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DEPARTMENT OF ENVIRONMENTAL QUALITY  
STATE A Q PROGRAM

February 23, 2012

Mr. Bill Rogers  
Department of Environmental Quality  
Air Quality Division  
Stationary Source Program  
1410 North Hilton  
Boise, Idaho 83706-1255

**Re: Permit to Construct Application Nonpareil Corporation**

Dear Mr. Rogers:

Enclosed is a permit to construct application addressing Nonpareil Corporation's (Nonpareil) proposal to make the following changes to their existing permit P-2010.0057:

- Addition of new dehydration air dryer 6;
- Addition of new 35,000 cfm air makeup unit;
- Addition of new space heaters as insignificant activities;
- Removal of the following equipment from permit: scratch mash dryer and scratch; mash pneumatic conveyor, starch dryer and starch baghouse.; and
- Remove #6 fuel oil as a fuel option for the west boiler.

There will be no other changes to the process or equipment currently permitted under permit number P-2010.0057.

Nonpareil will remain a Title V major facility with a potential to emit (PTE) greater than 100 tons per year (tpy) for particulate matter less than ten microns in diameter (PM10). The facility will remain minor with respect to New Source Review.

This submittal includes the PTC application, a modeling section that demonstrates compliance with all applicable air quality rules and detailed emission calculations. Additionally, this submittal contains an electronic copy of the modeling files that support this application and the \$1,000 PTC application fee.

Pursuant to IDAPA 58.01.01.123, I hereby certify that, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.

Please feel free to myself at 208.785.5880 or Melissa Armer of JBR Environmental Consultants at 208.853.0883 if you have any questions or need additional information.

**Nonpareil Corporation**

**Nonpareilpotato.com**

40 North 400 West • Blackfoot, ID 83221 U.S.A. • (208) 785-5880 • (800) 824-7607 • Corporate Fax: (208) 785-4873 • Sales Fax: (208) 785-3656

Sincerely,

A handwritten signature in black ink, appearing to read "Brett Suthers". The signature is fluid and cursive, with a long horizontal stroke at the end.

**Brett Suthers**  
**Engineering Manager, Nonpareil Corporation**

**Enclosures**

**Cc: JBR Environmental Consultants, Inc.**

# **Nonpareil Corporation**

## **Permit to Construct Application**

### **Blackfoot, Idaho Facility**

**Prepared for:**

Nonpareil Corporation  
40 N. 400 W. Groveland  
Blackfoot, ID 83221

**Prepared by:**

JBR Environmental Consultants, Inc.  
7669 West Riverside Drive, Suite 101  
Boise, ID 83714

**February 2012**



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## **EXECUTIVE SUMMARY**

Nonpareil Corporation (Nonpareil) proposes to make the following changes to their existing permit P-2010.0057.

- Addition of new dehydration air dryer 6
- Addition of new 35,000 cfm air makeup unit
- Addition of new space heaters as insignificant activities
- Removal of the following equipment from permit: scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch baghouse.
- Remove #6 fuel oil as a fuel option for the west boiler

There will be no other changes to the process or equipment currently permitted under permit number P-2010.0057.

Nonpareil will remain a Title V major facility with a potential to emit (PTE) greater than 100 tons per year (tpy) for particulate matter with less than ten microns in diameter (PM<sub>10</sub>). The facility will remain minor with respect to New Source Review.

## **1.0 PROCESS DESCRIPTION**

Nonpareil Corporation (Nonpareil) proposes to add a new dehydration air dryer 6 which will be identical to the existing dehydration air dryer 5. There will also be an addition of a new 35,000 cfm air makeup unit, nine new space heaters, and a natural gas heated pressure washer.

Nonpareil will also be removing the following equipment from permit: scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch baghouse. The west boiler permit conditions will also be modified to remove the option of burning #6 fuel oil.

## 2.0 REGULATORY APPLICABILITY

A review of state and local air quality regulations is provided in Table 2-1. Each regulation is described in the following sections. Included in Appendix B is the completed federal regulatory applicability PTC form.

**Table 2-1 Regulatory Applicability Summary**

	<b>Program Description</b>	<b>Regulatory Citation</b>	<b>Applicable</b>
2.1	National Ambient Air Quality Standards (NAAQS)- (dispersion modeling)	40 CFR Part 50	Yes
2.2	Title V Operating Permit	40 CFR Part 70	Yes
2.3	Air Pollutants (NESHAPs)	40 CFR Parts 61, 63	Yes
2.4	New Source Review (NSR)	40 CFR Part 52	No
2.5	New Source Performance Standards (NSPS)	40 CFR Part 60	No
2.6	Acid Rain Requirements	40 CFR Parts 72–78	No
2.7	Risk Management Programs For Chemical Accidental Release Prevention	40 CFR Part 68	No
2.8.	State Rules		
2.8.1	Certification of Documents	IDAPA 58.01.01.123	Yes
2.8.2	Excess Emissions	IDAPA 58.01.01.130-136	Yes
2.8.3	Demonstration of Preconstruction Compliance with Toxic Standards	IDAPA 58.01.01.210	Yes
2.8.4	Ambient Air Quality Standards for Specific Air Pollutants	IDAPA 58.01.01.577	Yes
2.8.5	Toxic Air Pollutants	IDAPA 58.01.01.585 and 586	Yes
2.8.6	Open Burning	IDAPA 58.01.01.600-616	Yes
2.8.7	Visible Emissions	IDAPA 58.01.01.625	Yes
2.8.8	Rules for Control of Fugitive Dust	IDAPA 58.01.01.650	Yes
2.8.9	Fuel Burning Equipment	IDAPA 58.01.01.676	Yes

2.8.10	Particulate Matter	IDAPA 58.01.01.701	Yes
2.8.11	Odors	IDAPA 58.01.01.775-776	Yes

## 2.0 National Ambient Air Quality Standards (NAAQS)

Primary National Ambient Air Quality Standards (NAAQS) are identified in 40 CFR Part 50 and define levels of air quality, which the United States Environmental Protection Agency (USEPA) deems necessary to protect the public health. Secondary NAAQS define levels of air quality, which the USEPA judges necessary to protect public welfare from any known, or anticipated adverse effects of a pollutant. Examples of public welfare include protecting wildlife, buildings, national monuments, vegetation, visibility, and property values from degradation due to excessive emissions of criteria pollutants.

Specific standards for the following pollutants have been promulgated by USEPA: PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, ozone, and lead. The Nonpareil Blackfoot facility will emit PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOCs, a precursor to ozone. The facility is a minor source with respect to PSD and a Title V major source.

### 2.1 Title V (Part 70) Operating Permit

Title V of the Clean Air Act (CAA) created the federal operating permit program. These permitting requirements are codified in 40 CFR Part 70. These permits are required for major sources with a PTE (considering federally enforceable limitations) greater than 100 tpy for any criteria pollutant, 25 tpy for all hazardous air pollutants (HAPs) in aggregate, or 10 tpy of any single HAP. Nonpareil is a major source because the potential to emit of PM-10 emissions exceed 100 tons per year.

### 2.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

Two sets of National Emissions Standards for Hazardous Air Pollutants (NESHAPs) may potentially apply to the Nonpareil, Blackfoot facility. The first NESHAP regulations were developed under the auspices of the original CAA. These standards are codified in 40 CFR Part 61, and address a limited number of pollutants and industries. 40 CFR Part 61 regulations do not apply to this facility.

