

# **Statement of Basis**

**Permit to Construct No. P-2011.0120  
Project ID 60909**

**ConAgra Foods Lamb Weston, Inc. Twin Falls  
Twin Falls, Idaho**

**Facility ID 083-00062**

**Final**

**May 4, 2012  
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The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01. et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

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## ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
acfm	actual cubic feet per minute
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BMP	best management practices
Btu	British thermal units
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CAS No.	Chemical Abstracts Service registry number
CBP	concrete batch plant
CEMS	continuous emission monitoring systems
cfm	cubic feet per minute
CFR	Code of Federal Regulations
CI	compression ignition
CMS	continuous monitoring systems
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CO <sub>2e</sub>	CO <sub>2</sub> equivalent emissions
COMS	continuous opacity monitoring systems
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EL	screening emission levels
EPA	U.S. Environmental Protection Agency
FEC	Facility Emissions Cap
GHG	greenhouse gases
gph	gallons per hour
gpm	gallons per minute
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
HHV	higher heating value
HMA	hot mix asphalt
hp	horsepower
hr/yr	hours per consecutive 12 calendar month period
ICE	internal combustion engines
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
iwg	inches of water gauge
km	kilometers
lb/hr	pounds per hour
lb/qtr	pound per quarter
m	meters
MACT	Maximum Achievable Control Technology
mg/dscm	milligrams per dry standard cubic meter
MMBtu	million British thermal units
MMscf	million standard cubic feet
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
NSPS	New Source Performance Standards

O&M	operation and maintenance
O <sub>2</sub>	oxygen
PAH	polyaromatic hydrocarbons
PC	permit condition
PCB	polychlorinated biphenyl
PERF	Portable Equipment Relocation Form
PM	particulate matter
PM <sub>2.5</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM <sub>10</sub>	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
POM	polycyclic organic matter
ppm	parts per million
ppmw	parts per million by weight
PSD	Prevention of Significant Deterioration
psig	pounds per square inch gauge
PTC	permit to construct
PTC/T2	permit to construct and Tier II operating permit
PTE	potential to emit
PW	process weight rate
RAP	recycled asphalt pavement
RFO	reprocessed fuel oil
RICE	reciprocating internal combustion engines
Rules	Rules for the Control of Air Pollution in Idaho
scf	standard cubic feet
SCL	significant contribution limits
SIP	State Implementation Plan
SM	synthetic minor
SM80	synthetic minor facility with emissions greater than or equal to 80% of a major source threshold
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	sulfur oxides
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar month period
T2	Tier II operating permit
TAP	toxic air pollutants
TEQ	toxicity equivalent
T-RACT	Toxic Air Pollutant Reasonably Available Control Technology
ULSD	ultra-low sulfur diesel
U.S.C.	United States Code
VOC	volatile organic compounds
yd <sup>3</sup>	cubic yards
µg/m <sup>3</sup>	micrograms per cubic meter

## **FACILITY INFORMATION**

### ***Description***

ConAgra Foods Lamb Weston, Inc. is a raw potato processing facility. The facility processes raw potatoes into frozen, fried, hash brown, mashed, and special potato products for consumer sales. The facility has four fryers that use steam from two boilers for heat, four direct-fired dryers, a biogas-fired water heater, an emergency diesel-fired IC engine, and miscellaneous heaters and burners.

### ***Permitting History***

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

June 20, 2010	P-2009.0093, Flexibility in combusting biogas in Boiler No. 1 and the Effluent Heater, Permit status (A, but will become S upon issuance of this permit)
June 4, 2007	Tier II permit No. T2-050420, Placing the facility under a Facility Emissions Cap (FEC), Permit status (S)
March 8, 2005	Tier II permit No. T2-040422, Facility name change, Permit status (S)
April 1, 2003	Tier II permit No. T2-020425, Permitted the biogas-fired heater, allowing boilers 1 and 2 to combust diesel and vegetable oil and install a NO <sub>x</sub> CEMS, Permit status (S)
May 24, 2002	Tier II permit No. 083-00062, Limiting emissions to less than the Title V permitting thresholds, Permit status (S)
October 17, 2000	Tier II permit No. 083-00062, Original air permit issued to the facility, Permit status (S)
August 1, 1994	Lamb Weston merged with Universal Frozen Foods. The air permit process was initiated shortly thereafter.

### ***Application Scope***

This PTC is to remove a FEC at the request of the facility. The facility has applied to modify their current FEC permit by removing the FEC requirements prior to the expiration of the FEC permit. This is being done so the facility does not have to perform PM<sub>2.5</sub> modeling for the renewal of the FEC permit that is set to expire on June 4, 2012. According to Cheryl Robinson with the modeling group the facility can keep their facility-wide FEC production limits because they have previously demonstrated NAAQS compliance. During the application review the facility also requested that a limit on greenhouse gases (CO<sub>2e</sub>) be placed in the permit to avoid Title V permitting for CO<sub>2e</sub>. The facility determined that the best way to accomplish this was to remove the allowance to burn diesel fuel and vegetable oil in Boilers No. 1 and 2.

### ***Application Chronology***

August 9, 2011	DEQ received an application and an application fee.
August 23, 2011	DEQ determined that the application was incomplete.
December 23, 2011	DEQ received supplemental information from the applicant.
January 17, 2012	DEQ determined that the application was complete.
March 8, 2012	DEQ made available the draft permit and statement of basis for peer and regional office review.
March 13, 2012	DEQ made available the draft permit and statement of basis for applicant review.
April 5, 2012	DEQ received the permit processing fee.

