IDAHO SUPREME POTATOES, INC.
TIER II PTC APPLICATION

Submitted to:
Idaho Department of Environmental Quality
1410 North Hilton
Boise, ID 83706

Prepared By:

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Boise, Idaho 83714

February 26, 2008

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1.0 Introduction and Overview

Idaho Supreme Potatoes Inc. (Idaho Supreme) is submitting a Tier II PTC application to revise their current Tier II Operating Permit. Idaho Supreme is currently operating under Tier I Operating Permit (OP) #T1-030513, which expires February 4, 2013.

In addition to the currently permitted fuels, Idaho Supreme proposes to burn coal in the #4 Boiler and to employ a baghouse for post-combustion particulate control. Idaho Supreme also proposes to combust residual fuel oil with a maximum sulfur content of 1.75% by weight in Boiler #4. Distillate fuel oil with a maximum sulfur content of 0.5% by weight is also proposed to be combusted in Boiler #4.

The proposed throughput for coal in Boiler #4 is 5.4 tons/hr with an annual throughput of 47,286 tons with an average sulfur content in coal of 0.5%.

The proposed liquid fuel throughput for Boiler #4 is 650 gallons/hour, which is maximum capacity. Idaho Supreme is proposing an annual throughput limit of 1,804,679 gallons when burning fuel oil at 1.75% sulfur. However, for lower sulfur fuels, the annual throughput limitation (gal/yr) in Boiler #4 is proposed to be increased such that the SO_2 emission rate in ton/year is equivalent to the SO_2 emission rate at the reduced throughput and increased sulfur content. For Boiler #3, Idaho Supreme is limiting combustion to natural gas and propane. Idaho Supreme requests that natural gas and propane still be consumed at maximum emission unit capacities and throughputs for both Boiler #4 and Boiler #3.

Space heaters north, south, east and miscellaneous are emission sources that have hours of operation limited at 6,048 hr/yr. Idaho Supreme is maintaining their hours of operation status of 8,760 hours/year for the fluidized bed dryer. The dehydration lines (each of the 17) are permitted to operate 6,912 hours/year.

Idaho Supreme is requesting to remove New Source Performance Standards (NSPS) Subpart Db requirements prescribed of Boiler # 4 in OP # 011-00013. EPA has confirmed that NSPS is not applicable for coal burning in a letter dated December 19, 2006.

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2.0 Facility Classification

The Idaho Supreme Potatoes, Inc. facility is not a designated facility, as defined by IDAPA 58.01.01.006.27. Idaho Supreme is a Title V major facility for SO_x because the potential to emit (PTE) is greater than 100 tons a year. The facility is not a Prevention of Significant Deterioration (PSD) facility as no criteria pollutant will have a net emissions increase of 250 ton/yr or greater. Included in section 5.7 is a PSD applicability analysis and netting calculations are included in section 5.8.

2.1 Facility Description

Idaho Supreme Potatoes Inc. is a potato processing company. Their process primarily involves potato dehydration to make potato flakes. This process includes dryers, flakers and silos, which are also sources of emissions. Description of the process is given in Section 3 below.

2.2 Facility Location

The Idaho Supreme facility is located in Bingham County, Firth, Idaho, Corner of Highway 91 and 800 Goshen, at Universal Transverse Mercator (UTM) Zone 12 coordinates of 404.8 km east, 4795.9 km north. The exact location in relation to the surrounding area is shown in Figure 2-1. Site plans are shown in the modeling report included in section 8.

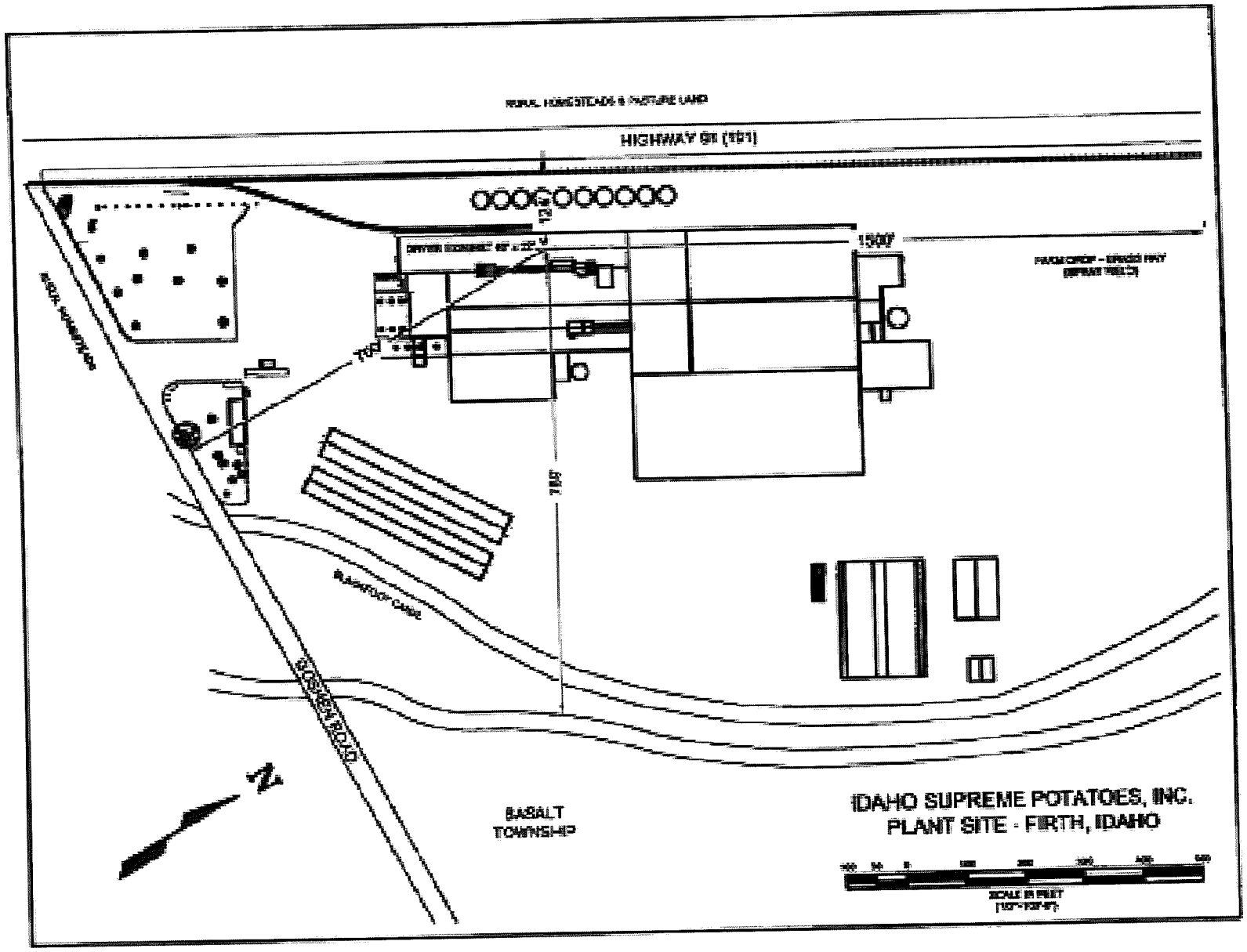

Figure 2-1 Idaho Supreme Facility Location

3.0 Process Description

3.1 Potato Processing

Initially potatoes are received at the plant on trucks and are unloaded across pilers into temporary storage bins. They are taken from the bins for the process using cold water to transport and wash the potatoes. This removes silt and rocks from potatoes. The potatoes are conveyed to a tare removal table where rot, sticks and other debris are removed.

The potatoes enter a steam peeler, where they are exposed to steam for a brief period of time. This loosens the peeling prior to the washing stage. The steam is exhausted and quenched in a water bath. Excess steam may exhaust out the roof but most, if not all, of the steam is quenched by cool water and sent to land application. The peeling is fully removed by dry and wet scrubbing which is done by revolving brushes and can include water sprays. Waste products from this process are used for cattle feed.

The peeled potatoes travel across a trim table where workers cut off, remove and discard defective parts of the potato and peel that has not been removed. The potatoes are held in a surge bin and released at a metered rate for proper slicing. The product is then pumped to precookers or blanchers. The pre-cooker blanches the potatoes in hot water.

This operation gelatinizes the starch. Potatoes are then cooled to retrograde the starch gelatinization for better texture and taste. The potatoes are water transported into cookers where they are exposed to atmospheric steam to fully cook the potato. The potatoes are riced, forced through slots and broken into smaller pieces like mash, and added to the dehydration rolls.

The mashed/riced potatoes are spread across the face of the drum dryers with five applicator rolls. Only whole cells stick to the drum. The steam drum dryer rotates and drives the moisture from the potato cells. The main dehydrated moisture is removed from the drum dryer stack. Excess moisture is removed by a steam snifter fan, which keeps dehydrated moisture from rehydrating final product.

The dried potato sheet is cut off the drum and broken into smaller pieces. Good flake goes to mills where it is cut into desired particle size and density (as required by our customers) and air transported to product separation baghouses. The flake is then bagged, placed into large totes for storage and transport, reblended for texture and quality, or sent to silos for storage.

The slice line dehydrates potato slices into slices for instant foods, like Au Graten or Scallops. The process is identical up to the blanching/cooking stage. The slices are then blown down or up through to dehydrate the slices to a shelf stable product. The potato slices are piled thin in A stage, thicker in B stage and thickest in C stage. Slices are then sorted and shipped in bags or totes. Slices that are not dehydrated to shelf stable product can be finished or dried in the secondary dryer, or used as byproduct for dog food.

Potato flake is layered into the single unit fluidized bed dryer (FBD) that was installed in the existing facility. Potato flakes, with moisture content of approximately 7%, are metered from

onsite process and storage units into a mixing unit. In the same mixer, liquid additives are applied through pressure sprays at room temperature ahead of the dryer body.

The treated moist flake now has moisture content of approximately 30%. The flake is then metered into the FBD, where it passes through three compartments. The first two are heated, and the third compartment is a cooling stage. The resulting product is collected and repacked according to customer specifications. Two Maxon burners provide the required heat for final dehydration. These operate at a maximum rate of 3.5 million BTU per hour. Product drying rate sets the actual heat input demand.

3.2 Boiler Operation

Idaho Supreme proposes for Boiler #4 to combust coal with a maximum hourly throughput of 5.40 tons and an annual throughput of 47,286 tpy coal at 0.5% sulfur. As stated in the October 25, 2007 letter from Idaho Supreme to DEQ, Idaho Supreme does not choose to propose a method for tracking sulfur on an as received basis at this time. Boiler #4 will operate a baghouse when burning coal to control post-combustion particulate emissions.

Boiler #4 is proposed to also operate on residual fuel (#s 4, 5 or 6), distillate fuel #2, natural gas or propane. Residual and distillate fuel is proposed to be burned with a maximum of 1.75% and 0.50% weight sulfur respectively. Boiler #4 has a maximum hourly fuel throughput of 650 gal/hr and an annual limitation of 1,804,679 gallons when burning fuel oil at 1.75% sulfur. Annual throughputs for fuel oil with reduced sulfur contents are listed in Table 3-1.

Boiler #4 has a rated heat input capacity of 140 million BTU/hr. The boiler has a low NOx burner (CSI NOx Mizer).

Boiler #3 is permitted to fire on natural gas and propane only. The rated heat input capacity of the boiler is 43 million BTU/hr if natural gas is used as the fuel. The boiler has a low NOx burner (CSI NOx Mizer).

3.2.1 Fuel Consumption Flexibility for Boiler #4

Idaho Supreme proposes to have the flexibility to burn coal with an average sulfur content $\leq$0.5% by weight as well as fuel oil with various sulfur content. This application shows that the boiler can burn coal at an hourly capacity of 5.4 ton/hr and fuel oil at the hourly capacity of 650 gal/hr and demonstrate compliance with the NAAQS and not trigger PSD requirements. For lower sulfur fuel oils, the annual maximum gal/yr in Boiler #4 is proposed to be increased such that the SO_2 emission rate in ton/year are equivalent to the SO_2 emission rate at the reduced throughput load. The equivalent fuel consumption with various levels of sulfur is shown in the table below:

Table 3-1 Boiler #4 Equivalent Fuel Consumption at Different Levels of Sulfur in Fuel for Demonstrating Compliance with NAAQS

Coal			
Average % Sulfur in Fuel	**Annual Hours, hr/yr**	**Hourly Fuel Throughput, lb/hr***	**Annual Fuel Throughput, ton/yr**
0.50%	8,760	10,796	47,286
*5.4 ton/hr = Capacity of Boiler #4			

Residual Oil # 6			
% Sulfur in Fuel	**Annual Hours, hr/yr**	**Hourly Fuel Throughput, gal/hr***	**Annual Fuel Throughput, gal/yr**
0.50%	8,760	650	5,694,000
0.75%	6,480	650	4,212,314
1.00%	4,860	650	3,159,236
1.25%	3,888	650	2,527,389
1.50%	3,240	650	2,106,157
1.69%	2,875	650	1,868,750
1.75%	2,776	650	1,804,679
*650 gal/hr = Capacity of Boiler #4			

Residual Oil # 5			
% Sulfur in Fuel	**Annual Hours, hr/yr**	**Hourly Fuel Throughput, gal/hr***	**Annual Fuel Throughput, gal/yr**
0.50%	8,760	650	5,694,000
0.75%	6,480	650	4,212,314
1.00%	4,860	650	3,159,236
1.25%	3,888	650	2,527,389
1.50%	3,240	650	2,106,157
1.69%	2,875	650	1,868,750
1.75%	2,776	650	1,804,679
*650 gal/hr = Capacity of Boiler #4			

Residual Oil # 4			
% Sulfur in Fuel	**Annual Hours, hr/yr**	**Hourly Fuel Throughput, gal/hr***	**Annual Fuel Throughput, gal/yr**
0.50%	8,760	650	5,694,000
0.75%	6,783	650	4,408,889
1.00%	5,087	650	3,306,667
1.25%	4,070	650	2,645,333
1.50%	3,391	650	2,204,444

1.69%	2,907	650	1,889,550
1.75%	2,907	650	1,889,550
*650 gal/hr = Capacity of Boiler #4			

Distillate Oil # 2			
% Sulfur in Fuel	**Annual Hours, hr/yr**	**Hourly Fuel Throughput, gal/hr***	**Annual Fuel Throughput, gal/yr**
0.50%	8,760	650	5,694,000
*650 gal/hr = Capacity of Boiler #4			

The modeling addendum submitted in this application shows compliance with coal combustion at 5.4 ton/hr and 47,286 tpy and 1.75% sulfur in residual oil at 650 gal/hr and 1,804,679 gal/yr. Therefore Idaho Supreme will demonstrate compliance for all fuel throughput values shown in Table 3-1.

Idaho Supreme proposes to demonstrate compliance with the annual emission limits in this application by keeping track of monthly fuel consumption and sulfur content, and applying these to AP-42 emission factors used in this application. The proposed permit conditions are discussed in Section 10.0 of this application.

3.3 Fluidized Bed Dryer

This process line received an exemption from DEQ in early calendar year 2001 for 3,000 hours/year operation, but is now permitted for 8,760 hours/year of operation. This is a single unit fluidized bed dryer (FBD). Two Maxon burners provide the required heat for final dehydration. Each of these burners will operate at a maximum rate of 3.5 million BTU per hour.

The maximum input to the process is 2,000 lb/hr. This amounts to approximately 1,300 pounds of potato flake and 700 pounds of additives (additives are approximately 70% water by weight).

3.4 Equipment List

The equipment list is:

1. Boiler #4
2. Boiler #3
3. BD21X3 fluidized bed dryer
   - Two Maxon 435 Oven Pak II natural gas, or propane, burners (each of the two burners is rated at 3.5 million BTU per hour)
4. Mixer vessel
5. Miscellaneous tanks and pumps for liquid ingredients
6. Enclosed conveyors for product transportation
7. Bulk bagging station for product collection
8. Tanks
   - One portable 16,000 gallon tank, also known as a day tank, with a heated line and a specialized pump.
   - Two tanks with a capacity of 30,000 gallons are installed for fuel oil storage.
9. Silos
10. Flakers
11. Dryers A, B and C
12. Secondary Dryer
13. Space Heaters

3.5 Process Flow Diagram

Process flow diagrams are shown in Figures 3-1 to 3-2:

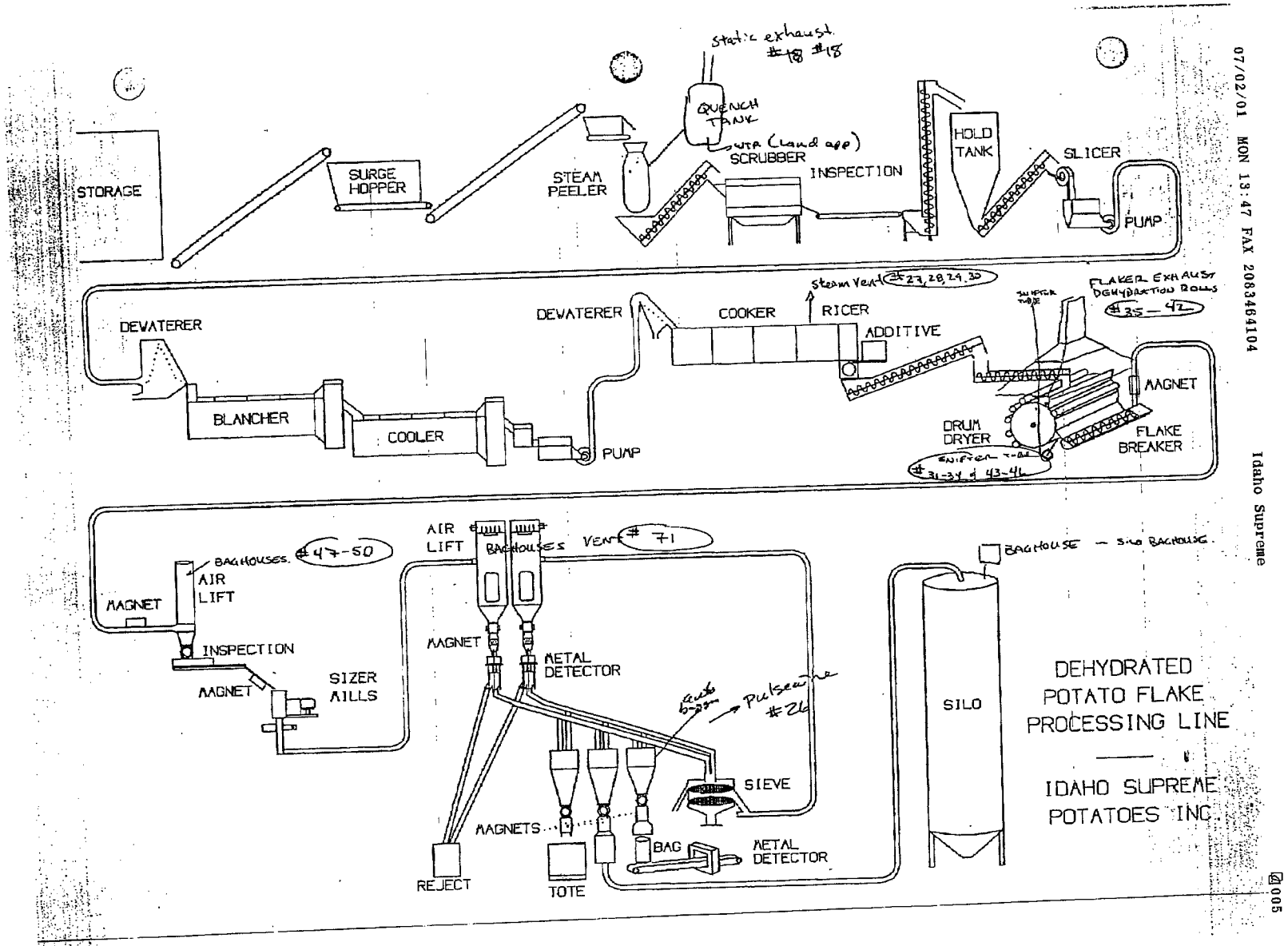

Figure 3-1 Potato Flake Processing

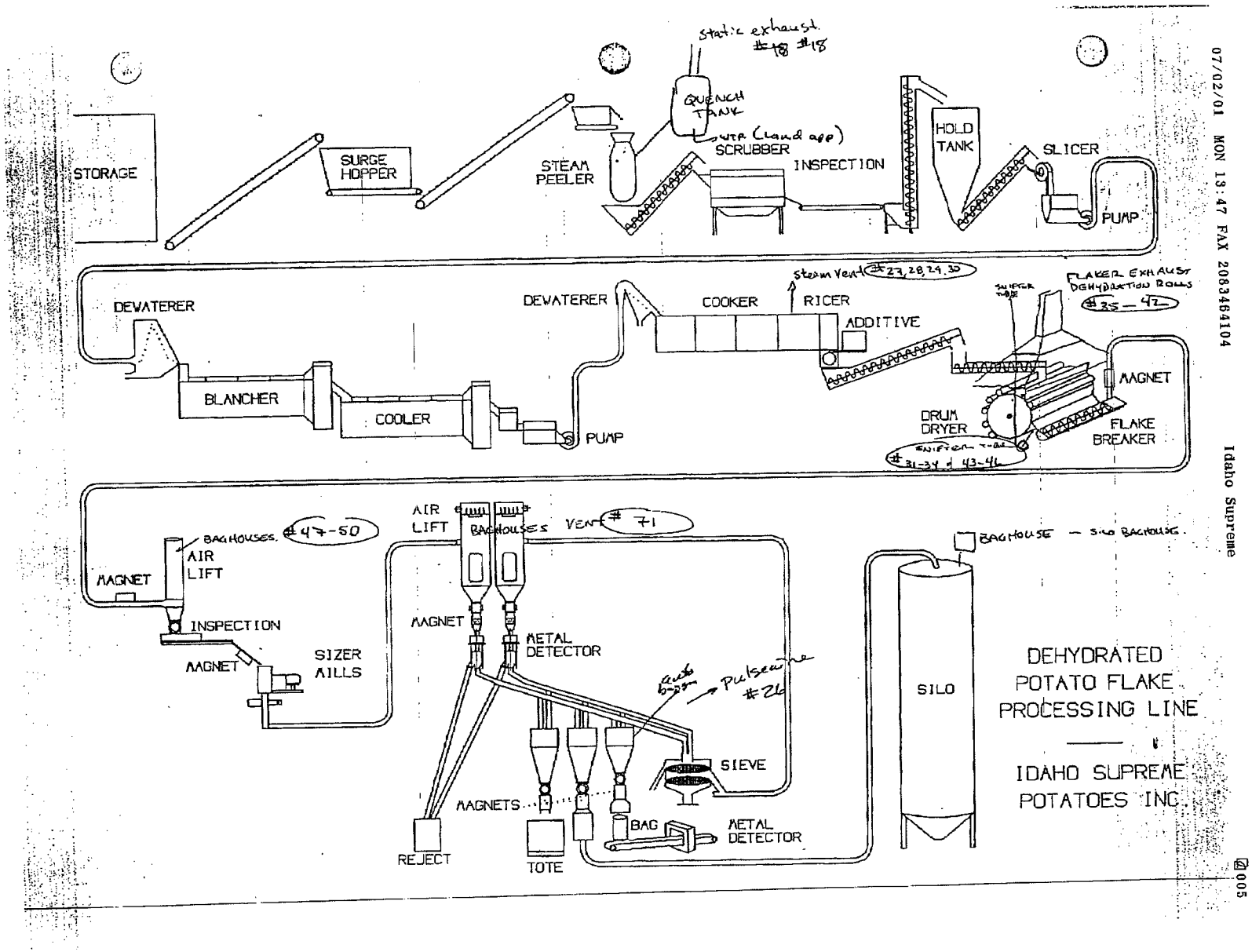

Figure 3-1 Potato Flake Processing

4.0 Permit Application Forms

Permit to construct forms are being submitted with this application for equipment requested to be modified.

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

PERMIT TO CONSTRUCT APPLICATION

Revision 3
04/03/07

Please see instructions on page 2 before filling out the form.

DEQ USE ONLY
Date Received
Project Number
Payment / Fees Included? Yes ☐ No ☐
Check Number

COMPANY NAME, FACILITY NAME, AND FACILITY ID NUMBER

1. Company Name	Idaho Supreme Potatoes, Inc.		
2. Facility Name	Firth Facility	3. Facility ID No.	011-00013
4. Brief Project Description - One sentence or less	Tier II PTC application to modify boiler operations		

PERMIT APPLICATION TYPE

5. ☐ New Facility ☐ New Source at Existing Facility ☐ Unpermitted Existing Source
☒ Modify Existing Source: Permit No.: 011-00013 Date Issued: June 7, 2002
☐ Required by Enforcement Action: Case No.: _____

6. ☒ Minor PTC ☐ Major PTC

4.1.1.A.1.1.1.1 FORMS INCLUDED

Included	N/A	Forms	DEQ Verify
☒	☐	Form GI – Facility Information	☐
☐	☒	Form EU0 – Emissions Units General	☐
☐	☒	Form EU1 - Industrial Engine Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU2 - Nonmetallic Mineral Processing Plants Please Specify number of forms attached: _____	☐
☐	☒	Form EU3 - Spray Paint Booth Information Please Specify number of forms attached: _____	☐
☐	☒	Form EU4 - Cooling Tower Information Please Specify number of forms attached: _____	☐
☒	☐	Form EU5 – Boiler Information Please Specify number of forms attached: _____	☐
☐	☒	Form HMAP – Hot Mix Asphalt Plant Please Specify number of forms attached: _____	☐
☐	☒	Form CBP - Concrete Batch Plant Please Specify number of forms attached: _____	☐
☒	☐	Form BCE - Baghouses Control Equipment	☐
☐	☒	Form SCE - Scrubbers Control Equipment	☐
☒	☐	Forms EI-CP1 - EI-CP4 - Emissions Inventory– criteria pollutants (Excel workbook, all 4 worksheets)	☐
☒	☐	PP – Plot Plan	☐
☒	☐	Forms MI1 – MI4 – Modeling (Excel workbook, all 4 worksheets)	☐
☒	☐	Form FRA – Federal Regulation Applicability	☐

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Revision 3
03/26/07

Please see instructions on page ***Error! Bookmark not defined.*** *before filling out the form.*

All information is required. If information is missing, the application will not be processed.

IDENTIFICATION

Company Name	Idaho Supreme Potatoes, Inc.
Facility Name (if different than #1)	Firth Facility
Facility I.D. No.	011-00013
Brief Project Description:	Tier II PTC application to modify boiler operations

FACILITY INFORMATION

Owned/operated by: (√ if applicable)	☐ Federal government ☐ County government ☐ State government ☐ City government
Primary Facility Permit Contact Person/Title	Wade Chapman- General Manager
Telephone Number and Email Address	208.346.6841 wade@idahosupreme.com
Alternate Facility Contact Person/Title	Steven Boodry- Plant Engineer
Telephone Number and Email Address	208.346.6826 sboodry@idahosupreme.com
Address to which permit should be sent	PO Box 246
City/State/Zip	Firth, ID 83236
Equipment Location Address (if different than #10)	
City/State/Zip	
Is the Equipment Portable?	☐ Yes ☐ No
SIC Code(s) and NAISC Code	Primary SIC: **2034** Secondary SIC (if any): NAICS: **311423**
Brief Business Description and Principal Product	Dehydrated Potato Processing Plant
Identify any adjacent or contiguous facility that this company owns and/or operates	

PERMIT APPLICATION TYPE

1. Specify Reason for Application	☐ New Facility ☐ New Source at Existing Facility ☐ Unpermitted Existing Source ☒ Modify Existing Source: Permit No.: 011-00013 Date Issued: June 7, 2002 ☐ Permit Revision ☐ Required by Enforcement Action: Case No.: ☐ Required by Enforcement Action: Case No.:

CERTIFICATION

IN ACCORDANCE WITH IDAPA 58.01.01.123 (RULES FOR THE CONTROL OF AIR POLLUTION IN IDAHO), I CERTIFY BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION IN THE DOCUMENT ARE TRUE, ACCURATE, AND COMPLETE.

19. Responsible Official's Name/Title	Wade Chapman, General Manager	
20. RESPONSIBLE OFFICIAL SIGNATURE		Date: 2-15-8
21. ☒ Check here to indicate you would like to review a draft permit prior to final issuance.		

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PERMIT TO CONSTRUCT APPLICATION

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03/27/07

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IDENTIFICATION		
Company Name: Idaho Supreme Potatoes Inc.	Facility Name: Firth Facility	Facility ID No: 011-00013
Brief Project Description:	Tier II PTC application to modify boiler operations	

EXEMPTION

Please see IDAPA 58.01.01.222 for a list of industrial boilers that are exempt from Permit to Construct requirements.

BOILER (EMISSION UNIT) DESCRIPTION AND SPECIFICATIONS

1. Type of Request: ☐ New Unit ☒ Unpermitted Existing Unit ☒ Modification to a Unit with Permit #:011-00013

2. Use of Boiler: ☒ % Used For Process ☐ % Used For Space Heat ☐ % Used For Generating Electricity ☐ Other:

3. Boiler ID Number: Boiler #4	4. Rated Capacity: ☒ 140 Million British Thermal Units Per Hour (MMBtu/hr) ☐ 1,000 Pounds Steam Per Hour (1,000 lb steam/hr)	
5. Construction Date: 1983	6. Manufacturer: Bigelow	7. Model: Coen 200 Series FYR W
8. Date of Modification (if applicable): May 2008	9. Serial Number (if available): Not available	10. Control Device (if any): Low NOx burner and Baghouse **Note: Attach applicable control**

FUEL DESCRIPTION AND SPECIFICATIONS

11. Fuel Type	☒ Diesel Fuel (#)	☒ Natural Gas	☒ Coal	☒ Residual Oil (#4-6)
	(gal/hr)	(cf/hr)	(unit: lb /hr)	(unit:gal /hr)
12. Full Load Consumption Rate	650	136,319	10,796	650
13. Actual Consumption Rate	650	136,319	10,796	650
14. Fuel Heat Content (Btu/unit, LHV)	91,500	1,027	12,968	150,000
15. Sulfur Content wt%	0.5	0.003	0.5	0.5 - 1.75%
16. Ash Content wt%	0.01	N/A	9.43	0.05

STEAM DESCRIPTION AND SPECIFICATIONS

17. Steam Heat Content	NA	NA	1,400 Btu/lb	NA
18. Steam Temperature (°F)	N/A	N/A	370	NA
19. Steam Pressure (psi)	N/A	N/A	180	NA
20. Steam Type	N/A	N/A	☒ Saturated ☐ Superheated	☐ Saturated ☐ Superheated

OPERATING LIMITS & SCHEDULE

21. Imposed Operating Limits (hours/year, or gallons fuel/year, etc.): Diesel-5.69 MMgal/yr Nat Gas-981 MMscf/yr Coal-47,286 ton/yr Res Fuel Oil- up to 5.69 MMgal/yr

22. Operating Schedule (hours/day, months/year, etc.): Diesel, Nat Gas, and Coal -8,760 hr/yr; Resid Fuel 2,776 to 8,760 hr/yr.

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IDENTIFICATION

Company Name: Idaho Supreme Potatoes Inc.	Facility Name: Firth Facility	Facility ID No: 011-00013
Brief Project Description:	Tier II PTC application to modify boiler operations	

EXEMPTION

Please see IDAPA 58.01.01.222 for a list of industrial boilers that are exempt from Permit to Construct requirements.

BOILER (EMISSION UNIT) DESCRIPTION AND SPECIFICATIONS

1. Type of Request: ☐ New Unit ☒ Unpermitted Existing Unit ☒ Modification to a Unit with Permit #:011-00013

2. Use of Boiler: ☒ % Used For Process ☐ % Used For Space Heat ☐ % Used For Generating Electricity ☐ Other:

3. Boiler ID Number: Boiler #3	4. Rated Capacity: ☒ 43 Million British Thermal Units Per Hour (MMBtu/hr) ☐ 1,000 Pounds Steam Per Hour (1,000 lb steam/hr)	
5. Construction Date: July 1977	6. Manufacturer: Cleaver Brooks	7. Model: WT200X-BR3
8. Date of Modification (if applicable): May 2008	9. Serial Number (if available): Not available	10. Control Device (if any): Low NOx burner **Note: Attach applicable control**

FUEL DESCRIPTION AND SPECIFICATIONS

11. Fuel Type	☐ Diesel Fuel (#)	☒ Natural Gas	☐ Coal	☒ Propane
12. Full Load Consumption Rate	(gal/hr)	(cf/hr) 42,745	(unit: lb /hr)	(unit: gal /hr) 320
13. Actual Consumption Rate		42,745		320
14. Fuel Heat Content (Btu/unit, LHV)		1,027		2,524
15. Sulfur Content wt%		0.003		1.1E-05
16. Ash Content wt%		N/A		N/A

STEAM DESCRIPTION AND SPECIFICATIONS

17. Steam Heat Content	NA	NA	1,400 Btu/lb	NA
18. Steam Temperature (°F)	N/A	N/A	370	NA
19. Steam Pressure (psi)	N/A	N/A	180	NA
20. Steam Type	N/A	N/A	☐ Saturated ☐ Superheated	☐ Saturated ☐ Superheated

OPERATING LIMITS & SCHEDULE

21. Imposed Operating Limits (hours/year, or gallons fuel/year, etc.): None

22. Operating Schedule (hours/day, months/year, etc.): 24 hr/day 7 days/wk 52 wk/yr

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Baghouses Control Equipment **Form BCE**

PERMIT TO CONSTRUCT APPLICATION

Revision 3
04/02/07

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IDENTIFICATION

Company Name:	Idaho Supreme Potatoes, Inc.	**Facility Name:** Firth Facility	**Facility ID No.:** 011-00013
Brief Project Description:	Tier II application for boiler modification		

IDENTIFICATION				BAGHOUSE			BAGS			
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Emission Unit	EU ID No.	CE ID No.	Stack ID No.	Baghouse Manufacturer	Baghouse Model No.	Type	Type	Size (Dia x Ht)	No. of Bags	Air to Cloth
Boiler #4	B4	B4BH	B4	MikroPul	7141J(6)-12-17 TRH	Or Equivalent	Rayton Felt	4.5in x 12ft	714	2.59:1

Facility-Wide Emission Inventory - Criteria Pollutants - Point Sources **Form EI-CP1**

PERMIT TO CONSTRUCT APPLICATION
Revision 3
4/5/2007

DEQ AIR QUALITY PROGRAM
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Company Name: Idaho Supreme Potatoes, Inc.
Facility Name: Firth Facility
Facility ID No.: 011-00013
Brief Project Description: Tier II PTC application to modify boiler operations

SUMMARY OF FACILITY WIDE EMISSION RATES FOR CRITERIA POLLUTANTS - POINT SOURCES

1.	2.	3.											
		PM_{10}		SO_2		NO_x		CO		VOC		Lead	
Emissions units	Stack ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Point Source(s)													
Boiler #4	B4	13.16	32.74	178.59	413.76	30.55	133.81	11.45	50.15	0.75	3.28		
Boiler #3	B3	0.32	1.42	0.03	0.11	6.08	26.63	3.59	15.73	0.24	1.00		
Fluidized Bed Dryer	FBD	3.55	15.55	0.00	0.02	1.10	4.82	0.57	2.50	0.04	0.18		
National Dryer Stage A	Nat Dry A	0.06	0.26	0.01	0.02	0.78	3.42	0.65	2.85	0.04	0.19		
National Dryer Stage B	Nat Dry B	0.02	0.11	0.00	0.01	0.31	1.36	0.26	1.14	0.02	0.07		
National Dryer Stage C	Nat Dry C	0.02	0.11	0.00	0.01	0.31	1.36	0.26	1.14	0.02	0.07		
Secondary Dryer (1st vent)	Sec. Dry 1	0.00	0.17	0.00	0.00	0.03	0.12	0.02	0.10	0.00	0.01		
Secondary Dryer (2nd vent)	Sec. Dry 2	0.00	0.17	0.00	0.00	0.03	0.12	0.02	0.10	0.00	0.01		
Silo Storage A	Silo A	0.06	0.28										
Storage Silo B	Silo B	0.06	0.28										
Storage Silo C	Silo C	0.06	0.28										
Silo Storage D	Silo D	0.06	0.28										
Storage Silo E	Silo E	0.06	0.28										
Storage Silo F	Silo F	0.06	0.28										
Storage Silo G	Silo G	0.06	0.28										
Silo Storage H	Silo H	0.06	0.28										
Storage Silo I	Silo I	0.06	0.28										
Silo Storage J	Silo J	0.06	0.28										
Process National Dryer Stage A	P Nat Dry A	0.38	1.29										
Process National Dryer Stage B	P Nat Dry B	0.38	1.29										
Process National Dryer Stage C	P Nat Dry C	0.38	1.29										
(insert more rows as needed)													
Total		16.91	57.22	178.64	413.93	39.19	171.63	16.82	73.71	1.11	4.81		

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
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PERMIT TO CONSTRUCT APPLICATION
Revision
4/5/200

Please see instructions on page 2 before filling out the form.

Company Name:	Idaho Supreme Potatoes, Inc.
Facility Name:	Firth Facility
Facility ID No.:	011-00013
Brief Project Description:	Tier II PTC application to modify boiler operations

SUMMARY OF FACILITY WIDE EMISSION RATES FOR CRITERIA POLLUTANTS - POINT SOURCES

1.	2.	3.											
		PM_{10}		SO_2		NO_x		CO		VOC		Lead	
Emissions units	Stack ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Point Source(s)													
Dehydration Lines (Total)													
Flaker #1	Flake 1	0.38	1.29										
Flaker #2	Flake 2	0.38	1.29										
Flaker #3	Flake 3	0.38	1.29										
Flaker #4	Flake 4	0.38	1.29										
Flaker #5	Flake 5	0.38	1.29										
Flaker #6	Flake 6	0.38	1.29										
Flaker #7	Flake 7	0.38	1.29										
Flaker #8	Flake 8	0.38	1.29										
Flaker #9	Flake 9	0.38	1.29										
Flaker #10	Flake 10	0.38	1.29										
Flaker #11	Flake 11	0.38	1.29										
Flaker #12	Flake 12	0.38	1.29										
Secondary Dryer (1st vent)	Sec Dry 1	0.38	1.29										
Secondary Dryer (2nd vent)	Sec Dry 2	0.38	1.29										
Space Heater South	Space S	0.06	0.18	0.00	0.02	0.80	2.43	0.67	2.00	0.04	0.12		
Space Heater North	Space N	0.06	0.18	0.00	0.02	0.80	2.43	0.67	2.00	0.04	0.12		
Space Heater East	Space E	0.11	0.34	0.01	0.03	1.50	4.53	1.30	3.80	0.01	0.24		
Miscellaneous Space Heater	Space Misc.	0.02	0.06	0.00	0.00	0.20	0.60	0.17	0.51	0.01	0.03		
Storage Tanks	Tanks										0.06		
Total		5.50	18.82	0.02	0.06	3.30	10.00	2.81	8.31	0.10	0.57		

DEQ AIR QUALITY PROGRAM
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PERMIT TO CONSTRUCT APPLICATION
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4/5/2007

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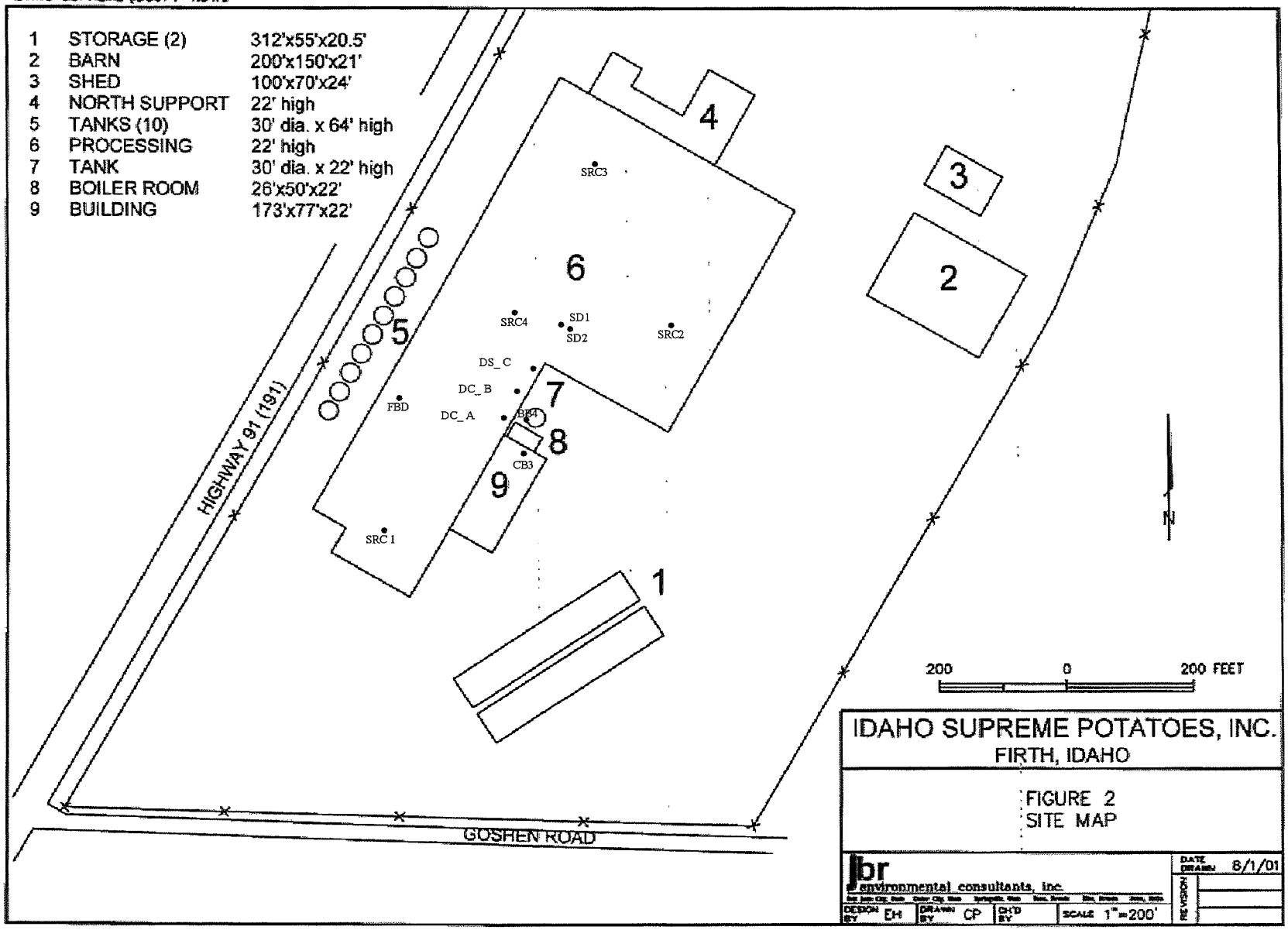
Company Name:	Idaho Supreme Potatoes, Inc.
Facility Name:	Firth Facility
Facility ID No.:	011-00013
Brief Project Description:	Tier II PTC application to modify boiler operations

SUMMARY OF EMISSIONS INCREASE (PROPOSED PTE - PREVIOUSLY MODELED PTE) - POINT SOURCES

1.	2.	3.											
		PM_{10}		SO_2		NO_X		CO		VOC		Lead	
Emissions units	Stack ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Point Source(s)													
Boiler #4	B4		18.00		240.45		28.69		38.90		1.33		
name of the emissions unit2													
name of the emissions unit3													
name of the emissions unit4													
name of the emissions unit5													
name of the emissions unit6													
name of the emissions unit7													
name of the emissions unit8													
name of the emissions unit9													
name of the emissions unit10													
name of the emissions unit11													
name of the emissions unit12													
name of the emissions unit13													
name of the emissions unit14													
name of the emissions unit15													
name of the emissions unit16													
name of the emissions unit17													
name of the emissions unit18													
name of the emissions unit19													
name of the emissions unit20													
name of the emissions unit21													
(insert more rows as needed)													
Total			18.00		240.45		28.69		38.90		1.33		


IDAHO SUPREME\IDSUP1-1.DWG
1 STORAGE (2) 312'x55'x20.5'
2 BARN 200'x150'x21'
3 SHED 100'x70'x24'
4 NORTH SUPPORT 22' high
5 TANKS (10) 30' dia. x 64' high
6 PROCESSING 22' high
7 TANK 30' dia. x 22' high
8 BOILER ROOM 26'x50'x22'
9 BUILDING 173'x77'x22'
HIGHWAY 91 (191)
GOSHEN ROAD
SRC3
SRC4
SD1
SD2
SRC2
DS_C
DC_B
DC_A
FBD
BR1
CB3
SRC1
N
200 0 200 FEET
IDAHO SUPREME POTATOES, INC.
FIRTH, IDAHO
FIGURE 2
SITE MAP
jbr environmental consultants, inc.
DESIGN BY EH
DRAWN BY CP
CH'D BY
SCALE 1"=200'
DATE DRAWN 8/1/01
REVISION

Modeling Information - Impact Analysis **Form MI1**

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the **Air Permit Hotline - 1-877-5PERMIT**

PERMIT TO CONSTRUCT APPLICATION

Revision 3
4/5/2007

Please see instructions on page 2 before filling out the form.

Company Name:	Idaho Supreme Potatoes, Inc.
Facility Name:	Firth Facility
Facility ID No.:	011-00013
Brief Project Description:	Tier II PTC application to modify boiler operations

SUMMARY OF AIR IMPACT ANALYSIS RESULTS - CRITERIA POLLUTANTS

		1		2	3	4		5
Criteria Pollutants	**Averaging Period**	**Significant Impact Analysis Results (µg/m3)**	**Significant Contribution Level (µg/m3)**	**Full Impact Analysis Results (µg/m3)**	**Background Concentration (µg/m3)**	**Total Ambient Impact (µg/m3)**	**NAAQS (µg/m3)**	**Percent of NAAQS**
PM_{10}	24-hour	73.3	5	73.3	73.00	146.3	150	98%
	Annual	19.5	1	19.5	26	45.5	50	91%
SO_2	3-hr	287.9	25	287.9	34.00	321.9	1300	25%
	24-hr	93.3	5	93.3	26.00	119.3	365	33%
	Annual	17.0	1	17.0	8.00	25.0	80	31%
NO_2	Annual	17.3	1	17.5	17	34.5	100	36%
CO	1-hr	197	2000		3,797		10000	
	8-hr	117	500		2,417		40000	

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton Boise, ID 83706 **For assistance: (208) 373-0502**	**PERMIT TO CONSTRUCT APPLICATION**
Company Name:	Idaho Supreme Potatoes, Inc.	
Facility Name:	Firth Facility	
Facility ID No.:	011-00013	
Brief Project Description:	Tier II PTC application to modify boiler operations	

POINT SOURCE STACK PARAMETERS

1.	2.	3a.	3b.	4.	5.	6.	.7	8.	9.	10.
Emissions units	**Stack ID**	**UTM Easting (m)**	**UTM Northing (m)**	**Base Elevation (m)**	**Stack Height (m)**	**Modeled Diameter (m)**	**Stack Exit Temperature (K)**	**Stack Exit Flowrate (acfm)**	**Stack Exit Velocity (m/s)**	**Stack orientation (e.g., horizontal, rain cap)**
Point Source(s)										
Boiler #4	BB4	See electronic modeling files			12.29	0.91	463.60	32,000.00	23.22	V
Boiler #3	CB3	See electronic modeling files			10.36	0.88	568.80	1,300.00	10.08	V
Fluidized Bed Dryer	FBD	See electronic modeling files			8.60	1.04	321.00	26,000.00	14.40	V
National Dryer Stage A	DS_A	See electronic modeling files			8.00	0.70	366.30	8,500.00	10.42	V
National Dryer Stage B	DS_B	See electronic modeling files			8.00	0.70	366.30	7,500.00	9.20	V
National Dryer Stage C	DS_C	See electronic modeling files			8.00	0.70	366.30	7,500.00	9.20	V
Secondary Dryer (1st vent)	SD1	See electronic modeling files			7.68	0.76	293.15	7,000.00	7.28	V
Secondary Dryer (2nd vent)	SD2	See electronic modeling files			7.68	0.76	293.15	7,000.00	7.28	V
Silo Storage A	Silo A	See electronic modeling files			22.43	0.24	366.48	750.00	7.58	V
Storage Silo B	Silo B	See electronic modeling files			22.43	0.24	366.48	750.00	7.58	V
Storage Silo C	Silo C	See electronic modeling files			22.43	0.24	366.48	750.00	7.58	V
Silo Storage D	Silo D	See electronic modeling files			22.43	0.24	366.48	750.00	7.58	V
Storage Silo E	Silo E	See electronic modeling files			22.43	0.24	366.48	750.00	7.58	V
Storage Silo F	Silo F	See electronic modeling files			22.43	0.24	366.48	750.00	7.58	V
Storage Silo G	Silo G	See electronic modeling files			22.43	0.24	366.48	750.00	7.58	V
Silo Storage H	Silo H	See electronic modeling files			22.43	0.24	366.48	750.00	7.58	V
Storage Silo I	Silo I	See electronic modeling files			22.43	0.24	366.48	750.00	7.58	V
Silo Storage J	Silo J	See electronic modeling files			22.43	0.24	366.48	750.00	7.58	V

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton Boise, ID 83706 **For assistance: (208) 373-0502**	**PERMIT TO CONSTRUCT APPLICATION**
Company Name:	Idaho Supreme Potatoes, Inc.	
Facility Name:	Firth Facility	
Facility ID No.:	011-00013	
Brief Project Description:	Tier II PTC application to modify boiler operations	

POINT SOURCE STACK PARAMETERS

1.	2.	3a.	3b.	4.	5.	6.	.7	8.	9.	10.
Emissions units	**Stack ID**	**UTM Easting (m)**	**UTM Northing (m)**	**Base Elevation (m)**	**Stack Height (m)**	**Modeled Diameter (m)**	**Stack Exit Temperature (K)**	**Stack Exit Flowrate (acfm)**	**Stack Exit Velocity (m/s)**	**Stack orientation (e.g., horizontal, rain cap)**
Point Source(s)										
Flaker #1	FL1	See electronic modeling files			9.83	1.14	293.00	9,935.00	16.10	V
Flaker #2	FL2	See electronic modeling files			9.83	1.14	293.00	9,935.00	16.10	V
Flaker #3	FL3	See electronic modeling files			9.83	1.14	293.00	9,935.00	16.10	V
Flaker #4	FL4	See electronic modeling files			9.83	1.14	293.00	9,935.00	16.10	V
Flaker #5	FL5	See electronic modeling files			7.68	0.63	293.00	10,333.00	15.64	V
Flaker #6	FL6	See electronic modeling files			8.29	0.76	293.00	10,793.00	11.00	V
Flaker #7	FL7	See electronic modeling files			8.29	0.76	293.00	10,793.00	11.00	V
Flaker #8	FL8	See electronic modeling files			8.29	0.76	293.00	10,793.00	11.00	V
Flaker #9	FL9	See electronic modeling files			9.83	0.61	293.00	10,793.00	16.00	V
Flaker #10	FL10	See electronic modeling files			9.83	0.61	293.00	10,793.00	16.00	V
Flaker #11	FL11	See electronic modeling files			9.83	0.61	293.00	10,793.00	16.00	V
Flaker #12	FL12	See electronic modeling files			9.83	0.61	293.00	10,793.00	16.00	V

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton Boise, ID 83706 **For assistance: (208) 373-0502**	**PERMIT TO CONSTRUCT APPLICATION**
Company Name:	Idaho Supreme Potatoes, Inc.	
Facility Name:	Firth Facility	
Facility ID No.:	011-00013	
Brief Project Description:	Tier II PTC application to modify boiler operations	

FUGITIVE SOURCE PARAMETERS

1.	2.	3a.	3b.	4.	5.	6.	7.	8.	9.	10.
Emissions units	**Stack ID**	**UTM Easting (m)**	**UTM Northing (m)**	**Base Elevation (m)**	**Release Height (m)**	**Easterly Length (m)**	**Northerly Length (m)**	**Angle from North (°)**	**Initial Vertical Dimension (m)**	**Initial Horizontal Dimension (m)**
Area Source(s)										
Volume Source(s)										
Space Heater S	SRC1	See electronic modeling files			25.00				5.58	30.48
Space Heater N	SRC2	See electronic modeling files			25.00				5.58	30.48
Space Heater E	SRC3	See electronic modeling files			25.00				5.58	30.48
Space Heater W	SRC4	See electronic modeling files			25.00				5.58	30.48
(insert more rows as needed)										

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton Boise, ID 83706 **For assistance: (208) 373-0502**	**PERMIT TO CONSTRUCT APPLICATION**

Company Name:	Idaho Supreme Potatoes, Inc.
Facility Name:	Firth Facility
Facility ID No.:	011-00013
Brief Project Description:	Tier II PTC application to modify boiler operations

BUILDING AND STRUCTURE INFORMATION

1.	2.	3.	4.	5.	6.	7.
Building ID Number	**Length (ft)**	**Width (ft)**	**Base Elevation (m)**	**Building Height (m)**	**Number of Tiers**	**Description/Comments**
Building #1	312.00	55.00	1392.60	6.25	1	Storage Building 1
Building #1A	312.00	55.00	1392.60	6.25	1	Storage Building 1A
Building #2	200.00	150.00	1392.60	6.40	1	Barn
Building #3	100.00	70.00	1392.60	7.30	1	Shed
Building #4	224.00	122.00	1392.60	6.71	1	North Support
S-1	Circular	30.00	1392.90	19.51	1	Silo A
S-2	Circular	30.00	1392.90	19.51	1	Silo B
S-3	Circular	30.00	1392.90	19.51	1	Silo C
S-4	Circular	30.00	1392.90	19.51	1	Silo D
S-5	Circular	30.00	1392.90	19.51	1	Silo E
S-6	Circular	30.00	1392.90	19.51	1	Silo F
S-7	Circular	30.00	1392.90	19.51	1	Silo G
S-8	Circular	30.00	1392.90	19.51	1	Silo H
S-9	Circular	30.00	1392.90	19.51	1	Silo I
S-10	Circular	30.00	1392.90	19.51	1	Silo J
Tank	Circular	30.00	1392.90	6.71	1	Tank 7
Building #6	820.00	420.00	1392.90	6.71	1	Processing Building
Building #8	26.00	50.00	1392.90	6.71	1	Boiler Room
Building #9	173.00	77.00	1392.60	6.71	1	Building 9

Federal Requirements Applicability **Form FRA**

PERMIT TO CONSTRUCT APPLICATION

Revision 3
03/26/07

DEQ AIR QUALITY PROGRAM
1410 N. Hilton, Boise, ID 83706
For assistance, call the
Air Permit Hotline – 1-877-5PERMIT

Please see instructions on page ***Error! Bookmark not defined.*** *before filling out the form.*

IDENTIFICATION		
Company Name: Idaho Supreme Potatoes, Inc.	Facility Name: Firth Facility	Facility ID No: 011-00013
Brief Project Description:		

APPLICABILITY DETERMINATION		
1. Will this project be subject to 1990 CAA Section 112(g)? (Case-by-Case MACT)	☒ NO	☐ YES* * If YES, applicant must submit an application for a case-by-case MACT determination [IAC 567 22-1(3)"b" (8)]
2. Will this project be subject to a New Source Performance Standard? (40 CFR part 60)	☐ NO	☒ YES* *If YES, please identify sub-part: Kb and Dc
3. Will this project be subject to a MACT (Maximum Achievable Control Technology) regulation? (40 CFR part 63) THIS ONLY APPLIES IF THE PROJECT EMITS A HAZARDOUS AIR POLLUTANT	☐ NO	☒ YES* *If YES, please identify sub-part: DDDDD
4. Will this project be subject to a NESHAP (National Emission Standards for Hazardous Air Pollutants) regulation? (40 CFR part 61)	☒ NO	☐ YES* *If YES, please identify sub-part: ____
5. Will this project be subject to PSD (Prevention of Significant Deterioration)? (40 CFR section 52.21)	☒ NO	☐ YES
6. Was netting done for this project to avoid PSD?	☐ NO	☒ YES* *If YES, please attach netting calculations

If you are unsure how to answer any of these questions, call the Air Permit Hotline at 1-877-5PERMIT

5.0 Regulatory Applicability Analysis

In preparing and submitting this application, Idaho Supreme has evaluated the applicability of state and Federal regulations to the Tier II permit. Each subsection contains the applicability analysis for a specific subset of air quality regulations, as follows:

- Subsection 5.1 – Applicable and Inapplicable IDAPA 58.01.01 Requirements
- Subsection 5.2 – Applicable and Inapplicable Federal Air Quality Regulations – General
- Subsection 5.3 – Applicable and Inapplicable New Source Performance Standards (40 CFR Part 60)
- Subsection 5.4 – Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)
- Subsection 5.5 – Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR Part 63)
- Subsection 5.6 – Specific Applicable and Inapplicable Requirement Discussion

5.1 Applicable and Inapplicable IDAPA 58.01.01 Requirements

Table 5-1 cites the applicable and inapplicable requirements of the Rules for the Control of Air Pollution in Idaho (IDAPA 58.01.01) for air emitting activities at Idaho Supreme:

Table 5-1 Applicable and Inapplicable IDAPA 58.01.01 Requirements

Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
000	LEGAL AUTHORITY General Applicability	N/A	No	N/A	No substantive requirements (Note B)
001	TITLE AND SCOPE General Applicability	N/A	No	N/A	No substantive requirements (Note B)
002	WRITTEN INTERPRETATIONS General Applicability	N/A	No	N/A	No substantive requirements (Note B)
003	ADMINISTRATIVE APPEALS General Applicability	N/A	Yes	N/A	No substantive requirements
004	CATCHLINES General Applicability	N/A	Yes	N/A	No substantive requirements
005	DEFINITIONS General Applicability	N/A	Yes	N/A	No substantive requirements
006	GENERAL DEFINITIONS General Applicability	N/A	Yes	N/A	No substantive requirements
007	DEFINITIONS FOR THE PURPOSES OF SECTIONS 200 THROUGH 225 AND 400	N/A	Yes	N/A	400-461 facility not in source category

Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
	THROUGH 461 General Applicability				No requirements given
008	DEFINITIONS FOR THE PURPOSES OF SECTIONS 300 THROUGH 386 General Applicability	N/A	Yes	N/A	No substantive requirements
009	DEFINITIONS FOR THE PURPOSES OF 40 CFR PART 60 General Applicability	N/A	Yes	N/A	No substantive requirements
010	DEFINITIONS FOR THE PURPOSES OF 40 CFR PART 61 AND 40 CFR PART 63	N/A	Yes	N/A	No substantive requirements
011	DEFINITIONS FOR THE PURPOSE OF SECTIONS 790 THROUGH 799	N/A	No	N/A	(Note D)
106	ABBREVIATIONS General Applicability	N/A	Yes	N/A	No substantive requirements
107	INCORPORATIONS BY REFERENCE General Applicability	N/A	Yes	N/A	No substantive requirements
121	COMPLIANCE REQUIREMENTS BY DEQ General Applicability	As specified for individual requirements	Yes	Yes	Requirements determined by the Department stated elsewhere in the Tier I permit.
122	INFORMATION ORDERS BY DEQ General Applicability	N/A	No	N/A	(Note B)
123	CERTIFICATION OF DOCUMENTS General Applicability	Recordkeeping	Yes	Yes	
124	TRUTH, ACCURACY AND COMPLETENESS OF DOCUMENTS General Applicability	Recordkeeping	Yes	Yes	
125	FALSE STATEMENTS General Applicability	Recordkeeping	Yes	Yes	
126	TAMPERING General Applicability	Recordkeeping	Yes	Yes	
127	FORMAT OF RESPONSES General Applicability	Recordkeeping	Yes	Yes	
128	CONFIDENTIAL INFORMATION General Applicability	Recordkeeping	Yes	Yes	
130-136	UPSET, BREAKDOWN, AND EXCESS EMISSIONS REQUIREMENTS	Reporting/Recordkeeping	Yes	Yes	
140-149	VARIANCE PROCEDURES and PETITIONS General Applicability	N/A	No	N/A	(Notes A,C)
155	CIRCUMVENTION General Applicability	Recordkeeping	Yes	Yes	No installation or use of any device conceals an emission of air pollutants.
156	TOTAL COMPLIANCE General Applicability	Recordkeeping	Yes	Yes	
157	TEST METHODS AND PROCEDURES General Applicability	Recordkeeping	Yes	Yes	

Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
160	PROVISIONS GOVERNING SPECIFIC ACTIVITIES AND CONDITIONS General Applicability	Recordkeeping	Yes	Yes	
161	TOXIC SUBSTANCES General Applicability	Recordkeeping	Yes	Yes	(Note A)
162	MODIFYING PHYSICAL CONDITIONS General Applicability	N/A	No	N/A	(Note B)
163	SOURCE DENSITY	N/A	No	N/A	(Note B)
164	POLYCHLORINATED BIPHENYLS (PCBS) Requirements or Standards: Prohibits burning PCB containing materials, in quantities greater that five (5) ppm, except for disposal.	N/A	No	N/A	(Note F)
200 - 203	PROCEDURES AND REQUIREMENTS FOR PERMITS TO CONSTRUCT General Applicability	N/A	Yes	Yes	
204	PERMIT REQUIREMENTS FOR NEW MAJOR FACILITIES OR MAJOR MODIFICATIONS IN NONATTAINMENT AREAS	N/A	No	N/A	
205	PERMIT REQUIREMENTS FOR NEW MAJOR FACILITIES OR MAJOR MODIFICATIONS IN ATTAINMENT OR UNCLASSIFIABLE AREAS	N/A	No	N/A	
206 - 208	OPTIONAL OFFSETS FOR PERMITS TO CONSTRUCT; EMISSION REDUCTION CREDIT; NET AIR QUALITY BENEFIT	N/A	No	N/A	(Note C)
209	PROCEDURES FOR ISSUING PERMITS	N/A	No	N/A	(Note B)
210	DEMONSTRATION OF PRECONSTRUCTION COMPLIANCE WITH TOXIC STANDARDS	N/A	Yes	Yes	
211	CONDITIONS FOR PERMITS TO CONSTRUCT	N/A	No	N/A	(Note B)
212	OBLIGATION TO COMPLY	N/A	Yes	Yes	
213	PRE-PERMIT CONSTRUCTION	N/A	No	N/A	(Notes C, D)
214	DEMONSTRATION OF PRECONSTRUCTION COMPLIANCE FOR NEW AND RECONSTRUCTED SOURCES OF HAZARDOUS AIR POLLUTANTS	N/A	No	N/A	(Note D)
220 – 223	EXEMPTIONS FROM PERMIT TO CONSTRUCT	N/A	No	N/A	(Note C, D)

Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
	REQUIREMENTS	N/A	No	N/A	
224 - 227	FEES	N/A	N/A	N/A	
228	APPEALS	N/A	No	N/A	(Note D)
300-316	PROCEDURES AND REQUIREMENTS FOR TIER I OPERATING PERMITS General Applicability	N/A	No	N/A	
317	INSIGNIFICANT ACTIVITIES	N/A	No	N/A	
321	TIER I OPERATING PERMIT CONTENTS General Applicability	N/A	No	N/A	(Note B)
322	STANDARD CONTENTS OF TIER I OPERATING PERMITS General Applicability to Tier I Sources	N/A	No	N/A	No substantive requirements
325	ADDITIONAL CONTENTS OF TIER I OPERATING PERMITS - PERMIT SHIELD General Applicability to Tier I Sources	N/A	No	N/A	
332	EMERGENCY AS AFFIRMATIVE DEFENSE REGARDING EXCESS EMISSIONS. General Applicability to Tier I Sources	N/A	No	N/A	
335	GENERAL TIER I OPERATING PERMITS AND AUTHORIZATIONS TO OPERATE	N/A	No	N/A	(Notes A, D)
336	TIER I OPERATING PERMITS FOR TIER I PORTABLE SOURCES	N/A	No	N/A	(Note B)
360-368	STANDARD PROCESSING OF TIER I OPERATING PERMIT APPLICATIONS General Applicability to Tier I Sources	N/A	No	N/A	(Note C)
369	TIER I OPERATING PERMIT RENEWAL General Applicability to Tier I Sources	N/A	No	N/A	(Note C)
380-386	ALTERATIONS General Applicability to Tier I Sources	N/A	No	N/A	
387 - 399	FEES	N/A	Yes	Yes	This is a Tier II application.
400-406	PROCEDURES AND REQUIREMENTS FOR TIER II OPERATING PERMITS	N/A	Yes	Yes	Fee will be paid.
407 - 410	FEES	N/A	No	N/A	(Note C)
440	REQUIREMENTS FOR ALTERNATIVE EMISSION LIMITS (BUBBLES)	N/A			

Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
441	DEMONSTRATION OF AMBIENT EQUIVALENCE	N/A	No	N/A	(Note C)
460-461	REQUIREMENTS FOR EMISSION REDUCTION CREDIT and BANKING EMISSION REDUCTION	N/A	No	N/A	(Note C)
500	REGISTRATION PROCEDURES AND REQUIREMENTS FOR PORTABLE EQUIPMENT	N/A	No	N/A	(Note D)
510	STACK HEIGHTS AND DISPERSION TECHNIQUES	Air Dispersion Modeling; Recordkeeping, Reporting	Yes	Yes	See 511-516
511	APPLICABILITY	Recordkeeping	Yes	Yes	
512	DEFINITIONS	Recordkeeping	Yes	Yes	
513	REQUIREMENTS	Recordkeeping	Yes	Yes	
514	OPPORTUNITY FOR PUBLIC HEARING	N/A	No	No	(Note B)
515	APPROVAL OF FIELD STUDIES AND FLUID MODELS	N/A	No	No	Administrative and/or procedural
516	NO RESTRICTION ON ACTUAL STACK HEIGHT	N/A	Yes	N/A	No substantive requirements
550-561	AIR POLLUTION EMERGENCY RULE	N/A	No	N/A	Applicability is case-by-case
562	SPECIFIC EMERGENCY EPISODE ABATEMENT PLANS FOR POINT SOURCES	N/A	No	N/A	Idaho Supreme has not been required by the Department to prepare an Emergency Episode Abatement Plan. (Note B)
563 - 574	TRANSPORTATION CONFORMITY	N/A	No	N/A	(Notes C, D)
575-581	AIR QUALITY STANDARDS AND AREA CLASSIFICATION	Air Dispersion Modeling and Monitoring	Yes	Yes	
582	INTERIM CONFORMITY PROVISIONS FOR NORTHERN ADA COUNTY FORMER NON-ATTAINMENT AREA FOR PM-10	N/A	No	N/A	(Note D)
585-586	TOXIC AIR POLLUTANTS NON-CARCINOGENIC INCREMENTS, TOXIC AIR POLLUTANTS CARCINOGENIC INCREMENTS	Recordkeeping/Reporting	Yes	Yes	(Note A)
587	LISTING OR DELISTING TOXIC AIR POLLUTANT INCREMENTS	N/A	No	N/A	(Note A, C)
590	NEW SOURCE PERFORMANCE STANDARDS	N/A	Yes	Yes	Applies to Boiler # 3 and Tanks.

Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
591	NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS	N/A	No	N/A	
600-609	RULES FOR CONTROL OF OPEN BURNING	N/A	No	N/A	(Note F)
610	INDUSTRIAL FLARES	N/A	No	N/A	No substantive requirements
611-616	RULES FOR CONTROL OF OPEN BURNING	N/A	No	N/A	(Note F)
625	VISIBLE EMISSIONS	Monitoring, Reporting, Recordkeeping	Yes	Yes	A person shall not emit an air pollutant from any point of emission for a period or periods aggregating more that 3 minutes in any 60 minute period which is greater than 20% opacity.
626	GENERAL RESTRICTIONS ON VISIBLE EMISSIONS FROM WIGWAM BURNERS	N/A	No	N/A	(Note B) Facility does not have this emissions unit.
650-651	RULES FOR CONTROL OF FUGITIVE DUST	Reasonable steps taken to control or mitigate fugitive dust	Yes	Yes	Reasonable precautions are utilized to control fugitive emissions at this facility. This is not applicable to any point source.
675	FUEL BURNING EQUIPMENT - PARTICULATE MATTER Facility operates fuel burning equipment.		Yes	Yes	See rules 676-680
676	STANDARDS FOR NEW SOURCES	Recordkeeping	Yes	Yes	
677	STANDARDS FOR MINOR AND EXISTING SOURCES	N/A	No	N/A	(Note D)
678-680	COMBINATIONS OF FUELS	N/A	No	N/A	(Note C)
681	TEST METHODS AND PROCEDURES	Use of required test procedure(s)	Yes	Yes	
700	PARTICULATE MATTER -- PROCESS WEIGHT LIMITATIONS.		Yes	Yes	See rules 701-703
701	PARTICULATE MATTER – NEW EQUIPMENT PROCESS WEIGHT LIMITATIONS.	Monitoring and Testing	Yes	Yes	(Note A)
702	PARTICULATE MATTER -- EXISTING PROCESS WEIGHT LIMITATIONS	Monitoring and Testing	Yes	Yes	(Note A)
703	PARTICULATE MATTER – OTHER PROCESSES	N/A	No	N/A	(Note D)
710	PARTICULATE MATTER – PROCESS EQUIPMENT EMISSION LIMITATIONS ON OR AFTER JULY 1, 2000	Monitoring and Testing	Yes	Yes	
725	RULES FOR SULFUR CONTENT OF FUELS	N/A	Yes	N/A	Applies to distillate and residual fuel used by Idaho

Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
					Supreme.
	General Applicability		No	N/A	(Note E)
726	DEFINITIONS AS USED IN SECTIONS 727 THROUGH 729	N/A	Yes	N/A	
727	RESIDUAL FUEL OILS	N/A	Yes	N/A	
728	DISTILLATE FUEL	N/A	Yes	Yes	
729	COAL	N/A	N/A	N/A	
750-751	RULES FOR CONTROL OF FLUORIDE EMISSIONS	Monitoring and Testing	Yes	N/A	(Note A); No substantive requirements for regulated units or activities.
775-776	RULES FOR CONTROL OF ODORS General Applicability	Idaho Supreme will investigate any odor complaint or identified issue.	No	N/A	(Note D)
785-787	RULES FOR CONTROL OF INCINERATORS	N/A	No	N/A	(Note D)
790 – 802	EMISSION STANDARDS FOR CONTROL OF NONMETALLIC MINERAL PROCESSING PLANTS	N/A	No	N/A	(Note D)
805-808	RULES FOR CONTROL OF HOT-MIX ASPHALT PLANTS	N/A	No	N/A	(Note D)
815-826	RULES FOR CONTROL OF KRAFT PULPING MILLS	N/A	No	N/A	(Note D)
835-839	RULES FOR CONTROL OF RENDERING PLANTS	N/A	No	N/A	(Note D)
845-848	RULES FOR CONTROL OF SULFUR OXIDE EMISSIONS FROM SULFURIC ACID PLANTS	N/A	No	N/A	(Note D)
855-858	COMBINED ZINC AND LEAD SMELTERS	N/A	No	N/A	(Note D)
859	STANDARDS OF PERFORMANCE FOR MUNICIPAL SOLID WASTE LANDFILLS THAT COMMENCED CONSTRUCTION.....MAY 30, 1991	N/A	No	N/A	(Note D)
860	EMISSION GUIDELINES FOR MUNICIPAL SOLID WASTE LANDFILLS THAT COMMENCED CONSTRUCTION.....MAY 30, 1991	N/A	No	N/A	(Note D)
861	STANDARDS OF PERFORMANCE FOR HOSPITAL/MEDICAL/INFECTIOUS WASTE INCINERATORS THAT COMMENCED CONSTRUCTION.....MARCH 16, 1998	N/A	No	N/A	(Note D)
862	EMISSION GUIDELINES FOR HOSPITAL/MEDICAL/INFEC	N/A	No	N/A	(Note D)

Citation under IDAPA 58.01.01	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
	TIOUS WASTE INCINERATORS THAT COMMENCED CONSTRUCTION BEFORE JUNE 20, 1996				

APPLICABILITY EXPLANATION CODES

N/A Not Applicable

A - State only.
B - Regulation applies to regulatory authority.
C - Currently there are no projects or circumstances existing at the facility that would subject Idaho Supreme to these provisions; however, Idaho Supreme may use these provisions in the future if the circumstances arise.
D - Facility is not in this source category.
E - Facility does not use this fuel type.
F - Facility does not conduct this activity.

5.2 Applicable and Inapplicable Federal Air Quality Regulations – General

Table 5-2 cites applicable and inapplicable Federal Air Quality regulations provided in Title 40 of the Code of federal Regulations (40 CFR).

Table 5-2 Applicable and Inapplicable 40 CFR Regulations

Citation under Federal Regulations	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
40 CFR Part 50	National Primary and Secondary Ambient Air Quality Standards	N/A	No	N/A	(Note A)
40 CFR Part 51	Requirements for Preparation, Adoption, and Submittal of Implementation Plans	N/A	No	N/A	(Note A)
40 CFR Part 52	Approval and Promulgation of Implementation Plans	N/A	No	N/A	(Notes A, C)
40 CFR Part 53	Ambient Air Monitoring Reference and Equivalent Methods	N/A	No	N/A	(Note B)
40 CFR Part 54	Prior Notice of Citizen Suits	N/A	No	N/A	Rules govern citizen suit actions.
40 CFR Part 55	Outer Continental Shelf Air Regulations	N/A	No	N/A	Rules govern Outer Continental Shelf activities.
40 CFR Part 56	Regional Consistency	N/A	No	N/A	(Note A)
40 CFR Part 57	Primary Nonferrous Smelter Orders	N/A	No	N/A	(Note C)

Citation under Federal Regulations	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
40 CFR Part 58	Ambient Air Quality Surveillance	N/A	No	N/A	Ambient air quality surveillance is not required at this facility.
40 CFR 59	National Volatile Organic Compound Emission Standards for Consumer and Commercial Products	N/A	No	N/A	(Note C)
40 CFR Part 60	Standards of Performance for New Stationary Sources	N/A	Yes	Yes	NSPS Subpart Dc applies to Boiler #3. Subpart Kb applies to tanks.
40 CFR Part 61	National Emission Standards for Hazardous Air Pollutants	N/A	No	N/A	NESHAPs does not apply (Note C)
40 CFR Part 62	Approval and Promulgation of State Plans for Designated Facilities and Pollutants	N/A	No	N/A	(Note A)
40 CFR Part 63	National Emission Standards for Hazardous Air Pollutants for Source Categories	N/A	Yes	Yes	Subpart DDDD for Boiler #4 coal combustion
40 CFR Part 64	Compliance Assurance Monitoring	N/A	Yes	N/A	To be determined in Title V application.
40 CFR Part 65	Consolidated Federal Air Program	N/A	No	N/A	(Note A)
40 CFR Part 66	Assessment and Collection of Noncompliance Penalties by EPA	N/A	No	N/A	(Note A)
40 CFR Part 67	EPA Approval of State Noncompliance Penalty Program	N/A	No	N/A	(Note A)
40 CFR Part 68	Chemical Accident Prevention Provisions	N/A	No	N/A	
40 CFR Part 69	Special Exemptions from Requirements of the Clean Air Act	N/A	No	N/A	(Note A)
40 CFR Part 70	State Operating Permit Programs	N/A	No	N/A	(Note A)
40 CFR Part 71	Federal Operating Permit Programs	N/A	No	N/A	(Note A)
40 CFR Part 72	Permits Regulation	N/A	No	N/A	(Note A)
40 CFR Part 73	Sulfur Dioxide Allowance System	N/A	No	N/A	(Note C)
40 CFR Part 74	Sulfur Dioxide Opt-Ins	N/A	No	N/A	(Note C)
40 CFR Part 75	Continuous Emission Monitoring	N/A	No	N/A	(Note C)
40 CFR Part 76	Acid Rain Nitrogen Oxides Emission Reduction Program	N/A	No	N/A	(Note C)
40 CFR Part 77	Excess Emissions	N/A	No	N/A	(Note C)
40 CFR Part 78	Appeal Procedures for Acid Rain Program	N/A	No	N/A	(Note C)
40 CFR Part 79	Registration of Fuels and Fuel Additives	N/A	No	N/A	(Note C)

Citation under Federal Regulations	Title	Compliance Determination Method (Record Keeping, Monitoring, Reporting, Test Method)	Applicable Yes or No	In Compliance Yes or No	Explanation Code and/or Additional Information
40 CFR Part 80	Regulation of Fuels and Fuel Additives	N/A	No	N/A	(Note C)
40 CFR Part 81	Designation of Areas for Air Quality Planning Purposes	N/A	No	N/A	(Note A)
40 CFR Part 82, Subparts A – E; G-H	Protection of Stratospheric Ozone	N/A	No	N/A	(Note C)
40 CFR Part 82, Subpart F	Protection of Stratospheric Ozone; Recycling and Emissions Reduction	N/A	No	N/A	(Note C)
40 CFR Part 85	Control of Air Pollution from Mobile Sources	N/A	No	N/A	(Note C)
40 CFR Part 86	Control of Emissions from New and In-Use Highway Vehicles and Engines	N/A	No	N/A	(Note C)
40 CFR Part 87	Control of Air Pollution from Aircraft and Aircraft Engines	N/A	No	N/A	(Note C)
40 CFR Part 88	Clean-Fuel Engines	N/A	No	N/A	(Note C)
40 CFR Part 89	Control of Emissions from New and In-Use Non-road Compression-Ignition Engines	N/A	No	N/A	(Note C)
40 CFR Part 90	Control of Emissions from Non-road Spark-Ignition Engines at or Below 19 Kilowatts	N/A	No	N/A	(Note C)
40 CFR Part 91	Control of Emissions from Marine Spark Ignition Engines	N/A	No	N/A	(Note C)
40 CFR Part 92	Control of Air Pollution from Locomotives and Locomotive Engines	N/A	No	N/A	(Note C)
40 CFR Part 93	Determining Conformity of Federal Actions to State or Federal Implementation Plans	N/A	No	N/A	(Notes A,C)
40 CFR Part 94	Control of Emissions from Marine Compression-Ignition Engines	N/A	No	N/A	(Note C)
40 CFR Part 95	Mandatory Patent Licenses	N/A	No	N/A	(Note C)
40 CFR Part 96	NO_x Budget Trading Program for State Implementation Plant	N/A	No	N/A	(Notes A, C)
40 CFR Part 97	Federal NOx Budget Trading Program	N/A	No	N/A	(Note C)

APPLICABILITY EXPLANATION CODES

A - Regulation applies to regulatory authority.

B - Rules governing ambient air quality standards and/or monitoring or definitions of criteria for air pollution emergency purposes and do not apply to individual sources.

C - Facility is not in this source category.

5.3 Applicable and Inapplicable New Source Performance Standards (40 CFR Part 60)

Table 5-3 cites applicable and inapplicable New Source Performance Standards given in 40 CFR Part 60 (IDAPA 58.01.01.590).

Table 5-3 Applicable and Non-Applicable New Source Performance Standards (40 CFR Part 60)

Rule Description - 40 CFR Part 60 - New Source Performance Standards	Applicable?
Large Municipal Waste Combustors that are Constructed on or Before September 20, 1994 (Subpart Cb)	No
Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills (Subpart Cc)	No
Emission Guidelines and Compliance Times for Sulfuric Acid Production Plants (Subpart Cd)	No
Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators (Subpart Ce)	No
Fossil fuel-fired Steam Generators (Subpart D)	No
Electric Utility Steam Generating Units (Subpart Da)	No
Industrial-Commercial-Institutional Steam Generating Units (Subpart Db)	Yes – See discussion below
Small Industrial-Commercial-Institutional Steam Generating Units (Subpart Dc)	No
Incinerators (Subpart E)	No
Municipal waste combustors (Subpart Ea)	No
Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After September 24, 1994 (Subpart Eb)	No
Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20,1996 (Subpart Ec)	No
Portland cement plants (Subpart F)	No
Nitric Acid Plants (Subpart G)	No
Sulfuric Acid Plants (Subpart H)	No
Asphalt Concrete Plants (Subpart I)	No
Petroleum refineries (Subpart J)	No
Storage Vessels for Petroleum Liquids--for Construction, Reconstruction, or Modification, Commenced after June 11, 1973, and prior to May 19, 1978 (Subpart K)	No
Storage Vessels for Petroleum Liquids--for Construction, Reconstruction, or Modification, Commenced after May 18, 1978, and Prior to July 23, 1984 (Subpart Ka)	Yes – See discussion below
Volatile Organic Liquid Storage Vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984 (Subpart Kb)	No
Secondary Lead Smelters (Subpart L)	No
Secondary Brass and Bronze Ingot Production Plants (Subpart M)	No
Iron and Steel Plants (Primary Emissions from Basic Oxygen Furnaces Constructed after June 11, 1973) (Subpart N)	No
Iron and steel plants (secondary emissions from basic oxygen furnaces constructed after January 20, 1983) (Subpart Na)	No
Sewage Treatment Plants (Subpart O)	No
Primary Smelters: Copper (Subpart P)	No
Primary Smelters: Zinc (Subpart Q)	No
Primary Smelters: Lead (Subpart R)	No
Primary Aluminum Reduction Plants (Subpart S)	No
Wet process Phosphoric Acid Plants (Subpart T)	No
Superphosphoric Acid Plants (Subpart U)	No
Diammonium Phosphate Plants (Subpart V)	No

Rule Description - 40 CFR Part 60 - New Source Performance Standards	Applicable?
Triple Superphosphate Plants (Subpart W)	No
Granular Triple Superphosphate Storage Facilities (Subpart X)	No
Coal Preparation Plants (Subpart Y)	No
Ferroalloy Production Facilities (Subpart Z)	No
Steel Plants: Electric Arc Furnaces (Subpart AA)	No
Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels constructed after August 17, 1983 (Subpart AAa)	No
Kraft Pulp Pills (Subpart BB)	No
Glass Manufacturing Plants (Subpart CC)	No
Grain Elevators (Subpart DD)	No
Surface Coating of Metal Furniture (Subpart EE)	No
Stationary Gas Turbines (Subpart GG)	No
Lime Manufacturing Plants (Subpart HH)	No
Lead-acid Battery Manufacturing Plants (Subpart KK)	No
Metallic Mineral Processing Plants (Subpart LL)	No
Automobile and Light-duty Truck Surface Coating Operations (Subpart MM)	No
Phosphate Rock Plants (Subpart NN)	No
Ammonium Sulfate Manufacture Plants (Subpart PP)	No
Graphic Arts Industry: Publication Rotogravure Printing (Subpart QQ)	No
Pressure Sensitive Tape and Label Surface Coating Operations (Subpart RR)	No
Industrial Surface Coating: Large Appliances (Subpart SS)	No
Metal Coil Surface Coating (Subpart TT)	No
Asphalt processing and asphalt roofing manufacture (Subpart UU)	No
Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry (Subpart VV)	No
Beverage Can Surface Coating Industry (Subpart WW)	No
Bulk Gasoline Terminals (Subpart XX)	No
New Residential Wood Heaters (Subpart AAA)	No
Rubber Tire Manufacturing Industry (Subpart BBB)	No
Polymer Manufacturing Industry (Subpart DDD)	No
Flexible Vinyl and Urethane Coating and Printing (Subpart FFF)	No
Equipment Leaks of VOC in Petroleum Refineries (Subpart GGG)	No
Synthetic Fiber Production Facilities (Subpart HHH)	No
Synthetic Organic Chemical Manufacturing Industry Air Oxidation Unit Processes (Subpart III)	No
Petroleum Dry Cleaners (Subpart JJJ)	No
Onshore Natural Gas Processing Plants (Subpart KKK)	No
Onshore Natural Gas Processing: SO_2 Emissions (Subpart LLL)	No
Synthetic Organic Chemical Manufacturing Industry Distillation Operations (Subpart NNN)	No
Nonmetallic Mineral Processing Plants (Subpart OOO)	No
Wool Fiberglass Insulation Manufacturing Plants (Subpart PPP)	No
Petroleum Refinery Wastewater System VOC Emissions (Subpart QQQ)	No
Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes (Subpart RRR)	No
Magnetic Tape Coating Facilities (Subpart SSS)	No
Industrial surface coating: Plastic parts for business machines (Subpart TTT)	No
Calciners and Dryers in Mineral Industries (Subpart UUU)	No
Polymeric Coating of Supporting Substrates Facilities (Subpart VVV)	No
Standards of Performance for Municipal Solid Waste Landfills (Subpart WWW)	No
Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001 (Subpart AAAA)	No
Subpart BBBB - Emission Guidelines and Compliance Times for Small Municipal Waste Combustion Units Constructed on or Before August 30, 1999	No
Subpart CCCC -- Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or	No

Rule Description - 40 CFR Part 60 - New Source Performance Standards	Applicable?
for Which Modification or Reconstruction Is Commenced on or After June 1, 2001	
Subpart DDDD -- Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999	No

APPLICABILITY EXPLANATION CODES

A - Regulation applies to regulatory authority.
B - Rules governing ambient air quality standards and/or monitoring or definitions of criteria for air pollution emergency purposes and do not apply to individual sources.
C - Facility is not in this source category.

5.4 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)

Table 5-4 cites the applicable and inapplicable National Emission Standards for Hazardous Air Pollutants given in 40 CFR Part 61.

Table 5-4 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants (40 CFR Part 61)

Rule Description - 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants	Applicable?
Subpart A--General Provisions.	No
Subpart B--Radon Emissions from Underground Uranium Mines.	No
Subpart C--Beryllium.	No
Subpart D--Beryllium Rocket Motor Firing.	No
Subpart E--Mercury.	No
Subpart F--Vinyl Chloride.	No
Subpart H--Emissions of Radionuclides other than Radon from Department of Energy Facilities.	No
Subpart I--Radionuclide Emissions from Facilities Licensed by the Nuclear Regulatory Commission and Federal Facilities not covered by Subpart H.	No
Subpart J--Equipment Leaks (Fugitive Emission Sources) of Benzene.	No
Subpart K--Radionuclide Emissions from Elemental Phosphorus Plants.	No
Subpart L--Benzene Emissions from Coke By-Product Recovery Plants.	No
Subpart M--Asbestos.	No
Subpart N--Inorganic Arsenic Emissions from Glass Manufacturing Plants.	No
Subpart O--Inorganic Arsenic Emissions from Primary Copper Smelters.	No
Subpart P--Inorganic Arsenic Emissions from Arsenic Trioxide and Metallic Arsenic Production Facilities.	No
Subpart Q--Radon Emissions from Department of Energy Facilities.	No

Rule Description - 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants	Applicable?
Subpart R--Radon Emission from Phosphogypsum Stacks.	No
Subpart T--Radon Emissions from the Disposal of Uranium Mill Tailings.	No
Subpart V--Equipment Leaks (Fugitive Emission Sources).	No
Subpart W--Radon Emissions from Operating Mill Tailings.	No
Subpart Y--Benzene Emissions from Benzene Storage Vessels.	No
Subpart BB--Benzene Emission from Benzene Transfer Operations.	No
Subpart FF--Benzene Waste Operations.	No

5.5 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR Part 63)

Table 5-5 cites the applicable and inapplicable National Emission Standards for Hazardous Air Pollutants for Source Categories given in 40 CFR Part 63.

Table 5-5 Applicable and Inapplicable National Emission Standards for Hazardous Air Pollutants for Source Categories (40 CFR Part 63)

Rule Description - 40 CFR Part 63- National Emission Standards for Hazardous Air Pollutants for Source Categories	Applicable? (Explanation)
Subpart A – General Provisions	No – not in source category
Subpart F – SOCMI	No – not in source category
Subpart G – SOCMI – Process Vents, Storage Vessels, Transfer Operations	No – not in source category
Subpart H – SOCMI – Equipment Leaks	No – not in source category
Subpart I – Certain Processes Subject to the Negotiated Regulation for Equipment Leaks	No – not in source category
Subpart J – Polyvinyl Chloride and Copolymers Production	No – not in source category
Subpart L – Coke Oven Batteries	No – not in source category
Subpart M – Dry Cleaning Facilities Using Perchloroethylene	No – not in source category
Subpart N – Nard and Decorative Electroplating and Anodizing	No – not in source category
Subpart O – Ethylene Oxide Sterilization	No – not in source category
Subpart Q – Industrial Process Cooling Towers	No – not in source category
Subpart R – Gasoline Distribution (Bulk Gasoline Terminals and Pipeline Breakout Stations)	No – not in source category
Subpart S – Pulp and Paper Industry	No – not in source category
Subpart T – Halogenated Solvent Cleaning	No – not in source category
Subpart U – Group I Polymers and Resins	No – not in source category
Subpart W – Epoxy Resins and Non-Nylon Polyamides Production	No – not in source category
Subpart X – Secondary Lead Smelting	No – not in source category
Subpart Y – Marine Tank Vessel Loading Operations	No – not in source category
Subpart AA – National Emission Standards for Hazardous Air Pollutants From Phosphoric Acid Manufacturing Plants	No – not in source category;
Subpart BB – National Emission Standards for Hazardous Air Pollutants From Phosphate Fertilizers Production Plants	No – not in source category
Subpart CC – National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries	No – not in source category
Subpart DD – National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations	

Rule Description - 40 CFR Part 63- National Emission Standards for Hazardous Air Pollutants for Source Categories	Applicable? (Explanation)
Subpart EE – National Emission Standards for Magnetic Tape Manufacturing Operations	No – not in source category
Subpart GG – National Emission Standards for Aerospace Manufacturing and Rework Facilities	No – not in source category
Subpart HH – National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities	No – not in source category
Subpart II – National Emission Standards for Shipbuilding and Ship Repair (Surface Coating)	No – not in source category
Subpart JJ – National Emission Standards for Wood Furniture Manufacturing Operations	No – not in source category
Subpart KK – National Emission Standards for the Printing and Publishing Industry	No – not in source category
Subpart LL – National Emission Standards for Hazardous Air Pollutants for Primary Aluminum Reduction Plants	No – not in source category
Subpart MM – National Emission Standards for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills	No – not in source category
Subpart OO – National Emission Standards for Tanks – Level 1	No – not in source category
Subpart PP – National Emission Standards for Containers	No – not in source category
Subpart QQ – National Emission Standards for Surface Impoundments	No – not in source category
Subpart RR – National Emission Standards for Individual Drain Systems	No – not in source category
Subpart SS – National Emission Standards for Closed Vent Systems, Control Devices, Recovery Devices, and Routing to a Fuel Gas System or a Process	No – not in source category
Subpart TT – National Emission Standards for Equipment Leaks – Control Level 1	No – not in source category
Subpart UU – National Emission Standards for Equipment Leaks – Control Level 2 Standards	No – not in source category
Subpart VV – National Emission Standards for Oil-Water Separators and Organic-Water Separators	No – not in source category
Subpart WW – National Emission Standards for Storage Vessels (Tanks) – Control Level 2	No – not in source category
Subpart XX -- National Emission Standards for Ethylene Manufacturing Process Units: Heat Exchange Systems and Waste Operations	No – not in source category
Subpart YY – National Emission Standards for Hazardous Air Pollutants for Source Categories: Generic Maximum Achievable Control Technology Standards	No – not in source category
Subpart CCC – National Emission Standards for Hazardous Air Pollutants for Steel Pickling – HCl Process Facilities and Hydrochloric Acid Regeneration Units	No – not in source category
Subpart DDD – National Emission Standards for Hazardous Air Pollutants for Mineral Wool Production	No – not in source category
Subpart GGG – Pharmaceuticals Production	No – not in source category
Subpart JJJ – Polymer and resins II	No – not in source category
Subpart HHH – Natural Gas Transmission and Storage	No – not in source category
Subpart III – Flexible Polyurethane Foam Production	No – not in source category
Subpart LLL – Portland Cement Manufacturing	No – not in source category
Subpart MMM – Pesticide Active Ingredient Production	No – not in source category
Subpart NNN – Wool Fiberglass Manufacturing	No – not in source category
Subpart OOO – Polymers and Resins, III Amino Resins, Phenolic Resins	No – not in source category
Subpart PPP – Polyether Polyols Production	No – not in source category
Subpart QQQ – Primary Copper	No – not in source category
Subpart RRR – Secondary Aluminum	No – not in source category
Subpart TTT – Primary Lead Smelting	No – not in source category
Subpart UUU – Petroleum Refineries	No – not in source category

Rule Description - 40 CFR Part 63- National Emission Standards for Hazardous Air Pollutants for Source Categories	Applicable? (Explanation)
Subpart VVV – POTWs	No – not in source category
Subpart XXX – Ferroalloys Production	No – not in source category
Subpart AAAA – Municipal Solid Waste Landfills	No – not in source category
Subpart CCCC – Manufacturing Nutritional Yeast	No – not in source category
Subpart EEEE - Organic Liquids Distribution (Non-Gasoline)	No – not in source category
Subpart FFFF - Miscellaneous Organic Chemical Manufacturing	No – not in source category
Subpart GGGG – Solvent Extraction for Vegetable Oil	No – not in source category
Subpart HHHH – Wet Formed Fiberglass Mat Production	No – not in source category
Subpart JJJJ – Paper and Other Web	No – not in source category
Subpart KKKK - Surface Coating of Metal Cans	No – not in source category
Subpart MMMM -Surface Coating of Miscellaneous Metal Parts and Products	No – not in source category
Subpart NNNN – Large Appliance	No – not in source category
Subpart OOOO - Printing, Coating, and Dyeing of Fabrics and Other Textiles	No – not in source category
Subpart QQQQ - Surface Coating of Wood Building Products	No – not in source category
Subpart RRRR - Surface Coating of Metal Furniture	No – not in source category
Subpart SSSS – Metal Coil	No – not in source category;
Subpart TTTT – Leather Finishing Operations	No – not in source category
Subpart UUUU – Cellulose Production Manufacturing	No – not in source category
Subpart VVVV – Boat Manufacturing	No – not in source category
Subpart WWWW - Reinforced Plastic Composites Production	No – not in source category
Subpart XXXX – Tire Manufacturing	No – not in source category
Subpart YYYY -Stationary Combustion Turbines	No – not in source category
Subpart AAAAA - Lime Manufacturing Plants	No – not in source category
Subpart BBBBB - Semiconductor Manufacturing	No – not in source category
Subpart CCCCC - Coke Ovens: Pushing, Quenching, and Battery Stacks	Yes - See discussion below
Subpart DDDDD - Industrial Boilers and Process Heaters	No – not in source category
Subpart FFFFF - Integrated Iron and Steel Manufacturing Facilities	No – not in source category
Subpart HHHHH - Miscellaneous Coating Manufacturing	No – not in source category
Subpart IIII - Mercury Cell Chlor-Alkali Plants	No – not in source category
Subpart JJJJJ - Brick and Structural Clay Products Manufacturing	No – not in source category
Subpart KKKKK - Clay Ceramics Manufacturing	No – not in source category
Subpart LLLLL - Asphalt Processing and Asphalt Roofing Manufacturing	No – not in source category
Subpart MMMMM - Flexible Polyurethane Foam Fabrication Operations	No – not in source category
Subpart NNNNN - Hydrochloric Acid Production	No – not in source category
Subpart PPPPP - Engine Test Cells/Stands	No – not in source category
Subpart QQQQQ – Friction Products Manufacturing	No – not in source category
Subpart RRRRR - Taconite Iron Ore Processing	No – not in source category
Subpart SSSSS - Refractory Products Manufacturing	No – not in source category;
Subpart TTTTT - Primary Magnesium Refining	

5.6 Specific Applicable and Inapplicable Requirement Discussion

The requirements of 40 CFR 60 Subpart Db do not apply to Boiler # 4 due to the fact that Boiler # 4 did not undergo a modification to its fuel intake system. EPA approved of this NSPS inapplicability in a letter to Idaho Supreme dated Dec. 19, 2006

Table 5-6 below discusses in more detail the specific applicable and inapplicable requirements for Idaho Supreme:

Table 5-6 Specific Applicable and Inapplicable Requirements

Citation	Explanation of Applicability
40 CFR 60.40 Subpart Kb. Standards of Performance for Volatile Organic Liquid Vessels for which Construction, Reconstruction or Modification Commenced After July 23, 1984.	60.110b(b) and (c): Storage vessels with a capacity of less than 19,800 gallons and storage vessels with a capacity of greater than 19,800 gallons and less than 40,000 gallons and with a maximum true vapor pressure of less than 15 kilopascals (kPa) are exempt from the general provisions of 40 CFR 60 and from most of the portions of Subpart Kb. The three ASTs are greater than 19,800 gallons in storage capacity containing liquids with a vapor pressure less than 15 kPa. Therefore the ASTs at the facility qualify for exemptions. 60.116b(b): The facility will keep readily accessible records showing the dimensions of the ASTs and an analysis showing the capacity of the ASTs. These records will be kept at the facility for the life of the ASTs as provided in 60.116b(a).
40 CFR 60.40 Subpart Dc. Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.	60.40b(a): Subpart Dc applies to steam generating units that have a heat input capacity of greater than or equal to 10 MMBtu/hr but less than 100 MMBtu/hr. The maximum steam generating capacity of Boiler #3 is 43 MMBtu/hr. 60.43b(c): Opacity shall not exceed 20% (6-minute average), except for one 6-minute period per hour of not more than 27% opacity.

40 CFR 63 Subpart DDDDD: The subpart applies to the plant boiler #4 when coal is burned. Boiler #4 is considered an existing boiler.

Standards
Standards for burning coal are:

Standards for Burning Coal in Existing Boilers

PM	0.07 lb/MMBTU
(or TSM)	0.001 lb/MMBTU
HCl	0.09 lb/MMBTU
Hg	0.000009 lb/MMBTU
CO	No limit

The eight total selected metals (TSM) are arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium. There are no standards for oil or gas combustion for existing boilers.

Compliance Dates
An existing boiler or process heater would have to be in compliance with the Boiler MACT, except for compliance demonstration, on Sept. 13, 2007. An existing boiler or process heater must demonstrate initial compliance with the regulations no later than 180 days after that date.

Compliance Demonstration Options

Idaho Supreme intends to conduct a feasibility evaluation in the near future of the following compliance options:

1. Fuel analyses
2. Performance testing
3. Health-based alternatives for HCl and/or TSM
4. Evaluation of various air pollution control equipment upgrades

It is believed that the current pollution control equipment for coal combustion will be sufficient for meeting the MACT requirements. If that changes, then Idaho Supreme will submit for a modified permit application at that time, as necessary.

Additional Requirements
The Boiler MACT also requires the preparation of MACT plans, recordkeeping for five years and the submittal of notifications and reports. Idaho Supreme will comply with all these requirements in accordance with the regulations.

5.7 PSD Analysis

Idaho Supreme asserts that the plant boiler has not undergone any modification that would trigger PSD requirements and no physical or operational parameters are changed when burning coal. PSD applicability is addressed below.

Consent Order Limits the Potential to Emit (PTE) to < 250 tpy

Currently Idaho Supreme is burning residual fuel. As determined in earlier correspondences the boiler always had the capability to burn either coal or oil, and that burning oil did not trigger a modification. Section 9 of the Consent Order states that the boiler can not emit greater than 248 tons per year of SO_2, the highest pollutant. Because the source was not PSD major prior to the Consent Order (see discussions below) PSD major modification requirements were not triggered at the time the Consent Order was issued.

Actual Emissions are < 250 tpy

Idaho Supreme's actual emissions are less than 250 tpy SO_2 (the highest pollutant) due to requirements in the Consent Order. As shown in the enclosed emissions analysis for the past two calendar years (which covers the time since the Consent Order), the actual emissions comply with the Consent Order requirement.

Previously Issued Permits Limited the PTE to < 250 tpy

PSD was never assumed for the boiler—the PTE was always limited, due to enforceable conditions, such that PSD would not be exceeded. The permit history, with the PTE of the highest pollutant, is shown below from the time of the initial installation of the boiler to the present Consent Order.

- PTC January 17, 1983, PTE $\leq$ 152 tpy (SO_2)
- December 23, 1998, PTE $\leq$ 57 tpy (PM/PM-10).
- June 7, 2002, PTE $\leq$ 248.5 tpy (SO_2)
- Consent Order December 20, 2004, PTE $\leq$ 248 tpy (SO_2)

Switching to Coal is Not a PSD Major Modification

Because Idaho Supreme is not PSD major, it must have a net emissions increase of 250 tpy or greater to trigger PSD. As shown in the emissions calculations that follow, at 0.5% sulfur and 47,286 tpy coal throughput, the following potential to emit would exist at the plant:

Potential to Emit for Coal Fired Boiler

Pollutant	New PTE (tons/yr)
SO_2	413.7
NO_x	113.49
CO	11.8
PM[b]	61.3
PM-10	4.5
VOC	0.2

Note that normal practice is for Idaho Supreme to install and operate a baghouse when burning coal, as submitted by Idaho Supreme for the 1983 permit. Also, Idaho Supreme, DEQ, and EPA agreed previously that the boiler would not operate without a baghouse. In addition, the above emission estimates do not include scrubber control. Calculations of these emissions are shown in Section 5.8 below.

Because SO_2 and NO_x exceed the PSD major threshold of 250 tpy, the net emissions increase must be evaluated. This is shown below.

Net Emissions Increase

Pollutant	New PTE (tons/yr)	Actual Emissions, tpy	Net Emissions Increase, tpy
SO_2	413.7	173.3	240.40
NO_x	113.49	84.8	28.69

The potential emissions from coal combustion were calculated using emission factors from AP-42, Fifth Edition, Volume 1, Chapter 1: External Combustion Sources, Section 1.1: Bituminous and Subbituminous Coal Combustion. The emission factors were chosen for a pulverized coal, dry bottom, wall fired boiler combusting subbituminous coal.

Idaho Supreme Actual Emissions

Month-Year	Natural Gas Combusted (scf)	Residual Fuel Combusted (gal)	Sulfur Content of Residual Fuel (%)	Natural Gas SO_2 Emission Factor (lb/10^6 scf)	Residual Fuel SO_2 Emission Factor (lb/10^3 gal)		Actual SO_2 Emissions (tons)	Natural Gas NO_x Emission Factor (lb/10^6 scf)	Residual Fuel NO_x Emission Factor (lb/10^3 gal)	Actual NO_x Emissions (tons)
Jan-04	2,025,000	353,206	0.5	0.6	157	S	13.9	140	47	8.44
Feb-04	5,211,000	309,571	0.5	0.6	157	S	12.2	140	47	7.64
Mar-04	743,000	382,332	0.5	0.6	157	S	15.0	140	47	9.04
Apr-04	835,000	350,693	0.5	0.6	157	S	13.8	140	47	8.30
May-04	2,113,000	361,771	0.5	0.6	157	S	14.2	140	47	8.65
Jun-04	5,731,000	370,900	0.5	0.6	157	S	14.6	140	47	9.12
Jul-04	1,740,000	331,244	0.5	0.6	157	S	13.0	140	47	7.91
Aug-04	572,000	133,950	0.5	0.6	157	S	5.3	140	47	3.19
Sep-04	18,093,000	-	0.5	0.6	157	S	0.0	140	47	1.27
Oct-04	49,783,000	9,220	0.5	0.6	157	S	0.4	140	47	3.70
Nov-04	3,578,000	280,130	0.5	0.6	157	S	11.0	140	47	6.83
Dec-04	1,781,000	302,293	0.5	0.6	157	S	11.9	140	47	7.23
Jan-05	18,690,000	351,265	0.96	0.6	157	S	26.5	140	47	9.56
Feb-05	1,266,000	331,057	0.94	0.6	157	S	24.4	140	47	7.87
Mar-05	883,000	381,920	0.86	0.6	157	S	25.8	140	47	9.04
Apr-05	1,559,000	364,214	0.98	0.6	157	S	28.0	140	47	8.67
May-05	1,907,000	326,006	0.83	0.6	157	S	21.2	140	47	7.79
Jun-05	1,042,000	377,544	0.81	0.6	157	S	24.0	140	47	8.95
Jul-05	4,381,000	336,240	0.71	0.6	157	S	18.7	140	47	8.21
Aug-05	3,396,000	325,853	0.66	0.6	157	S	16.9	140	47	7.90
Sep-05	194,000	59,368	0.5	0.6	157	S	2.3	140	47	1.41
Oct-05	2,448,000	320,881	0.5	0.6	157	S	12.6	140	47	7.71
Nov-05	1,670,000	302,569	0.52	0.6	157	S	12.4	140	47	7.23
Dec-05	585,000	167,171	0.66	0.6	157	S	8.7	140	47	3.97

Two Year SO_2 Total	**346.6**	**Two Year NO_x Total**	**169.61**
Average (ton/yr)	**173.3**	**Average (ton/yr)**	**84.80**

Idaho Supreme Potential Emissions

Boiler Firing Configuration: PC, dry bottom, wall-fired, sub-bituminous, pre-NSPS
Coal Type: Subbituminous

Heat Content:	12,968	Btu/lb
Sulfur Content:	0.5	% by weight
Ash Content:	9.43	% by weight
Boiler Heat Capacity:	140	MMBtu/hr
Coal Combustion Rate:	10,796	lb/hr
	5.40	ton/hr
Coal Combustion Rate:	94,571,252	lb/yr
	47,286	tons/yr

Pollutant	Emission Controls	Control Type	Emission Factor (EF)		EF Units	AP-42 Reference Table	Emissions (lb/hr)	Emissions (tons/yr)
SO_2	N		35	S	lb/ton	1.1-3	94	413.7
NO_x	Y	See Note d	12		lb/ton	1.1-3	26	113.49
CO	N		0.5		lb/ton	1.1-3	2.7	11.8
PM[b]	Y	Any[c]	0.1		lb/MMBtu	1.1-5	14	61.3
PM-10	Y	BH	0.02	A	lb/ton	1.1-6	1.0180	4.5
PM-2.5	Y	BH	0.01	A	lb/ton	1.1-6	0.5090	2.2
VOC	Y	FF	0.00918638		lb/ton	1.1-14	0.0496	0.2

BH = Baghouse FF= Fabric Filter
[a]Filterable
[b]Condensible
[c]Any type of control without Flue Gas Desulfurization (FGD)
[d] For the control of NOx emissions, it should be noted that the manufacturer of the coal pulverization system has stated that the NOx emissions will be 60% lower than a conventional pulverized-coal boiler.

Net Emissions Increase

Two Year SO_2 Total	**346.6**	**Two Year NO_x Total**	**169.61**
Average (ton/yr)	**173.3**	**Average (ton/yr)**	**84.80**
Uncontrolled Coal SO_2 PTE (ton/yr)	**413.75**	**Coal NO_x PTE (ton/yr)**	**113.49**
Net Emissions Increase	**240.45**		**28.69**
PSD Triggered (with no control)?	**No**	**PSD Triggered?**	**No**

6.0 Emission Calculations

Emission estimates are shown in this section. The emission estimates include:

- TANKS 4.0 Output
- MathCad-Grainloading Output
- Grainloading Spreadsheets
- Criteria/Toxics/HAPs Inventory
- Combustion Spreadsheets
- Fuel Oil Throughputs
- Process Weight Documents
- Fugitives

TANKS 4.0
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	Idaho Supreme 16,000 gal Tank
City:	Firth
State:	Idaho
Company:	Idaho Supreme
Type of Tank:	Vertical Fixed Roof Tank
Description:	

Tank Dimensions

Shell Height (ft):	21.00
Diameter (ft):	11.50
Liquid Height (ft):	20.59
Avg. Liquid Height (ft):	11.00
Volume (gallons):	16,000.00
Turnovers:	465.38
Net Throughput (gal/yr):	7,446,000.00
Is Tank Heated (y/n):	Y

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Dome
Height (ft):	0.00
Radius (ft) (Dome Roof):	0.00

Breather Vent Settings

Vacuum Settings (psig):	0.00
Pressure Settings (psig):	0.00

Meteorological Data used in Emissions Calculations: Pocatello, Idaho (Avg Atmospheric Pressure = 12.53 psia)

TANKS 4.0
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vap Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	48.21	41.93	54.49	46.37	0.0044	0.0035	0.0054	130.0000			188.00	Option 5: A=12.101, B=8907

TANKS 4.0
Emissions Report - Summary Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	23.19	1.05	24.25

TANKS 4.0
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	Idaho Supreme 20,000 gal Tank
City:	Firth
State:	Idaho
Company:	Idaho Supreme
Type of Tank:	Vertical Fixed Roof Tank
Description:	

Tank Dimensions

Shell Height (ft):	31.20
Diameter (ft):	10.50
Liquid Height (ft):	30.00
Avg. Liquid Height (ft):	20.00
Volume (gallons):	20,000.00
Turnovers:	3.50
Net Throughput (gal/yr):	70,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Dome
Height (ft):	0.00
Radius (ft) (Dome Roof):	0.00

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig):	0.03

Meteorological Data used in Emissions Calculations: Pocatello, Idaho (Avg Atmospheric Pressure = 12.53 psia)

TANKS 4.0
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vap Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	48.21	41.93	54.49	46.37	0.0044	0.0035	0.0054	130.0000			188.00	Option 5: A=12.101, B=8907

TANKS 4.0
Emissions Report - Summary Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	0.94	1.75	2.69

TANKS 4.0
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	Idaho Supreme 30,000 Tank
City:	Firth
State:	Idaho
Company:	Idaho Supreme
Type of Tank:	Vertical Fixed Roof Tank
Description:	

Tank Dimensions

Shell Height (ft):	26.00
Diameter (ft):	14.00
Liquid Height (ft):	25.00
Avg. Liquid Height (ft):	14.00
Volume (gallons):	28,788.51
Turnovers:	258.64
Net Throughput (gal/yr):	7,446,000.00
Is Tank Heated (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Roof Characteristics

Type:	Dome
Height (ft):	0.00
Radius (ft) (Dome Roof):	0.00

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig):	0.03

Meteorological Data used in Emissions Calculations: Pocatello, Idaho (Avg Atmospheric Pressure = 12.53 psia)

TANKS 4.0
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vap Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	48.21	41.93	54.49	46.37	0.0044	0.0035	0.0054	130.0000			188.00	Option 5: A=12.101, B=8907

TANKS 4.0
Emissions Report - Summary Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	28.36	3.38	31.74

For 2 tanks, the total emissions are 63.5 lb/yr.

TANKS 4.0
Emissions Report - Summary Format
Tank Identification and Physical Characteristics

Identification

User Identification:	Idaho Supreme 10000 gal diesel
City:	Firth
State:	Idaho
Company:	Idaho Supreme
Type of Tank:	Horizontal Tank
Description:	

Tank Dimensions

Shell Length (ft):	27.40
Diameter (ft):	8.00
Volume (gallons):	10,000.00
Turnovers:	0.00
Net Throughput (gal/yr):	10,000.00
Is Tank Heated (y/n):	N
Is Tank Underground (y/n):	N

Paint Characteristics

Shell Color/Shade:	White/White
Shell Condition:	Good

Breather Vent Settings

Vacuum Settings (psig):	-0.03
Pressure Settings (psig):	0.03

Meteorological Data used in Emissions Calculations: Pocatello, Idaho (Avg Atmospheric Pressure = 12.53 psia)

TANKS 4.0
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Mixture/Component	Month	Daily Liquid Surf. Temperatures (deg F) Avg.	Min.	Max.	Liquid Bulk Temp. (deg F)	Vapor Pressures (psia) Avg.	Min.	Max.	Vap Mol. Weight	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Distillate fuel oil no. 2	All	48.21	41.93	54.49	46.37	0.0044	0.0035	0.0054	130.0000			188.00	Option 5: A=12.101, B=8907

TANKS 4.0
Emissions Report - Summary Format
Individual Tank Emission Totals

Annual Emissions Report

	Losses(lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
Distillate fuel oil no. 2	0.13	1.49	1.62

Idaho Supreme Fugitive Emissions -- Paved Roads

AP-42, December 2003, 13.2.1 Paved Roads. Equation 2

$$E(lb/vmt) = [k\ (sL/2)^{.65}\ (W/3)^{1.5} - C]*(1-P/4N)$$

PM	0.082	lb/vmt
PM-10	0.016	lb/vmt
sL =	2.4	g/m^2
W =	10	ton avg.
P =	90	days
C =	0.00047	lb/vmt
VMT =	49,275	miles per year
PM =	13.0	tpy
PM-10 =	2.5	tpy

Grainloading Emissions for Boiler at Idaho Supreme

1. Correct the flue gas volume to the altitude of Dubois, Idaho:

   Altitude := 4575 ft

   Subtract altitude pressure correction factor (inches of Hg) from standard atmospheric pressure at sea level to obtain the corrected flue gas pressure.

   $$\text{Correction} := 0.01 \cdot \frac{\text{Altitude}}{10} \qquad \text{Correction} = 4.575 \quad \text{inch of Hg}$$

   StandAtmPress := 29.92 inch of Hg

   CorrFluePress := StandAtmPress – Correction

   CorrFluePress = 25.345 inch of Hg

2. Convert grain loading at sea level to altitude:

   cg_{sl} = grain loading at sea level, gr/dscf

   cg_{alt} = grain loading at altitude, gr/dscf

   $$cg_{sl} := 0.0391 \quad \frac{gr}{dscf} \qquad @\ 3\%\ O_2$$

   Correct grain loading for altitude:

   $$cg_{alt} := cg_{sl} \cdot \frac{\text{CorrFluePress}}{\text{StandAtmPress}}$$

   $$cg_{alt} = 0.0331 \quad \frac{gr}{dscf}$$

   In Compliance

3. For front half only:

$$cg_{slfh} := 0.0213 \quad \frac{gr}{dscf} \quad @\ 5.5\%\ O_2$$

$$cg_{altfh} := \frac{CorrFluePress \cdot cg_{slfh}}{StandAtmPress}$$

$$cg_{altfh} = 0.018 \quad \frac{gr}{dscf}$$

$$O_{2test} := 5.5 \quad \%$$

$$O_{2corrected} := 3.0 \quad \%$$

$$cg_{corfh} := \frac{(20.9 - O_{2corrected}) \cdot cg_{altfh}}{(20.9 - O_{2test})}$$

$$cg_{corfh} = 0.021 \quad \frac{gr}{dscf} \quad \text{front half}$$

Process Weight Calculations

Source Description	Process Weight, PW (lb/hr)	Process Weight Rate Limitations - E (lb/hr)	PM Emissions - Actual (lb/hr)	In Compliance? (Y/N)
Fluidized Bed Dryer	2,000	4.3	1.5	Y
Silo Storage A	9,600	10.9	6.40E-02	Y
Silo Storage B	9,600	10.9	6.40E-02	Y
Silo Storage C	9,600	10.9	6.40E-02	Y
Silo Storage D	9,600	10.9	6.40E-02	Y
Silo Storage E	9,600	10.9	6.40E-02	Y
Silo Storage F	9,600	10.9	6.40E-02	Y
Silo Storage G	9,600	10.9	6.40E-02	Y
Silo Storage H	9,600	10.9	6.40E-02	Y
Silo Storage I	9,600	10.9	6.40E-02	Y
Silo Storage J	9,600	10.9	6.40E-02	Y
Flaker #4	4,256	6.77	3.75E-01	Y
Flaker #3	4,256	6.77	3.75E-01	Y
Flaker #2	4,256	6.77	3.75E-01	Y
Flaker #1	4,256	6.77	3.75E-01	Y
Flaker #8	4,256	6.77	3.75E-01	Y
Flaker #7	4,256	6.77	3.75E-01	Y
Flaker #6	4,256	6.77	3.75E-01	Y
Flaker #5	4,256	6.77	3.75E-01	Y
Flaker #10	4,256	6.77	3.75E-01	Y
Flaker #9	4,256	6.77	3.75E-01	Y
Flaker #12	4,256	6.77	3.75E-01	Y
Flaker #11	4,256	6.77	3.75E-01	Y
Dryer Stage A	4,256	6.77	3.75E-01	Y
Dryer Stage B	4,256	6.77	3.75E-01	Y
Dryer Stage C	4,256	6.77	3.75E-01	Y
Secondary Dryer (1st vent)	4,256	6.77	3.75E-01	Y

$E = 0.045(PW)^{0.60}$, for PW less than 9,250 lb/hr.

$E = 1.10(PW)^{0.25}$, for PW greater than 9,250 lb/hr.

E = Emission Limit