAPA 58.01.01.107.03 shall constitute the full incorporation into this permit of that document for the purposes of the reference, including any notes and appendices therein. Documents include, but are not limited to:

- Standards of Performance of New Stationary Sources (NSPS), 40 CFR 60, Subpart I – Standards of Performance for Hot Mix Asphalt Plants.

For permit conditions referencing or cited in accordance with any document incorporated by reference (including permit conditions identified as NSPS), should there be any conflict between the requirements of the permit condition and the requirements of the document, the requirements of the document shall govern, including any amendments to that regulation.

**Table 2.3 NSPS 40 CFR 60, Subpart A – Summary of General Provisions for Owners and Operators of Affected Facilities
(continued)**

Section	Subject	Summary of Section Requirements
60.7(a), (b), and (f)	Notification and Recordkeeping	<ul style="list-style-type: none"> • Notification shall be furnished of commencement of construction postmarked no later than 30 days of such date. • Notification shall be furnished of initial startup postmarked within 15 days of such date. • Notification shall be furnished of any physical or operational change that may increase emissions postmarked 60 days before the change is made. • Records shall be maintained of the occurrence and duration of any startup, shutdown or malfunction; any malfunction of the air pollution control equipment; or any periods during which a CMS or monitoring device is inoperative. • Records shall be maintained, in a permanent form suitable for inspection, of all measurements, performance testing measurements, calibration checks, adjustments and maintenance performed, and other required information. Records shall be maintained for a period of two years following the date of such measurements, maintenance, reports, and records.
60.8	Performance Tests	<ul style="list-style-type: none"> • At least 30 days prior notice of any performance test shall be provided to afford the opportunity to have an observer to be present. • Within 60 days of achieving the maximum production rate, but not later 180 days after initial startup, performance test(s) shall be conducted and a written report of the results of such test(s) furnished. • Performance testing facilities shall be provided as follows: <ul style="list-style-type: none"> • Sampling ports adequate for test methods applicable to such facility. • Safe sampling platform(s). • Safe access to sampling platform(s). • Utilities for sampling and testing equipment. • Performance tests shall be conducted and data reduced in accordance with 40 CFR 60.8(b), (c), and (f).
60.11(a), (d), (f), and (g)	Compliance with Standards and Maintenance Requirements	<ul style="list-style-type: none"> • When performance tests are required, compliance with standards is determined by methods and procedures established by 40 CFR 60.8. • At all times, including periods of startup, shutdown, and malfunction, the owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. • For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard, nothing shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.
60.12	Circumvention	<ul style="list-style-type: none"> • No permittee shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard.
60.14	Modification	<ul style="list-style-type: none"> • A physical or operational change which results in an increase in the emission rate to the atmosphere or any pollutant to which a standard applies shall be considered a modification, and upon modification an existing facility shall become an affected facility in accordance with the requirements and exemptions in 40 CFR 60.14. • Within 180 days of the completion of any physical or operational change, compliance with all applicable standards must be achieved.
60.15	Reconstruction	<ul style="list-style-type: none"> • An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate in accordance with the requirements of 40 CFR 60.15.

3 Internal Combustion Engines

Process Description

3.1 Process Description

The compression ignition IC engines at the facility are used to provide electrical power to the facility when electrical line power is not available.

3.2 Control Device Descriptions

Table 3.1 Internal Combustion Engines Description

Emissions Units / Processes	Control Devices	Emission Points
Primary IC Engine	N/A	Primary IC engine exhaust stack
Secondary IC Engine	N/A	Secondary IC engine exhaust stack

Emission Limits

3.3 Emission Limits

The emissions from the Internal Combustion Engines stack shall not exceed any corresponding emissions rate limits listed in Table 3.2.

Table 3.2 Internal Combustion Engines Emission Limits ^(a)

Source Description	PM ₁₀ /PM _{2.5} ^(b)		SO ₂		NO _x		CO		VOC	
	lb/hr ^(c)	T/yr ^(d)	lb/hr ^(c)	T/yr ^(d)	lb/hr ^(c)	T/yr ^(d)	lb/hr ^(c)	T/yr ^(d)	lb/hr ^(c)	T/yr ^(d)
Primary IC Engine and Secondary IC Engine	0.62	0.89	0.016	0.018	15.50	21.00	8.89	12.50	3.35	4.72

- a In absence of any other credible evidence, compliance is ensured 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.
- c Pounds per hour, as determined by a test method prescribed by IDAPA 58.01.01.157, EPA reference test method, continuous emission monitoring system (CEMS) data, or DEQ-approved alternative.
- d Tons per any consecutive 12-calendar month period.

3.4 Opacity Limit

Emissions from the Primary IC Engine and the Secondary IC Engine stacks, or any other stack, vent, or functionally equivalent opening associated with the Primary IC Engine and the Secondary IC Engine, shall not exceed 20% opacity for a period or periods aggregating more than three minutes in any 60-minute period as required by IDAPA 58.01.01.625. Opacity shall be determined by the procedures contained in IDAPA 58.01.01.625.

Certification and Operating Limits

3.5 Primary IC Engine Certification

The Primary IC engine shall be an EPA Tier 2 Certified engine.

3.6 Secondary IC Engine Operating Limits

The Secondary IC engine shall be an EPA Tier 3 Certified engine.

3.7 Primary IC Engine Operating Limits

To demonstrate compliance with the Emissions Limits permit condition operation of the Primary IC engine shall not exceed the following operational limits:

- 14 hours per day
- 2,500 hours per consecutive 12-months

3.8 Secondary IC Engine Operating Limits

To demonstrate compliance with the Emissions Limits permit condition operation of the Secondary IC engine shall not exceed the following operational limits:

- 5,000 hours per consecutive 12-months

3.9 IC Engines Simultaneous Operation Requirement

The Primary IC Engine and the Secondary IC Engine shall not be operated simultaneously.

Fuel Specifications

3.10 IC Engine(s) Fuel Specifications

The IC engine(s) shall only combust distillate fuel oil which meets ASTM Grades 1 or 2, or a mixture of ASTM Grades 1 and 2, and which has a maximum sulfur content of 0.0015% (15 ppm) by weight.

NSPS Compliance Requirements

3.11 Primary and Secondary IC Engines IC Engine Maintenance

In accordance with 40 CFR 60.4206 the permittee shall operate and maintain the Primary and Secondary IC engines according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer, over the entire life of the engine.

3.12 Primary and Secondary IC Engines Notification Address

In accordance with 40 CFR 60.7, any notifications or reporting required by the Standards of Performance of New Stationary Sources (NSPS), 40 CFR Part 60, Subpart IIII or Subpart A – General Provisions shall be submitted to the following address:

Air Quality Permit Compliance
Boise Regional Office
Department of Environmental Quality
1445 N. Orchard
Boise, ID 83706

Phone: (208) 373-0550
Fax: (208) 373-0287

3.13 Incorporation of Federal Requirements by Reference

Unless expressly provided otherwise, any reference in this permit to any document identified in IDAPA 58.01.01.107.03 shall constitute the full incorporation into this permit of that document for the purposes of the reference, including any notes and appendices therein. Documents include, but are not limited to:

- New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

For permit conditions referencing or cited in accordance with any document incorporated by reference (including permit conditions identified as NSPS), should there be any conflict between the requirements of the permit condition and the requirements of the document, the requirements of the document shall govern, including any amendments to that regulation.

3.14 NSPS 40 CFR 60 – General Provisions

In accordance with 40 CFR 60.4218 the permittee shall comply with the requirements of 40 CFR 60.1 through 60.19, except for Sections 60.11 and 60.18 as detailed in the Subpart.

Monitoring and Recordkeeping Requirements

3.15 Primary IC Engine Operation Recordkeeping

The permittee shall monitor and record Primary IC Engine operation in hours per day to demonstrate compliance with the Primary IC Engine Operating Limits permit condition.

Monthly Primary IC Engine operation shall be determined by summing daily operation over the previous calendar month. Consecutive 12-months of Primary IC Engine operation shall be determined by summing the monthly operation over the previous consecutive 12 month period to demonstrate compliance with the consecutive 12-months Primary IC Engine Operating Limit permit condition.

3.16 Secondary IC Engine Operation Recordkeeping

The permittee shall monitor and record Secondary IC Engine operation in hours per day to demonstrate compliance with the Secondary IC Engine Operating Limits permit condition.

Monthly Secondary IC Engine operation shall be determined by summing daily operation over the previous calendar month. Consecutive 12-months of Secondary IC Engine operation shall be determined by summing the monthly operation over the previous consecutive 12 month period to demonstrate compliance with the consecutive 12-months Secondary IC Engine Operating Limit permit condition.

3.17 Simultaneous Operation Recordkeeping

The daily operating records of the Primary IC Engine and the Secondary IC Engine shall demonstrate that both IC engines are not operated simultaneously to demonstrate compliance with the IC Engines Simultaneous Operation Requirement permit condition.

3.18 Distillate Fuel Oil Specifications Recordkeeping

On an as-received basis for each shipment of distillate fuel oil, the permittee shall maintain the following supplier verified and certified information:

- ASTM grade
- Percent sulfur content by weight

3.19 Recordkeeping

All monitoring and recordkeeping documentation required by this permit shall be maintained in accordance with the Recordkeeping general provision.

4 General Provisions

General Compliance

4.1 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, the “Rules for the Control of Air Pollution in Idaho,” and the Environmental Protection and Health Act (Idaho Code §39-101, et seq.)

[Idaho Code §39-101, et seq.]

4.2 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.

[IDAPA 58.01.01.211, 5/1/94]

4.3 Nothing in this permit is intended to relieve or exempt the permittee from the responsibility to comply with all applicable local, state, or federal statutes, rules, and regulations.

[IDAPA 58.01.01.212.01, 5/1/94]

Inspection and Entry

4.4 Upon presentation of credentials, the permittee shall allow DEQ or an authorized representative of DEQ to do the following:

- Enter upon the permittee’s premises where an emissions source is located, emissions-related activity is conducted, or where records are kept under conditions of this permit;
- Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
- Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
- As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.

[Idaho Code §39-108]

Construction and Operation Notification

4.5 This permit shall expire if construction has not begun within two years of its issue date, or if construction is suspended for one year.

[IDAPA 58.01.01.211.02, 5/1/94]

4.6 The permittee shall furnish DEQ written notifications as follows:

- A notification of the date of initiation of construction, within five working days after occurrence; except in the case where pre-permit construction approval has been granted then notification shall be made within five working days after occurrence or within five working days after permit issuance whichever is later;

- A notification of the date of any suspension of construction, if such suspension lasts for one year or more;
- A notification of the anticipated date of initial start-up of the stationary source or facility not more than sixty days or less than thirty days prior to such date; and
- A notification of the actual date of initial start-up of the stationary source or facility within fifteen days after such date; and
- A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211.03, 5/1/94]

Performance Testing

- 4.7 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.
- 4.8 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.
- 4.9 Within 60 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.

[IDAPA 58.01.01.157, 4/5/00]

Monitoring and Recordkeeping

- 4.10 The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Monitoring records shall include, but not be limited to, the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.211, 5/1/94]

Excess Emissions

- 4.11 The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130–136 for excess emissions due to start-up, shut-down, scheduled maintenance, safety measures, upsets, and breakdowns.

[IDAPA 58.01.01.130–136, 4/5/00]

Certification

- 4.12 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.

[IDAPA 58.01.01.123, 5/1/94]

False Statements

- 4.13 No person shall knowingly make any false statement, representation, or certification in any form, notice, or report required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

Tampering

- 4.14 No person shall knowingly render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

Transferability

- 4.15 This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06.

[IDAPA 58.01.01.209.06, 4/11/06]

Severability

- 4.16 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.

[IDAPA 58.01.01.211, 5/1/94]