**TECHNICAL ANALYSIS**

**Emissions Units and Control Equipment**

**Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION**

Source ID No.	Sources	Control Equipment	Emission Point ID No.
Line 1 Fryer	<u>Line 1 Fryer:</u> Manufacturer: Heat and Control Installed/Modified: 1988 Maximum Finished Product: 18.2 tons per hour	<u>Wet Scrubber:</u> Manufacturer: Bahnson Model: Custom Pressure Drop: 0.5 to 3.0 in H <sub>2</sub> O Water Flow Rate: 267 to 400 gpm	Exit height: 49 ft (14.94 m) Exit diameter: 2.75 ft (0.84 m) Exit flow rate: 29,300 acfm Exit temperature: 150 °F (65.6 °C)
Line 2 Fryer	<u>Line 2 Fryer:</u> Manufacturer: Heat and Control Installed/Modified: 1970 Maximum Finished Product: 17.9 tons per hour	<u>Wet Scrubber:</u> Manufacturer: Gallert Company Model: Custom Pressure Drop: 0.5 to 3.0 in H <sub>2</sub> O Water Flow Rate: 135 to 203 gpm	Exit height: 55 ft (16.76 m) Exit diameter: 3.0 ft (0.91 m) Exit flow rate: 31,500 acfm Exit temperature: 110 °F (43.3 °C)
Line 4 Fryer	<u>Line 4 Fryer:</u> Manufacturer: Heat and Control Installed/Modified: 1989 Maximum Finished Product: 26.6 tons per hour	<u>Wet Scrubber:</u> Manufacturer: Reyco Model: Custom Pressure Drop: 0.5 to 3.0 in H <sub>2</sub> O Water Flow Rate: 122 to 183 gpm	Exit height: 43.3 ft (13.20 m) Exit diameter: 3.0 ft (0.91 m) Exit flow rate: 19,000 acfm Exit temperature: 154 °F (67.8 °C)
Special Products Fryer	<u>Special Products Fryer:</u> Manufacturer: Heat and Control Installed/Modified: 1977 Maximum Finished Product: 3.2 tons per hour	<u>Wet Scrubber:</u> Manufacturer: Reyco Model: Custom Pressure Drop: 0.5 to 3.0 in H <sub>2</sub> O Water Flow Rate: 188 to 282 gpm	Exit height: 44 ft (13.41 m) Exit diameter: 4.0 ft (1.22 m) Exit flow rate: 29,300 acfm Exit temperature: 108 °F (42.2 °C)
Line 1 Dryer	<u>Line 1 Dryer:</u> Manufacturer: National Installed/Modified: 1986 Maximum Finished Product: 18.2 tons per hour Maximum Heat Capacity: 36.0 MMBtu/hr Fuel: Natural gas only	None	Four stacks, each: Exit height: 45 ft (13.72 m) Exit diameter: 2.76 ft (0.84 m) Exit flow rate: 25,000 acfm Exit temperature: 108 °F (42.2 °C)
Line 2 Dryer	<u>Line 2 Dryer:</u> Manufacturer: National Installed/Modified: 1988/2002 Maximum Finished Product: 17.9 tons per hour Maximum Heat Capacity: 4.0 MMBtu/hr Fuel: Natural gas only	None	Seven stacks, each: Exit height: 35.75 ft (10.90 m) Exit diameter: 2.25 ft (0.69 m) Exit flow rate: 10,267 acfm Exit temperature: 200 °F (93.3 °C)
Line 4 Dryer	<u>Line 4 Dryer:</u> Manufacturer: National Installed/Modified: 1989 Maximum Finished Product: 26.6 tons per hour Maximum Heat Capacity: 27.5 MMBtu/hr Fuel: Natural gas only	None	Five stacks: Exit height (stack 1): 44 ft (13.41 m) Exit height (stacks-5): 36 ft (10.97 m) Exit diameter (each stack): 3.91 ft (1.19 m) Exit flow rate (each stack): 22,250 acfm Exit temperature: 121 °F (49.4 °C)

**Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION (continued)**

Source ID No.	Sources	Control Equipment	Emission Point ID No.
Special Products Dryer	<u>Special Products Dryer:</u> Manufacturer: B Eagle Installed/Modified: 1977 Maximum Finished Product: 3.2 tons per hour Maximum Heat Capacity: 5.0 MMBtu/hr Fuel: Natural gas only	None	Exit height: 38 ft (11.58 m) Exit diameter: 2.61 ft (0.80 m) Exit flow rate: 8,133 acfm Exit temperature: 200 °F (93.3 °C)
Boiler No. 1	<u>Boiler No. 1:</u> Manufacturer: Combustion Engineering Model: 26-A-15 Installed/Modified: 1989 Maximum Fuel Throughput: 176,471 scfh natural gas Maximum Heat Input: 180.0 MMBtu/hr Fuel: Natural gas and/or biogas only	None	Exit height: 46 ft (14.02 m) Exit diameter: 6.0 ft (1.83 m) Exit flow rate: 34,304 acfm Exit temperature: 600 °F (315.6 °C)
Boiler No. 2	<u>Boiler No. 2:</u> Manufacturer: Murray-Trane Model: MCF4-57 Installed/Modified: 1982 Maximum Fuel Throughput: 70,588 scfh natural gas Maximum Heat Input: 72.0 MMBtu/hr Fuel: Natural gas only	None	Exit height: 40 ft (12.19 m) Exit diameter: 4.0 ft (1.22 m) Exit flow rate: 25,327 acfm Exit temperature: 590 °F (310.0 °C)
Effluent Heater	<u>Effluent heater:</u> Manufacturer: American Heating Co. Model: AHC-1500 Installed/Modified: 2002 Maximum Fuel Throughput: 22,200 scfh biogas combusted plus 2,000 scfh natural gas Maximum Heat Input: 19 MMBtu/hr Fuel: Natural gas and/or biogas only	None	Exit height: 42 ft (12.80 m) Exit diameter: 2.17 ft (0.66 m) Exit flow rate: 4,048 acfm Exit temperature: 400 °F (204.4 °C)
L4 Emergency IC Engine	<u>L4 Emergency IC Engine:</u> Manufacturer: Cummins Model: NT855C Manufacture Date: 1982 Max. power rating: 355 bhp Fuel: diesel Annual use limit: 52 hrs/yr	None	Exit height: 7.0 ft (2.13 m) Exit diameter: 0.5 ft (0.15 m) Exit flow rate: 2,370 acfm Exit temperature: 970 °F (521.1 °C)
L1 Emergency IC Engine	<u>L1 Emergency IC Engine:</u> Manufacturer: Cummins Model: 6BT5.9 G-2 Manufacture Date: 1997 Max. power rating: 166 bhp Fuel: diesel Annual use limit: 52 hrs/yr	None	Exit height: 13.0 ft (3.96 m) Exit diameter: 0.25 ft (0.08 m) Exit flow rate: 800 acfm Exit temperature: 1,060 °F (571.1 °C)
Miscellaneous heaters and burners	<u>Miscellaneous heaters and burners</u> Combined Maximum Fuel Throughput: 106,667 scfh Combined Maximum Heat Input: 109 MMBtu/hr	None	N/A

## ***Emissions Inventories***

Because this is not a modification to the existing permit in that there is not a physical change in, or change in the method of operation, of this stationary source facility detailed emissions inventories are not required of this project. However, GHG emissions were not previously calculated so they will be included as a result of this project. As a result of calculation GHG emissions the Applicant decided to remove the use of vegetable oil, diesel fuel, and biogas from Boiler No. 1 and vegetable oil and diesel fuel from Boiler No. 2.

### **Potential to Emit**

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

Using this definition of Potential to Emit an emission inventory was developed for the potato processing operations at the facility (see Appendix A) associated with this proposed project. Emissions estimates of criteria pollutant, GHG, and HAP PTE were based on an annual facility-wide potato product processing limit of 1,585 tons per day and 525,000 tons per year, a facility-wide natural gas use limit of 1,550 MMscf per year, a biogas use limit of 147 MMscf per year, and process information specific to the facility for this proposed project.

### **Uncontrolled Potential to Emit**

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

The uncontrolled Potential to Emit is used to determine if a facility is a "Synthetic Minor" source of emissions. Synthetic Minor sources are facilities that have an uncontrolled Potential to Emit for regulated air pollutants or HAPs above the applicable Major Source threshold without permit limits. As the facility classification was previously determined for permitting project, P-2009.0093 dated January 14, 2010, and there are no changes in emissions proposed for this project, the uncontrolled PTE will not be presented for this project.

### **Pre-Project Potential to Emit**

Pre-project Potential to Emit is used to establish the change in emissions at a facility as a result of this project.

