Statement of Basis

Permit to Construct No. P-2011.0131
Project ID 60942

Basic American Foods -Shelley
Shelley, Idaho

Facility ID 011-00020

Final

May 18, 2012
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Permit Writer

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01.et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
acfm	actual cubic feet per minute
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BMP	best management practices
Btu	British thermal units
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CAS No.	Chemical Abstracts Service registry number
CBP	concrete batch plant
CEMS	continuous emission monitoring systems
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CI	compression ignition
CMS	continuous monitoring systems
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent emissions
COMS	continuous opacity monitoring systems
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
FEC	Facility Emissions Cap
GHG	greenhouse gases
gph	gallons per hour
gpm	gallons per minute
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
HHV	higher heating value
HMA	hot mix asphalt
hp	horsepower
hr/yr	hours per consecutive 12 calendar month period
ICE	internal combustion engines
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
iwg	inches of water gauge
km	kilometers
lb/hr	pounds per hour
lb/qtr	pound per quarter
m	meters
MACT	Maximum Achievable Control Technology
mg/dscm	milligrams per dry standard cubic meter
MMBtu	million British thermal units
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NSPS	New Source Performance Standards

O&M	operation and maintenance
O_2	oxygen
PAH	polyaromatic hydrocarbons
PC	permit condition
PCB	polychlorinated biphenyl
PERF	Portable Equipment Relocation Form
PM	particulate matter
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
POM	polycyclic organic matter
ppm	parts per million
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
psig	pounds per square inch gauge
PTC	permit to construct
PTC/T2	permit to construct and Tier II operating permit
PTE	potential to emit
PW	process weight rate
RAP	recycled asphalt pavement
RFO	reprocessed fuel oil
RICE	reciprocating internal combustion engines
Rules	*Rules for the Control of Air Pollution in Idaho*
scf	standard cubic feet
SCL	significant contribution limits
SIP	State Implementation Plan
SM	synthetic minor
SM80	synthetic minor facility with emissions greater than or equal to 80% of a major source threshold
SO_2	sulfur dioxide
SO_X	sulfur oxides
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar month period
T2	Tier II operating permit
TAP	toxic air pollutants
TEQ	toxicity equivalent
T-RACT	Toxic Air Pollutant Reasonably Available Control Technology
ULSD	ultra-low sulfur diesel
U.S.C.	United States Code
VOC	volatile organic compounds
yd^3	cubic yards
$\mu g/m^3$	micrograms per cubic meter

FACILITY INFORMATION

Description

The Basic American Foods (BAF) - Shelley plant includes a food drying and dehydrating plant. The Shelley plant produces dehydrated food products using a variety of drying and dehydration processes. Products are dried by contact with heated air. Drying air is heated either by direct-firing with natural gas or indirectly using steam heat exchangers. Air suspension unit processes are also used to classify materials and to remove unsuitable fractions from the production stream. Steam for plant operations is provided by boiler numbers 1, 3, 4, and 5.

Materials transport occurs both internally within a processing activity and externally to transfer materials between processes, to place them into or take them out of bulk storage, or to transport them to packaging and load-out activities. BAF uses air suspension systems to transport granules and most formulated products; these suspension processes include air slides and pneumatic bulk transfer operations. BAF also uses belt and bucket conveyors at various locations in its operations to transport raw materials, products in processing, and finished products. All bucket and belt conveyors are entirely contained within enclosed buildings. BAF also uses wet flumes to transport raw potatoes. Forklifts are used to transfer tote containers within the plant. Materials recovery units (primarily cyclones) are integral to the operation of all unit processes in which granules or formulated products are suspended in air.

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

Raw materials are received on site by truck. Granules can be received by rail as well as by truck. All shipments are by rail or truck. Trucks are also used to move potatoes to and from the onsite cellars.

Plant products are described as follows.

Dehydrated potato granules

Potato granules are individual potato cells prepared from raw potatoes by cooking, followed by gentle drying. Granules typically range from 50 to 120 microns in size. Most of the granules produced at the Shelley Plant are used at the Shelley Plant; occasionally granules are shipped to other BAF plants for use in products produced at those plants.

Dehydrated potato flakes

Potato flakes are small flakes made of dehydrated, cooked potatoes. Flakes are typically 1/8 inch to 1/4 inch in diameter.

Dehydrated piece food products

BAF prepares dehydrated piece food products by dehydrating cooked and/or blanched foods. These foods can be either whole vegetables or vegetable pieces. Piece products range up to several inches in diameter.

Food processing byproducts

Sellable food fractions and off-specification materials that are not suitable for use in other products are produced as by-products of plant processes. BAF uses various materials classification processes to segregate, collect, and transport these byproducts. Food byproducts are transferred directly to load-out operations after collection without further processing beyond collection.

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 air is heated either by direct-firing with natural gas or indirectly using steam heat exchangers. 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.

Food processing by-products are produced from food fractions that are not suitable for sale as primary products.

