STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502

C.L. "Butch" Otter, Governor
Toni Hardesty, Director

June 4, 2009

Certified Mail No. 7190 0596 0014 0000 6312

Mr. Brent Higginson
Basic American Foods
432 South Emerson
Shelley, Idaho 83274

RE: Facility ID No. 011-00020, Basic American Foods, Shelley
Final Permit to Construct and Tier II Operating Permit

Dear Mr. Higginson:

The Department of Environmental Quality (DEQ) is issuing Permit to Construct and Tier II Operating Permit (PTC/T2) No. T2-2008.0145 to the Shelley facility of Basic American Foods, a Division of Basic American, in accordance with the Rules for the Control of Air Pollution in Idaho, 58.01.01.200 – 228 and IDAPA 58.01.01.400 – 470, respectively. The permit includes a facility emissions cap.

This permit is effective immediately and replaces the following permits, the terms and conditions of which no longer apply:

- PTC No. 0140-0020, issued November 20, 1986 to Pillsbury Company, Boilers No. 1 and 3 conversions to fuel oil
- PTC No. 0140-0040, issued March 20, 1990 to Pillsbury Company, Plant expansion (Cleaver-Brooks boiler No. 4 and flake lines No. 2, 3, and 4)
- PTC No. 011-00020, issued September 10, 2001, and modified February 11, 2003, Ownership transfer from Pillsbury to Basic American Foods (boilers No. 1, 3, and 4 and flake lines No. 2, 3, and 4)

This permit does not release Basic American Foods from compliance with all other applicable federal, state, or local laws, regulations, permits, or ordinances.

This permit is issued in accordance with the procedures and requirements for permits establishing a Facility Emissions Cap (FEC). This permit expires five years from the issuance date.

Tier I Operating Permit No. T1-2007.0145 that contains the PTC/T2 provisions is being issued concurrently with this PTC/T2. Therefore, none of the permit conditions contravene and you may operate in accordance with the Tier I operating permit.

In order to fully understand the compliance requirements of this permit, DEQ highly recommends that you schedule a meeting with Rick Elkins, Air Quality Analyst, at 208-236-6160 to review and discuss the terms and conditions of this permit. Should you choose to schedule this meeting, DEQ recommends 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. The enclosed permit is effective immediately and is based on the information contained in your permit

application. Modification to and/or renewal of this permit shall be requested in a timely manner in accordance with the Rules for the Control of Air Pollution in Idaho.

In addition, DEQ has assessed the emissions for this permit and determined that a Tier II processing fee of $10,000.00 will be due. A fee invoice will be sent to you from the DEQ fiscal office once a final permit is issued. Failure to submit a Tier II operating permit processing fee within 45 days of receipt of the fee invoice will result in a monthly accrual of interest in the amount of 12% per annum on the outstanding balance until the fee is paid in full. You have the choice to pay the Tier II processing fee in advance of receiving the fee invoice. If you choose to pay in advance, please remit the fee according to the instructions on the next page.

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 Zach Klotovich at 208-373-0502 or zach.klotovich@deq.idaho.gov to address any questions or concerns you may have with the enclosed permit.

Sincerely,

Mike Simon
Stationary Source Program Manager
Air Quality Division

MS/ZK/hp Permit No. T2-2008.0145

Enclosure

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Please make checks payable to: Department of Environmental Quality. Please write your permit number on the check and remit the fee and this information to the following:

Idaho Department of Environmental Quality
Fiscal Office – Air Quality
1410 N. Hilton, Boise, ID 83706-1255

Amount Enclosed: $ _____._____ Check No.: _____

DEPARTMENT USE ONLY:			
Facility	Basic American Foods - Shelley	**Facility ID:**	011-00020
Project	Facility-wide Tier II operating permit and permit to construct with facility emissions cap	**Permit No.:**	T2-2008.0145
Fee Type:	Tier II Processing Fee	**Fee Amount:**	$ 10,000.00
Routing Instructions: Copy Air Program upon receipt of fee.			

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Air Quality
PERMIT TO CONSTRUCT
and
TIER II OPERATING PERMIT

State of Idaho
Department of Environmental Quality

PERMIT No.: T2-2008.0145
FACILITY ID No.: 011-00020
AQCR: 061 **CLASS:** A **ZONE:** 12
SIC: 2034 **NAICS:** 311423
UTM COORDINATE (km): 409.0, 4803.5

1. **PERMITTEE**
Basic American Foods, a Division of Basic American, Inc., Shelley facility

2. **PROJECT**
Facility-wide Tier II operating permit and permit to construct with facility emissions cap

3. **MAILING ADDRESS**	**CITY**	**STATE**	**ZIP**
432 South Emerson	Shelley	ID	83274
4. **FACILITY CONTACT**	**TITLE**	**TELEPHONE**	
John Kirkpatrick	Environmental Manager	(208) 785-8572	
5. **RESPONSIBLE OFFICIAL**	**TITLE**	**TELEPHONE**	
Brent Higginson	Plant Manager	(208) 357-3402	
6. **EXACT PLANT LOCATION**		**COUNTY**	
432 South Emerson, Shelley, Idaho 83274		Bingham	

7. **GENERAL NATURE OF BUSINESS & KINDS OF PRODUCTS**
Dehydrated food products and food processing byproducts

8. **PERMIT AUTHORITY**
This permit to construct and Tier II operating permit is issued according to the Rules for the Control of Air Pollution in Idaho, IDAPA 58.01.01.175-181, IDAPA 58.01.01.200-228 and IDAPA 58.01.01.400-470, respectively. This permit pertains only to emissions of air contaminants, which are regulated by the state of Idaho and to the sources specifically allowed to be operated by this permit.

Only the terms and conditions pertaining to Tier II operating permit requirements are subject to the expiration date of this permit.

This permit has been granted on the basis of design information presented in the application and the Idaho Department of Environmental Quality's (DEQ) technical analysis of the supplied information. Changes in design or equipment that result in any change in the nature or amount of emissions that do not meet the applicable requirements established in this permit or the requirements of IDAPA 58.01.01.181 may require DEQ review in accordance with IDAPA 58.01.01.200 of the Rules for the Control of Air Pollution in Idaho.

ZACH KLOTOVICH, PERMIT WRITER
DEPARTMENT OF ENVIRONMENTAL QUALITY

MIKE SIMON, STATIONARY SOURCE PROGRAM MANAGER
DEPARTMENT OF ENVIRONMENTAL QUALITY

DATE ISSUED:	June 4, 2009
DATE MODIFIED/REVISED:	
DATE EXPIRES:	June 4, 2014

Table of Contents

List of Acronyms, Units, and Chemical Nomenclature

acfm	actual cubic feet per minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
BAF	Basic American Foods
Btu	British thermal unit
CAA	Clean Air Act
Ccf	hundred cubic feet
CFR	Code of Federal Regulations
CO	carbon monoxide
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EPA	U.S. Environmental Protection Agency
FEC	facility emissions cap
gpm	gallons per minute
gr	grain (1 lb = 7,000 grains)
HAPs	hazardous air pollutants
hp	horsepower
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometer
lb/hr	pounds per hour
m	meter(s)
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
NESHAP	Nation Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NSPS	New Source Performance Standards
PM	particulate matter
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
scf	standard cubic feet
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_x	sulfur oxides
T/yr	tons per year
$\mu g/m^3$	micrograms per cubic meter
UTM	Universal Transverse Mercator
VOC	volatile organic compound

1. PERMIT SCOPE

Purpose

1.1 This is a Tier II operating permit and Permit to Construct (PTC) for the Shelley facility of Basic American Foods (BAF). This permit includes existing requirements for the Shelley facility, and it also satisfies the PTC requirements for new or modified sources that potentially required a PTC, but for which a PTC was not obtained prior to construction. Those sources include:

- Dryer P6 with associated stacks P6-1 and P6-2

The permit also establishes a facility emissions cap (FEC) for the Shelley facility.