The following table presents the pre-project potential to emit for all criteria and GHG pollutants from all emissions units at the facility as submitted by the Applicant and verified by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

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

Source	PM <sub>10</sub>		SO <sub>2</sub>		NO <sub>x</sub>		CO		VOC	
	lb/hr <sup>(a)</sup>	T/yr <sup>(b)</sup>								
Line 1 fryer	4.28	83.34	0.00	0.00	0.00	0.00	0.00	0.00	2.50	35.96
Line 2 fryer	4.21		0.00	0.00	0.00	0.00	0.00	0.00	2.46	
Line 4 fryer	6.25		0.00	0.00	0.00	0.00	0.00	0.00	3.64	
Special products fryer	0.74		0.00	0.00	0.00	0.00	0.00	0.00	0.43	
Line 1 dryer	1.34	8.75	0.02	96.98	3.53	97.35	2.96	81.77	0.19	5.35
Line 2 dryer	1.32		0.02		1.67		1.40		0.09	
Line 4 dryer	1.95		0.02		2.70		2.26		0.15	
Special products dryer	0.23		0.00		0.49		0.41		0.03	
Boiler No. 1	3.18	8.75	29.87	96.98	34.64	97.35	8.27	81.77	1.08	5.35
Boiler No. 2	1.21		3.73		13.85		5.93		0.39	
Effluent heater	0.00		0.00		0.00		0.00		0.00	
Miscellaneous heaters and burners	0.82		0.06		10.80		9.07		0.59	
L4 emergency IC engine	1.15	0.02	1.06	0.02	16.15	0.39	3.48	0.09	1.31	0.03
L1 emergency IC engine										
<b>Pre-Project Totals</b>	<b>26.68</b>	<b>92.11</b>	<b>34.78</b>	<b>97.00</b>	<b>83.83</b>	<b>97.74</b>	<b>33.78</b>	<b>81.86</b>	<b>12.86</b>	<b>41.34</b>

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

## Post Project Potential to Emit

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

The following table presents the post project Potential to Emit for criteria and GHG pollutants from all emissions units at the facility as determined by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit.

**Table 3 POST PROJECT POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS**

Source	PM <sub>10</sub>		SO <sub>2</sub>		NO <sub>x</sub>		CO		VOC		CO <sub>2</sub> e
	lb/hr <sup>(a)</sup>	T/yr <sup>(b)</sup>	T/yr <sup>(b)</sup>								
Line 1 fryer	16.11	64.05	N/A	N/A	N/A	N/A	N/A	N/A	9.05	35.96	N/A
Line 2 fryer			N/A	N/A	N/A	N/A	N/A	N/A			N/A
Line 4 fryer			N/A	N/A	N/A	N/A	N/A	N/A			N/A
Special products fryer			N/A	N/A	N/A	N/A	N/A	N/A			N/A
Line 1 dryer	6.73	25.18	0.19	0.47	28.94	77.50	17.76	65.10	1.75	4.26	92,471
Line 2 dryer											
Line 4 dryer											
Special products dryer											
Boiler No. 1											
Boiler No. 2											
Effluent heater	0.17	0.56	20.50	74.60	2.22	7.35	1.86	6.17	0.12	0.40	7,415
L4 emergency IC engine	0.78	0.02	0.73	0.02	11.01	0.29	2.37	0.06	0.89	0.02	10
L1 emergency IC engine	0.37	0.01	0.34	0.01	5.15	0.13	1.11	0.03	0.42	0.01	4
Miscellaneous heaters and burners	0.81	0.00	0.06	0.00	10.69	0.00	8.98	0.00	0.59	0.00	0.00
<b>Post Project Totals</b>	<b>24.97</b>	<b>89.82</b>	<b>21.82</b>	<b>75.10</b>	<b>58.01</b>	<b>85.27</b>	<b>32.08</b>	<b>71.36</b>	<b>12.82</b>	<b>40.65</b>	<b>99,900</b>

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

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

## Change in Potential to Emit

The change in facility-wide potential to emit is used to determine if a public comment period may be required and to determine the processing fee per IDAPA 58.01.01.225. The following table presents the facility-wide change in the potential to emit for criteria pollutants. As discussed previously, GHG emissions were not previously calculated for this facility. Therefore, the increase in GHG emissions is presented to show what they will be post project.

**Table 4 CHANGES IN POTENTIAL TO EMIT FOR REGULATED AIR POLLUTANTS**

Source	PM <sub>10</sub> /PM <sub>2.5</sub>		SO <sub>2</sub>		NO <sub>x</sub>		CO		VOC		CO <sub>2</sub> e
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	T/yr
Pre-Project Potential to Emit	26.68	92.11	34.78	97.00	83.83	97.74	33.78	81.86	12.86	41.34	0.00
Post Project Potential to Emit	24.97	89.82	21.82	75.10	58.01	85.27	32.08	71.36	12.82	40.65	99,900
<b>Changes in Potential to Emit</b>	<b>-1.71</b>	<b>-2.29</b>	<b>-12.96</b>	<b>-21.90</b>	<b>-25.82</b>	<b>-12.47</b>	<b>-1.70</b>	<b>-10.50</b>	<b>-0.04</b>	<b>-0.69</b>	<b>99,900</b>

### Non-Carcinogenic TAP Emissions

Pre- and post-project, as well as the change in, non-carcinogenic TAP were not calculated for this project because modeling was not required since all criteria pollutant emissions were decreasing as a result of this project.

### Carcinogenic TAP Emissions

Pre- and post-project, as well as the change in, carcinogenic TAP were not calculated for this project because modeling was not required since all criteria pollutant emissions were decreasing as a result of this project.

### **Ambient Air Quality Impact Analyses**

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

## **REGULATORY ANALYSIS**

### **Attainment Designation (40 CFR 81.313)**

The facility is located in Twin Falls County, which is designated as attainment or unclassifiable for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub>, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

### **Facility Classification**

“Synthetic Minor” classification for criteria pollutants is defined as the uncontrolled Potential to Emit for criteria pollutants are above the applicable major source thresholds and the Potential to Emit for criteria pollutants fall below the applicable major source thresholds. Therefore, the following table compares the uncontrolled Potential to Emit and the Potential to Emit for criteria pollutants to the Major Source thresholds to determine if the facility will be “Synthetic Minor.”

**Table 5 UNCONTROLLED PTE AND PTE FOR REGULATED AIR POLLUTANTS COMPARED TO THE MAJOR SOURCE THRESHOLDS**

Pollutant	Uncontrolled PTE (T/yr)	PTE (T/yr)	Major Source Thresholds (T/yr)	Uncontrolled PTE Exceeds the Major Source Threshold and PTE Exceeds the Major Source Threshold?
PM <sub>10</sub> /PM <sub>2.5</sub>	>100	89.92	100	No
SO <sub>2</sub>	>100	75.10	100	No
NO <sub>x</sub>	>100	85.27	100	No
CO	>100	71.36	100	No
VOC	<100	40.65	100	No
CO <sub>2e</sub>	>100,000	99,900	100,000	No

“Synthetic Minor” classification for HAP pollutants is defined as the uncontrolled Potential to Emit for HAP pollutants are above the applicable major source thresholds and the Potential to Emit for HAP pollutants fall below the applicable major source thresholds. Therefore, the following table compares the uncontrolled Potential to Emit and the Potential to Emit for HAP pollutants to the Major Source thresholds to determine if the facility will be “Synthetic Minor.”

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

**Table 6 UNCONTROLLED PTE AND PTE FOR HAZARDOUS AIR POLLUTANTS COMPARED TO THE MAJOR SOURCE THRESHOLDS**

HAP Pollutant	Uncontrolled PTE (T/yr)	PTE (T/yr)	Major Source Thresholds (T/yr)	Uncontrolled PTE Exceeds the Major Source Threshold and PTE Exceeds the Major Source Threshold?
Total HAPs	<10	<10	10	No
<b>Total</b>	<b>&lt;10</b>	<b>&lt;10</b>	<b>25</b>	<b>No</b>

As demonstrated in Table 5, the facility has an uncontrolled potential to emit for PM<sub>10</sub>/PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, and CO emissions are greater than the Major Source thresholds of 100 T/yr for each pollutant and a potential to emit for all criteria pollutants less than the Major Source thresholds of 100 T/yr for each pollutant. In addition, as demonstrated in Table 6 the facility has uncontrolled potential HAP emissions of less than the Major Source threshold of 10 T/yr and for all HAP combined less than the Major Source threshold of 25 T/yr. Therefore, this facility is designated as a Synthetic Minor facility for PM<sub>10</sub>/PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, and CO<sub>2e</sub>.

**Test Methods and Procedures (IDAPA 58.01.01.157)**

IDAPA 58.01.01.157 Test Methods and Procedures

The purpose of this Section is to establish procedures and requirements for test methods and results. These requirements are assured by Permit Conditions 15, 33, 34, 35, 43, and 44.

**Permit to Construct (IDAPA 58.01.01.201)**

IDAPA 58.01.01.201 Permit to Construct Required

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

**Tier II Operating Permit (IDAPA 58.01.01.401)**

IDAPA 58.01.01.401 Tier II Operating Permit

The application was submitted for a permit to construct (refer to the Permit to Construct section), and an optional Tier II operating permit has not been requested. Therefore, the procedures of IDAPA 58.01.01.400-410 were not applicable to this permitting action.

**Visible Emissions (IDAPA 58.01.01.625)**

IDAPA 58.01.01.625 Visible Emissions

The sources of PM<sub>10</sub> emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity. This requirement is assured by Permit Conditions 11, 25, and 39.

**Standards for New Sources (IDAPA 58.01.01.676)**

IDAPA 58.01.01.676 Standards for New Sources

The fuel burning equipment located at this facility, with a maximum rated input of ten (10) million BTU per hour or more, are subject to a particulate matter limitation of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume when combusting gaseous fuels. Fuel-Burning Equipment is defined as any furnace, boiler, apparatus, stack and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer. This requirement is assured by Permit Conditions 19, 48, 64, and 69.

## **Rules for Sulfur Content of Fuels (IDAPA 58.01.01.725)**

IDAPA 58.01.01.725

Rules for Sulfur Content of Fuels

This section applies to fuel burning sources in Idaho. Its purpose is to prevent excessive ground level concentrations of sulfur dioxide. The reference test method for measuring fuel sulfur content shall be ASTM method, D129-95 Standard Test for Sulfur in Petroleum Products (General Bomb Method) or such comparable and equivalent method approved in accordance with Subsection 157.02.d. Test methods and procedures shall comply with Section 157. This rule specifies the use of ASTM Grade 2 fuel oil - zero point five percent (0.5%) by weight. This requirement is assured by Permit Conditions 20, 21, and 75.

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

IDAPA 58.01.01.301

Requirement to Obtain Tier I Operating Permit

Post project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC, or 100,000 tons per year for CO<sub>2e</sub>, or 10 tons per year for any one HAP or 25 tons per year for all HAP combined as demonstrated previously in the Emissions Inventories Section of this analysis. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 do not apply.

## **PSD Classification (40 CFR 52.21)**

40 CFR 52.21

Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52.21(b)(1). Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is/is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

## **NSPS Applicability (40 CFR 60)**

Because the project involves permitting two boilers rated at greater than 10 MMBtu/hr (but less than 100 MMBtu/hr) and one boiler rated at greater than 100 MMBtu/hr the following NSPS requirements apply to this facility:

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

**40 CFR 60, Subpart Db**

**Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units**

As stated in the SOB for permit P-2009.0093, the application identified the size and construction date of each boiler. Boiler No. 1 has a heat input capacity rated at 180 MMBtu/hr and was constructed, modified or was reconstructed after June 19, 1984. Therefore, it is subject to 40 CFR 60 Subpart Db.

§ 60.40b

Applicability and Delegation of Authority

Section (a) specifies that the affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)).

§ 60.41b Definitions

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

§ 60.42b Standards for sulfur dioxide (SO<sub>2</sub>)

The SO<sub>2</sub> emissions standards of this section apply to boilers that combust coal or oil. As discussed previously Boiler No. 1 combusts only natural gas and/or biogas. Therefore, this section does not apply to Boiler No. 1.

§ 60.43b Standards for particulate matter (PM)

The PM emissions standards of this section apply to boilers that combust coal or oil. As discussed previously Boiler No. 1 combusts only natural gas and/or biogas. Therefore, this section does not apply to Boiler No. 1.

§ 60.44b Standards for nitrogen dioxide (NO<sub>x</sub>)

The NO<sub>x</sub> emissions standards of this section apply to boilers that combust coal, oil, or natural gas. As discussed previously Boiler No. 1 combusts only natural gas and/or biogas. Therefore, this section does apply to Boiler No. 1. This requirement is assured by Permit Condition 49.

§ 60.46b Compliance and performance test methods and procedures for particulate matter and nitrogen oxides

The NO<sub>x</sub> emissions standards of this section apply to boilers that combust coal, oil, or natural gas. As discussed previously Boiler No. 1 combusts only natural gas and/or biogas. Therefore, this section does apply to Boiler No. 1.

Section (c) states that compliance with the NO<sub>x</sub> emission standards under §60.44b shall be determined through performance testing under paragraph (e) or (f), or under paragraphs (g) and (h) of this section, as applicable.

Section (e) states that to determine compliance with the emission limits for NO<sub>x</sub> required under §60.44b, the owner or operator of an affected facility shall conduct the performance test as required under §60.8 using the continuous system for monitoring NO<sub>x</sub> under §60.48(b).

- (1) For the initial compliance test, NO<sub>x</sub> from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NO<sub>x</sub> emission standards under §60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.
- (2) Following the date on which the initial performance test is completed or is required to be completed in §60.8, whichever date comes first, the owner or operator of an affected facility which combusts coal (except as specified under §60.46b(e)(4)) or which combusts residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the NO<sub>x</sub> emission standards in §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated for each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 steam generating unit operating days.
- (3) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity greater than 73 MW (250 MMBtu/hr) and that combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the NO<sub>x</sub> standards under §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 steam generating unit operating days.

- (4) Following the date on which the initial performance test is completed or required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less and that combusts natural gas, distillate oil, gasified coal, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NO<sub>x</sub> standards in §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO<sub>x</sub> emissions data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO<sub>x</sub> emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 steam generating unit operating days.
- (5) If the owner or operator of an affected facility that combusts residual oil does not sample and analyze the residual oil for nitrogen content, as specified in §60.49b(e), the requirements of §60.48b(g)(1) apply and the provisions of §60.48b(g)(2) are inapplicable.

These requirements are assured by Permit Conditions 56.

§ 60.48b Emissions monitoring for particulate matter and nitrogen oxides

Section (1) specifies that the permittee shall install, calibrate, maintain, and operate CEMS for measuring NO<sub>x</sub> and O<sub>2</sub> (or CO<sub>2</sub>) emissions discharged to the atmosphere, and shall record the output of the system; or

Section (2) specifies that if the owner or operator has installed a NO<sub>x</sub> emission rate CEMS to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of part 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or operator shall also meet the requirements of §60.49b. Data reported to meet the requirements of §60.49b shall not include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.

Section (c) specifies that for the CEMS required under paragraph (b) of this section shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

Section (d) specifies that the 1-hour average NO<sub>x</sub> emission rates measured by the continuous NO<sub>x</sub> monitor required by paragraph (b) of this section and required under §60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.44b. The 1-hour averages shall be calculated using the data points required under §60.13(h)(2).

Section (e) specifies that the procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

These requirements are assured by Permit Conditions 56, 57, 58, and 59.

§ 60.49b Reporting and recordkeeping requirements

Section (1) specifies that the owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. This requirement is assured by Permit Condition 55.

**40 CFR 60, Subpart Dc**

**Standards of Performance for Small Industrial–  
Commercial–Institutional Steam Generating Units**

As stated in the SOB for permit P-2009.0093, the application identified the size and construction date of each boiler. Boiler No. 2 has a heat input capacity rated at 72 MMBtu/hr and was not constructed, modified or was reconstructed after June 19, 1984. Therefore, it is not subject to 40 CFR 60 Subpart Dc. The Effluent Heater heats water, has a heat input capacity rated at 19 MMBtu/hr, and was installed in 2002. Therefore, it is subject to 40 CFR 60 Subpart Dc.

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

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

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO<sub>2</sub>) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

The Effluent Heater boiler at this facility combusts natural gas and/or biogas, is rated at between 10 MMBtu/hr and 100 MMBtu/hr, and was constructed after June 9, 1989. Therefore, the only Sections of this subpart that are applicable to the Effluent Heater boiler at this facility are the Applicability and Delegation of Authority specified in § CFR 60.40c(a), the Reporting requirements of § CFR 60.48c(a), (a)(1), and (a)(3), and the Recordkeeping requirements of § CFR 60.48c(g) and (i).

## § 60.41c

## Definitions

The definitions of this section apply to the facility.

## § 60.48c

## Reporting and recordkeeping requirements

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

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

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

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

These requirements are assured by Permit Condition 71.

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

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

As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO<sub>2</sub> standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

These requirements are assured by Permit Condition 72.

48g(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

This requirement is assured by the Monitoring and Recordkeeping General Provision.

### **NESHAP Applicability (40 CFR 61)**

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

### **MACT Applicability (40 CFR 63)**

Because the project involves permitting two emergency diesel-fired IC engines the following NESHAPS requirements apply to this facility:

- 40 CFR 60, Subpart ZZZZ – National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

#### **40 CFR 63, Subpart ZZZZ**

#### **National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines**

§ 63.6580

What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations. As demonstrated previously in the Facility Classification Section of this analysis this facility is an area source for HAPs as the potential to emit for HAPs is less than 10 T/yr for all HAPs combined. Therefore, the engines at this facility may be subject to the requirements of Subpart ZZZZ.

§ 63.6585

What is the purpose of subpart ZZZZ?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

(a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

§ 63.6590

What parts of my plant does this subpart cover?

This subpart applies to each affected source.

Section (a) defines an affected source as any **existing, new, or reconstructed stationary** RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

Sections (1)(i) through (1)(iv) defines **existing** stationary RICE as the following:

For stationary RICE with a site rating of more than 500 brake horsepower (bhp) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

For stationary RICE with a site rating of less than or equal to 500 brake bhp located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

Sections (2)(i) through (2)(iii) defines **new** stationary RICE as the following:

A stationary RICE with a site rating of more than 500 bhp located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

A stationary RICE with a site rating of equal to or less than 500 bhp located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

Section (3)(i) through (2)(iii) defines **reconstructed** stationary RICE as the following:

A stationary RICE with a site rating of more than 500 bhp located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

A stationary RICE with a site rating of equal to or less than 500 bhp located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

Section (b) specifies which stationary RICE are subject to limited requirements of this subpart. An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f). The requirements of (b)(1)(i) through (ii) are as follows:

The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 bhp located at a major source of HAP emissions.

The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 bhp located at a major source of HAP emissions.

Section (2) specifies that a new or reconstructed stationary RICE with a site rating of more than 500 bhp located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10% or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

Section (3) allows that the following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

Existing spark ignition 2-stroke lean-burn (2SLB) stationary RICE with a site rating of more than 500 bhp located at a major source of HAP emissions;

Existing spark ignition 4-stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 bhp located at a major source of HAP emissions;

Existing emergency stationary RICE with a site rating of more than 500 bhp located at a major source of HAP emissions;

Existing limited use stationary RICE with a site rating of more than 500 bhp located at a major source of HAP emissions;

Existing stationary RICE with a site rating of more than 500 bhp located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10% or more of the gross heat input on an annual basis;

Existing residential emergency stationary RICE located at an area source of HAP emissions;

Existing commercial emergency stationary RICE located at an area source of HAP emissions; or

Existing institutional emergency stationary RICE located at an area source of HAP emissions.

As presented previously in the Emissions Units and Control Devices Section previously, the two IC engines at this facility are compression ignition stationary RICE. The L4 and L1 Emergency IC Engines each have a site rating of less than 500 bhp and are located at an area of HAP emissions (see the Facility Classifications Section). Therefore, the L4 and L1 Emergency IC Engines are subject to the requirements of Subpart ZZZZ.

§ 63.6595

When do I have to comply with this subpart?

a) Affected sources. (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.

These two engines are existing stationary CI RICE located at an area source of HAP emissions. Therefore, the L4 and L1 Emergency IC Engines have until May 3, 2013 to comply with the requirements of this subpart. Permit Condition 78 includes the requirement of this section.

As stated in §63.6603 and §63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

Table 7 - Table 2d to Subpart ZZZZ of Part 63 — Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

For Each	You Must Meet the Following Operating Limitation	During periods of startup you must . . .
4. Emergency stationary CI RICE and black start stationary CI RICE <sup>2</sup>	a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <sup>1</sup> b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

<sup>1</sup> Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

<sup>2</sup> If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

Permit Conditions 79, 80, and 81 includes the requirements of this section.

§ 63.6605 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

This is a general permit requirement which is included in the Permit to Construct General Provisions – General Compliance.

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

The Applicant has proposed an existing emergency or black start stationary RICE located at an area source of HAP emissions in the application. Therefore, this section is applicable.

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start landfill or digester gas stationary RICE located at an area source of HAP emissions;

(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

Permit Condition 82 includes the requirements of this section.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

Permit Condition 83 includes the requirements of this section.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

As discussed previously Permit Condition 81 includes the requirements of this section.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

The L4 and L1 Emergency IC Engines are not subject to these requirements.

§ 63.6640

How do I demonstrate continuous compliance with the emission limitations and operating limitations?

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

The L4 and L1 Emergency IC Engines are not subject to these requirements because they are not subject to emissions limits and are not equipped with add-on control devices.

(f) Requirements for emergency stationary RICE. (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or **an existing emergency stationary RICE located at an area source of HAP emissions**, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

(i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

Permit Condition 84 includes the requirements of this section.

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, **you do not need to comply with the requirements in Table 8 to this subpart**: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, **an existing emergency stationary RICE**, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

As specified the L4 and L1 Emergency IC Engines are not subject to these requirements.

What reports must I submit and when?

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

The L4 and L1 Emergency IC Engines are at a non-Title V facility. Therefore, these requirements are not applicable.

What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation ( i.e., process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous ( i.e., superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

Permit Condition 85 includes the requirements of this section.

§ 63.6660 In what form and how long must I keep my records?

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

Permit Condition 85 includes the requirements of this section.

### ***Permit Conditions Review***

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

#### ***LINE 1 FRYER, LINE 2 FRYER, LINE 4 FRYER, AND SPECIAL PRODUCTS FRYER***

Existing Permit Condition 1.3, new Permit Condition 4, was updated with information provided by the Applicant to include previously omitted information on the wet scrubber operating parameters (e.g. pressure drop and liquor flow rates) and information on the emergency IC engines.

All of the facility-wide conditions were taken from the current permit without being changed.

Existing Permit Condition 3.3, new Permit Condition 24, was updated to reflect the emissions inventories for the Line 1, 2, 4 and the Special Products Fryers as provided by the Applicant.

Existing Permit Condition 3.4, new Permit Condition 26, was updated to reflect the throughput limits as proposed by the Applicant and contained in the current FEC permit.

Existing Permit Condition 3.5 is new Permit Condition 31.

Existing Permit Condition 3.6, new Permit Condition 27, was modified to specify the pressure drops across the wet scrubbers used at the facility as proposed by the Applicant.

Existing Permit Condition 3.7, new Permit Condition 28, was modified to specify liquor flow rates for the wet scrubbers used at the facility as proposed by the Applicant.

Existing Permit Condition 3.8 is new Permit Condition 29.

Existing Permit Condition 3.9 is new Permit Condition 33.

Existing Permit Condition 3.10 is new Permit Condition 34.

Existing Permit Condition 3.11 is new Permit Condition 35.

Existing Permit Condition 3.12, new Permit Condition 30, was modified to include a daily throughput monitoring requirement.

Existing Permit Condition 3.13 is new Permit Condition 32.

***LINE 1 DRYER, LINE 2 DRYER, LINE 4 DRYER, AND SPECIAL PRODUCTS DRYER***

Existing Permit Condition 4.3, new Permit Condition 38, was updated to reflect the emissions inventories for the Line 1, 2, 4 and the Special Products Dryers as provided by the Applicant.

Existing Permit Condition 4.4 was deleted as the throughput limits are now contained in new Permit Condition 26.

Existing Permit Condition 4.5 is new Permit Condition 40.

New Permit Condition 41 was included to specify the new facility-wide natural gas fuel limit to avoid GHG permitting as proposed by the Applicant.

New Permit Condition 42 was included to specify recordkeeping for the new natural gas limit to make it enforceable.

Existing Permit Condition 4.6 is new Permit Condition 43.

Existing Permit Condition 4.7 is new Permit Condition 44.

Existing Permit Condition titled as Finished Potato Product Monitoring (inadvertently unnumbered in the current permit) was deleted since this requirement is now contained in new Permit Condition 26.

***BOILER NO. 1***

New Permit Condition 47 was included to reflect the emissions inventory for Boiler No. 1 (which is combined with the emissions from the Line 1, 2, 4 and the Special Products Dryers and the Effluent Heater) as provided by the Applicant.

Existing Permit Condition 5.3 is new Permit Condition 48.

Existing Permit Condition 5.4 was deleted as the NSPS Opacity no longer applies because Boiler No. 1 no longer combusts diesel fuel or vegetable oil.

Existing Permit Condition 5.5 is new Permit Condition 49.

Existing Permit Condition 5.6, new Permit Condition 50, was updated to remove the allowance to combust diesel fuel and vegetable oil in Boiler No. 1 as requested by the Applicant.

New Permit Condition 51 was included to specify the new facility-wide biogas fuel limit to avoid GHG permitting as proposed by the Applicant.

New Permit Condition 52 was included to specify recordkeeping for the new biogas limit to make it enforceable.

New Permit Condition 53 was included to require monitoring of the biogas H<sub>2</sub>S concentration. This permit condition was based upon existing Permit Condition 9.10, but it was updated to make it clearer as to how the calculation is performed and what data is to be used.

New Permit Condition 54 was included to require the calculations of SO<sub>2</sub> emissions based upon the biogas H<sub>2</sub>S concentration. This permit condition was based upon existing Permit Condition 9.10.

Existing Permit Condition 5.7 is new Permit Condition 55.

Existing Permit Condition 5.8 was deleted as the NSPS SO<sub>2</sub> monitoring no longer applies because Boiler No. 1 no longer combusts diesel fuel.

Existing Permit Condition 5.9 is new Permit Condition 56.

Existing Permit Condition 5.10 is new Permit Condition 57.

Existing Permit Condition 5.11 is new Permit Condition 58.

Existing Permit Condition 5.12 is new Permit Condition 59.

Existing Permit Condition 5.13 is new Permit Condition 60.

## ***BOILER NO. 2***

New Permit Condition 63 was included to reflect the emissions inventory for Boiler No. 2 (which is combined with the emissions from the Line 1, 2, 4 and the Special Products Dryers and Boiler No. 1) as provided by the Applicant.

Existing Permit Condition 6.3 is new Permit Condition 64. This condition was modified by removing the requirements pertaining to diesel fuel and vegetable oil since Boiler No. 2 no longer combusts these fuels.

Existing Permit Condition 6.4, new Permit Condition 65, was updated to remove the allowance to combust diesel fuel and vegetable oil in Boiler No. 2 as requested by the Applicant.

## ***EFFLUENT HEATER***

New Permit Condition 68 was included to reflect the emissions inventory for the Effluent Heater (which is combined with the emissions from Boiler No. 1) as provided by the Applicant.

Existing Permit Condition 7.3 is new Permit Condition 69.

Existing Permit Condition 7.4 is new Permit Condition 70.

New Permit Conditions 71, 72, and 73 were included to specify NSPS Dc, Standards of Performance for Small Industrial–Commercial–Institutional Steam Generating Units requirements that were inadvertently left off the permit previously.

## ***L4 AND L1 EMERGENCY DIESEL-FIRED INTERNAL COMBUSTION ENGINES***

New Permit Condition 74 was included to provide a process description for the L4 and L1 emergency IC engines.

New Permit Condition 75 was included to provide control descriptions for the L4 and L1 emergency IC engines.

New Permit Condition 76 was included to reflect the emissions inventory for the L4 and L1 emergency IC engines as provided by the Applicant.

Existing Permit Condition 8.1 is new Permit Condition 77.

Existing Permit Condition 8.2 is new Permit Condition 78.

Existing Permit Condition 8.3 is new Permit Condition 79.

Existing Permit Condition 8.4 is new Permit Condition 80.

As discussed previously in the MACT Applicability Section, new Permit Conditions 81 through 89 were included to specify new NESHAP ZZZZ, National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, requirements.

## **PUBLIC REVIEW**

### ***Public Comment Opportunity***

Because this permitting action does not authorize an increase in emissions, an opportunity for public comment period was not required or provided in accordance with IDAPA 58.01.01.209.04 or IDAPA 58.01.01.404.04.

## APPENDIX A – EMISSIONS INVENTORIES

**Lamb-Weston, Twin Falls  
Annual Greenhouse Gas Emissions From Proposed Permit Limits**

Natural Gas Btu/ft<sup>3</sup> = 1,020  
 Biogas Btu/ft<sup>3</sup> = 875  
 Diesel Btu/gal = 137,000

**Emissions for Maximum Natural Gas**

Fuel Burning	MMBtu/yr
Total Plant Natural Gas =	1,550.00 MMCF Maximum 1,550 MMCF
Biogas =	128,625 147.00 MMCF Maximum 147 MMCF
Plant Total Btu =	1,709,625
230 kW Generator Run Time =	52.0 Hours/yr 16.6 gal/hr 118 MMBtu/yr
100 kW Generator Run Time =	52.0 Hours/yr 7.4 gal/hr 53 MMBtu/yr

	Annual Throughput	CO <sub>2</sub> Emissions			CH <sub>4</sub> Emissions			N <sub>2</sub> O Emissions			Total CO <sub>2</sub> e tons/yr
		Emission Factor	tons/yr	CO <sub>2</sub> e (tons/yr)	Emission Factor	tons/yr	CO <sub>2</sub> e (tons/yr)	Emission Factor	tons/yr	CO <sub>2</sub> e (tons/yr)	
Natural Gas	1,581,000 MMBtu	116.9 lb/MMBtu =	92,401	16.60	2.20E-04 lb/MMBtu =	0.17	2.20E-04 lb/MMBtu =	0.17	54.03	92,471	
Biogas	128,625 MMBtu	114.8 lb/MMBtu =	7,383	4.32	3.20E-03 lb/MMBtu =	0.21	1.39E-03 lb/MMBtu =	0.089	27.69	7,415	
230 kW Diesel Operation	118 MMBtu	163.1 lb/MMBtu =	10	8.21E-03	6.61E-03 lb/MMBtu =	3.91E-04	1.32E-03 lb/MMBtu =	7.82E-05	2.42E-02	10	
100 kW Diesel Operation	53 MMBtu	163.1 lb/MMBtu =	4	3.66E-03	6.61E-03 lb/MMBtu =	1.74E-04	1.32E-03 lb/MMBtu =	3.49E-05	1.08E-02	4	
			Total = 99,797	Total = 20.93		Total = 1.00		Total = 0.26	Total = 81.75	Total = 99,900	

Lamb-Weston, Twin Falls  
Daily Emissions

Source	Daily Throughput		Emission Factors					Emissions				
	Basis	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC	
Boiler 1	4.24 MMCF 0.485 MMCF Biogas	7.6 lb/MMCF Biogas is burned in Boiler #1 or the Biogas Boiler. To avoid double counting, only the emissions when the Biogas Boiler is used are calculated.	0.6 lb/MMCF	83.73 lb/MMCF	33.2 lb/MMCF	5.5 lb/MMCF	32.19	2.54	354.62	140.61	23.29	
Boiler 2	1.69 MMCF	7.6 lb/MMCF	0.6 lb/MMCF	100 lb/MMCF	84 lb/MMCF	5.5 lb/MMCF	12.88	1.02	169.41	142.31	9.32	
Biogas Boiler	0.485 MMCF Biogas	7.6 lb/MMCF	1015 lb/MMCF	100 lb/MMCF	84 lb/MMCF	5.5 lb/MMCF	3.68	492.07	48.48	40.72	2.67	
	0.048 MMCF	7.6 lb/MMCF	0.6 lb/MMCF	100 lb/MMCF	84 lb/MMCF	5.5 lb/MMCF	0.36	0.029	4.80	4.03	0.26	
Dryers	1,585 tons finished	0.0735 lb/ton finished					116.50					
	1,71 MMCF											
Fryers	1,585 tons finished	0.244 lb/ton finished					386.74					
230K Generator	8.5 hours/day	0.78 lb/hr	0.73 lb/hr	11.01 lb/hr	2.37 lb/hr	0.89 lb/hr	6.63	6.21	93.59	20.15	7.57	
100K Generator	8.5 hours/day	0.37 lb/hr	0.34 lb/hr	5.15 lb/hr	1.11 lb/hr	0.42 lb/hr	3.15	2.89	43.78	9.44	3.57	
Heaters	2.56 MMCF/hr	7.60 lb/MMCF	0.6 lb/MMCF	100 lb/MMCF	84 lb/MMCF	5.5 lb/MMCF	19.49	1.54	256.47	215.44	14.11	
							<b>581.62</b>	<b>507.32</b>	<b>1141.73</b>	<b>715.98</b>	<b>287.31</b>	

# Lamb Weston, Twin Falls Production for Proposed Permit

	lbs/day	tons/day	tons/yr
Total =	3,170,000	1585.0	525,000

## Lamb-Weston, Twin Falls Fuel Burning

Natural Gas      1020 Btu/CF  
 Diesel            137,000 Btu/gallon  
 Biogas            875 Btu/CF

	MMBtu/hr	Hourly	Daily	
Boiler 1	180	0.1765 MMCF	4.24 MMCF	Natural Gas
	17.7	0.0202 MMCF	0.485 MMCF	Biogas (Permit)
Boiler 2	72	0.0706 MMCF	1.69 MMCF	Natural Gas
Line 1 Dryer	36	0.0353 MMCF	0.847 MMCF	Natural Gas
Line 2 Pre Dryer <sup>1</sup>	4	0.0039 MMCF	0.094 MMCF	Natural Gas
Line 2 Dryer <sup>1</sup>		0.0000 MMCF	0.000 MMCF	Natural Gas
Line 4 Dryer	27.5	0.0270 MMCF	0.647 MMCF	Natural Gas
Special Products Dryer	5	0.0049 MMCF	0.118 MMCF	Natural Gas
Dryer Total	72.5	0.0711 MMCF	1.706 MMCF	
Biogas Boiler	17.7	0.0202 MMCF	0.485 MMCF	Biogas (Permit)
	2.0	0.0020 MMCF	0.048 MMCF	Natural Gas
Heaters	109	0.1069 MMCF	2.56 MMCF	Natural Gas

1 - Line 2 Pre Dryer capacity is reduced to 4 MMBtu/hr and Line 2 Dryer fuel use of 12 MMBtu/hr is removed. These were modifications which were never installed.

**Lamb-Weston, Twin Falls  
Emission Factor Basis**

	PM <sub>10</sub>		SO <sub>2</sub>		NO <sub>x</sub>		CO		VOC	
	Emission Factor	Basis	Emission Factor	Basis	Emission Factor	Basis	Emission Factor	Basis	Emission Factor	Basis
Dryers	0.244 lb/ton	IDEQ Ltr 12/21/04							0.137 lb/ton	IDEQ Ltr 12/21/04
Dryers	0.0735 lb/ton	IDEQ Ltr 10/22/04*								
Boiler 1 Natural Gas	7.6 lb/MMCF	AP-42	0.6 lb/MMCF	AP-42	83.73 lb/MMCF	Source Test	33.2 lb/MMCF	Source Test	5.5 lb/MMCF	AP-42
Rest of Plant Natural Gas	7.6 lb/MMCF	AP-42	0.6 lb/MMCF	AP-42	100 lb/MMCF	AP-42	84 lb/MMCF	AP-42	5.5 lb/MMCF	AP-42
Biogas	7.6 lb/MMCF	AP-42	1015 lb/MMCF	Biogas Analysis	100 lb/MMCF	AP-42	84 lb/MMCF	AP-42	5.5 lb/MMCF	AP-42
230kW 355hp Generator	0.78 lb/hr	AP-42	0.73 lb/hr	AP-42	11.01 lb/hr	AP-42	2.37 lb/hr	AP-42	0.89 lb/hr	AP-42
100kW 168hp Generator	0.37 lb/hr	AP-42	0.34 lb/hr	AP-42	5.15 lb/hr	AP-42	1.11 lb/hr	AP-42	0.42 lb/hr	AP-42

\* - IDEQ Letter dated 10/22/04 specified a dryer emission factor of 0.0147 lb/ton for each dryer zone. Line 4 has 5 zones so the total emission factor is 0.0735

**Biogas SO<sub>2</sub> Emission Factor Calculation**

H<sub>2</sub>S Molecular Weight 34.08      0.61 Average Test % by Volume      ppm vol      lb/CF      lb/MMCF  
 SO<sub>2</sub> Molecular Weight 64.06      0.000539762      6100      0.000539762      539.7621 H<sub>2</sub>S  
 Ratio 1.88      1014.694 SO<sub>2</sub>

**CO<sub>2</sub> Emission Factors**

From Table C-1 to 40 CFR 98 Subpart C - Default CO<sub>2</sub> Emission Factors and High Heat Values for Various Types of Fuel

	CO <sub>2</sub>		CH <sub>4</sub> (GWP=21)		N <sub>2</sub> O (GWP=310)	
	kg CO <sub>2</sub> /mmBtu	lb CO <sub>2</sub> /mmBtu	kg CH <sub>4</sub> /mmBtu	lb CH <sub>4</sub> /mmBtu	kg N <sub>2</sub> O/mmBtu	lb N <sub>2</sub> O/mmBtu
Natural Gas	53.02	116.9	1.0E-03	2.2E-03	1.0E-04	2.2E-04
Biomass Fuels - Gaseous Biogas (Captured methane)	52.07	114.8	3.2E-03	7.1E-03	6.3E-04	1.4E-03
Petroleum Products Distillate Fuel Oil No. 2	73.96	163.1	3.0E-03	6.6E-03	6.0E-04	1.3E-03

Table 4 Emission Limits

Emission Limits <sup>a</sup> - Daily (pounds per day) and Annual <sup>b</sup> (pounds per consecutive 12-month period)						
Emission Source	PM <sub>10</sub> <sup>c</sup>		SO <sub>2</sub>		NO <sub>x</sub>	
	lb/day	tons/yr	lb/day	tons/yr	lb/day	tons/yr
Fryers	386.74	64.05				
Dryers	116.50	19.29	1.02		170.59	
Boiler 1	32.19		2.54		354.62	
Boiler 2	12.88	d	1.02		169.41	d
Heaters	19.49		1.54		256.47	
Natural Gas		5.89		0.47		77.50
Biogas <sup>f</sup>	4.05	0.56	492.10	74.60	53.28	7.35
230 kW Diesel Operation	6.63	0.02	6.21	0.02	93.59	0.29
100 kW Diesel Operation	3.15	0.01	2.89	0.01	43.78	0.13
Daily Total	581.62		507.32		1141.73	
Annual Total <sup>e</sup>		89.82		75.10		85.27

Footnotes

a - As determined by a pollutant-specific EPA reference method, a DEQ-approved alternative, or as determined by DEQ's emissions estimation methods used in this permit analysis.

b - As determined by multiplying the emission factor (DEQ-approved performance test data, AP-42, or fuel supplier) by actual annual production rates for fryers and dryers, or fuel usage rate on all other fuel combusting equipment.

c - Particulate matter with an aerodynamic diameter less than a nominal 10 micrometers. Includes

d - Annual emissions included in natural gas emissions.

e - Annual total is based on fuel burning limits.

f - Biogas can be burned in either the Biogas Boiler or Boiler 1

## APPENDIX B – FACILITY DRAFT COMMENTS

**The following comments were received from the facility on March 30, 2012:**

**Facility Comment:** Permit page 19, Biogas Heater Section – Change the name of the “Biogas Heater” to “Effluent Heater” in order to prevent confusion as to the function of that boiler.

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

**Facility Comment:** Permit Table 1 – The Line 2 and Line 4 Dryer manufacturers are National.

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

**Facility Comment:** Permit Table 1 – The Line 2 Dryer was installed/modified in 1988/2002.

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

**Facility Comment:** Permit Table 1 – The Special Products Dryer manufacturer is B Eagle.

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

**Facility Comment:** Permit Table 1 – The following dryer heat capacities are the correct maximum heat capacity. The capacities shown in the draft permit are the estimated average capacity. Line 1 Dryer Heat Capacity is 36 MMBtu/hr, Line 2 Dryer Heat Capacity is 4 MMBtu/hr, Line 4 Dryer Heat Capacity is 27.5 MMBtu/hr, and Special Products Dryer Heat Capacity is 5 MMBtu/hr.

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

**Facility Comment:** Permit Table 1 – Boiler 1 and the Effluent Heater fuel is noted as natural gas “and/or” biogas to clarify that the boilers do not always burn a combination of gasses. This change is reflected throughout the draft permit.

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

**Facility Comment:** The L1 Emergency IC Engine Manufacture Date is 1997.

**DEQ Response:** This information will be included in the permit.

**Facility Comment:** Modify Permit Tables 5, 7, 9 and 11 to reflect emission limits according to our calculations. See the attached spreadsheet for backup to these numbers.

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

**Facility Comment:** Permit Condition 64 - The last half of the last sentence was deleted due to a lingering reference to diesel fuel/vegetable oil.

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

**Facility Comment:** The “Reporting Requirements” section (Section 9.12 in the old permit format), which details the annual report submittal requirements is no longer contained in the new permit.

**DEQ Response:** These requirements have been included in Permit Condition 54.

**Facility Comment:** Statement of Basis – Please change the name of the “Biogas Heater” to the “Effluent Heater”.

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

**Facility Comment:** Facility Information - Description: This facility does not produce “dried” potato products.

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

**Facility Comment:** Statement of Basis – Table 1 – Modify as follows: Line 4 Fryer exit flow rate is 19,000 acfm, Special Products Fryer exit height is 44 ft, Line 1 Dryer exit height is 45 ft, Line 1 Dryer exit diameter is 2.76 ft, Line 1 Dryer exit flow rate is 25,000 acfm, Line 2 Dryer consists of seven stacks, Line 2 Dryer exit height 35.75 ft, Line 2 Dryer exit flow rate 10,267 acfm, Line 4 Dryer exit height (stack 1) 44 ft, Line 4 Dryer exit height (stacks 2-5) 36 ft, Line 4 Dryer exit diameter (each stack) 3.91 ft, Line 4 Dryer exit flow rate (each stack) 22,500 acfm, Special Products Dryer consists of one exit stack, Special Products Dryer exit height 38 ft, Special Products Dryer exit diameter 2.61 ft, Effluent Heater maximum fuel throughput 22,200 scfh biogas/natural gas (including minimum 2,000 scfh natural gas).

**DEQ Response:** These stack parameters were changed per the Applicant's request (DEQ staff is unable to determine if they are correct).

**Facility Comment:** Modify Statement of Basis Tables 3, 4, and 5 to reflect emission limits according to our calculations. See the attached spreadsheet for backup to these numbers.

**DEQ Response:** The requested changes will be made to the Statement of Basis Tables 3, 4, and 5.

**Facility Comment:** Statement of Basis - NSPS Applicability Section - 60.41 b: There are only three natural gas boilers at the facility, 60.42b: added biogas, 60.43b: added biogas, 60.44b: added biogas, and 60.46b: added biogas.

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

## APPENDIX C – PROCESSING FEE

## PTC Fee Calculation

**Instructions:**

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

**Company:** ConAgra Foods Lamb Weston, Inc.  
**Address:** 856 Russet St.  
**City:** Twin Falls  
**State:** ID  
**Zip Code:** 83301  
**Facility Contact:** Ian Toevs  
**Title:** Manager, Energy & Environmental  
**AIRS No.:** 083-00062

- N** Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N
- Y** Did this permit require engineering analysis? Y/N
- N** Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

<b>Emissions Inventory</b>			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO <sub>x</sub>	0.0	12.47	-12.5
SO <sub>2</sub>	0.0	21.9	-21.9
CO	0.0	10.5	-10.5
PM10	0.0	8.18	-8.2
VOC	0.0	0.69	-0.7
TAPS/HAPS	0.0	0	0.0
<b>Total:</b>	<b>0.0</b>	<b>53.74</b>	<b>-53.7</b>
<b>Fee Due</b>	<b>\$ 1,000.00</b>		

Comments: