Air Quality

PERMIT TO CONSTRUCT

Permittee: High Desert Milk, Inc.
Permit Number: P-2008.0050
Project ID: 62707
Facility ID: 031-00034
Facility Location: 1033 Idaho Avenue, Burley, ID 83318

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: January 5, 2022

Kelli Wetzel, Permit Writer

Mike Simon, Stationary Source Bureau Chief
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1 Permit Scope

Purpose

1.1 This is a modified permit to construct (PTC) to incorporate a more accurate CO and NOx emission factor for Dryer 2 based on manufacturer emissions specifications and emissions testing conducted by the facility and to reclassify the facility as a minor source.

1.2 Those permit conditions that have been modified or revised by this permitting action are identified by the permit issue date citation located directly under the permit condition and on the right-hand margin.

1.3 This PTC replaces Permit to Construct No. P-2008.0050 issued on March 1, 2021.

Regulated Sources

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

Table 1.1 Regulated Sources

<table>
<thead>
<tr>
<th>Permit Section</th>
<th>Source</th>
<th>Control Equipment (Emission Point)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Dryer 1 and associated heater</td>
<td></td>
</tr>
<tr>
<td>Emissions Unit Name:</td>
<td>Skim Milk Dryer (P101)</td>
<td>Dryer 1 Baghouses (P101A &amp; P101B)</td>
</tr>
<tr>
<td>Manufacturer:</td>
<td>C/E/Rogers</td>
<td></td>
</tr>
<tr>
<td>Burner:</td>
<td>Maxon</td>
<td></td>
</tr>
<tr>
<td>Model:</td>
<td>Crossfire Low NOx Line Burner</td>
<td></td>
</tr>
<tr>
<td>Max Capacity:</td>
<td>32.5 MMBtu/hr</td>
<td></td>
</tr>
<tr>
<td>Operation:</td>
<td>8,760 hr/yr</td>
<td></td>
</tr>
<tr>
<td>Fuel:</td>
<td>natural gas</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Dryer 2 and associated heater</td>
<td></td>
</tr>
<tr>
<td>Emissions Unit Name:</td>
<td>Skim Milk Dryer (DRYER2)</td>
<td>Dryer 2 Baghouse (DRYER2)</td>
</tr>
<tr>
<td>Manufacturer:</td>
<td>Relco</td>
<td></td>
</tr>
<tr>
<td>Burner:</td>
<td>Maxon (DRYER2HT)</td>
<td></td>
</tr>
<tr>
<td>Model:</td>
<td>Low NOx</td>
<td></td>
</tr>
<tr>
<td>Max Capacity:</td>
<td>26.0 MMBtu/hr</td>
<td></td>
</tr>
<tr>
<td>Operation:</td>
<td>8,760 hr/yr</td>
<td></td>
</tr>
<tr>
<td>Fuel:</td>
<td>natural gas</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Boiler 1</td>
<td>None (P104)</td>
</tr>
<tr>
<td>Manufacturer:</td>
<td>Superior Boiler Works</td>
<td></td>
</tr>
<tr>
<td>Model:</td>
<td>4000</td>
<td></td>
</tr>
<tr>
<td>Maximum capacity:</td>
<td>33.48 MMBtu/hr</td>
<td></td>
</tr>
<tr>
<td>Operation:</td>
<td>8,760 hr/yr</td>
<td></td>
</tr>
<tr>
<td>Fuel:</td>
<td>natural gas</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Boiler 2</td>
<td>None (P105)</td>
</tr>
<tr>
<td>Manufacturer:</td>
<td>Superior Boiler Works</td>
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<tr>
<td>Model:</td>
<td>4000</td>
<td></td>
</tr>
<tr>
<td>Maximum capacity:</td>
<td>33.48 MMBtu/hr</td>
<td></td>
</tr>
<tr>
<td>Operation:</td>
<td>8,760 hr/yr</td>
<td></td>
</tr>
<tr>
<td>Fuel:</td>
<td>natural gas</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Fluid Bed</td>
<td>Fluid Bed Baghouse (P102)</td>
</tr>
<tr>
<td>Manufacturer:</td>
<td>C/E/Rogers</td>
<td></td>
</tr>
<tr>
<td>Maximum capacity:</td>
<td>9,000 lb/hr</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Powder Silo 1</td>
<td>Powder Handling Baghouse (P103B)</td>
</tr>
<tr>
<td>Manufacturer:</td>
<td>C/E/Rogers</td>
<td></td>
</tr>
<tr>
<td>Control Efficiency:</td>
<td>PM/PM10: 99.93%</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Powder Silo 2</td>
<td>Powder Silo Baghouse (POWDSILO)</td>
</tr>
<tr>
<td>Manufacturer:</td>
<td>Relco</td>
<td></td>
</tr>
<tr>
<td>Model:</td>
<td>Three, operated one at a time</td>
<td></td>
</tr>
<tr>
<td>Control Efficiency:</td>
<td>99.0 % or better for PM/PM10</td>
<td></td>
</tr>
</tbody>
</table>
Table 1.1 Regulated Sources