Newer regulations are codified in 40 CFR Part 63 under the authority of the 1990 Clean Air Act Amendments (CAAA). These standards regulate HAP emissions from specific source categories and typically affect only major sources of HAPs, however some affect minor sources of HAPs. Part 63 regulations are frequently called Maximum Achievable Control Technology (MACT) standards. Major HAP sources have the PTE 10 tpy or more of any single HAP or 25 tpy or more of all combined HAP emissions. At the Nonpareil, Blackfoot facility, potential emissions

of individual HAPs will be less than 10 tpy and combined HAP emissions will be less than 25 tpy.

### **2.3 New Source Review (NSR) Requirements**

Bingham County is designated as an attainment area for all criteria pollutants. Therefore, the prevention of significant deterioration (PSD) regulations codified in 40 CFR Part 52 could potentially apply to the proposed facility. The PSD rule applies to: (1) a new major source that has the potential to emit 100 tons per year or more for any criteria pollutant for a facility that is one of the 28 industrial source categories listed in 40 CFR § 52.21(b)(1)(i)(a); or (2) a new major source that has the potential to emit 250 tons per year or more if the facility is not on the list of industrial source categories; or (3) a modification to an existing major source that results in a net emission increase greater than a PSD significant emission rate as specified in 40 CFR § 52.21(b)(23)(i); or (4) a modification to an existing minor source that is major in itself. The proposed modification will not result in a net emission increase greater than a PSD significant emission rate. Therefore, Nonpareil is not subject to PSD regulations.

### **2.4 New Source Performance Standards (NSPS)**

New Source Performance Standards (NSPS) in 40 CFR Part 60 are applicable to new, modified, or reconstructed stationary sources that meet or exceed specified applicability thresholds. There are no NSPS standards that apply to the modifications being requested in this application.

### **2.5 Acid Rain Requirements**

The acid rain requirements codified in 40 CFR Parts 72-78 apply only to utilities and other facilities that combust fossil fuel and generate electricity for wholesale or retail sale. The proposed facility will not produce electrical power for sale. Therefore, the facility is not subject to the acid rain provisions and will not require an acid rain permit.

### **2.6 Risk Management Programs for Chemical Accidental Release Prevention**

The facility is not subject to the Chemical Accidental Release Prevention Program and will not be required to develop a Risk Management Plan (RMP). Facilities that produce, process, store, or use any regulated toxic or flammable substance in excess of the thresholds listed in 40 CFR Part 68 must develop a RMP. The facility does not store any regulated toxic or flammable substances in excess of the applicable thresholds. A RMP is not necessary for this facility.

## **2.7 State Rules**

The Idaho Administrative Procedure Act (IDAPA) promulgates several emissions regulations that apply to Nonpareil in addition to those listed above.

### **2.7.1 Certification of Documents**

IDAPA 58.01.01.123 requires all documents including application forms for permits to construct, records, and monitoring reports submitted to the Department shall contain a certification by a responsible official. Nonpareil will comply with this requirement and the appropriate certifications by a responsible official are being submitted with this application.

### **2.7.2 Excess Emissions**

IDAPA 58.01.01.130-136 establishes procedures and requirements to be implemented in all excess emissions events. Nonpareil will comply with the procedures and requirements outlined in Section 131-136 and submit the necessary information and reports to DEQ related to excess emissions due to startup, shutdown, scheduled maintenance, safety measures, upsets and breakdowns.

### **2.7.3 Demonstration of Preconstruction Compliance with Toxic Standards**

IDAPA 58.01.01.210 establishes requirements for preconstruction compliance with toxic standards. Nonpareil will comply with this rule by identifying and calculating the toxic pollutant emission rates from the new dehydration air dryer and new air makeup unit.

As described in Section 3.0 Emission Summary, Nonpareil calculated the increase in Toxic Air Pollutant (TAP) emission rates from the addition of all new combustion equipment and compared them to the screening levels. Nonpareil then modeled the ambient concentrations for those toxics which exceeded their respective emission screening levels. A complete modeling report is included in Attachment C which documents how Nonpareil demonstrates preconstruction compliance with toxic air quality preconstruction standards.

### **2.7.4 Ambient Air Quality Standards for Specific Air Pollutants**

IDAPA 58.01.01.577 establishes ambient air quality standards for specific air pollutants including PM-10, Sulfur Dioxide, Ozone, Nitrogen Oxide, Carbon Monoxide, Fluorides and Lead. Nonpareil has demonstrated compliance with these standards and documentation of compliance is included in Attachment C.

### **2.7.5 Toxic Air Pollutants**

IDAPA 58.01.01.585 and 586 establishes requirements for compliance with toxic air pollutants. Nonpareil demonstrates compliance with the standards in the modeling report included in Attachment C.

### 2.7.6 Open Burning

IDAPA 58.01.01.600 and 616 establishes requirements for open burning. Nonpareil does not expect to conduct open burning at the facility however will comply with the requirements under Section 600-616 if any allowable burning is to be conducted at the facility.

### 2.7.7 Visible Emission Limitation

IDAPA 58.01.01.625 restricts discharge of air pollutants into the atmosphere which is greater than 20% opacity for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period. Nonpareil will comply with this rule by conducting monthly facility-wide inspections of potential sources of visible emissions, during daylight hours and under normal operating conditions. The inspection will consist of a see/no see evaluation for each potential source. If any visible emissions are observed Nonpareil will take corrective action or perform a Method 9 opacity test in accordance with the procedures outlined in IDAPA 58.01.01.625. Nonpareil will keep records onsite documenting the monthly visible emission inspection and Method 9 test conducted.

### 2.7.8 Rules for Control of Fugitive Dust

IDAPA 58.01.01.650 requires that all reasonable precautions be taken to prevent the generation of fugitive dust. Nonpareil will continue to comply with fugitive particulate matter regulations.

### 2.7.9 Fuel Burning Equipment – Particulate Matter

IDAPA 58.01.01.676 restricts any fuel burning source of greater than 10 MMBtu to limit the PM released from combustion to 0.015 gr/dscf for gas fuel and 0.50 gr/dscf for liquid fuel. The new dehydration air dryer is above 10 MMBtu/hr and will comply with this standard as shown in Table 2-1 below. The new air makeup unit and space heaters are below 10 MMBtu/hr and therefore this regulation does not apply for this application.

**Table 2-1  
Grain Loading Emissions**

<b>Source</b>	<b>PM Emission (lb/hr)</b>	<b>Flow Rate @ 3% O<sub>2</sub> (dscf/min)</b>	<b>Grain Loading (grain/dscf)</b>	<b>Grain Loading Standard (grain/dscf)</b>	<b>Meet Grain Loading Standard?</b>
New Dehy Dryer #6 Natural Gas	0.13	33,170	0.0005	0.015	Yes

**2.7.10 Particulate Matter**

IDAPA 58.01.01.701 promulgates restrictions on PM for the entire facility based on process weight. Fuel burning equipment is exempt from this requirement but the new Dehydration dryer #6 is considered process equipment and is subject to process weight requirements.