1.2 This PTC and Tier II operating permit replaces the following permits, the terms and conditions of which shall no longer apply:

- PTC No. 0140-0020, issued November 20, 1986 to Pillsbury Company, Boilers no. 1 and 3 conversions to fuel oil
- PTC No. 0140-0040, issued March 20, 1990 to Pillsbury Company, Plant expansion (Cleaver-Brooks boiler no. 4 and flake lines no. 2, 3, and 4)
- PTC No. 011-00020, issued September 10, 2001, and modified February 11, 2003, Ownership transfer from Pillsbury to Basic American Foods (boilers no. 1, 3, and 4 and flake lines no. 2, 3, and 4)

Regulated Sources

1.3 Table 1.1 lists all sources of regulated emissions in this permit. The permit includes a facility emissions cap, so additional or different equipment from that listed in Table 1.1 may be installed if BAF follows the requirements of IDAPA 58.01.01.181, as outlined in Section 3 of this permit.

Table 1.1 SUMMARY OF REGULATED SOURCES

Permit Section	Source ID	Source Description	Emissions Control(s)
Natural Gas-fired Boilers			
4	Boiler 1	Cleaver-Brooks, 42.9 MMBtu/hr	None
4	Boiler 3	Keeler, 28.6 MMBtu/hr	None
4	Boiler 4	Cleaver Brooks, 72.1 MMBtu/hr	None
4	Boiler 5	Cleaver Brooks, 24.5 MMBtu/hr	None
Process A			
5	P1-1*	Dryer, 20 MMBtu/hr, natural gas-fired*	None
5	P1-2*	Dryer, 0.5 MMBtu/hr, natural gas-fired*	None
5	P1-3*	Material recovery unit *	None
5	P2-1*	Dryer, 20 MMBtu/hr, natural gas-fired*	None
5	P2-2*	Dryer, 0.5 MMBtu/hr, natural gas-fired*	None
5	P2-3*	Material recovery unit*	None
5	P3-1	Dryer, 20 MMBtu/hr, natural gas-fired	None
5	P3-2	Dryer, 0.5 MMBtu/hr, natural gas-fired	None
5	P3-3	Material recovery unit	None
5	P4-1	Dryer, 20 MMBtu/hr, natural gas-fired	None
5	P4-2	Dryer, 0.5 MMBtu/hr, natural gas-fired	None
5	P4-3	Material recovery unit	None
5	P5-1	Purifier	None
5	P5-2	Purifier	None

Permit Section	Source ID	Source Description	Emissions Control(s)
Process B			
6	P6-1	Dryer, 41 MMBtu/hr, natural gas-fired	None
6	P6-2	Cooler	None
6	P8-1*	Dryer, steam-heated*	None
6	P8-2*	Dryer, steam-heated*	None
6	P8-VE*	Material recovery unit*	None
6	P8-VW*	Material recovery unit*	None
6	P9-1	Dryer, steam heated	None
6	P10-1	Dryer, steam heated	None
6	P11-1	Dryer, steam heated	None
6	PKG-1	Material recovery unit on packaging line	None
6	PKG-2	Material recovery unit on packaging line	None
6	MT-2	Material recovery unit to animal feed storage	None
6	MT-3	Material recovery unit to bulk storage	None
Plant heaters			
7		Natural gas space heaters	None

* This equipment was not in operation at the time of permit issuance. It was included in the facility emission cap calculations and modeling, so it may be put back into operation at any time.

2. FACILITY-WIDE CONDITIONS

Reserved. (The Tier I operating permit contains facility-wide conditions that apply to this facility.)

3. FACILITY EMISSIONS CAP CONDITIONS

3.1 Process Description

This permit authorizes changes to the facility that increase emissions of criteria pollutants for those changes that comply with the terms and conditions of this permit and that meet the requirements of IDAPA 58.01.01.181. The exemption criteria in IDAPA 58.01.01.220-222 are not applicable to changes in design or equipment at the facility that result in any change in the nature or amount of emissions, provided that BAF complies with the conditions of Sections 3-7 of this permit and meets the requirements of IDAPA 58.01.01.181.

Table 3.1 FACILITY EMISSIONS DESCRIPTION

Emissions Unit / Process[1]	Emissions Control Device
Boilers (natural gas-fired)	None
Process A	None
Process B	None
Space Heaters	None

[1] See list of equipment provided in Table 1.1

Emission Limits

3.2 Facility Emissions Cap

The PM_{10}, SO_2, NO_X, VOC, and CO emissions from the Shelley facility shall not exceed any corresponding facility emissions cap (FEC) limits listed in Table 3.2 on a rolling 12-month basis.

Table 3.2 FEC EMISSIONS LIMITS[1]

Source Description	PM_{10} T/yr	SO_2 T/yr	NO_X T/yr	VOC T/yr	CO T/yr
Total Facility Emissions Cap	93	11	240	13	240

[1] Ton per year limits based on a rolling 12-month period.

Monitoring and Recordkeeping Requirements

3.3 Criteria Pollutant Facility Emissions Cap Compliance

3.3.1 BAF shall calculate and record estimated total PM_{10}, SO_2, NO_X, VOC, and CO emissions for all combustion sources each calendar month, based on fuel consumption for natural gas combustion sources using the emission factors provided in Appendices A-E of this permit, or other DEQ approved method.
[PTC Condition; IDAPA 58.01.01.178.02, 4/11/06; IDAPA 58.01.01.211.01, 5/1/94]

3.3.2 BAF shall monitor and record, on a monthly basis, the total natural gas usage at the facility. The natural gas usage is used to calculate the combustion emissions from the facility. See Permit Condition 7.3 for additional explanation of how the total natural gas usage is to be used to verify compliance with the FEC.
[PTC Condition; IDAPA 58.01.01.178.02, 4/11/06; IDAPA 58.01.01.211.01, 5/1/94]

3.3.3 BAF shall maintain production records to estimate production-related emissions of PM_{10} for each calendar month. BAF shall calculate and record estimated total PM_{10} emissions for all production sources

each calendar month, based on the total production of dried product, including additives (known as Production from New Inputs), using the emission factors provided in Appendix A of this permit, or other DEQ approved method. For packaging and material transport sources (PKG-1, PKG-2, MT-3) BAF shall monitor and record the total product packaged. Material through MT-2 may be assumed to be 1% of Production from New Inputs.

[PTC Condition; IDAPA 58.01.01.178.03, 4/11/06; IDAPA 58.01.01.211.01, 5/1/94]

3.3.4 BAF shall calculate rolling 12-month total estimated emissions of PM_{10}, SO_2, NO_X, VOC, and CO for each calendar month. Emissions totals shall be available within 30 days of the end of a month. Production-related PM_{10} emissions shall be added to combustion emissions to demonstrate compliance with the PM_{10} FEC established in Permit Condition 3.2.

[PTC Condition; IDAPA 58.01.01.178.03, 4/11/06; IDAPA 58.01.01.211.01, 5/1/94]

3.3.5 Records shall be maintained on site for a period of at least five years and shall be made available to DEQ representatives upon request.

[FEC Condition; IDAPA 58.01.01.178.03.b, 4/11/06]

3.4 Demonstration of Preconstruction Compliance with Toxic Standards

3.4.1 BAF shall maintain documentation of compliance with the requirements of IDAPA 58.01.01.210 for any modifications made to the facility after the issuance date of this permit that may increase toxic air pollutants.

[PTC Condition; IDAPA 58.01.01.203.03, 6/30/95]

Reporting Requirements

3.5 Reporting

3.5.1 Once per annum, BAF shall report to DEQ the rolling 12-month total criteria pollutant emissions recorded under Permit Condition 3.3. The report shall be for the period January 1st through December 31st and shall be due on or before January 30th of each calendar year. All reports must be certified in accordance with IDAPA 58.01.01.123.

[FEC Condition; IDAPA 58.01.01.178.04.b, 4/11/06]

General FEC Conditions

3.6 Notice and Record-Keeping of Ambient Concentration Estimates

3.6.1 For facility changes that comply with the terms and conditions establishing the FEC but are not included in the estimate of ambient concentration analysis approved for the permit establishing the FEC, BAF shall review the estimate of ambient concentration analysis. In the event the facility change would result in a significant contribution (as defined in IDAPA 58.01.01.006) above the design concentration determined by the estimate of ambient concentration analysis approved for the permit establishing the FEC, but does not cause or significantly contribute to a violation of any ambient air quality standard, BAF shall provide notice to DEQ in accordance with IDAPA 58.01.01.181.01.b. BAF shall record and maintain documentation of the review on site.

[FEC Condition; IDAPA 58.01.01.181, 4/11/06]

3.6.2 In accordance with IDAPA 58.01.01.181.03, BAF shall use a current EPA-approved regulatory guideline model to estimate ambient concentrations where required by section 3.6.1, except where DEQ approves BAF's use of an alternative model. The permittee is strongly encouraged to submit a modeling protocol to DEQ for review and approval prior to conducting a modeling analysis using a model that differs from that used in the permit application.

[FEC Condition; IDAPA 58.01.01.181.03, 4/11/06]

3.7 Renewal

3.7.1 BAF shall submit a complete application for a renewal of the terms and conditions establishing the FEC at least six months before, but no earlier than 18 months before, the expiration date of this permit.

[FEC Condition; IDAPA 58.01.01.179.02, 4/11/06]

3.7.2 BAF's renewal application for this permit shall include ambient concentration estimates as specified in IDAPA 58.01.01.202.02 or IDAPA 58.01.01.402.03.

[FEC Condition; IDAPA 58.01.01.177.02, 4/11/06]

3.8 List of Emissions Units

3.8.1 BAF shall develop and maintain a list of emissions units at the facility that addresses, at a minimum, boilers, dryers, coolers, material recovery units, and space heaters. The list shall include:

- Identification if equipment was included in permit application;
- Identification if in service at time of permit issuance;
- Equipment location;
- Installation date, if installed after permit issuance;
- Deinstallation date if removed after permit issuance; and
- Identification if equipment is subject to NSPS requirements (40 CFR 60).

The list of equipment at the BAF facility at the time of permit issuance is provided in Table 1.1.

[FEC Condition; IDAPA 58.01.01.178.02-03, 4/11/06]

4. BOILERS

4.1 Process Description

Boilers 1, 3, and 4 provide process steam for the Shelley plant. Boiler 5 provides steam for process water management activities. All boilers are natural gas-fired.

Boiler 1 is a Cleaver-Brooks boiler with a rated heat input of 42.9 MMBtu/hr, installed in 1973. Boiler 3 is a Keeler boiler with a rated heat input of 28.6 MMBtu/hr, installed in 1958. Boiler 4 provides steam to the processes throughout the plant. Boiler 4 is a Cleaver-Brooks boiler with a rated heat input of 72.1 MMBtu/hr, installed in 1989. Boiler 5 is a Cleaver-Brooks boiler with a rated heat input of 24.5 MMBtu/hr, installed in 2000. Boilers 4 and 5 are 40 CFR 60 Subpart Dc affected units.

Table 4.1 BOILER DESCRIPTIONS

Emissions Units	Emissions Unit Description	Emissions Control Device	Emissions Point
Boiler 1	Cleaver-Brooks, 42.9 MMBtu/hr	None	Boiler 1 stack
Boiler 3	Keeler, 28.6 MMBtu/hr	None	Boiler 3 stack
Boiler 4	Cleaver Brooks, 72.1 MMBtu/hr	None	Boiler 4 stack
Boiler 5	Cleaver Brooks, 24.5 MMBtu/hr	None	Boiler 5 stack

Emission Limits

4.2 Emission Limits

The PM_{10}, SO_2, NO_X, VOC, and CO emissions from the boilers are included in the facility emissions cap limits in Permit Condition 3.2.

[PTC Condition; IDAPA 58.01.01.203, 5/1/94]

4.3 Fuel Burning Equipment – Particulate matter

Particulate matter emissions from natural gas-fired boilers shall not exceed 0.015 gr/dscf corrected to 3% oxygen and altitude.

[IDAPA 58.01.01.675, 4/5/00]

Operating Requirements

4.4 Natural Gas Combustion

Boilers shall combust only natural gas.

[PTC Condition; IDAPA 58.01.01.203, 211.01, 5/1/94]

4.5 Boiler Capacity

Total boiler capacity shall not exceed 249 million Btu's per hour heat input to prevent the facility from becoming a "designated source" which would cause the facility to be classified as a major source under the PSD program (40 CFR 52.21).

[PTC Condition; IDAPA 58.01.01.006.30.v, 5/1/94; IDAPA 58.01.01.176.02.a, 4/11/06]

4.6 Boiler Annual Inspection and Maintenance

At least once per calendar year or per a DEQ-approved schedule, the permittee shall tune and adjust the burner systems of Boilers 1, 3, 4, and 5 to maintain efficient combustion. The permittee shall maintain records of the boiler tuning conducted to comply with this Permit Condition. The records shall provide the date the tuning was conducted and a description of the adjustments made to the boiler to maintain combustion efficiency.

[PTC Condition; PTC No. 011-00020, 2/11/03; IDAPA 58.01.01.211.01, 5/1/94]

Monitoring and Recordkeeping Requirements

4.7 Monitor Boiler Fuel Usage and Annual Emissions

BAF shall install, calibrate, maintain, and operate equipment to measure the quantity of natural gas combusted in each boiler. BAF shall monitor and record the fuel usage for all boilers on a monthly basis using available data. BAF shall use the emission factors listed in the appendices of this permit, or other emission factors approved by DEQ, to calculate emissions. If additional boilers are added, BAF shall identify and use appropriate emission factors for the new boilers. Emissions from the boilers shall be included in the rolling 12-month FEC compliance demonstration (Permit Conditions 3.2 and 3.3).

[PTC Condition; PTC No. 011-00020, 2/11/03; IDAPA 58.01.01.211, 5/1/94]

4.8 New Source Performance Standards for Boilers 4 and 5

4.8.1 BAF shall comply with the applicable requirements in 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units for boilers 4 and 5.

4.8.2 For each boiler subject to NSPS Subpart Dc, BAF shall record and maintain records of the amounts of fuel combusted per calendar month, in accordance with 40 CFR 60.48c(g)(2).