<table>
<thead>
<tr>
<th>Permit Section</th>
<th>Source</th>
<th>Control Equipment (Emission Point)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Hopper Vacuum Receivers</td>
<td>Hopper Vacuum Receiver Baghouses (VACRCV)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Manufacturer: Relco</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Control Efficiency: 99.0 % or better for PM/PM&lt;sub&gt;10&lt;/sub&gt;</td>
</tr>
<tr>
<td>5</td>
<td>Emergency Generator</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>Manufacturer: Cummins</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Model: QST30-G5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Max Capacity: 1490 HP</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Displacement: 2.55 liters/cylinder</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ignition: compression</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fuel: diesel</td>
<td></td>
</tr>
</tbody>
</table>

Incorporation of Federal Requirements by Reference

1.5 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 for New Stationary Sources (NSPS) 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
- NSPS 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

The permittee shall comply with all applicable NSPS and NESHAP requirements. For permit conditions referencing or cited in accordance with any document incorporated by reference (including permit conditions identified as NSPS or 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 to that regulation.
2 Dryers

2.1 Process Description

The facility processes up to 5 million pounds of raw milk received by tanker truck per day, producing sweet cream, skim milk, and dried milk products. Milk will be processed in the natural gas-fired dryers to prepare dried milk products. Natural gas combustion products are exhausted through the baghouse stacks for Dryer 1, and are exhausted separately for Dryer 2. For each dryer, particulate emissions are split between two cyclone-and-baghouse sets in series (i.e., two sets per dryer) to recover milk powder products (including MPC70, MP80, and MPI). Emissions are recombined and exhausted in a single stack for Dryer 2, and are exhausted in separate stacks for Dryer 1. Product collected in the cyclones and baghouses is diverted to the fluid bed.

In one production line, the dried solids will be cooled in the fluid bed. Exhaust air from the fluid bed will pass through a baghouse (P102) and then be discharged. The powder from the fluid bed cooler will drop through an airlock, through a rotary sifter, and onto a conveyor for transfer to a storage silo. Exhaust from the silos passes through a baghouse (P103B) and then discharges to the atmosphere.

In a second production line, the operating receiver delivers powder via dense phase to one of three powder handling silos (filling one at a time). Exhaust from the operating silo passes through a baghouse (POWDSILO) and then discharges to the atmosphere through a common 6-inch diameter vent. Powder from the silos is then transported with a vacuum dense phase transport system to the sifter accumulation hopper. The sifter accumulation hopper has two vacuum receivers. Exhaust from the operating vacuum receiver passes through a baghouse (VACRCV) and then discharges to the atmosphere through the common 6-inch diameter vent. Only one vacuum receiver is running at a given time (cycle back and forth).

Milk powder products stored in the silos are packaged and shipped off-site.

2.2 Control Device Descriptions

Table 2.1 Dryer Control Device Descriptions

<table>
<thead>
<tr>
<th>Emissions Units / Processes</th>
<th>Control Devices</th>
<th>Emission Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dryer 1</td>
<td>Dryer 1 Baghouses</td>
<td>Dryer 1 baghouse stacks</td>
</tr>
<tr>
<td>Dryer 2</td>
<td>Dryer 2 Baghouse and none (Dryer 2 Heater)</td>
<td>Dryer 2 Baghouse stack Dryer 2 Heater stack</td>
</tr>
</tbody>
</table>

[3/01/2021] Emissions Limits

2.3 Dryer Emissions Limits

The emissions from each dryer stack shall not exceed any corresponding emissions rate limit listed in the following table. All drying process and associated dryer heater emissions shall be ducted to the corresponding dedicated stack(s) at all times.
Table 2.2 Dryer Emission Limits (a)

