

AIR QUALITY

PERMIT TO CONSTRUCT

Permittee Idahoan Foods LLC, Idaho Falls
Permit Number P-2012.0020
Project ID 61031
Facility ID 019-00038
Facility Location 6140 West River Road
Idaho Falls, Idaho 83402

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 Draft, 2013

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1. Permit Scope

Purpose

- 1.1 This is modified permit to construct (PTC) to add a drum dryer, two Real Line fluidized bed dryers, a creamy mash dryer, and an air makeup unit.
- 1.2 This PTC replaces Permit to Construct No. T2-2009.0027 issued on May 9, 2008 and revised on April 13, 2009.

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>Boiler BLR_1</u> Manufacturer: Cleaver Brooks Rated heat capacity: 61.1 MMBtu/hr Model: WT200x-CN5 Fuels: natural gas only	None
	<u>Boiler BLR-2</u> Manufacturer: Cleaver Brooks Rated heat capacity: 26.7 MMBtu/hr Model: D34 Fuel: natural gas only	
3.	Real Line #1 & #2 Fluidized Bed Dryer Manufacturer: Eclipse Capacity: 1.88 T/hr (each) Rated Input Capacity: 10 MMBtu/hr (each) Fuel: Natural Gas Only	Cyclone
	Flaker Drum Dryer #1 & #2 Manufacturer: Blaw Knox Capacity: 0.43 T/hr (each) flake production Steam Heated	None – each dryer has two stacks, main stack and snifter stack
	Flaker Drum Dryer #3 & #4 Manufacturer: Idaho Steel Capacity: 0.82 T/hr (each) flake production Steam Heated	None – each dryer has two stacks, main stack and snifter stack
	Creamy Mash Dryer Manufacturer: Welliver Capacity: 0.75 T/hr Steam Heated	Cyclone
	Flaker Line Vaculifts (#1-#4) Manufacturer: Vaculift	Cyclone & Baghouse
	Air Makeup Units (4) #1 & #2: 2.5 MMBtu/hr (each) #3: 5 MMBtu/hr #4: 6.6 MMBtu/hr	None
	Real Line Day Tanks (A & B)	Baghouse
	<u>Material Transfer</u> Day Tank A & B Real Line* Flake Tank Rejects* Product Transfer to Real Line #1 & #2* Product Transfer from Real Line #1* Raw Creamy Mash Loading Station Creamy Mash Product Transfer* *Vents inside Building	Baghouse
	Building Exhaust	Baghouse

2. Boiler No. 1, Boiler No. 2 & Air Makeup Units

2.1 Process Description

Idahoan Foods, LLC operates two boilers to provide steam for the process units.

2.2 Control Device Descriptions

Table 2.1. Boiler Control description.

Emissions Unit / Process	Emissions Control Device
Boiler No. 1	None
Boiler No. 2	None
Air Makeup Units (4) natural gas only. #1 & #2: 2.5 MMBtu/hr (each) #3: 5.0 MMBtu/hr #4: 6.6 MMBtu/hr	None

Emission Limits

2.3 Emission Limits

The emissions from Boiler No.1 & 2 shall not exceed any corresponding emissions rate limits listed in Table 2.2.

Table 2.2. Boiler emission limits^(a)

Source Description	PM10 ^(b)		NO _x	
	lb/hr ^(c)	T/yr ^(c)	lb/hr ^(c)	T/yr ^(c)
Boiler No. 1	0.45	1.98	5.9	26.0
Boiler No. 2	0.4	1.8	2.6	11.4

- 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 Tons per any consecutive 12-calendar month period.

Operating Requirements

2.4 Boiler No. 1, Boiler No. 2, and the Air Makeup Units shall combust natural gas exclusively.

3. Dryer Processes and Material Transfer Systems

3.1 Process Description

Idahoan Foods, LLC, is a potato processing company. The overall process primarily involves potato dehydration to make potato flakes. The processes addressed by this section are listed in Table 3.1 and includes dryers, dehydration lines, and material transfer systems.

Table 3.1. Process Control description.

Source	Control Equipment
Real Line #1 & #2 Fluidized Bed Dryer Manufacturer: Eclipse Capacity: 1.88 T/hr (each) Rated Input Capacity: 10 MMBtu/hr (each) Fuel: Natural Gas Only	Cyclone
Flaker Drum Dryer #1 & #2 Manufacturer: Blaw Knox Capacity: 0.43 T/hr (each) flake production Steam Heated	None
Flaker Drum Dryer #3 & #4 Manufacturer: Idaho Steel Capacity: 0.82 T/hr (each) flake production Steam Heated	None
Creamy Mash Dryer Manufacturer: Welliver Capacity: 0.75 T/hr Steam Heated	Cyclone
Flaker Line Vaculifts (#1-#4) (material transfer equipment) Manufacturer: Vaculift	Cyclone & Baghouse
<u>Material Transfer</u> Day Tank A & B Real Line* Flake Tank Rejects* Product Transfer to Real Line #1 & #2* Product Transfer from Real Line #1* Raw Creamy Mash Loading Station Creamy Mash Product Transfer* *Vents inside Building	Baghouse
Building Exhaust	Baghouse

Emission Limits

3.2 Emissions from each dryer stack shall not exceed any corresponding emissions rate limits in listed in Table 3.2.

Table 3.2 DRYER EMISSIONS LIMITS¹

Source	PM ₁₀ ^{2, 4, 5} (lb/hr)	PM _{2.5} ^{3, 4, 5} (lb/hr)
Flaker Drum Dryers #1 main stack	0.60	0.60
Flaker Drum Dryers #1 snifter stack	0.22	0.22
Flaker Drum Dryers #2 main stack	0.60	0.60
Flaker Drum Dryers #2 snifter stack	0.22	0.22
Flaker Drum Dryers #3 main stack	1.15	1.15
Flaker Drum Dryers #3 snifter stack	0.41	0.41
Flaker Drum Dryers #4 main stack	1.15	1.15
Flaker Drum Dryers #4 snifter stack	0.41	0.41
Real Line #1 (fluidized bed dryer)	1.13	1.13
Real Line #2 (fluidized bed dryer)	1.13	1.13
Creamy Mash Dryer	0.17	0.17

- 1) In absence of any other credible evidence, compliance is assured by complying with this permit's operating, monitoring and record keeping requirements.
- 2) 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.
- 3) Particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers, including condensable particulate
- 4) As determined by source test methods prescribed by IDAPA 58.01.01.157 or DEQ approved alternative.
- 5) Emission limits apply to each stack.

Operating Requirements

3.3 Throughput

- The combined total output, including whatever moisture and whatever additives are present, from the four Flaker Drum Dryers shall not exceed a rate of 60.0 tons per calendar day.
- The combined total output, including whatever moisture is present and whatever additives are present, from the two Real Line fluidized bed dryers shall not exceed a rate of 90.2 tons per calendar day.
- The total output, including whatever moisture and additives are present, from the Creamy Mash Dryer shall not exceed a rate of 18.0 tons per calendar day.

3.4 The permittee shall install and operate:

- A cyclone and a baghouse to control particulate matter emissions from all vaculifts;
- A baghouse to control particulate matter emission from all material transfer equipment listed in Table 3.1, and the building exhaust; and
- A cyclone to control particulate matter emissions from the creamy mash dryer.

3.5 **Baghouse System Procedures**

Within 60 days of initial start-up, the permittee shall have developed a Baghouse Procedures document for the inspection and operation of the baghouse system which controls emissions from the vaculifts, all material transfer equipment listed in Table 3.1, and on the building exhaust. The Baghouse 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 System Procedures document shall describe the procedures that will be followed to comply with General Provision 5.2 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 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 system inspection in accordance with General Provision 5.10. The records shall include , but not be limited to:

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

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

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

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

Monitoring and Recordkeeping Requirements

3.6 **Throughput Monitoring**

Each calendar day the permittee shall monitor the total output in tons per calendar day, including whatever moisture and additives are present, from each of the following sources:

- Flaker Drum Dryers #1- #4 combined;
- Real Line #1 & #2 fluidized bed dryers combined; and
- Creamy Mash Dryer.

Performance Testing Requirements

- 3.7 Within 180 days of startup of Flaker Drum Dryer #4 the permittee shall conduct a performance test on Flaker Drum Dryer #4 main stack and the Flaker Drum Dryer #4 snifter stack to demonstrate compliance with the PM_{10} and $PM_{2.5}$ emission limits in the emission limits permit condition.
- 3.8 Within 180 days of startup of either Real Line #1 or #2 fluidized bed dryer the permittee shall conduct a performance test on a fluidized bed dryer stack (either #1 or #2) to demonstrate compliance with the PM_{10} and $PM_{2.5}$ emission limits in the emission limits permit condition.
- 3.9 Within 180 days of startup of the Creamy Mash Dryer the permittee shall conduct a performance test on the Creamy Mash Dryer stack to demonstrate compliance with the PM_{10} and $PM_{2.5}$ emission limits in the emission limits permit condition.
- 3.10 The permittee is encouraged to submit a source testing protocol for approval 30 days prior to conducting performance tests.

The permittee shall test in accordance with IDAPA 58.01.01.157 and the conditions of this permit including the operating requirements for the dryers and the performance testing General Provisions.

The permittee shall monitor and record the output of each dryer independent of the other dryers during the performance tests (i.e. Flaker Drum Dryer #4 output, Real Line #1 or #2 output, Creamy Mash Dryer output). The output of each independent dryer shall be recorded in tons, including whatever moisture content and additives are present.

The source tests shall be conducted under “worst case normal” conditions as required by IDAPA 58.01.01.157 and the source test report shall contain documentation that the test was conducted under these conditions.

4. Fire Pump Engine

Process Description

- 4.1 A 315 horse-power diesel fire pump engine is installed for firefighting capability in case of emergency.

Emission Limits

- 4.2 In accordance with 40 CFR 60.4205(c) emissions from the fire pump engine shall comply with the emission limits included in Table 4.1.

Table 4.1 FIRE PUMP ENGINE EMISSIONS LIMITS 40 CFR 60.4205(c)¹

Source Description	NMHC ² + NO _x	PM
	g/HPhr ³	g/HPhr ³
Pump Engine	3.0	0.15

- 1) In absence of any other credible evidence, compliance is assured by complying with this permit's operating, monitoring and record keeping requirements.
2) Non-methane hydrocarbons.
3) Grams per horse-power hour.

Operating Requirements

- 4.3 In accordance with 40 CFR 60.4207(b) the fire pump engine shall use diesel fuel that meets the requirements of 40 CFR 80.510(b).

In accordance with 40 CFR 80.510(b) diesel fuel is subject to the following standards:

- Sulfur content 15 ppm maximum
- Cetane index of 40 or a maximum aromatic content of 35 volume percent.

- 4.4 In accordance with 40 CFR 60.4209 the fire pump engine shall be equipped with a non-resettable hour meter prior to startup of the engine.

- 4.5 In accordance with 40 CFR 60.4211(a) 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 parts 89, 94 and/or 1068, as they apply.

- 4.6 In accordance with 40 CFR 60.4211(c) the engine must be certified to meet the standards of 40 CFR 60.4205(c), and shall be installed and configured according to the manufacturer's emission related specifications.

- 4.7 In accordance with 40 CFR 60.4211(f) the internal combustion engine (ICE) may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. 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 year. Emergency stationary ICE may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. For owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.
- 4.8 The fire pump engine shall operate no more than one hour per week for purposes of maintenance checks and readiness testing.

Monitoring, Reporting and Recordkeeping Requirements

- 4.9 The permittee shall monitor and record the date, time and duration of the operation of the fire pump engine during maintenance checks and readiness testing.

Incorporation of Federal Requirements by Reference

- 4.10 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 Part 60 Subpart III

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.

5. General Provisions

General Compliance

5.1 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.]

5.2 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]

5.3 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

5.4 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

5.5 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]

5.6 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

- 5.7 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.
- 5.8 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.
- 5.9 Within 60 days following the date in which a performance test required by this permit is concluded, the permittee shall submit to DEQ a performance test report. The written report shall include a description of the process, identification of the test method(s) used, equipment used, all process operating data collected during the test period, and test results, as well as raw test data and associated documentation, including any approved test protocol.

[IDAPA 58.01.01.157, 4/5/00]

Monitoring and Recordkeeping

- 5.10 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

- 5.11 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

- 5.12 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

- 5.13 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

- 5.14 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

- 5.15 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

- 5.16 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]