Air Quality Permitting
Statement of Basis

November 1, 2007

Permit to Construct No. P-060053

Idaho Fresh Pak, Incorporated
Glenns Ferry, ID

Facility ID No. 039-00027

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AIR QUALITY DIVISION

FINAL

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Acronyms, Units, and Chemical Nomenclature

AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pound per hour
MMBtu	million British thermal units
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
Rules	Rules for the Control of Air Pollution in Idaho
SIC	Standard Industrial Classification
T/yr	tons per year
UTM	Universal Transverse Mercator

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing permits to construct.

2. FACILITY DESCRIPTION

Idaho Fresh Pak, Inc. is a potato processing facility that produces dehydrated potato products and frozen hash-brown potatoes. Process steam is provided by Glenns Ferry Cogeneration located at the Glenns Ferry facility. Two natural gas boilers provide steam when the cogeneration facility is not operating.

Potatoes are delivered to the plant by truck and unloaded into storage. The potatoes are then washed, peeled, and cooked. In the flake lines, the cooked potatoes are forced through slots, broken into small pieces (mash), and spread across the face of the drum dryers with applicator rolls. The Glenns Ferry plant operates three drum dryers, and each has an hourly production rate of 933 pounds per hour of dried product. Only flaker drum 2, installed in 1969, and flaker drum 3, installed in 1972, are addressed in this permit application (Flaker drum 1 was installed in 1966, before PTC requirements were established). Drum dryer 2 and drum dryer 3 both were installed after the Rules for the Control of Air Pollution in Idaho were established. Both of these dryers have a potential to emit greater than 1.5 tons of PM_{10} annual emissions which exclude the dryers from qualifying as exempt sources.

The steam-heated drum dryers rotate and drive the moisture from the potato cells. The removed moisture is exhausted through the flaker drum dryer stacks. Each flaker has two uncontrolled exhaust stacks. The dried potato sheet is peeled from the drum and broken into smaller pieces. The flakes are transported pneumatically to the silo or warehouse storage until transported offsite by railcar or truck.

Flaker drum dryer 1, air make up units, and baghouses are not part of this permitting action.

3. FACILITY / AREA CLASSIFICATION

Idaho Fresh Pak, Inc. is classified as a minor facility, because the potential to emit of a criteria pollutant is less than major source thresholds. The AIRS classification is "B."

The facility is located within AQCR 63 and UTM zone 11 The facility is located within Elmore County, which is classified as attainment or unclassifiable for all criteria air pollutants.

The AIRS information provided in Appendix A defines the classification for each regulated air pollutant at the facility. This required information is entered into the EPA AIRs database.

4. APPLICATION SCOPE

The facility has proposed to obtain permits for the sources which indicate permits are required and are not eligible for an exemption. The Glenns Ferry facility operates three drum dryers. Flaker dryer 2 and flaker dryer 3 are the two dryers requiring permits. The facility has two natural gas fired boilers to supply steam with the Glenns Ferry Cogeneration is not operating. The two boilers are not NSPS applicable.

4.1 Application Chronology

October 10, 2006	DEQ received the PTC application and application fee
November 9, 2006	DEQ determined the PTC application complete
February 2, 2007	DEQ sent a draft permit via e-mail to the facility for review
February 2, 2007	DEQ sent a draft permit via e-mail to the regional office for review
March 3, 2007	DEQ received the facility's process fees
March 30, 2007	DEQ received comments from the facility on the draft permit
July 31, 2007	DEQ sent a second draft permit via e-mail to the facility and regional office for review.

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this PTC action.

5.1 Equipment Listing

Flaker drum dryer 2
Flaker drum dryer 3
Two natural gas boilers

5.2 Emissions Inventory

The criteria pollutant from each of the flaker drum dryers is PM_{10}. The emissions rate was determined from a similar dryer at North American Foods, LLC's Lewisville facility. A 50% margin of safety was applied to the higher of two emission rates derived from the source test. (1.5 times 0.75 lb/ton dried potato product). The PM_{10} measurements were based on Methods 201 and 202, so they include the filterable component (10 microns and smaller) and the condensable faction. The combined PM_{10} emissions from the flaker drum dryers are 1.06 pounds per hour. Example: (1.5 X 0.75 X 933 / 2000 = 0.53 lb/hr of PM_{10} for one dryer) and (0.53 X8760 / 2000 = 2.31 ton /year of PM_{10} for one dryer). The method for testing a wet stack is Method 5 and Method 202 as performed at the Lewisville plant with all PM conservatively considered PM_{10} emissions. This permit states the particulate matter emissions as PM/PM_{10} emissions.