<table>
<thead>
<tr>
<th>Source Description</th>
<th>PM$_{2.5}$ (b)</th>
<th>PM$_{10}$ (c)</th>
<th>NOx</th>
<th>CO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>lb/hr (d)</td>
<td>lb/hr (d)</td>
<td>lb/hr (d)</td>
<td>lb/hr (d)</td>
</tr>
<tr>
<td>Dryer 1 and associated heater stacks (P101A &amp; P101B)</td>
<td>4.60</td>
<td>4.60</td>
<td>1.46</td>
<td>11.90</td>
</tr>
<tr>
<td></td>
<td>20.15</td>
<td>20.15</td>
<td>6.42</td>
<td>11.90</td>
</tr>
<tr>
<td>Dryer 2 stack (DRYER2)</td>
<td>8.82</td>
<td>8.82</td>
<td>0.94</td>
<td>4.75</td>
</tr>
<tr>
<td></td>
<td>38.63</td>
<td>38.63</td>
<td>4.10</td>
<td>4.75</td>
</tr>
<tr>
<td>Dryer 2 heater stack (DRYER2HT)</td>
<td>0.20</td>
<td>0.20</td>
<td>0.94</td>
<td>4.10</td>
</tr>
<tr>
<td></td>
<td>0.87</td>
<td>0.87</td>
<td>4.75</td>
<td>20.78</td>
</tr>
</tbody>
</table>

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

b) Particulate matter (PM) 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.

c) PM 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.

d) 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.

e) Tons per any consecutive 12-calendar month period.

f) Each emission limit for Dryer 1 is for the total emissions measured from both stacks (P101A and P101B, combined).

2.4 Process Weight-Based Particulate Matter Emissions Limits

The permittee shall not emit PM to the atmosphere from any process or process equipment in excess of the amount shown by the equations in IDAPA 58.01.01.700-703.

2.5 Opacity Limit

Emissions from each dryer stack, or any other stack, vent, or functionally equivalent opening associated with a dryer 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 Fuel type

The dryer heaters shall be fired on natural gas only.

2.7 O&M Manual

The permittee shall have developed an Operation and Maintenance (O&M) manual for the baghouses, which describes the procedures that will be followed to comply with control device maintenance and operation requirements (General Provision 6.2) and the manufacturer specifications for the baghouse. This manual shall remain onsite at all times and shall be made available to DEQ representatives upon request. Any changes to the O&M shall be submitted to DEQ for review and comment within 15 days of the change. The permittee shall operate control equipment in accordance with the O&M manual at all times. The requirements in the O&M manual shall be incorporated by reference to this permit and shall be enforceable permit conditions. At a minimum, the O&M manual shall include the following for each baghouse (Table 1.1):

- Minimum pressure drop across each baghouse
2.8 Baghouse Pressure Drop
The permittee shall install, calibrate, operate, and maintain pressure drop monitoring devices to continuously measure the pressure drop across each baghouse listed in the dryer control device descriptions (Table 2.1). The pressure drop across each baghouse shall be maintained within manufacturer’s and O&M Manual specifications.

2.9 Throughput limit
The permittee shall not process more than a combined 5.0 million pounds of raw milk per day (2500 T/day) in the dryers.

Monitoring and Recordkeeping Requirements

2.10 Baghouse Pressure Drop Monitoring
The permittee shall monitor and record the pressure drop of each baghouse daily and conduct quarterly baghouse inspections. The records shall include at a minimum the date of each inspection, description of the structural integrity of the bags/filters, and a description of any maintenance or corrective action performed. Records of this information shall be maintained in accordance with monitoring and recordkeeping requirements (General Provision 6.10).

2.11 Throughput Monitoring and Record Keeping
The permittee shall monitor and record the amount of milk processed by each dryer daily to demonstrate compliance with the throughput limit. The amount of raw milk processed shall be recorded in pounds per day. Records of this information shall be maintained in accordance with general provisions.