Permitting History

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

June 4, 2009	T2-2008.0145, Facility-wide Tier II operating permit and Permit to Construct with a Facility Emissions Cap (FEC), Permit status (A, but will become S upon issuance of this permit)
June 4, 2009	T1-2007.0104, Tier I permit renewal, Permit status (A)
February 11, 2003	PTC permit 011-00020, revised permit for ownership transfer from the Pillsbury Co. to Basic American Foods (it was determined that PTC No. 0140-0020 was never implemented and therefore expired two years after issuance), Permit status (S)
December 11, 2002	Tier I permit 011-00020, Incorporating PTC permits 0140-0020, incorporating PTC permits 0140-0020, issued March 20, 1990, and 011-0020, issued September 10, 2001, Permit status (S)
September 10, 2001	PTC permit 011-00020, A Permit to Construct for the ownership transfer from the Pillsbury Co. to Basic American Foods of Boilers 1, 3, and 4 and Flake Lines 2, 3, and 4, Permit status (S)
March 20, 1990	PTC permit 0140-0040, issued to the Pillsbury Co. for installing Boiler 4 and Flake Lines 2, 3, and 4, Permit status (S)
November 20, 1986	PTC permit 0140-0020 issued to the Pillsbury Co. for Boilers 1 and 3, Permit status (S)

Application Scope

This Applicant has proposed to convert their existing Tier II permit to a PTC.

The scope of this permit includes the specific issues described as follows:

- Alterations in stack locations and discharge heights for Stacks P6-1 and P6-2 from those included in BAF's Tier II permit application for the Shelley facility.
- Re-commissioning of Process P8 in conjunction with temporary mothballing of other plant processes.

Application Chronology

October 17, 2011	DEQ received an application and an application fee.
November 7, 2011	DEQ determined that the application was complete.
December 22, 2011	DEQ made available the draft permit and statement of basis for peer and regional office review.
January 5, 2012	DEQ made available the draft permit and statement of basis for applicant review.
January 23, 2012	DEQ received the permit processing fee.
February 7, 2012	DEQ made available the draft permit and statement of basis for a second applicant review based upon comments received from the facility.
March 23 – April 23, 2012	DEQ provided a public comment period on the proposed action.
May 18, 2012	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Table 1 lists emissions units for which emissions of any criteria air pollutant exceeds 10 per cent (10%) of the levels contained in the definition of "significant" in IDAPA 58.01.01.006.

Emissions Units and Control Devices

Table 1 EMISSIONS UNIT AND CONTROL DEVICE INFORMATION

ID No.	Source Description	Control Equipment Description	Emissions Point ID No. and Description
Boilers			
Boiler 1	Manufacturer: Cleaver-Brooks Model: D-52 S/N: WL-2012 Heat input rating: 42.9 MMBtu/hr Maximum steam production rate: 33,000 lb/hr Fuels: Natural Gas Date installed: 1973	None	
Boiler 3	Manufacturer: Keeler Model: Not Stated on Name Plate S/N: 13445 Heat input rating: 28.6 MMBtu/hr Maximum steam production rate: 22,000 lb/hr Fuels: Natural Gas Date installed: 1958	None	
Boiler 4	Manufacturer: Cleaver-Brooks Model: DL-76-RH S/N: W-3511 (not labeled as S/N) Heat input rating: 72.1 MMBtu/hr Maximum steam production rate: 60,000 lb/hr Fuels: Natural Gas Date installed: 1990	None	
Boiler 5	Manufacturer: Cleaver-Brooks Model: CBI700600150 S/N: OLO 99677 Heat input rating: 24.5 MMBtu/hr Maximum steam production rate: 20,700 lb/hr Fuels: Natural Gas Date installed: 2000	None	

Table 1 EMISSIONS UNIT AND CONTROL DEVICE INFORMATION (continued)

ID No.	Source Description	Control Equipment Description	Emissions Point ID No. and Description
Process A			
P1-1	Dryer - 20 MMBtu/hr, natural gas-fired	None	
P1-2	Dryer - 0.5 MMBtu/hr, natural gas-fired	None	
P1-3	Material recovery unit	None	
P2-1	Dryer - 20 MMBtu/hr, natural gas-fired	None	
P2-2	Dryer - 0.5 MMBtu/hr, natural gas-fired	None	
P2-3	Material recovery unit	None	
P3-1	Dryer - 20 MMBtu/hr, natural gas-fired	None	
P3-2	Dryer - 0.5 MMBtu/hr, natural gas-fired	None	
P3-3	Material recovery unit	None	
P4-1	Dryer - 20 MMBtu/hr, natural gas-fired	None	
P4-2	Dryer - 0.5 MMBtu/hr, natural gas-fired	None	
P4-3	Material recovery unit	None	
P5-1	Purifier	None	
P5-2	Purifier	None	
Process B			
P6-1	Dryer - 41 MMBtu/hr, natural gas-fired	None	
P6-2	Cooler	None	
P8-1	Dryer - Steam-heated	None	
P8-2	Dryer - Steam-heated	None	
P8-VE	Material recovery unit	None	
P8-VW	Material recovery unit	None	
P9-1	Dryer - Steam heated	None	
P10-1	Dryer - Steam heated	None	
P11-1	Dryer - Steam heated	None	
PKG-1	Material recovery unit on packaging line	None	
PKG-2	Material recovery unit on packaging line	None	
MT-2	Material recovery unit to animal feed storage	None	
MT-3	Material recovery unit to bulk storage	None	
Plant Heaters			
	Natural gas-fired space heaters	None	

Emissions Inventories

Because this is not a modification to the existing permit in that there is not a physical change in, or change in the method of operation, of this stationary source facility detailed emissions inventories are not required of this project. Therefore, the emissions inventories from the previous permitting project, T2-2008.0145 dated June 4, 2009, will be presented in the following discussions and tables. However, GHG emissions were not previously calculated so they will be included as a result of this project.