5.3 Modeling

PM_{10} emissions were modeled. A DEQ review of the submitted modeling analysis for PM_{10} concentrations using Screen 3 indicate the PM_{10} impact is below significant contribution levels as indicated in the permit application. The results of Screen 3 can be found in Appendix C. North American Foods, LLC provided the modeling parameters of the facility.

5.4 Regulatory Review

This section describes the regulatory analysis of the applicable air quality rules with respect to this PTC.

IDAPA 58.01.01.201 ..... Permit to Construct Required

The facility's proposed project does not meet the permit to construct exemption criteria contained in Sections 220 through 223 of the Rules. The annual emission levels are greater than 1.5 T/yr for PM_{10},

which is more than 10% of significant per IDAPA 58.01.01.201. Therefore, a PTC is required.

IDAPA 58.01.01.203 ..... Permit Requirements for New and Modified Stationary Sources

The applicant has shown to the satisfaction of DEQ that the facility will comply with all applicable emissions standards, ambient air quality standards, and toxic increments.

IDAPA 58.01.01.210 ..... Demonstration of Preconstruction Compliance with Toxic Standards

The applicant is combusting only natural gas. The flaker drum dryers were installed before IDAPA 58.01.01.210.

IDAPA 58.01.01.224 ..... Permit to Construct Application Fee

The applicant satisfied the PTC application fee requirement by submitting a fee of $1,000.00 at the time the original application was submitted, October 10, 2006.

IDAPA 58.01.01.225 ..... Permit to Construct Processing Fee

The total emissions from the proposed new permit indicate an increase in PM_{10} emissions of 4.62 tons per year. The processing fee is $2,500. No permit to construct can be issued without first paying the required processing fee.

5.5 *Permit Conditions Review*

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

Permit Condition 2.3 and Table 2.2 have been designed to state the permitted limits of the criteria pollutant PM_{10} for the flaker drum dryer 2 and flaker drum dryer 3 stacks.

Compliance demonstration of Permit Condition 2.3 and Table 2.2 is maintained in the monitoring of the dried potato product established in Permit Condition 2.5 and the performance test in Permit Condition 2.7. The PM_{10} emission rate used to determine the rate of emissions of the two dryers was from a similar source tested at North American Foods, LLC's Lewisville facility. The tested rate was raised 50% to allow flexibility and a safety factor for compliance. The uncontrolled PM_{10} emissions established the facility as a "B" rated facility.

Permit Condition 2.4 is taken directly from IDAPA 58.01.01.625.02.

Compliance demonstration with the opacity standard is assumed as long as the air pollution control devices are working properly and the reasonable fugitive emissions controls are being applied as needed.

Permit Condition 2.5 limits the dry potato product rate limit produced from each flaker drum dryer.

Compliance demonstration to these dry potato product rates shall be the monitoring and recordkeeping maintained in Permit Conditions 2.6 and 2.7.

Permit Condition 3.2 requires the particulate matter emissions from combustion to meet a grain loading standard for natural gas.

Compliance demonstration is the established by requiring the boilers burn natural gas exclusively as required in Permit Condition 3.3.

6. PERMIT FEES

Idaho Fresh Pak, Inc. is a non-major source with emissions less than 100 tons per year for combined criteria pollutants. An application fee of $1,000 was received on October 10, 2006. The increase of emissions requires a processing fee of $2,500. DEQ received the processing fees on March 6, 2007.

Table 6.1 PTC PROCESSING FEE TABLE

Emissions Inventory			
Pollutant	**Annual Emissions Increase (T/yr)**	**Annual Emissions Reduction (T/yr)**	**Annual Emissions Change (T/yr)**
NO_X	--	--	--
SO_2	--	--	--
CO	--	--	--
PM_{10}	4.62	--	4.62
VOC	--	--	--
TAPS/HAPS			
Total:	**4.62**	--	**4.62**
Fee Due	**$2,500**		

7. PERMIT REVIEW

7.1 Regional Review of Draft Permit

The first draft permit was made available for regional office review via e-mail on February 2, 2007. No comments were received. A second draft was sent for the regional office review on July 31, 2007. No comments were received.