[40 CFR 60.48c(g)]

4.9 CO and NO_x Performance Test

If BAF's calculated facility-wide emissions of NO_x or CO exceed 200 T/yr on a rolling 12-month basis, BAF shall conduct a performance test to measure the respective NO_x or CO emissions from either Boiler 1, Boiler 3, or Boiler 4 to verify the NO_x or CO emissions factors for Boilers 1, 3, and 4 in Appendices C and E. The test(s) shall be conducted within 90 days of exceeding a total facility rolling 12-month emissions of 200 T/yr of NO_x or CO. The test only need be conducted for the pollutant that exceeds 200 T/yr. The test results shall be used to develop new emission factors for Boilers 1, 3, and 4.

The test(s) shall be conducted in accordance with the procedures outlined in 40 CFR 60, Appendix A, Methods 7E, 10, or a DEQ-approved alternative. The initial performance test, and any subsequent performance tests conducted to demonstrate compliance, shall be performed in accordance with IDAPA 58.01.01.157. BAF shall submit a test protocol to DEQ for approval at least 30 days prior to the scheduled test date. The protocol shall identify which boiler will be tested to generate site specific emissions factors. In addition, the following information shall be recorded during each performance test run and included in the performance test report:

- The boiler shall be operated at the worst case normal production rate during the performance test. A description of how this requirement was met shall be included in the performance test report;

- The natural gas heat input shall be monitored and recorded during the test in units of MMBtu/hr. Alternately, the heat input may be calculated using combustion calculations that utilize measured stack CO_2 emissions recorded during the test, or calculated using F factors as provided in EPA Method 19.
- The measured NO_x or CO emission rates shall be reported in units of pounds per hour and pounds per million Btu. The test results shall be used to develop a new CO or NO_x emissions factor in units of lb/MMBtu.

[PTC Condition; IDAPA 58.01.01.211.04, 5/1/94; IDAPA 58.01.01.157, 4/5/00]

Reporting Requirements

4.10 New Source Performance Standards

4.10.1 BAF shall submit notification of the date of construction or reconstruction and actual startup to EPA and DEQ for any NSPS-affected natural gas boiler installed after the date of issuance of this permit in accordance with 40 CFR 60.48c.

[40 CFR 60.48c(a)]

4.10.2 BAF shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of each NSPS-affected natural gas boiler, unless an alternative monitoring plan is approved by EPA. In such case, BAF may follow the EPA approved monitoring plan.

[40 CFR 60 Subpart Dc]

5. PROCESS A (DRYING PROCESS AND MATERIAL TRANSFER SYSTEMS)

5.1 Process Description

The Shelley facility uses a variety of drying and dehydration processes. Potato granules and dehydrated piece products are dried by contact with heated air. Drying heat is provided by natural gas combustion. Raw material input to the process is cooked potatoes and food additives, including sulfites. Air suspension unit processes are also used to classify materials and to remove unsuitable fractions from the production stream.

The emissions units addressed by this section are listed in Table 5.1 and include coolers, dryers, dehydration lines, and material transfer systems. Emissions of PM from each of these sources are uncontrolled. Material Recovery Units (MRUs), in the form of cyclones and fabric filters, are integral process equipment used to separate the pneumatically conveyed product from the air stream. Drying heat is provided by both natural gas combustion and steam produced by the plant boilers.

Table 5.1 PROCESS A EMISSIONS UNIT DESCRIPTION

Emissions Unit No.	Emissions Unit Description	Emissions Control Device	Emissions Point
P1-1*	Dryer, 20 MMBtu/hr, natural gas-fired*	None	P1-1
P1-2*	Dryer, 0.5 MMBtu/hr, natural gas-fired*	None	P1-2
P1-3*	Material recovery unit *	None	P1-3
P2-1*	Dryer, 20 MMBtu/hr, natural gas-fired*	None	P2-1
P2-2*	Dryer, 0.5 MMBtu/hr, natural gas-fired*	None	P2-2
P2-3*	Material recovery unit*	None	P2-3
P3-1	Dryer, 20 MMBtu/hr, natural gas-fired	None	P3-1
P3-2	Dryer, 0.5 MMBtu/hr, natural gas-fired	None	P3-2
P3-3	Material recovery unit	None	P3-3
P4-1	Dryer, 20 MMBtu/hr, natural gas-fired	None	P4-1
P4-2	Dryer, 0.5 MMBtu/hr, natural gas-fired	None	P4-2
P4-3	Material recovery unit	None	P4-3
P5-1	Purifier	None	P5-1
P5-2	Purifier	None	P5-2

* This equipment was removed from operation at the time of permit issuance. It was included in the facility emission cap calculations and modeling, so it may be put back into operation at any time.

Emission Limits

5.2 Emission Limits

Emissions from Process A sources are regulated as part of the facility emissions cap in Permit Condition 3.2.

[FEC Condition; IDAPA 58.01.01.178.01, 4/11/06]

5.3 Process Weight Rate

Process A shall not emit to the atmosphere PM in excess of the amount shown by the following equations, where E is the allowable emission from the entire source in pounds per hour, and PW is the process weight in pounds per hour:

a. If PW is less than 17,000 pounds per hour,

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

b. If PW is equal to or greater than 17,000 pounds per hour,

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

[IDAPA 58.01.01.702, 4/5/00]

Operating Requirements

5.4 Throughput Limits

The production of dried products, including additives, (known as "Production from New Inputs") from aggregated Process A emission units shall not exceed 144,000 pounds per 24-hour work day to prevent exceeding the PM_{10} emission rates used in the FEC modeling analysis. This limit may be increased to 264,000 pounds per 24-hour work day to accommodate the re-commissioning of production related to stacks P1-1, P1-2, P1-3, P2-1, P2-2, and P2-3, provided that that BAF complies with the conditions of Sections 3-7 of this permit and meets the requirements of IDAPA 58.01.01.181.

[PTC Condition; IDAPA 58.01.01.211.01, 5/1/94]

5.5 Dryer Fuels

Each dryer shall combust only natural gas or be heated by steam from the plant boilers.

[PTC Condition; IDAPA 58.01.01.211.01, 5/1/94]

5.6 Process Identification

Process line A shall be identified by signs posted on or near the process line. Each cooler or dryer shall also be identified in a manner that will allow an inspector to identify the equipment that corresponds to the equipment listed in Table 5.1.

[PTC Condition; IDAPA 58.01.01.211.01, 5/1/94]

5.7 Stack Height Modifications

Prior to returning Process P1 to operation, BAF shall raise Stack P1-1 to a minimum height of 62 feet above ground level or to an alternative height established in accordance with Section 3.6 of this permit. Prior to returning Process P2 to operation, BAF shall raise Stack P2-1 to a minimum height of 62 feet above ground level or to an alternative height established in accordance with Section 3.6 of this permit. BAF may establish alternate stack heights for one or more of the stacks listed in this section in accordance with the ambient concentration analysis procedures of Section 3.6 of this permit. If the ambient concentration analysis identifies needed stack modifications, the emissions units associated with the stack may not be operated until modifications are made to the stack to comply with the provisions of the ambient concentration analysis.

[PTC Condition; IDAPA 58.01.01.211.01, 5/1/94]

Monitoring and Recordkeeping Requirements

5.8 Throughput Monitoring

The permittee shall monitor and record, on a daily basis, the calendar date and the total product output of dried food products including additives (known as "Production from New Inputs"), in pounds per day, from each Process A emission unit when in operation.

[PTC Condition; IDAPA 58.01.01.211.01, 5/1/94]

5.9 Dryer Natural Gas Usage

The permittee shall monitor and record, on a monthly basis, the total dryer natural gas usage in order to calculate combustion emissions. BAF does not need to record the natural gas usage for individual dryers because the emission factors are the same for natural gas combustion in all dryers.

[PTC Condition; IDAPA 58.01.01.211.01, 5/1/94]

6. PROCESS B (DRYING PROCESS AND MATERIAL TRANSFER SYSTEMS)

6.1 Process Description

The Shelley facility uses a variety of drying and dehydration processes. Potato granules and dehydrated piece products are dried by contact with heated air. Drying heat is provided by natural gas combustion. Raw material input to the process is cooked potatoes and food additives, including sulfites. Air suspension unit processes are also used to classify materials and to remove unsuitable fractions from the production stream.

Potato flakes are produced by drying a thin film of cooked potatoes directly on a steam-heated drum. The heat from the drum evaporates the moisture from the flakes, producing a thin sheet of dried potatoes. This sheet is then broken and crushed to produce flake products.

BAF operates packaging equipment to fill product containers with bulk product. Spices and flavorings may be added to the bulk product during the packaging process. Dust pickups located within the packaging area exhaust to the atmosphere through baghouses.

The emissions units addressed by this section are listed in Table 6.1 and include coolers, dryers, dehydration lines, and material transfer systems. Emissions of PM from each of these sources are uncontrolled. Material Recovery Units (MRUs), in the form of cyclones and fabric filters, are integral process equipment used to separate the pneumatically conveyed product from the air stream. Drying heat is provided by both natural gas combustion and steam produced by the plant boilers. Process B was initially established in the 1960's, with significant additions in 1972 (the P8 stacks), 1986 (the P6-1 and P6-2 stacks), and 1990 (the P9-1, P10-1, and P11-1 stacks).

Table 6.1 PROCESS B EMISSIONS UNIT DESCRIPTIONS

Emissions Unit No.	Emission Unit Description	Emissions Control Device	Emissions Point
P6-1	Dryer, 41 MMBtu/hr, natural gas-fired	None	P6-1
P6-2	Cooler	None	P6-2
P8-1*	Dryer, steam-heated*	None	P8-1A, P8-1S, P8-1N
P8-2*	Dryer, steam-heated*	None	P8-2A, P8-2S, P8-2N
P8-VE*	Material recovery unit*	None	P8-VE
P8-VW*	Material recovery unit*	None	P8-VW
P9-1	Dryer, steam heated	None	P9-1
P10-1	Dryer, steam heated	None	P10-1
P11-1	Dryer, steam heated	None	P11-1
PKG-1	Material recovery unit on packaging line	None	PKG-1
PKG-2	Material recovery unit on packaging line	None	PKG-2
MT-2	Material recovery unit to animal feed storage	None	MT-2
MT-3	Material recovery unit to bulk storage	None	MT-3

* This equipment was removed from operation at the time of permit issuance. It was included in the facility emission cap calculations and modeling, so it may be put back into operation at any time.

Emission Limits

6.2 Emission Limits

Emissions from Process B sources are regulated as part of the facility emissions cap in Permit Condition 3.2.

[FEC Condition; IDAPA 58.01.01.178.01, 4/11/06]

6.3 Process Weight Rate

Process B shall not emit to the atmosphere PM in excess of the amount shown by the following equations (new equipment standards), where E is the allowable emission from the entire source in pounds per hour, and PW is the process weight in pounds per hour:

a. If PW is less than 9,250 pounds per hour,

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

b. If PW is equal to or greater than 9,250 pounds per hour,

$E = 1.10 (PW)^{0.25}$

[IDAPA 58.01.01.700, 4/5/00]

Operating Requirements

6.4 Throughput Limits

The total production of dried products, including additives, (known as "Production from New Inputs") from aggregated Process B emissions units shall not exceed 218,400 pounds per 24-hour work day to prevent exceeding the PM_{10} emission rates used in the FEC modeling analysis. This limit may be increased to 266,400 pounds per 24-hour work day to accommodate the re-commissioning of production related to stacks P8-1A, P8-1S, P8-1N, P8-2A, P8-2S, P8-2N, P8-VW, and P8-VE, provided that that BAF complies with the conditions of Sections 3-7 of this permit and meets the requirements of IDAPA 58.01.01.181.

[PTC Condition; IDAPA 58.01.01.211.01, 5/1/94]

6.5 Dryer Fuels

Each dryer shall combust only natural gas or be heated by steam from the plant boilers.

[PTC Condition; IDAPA 58.01.01.211.01, 5/1/94]

6.6 Process Identification

Process line B shall be identified by signs posted on or near the process line. Each cooler or dryer shall also be identified in a manner that will allow an inspector to identify the equipment that corresponds to the equipment listed in Table 6.1.

[PTC Condition; IDAPA 58.01.01.211.01, 5/1/94]

6.7 Stack Height Modifications

By October 31, 2009, BAF shall have modified the identified stacks to meet the following specifications or shall have ceased operation of the dryers associated with these respective stacks:

Stack P6-1	Minimum height – 44 feet above ground level	Vertical discharge, 27 inch diameter (max)
Stack P6-2	Minimum height – 45 feet above ground level	Vertical discharge, 16 inch diameter (max)
Stack P9-1	Minimum height – 59 feet above ground level	Vertical discharge, 96 inch diameter (max)
Stack P10-1	Minimum height – 59 feet above ground level	Vertical discharge, 96 inch diameter (max)
Stack P11-1	Minimum height – 59 feet above ground level	Vertical discharge, 96 inch diameter (max)

Prior to returning process P8 to operation, BAF shall modify the associated stacks as follows:

Stacks P8- 1A 1S 1N	Minimum height – 65 feet above ground level 67 feet above ground level 65 feet above ground level
Stacks P8- 2A 2S 2N	Minimum height – 65 feet above ground level 61 feet above ground level 60 feet above ground level
Stack P8-VE	Minimum height – 63 feet above ground level
Stack P8-VW	Minimum height – 63 feet above ground level

BAF may establish alternate stack heights for one or more of the stacks listed in Section 6.7 in accordance with the ambient concentration analysis procedures of Section 3.6 of this permit. For emissions units not currently operating, the emissions units associated with the stack may not be operated until modifications are made to the stack to comply with the provisions of the ambient concentration analysis. BAF shall notify DEQ's Pocatello Regional Office in writing of the date the stack height modifications were completed.

[IDAPA 58.01.01.403, 5/1/94]

Monitoring and Recordkeeping Requirements

6.8 Throughput Monitoring

The permittee shall monitor and record, on a daily basis, the calendar date and the total product output of dried food products including additives (known as "Production from New Inputs"), in pounds per day, from each Process B emissions unit when in operation.

[PTC Condition; IDAPA 58.01.01.211.01, 5/1/94]

6.9 Dryer Natural Gas Usage

The permittee shall monitor and record, on a monthly basis, the total dryer natural gas usage in order to calculate combustion emissions. BAF does not need to record the natural gas usage for individual dryers because the emission factors for natural gas combustion in all dryers are the same.

[PTC Condition; IDAPA 58.01.01.211.01, 5/1/94]

7. PLANT SPACE HEATERS

7.1 Process Description

The BAF Shelley Facility has natural gas-fired space heaters ranging in size from less than 200,000 Btu/hr to 7.5 MMBtu/hr. At the time of permit issuance total space heater combustion capacity is 59.5 MMBtu/hr. Most of the units provide direct heating; i.e., the combustion air from the unit is discharged directly into the room to provide heating.

Emission Limits

7.2 Emission Limits

There are no emission limits specifically applicable to the plant space heaters. Emissions from plant space heaters are regulated as part of the facility emissions cap in Permit Condition 3.2.

[FEC Condition; IDAPA 58.01.01.178.01, 4/11/06]

Monitoring and Recordkeeping Requirements

7.3 Natural Gas Usage

BAF shall determine the total natural gas usage of plant space heaters on a monthly basis. Gas combusted in plant space heaters will be calculated as the difference of total facility gas usage less gas combusted in boilers and process dryers. Emissions shall be calculated using the emission factors in the appendices of the permit.

[FEC Condition; IDAPA 58.01.01.178, 4/11/06]

8. PERMIT TO CONSTRUCT AND TIER II OPERATING PERMIT GENERAL PROVISIONS

General Compliance

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.]

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, 405, 5/1/94]

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, 406, 5/1/94]

Inspection and Entry

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

   a. Enter upon the permittee's premises where an emission source is located or emissions related activity is conducted, or where records are kept under conditions of this permit;

   b. Have access to and copy, at reasonable times, any data that is required to be recorded under the conditions of this permit;

   c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and

   d. 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. DEQ shall deem the notification provisions of IDAPA 58.01.01.211 satisfied with respect to operations and equipment at the facility in place as of the date of permit issuance, and any future operations and/or new equipment installations or modifications that do not exceed the terms of this permit. Where required, the permittee shall furnish DEQ written notifications as follows in accordance with IDAPA 58.01.01.211:

   a. 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

b. 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, 5/1/94]

Performance Testing

6. 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.

   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.

   Within 30 days following the date in which a performance test required by this permit is concluded (or as otherwise provided in an approved test protocol), 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

7. The permittee shall maintain sufficient records to ensure compliance with all of the terms and conditions of this permit. Records of monitoring information 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 and 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, 405, 5/1/94]

Excess Emissions

8. The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

[IDAPA 58.01.01.130-136, 4/5/00]

Certification

9. 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

10. 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

11. 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]

Expiration and Renewal

12. This permit shall be renewable on the expiration date, provided the permittee submits an application for renewal to the Department and continues to meet all terms and conditions contained in the permit. The expiration of this permit will not affect the operation of the stationary source or facility during the administrative procedure period associated with the permit renewal process.

[IDAPA 58.01.01.209.04, 7/1/02]

Transferability

13. This permit is transferable in accordance with procedures listed in IDAPA 58.01.01.209.06 and 404.05.

[IDAPA 58.01.01.209.06, 404.05, 4/11/06]

Severability

14. 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 58.01.01.322.15.h, 5/1/94; 40 CFR 70.6(a)(5)]

Appendix A - PM_{10} Emission Factors

Production Process	Stack Identification Code	Hourly Emissions		
		Emission Factor	Units	Basis for Factor
Boilers	Boiler 1	0.0075	lb PM-10/MMBtu	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion assuming PM (Total) is PM-10 and 1020 Btu/scf.
Boilers	Boiler 3	0.0075	lb PM-10/MMBtu	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion assuming PM (Total) is PM-10 and 1020 Btu/scf.
Boilers	Boiler 4	0.0076	lb PM-10/MMBtu	Based on boiler manufacturer emission estimate, as provided by Basic American Foods. All PM assumed to be PM-10.
Boilers	Boiler 5	0.0071	lb PM-10/MMBtu	Based on boiler manufacturer emission estimate, as provided by Basic American Foods. All PM assumed to be PM-10.
Process A	P1-1	1.040	lb PM-10/000 lbs Production from New Inputs	PM emissions test of stack P3-1. 58.1% of front half and 100% of back half (condensible) PM is PM-10 based on Method 201A fraction. Front half factor based on PM-10 tests of similar stack at Blackfoot plant.
Process A	P1-2	0.033	lb PM-10/000 lbs Production from New Inputs	Similar to Stack DSO at Blackfoot Plant. (Emission factor adjusted for change in assumed mixback ratio.)
Process A	P1-3	0.002	lb PM-10/000 lbs Production from New Inputs	Based on particulate emission measurements from granules bulk storage tank vent at Blackfoot Plant in 1995 by Oregon Method 8. PM10 = 25% of PM, based on AP-42 emission factor for grain elevators (Table 9.9.1-1, note j). (Emission factor adjusted for change in assumed mixback ratio.)
Process A	P2-1	1.040	lb PM-10/000 lbs Production from New Inputs	PM emissions test of stack P3-1. 58.1% of front half and 100% of back half (condensible) PM is PM-10 based on Method 201A fraction. Front half factor based on PM-10 tests of similar stack at Blackfoot plant.
Process A	P2-2	0.033	lb PM-10/000 lbs Production from New Inputs	Similar to Stack DSO at Blackfoot Plant. (Emission factor adjusted for change in assumed mixback ratio.)
Process A	P2-3	0.002	lb PM-10/000 lbs Production from New Inputs	Based on particulate emission measurements from granules bulk storage tank vent at Blackfoot Plant in 1995 by Oregon Method 8. PM10 = 25% of PM, based on AP-42 emission factor for grain elevators (Table 9.9.1-1, note j). (Emission factor adjusted for change in assumed mixback ratio.)
Process A	P3-1	1.040	lb PM-10/000 lbs Production from New Inputs	PM emissions test of stack P3-1. 58.1% of front half and 100% of back half (condensible) PM is PM-10 based on Method 201A fraction. Front half factor based on PM-10 tests of similar stack at Blackfoot plant.
Process A	P3-2	0.033	lb PM-10/000 lbs Production from New Inputs	Similar to Stack DSO at Blackfoot Plant. (Emission factor adjusted for change in assumed mixback ratio.)
Process A	P3-3	0.002	lb PM-10/000 lbs Production from New Inputs	Based on particulate emission measurements from granules bulk storage tank vent at Blackfoot Plant in 1995 by Oregon Method 8. PM10 = 25% of PM, based on AP-42 emission factor for grain elevators (Table 9.9.1-1, note j). (Emission factor adjusted for change in assumed mixback ratio.)
Process A	P4-1	1.040	lb PM-10/000 lbs Production from New Inputs	PM emissions test of stack P3-1. 58.1% of front half and 100% of back half (condensible) PM is PM-10 based on Method 201A fraction. Front half factor based on PM-10 tests of similar stack at Blackfoot plant.
Process A	P4-2	0.033	lb PM-10/000 lbs Production from New Inputs	Similar to Stack DSO at Blackfoot Plant. (Emission factor adjusted for change in assumed mixback ratio.)

Process A	P4-3	0.002	lb PM-10/000 lbs Production from New Inputs	Based on particulate emission measurements from granules bulk storage tank vent at Blackfoot Plant in 1995 by Oregon Method 8. PM10 = 25% of PM, based on AP-42 emission factor for grain elevators (Table 9.9.1-1, note j). (Emission factor adjusted for change in assumed mixback ratio.)
Process A	P5-1	0.003	lb PM-10/000 lbs Production from New Inputs	Similar to Stack DUY at Blackfoot Plant
Process A	P5-2	0.003	lb PM-10/000 lbs Production from New Inputs	Similar to Stack DUY at Blackfoot Plant
Process B	P6-1	0.521	lb PM-10/000 lbs Production from New Inputs	Total process emission same as Process P8 at Blackfoot Plant. Two-thirds of emission assigned to this stack.
Process B	P6-2	0.261	lb PM-10/000 lbs Production from New Inputs	Total process emission same as Process P8 at Blackfoot Plant. One-third of emission assigned to this stack.
Process B	P8-1N	0.068	lb PM-10/000 lbs Production from New Inputs	Total process emission factor determined from emissions measurements of stack P9-1. 22.5% of process emission assigned to this stack. 50% of front half and 100% of back half (condensible) PM assumed to be PM-10.
Process B	P8-1S	0.068	lb PM-10/000 lbs Production from New Inputs	Total process emission factor determined from emissions measurements of stack P9-1. 22.5% of process emission assigned to this stack. 50% of front half and 100% of back half (condensible) PM assumed to be PM-10.
Process B	P8-1A	0.015	lb PM-10/000 lbs Production from New Inputs	Total process emission factor determined from emissions measurements of stack P9-1. 5% of process emission assigned to this stack. 50% of front half and 100% of back half (condensible) PM assumed to be PM-10.
Process B	P8-2N	0.068	lb PM-10/000 lbs Production from New Inputs	Total process emission factor determined from emissions measurements of stack P9-1. 22.5% of process emission assigned to this stack. 50% of front half and 100% of back half (condensible) PM assumed to be PM-10.
Process B	P8-2S	0.068	lb PM-10/000 lbs Production from New Inputs	Total process emission factor determined from emissions measurements of stack P9-1. 22.5% of process emission assigned to this stack. 50% of front half and 100% of back half (condensible) PM assumed to be PM-10.
Process B	P8-2A	0.015	lb PM-10/000 lbs Production from New Inputs	Total process emission factor determined from emissions measurements of stack P9-1. 5% of process emission assigned to this stack. 50% of front half and 100% of back half (condensible) PM assumed to be PM-10.
Process B	P8-VE	0.034	lb PM-10/000 lbs Production from New Inputs	Assumes 0.1 gr/dscf in exhaust and 1250 lb/hr process throughput. Because this stack exhausts through baghouse, all PM is assumed to be PM-10.
Process B	P8-VW	0.034	lb PM-10/000 lbs Production from New Inputs	Assumes 0.1 gr/dscf in exhaust and 1250 lb/hr process throughput. Because this stack exhausts through baghouse, all PM is assumed to be PM-10.
Process B	P9-1	0.750	lb PM-10/000 lbs Production from New Inputs	Based on Permit to Construct 0140-0040 (4/20/1990) PM emission limits for Flake Line 2. Since all PM-10 is also PM, PM-10 emissions cannot exceed PM limit.
Process B	P10-1	0.750	lb PM-10/000 lbs Production from New Inputs	Based on Permit to Construct 0140-0040 (4/20/1990) PM emission limits for Flake Line 2. Since all PM-10 is also PM, PM-10 emissions cannot exceed PM limit.
Process B	P11-1	0.750	lb PM-10/000 lbs Production from New Inputs	Based on Permit to Construct 0140-0040 (4/20/1990) PM emission limits for Flake Line 2. Since all PM-10 is also PM, PM-10 emissions cannot exceed PM limit.
Process B	Pkg-1	0.00005	lb PM-10/000 lbs Total product packaged	Similarity to Stack EUW at Blackfoot Plant, Measured by Oregon Method 8. PM10 = 50% of PM, based on AP-42 emission factor for grain processing using cyclone controls (Table 9.9.1-2, note g).

Process B	Pkg-2	0.009	lb PM-10/000 lbs Total product packaged	Assumes 0.1 gr/dscf in exhaust and 11,000 lb/hr process throughput. Because this stack exhausts through baghouse, all PM is assumed to be PM-10.
Process B	MT-2	0.074	lb PM-10/000 lbs Production from New Inputs x 0.01	Assumes 0.1 gr/dscf in exhaust and 1,000 lb/hr process throughput. Because this stack exhausts through baghouse, all PM is assumed to be PM-10.
Process B	MT-3	0.002	lb PM-10/000 lbs Total product packaged	Assumes 0.1 gr/dscf in exhaust and 11,000 lb/hr process throughput. Because this stack exhausts through baghouse, all PM is assumed to be PM-10.
Plant	Heaters	0.007	lb PM-10/MMBTU	Based on AP-42, Table 1.4-2 (3/98), for uncontrolled combustion and assuming 1020 BTU/scf.

Appendix B – SO2 Emission Factors

Production Process	Stack Identification Code	Process Emissions			Combustion Emissions		
					Hourly Emissions		
		Emission Factor	Emission Factor Units	Basis for Emission Factor	Emission Factor	Emission Factor Units	Basis for Emission Factor
Boilers	Boiler 1	-	NA	NA	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.
Boilers	Boiler 3	-	NA	NA	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.
Boilers	Boiler 4	-	NA	NA	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.
Boilers	Boiler 5	-	NA	NA	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.
Process A	P1-1	0.080	lb SO2/000 lbs Production from New Inputs	Assumed to be the same as the sum of estimated SO2 emissions from stacks DUT and DUV at BAF Blackfoot Plant	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.
Process A	P1-2	0.004	lb SO2/000 lbs Production from New Inputs	Assumed to be the same as estimated SO2 emissions from stack DSO at Blackfoot Plant	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.
Process A	P2-1	0.080	lb SO2/000 lbs Production from New Inputs	Assumed to be the same as the sum of estimated SO2 emissions from stacks DUT and DUV at BAF Blackfoot Plant	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.
Process A	P2-2	0.004	lb SO2/000 lbs Production from New Inputs	Assumed to be the same as estimated SO2 emissions from stack DSO at Blackfoot Plant	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.
Process A	P3-1	0.080	lb SO2/000 lbs Production from New Inputs	Assumed to be the same as the sum of estimated SO2 emissions from stacks DUT and DUV at BAF Blackfoot Plant	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.
Process A	P3-2	0.004	lb SO2/000 lbs Production from New Inputs	Assumed to be the same as estimated SO2 emissions from stack DSO at Blackfoot Plant	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.

Production Process	Stack Identification Code	Process Emissions			Combustion Emissions		
					Hourly Emissions		
		Emission Factor	Emission Factor Units	Basis for Emission Factor	Emission Factor	Emission Factor Units	Basis for Emission Factor
Process A	P4-1	0.080	lb SO2/000 lbs Production from New Inputs	Assumed to be the same as the sum of estimated SO2 emissions from stacks DUT and DUV at BAF Blackfoot Plant	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.
Process A	P4-2	0.004	lb SO2/000 lbs Production from New Inputs	Assumed to be the same as estimated SO2 emissions from stack DSO at Blackfoot Plant	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.
Process B	P6-1	0.080	lb SO2/000 lbs Production from New Inputs	Sum of emissions from P6-1 and P6-2 assumed to be the same as sum of measured emissions from stacks HEB and HNL at Blackfoot Plant. Two-thirds of emissions assigned to stack P6-1.	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.
Process B	P6-2	0.040	lb SO2/000 lbs Production from New Inputs	Sum of emissions from P6-1 and P6-2 assumed to be the same as sum of measured emissions from stacks HEB and HNL at Blackfoot Plant. One-third of emissions assigned to stack P6-2.	-	NA	NA
Process B	P8-1N	0.019	lb SO2/000 lbs Production from New Inputs	Ten percent of applied sulfite assumed to be converted to SO2. Emission factor divided equally among the four hood exhaust stacks (P8-1N, P8-1S, P8-2N, and P8-2S).	-	NA	NA
Process B	P8-1S	0.019	lb SO2/000 lbs Production from New Inputs	Ten percent of applied sulfite assumed to be converted to SO2. Emission factor divided equally among the four hood exhaust stacks (P8-1N, P8-1S, P8-2N, and P8-2S).	-	NA	NA
Process B	P8-2N	0.019	lb SO2/000 lbs Production from New Inputs	Ten percent of applied sulfite assumed to be converted to SO2. Emission factor divided equally among the four hood exhaust stacks (P8-1N, P8-1S, P8-2N, and P8-2S).	-	NA	NA
Process B	P8-2S	0.019	lb SO2/000 lbs Production from New Inputs	Ten percent of applied sulfite assumed to be converted to SO2. Emission factor divided equally among the four hood exhaust stacks (P8-1N, P8-1S, P8-2N, and P8-2S).	-	NA	NA
Process B	P9-1	0.076	lb SO2/000 lbs Production from New Inputs	Ten percent of applied sulfite assumed to be converted to SO2.	-	NA	NA
Process B	P10-1	0.076	lb SO2/000 lbs Production from New Inputs	Ten percent of applied sulfite assumed to be converted to SO2.	-	NA	NA

Production Process	Stack Identification Code	Process Emissions			Combustion Emissions		
					Hourly Emissions		
		Emission Factor	Emission Factor Units	Basis for Emission Factor	Emission Factor	Emission Factor Units	Basis for Emission Factor
Process B	P11-1	0.076	lb SO2/000 lbs Production from New Inputs	Ten percent of applied sulfite assumed to be converted to SO2.	-	NA	NA
Plant	Heaters	-	NA	NA	0.0024	lb SO2/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled combustion and assuming 1020 BTU/scf and assuming 1020 BTU/scf and 0.8 gr/Ccf sulfur content of natural gas.

Appendix C - NO_x Emission Factors

Production Process	Stack Identification Code	Hourly Emissions		
		Emission Factor	Units	Basis for Factor
Boilers	Boiler 1	0.098	lb NOx/MMBTU	Based on AP-42, Table 1.4-1 (7/98), for uncontrolled small boilers (<100 MMBtu/hr) natural gas combustion, and assuming 1020 Btu/scf.
Boilers	Boiler 3	0.098	lb NOx/MMBTU	Based on AP-42, Table 1.4-1 (7/98), for uncontrolled small boilers (<100 MMBtu/hr) natural gas combustion, and assuming 1020 Btu/scf.
Boilers	Boiler 4	0.141	lb NOx/MMBTU	Based on AP-42, Table 1.4-1 (7/98), for uncontrolled small boilers (<100 MMBtu/hr) natural gas combustion, and assuming 1020 Btu/scf.
Boilers	Boiler 5	0.072	lb NOx/MMBTU	Based on boiler manufacturer emission estimate, as provided by Basic American Foods.
Process A	P1-1	0.061	lb NOx/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P1-2	0.061	lb NOx/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P2-1	0.061	lb NOx/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P2-2	0.061	lb NOx/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P3-1	0.061	lb NOx/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P3-2	0.061	lb NOx/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P4-1	0.061	lb NOx/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P4-2	0.061	lb NOx/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process B	P6-1	0.061	lb NOx/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant. Assume all burner combustion products for this process exit from this stack.
Plant	Heaters	0.098	lb NOx/MMBTU	Based on AP-42, Table 1.4-1 (2/98), for uncontrolled combustion in boiler < 100 MMBTU/hr, and assuming 1020 BTU/scf.

Appendix D - VOC Emission Factors

Production Process	Stack Identification Code	Hourly Emissions		
		Emission Factor	Units	Basis for Factor
Boilers	Boiler 1	0.0054	lb VOC/MMBtu	Based on AP-42, Table 1.4-2 (7/98), for natural gas combustion, and assuming 1020 Btu/scf.
Boilers	Boiler 3	0.0054	lb VOC/MMBtu	Based on Permit to Construct No. 011-00020 emission limits for Boiler 3.
Boilers	Boiler 4	0.018	lb VOC/MMBtu	Based on boiler manufacturer emission estimate, as provided by Basic American Foods.
Boilers	Boiler 5	0.020	lb VOC/MMBTU	Based on boiler manufacturer emission estimate, as provided by Basic American Foods.
Process A	P1-1	0.0054	lb VOC/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled natural gas combustion, and assuming 1020 Btu/scf.
Process A	P1-2	0.0054	lb VOC/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled natural gas combustion, and assuming 1020 Btu/scf.
Process A	P2-1	0.0054	lb VOC/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled natural gas combustion, and assuming 1020 Btu/scf.
Process A	P2-2	0.0054	lb VOC/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled natural gas combustion, and assuming 1020 Btu/scf.
Process A	P3-1	0.0054	lb VOC/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled natural gas combustion, and assuming 1020 Btu/scf.
Process A	P3-2	0.0054	lb VOC/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled natural gas combustion, and assuming 1020 Btu/scf.
Process A	P4-1	0.0054	lb VOC/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled natural gas combustion, and assuming 1020 Btu/scf.
Process A	P4-2	0.0054	lb VOC/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled natural gas combustion, and assuming 1020 Btu/scf.
Process B	P6-1	0.0054	lb VOC/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled natural gas combustion, and assuming 1020 Btu/scf.
Plant	Heaters	0.0054	lb VOC/MMBTU	Based on AP-42, Table 1.4-2 (7/98), for uncontrolled natural gas combustion, and assuming 1020 Btu/scf.

Appendix E - CO Emission Factors

Production Process	Stack Identification Code	Hourly Emissions		
		Emission Factor	Units	Basis for Factor
Boilers	Boiler 1	0.0824	lb CO/MMBtu	Based on AP-42, Table 1.4-1 (7/98), for uncontrolled small boilers (<100 MMBtu/hr) natural gas combustion, and assuming 1020 Btu/scf.
Boilers	Boiler 3	0.0824	lb CO/MMBtu	Based on AP-42, Table 1.4-1 (7/98), for uncontrolled small boilers (<100 MMBtu/hr) natural gas combustion, and assuming 1020 Btu/scf.
Boilers	Boiler 4	0.156	lb CO/MMBtu	Based on AP-42, Table 1.4-1 (7/98), for uncontrolled small boilers (<100 MMBtu/hr) natural gas combustion, and assuming 1020 Btu/scf.
Boilers	Boiler 5	0.145	lb CO/MMBTU	Based on boiler manufacturer emission estimate, as provided by Basic American Foods.
Process A	P1-1	0.260	lb CO/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P1-2	0.260	lb CO/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P2-1	0.260	lb CO/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P2-2	0.260	lb CO/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P3-1	0.260	lb CO/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P3-2	0.260	lb CO/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P4-1	0.260	lb CO/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process A	P4-2	0.260	lb CO/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant.
Process B	P6-1	0.260	lb CO/MMBTU	Based on results of emission measurements of similar bar burners completed at the BAF Blackfoot Plant. Assume all burner combustion products for this process exit from this stack.
Plant	Heaters	0.0824	lb CO/MMBTU	Based on AP-42, Table 1.4-1 (2/98), for uncontrolled combustion in boiler < 100 MMBTU/hr, and assuming 1020 BTU/scf.