Performance Testing Requirements

2.12 Dryer Tests
Within 180 days after dryer startup, the permittee shall conduct a performance test to measure PM$_{2.5}$ and PM$_{10}$ emissions from each dryer stack to demonstrate compliance with the corresponding PM$_{2.5}$ and PM$_{10}$ emission limits in the Dryer Emissions Limits condition (Permit Condition 2.3). The PM$_{2.5}$ and PM$_{10}$ emission tests shall be conducted in accordance with the procedures outlined in 40 CFR 60, Appendix A, Methods 5 and 202, or Methods 201A and 202, or a DEQ-approved alternative. Emissions from dryer stacks P101A and P101B shall be measured concurrently. During each test, the dryer shall be operated at the worst-case normal production rate, in accordance with IDAPA 58.01.01.157 and performance testing requirements (General Provisions 6.7–6.9). A description of how this requirement was met shall be included in each performance test report.

Subsequent testing shall be performed according to the following schedule:
- If the dryer emission rate measured in the most recent test is less than or equal to 75% of the corresponding dryer emission limit (Permit Condition 2.3), the next test shall be conducted within five years of the test date.
- If the dryer emission rate measured during the most recent performance test is greater than 75% but less than or equal to 90% of the corresponding dryer emission limit (Permit Condition 2.3), the next test shall be conducted within two years of the test date.
• If the dryer emission rate measured during the most recent performance test is greater than 90% of the corresponding dryer emission limit (Permit Condition 2.3), the next test shall be conducted within one year of the test date.

2.13 Dryer 2 Heater Test

Within 180 days after permit issuance, the permittee shall conduct a performance test to measure CO and NOx emissions from the Dryer 2 heater stack to demonstrate compliance with the corresponding CO and NOx emission limit in the Dryer Emissions Limits condition (Permit Condition 2.3). The CO emission tests shall be conducted in accordance with the procedures outlined in 40 CFR 60, Appendix A, Method 10, or a DEQ-approved alternative. The NOx emission tests shall be conducted in accordance with the procedures outlined in 40 CFR 60, Appendix A, Method 7E, or a DEQ-approved alternative. During each test, the dryer heater shall be operated at the worst-case normal production rate, in accordance with IDAPA 58.01.01.157 and performance testing requirements (General Provisions 6.7–6.9). A description of how this requirement was met shall be included in each performance test report.

Subsequent testing shall be performed according to the following schedule:

• If the Dryer 2 heater emission rate measured in the most recent test is less than or equal to 75% of the corresponding Dryer 2 heater emission limit (Permit Condition 2.3), the next test shall be conducted within five years of the test date.

• If the Dryer 2 heater emission rate measured during the most recent performance test is greater than 75% but less than or equal to 90% of the corresponding Dryer 2 heater emission limit (Permit Condition 2.3), the next test shall be conducted within two years of the test date.

• If the Dryer 2 heater emission rate measured during the most recent performance test is greater than 90% of the corresponding Dryer 2 heater emission limit (Permit Condition 2.3), the next test shall be conducted within one year of the test date.

2.14 Dryer Tests Monitoring

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

• The visible emissions observed for the stack tested during each test, using the methods specified in IDAPA 58.01.01.625.

• The pressure drop across the relevant baghouse for the stack tested.

• The input rate of raw milk to the dryer tested in pounds per hour.

2.15 Dryer 2 Heater Tests Monitoring

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

• The input rate of raw milk to the dryer tested in pounds per hour.

• The dryer firing rate percentage, or gas flow rate to the dryer.

Reporting Requirements

2.16 Dryer Test Reporting

Performance test reporting shall be furnished to DEQ in accordance with the performance testing requirements (General Provisions 6.7–6.9).
3 Boilers

3.1 Process Description

The boilers combust natural gas to produce steam for the milk drying processes.

3.2 Control Device Descriptions

Table 3.1 Boiler Control Device Descriptions

<table>
<thead>
<tr>
<th>Emissions Units / Processes</th>
<th>Control Devices</th>
<th>Emission Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiler 1</td>
<td>None</td>
<td>P104</td>
</tr>
<tr>
<td>Boiler 2</td>
<td>None</td>
<td>P105</td>
</tr>
</tbody>
</table>

Emissions Limits

3.3 Emissions Limits

The emissions from each boiler stack shall not exceed any corresponding emission rate limit listed in the following table.

Table 3.2 Boiler Emission Limits (a)

<table>
<thead>
<tr>
<th>Source Description</th>
<th>PM$_{2.5}$ (b)</th>
<th>PM$_{10}$ (c)</th>
<th>NOx (d)</th>
<th>CO (e)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>lb/hr (d)</td>
<td>lb/hr (d)</td>
<td>lb/hr (d)</td>
<td>lb/hr (d)</td>
</tr>
<tr>
<td>Boiler 1 stack</td>
<td>0.25</td>
<td>0.25</td>
<td>3.29</td>
<td>2.76</td>
</tr>
<tr>
<td>(P104)</td>
<td>1.09</td>
<td>1.09</td>
<td>14.38</td>
<td>12.08</td>
</tr>
<tr>
<td>Boiler 2 stack</td>
<td>0.25</td>
<td>0.25</td>
<td>3.29</td>
<td>2.76</td>
</tr>
<tr>
<td>(P105)</td>
<td>1.09</td>
<td>1.09</td>
<td>14.38</td>
<td>12.08</td>
</tr>
</tbody>
</table>

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

3.4 Particulate Matter Emissions

The permittee shall not discharge to the atmosphere from any fuel-burning equipment PM in excess of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume for gas in accordance with IDAPA 58.01.01.676.

3.5 Opacity Limit

Emissions from each boiler stack, or any other stack, vent, or functionally equivalent opening associated with a dryer 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 Fuel type
The boilers shall be fired on natural gas only.

3.7 NSPS 40 CFR 60, Subpart Dc
The permittee shall comply with all applicable reporting and recordkeeping requirements of 40 CFR 60, Subpart Dc – New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units.

- The owner or operator of boilers that combust only natural gas shall record and maintain records of the total amount of boiler fuel delivered to the facility during each calendar month in accordance with 40 CFR 60.48c(g)(3).
- All records shall be maintained by the owner or operator for a period of two years following the date of such record in accordance with 40 CFR 60.48c(i).
- The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the administrator and shall be postmarked by the 30th day following the end of the reporting period in accordance with 40 CFR 60.48c(j).
- The permittee shall submit notification of the date of construction or reconstruction of each boiler and actual startup for each boiler, in accordance with 40 CFR 60.48c(a) and 40 CFR 60.7. This notification shall include:
  - The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
  - The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

[1/05/2022]

3.8 Stack height
The boilers shall have a minimum stack height of 65 feet above ground level, with unimpeded vertical flow. The stack heights shall be increased to this height prior to startup of Dryer 2.

[3/01/2021]
4 Fluid Bed and Powder Storage

4.1 Process Description

Dried solids will be cooled in the fluid bed. Exhaust air from the fluid bed will pass through a baghouse (P102) and then be discharged. The powder from the fluid bed cooler will drop through an airlock, through a rotary sifter, and onto a conveyor for transfer to a storage silo. Exhaust from the silos passes through a baghouse (P103B) and then discharge to the atmosphere. In a second production line, the operating receiver delivers powder via dense phase to one of three powder handling silos (filling one at a time). Exhaust from the operating silo passes through a baghouse (POWDSILO) and then discharges to the atmosphere through a common 6-inch diameter vent. Powder from the silos is then transported with a vacuum dense phase transport system to the sifter accumulation hopper. The sifter accumulation hopper has two vacuum receivers. Exhaust from the operating vacuum receiver passes through a baghouse (VACRCV) and then discharges to the atmosphere through the common 6-inch diameter vent. Only one vacuum receiver is running at a given time (cycle back and forth).

In a second production line, the operating receiver delivers powder via dense phase to one of three powder handling silos (filling one at a time). Exhaust from the operating silo passes through a baghouse (POWDSILO) and then discharges to the atmosphere through a common 6-inch diameter vent. Powder from the silos is then transported with a vacuum dense phase transport system to the sifter accumulation hopper. The sifter accumulation hopper has two vacuum receivers. Exhaust from the operating vacuum receiver passes through a baghouse (VACRCV) and then discharges to the atmosphere through the common 6-inch diameter vent. Only one vacuum receiver is running at a given time (cycle back and forth).

Milk powder products stored in the silos are packaged and shipped off-site.