Potential to Emit

IDAPA 58.01.01 defines Potential to Emit as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is state or federally enforceable. Secondary emissions do not count in determining the potential to emit of a facility or stationary source.

Using this definition of Potential to Emit an emission inventory was developed for the natural gas-fired dryers, the material recovery units, the purifiers, the coolers, and the natural gas-fired space heaters operations at the facility (see permitting project, T2-2008.0145 dated June 4, 2009) associated with this proposed project. Emissions estimates of GHG were based on emission factors from AP-42, operation of 8,760 hours per year.

Uncontrolled Potential to Emit

Using the definition of Potential to Emit, uncontrolled Potential to Emit is then defined as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall **not** be treated as part of its design **since** the limitation or the effect it would have on emissions **is not** state or federally enforceable.

The uncontrolled Potential to Emit is used to determine if a facility is a "Synthetic Minor" source of emissions. Synthetic Minor sources are facilities that have an uncontrolled Potential to Emit for regulated air pollutants or HAPs above the applicable Major Source threshold without permit limits. As the facility classification was previously determined for permitting project, T2-2008.0145 dated June 4, 2009, and there are no changes in emissions proposed for this project, the uncontrolled PTE will not be presented for this project.

Pre- and Post Project Potential to Emit

Pre-project Potential to Emit is used to establish the change in emissions at a facility as a result of this project. Post project Potential to Emit is used to establish the change in emissions at a facility and to determine the facility's classification as a result of this project. Post project Potential to Emit includes all permit limits resulting from this project.

This is an existing facility and there are no changes in emissions proposed for this project. Therefore, the emissions calculated for permitting project, T2-2008.0145 dated June 4, 2009 will be presented as the pre- and post project PTE. Emissions estimates of GHG were based on emission factors from AP-42 and operation of 8,760 hours per year.

Table 2 PRE- AND POST PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Emissions Unit	$PM_{10}/PM_{2.5}$		SO_2		NO_X		CO		VOC		CO_2e
	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	T/yr[b]
Point Sources											
Boiler 1	0.29	1.3	0.02	0.09	3.87	16.95	3.25	14.2	0.21	0.92	22,548
Boiler 3	0.22	1.0	0.02	0.09	2.83	12.4	2.38	10.4	0.16	0.7	15,032
Boiler 4	0.55	2.4	0.13	0.74	10.16	44.4	11.26	49.2	1.28	5.6	28,802
Boiler 5	0.17	0.8	0.06	0.26	1.76	7.7	3.55	15.6	0.49	2.15	12,877
P1-1	0.26	11.4	0.25	1.09	1.22	5.3	5.2	22.8	0.11	0.47	10,512
P1-2	0.08	0.4	0.01	0.05	0.03	0.1	0.13	0.6	0.0	0.01	263
P1-3	0.01	0.0	0	0	0	0	0	0	0	0	0
P2-1	2.6	11.4	0.25	1.09	1.22	5.3	5.2	22.8	0.11	0.47	10,512
P2-2	0.08	0.4	0.01	0.05	0.03	0.1	0.13	0.6	0.0	0.01	263
P2-3	0.01	0.0	0	0	0	0	0	0	0	0	0.0
P3-1	3.12	13.7	0.29	1.26	1.22	5.3	5.2	22.8	0.11	0.47	10,512
P3-2	0.1	0.4	0.01	0.06	0.03	0.1	0.13	0.6	0.0	0.01	263
P3-3	0.01	0.0	0	0	0	0	0	0	0	0	0.0
P4-1	3.12	13.7	0.29	1.26	1.22	5.3	5.2	22.8	0.11	0.47	10,512
P4-2	0.1	0.4	0.01	0.06	0.03	0.1	0.13	0.6	0.0	0.01	263
P4-3	0.01	0.0	0	0	0	0	0	0	0	0	0.0
P5-1	0.02	0.0	0	0	0	0	0	0	0	0	0.0.
P5-2	0.02	0.0	0	0	0	0	0	0	0	0	0.0
P6-1	1.3	5.7	0.3	1.31	2.50	11.0	10.33	46.7	0.22	0.97	21,550
P6-2	0.65	2.9	0.1	0.44	0	0	0	0	0	0	0.0
P8-1N	0.15	0.7	0.04	0.18	0	0	0	0	0	0	0.0
P8-1S	0.15	0.7	0.04	0.18	0	0	0	0	0	0	0.0
P8-1A	0.03	0.1	0	0	0	0	0	0	0	0	0.0
P8-2N	0.15	0.7	0.04	0.18	0	0	0	0	0	0	0.0
P8-2S	0.15	0.7	0.04	0.18	0	0	0	0	0	0	0.0
P8-2A	0.03	0.1	0	0	0	0	0	0	0	0	0.0
P8-VE	0.07	0.3	0	0	0	0	0	0	0	0	0.0
P8-VW	0.07	0.3	0	0	0	0	0	0	0	0	0.0
P9-1	1.65	7.23	0.17	0.73	0	0	0	0	0	0	263
P10-1	1.65	7.23	0.17	0.73	0	0	0	0	0	0	0.0
P11-1	1.65	7.23	0.17	0.73	0	0	0	0	0	0	0.0
PKG-1	0.0	0.0	0	0	0	0	0	0	0	0	0.0
PKG-2	0.1	0.4	0	0	0	0	0	0	0	0	0.0
MT-2	0.07	0	0	0	0	0	0	0	0	0	0.0
MT-3	0.02	0.1	0	0	0	0	0	0	0	0	0.0
Heaters	0.44	1.0	0.14	0.31	5.83	12.8	4.9	10.7	0.32	0.7	15,637
Pre- and Post Project Totals	**19.10**	**92.69**	**2.56**	**11.07**	**31.95**	**126.85**	**56.99**	**240.40**	**3.12**	**12.96**	**159,809**