7.2 Facility Review of Draft Permit

The first draft permit was made available for facility review via e-mail February 2, 2007. Comments were received on March 30, 2007. A second draft was sent for facility review on July 31, 2007, under the email address of Mike Eames. A new second draft was sent for the facility review on August 17, 2007, under the email address of Trace McCune. No comments were received.

7.3 Public Comment

An opportunity for public comment period on the PTC application was provided from November 22, 2006, to December 22, 2006, in accordance with IDAPA 58.01.01.209.01.c. No comments were received.

8. RECOMMENDATION

Based on review of application materials, and all applicable state and federal rules and regulations, staff recommends that Idaho Fresh Pak, Inc. be issued PTC No. P-060053 for the facility. No public comment period is recommended, no entity has requested a comment period, and the project does not involve PSD requirements.

REB/slm Permit No. P-060053

Appendix A – AIRS Information

P-060053

AIRS/AFS[a] FACILITY-WIDE CLASSIFICATION[b] DATA ENTRY FORM

Facility Name: Idaho Fresh Pak, Inc.
Facility Location: Glenns Ferry, Idaho
AIRS Number: 039-00027

AIR PROGRAM POLLUTANT	SIP	PSD	NSPS (Part 60)	NESHAP (Part 61)	MACT (Part 63)	SM80	TITLE V	AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment
SO_2	B							U
NO_x	B							U
CO	B							U
PM_{10}	B							U
PT (Particulate)	B							U
VOC	B							U
THAP (Total HAPs)	B							U
			APPLICABLE SUBPART					

[a] Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

[b] AIRS/AFS Classification Codes:

A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, **or** each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.

SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.

B = Actual and potential emissions below all applicable major source thresholds.

C = Class is unknown.

ND = Major source thresholds are not defined (e.g., radionuclides).

Appendix B — Emissions Inventory

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POTENTIAL EMISSION INVENTORY WITHOUT CONTROLS ON DRYERS

EMISSION UNITS	PM_{10}	SOX	NOx	CO	VOC
	T/yr	T/yr	T/yr	T/yr	T/yr
NG Boilers	1.1	0.09	14.5	12.2	0.8
Flaker Drum Dryer 2	2.31				
Flaker Drum Dryer 3	2.31				

* The NG boilers are used only when the steam from the cogeneration facility is not operating.
The flaker drum dryers are uncontrolled and are able to operate 8760 hours per year.

Appendix C — Modeling

P-060053

01/29/07
14:45:47

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 96043 ***

North American Foods, LLC - Glenns Ferry

SIMPLE TERRAIN INPUTS:

SOURCE TYPE	=	POINT
EMISSION RATE (G/S)	=	0.126000
STACK HEIGHT (M)	=	10.5200
STK INSIDE DIAM (M)	=	1.1900
STK EXIT VELOCITY (M/S)	=	13.4000
STK GAS EXIT TEMP (K)	=	327.6000
AMBIENT AIR TEMP (K)	=	293.1500
RECEPTOR HEIGHT (M)	=	0.0000
URBAN/RURAL OPTION	=	RURAL
BUILDING HEIGHT (M)	=	8.0000
MIN HORIZ BLDG DIM (M)	=	58.0000
MAX HORIZ BLDG DIM (M)	=	136.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

BUOY. FLUX = 4.892 M**4/S**3; MOM. FLUX = 56.884 M**4/S**2.

*** FULL METEOROLOGY ***

****
*** SCREEN AUTOMATED DISTANCES ***
****

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	SIGMA Y (M)	SIGMA Z (M)	DWASH
1.	0.000	1	1.0	1.0	320.0	80.75	2.90	2.88	NO
100.	19.44	4	10.0	10.1	3200.0	11.31	8.20	7.15	SS
200.	13.94	4	8.0	8.1	2560.0	13.07	15.56	10.38	SS
300.	10.20	4	8.0	8.1	2560.0	13.07	22.61	13.51	SS
400.	8.373	4	5.0	5.0	1600.0	18.79	29.45	15.54	SS
500.	7.108	4	5.0	5.0	1600.0	18.79	36.15	18.55	SS
600.	6.047	4	4.5	4.5	1440.0	20.76	42.72	21.21	SS
700.	5.265	4	4.0	4.0	1280.0	23.28	49.19	24.03	SS
800.	4.670	4	3.5	3.5	1120.0	26.58	55.57	26.78	SS
900.	4.226	4	2.5	2.5	800.0	35.50	61.88	29.47	SS
1000.	3.949	4	2.5	2.5	800.0	35.50	68.13	32.09	SS
1100.	3.655	4	2.5	2.5	800.0	35.50	74.31	34.12	SS
1200.	3.381	4	2.5	2.5	800.0	35.50	80.44	36.09	SS
1300.	3.130	4	2.5	2.5	800.0	35.50	86.52	38.00	SS
1400.	2.903	4	2.5	2.5	800.0	35.50	92.55	39.86	SS
1500.	2.697	4	2.5	2.5	800.0	35.50	98.54	41.67	SS
1600.	2.655	5	1.0	1.0	10000.0	60.69	79.45	32.43	NO
1700.	2.711	5	1.0	1.0	10000.0	60.69	83.81	33.45	NO
1800.	2.751	5	1.0	1.0	10000.0	60.69	88.15	34.46	NO
1900.	2.777	5	1.0	1.0	10000.0	60.69	92.47	35.45	NO
2000.	2.790	5	1.0	1.0	10000.0	60.69	96.77	36.43	NO
2100.	2.783	5	1.0	1.0	10000.0	60.69	101.05	37.30	NO
2200.	2.774	6	1.0	1.0	10000.0	52.01	70.43	25.68	NO

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  2300.    2.826        6     1.0     1.0 10000.0   52.01    73.24    26.18     NO
  2400.    2.871        6     1.0     1.0 10000.0   52.01    76.05    26.67     NO
  2500.    2.909        6     1.0     1.0 10000.0   52.01    78.84    27.15     NO
  2600.    2.939        6     1.0     1.0 10000.0   52.01    81.63    27.62     NO
  2700.    2.964        6     1.0     1.0 10000.0   52.01    84.41    28.09     NO
  2800.    2.984        6     1.0     1.0 10000.0   52.01    87.17    28.56     NO
  2900.    2.998        6     1.0     1.0 10000.0   52.01    89.93    29.01     NO
  3000.    3.008        6     1.0     1.0 10000.0   52.01    92.68    29.47     NO
  3500.    2.949        6     1.0     1.0 10000.0   52.01   106.31    31.31     NO
  4000.    2.855        6     1.0     1.0 10000.0   52.01   119.76    33.04     NO
  4500.    2.744        6     1.0     1.0 10000.0   52.01   133.03    34.66     NO
  5000.    2.627        6     1.0     1.0 10000.0   52.01   146.15    36.20     NO

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND     1. M:
    80.   20.97        4    10.0    10.1  3200.0   11.05     6.75     6.42     SS

 DWASH=   MEANS NO CALC MADE (CONC = 0.0)
 DWASH=NO MEANS NO BUILDING DOWNWASH USED
 DWASH=HS MEANS HUBER-SNYDER DOWNWASH USED
 DWASH=SS MEANS SCHULMAN-SCIRE DOWNWASH USED
 DWASH=NA MEANS DOWNWASH NOT APPLICABLE, X<3*LB

**************************************
     *** REGULATORY (Default) ***
    PERFORMING CAVITY CALCULATIONS
  WITH ORIGINAL SCREEN CAVITY MODEL
          (BRODE, 1988)
**************************************

 *** CAVITY CALCULATION - 1 ***       *** CAVITY CALCULATION - 2 ***
  CONC (UG/M**3)      =    0.000        CONC (UG/M**3)      =    0.000
  CRIT WS @10M (M/S) =    99.99        CRIT WS @10M (M/S) =    99.99
  CRIT WS @ HS (M/S) =    99.99        CRIT WS @ HS (M/S) =    99.99
  DILUTION WS (M/S)  =    99.99        DILUTION WS (M/S)  =    99.99
  CAVITY HT (M)      =     8.00        CAVITY HT (M)      =     8.00
  CAVITY LENGTH (M)  =    45.33        CAVITY LENGTH (M)  =    36.09
  ALONGWIND DIM (M)  =    58.00        ALONGWIND DIM (M)  =   136.00

CAVITY CONC NOT CALCULATED FOR CRIT WS > 20.0 M/S.  CONC SET = 0.0

**************************************
      END OF CAVITY CALCULATIONS
**************************************

 *** INVERSION BREAK-UP FUMIGATION CALC. ***
  CONC (UG/M**3)    =     0.000
  DIST TO MAX (M)   =  1048.46

DIST TO MAX IS < 2000. M.  CONC SET = 0.0

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