



STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

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www.deq.idaho.gov

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

July 12, 2016

Dane Higdem, Director EHS  
Glanbia Foods, Inc.  
1728 South 2300 East  
Gooding, ID 83330

RE: Facility ID No. 047-00008, Glanbia Foods, Inc., Gooding  
Final Permit Letter

Dear Mr. Higdem:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct (PTC) No. P-2010.0012 Project 61562 to Glanbia Foods, Inc. located at Gooding for the addition of a new whey powder agglomeration production line. 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 July 31, 2015.

This permit is effective immediately and replaces PTC No. P-2010.0012, issued on May 13, 2010. This permit does not release Glanbia Foods, Inc. from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

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 Twin Falls Regional Office, 650 Addison Avenue West, Twin Falls, ID 83301, Fax (208) 736-2194.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with Bobby Dye, Air Quality and Remediation Manager, at (208) 737-3889 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.

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

Sincerely,

A handwritten signature in black ink that reads "Mike Simon".

Mike Simon  
Stationary Source Program Manager  
Air Quality Division

MSKW

Permit No. P-2010.0012 PROJ 61562

# Air Quality

## PERMIT TO CONSTRUCT

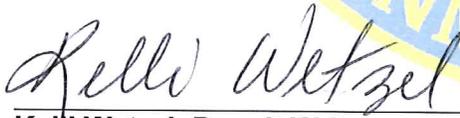
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|                          |                                       |
|--------------------------|---------------------------------------|
| <b>Permittee</b>         | Glanbia Foods, Inc. Gooding           |
| <b>Permit Number</b>     | P-2010.0012                           |
| <b>Project ID</b>        | 61562                                 |
| <b>Facility ID</b>       | 047-00008                             |
| <b>Facility Location</b> | 1728 S 2300 East<br>Gooding, ID 83330 |

### 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** July 12, 2016



*Kelli Wetzel*

Kelli Wetzel, Permit Writer



*Mike Simon*

Mike Simon, Stationary Source Manager

## Contents

|   |  |    |
|---|--|----|
| 1 | Permit Scope.....  | 3  |
| 2 | Anaerobic Digester, Flare, and Three Natural Gas/Biogas Boilers..... | 6  |
| 3 | Two Full-Time Natural Gas-Fired Boilers.....                         | 10 |
| 4 | Lactose Production Line.....   | 12 |
| 5 | Whey Protein Concentrate Bagging Line.....                           | 15 |
| 6 | Whey Powder Agglomeration Production Line (LUFT Facility).....       | 18 |
| 7 | General Provisions.....  | 21 |

# 1 Permit Scope

## Purpose

- 1.1 This is a modified permit to construct (PTC) for a new whey powder agglomeration production line referred to as the LUFT facility.
- 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-2010.0012, issued on May 13, 2010.

## Regulated Sources

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

**Table 1.1 Regulated Sources**

| Permit Section | Source   | Control Equipment   |
|----------------|--|---|
| 2              | <u>ANAEROBIC DIGESTER:</u><br>Digester - Biogas generation capacity of 505,000 scf/day   | Boilers 2, 3, and 5 and then the flare when the boilers are down    |
| 2              | <u>BIOGAS FLARE:</u><br>Flare - Varec Biogas model 244 W flare with a heat input rating of 13.68 MMBtu/hr installed in 2005  | None (considered an emission control device when combusting biogas) |
| 2              | <u>FULL-TIME BOILER:</u><br>BOILER 2 - Cleaver Brooks model #CB600-600 (SN L-90943) natural gas/biogas boiler with a rated heat capacity of 25.1 MMBtu/hr installed in July 1992     | None (considered an emission control device when combusting biogas) |
| 2              | <u>FULL-TIME BOILER:</u><br>BOILER 3 - Cleaver Brooks model #CB600-600 (SN L-79896) natural gas/biogas boiler with a rated heat capacity of 25.1 MMBtu/hr installed in December 1996 | None (considered an emission control device when combusting biogas) |
| 2              | <u>AUXILIARY BOILER:</u><br>BOILER 5 - Cleaver Brooks model #CB700-400-30H natural gas/biogas-fired boiler with a rated heat capacity of 16.73 MMBtu/hr installed in 2005            | None (considered an emission control device when combusting biogas) |
| 3              | <u>FULL-TIME BOILER:</u><br>BOILER 1 - Cleaver Brooks model #CB200-800-150 natural gas-fired boiler with a rated heat capacity of 26.4 MMBtu/hr installed in November 14, 2006       | N/A   |
| 3              | <u>FULL-TIME BOILER:</u><br>BOILER 4 - Cleaver Brooks model #CB600-600 (SN L-79895) natural gas-fired boiler with a rated heat capacity of 25.1 MMBtu/hr installed in December 1999  | N/A   |

| Permit Section | Source   | Control Equipment   |
|----------------|--|---|
| 4              | LACTOSE PRODUCTION LINE - LACTOSE PRIMARY DRYER:<br>WPC Dryer - Relco dryer with a maximum capacity of 11,500 lb/hr of total solids (750 lb/hr of total solids go to baghouse for recovery) with a maximum steam usage rate of 3,996 lb-steam/hr   | N/A   |
| 4              | LACTOSE PRIMARY DRYER BAGHOUSE:<br>PDRYBH -Relco reverse pulse jet baghouse with 230 polyester bags, each bag: 6 inch in diameter and 120 inch in length, an air/cloth ratio of 6.24 ft/min, and a control efficiency of 99.99%  | None, the baghouse is process equipment   |
| 4              | LACTOSE PRODUCTION LINE - LACTOSE SECONDARY FLUIDIZED BED DRYER:<br>Secondary Dryer - Relco dryer with a maximum capacity of 11,500 lb/hr of total solids (525 lb/hr of total solids go to baghouse for recovery)  | None, the baghouse is process equipment   |
| 4              | FLUIDIZED BED DRYER BAGHOUSE:<br>FBEDBH -Relco reverse pulse jet baghouse with 180 Polyester bags, each bag: 6 inch in diameter and 120 inch in length, an air/cloth ratio of 6.17 ft/min, and a control efficiency of 99.99%  | None, the baghouse is process equipment   |
| 4              | LACTOSE PRODUCTION LINE - LACTOSE RECEIVING BAGHOUSE (Existing Bauermeister Receiving Baghouse):<br>Lactose Baghouse - NIRO model #96LRT80 Style III reverse pulse jet baghouse with 75 polyester bags, an air/cloth ratio of 4.53 ft/min, and a control efficiency of 99.99%  | None, the baghouse is process equipment   |
| 4              | LACTOSE PRODUCTION LINE - MILLING PROCESS, MILL RECEIVING BAGHOUSE:<br>MRECBH -Relco reverse pulse jet baghouse with an air/cloth ratio of 6.31 ft/min, a control efficiency of 99.99%, and with a maximum capacity of 11,500 lb/hr of total solids (750 lb/hr of total solids go to baghouse for recovery)  | None, the baghouse is process equipment   |
| 4              | LACTOSE PRODUCTION LINE – POWDER HANDLING, THREE POWDER BINS:<br>Bin 1 - NIRO powder bin with a capacity of 2,850 ft <sup>3</sup><br>Bin 2 - NIRO powder bin with a capacity of 2,850 ft <sup>3</sup><br>Bin 5 - Relco powder bin with a capacity of 2,850 ft <sup>3</sup><br>Maximum Capacity: 11,500 lb/hr, solids output (from all 3 bins combined) | PBINBH - Relco reverse pulse jet powder bin baghouse with polyester bags, an air/cloth ratio of 6.90 ft/min, and a control efficiency of 99.99%.<br>Note: Each powder bin has its own associated baghouse on top of the bin. The exhausts of three baghouses vent to one stack. |

| Permit Section | Source   | Control Equipment   |
|----------------|--|---|
| 4              | TWO LACTOSE SURGE HOPPERS:<br>Surge hopper - Relco surge hopper<br>Maximum Capacity: 17,600 lb/hr, solids output<br>(from both hoppers combined)                       | WPCSCRBH - Relco reverse pulse jet lactose surge hopper baghouse with polyester bags, an air/cloth ratio of 6.89 ft/min, and a control efficiency of 99.99%. Note: Each lactose surge hopper has its own associated baghouse on top of the hopper. The exhausts of two identical baghouses vent to one stack. |
| 4              | LACTOSE SIFTER RECEIVER - LACTOSE SIFTER RECEIVER:<br>Sifter receiver – Relco sifter receiver<br>Maximum Capacity: 17,600 lb/hr, among the total solids go to baghouse | PDRYBH – Relco reverse pulse sifter receiver baghouse with an air/cloth ratio of 5.77 ft/min and with a grain loading of 0.139 gr/dscf (surge hopper) and 0.182 gr/dscf (sift receiver).  |
| 5              | WPC BAGGING LINE - WPC SURGE HOPPER:<br>Surge hopper - Niro surge hopper<br>Maximum Capacity: 13,200 lb/hr, solids output  | WPCSCRBH – Donaldson Co., Inc. pulse WPC surge hopper baghouse with an air/cloth ratio of 7.7 ft/min and with a grain loading of 0.0044 gr/dscf.  |
| 5              | WPC BAGGING LINE - WPC BAGGING LINE:<br>Surge hopper - Niro surge hopper<br>Maximum Capacity: 10 lb/hr, among the total solids go to baghouse                          | WPCNUSBH – Donaldson Co., Inc. pulse WPC nuisance baghouse with an air/cloth ratio of 7.7 ft/min and with a grain loading of 0.0044 gr/dscf.  |
| 6              | AGGLOMERATION LINE/LUFT FACILITY<br>Rewet chamber and fluidized bed dryer/cooler<br>Maximum Capacity: 3,000 lb/hr  | LUFTBH – Custom Fabricating & Repair baghouse with an air/cloth ratio of 5.0 ft/min and with a grain loading of 0.01 gr/dscf.   |

[July 12, 2016]

## 2 Anaerobic Digester, Flare, and Three Natural Gas/Biogas Boilers

### 2.1 Process Description

Process water used for processing cheese and whey is treated by screening, clarifying, and settling. An anaerobic digester is used to further treat the water prior to discharging for land application. The digester generates biogas that is burned in three biogas/natural gas-fired hot water boilers. There are two full-time boilers, Boilers 2 and 3, and an auxiliary boiler, Boiler 5. In the event that either the two full-time boilers or the auxiliary boiler is incapable of burning biogas, it is combusted by the flare. If not enough biogas is available to fire the three boilers, natural gas is used as the fuel for the two full-time boilers (Boilers 2 and 3) and for the auxiliary boiler (Boiler 5), and all of the biogas is combusted in the flare.

The flare incinerates biogas exclusively and has a natural gas-fired pilot flame and a thermocouple (or a similar device) that detects the presence of a flame in the flare. The flare also has an alarm that notifies the operator in the case of a flameout. The flare, the full-time boilers, Boilers 2 and 3, and the auxiliary boiler, Boiler 5, can be fired on biogas simultaneously.

### 2.2 Control Device Descriptions

Table 2.1 Anaerobic Digester, Flare, and Natural Gas/Biogas Boilers Description

| Emissions Units / Processes | Control Devices   |
|-----------------------------|---|
| Anaerobic Digester          | Flare   |
| Biogas Flare                | None (Considered an emission control device when combusting biogas) |
| Full-Time Boiler 2          | None (Considered an emission control device when combusting biogas) |
| Full-Time Boiler 3          | None (Considered an emission control device when combusting biogas) |
| Auxiliary Boiler 5          | None (Considered an emission control device when combusting biogas) |

## Emission Limits

### 2.3 Emission Limits

The PM<sub>10</sub> and SO<sub>2</sub> emissions from the biogas flare, full-time boilers 2 and 3, and the auxiliary boiler 5 stacks shall not exceed any corresponding emissions rate limits listed in Table 2.2.

**Table 2.2 Anaerobic Digester, Flare, and Natural Gas/Biogas Boilers Emission Limits**

| Source Description  | PM <sub>10</sub> <sup>(b)</sup> |                     | SO <sub>2</sub>      |                     |
|---|---------------------------------|---------------------|----------------------|---------------------|
|   | lb/hr <sup>(c)</sup>            | T/yr <sup>(d)</sup> | lb/hr <sup>(c)</sup> | T/yr <sup>(d)</sup> |
| Biogas Flare, Single Fuel-Fired (Biogas Combustion)                     | 0.10                            | 0.43                | 5.57                 | 24.40               |
| Full-Time Boiler 2, Dual Fuel-Fired (Natural Gas Combustion)            | 0.17                            | 0.76                | 0.03                 | 0.13                |
| Full-Time Boiler 2, Dual Fuel-Fired (Biogas Combustion)                 | 0.09                            | 0.40                | 3.53                 | 15.46               |
| Full-Time Boiler 3, Dual Fuel-Fired (Natural Gas Combustion)            | 0.17                            | 0.76                | 0.03                 | 0.13                |
| Full-Time Boiler 3, Dual Fuel-Fired (Biogas Combustion)                 | 0.09                            | 0.40                | 3.53                 | 15.46               |
| Auxiliary Boiler 5, Dual Fuel-Fired (Natural Gas and Biogas Combustion) | 0.14                            | 0.59                | 7.66                 | 33.56               |

- 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.

[July 12, 2016]

**2.4 H<sub>2</sub>S Concentration Limit**

The average annual concentration of hydrogen sulfide (H<sub>2</sub>S) of the biogas entering the flare, full-time boilers 2 and 3, and the auxiliary boiler 5 shall not exceed 1,799 ppmv.

**2.5 Opacity Limit**

Emissions from the biogas flare, full-time boilers 2 and 3, and the auxiliary boiler 5 stacks, or any other stack, vent, or functionally equivalent opening associated with the biogas flare, full-time boilers 2 and 3, and the auxiliary boiler 5, 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.

**2.6 Grain Loading Limit**

The permittee shall not discharge to the atmosphere from full-time boilers 2 and 3 and the auxiliary boiler 5 stacks PM in excess of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume for gas, as required by IDAPA 58.01.01.676.

[July 12, 2016]

**2.7 Odors**

No person shall allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids into the atmosphere in such quantities as to cause air pollution in accordance with IDAPA 58.01.01.776.01.

**Operating Requirements**

**2.8 Biogas Production Limit**

Biogas production from the anaerobic digester shall not exceed 505,000 scf per day, based on the average scf produced per day over any consecutive 12-month period.

**2.9 Biogas Combustion**

Facility generated biogas produced from the on-site anaerobic digester shall only be combusted in the biogas flare, full-time boilers 2 and 3, or the auxiliary boiler 5.

## 2.10 Allowable Fuel Types

The flare shall only combust biogas as fuel. The full-time boilers 2 and 3 shall only combust biogas or natural gas as fuel. The auxiliary boiler 5 shall only combust biogas or natural gas as fuel.

[July 12, 2016]

## 2.11 Flare Pilot Flame and Alarm

The flare shall be operated with a pilot flame present when the anaerobic digester is operating. In the event of a flame failure, the permittee shall follow a standard operating procedure to reinitiate the pilot flame as expeditiously as practicable

In addition, the flare shall be operated with a thermocouple or similar device that detects the presence of a flame in the biogas flare. This device shall be periodically calibrated and shall be operated at all times when the flare is operating. The flare shall also be operated with an alarm that notifies the operator in the case of a flameout. The permittee shall follow the excess emissions procedures in IDAPA 58.01.01.130-136 in the event of an excess emissions event caused by the biogas flare.

## Monitoring and Recordkeeping Requirements

### 2.12 NSPS-Subpart Dc Applicability Notification, Monitoring, Reporting and Recordkeeping Requirements (Boilers 2, 3 and 5)

In accordance with 40 CFR 60.48c(a), the permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup as required by 40 CFR 60.7 for the full-time boilers 2 and 3 and the auxiliary boiler 5.

The notification shall include the following:

- The design heat input capacity of the affected facility,
- Fuels to be combusted in the affected facility, and
- The annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each fuel fired.

The monitoring and recordkeeping of fuels combusted in the boilers (boilers 2, 3 and 5) shall comply with 40 CFR 60.48c(g).

### 2.13 Biogas Flow and H<sub>2</sub>S Concentrations Monitoring

Unless an alternative monitoring and recordkeeping method is approved by DEQ, the permittee shall comply with the following requirements:

For the hydrogen sulfide analyzer and the totalizing gas flow rate analyzer upstream of the full-time boilers 2 and 3 and the auxiliary boiler 5, the permittee shall install, calibrate, maintain, operate, and record parameters in accordance with the O&M manual and the requirements listed below:

#### Biogas H<sub>2</sub>S Concentration

The permittee shall perform the following to determine the quantity of H<sub>2</sub>S produced by the anaerobic digester:

- Calibration of the hydrogen sulfide analyzer shall be performed and recorded semi-annually.

- An H<sub>2</sub>S sample shall be taken and analyzed by the hydrogen sulfide analyzer, and the H<sub>2</sub>S concentration results recorded, at least once per week. If additional H<sub>2</sub>S samples are taken, those shall also be recorded.

#### **Biogas Generation**

The permittee shall perform the following to determine the quantity of biogas produced by the anaerobic digester:

- Once per month, the total gas flow shall be recorded.

#### **2.14 Operations and Maintenance Manual**

The permittee shall maintain an operations and maintenance (O&M) manual which describes the procedures that will be followed to maintain good working order and assure operation as efficiently as practical for the H<sub>2</sub>S monitor and the pilot flame detector. The procedures and specifications described in the O&M manual shall address, at a minimum, the following topics:

##### **H<sub>2</sub>S Monitor**

- Standard operational procedure for H<sub>2</sub>S sampling
- Frequency and method of calibration
- Operational maintenance
- Procedures for upset/breakdown conditions and for correcting equipment malfunctions

##### **Pilot Flame Detector**

- Method of ensuring continuous operation
- Operational Maintenance

If the O & M manual is updated a copy shall be submitted to the DEQ Twin Falls regional office at the following address:

Air Quality Permit Compliance  
Department of Environmental Quality  
Twin Falls Regional Office  
650 Addison Avenue West, Suite 110  
Twin Falls, Idaho 83301  
Phone: (208) 736-2190      Fax: (208) 736-2194

[July 12, 2016]

#### **2.15 Recordkeeping Requirement**

The permittee shall comply with the recordkeeping requirements of the recordkeeping General Provision.

### 3 Two Full-Time Natural Gas-Fired Boilers

#### 3.1 Process Description

Two boilers provide steam and hot water to the manufacturing processes at the facility. The two boilers combust natural gas exclusively.

#### 3.2 Control Device Descriptions

Table 3.1 Two Full-Time Natural Gas-Fired Boilers Description

| Emissions Units / Processes | Control Devices |
|-----------------------------|-----------------|
| Full-Time Boiler 1          | None            |
| Full-Time Boiler 4          | None            |

### Emission Limits

#### 3.3 Emission Limits

The emissions from the full-time boilers 1 and 4 stacks shall not exceed any corresponding emissions rate limits listed in Table 2.2.

Table 3.2 Two Full-Time Natural Gas-Fired Boilers Emission Limits

| Source Description   | PM <sub>10</sub> <sup>(b)</sup> |                     |
|--|---------------------------------|---------------------|
|  | lb/hr <sup>(c)</sup>            | T/yr <sup>(d)</sup> |
| Full-Time Boiler 1, Single Fuel Fired (Natural Gas Combustion) | 0.19                            | 0.83                |
| Full-Time Boiler 4, Single Fuel Fired (Natural Gas Combustion) | 0.18                            | 0.79                |

- 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 to the atmosphere from full-time boilers 1 and 4 stacks PM in excess of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume for gas, as required by IDAPA 58.01.01.676.

#### 3.5 Opacity Limit

Emissions from the full-time boilers 1 and 4 stacks, or any other stack, vent, or functionally equivalent opening associated with the full-time boilers 1 and 4, 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 Allowable Fuel

Boilers 1 and 4 shall only combust natural gas as fuel.

## **Monitoring and Recordkeeping Requirements**

### **3.7 NSPS-Subpart Dc Applicability Notification, Monitoring, Reporting and Recordkeeping Requirements (Boilers 1 and 4)**

In accordance with 40 CFR 60.48c(a), the permittee shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup as required by 40 CFR 60.7 for Boilers 1 and 4.

The notification shall include the following:

- The design heat input capacity of the affected facility,
- Fuels to be combusted in the affected facility, and
- The annual capacity factor at which the permittee anticipates operating the affected facility based on all fuels fired and based on each fuel fired.

The monitoring and recordkeeping of fuels combusted in the boilers (boilers 1 and 4) shall comply with 40 CFR 60.48c(g).

### **3.8 Recordkeeping Requirement**

The permittee shall comply with the recordkeeping requirements of the recordkeeping General Provision.

## 4 Lactose Production Line

### 4.1 Process Description

The Glanbia Gooding facility produces whey powder from the lactose production line. Lactose whey is produced through a multi-step process starting from evaporation of raw milk into crystallizers to a series of refiners before entering a drying cycle. A primary dryer utilizes steam heat to carry lactose particles to a cyclone. Lactose particles are discharged from the cyclone to a fluidized bed dryer for final drying. Fine lactose particles are carried in the airstreams from the primary and fluidized bed dryers to their corresponding baghouses and the mill receiving baghouse for product recovery. Most of the lactose particles are discharged from the fluidized bed to a conveying line for transport to lactose powder bins. Lactose whey is temporarily stored in the powder bins and eventually is transferred through a surge hopper to the lactose bagging line where the finished product is received for packaging. A relatively small amount of fine whey particulate matter will emit to the atmosphere through the new baghouses associated with three lactose powder bins and two surge hoppers.

### 4.2 Control Device Descriptions

Table 4.1 Lactose Production Line Description

| Emissions Units / Processes   | Control Devices                        | Emission Points |
|---|--|-----------------|
| Lactose Production Line<br>Lactose Receiving Baghouse   | N/A                                    | LACBAG          |
| Lactose Primary Dryer<br>Lactose Primary Dryer Baghouse                                       | N/A                                    | PDRYBH          |
| Lactose Secondary Fluidized Bed<br>Dryer<br>Lactose Secondary Fluidized Bed<br>Dryer Baghouse | N/A                                    | FBEDBH          |
| Milling Process, Mill Receiving<br>Baghouse   | N/A                                    | MRECBH          |
| Three Powder Bins   | Powder Bins Baghouse                   | PBINBH          |
| Two Lactose Surge Hoppers   | Two Lactose Surge Hoppers<br>Baghouses | LACRECBH        |
| Lactose Sifter Receiver   | Lactose Sifter Receiver Baghouse       |                 |

## Emission Limits

### 4.3 PM<sub>10</sub> Emission Limits

The PM<sub>10</sub><sup>b</sup> emissions from the stack of the lactose receiving baghouse shall not exceed 18.24 lb/day.

The PM<sub>10</sub><sup>b</sup> emissions from the stack of lactose primary dryer baghouse shall not exceed 29.04 lb/day.

The PM<sub>10</sub><sup>b</sup> emissions from the stack of lactose secondary fluidized bed dryer baghouse shall not exceed 40.80 lb/day.

The PM<sub>10</sub><sup>b</sup> emissions from the stack of the mill-receiving baghouse shall not exceed 26.88 lb/day.

The PM<sub>10</sub><sup>b</sup> emissions from the stack of powder bins baghouse shall not exceed 20.88 lb/day.

The PM<sub>10</sub><sup>b</sup> emissions from the stack of lactose surge hopper baghouses and the lactose sifter receiver baghouse combined shall not exceed 29.28 lb/day.

- a) In absence of any other credible evidence, compliance is assured 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 58.01.01.006.81.

#### **4.4 Opacity Limit**

Emissions from each of the baghouses (lactose receiving baghouse, lactose primary dryer baghouse, the lactose secondary fluidized bed dryer baghouse, the mill receiving baghouses, the powder bins baghouse, the lactose surge hoppers baghouses, the lactose sifter receiver baghouse) stacks, or any other stack, vent, or functionally equivalent opening associated with the baghouses (lactose receiving baghouse, lactose primary dryer baghouse, the lactose secondary fluidized bed dryer baghouse, the mill receiving baghouses, the powder bins baghouse, the lactose surge hoppers baghouses, or the lactose sifter receiver baghouse), 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**

#### **4.5 Operating Requirements for the Baghouses**

The permittee shall install and operate baghouses to control PM and PM<sub>10</sub> emissions from the lactose production line, the lactose primary dryer, the lactose secondary fluidized bed dryer, the milling operation, the three powder bins, the two lactose surge hoppers, and the lactose sifter receiver processes.

#### **4.6 Baghouse/Filter System Procedures**

For the lactose primary dryer baghouse, the fluidized bed dryer baghouse, the lactose receiving baghouse, the mill receiving baghouse, the three powder bin baghouses, or the two lactose surge hopper baghouses:

The permittee shall maintain a Baghouse/Filter System Procedures document for the inspection and operation of the baghouses/filter system which controls emissions from the process. The Baghouse/Filter System Procedures document shall be a permittee-developed document independent of the manufacturer-supplied operating manual but may include summaries of procedures included in the manufacturer-supplied operating manual.

The Baghouse/Filter System Procedures document shall describe the procedures that will be followed to comply with General Provision 7.2 and shall contain requirements for weekly see/no-see visible emissions inspections of the baghouse. The inspection shall occur during daylight hours and under normal operating conditions.

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

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

The permittee shall maintain records of the results of each baghouse/filter system inspection in accordance with General Provision 7.10. The records shall include a description of whether visible emissions were present and if visible emissions were present, a description of the corrective action that was taken.

The Baghouse/Filter System Procedures document shall be maintained and shall contain a certification by a responsible official. Any changes to the Baghouse/Filter System Procedures document shall be submitted within 15 days of the change.

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

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

The permittee shall submit the Baghouse/Filter System Procedures document to the following address:

Air Quality Permit Compliance  
Department of Environmental Quality  
Twin Falls Regional Office  
650 Addison Avenue West, Suite 110  
Twin Falls, Idaho 83301  
Phone: (208) 736-2190 Fax: (208) 736-2194

[July 12, 2016]

#### **4.7 Lactose Receiving Baghouse Operation Requirement**

The permittee shall replace all the bags in the lactose receiving baghouse every six months, or a different frequency proposed by the permittee and approved by DEQ.

### **Monitoring and Recordkeeping Requirements**

#### **4.8 Visible Emissions Monitoring**

To demonstrate compliance with the opacity limit Permit Condition, the permittee shall conduct a weekly inspection of potential sources of visible emissions for the lactose production line, during daylight hours and under normal operating conditions. The inspection shall consist of a see/no see evaluation for each potential source of visible emissions. If any visible emissions are present from any point of emission, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20%, as measured using Method 9, for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136. The permittee shall maintain records of the results of each visible emission inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

#### **4.9 Recordkeeping Requirement**

The permittee shall comply with the recordkeeping requirements of the recordkeeping General Provision.

## 5 Whey Protein Concentrate Bagging Line

### 5.1 Process Description

The dedicated WPC bagging line will allow finished WPC to be packaged more efficiently. Dried WPC is transferred to WPC powder bins. (The WPC powder bins are enclosed within the building.) Finished WPC is transferred from the WPC powder bins to the WPC surge hopper and then to the new WPC bagging line. The WPC process line and lactose process line will utilize the same piping and feed system for bulk packaging.

### 5.2 Control Device Descriptions

Table 5.1 Whey Protein Concentrate Bagging Line Description

| Emissions Units / Processes | Control Devices           | Emission Points |
|-----------------------------|---------------------------|-----------------|
| WPC Surge Hopper            | WPC Surge Hopper Baghouse | WPCSRGBH        |
| WPC Bagging Line            | WPC Nuisance Baghouse     | WPCNUSBH        |

### Emission Limits

#### 5.3 Emission Limits for PM<sub>10</sub>

The PM<sub>10</sub> emissions from the stack of the WPC nuisance baghouse shall not exceed 2.64 lb/day.

The PM<sub>10</sub> emissions from the stack of the WPC surge hopper baghouse shall not exceed 0.71 lb/day.

#### 5.4 Opacity Limit

Emissions from the WPC surge hopper baghouse and the WPC nuisance baghouse stack, or any other stack, vent, or functionally equivalent opening associated with the WPC surge hopper baghouse and the WPC nuisance baghouse, 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

#### 5.5 Operating Requirements for the Baghouses

The permittee shall install and operate baghouses to control PM and PM<sub>10</sub> emissions from the WPC surge hopper and the WPC bagging line processes.

#### 5.6 Baghouse/Filter System Procedures

For the WPC surge hopper baghouse and the WPC nuisance baghouse:

The permittee shall maintain a Baghouse/Filter System Procedures document for the inspection and operation of the baghouses/filter system which controls emissions from the process. The Baghouse/Filter System Procedures document shall be a permittee-developed document independent of the manufacturer-supplied operating manual but may include summaries of procedures included in the manufacturer-supplied operating manual.

The Baghouse/Filter System Procedures document shall describe the procedures that will be followed to comply with General Provision 7.2 and shall contain requirements for weekly see/no-see visible emissions inspections of the baghouse. The inspection shall occur during daylight hours and under normal operating conditions.

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

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

The permittee shall maintain records of the results of each baghouse/filter system inspection in accordance with General Provision 7.10. The records shall include a description of whether visible emissions were present and if visible emissions were present, a description of the corrective action that was taken.

The Baghouse/Filter System Procedures document shall be maintained and shall contain a certification by a responsible official. Any changes to the Baghouse/Filter System Procedures document shall be submitted within 15 days of the change.

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

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

The permittee shall submit the Baghouse/Filter System Procedures document to the following address:

Air Quality Permit Compliance  
Department of Environmental Quality  
Twin Falls Regional Office  
650 Addison Avenue West, Suite 110  
Twin Falls, Idaho 83301  
Phone: (208) 736-2190      Fax: (208) 736-2194

[July 12, 2016]

## **Monitoring and Recordkeeping Requirements**

### **5.7 Visible Emissions Monitoring**

To demonstrate compliance with the opacity limit Permit Condition, the permittee shall conduct a weekly inspection of potential sources of visible emissions for whey protein concentrate bagging line during daylight hours and under normal operating conditions. The inspection shall consist of a see/no see evaluation for each potential source of visible emissions. If any visible emissions are present from any point of emission, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20%, as measured using Method 9, for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136. The permittee shall maintain records of the results of each visible emission inspection and each opacity test when conducted. The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

**5.8 Recordkeeping Requirement**

The permittee shall comply with the recordkeeping requirements of the recordkeeping General Provision.

## 6 Whey Powder Agglomeration Production Line (LUFT Facility)

### 6.1 Process Description

WPC and WPI powder will be transferred to the new LUFT facility via a blower line and stored in surge hoppers. A screw conveyor will control the amount of powder entering the rewet chamber. Wet, agglomerated powder will then enter the fluidized bed dryer where agglomerated particles will be dried. Emissions from the rewet chamber and the dryer will be directed to the baghouse. The final product will be packaged directly into 25 kg bags.

### 6.2 Control Device Descriptions

Table 6.1 Whey Powder Agglomeration Production Line (LUFT Facility) Description

| Emissions Units / Processes    | Control Devices        | Emission Points |
|--------------------------------|------------------------|-----------------|
| Whey Powder Agglomeration Line | LUFT Facility Baghouse | LUFTBH          |

[July 12, 2016]

### Emission Limits

#### 6.3 Emission Limit for PM<sub>10</sub>

The PM<sub>10</sub> emissions from the stack of the LUFT facility baghouse shall not exceed 18.24 lb/day.

[July 12, 2016]

#### 6.4 Opacity Limit

Emissions from the LUFT facility baghouse stack, or any other stack, vent, or functionally equivalent opening associated with the LUFT facility baghouse, 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.

[July 12, 2016]

### Operating Requirements

#### 6.5 Operating Requirement for the Baghouse

The permittee shall install and operate a baghouse to control PM and PM<sub>10</sub> emissions from the whey powder agglomeration line or LUFT facility.

[July 12, 2016]

#### 6.6 Baghouse/Filter System Procedures

For the LUFT facility baghouse:

The permittee shall maintain a Baghouse/Filter System Procedures document for the inspection and operation of the baghouse/filter system which controls emissions from the process. The Baghouse/Filter System Procedures document shall be a permittee-developed document independent of the manufacturer-supplied operating manual but may include summaries of procedures included in the manufacturer-supplied operating manual.

The Baghouse/Filter System Procedures document shall describe the procedures that will be followed to comply with General Provision 7.2 and shall contain requirements for weekly see/no-see visible emissions inspections of the baghouse. The inspection shall occur during daylight hours and under normal operating conditions.

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

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

The permittee shall maintain records of the results of each baghouse/filter system inspection in accordance with General Provision 7.10. The records shall include a description of whether visible emissions were present and if visible emissions were present, a description of the corrective action that was taken.

The Baghouse/Filter System Procedures document shall be maintained and shall contain a certification by a responsible official. Any changes to the Baghouse/Filter System Procedures document shall be submitted within 15 days of the change.

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

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

The permittee shall submit the Baghouse/Filter System Procedures document to the following address:

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Phone: (208) 736-2190 Fax: (208) 736-2194

[July 12, 2016]

## **Monitoring and Recordkeeping Requirements**

### **6.7 Visible Emissions Monitoring**

To demonstrate compliance with the opacity limit Permit Condition, the permittee shall conduct a weekly inspection of potential sources of visible emissions for whey protein concentrate bagging line during daylight hours and under normal operating conditions. The inspection shall consist of a see/no see evaluation for each potential source of visible emissions. If any visible emissions are present from any point of emission, the permittee shall either take appropriate corrective action as expeditiously as practicable, or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. A minimum of 30 observations shall be recorded when conducting the opacity test. If opacity is greater than 20%, as measured using Method 9, for a period or periods aggregating more than three minutes in any 60-minute period, the permittee shall take all necessary corrective action and report the exceedance in accordance with IDAPA 58.01.01.130-136. The permittee shall maintain records of the results of each visible emission inspection and each opacity test when conducted.

The records shall include, at a minimum, the date and results of each inspection and test and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed), any corrective action taken in response to the visible emissions, and the date corrective action was taken.

[July 12, 2016]

**6.8 Recordkeeping Requirement**

The permittee shall comply with the recordkeeping requirements of the recordkeeping General Provision.

[July 12, 2016]

## 7 General Provisions

### General Compliance

7.1 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.]

7.2 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]

7.3 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

7.4 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

7.5 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]

7.6 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

- 7.7 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.
- 7.8 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.
- 7.9 Within 60 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/5/00 and 4/11/15]

## Monitoring and Recordkeeping

- 7.10 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**

- 7.11 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**

- 7.12 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**

- 7.13 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**

- 7.14 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**

- 7.15 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**

- 7.16 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]