4.2 Control Device Descriptions

Table 4.1 Fluid Bed and Powder Storage Control Device Descriptions

<table>
<thead>
<tr>
<th>Emissions Units / Processes</th>
<th>Control Devices</th>
<th>Emission Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid Bed</td>
<td>Fluid Bed Baghouse</td>
<td>P102</td>
</tr>
<tr>
<td>Powder Handling Line 1</td>
<td>Powder Handling Baghouse</td>
<td>P103B</td>
</tr>
<tr>
<td>(Powder Silo 1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Powder Handling Line 2</td>
<td>Powder Silo Baghouse, and Hopper Vacuum</td>
<td>POWDSILO and</td>
</tr>
<tr>
<td>(Powder Silo 2, Hopper Vacuum</td>
<td>Receiver Baghouses</td>
<td>VACRCV</td>
</tr>
<tr>
<td>Receiver)</td>
<td></td>
<td>[3/01/2021]</td>
</tr>
</tbody>
</table>

Emissions Limits

4.3 Opacity Limit

Emissions from any baghouse stack, or any other stack, vent, or functionally equivalent opening associated with the fluid bed or powder 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. [3/01/2021]
4.4 Emission Limits

The emissions from each baghouse stack shall not exceed any corresponding emissions rate limit listed in the following table. All fluid bed and powder process emissions shall be ducted to the corresponding dedicated baghouse stack at all times.

<table>
<thead>
<tr>
<th>Source Description</th>
<th>PM$_{2.5}$ (lb/hr)</th>
<th>PM$_{10}$ (lb/hr)</th>
<th>T/yr (lb/hr)</th>
<th>T/yr (T/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid Bed Baghouse stack (P102)</td>
<td>1.08</td>
<td>1.08</td>
<td>4.73</td>
<td>4.73</td>
</tr>
<tr>
<td>Powder Handling Baghouse stack (P103B)</td>
<td>0.12</td>
<td>0.12</td>
<td>0.50</td>
<td>0.50</td>
</tr>
<tr>
<td>Powder Silo Baghouse stack (POWDSILO)</td>
<td>0.0036</td>
<td>0.0036</td>
<td>0.016</td>
<td>0.016</td>
</tr>
<tr>
<td>Hopper Vacuum Receiver Baghouse stack (VACRCV)</td>
<td>0.0036</td>
<td>0.0036</td>
<td>0.016</td>
<td>0.016</td>
</tr>
</tbody>
</table>

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

b) Particulate matter (PM) 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.

c) PM 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.

d) 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.

e) Tons per any consecutive 12-calendar month period.

[3/01/2021]

Operating Requirements

4.5 Operations and Maintenance (O&M) Manual Requirements and Baghouse Pressure Drop

Within 60 days after permit issuance, the permittee shall have developed an O&M manual for the baghouses, which describes the procedures that will be followed to comply with control device maintenance and operation requirements (General Provision 6.2) and the manufacturer specifications for the baghouse. This manual shall remain onsite at all times and shall be made available to DEQ representatives upon request. Any changes to the O&M shall be submitted to DEQ for review and comment within 15 days of the change. The permittee shall operate control equipment in accordance with the O&M manual at all times. The requirements in the O&M manual shall be incorporated by reference to this permit and shall be enforceable permit conditions. At a minimum, the O&M manual shall include the following for each baghouse (Table 1.1):

- Minimum pressure drop across each baghouse

[3/01/2021]

4.6 Baghouse Pressure Drop

The permittee shall install, calibrate, operate, and maintain pressure drop monitoring devices to continuously measure the pressure drop across each baghouse listed in the boiler control device descriptions (Table 4.1). The pressure drop across each baghouse shall be maintained within manufacturer’s and O&M manual specifications.
Monitoring and Recordkeeping Requirements

4.7 Baghouse Pressure Drop Monitoring

The permittee shall monitor and record the pressure drop of each baghouse daily and conduct quarterly baghouse inspections. The records shall include at a minimum the date of each inspection, description of the structural integrity of the bags/filters, and a description of any maintenance or corrective action performed. Records of this information shall be maintained in accordance with monitoring and recordkeeping requirements (General Provision 6.10).
5 Emergency Generator

5.1 Process Description
The emergency generator will supply backup power in the event of an electrical interruption in the main power supply.

5.2 Control Device Description
Emissions from the emergency generator are uncontrolled.

Emissions Limits

5.3 Opacity Limit
Emissions from the emergency generator stack, or any other stack, vent, or functionally equivalent opening associated with the fluid bed or powder 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.

5.4 40 CFR 60, Subpart IIII – Emissions Standards for Stationary CI Internal Combustion Emergency Engines
The permittee shall comply with the applicable emission standards of 40 CFR 60, Subpart IIII – New Source Performance Standards for Compression Ignition Internal Combustion Engines.

- The permittee shall operate and maintain the emergency generator according to the manufacturer's written instructions or procedures that are approved by the engine manufacturer, over the entire life of the engine, in accordance with 40 CFR 60.4206.

- The permittee shall comply with the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR part 1039, appendix I, for all pollutants and the smoke standards as specified in 40 CFR 1039.105, in accordance with 40 CFR 60.4205(b) and 40 CFR 60.4202(a)(2).
  - Exhaust opacity from the emergency generator shall not exceed 20 percent during the acceleration mode, 15 percent during the lugging mode, and 50 percent during the peaks in either the acceleration or lugging modes, in accordance with 40 CFR 89.113. Opacity levels are to be measured and calculated as set forth in 40 CFR part 86, subpart I.

Operating Requirements

5.5 Allowable Fuels
The emergency generator shall combust only diesel fuel.

5.6 40 CFR 60, Subpart IIII – Fuel Requirements
If the emergency stationary ICE has a displacement of less than 30 liters per cylinder, the permittee must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted in accordance with 40 CFR 60.4207(b).
5.7 40 CFR 60, Subpart IIII – Hours of Operation

The permittee must operate the emergency stationary ICE according to the requirements below in accordance with 40 CFR 60.4211(f). In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year is prohibited. If you do not operate the engine according to the requirements below, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

- There is no time limit on the use of emergency stationary ICE in emergency situations.
- The permittee may operate the emergency stationary ICE for any combination of the purposes specified in below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations counts as part of the 100 hours per calendar year.
  - Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
  - Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
  - Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response. The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
  - The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
    - The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
    - The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
o The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

o The power is provided only to the facility itself or to support the local transmission and distribution system.

o The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

5.8 40 CFR 60, Subpart III – Other Requirements

The permittee shall comply with all applicable requirements in accordance with 40 CFR 60.4208.

• After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

• It is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in this section.

• The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

5.9 40 CFR 60, Subpart III – Compliance, Testing, and Monitoring Requirements

The permittee shall comply with all applicable requirements in accordance with 40 CFR 60.4209 and 40 CFR 60.4211.

• The permittee shall install a non-resettable hour meter prior to startup of the engine.

• The permittee shall operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions, change only those emission-related settings that are permitted by the manufacturer, and Meet the requirements of 40 CFR part 1068, as they apply.

• The owner or operator shall demonstrate compliance with emission standards by purchasing an engine certified to emission standards for the same model year and maximum engine power as described in 40 CFR parts 1039 and 1042, as applicable. The engine must be installed and configured according to the manufacturer's specifications.

5.10 40 CFR 60, Subpart III – Notification, Reporting, and Recordkeeping Requirements

The permittee shall comply with all applicable requirements in accordance with 40 CFR 60.4214.

• The permittee is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are
recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

- If the permittee operates or is contractually obligated the emergency stationary CE to be available for more than 15 hours per calendar year for the purposes specified in § 60.4211(f)(2)(ii) and (iii) or that operates for the purposes specified in § 60.4211(f)(3)(i), you must submit an annual report according to the requirements in 40 CFR 60.4214(d).
6 General Provisions

General Compliance

6.1 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.]

6.2 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, 5/1/1994]

6.3 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, 5/1/1994]

Inspection and Entry

6.4 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

6.5 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, 5/1/1994]

6.6 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; and
• A notification of the initial date of achieving the maximum production rate, within five working days after occurrence - production rate and date.

[IDAPA 58.01.01.211.01, 5/1/1994]

• 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.

[IDAPA 58.01.01.211.03, 5/1/1994]

Performance Testing

6.7 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.

6.8 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.

6.9 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, 4/5/2000 and 4/11/2015]

Monitoring and Recordkeeping

6.10 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, 5/1/1994]
Excess Emissions

6.11 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, 4/5/2000]

Certification

6.12 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, 5/1/1994]

False Statements

6.13 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, 3/23/1998]

Tampering

6.14 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, 3/23/1998]

Transferability

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

[IDAPA 58.01.01.209.06, 4/11/2006]

Severability

6.16 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, 5/1/1994]