a) Controlled average emission rate in pounds per hour is a daily average, based on the proposed daily operating schedule and daily limits.
b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.

Change in Potential to Emit

The change in facility-wide potential to emit is used to determine if a public comment period may be required and to determine the processing fee per IDAPA 58.01.01.225. The following table presents the facility-wide change in the potential to emit for criteria pollutants.

Table 3 CHANGES IN POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS

Emissions	$PM_{10}/PM_{2.5}$		SO_2		NO_X		CO		VOC		CO_2e
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	lb/hr	T/yr	lb/hr	lb/hr	T/yr	T/yr
Point Sources											
Pre-Project Potential to Emit	19.10	92.69	2.56	11.07	31.95	126.85	56.99	240.40	3.12	12.96	159,809
Post Project Potential to Emit	19.10	92.69	2.56	11.07	31.95	126.85	56.99	240.40	3.12	12.96	159,809
Changes in Potential to Emit	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Ambient Air Quality Impact Analyses

There was no proposed change in emissions as a result of this project. Therefore, the applicable screening emission levels (EL) and published DEQ modeling thresholds established in IDAPA 58.01.01.585-586 and in the State of Idaho Air Quality Modeling Guideline[1] were not surpassed and modeling was not required for this project. The PTC incorporates changes in the stack discharge characteristics (but not emissions rates) for the P6 and P8 series of stacks. These changes reflect reviews of Ambient Air Quality Analysis conducted by the Applicant in accordance with IDAPA 58.01.01.181.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Bingham County, which is designated as attainment or unclassifiable for $PM_{2.5}$, PM_{10}, SO_2, NO_2, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

Facility Classification AIRS/AFS

"Synthetic Minor" for AIRS/AFS classification for criteria pollutants is defined as the uncontrolled Potential to Emit for criteria pollutants are above the applicable major source thresholds and the Potential to Emit for criteria pollutants fall below the applicable major source thresholds. Therefore, the following table compares the uncontrolled Potential to Emit and the Potential to Emit for criteria pollutants to the Major Source thresholds to determine if the facility will be "Synthetic Minor." As the facility classification was previously determined for permitting project, T2-2008.0145 dated June 4, 2009, and there are no changes in emissions proposed for this project, the uncontrolled PTE will not be presented for this project.

Table 4 UNCONTROLLED PTE AND PTE FOR REGULATED AIR POLLUTANTS COMPARED TO THE MAJOR SOURCE THRESHOLDS

Pollutant	Uncontrolled PTE (T/yr)	PTE (T/yr)	Major Source Thresholds (T/yr)	Uncontrolled PTE Exceeds the Major Source Threshold and PTE Exceeds the Major Source Threshold?
$PM_{10}/PM_{2.5}$	92.69	92.69	100	No
SO_2	11.07	11.07	100	No
NO_X	126.85	126.85	100	Yes
CO	240.40	240.40	100	Yes
VOC	12.96	12.96	100	No
CO_2e	159,809	159,809	100,000	Yes

"Synthetic Minor" for AIRS/AFS classification for HAP pollutants is defined as the uncontrolled Potential to Emit for HAP pollutants are above the applicable major source thresholds and the Potential to Emit for HAPs pollutants fall below the applicable major source thresholds (For purposes of AIRS/AFS Classification, the major source definitions are those of Part 70 (Title V). Therefore, the following table compares the uncontrolled Potential to Emit and the Potential to Emit for HAP pollutants to the Major Source thresholds to determine if the facility will be "Synthetic Minor."

[1] Criteria pollutant thresholds in Table 1, State of Idaho Air Quality Modeling Guideline, Doc ID AQ-011, rev. 1, December 31, 2002.

Table 5 UNCONTROLED PTE AND PTE FOR HAZARDOUS AIR POLLUTANTS COMPARED TO THE MAJOR SOURCE THRESHOLDS

HAP Pollutant	Uncontrolled PTE (T/yr)	PTE (T/yr)	Major Source Thresholds (T/yr)	Uncontrolled PTE Exceeds the Major Source Threshold and PTE Exceeds the Major Source Threshold?
Total HAPs	2.6	2.6	10	No
Total	**2.6**	**2.6**	**25**	No

As demonstrated in Table 4 the facility has an uncontrolled potential to emit for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO, and VOC emissions are less than the Major Source thresholds of 100 T/yr for each pollutant. In addition, as demonstrated in Table 5 the facility has an uncontrolled potential for each HAP is less than the Major Source threshold of 10 T/yr and for all HAPs combined less than the Major Source threshold of 25 T/yr. Therefore, this facility is not designated as a Synthetic Minor facility.

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201 Permit to Construct Required

The permittee has requested that a PTC be issued to the facility for the replacement of the current Tier II permit. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

Tier II Operating Permit (IDAPA 58.01.01.401)

IDAPA 58.01.01.401 Tier II Operating Permit

The application was submitted to covert the existing Tier II operating permit into a Permit to Construct. Therefore, the procedures of IDAPA 58.01.01.400–410 were not applicable to this permitting action.

Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

IDAPA 58.01.01.301 Requirement to Obtain Tier I Operating Permit

Post project facility-wide emissions from this facility have a potential to emit greater than 100 tons per year for NO_X, CO, and CO_2e as demonstrated previously in the Emissions Inventories Section of this analysis. Therefore, this facility is classified as a major facility, as defined in IDAPA 58.01.01.008.10.

PSD Classification (40 CFR 52.21)

40 CFR 52.21 Prevention of Significant Deterioration of Air Quality

The facility is not classified as an existing major stationary source, because the estimated emissions of NO_X, and CO do not have the potential to exceed major stationary source thresholds and the facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a). The facility is not a major source for CO_2e because it is an existing source that has not exceeded the GHG major source threshold of 100,000 tpy, nor has it made a change that would increase GHG emissions by 75,000 tpy.

NSPS Applicability (40 CFR 60)

Because the project involves permitting four boilers rated at greater than 10 MMBtu/hr (but less than 100 MMBtu/hr) the following NSPS requirement may apply to this facility:

- 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

40 CFR 60, Subpart Dc **Standards of Performance for Small Industrial–Commercial–Institutional Steam Generating Units**

As stated in the SOB for permit T2-2008.0145, the application identified the size and construction date of each boiler. Boilers 1 and 3 are not affected units because they were installed in 1973 and 1958, respectively, which is prior to the applicability date of the Subpart. Boiler 4 is a 72 MMBtu/hr natural gas fired boiler and was installed in 1989, but the application does not identify the exact date of construction, that is, before or after the NSPS applicability date of June 9, 1989. BAF submitted an addendum to the application dated October 8, 2008, which identified Subpart Dc as being applicable to Boilers 4 and 5 at the facility, so it is assumed boiler 4 was installed after June 9, 1989. Boiler 5 is a 24.5 MMBtu/hr natural gas fired boiler that was installed in 2000.

§ 60.40c Applicability and Delegation of Authority

Section (a) specifies that except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO_2) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

§ 60.41c Definitions

The definitions of this section apply to the four natural gas fired boilers at this facility.

§ 60.42c Standards for Sulfur Dioxide (SO_2)

The sulfur dioxide standards of this section do not apply because all four boilers combust only natural gas.

§ 60.43c Standards for Particulate Matter

The particulate matter standards of this section do not apply because all four boilers combust only natural gas.

§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide

As discussed previously, because all four boilers combust only natural gas the SO_2 standards of this subpart are not applicable. Therefore, source testing for SO_2 emissions is also not applicable.

§ 60.45c Compliance and performance test methods and procedures for particulate matter

As discussed previously, because all four boilers combust only natural gas the particulate matter standards of this subpart are not applicable. Therefore, source testing for particulate emissions is also not applicable.

§ 60.46c Emission monitoring for sulfur dioxide

As discussed previously, because all four boilers combust only natural gas the SO_2 standards of this subpart are not applicable. Therefore, emissions monitoring for SO_2 emissions is also not applicable.

§ 60.47c Emission monitoring for particulate matter

As discussed previously, because all four boilers combust only natural gas the particulate matter standards of this subpart are not applicable. Therefore, emissions monitoring for particulate emissions is also not applicable.

§ 60.48c Reporting and recordkeeping requirements.

Section (a) requires that the owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

Section (g)(1) requires that except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

Section (g)(2) allows as an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

Section (g)(3) allows as an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO2standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

These requirements are assured by Tier I Permit Conditions.

Section (i) requires that all records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

These requirements are assured by Tier I Permit Conditions.

NESHAP Applicability (40 CFR 61)

The project is not subject to any NESHAP requirements in 40 CFR 61.

MACT Applicability (40 CFR 63)

The project is not subject to any MACT standards in 40 CFR Part 63.

CAM Applicability (40 CFR 64)

CAM was addressed during the previous Tier I permit renewal and was not addressed as part of this permitting analysis.

Permit Conditions Review

This section describes the permit conditions for this initial permit or only those permit conditions that have been added, revised, modified or deleted as a result of this permitting action.

Existing Permit Condition 3.3, new Permit Condition 3.4, was updated to reflect recently updated FEC permit requirements.

Existing Permit Condition 3.5, new Permit Condition 3.6, was updated to reflect recently updated FEC permit requirements.

Existing Permit Condition 3.6.1, new Permit Condition 3.7.1, was updated to reflect recently updated FEC permit requirements.

Existing Permit Condition 3.7, new Permit Condition 3.8, was updated to reflect recently updated FEC permit requirements.

New Permit Condition 3.9 was updated to reflect recently updated FEC permit requirements.

PUBLIC REVIEW

Public Comment Opportunity

Though this permitting action does not authorize an increase in emissions, and an opportunity for public comment period was not required in accordance with IDAPA 58.01.01.209.04 or IDAPA 58.01.01.404.04, DEQ nonetheless provided a public comment opportunity per IDAPA 58.01.01.209.05.c.

Public Comment Period

A public comment period was made available to the public in accordance with IDAPA 58.01.01.209.01.c. During this time, comments were not submitted in response to DEQ's proposed action. Refer to the chronology for public comment period dates.

APPENDIX A – FACILITY DRAFT COMMENTS

The following comments were received from the facility on February 1, 2012:

Facility Comment: As a general comment, BAF notes that there appears to be some uncertainty regarding the nature of this permitting action. Per BAF's request of 9/6/2011, the primary purpose of the current action is simply to convert existing Permit to Construct and Tier II Operating Permit (PTC/T2) No. T2-2008.0145 to a PTC. Existing PTC/T2 No. T2-2008.0145 incorporated and replaced PTCs No. 0140-0020, 0140-0040, and 011-0020. With this permitting action, PTC/T2 No. T2-2008.0145 will, itself, be replaced by new PTC No. P-2011.0131. New PTC No. P-2011.0131 will then become the sole PTC for the facility. Thus, as a matter of process this new PTC needs to incorporate all the PTC requirements of the existing permit. It is not sufficient to just defer or transfer them to another operating permit (the Tier I permit). In fact, the Tier I permit cannot impose PTC requirements that are not supported by an underlying PTC.

Accordingly, BAF believes the new permit should retain and include all of the provisions of the existing PTC/T2 that are identified in the existing PTC/T2 as PTC or FEC provisions. Provisions of the existing PTC/T2 that are strictly operating-permit related would then logically devolve to the facility Tier I permit. For the most part the operating-permit provisions in the existing PTC/T2 are those identified in the permit as standalone IDAPA or 40 CFR provisions.

The primary exception involves existing PTC/T2 provision 6.7 regarding stack heights. Although this provision is not listed as a PTC provision in the existing PTC/T2, BAF believes the content of this provision (with updates to current conditions) should be placed in the new PTC. We believe the logic for this is straightforward. First this condition imposes requirements on the construction and operation of specific sources for the purpose of demonstrating compliance with ambient air quality standards. Second, the requirements are based entirely on results of ambient impacts analyses conducted as part of the "legacy" PTC permitting analysis conducted as part of the PTC/T2 permitting process. Thus, although provision 6.7 was not specifically identified in the PTC/T2 as PTC derived, this provision is fundamentally PTC in nature. Subsequent to issuance of the PTC/T2, BAF conducted two Reviews of Ambient Impacts Analyses, in June 2010 and September 2011, in accordance with the FEC provisions of the PTC/T2 and IDAPA 58.01.01.181; these Reviews have led to modifications in the stack height information contained in provision 6.7 of the existing PTC/T2. The updated information should then be included as PTC provisions in PTC No. P-2011.0131 when it issues.

This general thought will be reflected in many of BAF's specific comments.

DEQ Response: The requirements of the previous Tier II PTC combo permit have been incorporated as requested by the Applicant.

Facility Comment: Permit Condition 1.1 – Please add "...Shelley facility, and continues the PTC provisions of Permit No. T2-2008.0145."

DEQ Response: The requested change will be made to the permit.

Facility Comment: Table 3.2 - Show the Total Facility Emissions Cap for CO as 240 T/yr and for VOC as 13 T/yr. The values are reversed compared to BAF's application of September 2008.

DEQ Response: The requested change will be made to the permit.

Facility Comment: Table 3.2 - Add the following text to Section 3.3: "The rolling 12-month emissions limits of Table 3.2 are referenced to calendar months. All references in this permit to this rolling 12-month emissions limit are to be interpreted using calendar months."

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Condition 3.4.1 - Please remove references to #2 fuel oil and #6 fuel oil combustion sources. BAF is permitted to combust only natural gas at the Shelley facility. Any combustion of alternate fuels would entail creating a new source or modifying an existing source.

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Condition 3.4.1 – Update the condition to read "To update an emission factor or add a new emission factor, the permittee shall submit to DEQ the proposed revised or new emission factor and the basis for the emission factor." Changes made under an FEC can be activities that require the use of new emission factors. The suggested change accommodates these situations.

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Condition 3.4.1 - Update the condition to read "Upon approval by DEQ, the revised or new emission factor shall replace the corresponding emissions factor in Appendices A-E." Changes made under an FEC can be activities that require the use of new emission factors. The suggested change accommodates these situations.

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Condition 3.4.1 and 3.4.2 - Update the condition to read "Records of calculated combustion emissions and the operating data and emission factors used to calculate emissions shall be maintained on site for a period of at least five years and shall be made available to DEQ representatives upon request." Clarification of the specific records that are to be kept.

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Condition 3.4.3 - Update the condition to read "The permittee shall calculate rolling 12-calendar month total estimated emissions of PM10, SO2, NOX, CO, and VOC for each calendar month." Consistency regarding reference period for rolling 12-month calculations.

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Condition 3.4.3 - Update the condition to read "Records of the rolling 12- month emission calculations shall be maintained on site for a period of at least five years and shall be made available to DEQ representatives upon request." Clarification of the specific records that are to be kept.

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Condition 3.6 - Update the condition to read "Add the following text at the end of this section: This report may be incorporated into a Periodic Compliance Certification submitted in compliance with a Tier I Operating Permit." Clarification that, for purposes of simplifying document preparation and retention, the annual compliance report may be integrated with the Tier I compliance report.

DEQ Response: The reports are two separate requirements that are not related and cannot be combined. Therefore, the requested change will not be made to the permit.

Facility Comment: Permit Condition 3.8.1 - Update the condition to read "If the permittee wishes to renew this FEC permit, in accordance with IDAPA 58.01.01.179.02 the permittee shall submit …" Change of language to a soft provision instead of a hard provision.

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Condition 3.8.3 - How will BAF know when the Department will make such a determination? If BAF submits an application, only to have DEQ find the application incomplete, there could be timeliness issues involved in processing the application.

DEQ Response: This is the language DEQ has used on previously issued FEC permits including those to Basic American Foods. Therefore, the requested change will not be made to the permit.

Facility Comment: Permit Condition 3.10.1 - Update the condition to read "… installed at the facility, which are subject to the Permit to Construct Requirements of IDAPA 58.01.01.200, et. seq., shall be maintained by the permittee and provided to DEQ personnel upon request." Clarify the specific set of permitting requirements referenced here.

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Condition 3.10.1 – Add the following language to the permit condition "The list shall also include equipment installed in accordance with IDAPA 58.01.01.181 for which a Permit to Construct would have been required absent the Facility Emission Cap." Ensure that the list of equipment includes units that are exempted from PTC by operation of the FEC.

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Section 4, 5, 6, and 7 - Retain all provisions in these sections that are identified as PTC conditions. The existing Tier II permit was issued as a surrogate PTC permit to address legacy permitting issues and to identify changes in facilities and operations necessary to assure that plant operations would not have unacceptable ambient air quality impacts. A primary purpose of this action is to transfer those requirements into PTC format in lieu of an operating permit. Thus the PTC portions of the existing Tier II permit should simply be transferred intact to this PTC.

DEQ Response: As discussed previously, the requested change will be made to the permit.

Facility Comment: Please add a natural gas fuel-burning limit of 1,529 MM scf/y. This will limit plant-wide CO_2e emissions to 95,000 tons per year. Please add a reference that states this will make the facility a synthetic minor for PSD purposes. Please also add standard record-keeping and reporting conditions relating to a rolling 12-month period.

DEQ Response: New permit condition 3.4 includes these requirements. In addition, the new CO_2e limit of 95,000 tons per year has been included in Table 3.2 to establish that this facility is a synthetic minor for CO_2e emissions.

Facility Comment: Statement of Basis, Facility information description - Paragraph 4 seems to be nearly a repeat of the first part of Paragraph 2. Similarly, paragraph 6 is very nearly a repeat of a statement in paragraph 1..

DEQ Response: Paragraphs 4 and 6 will be deleted from the Statement of Basis as requested.

Facility Comment: Statement of Basis, We note that after issuance, this PTC would be the only active PTC for the facility. Accordingly, all PTC related requirements applicable to facility equipment and operations will need to be included in this permit.

DEQ Response: As discussed previously, these changes will be made to the permit as requested.

Facility Comment: Statement of Basis, Page 6, Permit History - Change the description to read "Tier I permit 011-00020, Incorporating PTC permits 0140-0020, issued March 20, 1990, and 011-00020, issued September 10, 2001, Permit status (S)." The incorporated permits were 0140-0020 and 011-00020. The cover letter of PTC 011-00020 was dated September 6, 2001, but the PTC, itself, was dated September 10, 2001.

DEQ Response: The requested change will be made to the Statement of Basis.

Facility Comment: Statement of Basis, Page 6, Permit History - February 11, 2003 "Change the status to read "Permit status (S)".

DEQ Response: The requested change will be made to the Statement of Basis.

Facility Comment: Statement of Basis, Page 7 - 8, Table 1 appears to be incomplete. Are there data that DEQ requires from BAF to complete this table? Also note that Boiler 4 is not physically capable of operating at its current nameplate rating of 72.1 MMBTU/hr, and BAF is in the process of reviewing the nameplate rating with Cleaver-Brooks. It appears that the current rating may be based on sea level operating conditions.

DEQ Response: Yes, DEQ was hoping that BAF would provide data to complete this table.

Facility Comment: Statement of Basis, Page 11, Ambient Air Quality Analysis - Add the following text "The PTC incorporates changes in the stack discharge characteristics (but not emissions rates) for the P6 and P8 series of stacks. These changes reflect reviews of Ambient Air Quality Analysis conducted by BAF in accordance with IDAPA 58.01.01.181." Proposed language describes current state of ambient impact analysis for plant and provides the rationale for why the stack parameters shown in Table 1 differ from those in the original PTC/T2.

DEQ Response: The requested change will be made to the Statement of Basis.

Facility Comment: Statement of Basis, Page 12, PSD Classification (40 CFR 52.21) - Please insert the word "not" and modify the statement to read, "The facility is not classified as an existing major stationary source, because the estimated emissions of NO_X, and CO do not have the potential to exceed major stationary source thresholds and the facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a). The facility is not a major source for CO_2e because it is an existing source that has not exceeded the GHG major source threshold of 100,000 tpy, nor has it made a change that would increase GHG emissions by 75,000 tpy.

DEQ Response: The requested change will be made to the Statement of Basis.

Facility Comment: Statement of Basis, Page 13, NSPS Applicability – First sentence - Update the statement to read "Because this project involves permitting four boilers rated at greater than 10 MMBTU/hr.

DEQ Response: The requested change will be made to the Statement of Basis.

The following comments were received from the facility on March 9, 2012:

Facility Comment: Permit Condition 1.1 – Add the following language to the permit condition "The permit also establishes that the Shelley facility is a synthetic minor facility with respect to greenhouse gas emissions." This is the reason BAF requested the natural gas fuel-burning limit added in Permit Condition 3.4.1.

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Condition 3.4.1 – Add the following language to the permit condition "...to limit greenhouse gas emissions to 95,000 tons/yr and prevent the facility from being classified a major source for greenhouse gas emissions under the PSD program (40 CFR 52.21(b)(49)(v)(b))." This language is similar to the language in Permit Condition 4.4, which prevents the facility's boiler capacity from exceeding 249 MMBtu.

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Condition 3.5.1 – Add the following language to the permit condition "Records <u>of calculated combustion emissions and the operating data and emission factors used to calculate emissions</u> shall be maintained on site for a period of at least five years and shall be made available to DEQ representatives upon request."

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Condition 3.5.2 – Add the following language to the permit condition "Records of calculated production emissions and the operating data and emission factors used to calculate emissions shall be maintained."

DEQ Response: The requested change will be made to the permit.

Facility Comment: Permit Condition 3.7 – Currently, BAF submits all its air compliance reports to the Regional Office for review. This keeps them in the information loop. We understand that DEQ has resources to electronically transfer such documents between offices. Thus, if there is a need for the Boise office to review the reports required by this PTC, arrangements can be made to have them forwarded by the regional office.

DEQ Response: DEQ now requires that the FEC annual reports be sent to the State office at the address listed in the permit. This is done to ensure that facility's with FEC permits are complying with the requirements of the Rule. Therefore, the requested change will not be made to the permit

Facility Comment: Permit Condition 3.9.3 – BAF requested clarification of when the Department would make such a determination and how BAF would know? Otherwise, it might submit an application that DEQ would deem incomplete. Since no clarification was forthcoming, BAF will accept the current language with the understanding that DEQ will not find a renewal application incomplete solely on the basis that it does not contain a new permitting analysis.

DEQ Response: DEQ acknowledges the comment from the permittee.

Facility Comment: Permit Condition 4.7 and 4.9 – The subparts are incorrectly numbered.

DEQ Response: The requested changes will be made to the permit.

Facility Comment: Permit Condition 6.6 – Please show as follows: Stack P6-1 diameter = 42", Stack P6-2 diameter = 30". The table was updated as requested by BAF to show the stack heights as given in BAF's Ambient Impacts Analysis of June 22, 2010. The stack diameters, however, were not updated. The correct diameters can be confirmed by checking the last column in the table at the bottom of page 2 of the Ambient Impacts Analysis.

DEQ Response: The requested changes will be made to the permit.

Facility Comment: Statement of Basis, Page 11, Facility Classification AIRS/AFS – Please insert so as to read: "Synthetic Minor" for AIRS/AFS classification for criteria pollutants is defined as the uncontrolled Potential to Emit for criteria pollutants are above the applicable major source thresholds and the Potential to Emit for criteria pollutants fall below the applicable major source thresholds (For purposes of AIRS/AFS Classification, the major source definitions are those of Part 70 (Title V).). Therefore, the following table compares…

DEQ Response: The requested change will be made to the Statement of Basis.

Facility Comment: Statement of Basis, Page 14, NESHAP Applicability (40 CFR 61) – The project is not subject to… Consistency of language with permitting scope. It is this project that is not subject to NESHAP. The facility itself, though, is subject to NESHAP – e.g., the asbestos NESHAP is applicable to the facility but applicability of the asbestos NESHAP is not within the scope of this permitting action.

DEQ Response: The requested change will be made to the Statement of Basis.

Facility Comment: Statement of Basis, Page 14, MACT Applicability (40 CFR 63) – The project is not subject to… Consistency of language with permitting scope. It is this project that is not subject to NESHAP. The facility itself, though, is subject to NESHAP – e.g., the asbestos NESHAP is applicable to the facility but applicability of the asbestos NESHAP is not within the scope of this permitting action.

DEQ Response: The requested change will be made to the Statement of Basis.

APPENDIX B – PROCESSING FEE

PTC Fee Calculation

Instructions:
Fill in the following information and answer the following questions with a Y or N. Enter the emissions increases and decreases for each pollutant in the table.

Company: Basic American Foods - Shelley
Address: 432 South Emerson
City: Shelley
State: ID
Zip Code: 83274
Facility Contact: Bruce Wright
Title: Corporate Environmental Pro. Mgr.
AIRS No.: 011-0020

N Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N

Y Did this permit require engineering analysis? Y/N

N Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO_X	0.0	0	0.0
SO_2	0.0	0	0.0
CO	0.0	0	0.0
PM10	0.0	0	0.0
VOC	0.0	0	0.0
TAPS/HAPS	0.0	0	0.0
Total:	0.0	0	**0.0**
Fee Due	**$ 1,000.00**		

Comments: