STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502
www.deq.idaho.gov

C.L. "Butch" Otter, Governor
John H. Tippets, Director

May 24, 2018

Eric Erickson, Plant Manager
The Amalgamated Sugar Company LLC - Nampa
138 W Karcher Road
Nampa, ID 83687

RE: Facility ID No. 027-00010, The Amalgamated Sugar Company LLC, Nampa
Final Permit Letter

Dear Mr. Erickson:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-2018.0011 Project 62006 to The Amalgamated Sugar Company LLC located at Nampa for the conversion of Tier II Operating Permit No. T2-050021 to a PTC. This PTC is issued in accordance with IDAPA 58.01.01.200 through 228 (Rules for the Control of Air Pollution in Idaho) and is based on the certified information provided in your PTC application received January 29, 2018.

This permit is effective immediately and replaces Tier II Operating Permit No. T2-050021 issued on March 8, 2006. This permit does not release The Amalgamated Sugar Company LLC from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

This permit does not contravene Tier I permit No. T1-050020; therefore, it will be incorporated into the T1 operating permit upon renewal.

Pursuant to the Construction and Operation Notification General Provision of your permit, it is required that construction and operation notification be provided. Please provide this information as listed to DEQ's Boise Regional Office, 1445 N. Orchard, Fax (208) 373-0287.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with J.R. Fuentes, Title V Source Inspector, at (208) 373-0550 to review and discuss the terms and conditions of this permit. Should you choose to schedule this meeting, DEQ recommends that the following representatives attend the meeting: your facility's plant manager, responsible official, environmental contact, and any other staff responsible for day-to-day compliance with permit conditions.

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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 Kelli Wetzel at (208) 373-0502 or kelli.wetzel@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,

Mike Simon
Stationary Source Program Manager
Air Quality Division

MS\kw

Permit No. P-2018.0011 PROJ 62006

Enclosures

# Air Quality

## PERMIT TO CONSTRUCT

| | |
|---|---|
| **Permittee** | The Amalgamated Sugar Company LLC - Nampa |
| **Permit Number** | P-2018.0011 |
| **Project ID** | 62006 |
| **Facility ID** | 027-00010 |
| **Facility Location** | 138 W. Karcher Road<br>Nampa, ID 83687 |

## 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** May 24, 2018

Kelli Wetzel

**Kelli Wetzel, Permit Writer**

Mike Simon

**Mike Simon, Stationary Source Manager**

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# 1 Permit Scope

## Purpose

**1.1** This is a conversion of an existing expired Tier II operating permit to a permit to construct (PTC).

**1.2** This PTC replaces Tier II Operating Permit T2-050021, issued on March 8, 2006.

## Regulated Sources

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

**Table 1.1 Regulated Sources**

| Permit Section | Source | Control Equipment |
|---|---|---|
| 3 | B&W Boiler #1 (S-B1):<br>Operational Capacity: 105,000 lb/hr steam<br>Heat Input Rating: 126 MMBtu/hr<br>Fuel Consumption: 0.120 MMscf/hr<br>Installation Date: 1942<br>Fuel: Natural gas | None |
| 3 | B&W Boiler #2 (S-B2):<br>Operational Capacity: 105,000 lb/hr steam<br>Heat Input Rating: 126 MMBtu/hr<br>Fuel Consumption: 0.120 MMscf/hr<br>Installation Date: 1942<br>Fuel: Natural gas | None |
| 3 | Union Boiler (S-B4):<br>Operational Capacity: 60,000 lb/hr steam<br>Heat Input Rating: 72 MMBtu/hr<br>Fuel Consumption: 0.053 MMscf/hr<br>Installation Date: 1957<br>Fuel: Natural gas | None |
| 4 | Riley Boiler (S-B3):<br>Operational Capacity: 250,000 lb/hr steam<br>Heat Input Rating: 358 MMBtu/hr<br>Fuel Consumption: 0.308 MMscf/hr (gas)<br>13.2 T/hr (coal)<br>Installation Date: 1968<br>Fuel: Coal and/or natural gas | Baghouse (A-B3) |
| 5 | Pellet Mill Cooler Nos. 1&5 (S-D4, S-D8):<br>Manufacture/Model: California Pellet Mill<br>PW input rate: 4.4 T/hr<br>Installation Date: 1958-1972 | Pellet Cooler Baghouse (A-D9)<br>Common to all pellet coolers |
| 5 | Pellet Mill Cooler Nos. 2 - 4 (S-D5, S-D6, & S-D7):<br>Manufacture/Model: California Pellet Mill<br>PW input rate: 8.8 T/hr<br>Installation Date: 1958-1972 | |
| 5 | Pellet Mill Cooler No. 6 (S-D9):<br>Manufacture/Model: California Pellet Mill<br>PW input rate: 8.8 T/hr<br>Installation Date: 2006 | |
| 6 | Lime Kiln (S-K1):<br>Manufacturer: Belgium Lime Kiln<br>Maximum Capacity: 238 T/day lime rock<br>Installation Date: 1942<br>Fuel: anthracite coal or coke | 60% two scrubbers and two carbonation systems in series (A-K1A, A-K1B)<br><br>40% one shared baghouse (AK1/2) |

| Permit Section | Source | Control Equipment |
|---|---|---|
| 6 | Lime Kiln (S-K2):<br>Manufacturer: Belgium Lime Kiln<br>Maximum Capacity: 277 T/day lime rock<br>Installation Date: 1968<br>Fuel: anthracite coal or coke | 60% two scrubbers and two carbonation systems in series (A-K1A, A-K1B)<br><br>40% one shared baghouse (AK1/2) |
| 7 | A&B Process Slakers (S-K4):<br>Operational Capacity: 257 T/day CaO<br>Installation Date: 1942-1968 | Wet scrubber (A-K4) |
| 8 | Lime Kiln Building (S-K3) | Baghouse (A-K3) |

# 2 Facility-Wide Conditions

## Fugitive Emissions

### 2.1 Reasonable Precautions

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, consideration 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 practices, where practical:

- 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; and
- Paving of roadways and their maintenance in a clean condition, where practical.

### 2.2 Fugitive Dust Management Plan

The permittee shall maintain a Fugitive Dust Management Plan to control fugitive emissions. The permittee shall monitor and maintain weekly records of any and all actions taken to comply with the measures, including, but not limited to, frequency of application or observation, type and quantity of suppressant applied, the extent and date(s) of any deviation from any provision of Facility-Wide Condition 2.2, and corrective actions implemented to correct any deviation(s).

- Operate atomizing sprays at the coal unloading station (Emissions Unit No. F-04) during any material-moving activities at the unloading station, with the exception of periods of freezing weather.
- Apply water or a water/concentrated separator byproducts (CSB) dust suppressant to all facility roads, coal and coke haul roads, and beet unloading areas as necessary, but not less than weekly from May 1 through October 31 of each year with the exception of periods of precipitation.
- Apply water to the coal pile, at least biweekly during unloading and transfer activities with the exception of periods of freezing weather.
- When storing coal for the operation of the Riley boiler, apply a surfactant to the coal pile, at least once per year after the coal storage area has reached final grade.

### 2.3 Fugitive Dust Complaints

The permittee shall monitor and record 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 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.

### 2.4 Facility Wide Inspection

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.

## Performance Testing Requirements

### 2.5 Performance Test Correspondence

The proposed test date(s), test protocols, test date rescheduling notice(s), compliance test report, and all other correspondence shall be sent to the following address:

Air Quality Permit Compliance
Department of Environmental Quality
Boise Regional Office
1445 N. Orchard
Boise, ID 83706
Telephone: (208) 373-0550 Fax: (208) 373-0287

### 2.6 Test Methods

For all required performance testing, the permittee shall use the test methods described in Table 2.1 to measure the pollutant emissions.

**Table 2.1 Approved Test Methods**

| Pollutant | Test Method[a] | Special Conditions |
|---|---|---|
| $PM_{10}$ | EPA Method 5 and 202 or EPA Method 201A and Method 202 | |
| PM | EPA Method 5 | |
| $NO_x$ | EPA Method 7 | |
| $SO_2$ | EPA Method 6 | |
| CO | EPA Method 10 | |
| VOC | EPA Method 25 | |
| Opacity | EPA Method 9 | For a NSPS source, use IDAPA 58.01.01.625 and Method 9. For other sources, use IDAPA 58.01.01.625 only. |

a Or DEQ-approved alternative in accordance with IDAPA 58.01.01.157.

### 2.7 Average Period and Altitude Correction

For performance testing conducted for the fuel burning equipment standards in IDAPA 58.01.01.675-681, the permittee shall address the required averaging period specified in accordance with IDAPA 58.01.01.679 and the altitude correction in IDAPA 58.01.01.680 prior to conducting the test.

### 2.8 Visible Emissions Evaluation

For all required PM or $PM_{10}$ performance testing, a visible emissions evaluation shall be performed during each test. The visible emissions evaluation shall be conducted in accordance with the procedures contained in IDAPA 58.01.01.625.

## Operation and Maintenance (O&M) Manual Requirements

### 2.9 O&M Manuals

The permittee shall maintain and update as required an O&M manual for the appropriate emissions control device(s) for each of the following sources: (a) Riley boiler, (b) the pellet mill coolers baghouse, (c) the A and B lime kilns, (d) A and B process slakers, and (e) the lime kiln building.

### 2.10 Control Device Monitoring

If necessary, the permittee shall update the control device monitoring program in the O&M manuals after each DEQ-approved performance test.

### 2.11 Control Device Operations

The O&M manuals shall address the operation, maintenance, and repair of applicable control device(s) for each source to ensure good working order and operation as efficiently as practicable. The manuals shall include, at a minimum, a general description of the control device(s); normal operating conditions and procedures; startup, shutdown, and maintenance procedures, upset conditions and corrective procedures; methods of preventing malfunctions; appropriate corrective actions to be taken; provisions for monthly inspections during regular operations; and provisions for annual inspections during planned maintenance outages. The permittee shall keep records of maintenance activities in accordance with General Provision 9.10.

### 2.12 Control Device Parameters

The O&M manuals shall include a control device monitoring program that establishes control device operating parameters to be monitored, their acceptable operating ranges, corrective action levels, monitoring equipment and procedures, monitoring frequency, and frequency of recordkeeping.

The monitoring parameters shall include, but are not limited to, any specific control device monitoring parameter(s) required under any permit condition in the is permit, unless DEQ approves their removal from this permit condition. The control device monitoring program shall be developed by the permittee based on performance test results, vendor data, and other supporting documentation.

### 2.13 O& M Manual Maintenance

The O&M manuals shall be maintained onsite and shall be made available to DEQ representatives upon request.

### 2.14 Corrective Action

Whenever an operating parameter is outside the operating range specified by the control device monitoring program in an O&M manual, the permittee shall take corrective action as expeditiously as practicable to bring the operating parameter back with the operating range. Deviations from the operating range may not themselves be considered deviations from applicable emissions standards, unless DEQ determines that the frequency, duration, or magnitude of the deviations indicates that additional action is required.

## Boiler MACT Requirements

### 2.15 Applicable Requirements

The permittee shall comply with the applicable requirements of 40 CFR 63, Subparts A and DDDDD.

## Reporting and Certification Requirements

### 2.16 Reporting Address

Any reporting required by this permit shall be submitted to the following:

Air Quality Permit Compliance
Department of Environmental Quality
Boise Regional Office
1445 N. Orchard
Boise, ID 83706-2239
Telephone: (208) 373-0550 Fax: (208) 373-0287

### 2.17 Federal Requirements

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:

- Applicable requirements of National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP), 40 CFR 63, including Subparts A and DDDDD

For permit conditions referencing or cited in accordance with any document incorporated by reference (including permit conditions identified as NESHAP), 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.

# 3 B&W #1, B&W #2, and Union Boilers (S-B1, S-B2, S-B4)

## 3.1 Process Description

The Union and B&W boilers are fired with natural gas only and are used to supply steam for processes at the facility.

## 3.2 Control Device Descriptions

**Table 3.1 Boilers Description**

| Emissions Units / Processes | Control Devices | Rated Steam Capacity (lb steam/hr) |
|---|---|---|
| B&W #1 boiler | None | 105,000 |
| B&W #2 boiler | None | 105,000 |
| Union boiler | None | 60,000 |

# Emission Limits

## 3.3 Emission Limits

The emissions from the boiler stacks shall not exceed any corresponding emissions rate limits listed in Table 3.2.

**Table 3.2 B&W #1, B&W #2, and Union Boiler Emission Limits**

| Source Description | $PM_{10}$ [b] | | CO | |
|---|---|---|---|---|
| | lb/hr [c] | T/yr [d] | lb/hr [c] | T/yr [d] |
| B&W #1 boiler / S-B1 | 2.7 | 12.0 | 10.5 | 46.0 |
| B&W #2 boiler / S-B2 | 2.7 | 12.0 | 10.5 | 46.0 |
| Union boiler / S-B4 | 1.6 | 6.8 | 6.6 | 28.9 |

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 Grain Loading Limit

The permittee shall not discharge PM to the atmosphere from the B&W #1, B&W #2, or Union boiler in excess of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume.

## 3.5 Opacity Limit

Emissions from the B&W #1, B&W #2, or Union boiler stack, or any other stack, vent, or functionally equivalent opening associated with the boilers, 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

### 3.6 Throughput Limits

The maximum allowable natural gas-firing rate to the B&W boilers shall be 240 Mscf/hr. The maximum allowable natural gas-firing rate to the Union boiler shall be 97 Mscf/hr.

### 3.7 Fuel Limit

The B&W #1, B&W #2, and Union boilers shall by fired exclusively by natural gas.

## Monitoring and Recordkeeping Requirements

### 3.8 Boiler Monitoring Requirements

The permittee shall install, operate, calibrate, and maintain measuring device(s) to continuously monitor the natural gas-firing rate of the boilers. The daily hours of operation shall be recorded and the average daily firing rate shall be recorded in millions of standard cubic feet per hour. The natural gas-firing rate for each consecutive 12-month period shall be recorded in millions of standard cubic feet per year. In the event the measuring device becomes inoperable, it shall be repaired or replaced as soon as practicable. The records shall be maintained in accordance with General Provision 9.10.

# 4 Riley Boiler (S-B3)

## 4.1 Process Description

The Riley boiler is fired by pulverized coal and/or natural gas and is used to supply steam for processes at the facility.

## 4.2 Control Device Descriptions

**Table 4.1 Riley Boiler Description**

| Emissions Units / Processes | Control Devices | Rated Steam Capacity (lb steam/hr) |
|---|---|---|
| Riley boiler | Baghouse (A-B3) | 250,000 |

# Emission Limits

## 4.3 Emission Limits

The emissions from the Riley boiler stack shall not exceed any corresponding emissions rate limits listed in Table 4.2.

**Table 4.2 Riley Boiler Emission Limits**

| Source Description | $PM_{10}$ [b] | | CO | |
|---|---|---|---|---|
| | lb/hr [c] | T/yr [d] | lb/hr [c] | T/yr [d] |
| Riley boiler | 12.4 | 51.3 | 30.0 | 129.9 |

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.

## 4.4 Grain Loading Limit

The permittee shall not discharge PM to the atmosphere from Riley boiler in excess of the concentrations shown in Table 4.3. When two fuels are burned concurrently in the Riley boiler, the allowable emissions shall be determined by proportioning the gross heat input and emissions standard for each fuel. The effluent gas volume shall be corrected to the oxygen concentration shown.

**Table 4.3 Allowable Particulate Emissions Based on Fuel Type**

| Fuel Type | Allowable Particulate Emissions (gr/dscf) | Percent Oxygen |
|---|---|---|
| Coal, or combination of coal and natural gas | $0.100(X^a) + 0.011(Y^b)$ | 8.0 |
| Natural gas | 0.015 | 3.0 |

a Percent of total heat input derived from the combustion of coal
b Percent of total heat input derived from the combustion of natural gas.

## 4.5 Opacity Limit

Emissions from the Riley boiler stack, or any other stack, vent, or functionally equivalent opening associated with the Riley boiler, 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

### 4.6 Throughput Limits

The maximum allowable coal feed rate to the Riley boiler shall be 19.3 T/hr. The maximum allowable natural gas feed rate to the Riley boiler shall be 354.9 Mscf/hr.

### 4.7 Fuel Limit

The permittee shall not use or fire coal with a sulfur content greater than 1% by weight.

### 4.8 Baghouse Operating Requirements

The Riley baghouse shall be operated and maintained at all times during boiler operation while firing with coal. The pressure drop across the baghouse shall be maintained within manufacturer or O&M manual specifications.

## Monitoring and Recordkeeping Requirements

### 4.9 Boiler Monitoring Requirements

The permittee shall monitor and record on a daily basis the information listed below for the Riley boiler. The records shall be maintained in accordance with General Provision 9.10.

- The average daily coal feed rate in tons per hour,
- The daily hours of operation with coal,
- The average daily natural gas-firing rate in millions of standard cubic feet per hour,
- The daily hours of operation with natural gas.

The permittee shall monitor and record on a 12-month rolling average, the information listed below for the Riley boiler. The records shall be maintained in accordance with General Provision 9.10.

- The coal feed rate for each consecutive 12-month period in tons per year,
- The natural gas-firing rate for each consecutive 12-month period in millions of standard cubic feet per year.

### 4.10 Baghouse Monitoring Requirement

The permittee shall operate, calibrate, and maintain measuring device(s) to continuously monitor the pressure drop across the Riley baghouse. The pressure drop shall be recorded once per week while the boiler is in operation. In the event the measuring device becomes inoperable, it shall be repaired or replaced as soon as practicable. The records shall be maintained in accordance with General Provision 9.10.

## Performance Testing Requirements

### 4.11 Riley Boiler $PM_{10}$ Performance Test

A performance test shall be conducted on the Riley boiler to demonstrate compliance with the emissions limit for $PM_{10}$ in Permit Condition 4.3. Upon commencement of firing coal in the Riley boiler, a performance test shall be conducted no later than 18 months after coal firing begins. The boiler shall be tested with coal as the exclusive fuel. The permittee shall monitor and record the steam production rate; coal feed rate in tons per hour; the coal highest heating value and analysis results, including ash content, for the performance test with coal; and pressure drop across the baghouse during each test.

# 5 Pellet Mill Coolers (S-D4, S-D5, S-D6, S-D7, S-D8, S-D9)

## 5.1 Process Description

Pellet mill coolers No. 1, 2, 3, 4, 5, and 6 (Unit No. S-D4, S-D5, S-D6, S-D7, S-D8, and S-D9 respectively) use forced ambient air to lower the temperature of the dry, pelletized pulp. The pellet mill coolers service the pellet mills which are all manufactured by California Pellet Mill, and were installed at various dates ranging from 1958 to 1972, including one additional pellet mill in 2006.

## 5.2 Control Device Descriptions

**Table 5.1 Pellet Mill Coolers Description**

| Emissions Units / Processes | Control Devices | Rated Capacity |
|---|---|---|
| Pellet mill cooler No. 1 | Pellet mill cooler baghouse (A-D9) | 4.4 T/hr |
| Pellet mill cooler No. 2 | | 8.8 T/hr |
| Pellet mill cooler No. 3 | | 8.8 T/hr |
| Pellet mill cooler No. 4 | | 8.8 T/hr |
| Pellet mill cooler No. 5 | | 4.4 T/hr |
| Pellet mill cooler No. 6 | | 8.8 T/hr |

# Emission Limits

## 5.3 Emission Limits

The emissions from the pellet mill coolers stack shall not exceed any corresponding emissions rate limits listed in Table 5.2.

**Table 5.2 Pellet Mill Coolers Emission Limits**

| Source Description | $PM_{10}$ [b] | |
|---|---|---|
| | lb/hr [c] | T/yr [d] |
| Pellet mill cooler No. 1 / S-D4 | 0.8 | 3.5 |
| Pellet mill cooler No. 2 / S-D5 | | |
| Pellet mill cooler No. 3 / S-D6 | | |
| Pellet mill cooler No. 4 / S-D7 | | |
| Pellet mill cooler No. 5 / S-D8 | | |
| Pellet mill cooler No. 6 / S-D9 | | |

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.

### 5.4 Process Weight Limitation

The permittee shall not emit PM to the atmosphere from the pellet mill coolers in excess of the amounts shown in the following equations, where E is the total rate of emissions from all emissions points from the source in pounds per hour and PW is the process weight in pounds per hour.

- If PW is less than 17,000 lb/hr,

$$E = 0.045(PW)^{0.60}$$

- If PW is equal to or greater than 17,000 lb/hr,

$$E = 1.12(PW)^{0.27}$$

### 5.5 Opacity Limit

Emissions from the pellet mill coolers stack, or any other stack, vent, or functionally equivalent opening associated with the pellet mill coolers, 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

### 5.6 Throughput Limits

The total, combined pellet throughput of the coolers as measured at the dry shred weight-o-meter shall be limited to 882 T/day.

### 5.7 Baghouse Operating Requirement

The pellet mill cooler baghouse (A-D9) shall be operated and maintained at all times during pellet mill cooler operation. The pressure drop across the baghouse shall be maintained within manufacturer or O&M manual specifications.

## Monitoring and Recordkeeping Requirements

### 5.8 Pellet Mill Cooler Monitoring Requirements

The permittee shall monitor and record the information below for the pellet mill coolers. The records shall be maintained in accordance with General Provision 9.10:

- The average daily throughput in T/hr, as measured at the dry shred weight-o-meter
- The throughput for each consecutive 12-month period in T/yr

### 5.9 Baghouse Monitoring Requirements

The permittee shall operate, calibrate, and maintain measuring device(s) to continuously monitor the pressure drop across the pellet mill cooler baghouse. The pressure drop shall be recorded once per week while the pellet mill coolers are in operation. In the event that any measuring device becomes inoperable, it shall be repaired or replaced as soon as practicable. The records shall be maintained in accordance with General Provision 9.10.

## Performance Testing Requirements

### 5.10 Pellet Mills $PM_{10}$ Performance Test

A performance test shall be conducted on the pellet mill coolers combined baghouse stack to demonstrate compliance with the emissions limits for $PM_{10}$ in Permit Condition 5.3 no later than December 31, 2019. The permittee shall monitor and record total throughput of the mills and the pressure drop across the baghouse during each test. Total throughput of the mills will be determined by the dry shred weight-o-meter.

# 6 A and B Lime Kilns (S-K1, S-K2)

## 6.1 Process Description

The A and B lime kilns (Unit No. S-K1 and S-K2, respectively) are used to produce burnt lime from a mixture of lime rock as an energy source either coke or anthracite coal. The "A" lime kiln was installed in 1942 and has a rated capacity of 238 tons of lime rock per day. The "B" lime kiln was installed in 1968 and has a rated capacity of 277 tons of lime rock per day.

## 6.2 Control Device Descriptions

There are two gas exhausts that exit the lime kiln system. The first is a small gas stream that captures the dust generated during the lime kiln feed cycler where either coke or anthracite coal and lime rock are added to the kilns through an open hatch. This stream (from both kilns) is captured and routed through baghouse (A-K1/2) for particulate control. The second and main gas stream from the kiln is first routed through two gas washers for each kiln (A-K1 A&B for Kiln "A" and A-K2 for A&B for Kiln "B") for particulate control. The gas is then sent on to the first and second carbonation tanks where it is bubbled through raw sugar juice. In the carbonation system $CO_2$ from the gas stream reacts with the milk of lime added to the raw sugar juice and forms $CaCO_3$ which captures impurities and particulates in the juice. Excess gas (mostly $N_2$, $CO_2$, $O_2$, and CO) is vented from the carbonation tanks to atmosphere.

# Emission Limits

## 6.3 Emission Limits

The emissions from the lime kilns stack shall not exceed any corresponding emissions rate limits listed in Table 6.1.

**Table 6.1 Lime Kilns Baghouse Emission Limits**

| Source Description | $PM_{10}$ [b] | | CO | |
|---|---|---|---|---|
| | lb/hr [c] | T/yr [d] | lb/hr [c] | T/yr [d] |
| A Lime Kiln / S-K1 | 0.89 | 1.50 | 550.4 | 928.7 |
| B Lime Kiln / S-K2 | 1.03 | 1.75 | 639.4 | 1078.2 |

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.

### 6.4 Process Weight Limitation

The permittee shall not emit PM to the atmosphere from either of the lime kilns in excess of the amounts shown in the following equations, where E is the total rate of emissions from all emissions points from the source in pounds per hour and PW is the process weight in pounds per hour.

- If PW is less than 17,000 lb/hr,

$$E = 0.045(PW)^{0.60}$$

- If PW is equal to or greater than 17,000 lb/hr,

$$E = 1.12(PW)^{0.27}$$

### 6.5 Opacity Limit

Emissions from the lime kiln stack, or any other stack, vent, or functionally equivalent opening associated with the lime kilns, 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

### 6.6 Throughput Limits

The maximum allowable lime rock throughput for the lime kiln system (the sum of Lime Kilns A&B) be limited to 120% of the average throughput rates attained during the most recent performance test conducted, for which DEQ approval has been granted, which demonstrates compliance with applicable pollutant emissions limit(s), unless such a throughput rate would cause emissions to exceed any emissions limit(s) set forth in this permit.

### 6.7 Baghouse Operating Requirement

The baghouse shall be operated and maintained at all times during kiln operation. The pressure drop across the baghouse shall be maintained within manufacturer or O&M manual specifications.

## Monitoring and Recordkeeping Requirements

### 6.8 Lime Kiln Monitoring Requirements

The permittee shall monitor and record the information below for each lime kiln. The records shall be maintained in accordance with General Provision 9.10.

- The average daily lime rock throughput in tons per hour
- The lime rock throughput for each consecutive 12-month period in tons per year.

### 6.9 Baghouse Monitoring Requirements

The permittee shall operate, calibrate, and maintain measuring device(s) to continuously monitor the pressure drop across the baghouse. The pressure drop shall be recorded once per week when the lime kilns are in operation. In the event the measuring device becomes inoperable, it shall be repaired or replaced as soon as practicable. The records shall be maintained in accordance with General Provision 9.10.

## Performance Testing Requirements

### 6.10 Lime Kiln Baghouse $PM_{10}$ Performance Test

A performance test shall be conducted on the lime kilns to demonstrate compliance with the emissions limits for $PM_{10}$ in Permit Condition 6.3 no later than December 31, 2019. The permittee shall monitor and record the lime rock throughput of each kiln and the pressure drop across the baghouse during each test.

# 7 Process Slakers (S-K4)

## 7.1 Process Description

The facility operates two lime slakers (A and B) to produce milk of lime from crushed calcium oxide rocks and water. The slakers were manufactured by Ogden Iron Works and are operated as batch systems. The slakers were installed between 1942 -1968.

## 7.2 Control Device Descriptions

**Table 7.1 Process Slakers Description**

| Emissions Units / Processes | Control Devices | Rated Capacity |
|---|---|---|
| Process slaker A | Wet scrubber (A-K4) | 257 T/day CaO |
| Process slaker B | | |

## Emission Limits

## 7.3 Emission Limits

The emissions from the process slakers stack shall not exceed any corresponding emissions rate limits listed in Table 7.2.

**Table 7.2 Process Slaker Emission Limits**

| Source Description | $PM_{10}$ [b] | |
|---|---|---|
| | lb/hr [c] | T/yr [d] |
| Process slakers A and B / S-K4 | 1.4 | 6.1 |

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.

## 7.4 Process Weight Limitation

The permittee shall not emit PM to the atmosphere from the process slakers in excess of the amounts shown in the following equations, where E is the total rate of emissions from all emissions points from the source in pounds per hour and PW is the process weight in pounds per hour.

- If PW is less than 17,000 lb/hr,

$$E = 0.045(PW)^{0.60}$$

- If PW is equal to or greater than 17,000 lb/hr,

$$E = 1.12(PW)^{0.27}$$

## 7.5 Opacity Limit

Emissions from the process slakers stack, or any other stack, vent, or functionally equivalent opening associated with the process slakers, 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

### 7.6 Throughput Limits

The maximum allowable calcium oxide rock throughput of each process slaker shall be limited to 12.6 T/hr.

### 7.7 Scrubber Operating Requirements

The scrubber shall be operated and maintained at all times during slaker operation. The scrubber nozzle header pressure shall be maintained within manufacturer or O&M manual specifications.

## Monitoring and Recordkeeping Requirements

### 7.8 Process Slaker Monitoring Requirements

The permittee shall monitor and record the information below for each process slaker. The records shall be maintained in accordance with General Provision 9.10.

- The average daily calcium oxide rock throughput in tons per hour
- The calcium oxide rock throughput for each consecutive 12-month period in tons per year.

### 7.9 Scrubber Monitoring Requirement

The permittee shall operate, calibrate, and maintain measuring device(s) to continuously monitor the scrubber nozzle header pressure. The scrubber nozzle header pressure shall be recorded once per week when the process slakers are in operation. In the event the measuring device becomes inoperable, it shall be repaired or replaced as soon as practicable. The records shall be maintained in accordance with General Provision 9.10.

# 8 Lime Kiln Material Handling (S-K3)

## 8.1 Process Description

Emissions from the vents of the lime kiln building (Unit No. S-K3) are created by one crusher and all lime-rock, coke or coal, and calcium oxide-handling processes within the building. Emissions from the lime kiln material handling are based on the input of lime rock to the kilns. The maximum throughput is 814 tons of lime rock per day.

## 8.2 Control Device Descriptions

**Table 8.1 Lime Kiln Material Handling Description**

| Emissions Units / Processes | Control Devices |
|---|---|
| Lime Kiln Material Handling | Baghouse (A-K3) |

# Emission Limits

## 8.3 Emission Limits

The emissions from the lime kiln material handling stack shall not exceed any corresponding emissions rate limits listed in Table 8.2.

**Table 8.2 Lime Kiln Material Handling Emission Limits**

| Source Description | $PM_{10}$ [b] | |
|---|---|---|
| | lb/hr [c] | T/yr [d] |
| Lime kiln material handling / S-K3 | 2.04 | 3.45 |

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.

## 8.4 Process Weight Limitation

The permittee shall not emit PM to the atmosphere from lime kiln building in amounts in excess of the amounts shown in the following equations, where E is the total rate of emissions from all emissions points from the source in pounds per hour and PW is the process weight in pounds per hour.

- If PW is less than 17,000 lb/hr,

$$E = 0.045(PW)^{0.60}$$

- If PW is equal to or greater than 17,000 lb/hr,

$$E = 1.12(PW)^{0.27}$$

## 8.5 Opacity Limit

Emissions from the lime kiln building stack, or any other stack, vent, or functionally equivalent opening associated with the lime kiln material handling, 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

### 8.6 Throughput Limits

The maximum allowable throughput of lime rock to the kilns shall be limited to 120% of the average throughput rates attained during the most recent performance test conducted, for which DEQ approval has been granted, which demonstrated compliance with applicable pollutant emissions limit(s), unless such throughput rates would cause emissions to exceed any emissions limit(s) set forth in this permit.

### 8.7 Baghouse Operating Requirements

The lime kiln building baghouse shall be operated and maintained at all times during operation of the crusher or any coal, lime rock-, and calcium oxide-handling processes within the lime kiln building. The pressure drop across the lime kiln building baghouse shall be maintained within manufacturer or O&M manual specifications.

## Monitoring and Recordkeeping Requirements

### 8.8 Lime Kiln Building Throughput Monitoring Requirements

The permittee shall monitor and record the following information for the lime kiln building. The records shall be maintained in accordance with General Provision 9.10.

- The average daily throughput of lime rock to the kilns in tons per hour.
- The throughput of lime rock to the kilns for each consecutive 12-month period in tons per year.

### 8.9 Baghouse Monitoring Requirements

The permittee shall operate, calibrate, and maintain measuring device(s) to continuously monitor the pressure drop across the lime kiln building baghouse. The pressure drop shall be recorded once per week while the crusher and/or any coal, lime rock-, or calcium oxide-handling processes are in operation. In the event the measuring device becomes inoperable, it shall be repaired or replaced as soon as practicable. The records shall be maintained in accordance with General Provision 9.10.

## Performance Testing Requirements

### 8.10 Lime Kiln Building Baghouse $PM_{10}$ Performance Test

A performance test shall be conducted on the lime kiln building baghouse to demonstrate compliance with the emissions limit for $PM_{10}$ in Permit Condition 8.3 no later than December 31, 2019. The permittee shall monitor and record the total throughput of lime rock to the kilns and the pressure drop across the lime kiln building baghouse during each test.

# 9 General Provisions

## General Compliance

**9.1** 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.]**

**9.2** 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]**

**9.3** 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

**9.4** 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

**9.5** 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]**

**9.6** 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

**9.7** 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.

**9.8** 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.

**9.9** 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 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 and 4/11/15]**

## Monitoring and Recordkeeping

**9.10** 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

**9.11** 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

**9.12** 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

**9.13** 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

**9.14** 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

**9.15** 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

**9.16** 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]**