**Table 2-1 Process Weight Calculations**

<b>Source Description</b>	<b>Process Weight, PW (lb/hr dry)</b>	<b>PM-10 Emissions - Actual (lb/hr)<sup>a</sup></b>	<b>Process Weight Rate Limitations - E (lb/hr)</b>	<b>In Compliance? (Y/N)</b>
Dehydration Air Dryer #6 A Stage	1,200	0.25	3.17	Y
Dehydration Air Dryer #6 B Stage	1,200	0.06	3.17	Y
Dehydration Air Dryer #6 C Stage	1,200	0.06	3.17	Y

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

**2.7.11 Odors**

IDAPA 58.01.01.775-776 requires no emissions of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution. Nonpareil will comply with this requirement by keeping records of all odor complaints received and will take appropriate action for each complaint which has merit.

### 3.0 EMISSION SUMMARY

#### 3.1 Emission Calculations

A summary of the emission increase based on the potential to emit of the following modified equipment are presented in Table 3-1.

- Addition of new dehydration air dryer 6
- Addition of new 35,000 cfm air makeup unit
- Addition of new space heaters as insignificant activities
- Removal of the following equipment from permit: scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch baghouse.
- Remove #6 fuel oil as a fuel option for the west boiler

Detailed emission calculations are included in Appendix A. Permit application forms are included as Appendix B.

**Table 3-1 PTC Change in Emissions**

Source	NO <sub>x</sub>		CO		PM <sub>10</sub>		SO <sub>2</sub>		VOC	
	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Combustion Eqt.	-7.25	-27.78	1.20	5.27	-3.98	-15.03	-42.06	-156.69	-0.05	-0.13
Process Eqt.					-0.90	-3.93				
<b>Total Change</b>	<b>-7.25</b>	<b>-27.78</b>	<b>1.20</b>	<b>5.27</b>	<b>-4.88</b>	<b>-18.96</b>	<b>-42.06</b>	<b>-156.69</b>	<b>-0.05</b>	<b>-0.13</b>

#### 3.2 Toxic Air Pollutants

A summary of the increase in Toxic Air Pollutant (TAP) emissions resulting from the PTC modification are presented in Table 3-2 and Table 3-3 below. Detailed emission calculations are included in Appendix A. All non-carcinogens meet their respective EL. The carcinogens exceeding the EL are Beryllium, Cadmium, Chromium IV, and Formaldehyde.

**Table 3-2 TAPs Increase  
NON-CARCINOGENS**

**TOXIC AIR POLLUTANTS (TAPs) COMBUSTION CALCULATIONS  
NONPAREIL CORPORATION**

**Fuel Usage**

New Combustion Equipment	23,833.33 scf/hr
Removed Combustion Equipment	-9,509.80 scf/hr
<b>Net Change</b>	<b>14,323.53 scf/hr</b>

Pollutant	CAS #	EF for NG Combustion (lb/10 <sup>6</sup> scf) <sup>a</sup>	Net Change TAP Emissions Comb. Eq. (lb/hr)	Net Change TAP Emissions Boilers (lb/hr)	Total Net Change TAP Emissions (lb/hr)	Screening Level (lb/hr)	Modeling? (Y/N)
Antimony	7440-36-0	0.0E+00	0.00E+00	-1.42E-03	-1.42E-03	3.3E-02	No
Barium	7440-39-3	4.4E-03	6.30E-05	-5.19E-04	-4.56E-04	3.3E-02	No
Chromium	7440-47-3	1.4E-03	2.01E-05	-8.57E-05	-6.56E-05	3.3E-02	No
Cobalt	7440-48-4	8.4E-05	1.20E-06	-1.62E-03	-1.62E-03	3.3E-03	No
Copper	7440-50-8	8.5E-04	1.22E-05	-1.66E-04	-1.53E-04	6.7E-02	No
Ethylbenzene	100-41-4	0.0E+00	0.00E+00	4.45E-06	4.45E-06	2.9E+01	No
Fluoride (as F)	16984-48-8	0.0E+00	0.00E+00	-1.01E-02	-1.01E-02	1.67E-01	No
Hexane	110-54-3	1.8E+00	2.58E-02	0.00E+00	2.58E-02	1.2E+01	No
Manganese	7439-96-5	3.8E-04	5.44E-06	-4.94E-04	-4.89E-04	3.33E-01	No
Mercury	7439-97-6	2.6E-04	3.72E-06	1.26E-04	1.30E-04	3.E-03	No
Molybdenum	7439-98-7	1.1E-03	1.58E-05	-1.69E-04	-1.53E-04	3.33E-01	No
Naphthalene	91-20-3	6.1E-04	8.74E-06	7.14E-05	8.01E-05	3.33E+00	No
Pentane	109-66-0	2.6E+00	3.72E-02	0.00E+00	3.72E-02	1.18E+02	No
Phosphorous	7723-14-0	0.0E+00	0.00E+00	-2.55E-03	-2.55E-03	7.E-03	No
Selenium	7782-49-2	2.4E-05	3.44E-07	-1.83E-04	-1.83E-04	1.3E-02	No
1,1,1-Trichloroethane	71-55-6	0.0E+00	0.00E+00	1.65E-05	1.65E-05	1.27E+02	No
Toluene	108-88-3	3.4E-03	4.87E-05	3.91E-04	4.40E-04	2.5E+01	No
o-Xylene	1330-20-7	0.0E+00	0.00E+00	7.63E-06	7.63E-06	2.9E+01	No
Zinc	7440-66-6	2.9E-02	4.15E-04	-8.49E-03	-8.08E-03	6.67E-01	No

**Table 3-3 TAPs Increase  
CARCINOGENS**

**CARCINOGENS (POUNDS PER HOUR)**

<b>Pollutant</b>	<b>CAS #</b>	<b>EF for NG Combustion (lb/10<sup>6</sup> scf)<sup>a</sup></b>	<b>Net Change TAP Emissions Comb. Eqt. (lb/hr)</b>	<b>Net Change TAP Emissions Boilers (lb/hr)</b>	<b>Total Net Change TAP Emissions (lb/hr)</b>	<b>Screening Level (lb/hr)</b>	<b>Modeling? (Y/N)</b>
Arsenic	7440-38-2	2.0E-04	2.86E-06	-3.48E-04	-3.46E-04	1.5E-06	No
Benzene	71-43-2	2.1E-03	3.01E-05	0.00E+00	3.01E-05	8.0E-04	No
Beryllium	7440-41-7	1.2E-05	1.72E-07	1.53E-04	1.53E-04	2.8E-05	Yes
Cadmium	7440-43-9	1.1E-03	1.58E-05	3.88E-05	5.46E-05	3.7E-06	Yes
Chromium VI	7440-47-3	0.0E+00	0.00E+00	9.32E-05	9.32E-05	5.6E-07	Yes
Formaldehyde	50-00-0	7.5E-02	1.07E-03	1.36E-03	2.44E-03	5.1E-04	Yes
Nickel	7440-02-0	2.1E-03	3.01E-05	-1.98E-02	-1.98E-02	2.7E-05	No
Benzo(a)pyrene	50-32-8	1.2E-06	1.72E-08	0.00E+00	1.72E-08	2.0E-06	No
Benz(a)anthracene	56-55-3	1.8E-06	2.58E-08	2.58E-07	2.84E-07	NA	No
Benzo(b)fluoranthene	205-82-3	1.8E-06	2.58E-08	8.08E-08	1.07E-07	NA	No
Benzo(k)fluoranthene	205-99-2	1.8E-06	2.58E-08	8.08E-08	1.07E-07	NA	No
Chrysene	218-01-9	1.8E-06	2.58E-08	1.44E-07	1.70E-07	NA	No
Dibenzo(a,h)anthracene	53-70-3	1.2E-06	1.72E-08	1.02E-07	1.19E-07	NA	No
Indeno(1,2,3-cd)pyrene	193-39-5	1.8E-06	2.58E-08	1.27E-07	1.53E-07	NA	No
Total PAHs		1.1E-05	1.63E-07	7.77E-07	9.40E-07	2.00E-06	No

<sup>a</sup>EFs from AP-42, Tables 1.4-3 and 1.4-4, 7/98

<sup>b</sup>EFs from AP-42, Table 1.3-10, 9/98

**APPENDIX A**  
**EMISSION CALCULATIONS**

**CHANGE IN COMBUSTION EMISSIONS**

Description	PM-10/PM-2.5 Emissions		NOx Emissions		SOx Emissions		CO Emissions		VOC Emissions	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Processing East Boiler and West Boiler	-4.09	-15.51	-8.68	-34.06	-42.07	-156.73	0.00	0.00	-0.13	-0.47
New Combustion Equipment	0.18	0.79	2.38	10.44	0.01	0.06	2.00	8.77	0.13	0.57
Removed Combustion Equipment	-0.07	-0.32	-0.95	-4.17	-0.01	-0.02	-0.80	-3.50	-0.05	-0.23
<b>TOTAL</b>	<b>-3.98</b>	<b>-15.03</b>	<b>-7.25</b>	<b>-27.78</b>	<b>-42.06</b>	<b>-156.69</b>	<b>1.20</b>	<b>5.27</b>	<b>-0.05</b>	<b>-0.13</b>

**CHANGE IN PROCESS EMISSIONS**

Description	PM-10 Emissions		PM-2.5 Emissions	
	lb/hr	T/yr	lb/hr	T/yr
Process Equipment Change	-0.90	-3.93	-0.55	-2.41
<b>TOTAL</b>	<b>-0.90</b>	<b>-3.93</b>	<b>-0.55</b>	<b>-2.41</b>

<sup>a</sup> East boiler lb/hr and ton/yr maximum emissions between NG and Fuel Oil # 2

**TOTAL CHANGE IN EMISSIONS**

	PM-10 Emissions		PM-2.5 Emissions		NOx Emissions		SOx Emissions		CO Emissions		VOC Emissions	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Current Facility-Wide PTE		164.98		n/a		119.9		248.31		77.4		5.7
Facility Permit Modification Change	-4.88	-18.96	-4.54	-17.45	-7.25	-27.78	-42.06	-156.69	1.20	5.27	-0.05	-0.13
<b>TOTAL</b>		<b>146.02</b>		<b>-17.45</b>		<b>92.12</b>		<b>91.62</b>		<b>82.67</b>		<b>5.57</b>

**EAST AND WEST BOILERS COMBINED MAX PTE AND CHANGE IN EMISSION**

**CURRENTLY PERMITTED EAST AND WEST BOILER MAX PTE**

Description	PM-10/PM-2.5 Emissions		NOx Emissions		SOx Emissions		CO Emissions		VOC Emissions	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Processing East Boiler NG	0.40	1.74	2.62	11.47	0.031	0.14	4.40	19.26	0.29	1.26
Processing West Boiler #6	5.12	19.27	14.85	56.62	66.54	247.88	3.34	14.61	0.346	1.43
<b>Total</b>	<b>5.52</b>	<b>21.01</b>	<b>17.47</b>	<b>68.08</b>	<b>66.573</b>	<b>248.02</b>	<b>7.73</b>	<b>33.87</b>	<b>0.63</b>	<b>2.69</b>

**NEW EAST BOILER AND WEST BOILER COMBINED MAX PTE**

Description	PM-10/PM-2.5 Emissions		NOx Emissions		SOx Emissions		CO Emissions		VOC Emissions	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Processing East Boiler <sup>a</sup>	1.12	4.18	6.80	25.33	24.480	91.19	4.40	19.26	0.29	1.26
Processing West Boiler NG	0.30	1.32	1.99	8.70	0.02	0.10	3.34	14.61	0.218	0.96
<b>Total</b>	<b>1.42</b>	<b>5.50</b>	<b>8.79</b>	<b>34.03</b>	<b>24.50</b>	<b>91.29</b>	<b>7.73</b>	<b>33.87</b>	<b>0.51</b>	<b>2.22</b>

<sup>a</sup> East boiler lb/hr and ton/yr maximum emissions between NG and Fuel Oil # 2

**CHANGE IN EMISSIONS**

PM-10/PM-2.5 Emissions		NOx Emissions		SOx Emissions		CO Emissions		VOC Emissions	
lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
-4.09	-15.51	-8.68	-34.06	-42.07	-156.73	0.00	0.00	-0.13	-0.47

**CRITERIA EMISSIONS - NATURAL GAS COMBUSTION - NONPAREIL**

**NG Emission Factors**

NOx	50 lb/10 <sup>6</sup> scf	AP-42, Table 1.4-1, 1998, Low NOx Burners
NOx	100 lb/10 <sup>6</sup> scf	AP-42, Table 1.4-1, 1998
CO	84 lb/10 <sup>6</sup> scf	AP-42, Table 1.4-1, 1998
PM-10	7.6 lb/10 <sup>6</sup> scf	AP-42, Table 1.4-2, 1998
SOx	0.6 lb/10 <sup>6</sup> scf	AP-42, Table 1.4-2, 1998
VOC	5.5 lb/10 <sup>6</sup> scf	AP-42, Table 1.4-2, 1998
Lead	0.0005 lb/10 <sup>6</sup> scf	AP-42, Table 1.4-2, 1998

**New Equipment**

Description	Capacity (MMBtu/hr)	Throughput (scf/hr)	Hour/yr	Pounds per Hour					Tons per Year				
				PM-10/PM-2.5 Emissions (lb/hr)	NOx Emissions (lb/hr)	SOx Emissions (lb/hr)	CO Emissions (lb/hr)	VOC Emissions (lb/hr)	PM-10/PM-2.5 Emissions (ton/yr)	NOx Emissions (ton/yr)	SOx Emissions (ton/yr)	CO Emissions (ton/yr)	VOC Emissions (ton/yr)
New Dehy Dryer #6 A Stage	10.4	10,196.1	8760	0.08	1.02	0.01	0.86	0.06	0.34	4.47	0.03	3.75	0.25
New Dehy Dryer #6 B Stage	3.2	3,137.3	8760	0.02	0.31	0.0019	0.26	0.02	0.10	1.37	0.01	1.15	0.08
New Dehy Dryer #6 C Stage	3.3	3,235.3	8760	0.02	0.32	0.0019	0.27	0.02	0.11	1.42	0.01	1.19	0.08
New Air Makeup Unit	3.5	3,431.4	8760	0.03	0.34	0.0021	0.29	0.02	0.11	1.50	0.01	1.26	0.08
Office Space Heater #1	0.25	245.1	8760	0.0019	0.02	0.0001	0.02	0.0013	0.01	0.11	0.00	0.09	0.01
Office Space Heater #2	0.25	245.1	8760	0.0019	0.02	0.0001	0.02	0.0013	0.01	0.11	0.00	0.09	0.01
Office Space Heater #3	0.085	83.3	8760	0.0006	0.01	0.0001	0.01	0.0005	0.003	0.04	0.00	0.03	0.00
Fab Shop Space Heater #1	0.25	245.1	8760	0.0019	0.02	0.0001	0.02	0.0013	0.01	0.11	0.00	0.09	0.01
Fab Shop Space Heater #2	0.25	245.1	8760	0.0019	0.02	0.0001	0.02	0.0013	0.01	0.11	0.00	0.09	0.01
Fab Shop Space Heater #3	0.3	294.1	8760	0.0022	0.03	0.0002	0.02	0.0016	0.01	0.13	0.00	0.11	0.01
Fab Shop Space Heater #4	0.045	44.1	8760	0.0003	0.00	0.0000	0.00	0.0002	0.001	0.02	0.00	0.02	0.00
TruckShop Heater #1	0.3	294.1	8760	0.0022	0.03	0.0002	0.02	0.0016	0.01	0.13	0.00	0.11	0.01
Truck Shop Heater #2	0.3	294.1	8760	0.0022	0.03	0.0002	0.02	0.0016	0.01	0.13	0.00	0.11	0.01
Truck Shop Heater #3	0.3	294.1	8760	0.0022	0.03	0.0002	0.02	0.0016	0.01	0.13	0.00	0.11	0.01
Truck Shop Heater #4	0.3	294.1	8760	0.0022	0.03	0.0002	0.02	0.0016	0.01	0.13	0.00	0.11	0.01
Truck Shop Heater #5	0.045	44.1	8760	0.0003	0.004	0.00003	0.004	0.0002	0.001	0.02	0.00	0.02	0.00
Storage Heater #1	0.03	29.4	8760	0.0002	0.003	0.00002	0.002	0.0002	0.001	0.01	0.00	0.01	0.00
Storage Heater #2	0.03	29.4	8760	0.0002	0.003	0.00002	0.002	0.0002	0.001	0.01	0.00	0.01	0.00
Storage Heater #3	0.045	44.1	8760	0.0003	0.004	0.00003	0.004	0.0002	0.001	0.02	0.00	0.02	0.00
Well House Heater	0.03	29.4	8760	0.0002	0.003	0.00002	0.002	0.0002	0.001	0.01	0.00	0.01	0.00
Pressure Washer	0.4	392.2	8760	0.0030	0.04	0.00024	0.03	0.0022	0.01	0.17	0.00	0.14	0.01
Annex Heater #1	0.35	343.1	8760	0.0026	0.03	0.0002	0.03	0.0019	0.01	0.15	0.00	0.13	0.01
Annex Heater #2	0.35	343.1	8760	0.0026	0.03	0.0002	0.03	0.0019	0.01	0.15	0.00	0.13	0.01
<b>INCREASE</b>				0.18	2.38	0.01	2.00	0.13	0.79	10.44	0.06	8.77	0.57

<sup>1</sup> New emission unit. Meets PTC exemption criteria under IDAPA 58.01.01.220 and 222.02.c

Removed Equipment				Pounds per Hour					Tons per Year				
Description	Capacity (MMBtu/hr)	Throughput (scf/hr)	Hour/yr	PM-10/PM-2.5 Emissions (lb/hr)	NOx Emissions (lb/hr)	SOx Emissions (lb/hr)	CO Emissions (lb/hr)	VOC Emissions (lb/hr)	PM-10/PM-2.5 Emissions (ton/yr)	NOx Emissions (ton/yr)	SOx Emissions (ton/yr)	CO Emissions (ton/yr)	VOC Emissions (ton/yr)
Starch Dryer	4.2	4,117.6	8760	0.03	0.41	0.00	0.35	0.02	0.14	1.80	0.01	1.51	0.10
Scratch Mash Dryers	5.5	5,392.2	8760	0.04	0.54	0.00	0.45	0.03	0.18	2.36	0.01	1.98	0.13
<b>DECREASE</b>				-0.07	-0.95	-0.01	-0.80	-0.05	-0.32	-4.17	-0.02	-3.50	-0.23

**CRITERIA EMISSIONS - BOILER COMBUSTION - NONPAREIL**

**#2 Fuel Oil Emission Factors**

NOx	20 lb/10 <sup>3</sup> gal	AP-42, Table 1.3-1, 2010
CO	5 lb/10 <sup>3</sup> gal	AP-42, Table 1.3-1, 2010
PM-10	3.3 lb/10 <sup>3</sup> gal	AP-42, Table 1.3-1 and Table 1.3-2, 2010
SO2	142 *S lb/10 <sup>3</sup> gal	AP-42, Table 1.3-1, 2010      S= 0.5
SO3	2 *S lb/10 <sup>3</sup> gal	AP-42, Table 1.3-1, 2010      S= 0.5
VOC	0.252 lb/10 <sup>3</sup> gal	AP-42, Table 1.3-1, 2010
Lead	9 lb/10 <sup>12</sup> Btu	AP-42, Table 1.3-1, 2010

				Pounds per Hour					Tons per Year				
Description	Capacity (MMBtu/hr)	Throughput (gal/hr) or (scf/hr)	Hour/yr	PM-10/PM-2.5 Emissions (lb/hr)	NOx Emissions (lb/hr)	SOx Emissions (lb/hr)	CO Emissions (lb/hr)	VOC Emissions (lb/hr)	PM-10/PM-2.5 Emissions (ton/yr)	NOx Emissions (ton/yr)	SOx Emissions (ton/yr)	CO Emissions (ton/yr)	VOC Emissions (ton/yr)
Processing East Boiler NG <sup>a</sup>	53.4	52,360	8760	0.40	2.62	0.03	4.4	0.29	1.74	11.47	0.14	19.26	1.26
Processing East Boiler #2 <sup>a b c</sup>	53.4	340	7450	1.12	6.8	24.48	1.7	0.086	4.18	25.33	91.19	6.33	0.32
Processing West Boiler NG <sup>a</sup>	40.5	39,706	8760	0.30	1.99	0.02	3.34	0.22	1.32	8.70	0.10	14.61	0.96

<sup>a</sup> Utilize Low NOx Burners

<sup>b</sup> As the sum of SO2 and SO3 emissions

<sup>c</sup> Current permitted limit = 2,533,000 gal/yr No. 2 fuel oil usage = 7,450 hr/yr

**PARTICULATE PROCESS EMISSIONS - DRYERS, FLAKERS, PEELERS AND BAGHOUSE EQUIPMENT - NONPAREIL**

Description	Throughput (lb/hr dry)	Emission Factor (lb PM/lb)	EF Reference	PM Emissions (lb/hr)	PM Emissions (T/yr) <sup>a</sup>	PM-10 Emissions (lb/hr)	PM-10 Emissions (T/yr) <sup>a</sup>	PM-2.5 Emissions (lb/hr)	PM-2.5 Emissions (T/yr) <sup>a</sup>
<b>New Equipment</b>									
New Dehy Dryer #6 A Stage	1,200	0.00142	2004 Source Test. PM-10 emissions assume 44% of PM is PM-10; PM-2.5 emissions assume 27% of PM is PM-2.5 (AP-42, Appendix B.1-9.9.2).	0.57	2.49	0.25	1.09	0.15	0.67
New Dehy Dryer #6 B Stage <sup>b</sup>	1,200	0.0003125	2004 Source Test. PM-10 emissions assume 44% of PM is PM-10; PM-2.5 emissions assume 27% of PM is PM-2.5 (AP-42, Appendix B.1-9.9.2).	0.13	0.55	0.06	0.24	0.03	0.15
New Dehy Dryer #6 C Stage <sup>b</sup>	1,200	0.0003125	2004 Source Test. PM-10 emissions assume 44% of PM is PM-10; PM-2.5 emissions assume 27% of PM is PM-2.5 (AP-42, Appendix B.1-9.9.2).	0.13	0.55	0.06	0.24	0.03	0.15
<b>Total New Equipment Emissions</b>				<b>0.82</b>	<b>3.58</b>	<b>0.36</b>	<b>1.58</b>	<b>0.22</b>	<b>0.97</b>
<b>Removed Equipment</b>									
Starch Dryer	1,135	0.000295	AP-42 Table 9.9.7-1/Tier II OP 011-00027, Tech Memo. PM-10 emissions assume 44% of PM is PM-10; PM-2.5 emissions assume 27% of PM is PM-2.5 (AP-42, Appendix B.1-9.9.2).	0.33	1.47	0.15	0.65	0.09	0.40
Starch Plant Baghouse <sup>c</sup>	300,000	2.87E-09	Manufacturer's Guarantee - See Environmental Quality Evaluation Report	0.00086	0.00377	0.00086	0.00377	0.00086	0.00377
Scratch Mash Dryers	1,800	0.0014	Mass Balance - Tier II OP 011-00027, Tech Memo. PM-10 emissions assume 44% of PM is PM-10; PM-2.5 emissions assume 27% of PM is PM-2.5 (AP-42, Appendix B.1-9.9.2).	2.52	11.04	1.11	4.86	0.68	2.98
Scratch Mash Baghouse <sup>c</sup>	150,000	2.87E-09	Manufacturer's Guarantee - See Environmental Quality Evaluation Report	0.00043	0.00188	0.00043	0.00188	0.00043	0.00188
<b>Total Removed Equipment Emissions</b>				<b>2.86</b>	<b>12.51</b>	<b>1.26</b>	<b>5.51</b>	<b>0.77</b>	<b>3.38</b>
<b>Change in Particulate Emissions = New - Removed</b>				<b>-2.04</b>	<b>-8.93</b>	<b>-0.90</b>	<b>-3.93</b>	<b>-0.55</b>	<b>-2.41</b>

<sup>a</sup> Based on 8,760 hours per year.

<sup>b</sup> EF from Dryer #1 Stages B & C source test is divided evenly between Dryer #6 B & C Stages (Same as Dryer #5 current emissions).

<sup>c</sup> Throughput = ACF/hr    EF = lb PM/ACF

**TOXIC AIR POLLUTANTS (TAPs) COMBUSTION CALCULATIONS  
NONPAREIL CORPORATION**

<b>Fuel Usage</b>	
New Combustion Equipment	23,495.10 scf/hr
Removed Combustion Equipment	-9,509.80 scf/hr
<b>Net Change</b>	<b>13,985.29 scf/hr</b>

Pollutant	CAS #	EF for NG Combustion (lb/10 <sup>6</sup> scf) <sup>a</sup>	Net Change TAP Emissions Comb. Eq. (lb/hr)	Net Change TAP Emissions Boilers (lb/hr)	Total Net Change TAP Emissions (lb/hr)	Screening Level (lb/hr)	Modeling? (Y/N)
Antimony	7440-36-0	0.0E+00	0.00E+00	-1.42E-03	-1.42E-03	3.3E-02	No
Barium	7440-39-3	4.4E-03	6.15E-05	-5.19E-04	-4.58E-04	3.3E-02	No
Chromium	7440-47-3	1.4E-03	1.96E-05	-8.57E-05	-6.61E-05	3.3E-02	No
Cobalt	7440-48-4	8.4E-05	1.17E-06	-1.62E-03	-1.62E-03	3.3E-03	No
Copper	7440-50-8	8.5E-04	1.19E-05	-1.66E-04	-1.54E-04	6.7E-02	No
Ethylbenzene	100-41-4	0.0E+00	0.00E+00	4.45E-06	4.45E-06	2.9E+01	No
Fluoride (as F)	16984-48-8	0.0E+00	0.00E+00	-1.01E-02	-1.01E-02	1.67E-01	No
Hexane	110-54-3	1.8E+00	2.52E-02	0.00E+00	2.52E-02	1.2E+01	No
Manganese	7439-96-5	3.8E-04	5.31E-06	-4.94E-04	-4.89E-04	3.33E-01	No
Mercury	7439-97-6	2.6E-04	3.64E-06	1.26E-04	1.30E-04	3.E-03	No
Molybdenum	7439-98-7	1.1E-03	1.54E-05	-1.69E-04	-1.53E-04	3.33E-01	No
Naphthalene	91-20-3	6.1E-04	8.53E-06	7.14E-05	7.99E-05	3.33E+00	No
Pentane	109-66-0	2.6E+00	3.64E-02	0.00E+00	3.64E-02	1.18E+02	No
Phosphorous	7723-14-0	0.0E+00	0.00E+00	-2.55E-03	-2.55E-03	7.E-03	No
Selenium	7782-49-2	2.4E-05	3.36E-07	-1.83E-04	-1.83E-04	1.3E-02	No
1,1,1-Trichloroethane	71-55-6	0.0E+00	0.00E+00	1.65E-05	1.65E-05	1.27E+02	No
Toluene	108-88-3	3.4E-03	4.76E-05	3.91E-04	4.39E-04	2.5E+01	No
o-Xylene	1330-20-7	0.0E+00	0.00E+00	7.63E-06	7.63E-06	2.9E+01	No
Zinc	7440-66-6	2.9E-02	4.06E-04	-8.49E-03	-8.09E-03	6.67E-01	No

**CARCINOGENS (POUNDS PER HOUR)**

<b>Pollutant</b>	<b>CAS #</b>	<b>EF for NG Combustion (lb/10<sup>6</sup> scf)<sup>a</sup></b>	<b>Net Change TAP Emissions Comb. Eq. (lb/hr)</b>	<b>Net Change TAP Emissions Boilers (lb/hr)</b>	<b>Total Net Change TAP Emissions (lb/hr)</b>	<b>Screening Level (lb/hr)</b>	<b>Modeling? (Y/N)</b>
Arsenic	7440-38-2	2.0E-04	2.80E-06	-3.48E-04	-3.46E-04	1.5E-06	No
Benzene	71-43-2	2.1E-03	2.94E-05	0.00E+00	2.94E-05	8.0E-04	No
Beryllium	7440-41-7	1.2E-05	1.68E-07	1.53E-04	1.53E-04	2.8E-05	Yes
Cadmium	7440-43-9	1.1E-03	1.54E-05	3.88E-05	5.42E-05	3.7E-06	Yes
Chromium VI	7440-47-3	0.0E+00	0.00E+00	9.32E-05	9.32E-05	5.6E-07	Yes
Formaldehyde	50-00-0	7.5E-02	1.05E-03	1.36E-03	2.41E-03	5.1E-04	Yes
Nickel	7440-02-0	2.1E-03	2.94E-05	-1.98E-02	-1.98E-02	2.7E-05	No
Benzo(a)pyrene	50-32-8	1.2E-06	1.68E-08	0.00E+00	1.68E-08	2.0E-06	No
Benz(a)anthracene	56-55-3	1.8E-06	2.52E-08	2.58E-07	2.83E-07	NA	No
Benzo(b)fluoranthene	205-82-3	1.8E-06	2.52E-08	8.08E-08	1.06E-07	NA	No
Benzo(k)fluoranthene	205-99-2	1.8E-06	2.52E-08	8.08E-08	1.06E-07	NA	No
Chrysene	218-01-9	1.8E-06	2.52E-08	1.44E-07	1.69E-07	NA	No
Dibenzo(a,h)anthracene	53-70-3	1.2E-06	1.68E-08	1.02E-07	1.18E-07	NA	No
Indeno(1,2,3-cd)pyrene	193-39-5	1.8E-06	2.52E-08	1.27E-07	1.52E-07	NA	No
Total PAHs		1.1E-05	1.59E-07	7.77E-07	9.36E-07	2.00E-06	No

<sup>a</sup>EFs from AP-42, Tables 1.4-3 and 1.4-4, 7/98

<sup>b</sup>EFs from AP-42, Table 1.3-10, 9/98

TOXIC AIR POLLUTANTS (TAPs) CALCULATIONS - NONPAREIL

CURRENTLY PERMITTED EAST AND WEST BOILER MAX TAPs

NON-CARCINOGENS (POUNDS PER HOUR)

Pollutant	CAS #	EF for NG Combustion (lb/10 <sup>6</sup> scf) <sup>a</sup>	EF for Fuel Oil #6 Combustion (lb/10 <sup>3</sup> gal) <sup>b</sup>	EF for Fuel Oil #2 Combustion (lb/10 <sup>12</sup> Btu) or (lb/10 <sup>3</sup> gal) <sup>b,c</sup>	East Boiler NG Combustion (lb/hr)	East Boiler #2 Fuel Oil Combustion (lb/hr)	West Boiler NG Combustion (lb/hr)	West Boiler #6 Combustion (lb/hr)	Current Max TAP <sup>d</sup> (lb/hr)
Antimony	7440-36-0	0.0E+00	5.25E-03	0.0E+00	0.00E+00	0.00E+00	0.00E+00	1.42E-03	1.42E-03
Barium	7440-39-3	4.4E-03	2.57E-03	0.0E+00	2.30E-04	0.00E+00	1.75E-04	6.94E-04	9.24E-04
Chromium	7440-47-3	1.4E-03	8.45E-04	3.00E+00	7.33E-05	1.60E-04	5.56E-05	2.28E-04	3.01E-04
Cobalt	7440-48-4	8.4E-05	6.02E-03	0.00E+00	4.40E-06	0.00E+00	3.34E-06	1.63E-03	1.63E-03
Copper	7440-50-8	8.5E-04	1.76E-03	6.00E+00	4.45E-05	3.20E-04	3.38E-05	4.75E-04	5.20E-04
Ethylbenzene	100-41-4	0.0E+00	6.36E-05	6.36E-05	0.00E+00	2.16E-05	0.00E+00	1.72E-05	1.72E-05
Fluoride (as F)	16984-48-8	0.0E+00	3.73E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.01E-02	1.01E-02
Hexane	110-54-3	1.8E+00	0.00E+00	0.00E+00	9.42E-02	0.00E+00	7.15E-02	0.00E+00	1.66E-01
Manganese	7439-96-5	3.8E-04	3.00E-03	6.00E+00	1.99E-05	3.20E-04	1.51E-05	8.10E-04	8.30E-04
Mercury	7439-97-6	2.6E-04	1.13E-04	3.00E+00	1.36E-05	1.60E-04	1.03E-05	3.05E-05	4.41E-05
Molybdenum	7439-98-7	1.1E-03	7.87E-04	0.00E+00	5.76E-05	0.00E+00	4.37E-05	2.12E-04	2.70E-04
Naphthalene	91-20-3	6.1E-04	1.13E-03	1.13E-03	3.19E-05	3.84E-04	2.42E-05	3.05E-04	3.37E-04
Pentane	109-66-0	2.6E+00	0.00E+00	0.00E+00	1.36E-01	0.00E+00	1.03E-01	0.00E+00	2.39E-01
Phosphorous	7723-14-0	0.0E+00	9.46E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.55E-03	2.55E-03
Selenium	7782-49-2	2.4E-05	6.83E-04	1.50E+01	1.26E-06	8.01E-04	9.53E-07	1.84E-04	1.86E-04
1,1,1-Trichloroethane	71-55-6	0.0E+00	2.36E-04	2.36E-04	0.00E+00	8.02E-05	0.00E+00	6.37E-05	6.37E-05
Toluene	108-88-3	3.4E-03	6.20E-03	6.20E-03	1.78E-04	2.11E-03	1.35E-04	1.67E-03	1.85E-03
o-Xylene	1330-20-7	0.0E+00	1.09E-04	1.09E-04	0.00E+00	3.71E-05	0.00E+00	2.94E-05	2.94E-05
Vanadium	1314-62-1	2.3E-03	3.18E-02	0.00E+00	1.20E-04	0.00E+00	9.13E-05	8.59E-03	8.71E-03
Zinc	7440-66-6	2.9E-02	2.91E-02	4.00E+00	1.52E-03	2.14E-04	1.15E-03	7.86E-03	9.38E-03

**CARCINOGENS (POUNDS PER HOUR)**

Pollutant	CAS #	EF for NG Combustion (lb/10 <sup>6</sup> scf) <sup>a</sup>	EF for Fuel Oil #6 Combustion (lb/10 <sup>3</sup> gal) <sup>b</sup>	EF for Fuel Oil # 2 Combustion (lb/10 <sup>12</sup> Btu) or (lb/10 <sup>3</sup> gal) <sup>b,c</sup>	East Boiler NG Combustion (lb/hr)	East Boiler #2 Fuel Oil Combustion (lb/hr)	West Boiler NG Combustion (lb/hr)	West Boiler #6 Combustion (lb/hr)	Current Max TAP <sup>d</sup> (lb/hr)
Arsenic	7440-38-2	2.0E-04	1.32E-03	4.00E+00	1.05E-05	2.14E-04	7.94E-06	3.56E-04	3.67E-04
Benzene	71-43-2	2.1E-03	2.14E-04	2.14E-04	1.10E-04	7.28E-05	8.34E-05	5.78E-05	1.93E-04
Beryllium	7440-41-7	1.2E-05	2.78E-05	3.00E+00	6.28E-07	1.60E-04	4.76E-07	7.51E-06	8.13E-06
Cadmium	7440-43-9	1.1E-03	3.98E-04	3.00E+00	5.76E-05	1.60E-04	4.37E-05	1.07E-04	1.65E-04
Chromium VI	7440-47-3	0.0E+00	2.48E-04	3.00E+00	0.00E+00	1.60E-04	0.00E+00	6.70E-05	6.70E-05
Formaldehyde	50-00-0	7.5E-02	3.30E-02	3.30E-02	3.93E-03	1.12E-02	2.98E-03	8.91E-03	1.28E-02
Nickel	7440-02-0	2.1E-03	7.40E-02	3.00E+00	1.10E-04	1.60E-04	8.34E-05	2.00E-02	2.01E-02
Benzo(a)pyrene	50-32-8	1.2E-06	0.00E+00	0.00E+00	6.28E-08	0.00E+00	4.76E-08	0.00E+00	1.10E-07
Benz(a)anthracene	56-55-3	1.8E-06	4.01E-06	4.01E-06	9.42E-08	1.36E-06	7.15E-08	1.08E-06	1.18E-06
Benzo(b)fluoranthene	205-82-3	1.8E-06	1.48E-06	1.48E-06	9.42E-08	5.03E-07	7.15E-08	4.00E-07	4.94E-07
Benzo(k)fluoranthene	205-99-2	1.8E-06	1.48E-06	1.48E-06	9.42E-08	5.03E-07	7.15E-08	4.00E-07	4.94E-07
Chrysene	218-01-9	1.8E-06	2.38E-06	2.38E-06	9.42E-08	8.09E-07	7.15E-08	6.43E-07	7.37E-07
Dibenzo(a,h)anthracene	53-70-3	1.2E-06	1.67E-06	1.67E-06	6.28E-08	5.68E-07	4.76E-08	4.51E-07	5.14E-07
Indeno(1,2,3-cd)pyrene	193-39-5	1.8E-06	2.14E-06	2.14E-06	9.42E-08	7.28E-07	7.15E-08	5.78E-07	6.72E-07
Total PAHs		1.1E-05	1.3E-05	1.3E-05	5.97E-07	4.47E-06	4.53E-07	3.55E-06	4.15E-06

<sup>a</sup>EFs from AP-42, Tables 1.4-3 and 1.4-4, 7/98

<sup>b</sup>EFs from AP-42, Tables 1.3-9 and 1.3-11, 9/98

<sup>c</sup>EFs from AP-42, Tables 1.3-10/99

<sup>d</sup>Current Max TAP = West boiler NG + maximum emissions between East Boiler NG and Fuel Oil # 2

**NEW EAST AND WEST BOILER MAX TAPs  
NON-CARCINOGENS (POUNDS PER HOUR)**

Pollutant	CAS #	EF for NG Combustion (lb/10 <sup>6</sup> scf) <sup>a</sup>	EF for Fuel Oil # 2 Combustion (lb/10 <sup>12</sup> Btu) or (lb/10 <sup>3</sup> gal) <sup>b,c</sup>	East Boiler NG Combustion (lb/hr)	East Boiler #2 Fuel Oil Combustion (lb/hr)	West Boiler NG Combustion (lb/hr)	New Max TAP <sup>d</sup> (lb/hr)
Antimony	7440-36-0	0.0E+00	0.0E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Barium	7440-39-3	4.4E-03	0.0E+00	2.30E-04	0.00E+00	1.75E-04	4.05E-04
Chromium	7440-47-3	1.4E-03	3.00E+00	7.33E-05	1.60E-04	5.56E-05	2.16E-04
Cobalt	7440-48-4	8.4E-05	0.00E+00	4.40E-06	0.00E+00	3.34E-06	7.73E-06
Copper	7440-50-8	8.5E-04	6.00E+00	4.45E-05	3.20E-04	3.38E-05	3.54E-04
Ethylbenzene	100-41-4	0.0E+00	6.36E-05	0.00E+00	2.16E-05	0.00E+00	2.16E-05
Fluoride (as F)	16984-48-8	0.0E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Hexane	110-54-3	1.8E+00	0.00E+00	9.42E-02	0.00E+00	7.15E-02	1.66E-01
Manganese	7439-96-5	3.8E-04	6.00E+00	1.99E-05	3.20E-04	1.51E-05	3.35E-04
Mercury	7439-97-6	2.6E-04	3.00E+00	1.36E-05	1.60E-04	1.03E-05	1.71E-04
Molybdenum	7439-98-7	1.1E-03	0.00E+00	5.76E-05	0.00E+00	4.37E-05	1.01E-04
Naphthalene	91-20-3	6.1E-04	1.13E-03	3.19E-05	3.84E-04	2.42E-05	4.08E-04
Pentane	109-66-0	2.6E+00	0.00E+00	1.36E-01	0.00E+00	1.03E-01	2.39E-01
Phosphorous	7723-14-0	0.0E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Selenium	7782-49-2	2.4E-05	1.50E+01	1.26E-06	8.01E-04	9.53E-07	2.21E-06
1,1,1-Trichloroethane	71-55-6	0.0E+00	2.36E-04	0.00E+00	8.02E-05	0.00E+00	8.02E-05
Toluene	108-88-3	3.4E-03	6.20E-03	1.78E-04	2.11E-03	1.35E-04	2.24E-03
o-Xylene	1330-20-7	0.0E+00	1.09E-04	0.00E+00	3.71E-05	0.00E+00	3.71E-05
Vanadium	1314-62-1	2.3E-03	0.00E+00	1.20E-04	0.00E+00	9.13E-05	2.12E-04
Zinc	7440-66-6	2.9E-02	4.00E+00	1.52E-03	2.14E-04	1.15E-03	2.67E-03

**CARCINOGENS (POUNDS PER HOUR)**

Pollutant	CAS #	EF for NG Combustion (lb/10 <sup>6</sup> scf) <sup>a</sup>	EF for Fuel Oil # 2 Combustion (lb/10 <sup>12</sup> Btu) or (lb/10 <sup>3</sup> gal) <sup>b,c</sup>	East Boiler NG Combustion (lb/hr)	East Boiler #2 Fuel Oil Combustion (lb/hr)	West Boiler NG Combustion (lb/hr)	New Max TAP <sup>d</sup> (lb/hr)
Arsenic	7440-38-2	2.0E-04	4.00E+00	1.05E-05	2.14E-04	7.94E-06	1.84E-05
Benzene	71-43-2	2.1E-03	2.14E-04	1.10E-04	7.28E-05	8.34E-05	1.93E-04
Beryllium	7440-41-7	1.2E-05	3.00E+00	6.28E-07	1.60E-04	4.76E-07	1.61E-04
Cadmium	7440-43-9	1.1E-03	3.00E+00	5.76E-05	1.60E-04	4.37E-05	2.04E-04
Chromium VI	7440-47-3	0.0E+00	3.00E+00	0.00E+00	1.60E-04	0.00E+00	1.60E-04
Formaldehyde	50-00-0	7.5E-02	3.30E-02	3.93E-03	1.12E-02	2.98E-03	1.42E-02
Nickel	7440-02-0	2.1E-03	3.00E+00	1.10E-04	1.60E-04	8.34E-05	2.44E-04
Benzo(a)pyrene	50-32-8	1.2E-06	0.00E+00	6.28E-08	0.00E+00	4.76E-08	1.10E-07
Benz(a)anthracene	56-55-3	1.8E-06	4.01E-06	9.42E-08	1.36E-06	7.15E-08	1.43E-06
Benzo(b)fluoranthene	205-82-3	1.8E-06	1.48E-06	9.42E-08	5.03E-07	7.15E-08	5.75E-07
Benzo(k)fluoranthene	205-99-2	1.8E-06	1.48E-06	9.42E-08	5.03E-07	7.15E-08	5.75E-07
Chrysene	218-01-9	1.8E-06	2.38E-06	9.42E-08	8.09E-07	7.15E-08	8.81E-07
Dibenzo(a,h)anthracene	53-70-3	1.2E-06	1.67E-06	6.28E-08	5.68E-07	4.76E-08	6.15E-07
Indeno(1,2,3-cd)pyrene	193-39-5	1.8E-06	2.14E-06	9.42E-08	7.28E-07	7.15E-08	7.99E-07
Total PAHs		1.1E-05	1.3E-05	5.97E-07	4.47E-06	4.53E-07	4.93E-06

<sup>a</sup>EFs from AP-42, Tables 1.4-3 and 1.4-4, 7/98

<sup>b</sup>EFs from AP-42, Tables 1.3-9 and 1.3-11, 9/98

<sup>c</sup>EFs from AP-42, Tables 1.3-109/99

<sup>d</sup>Current Max TAP = West boiler NG + maximum emissions between East Boiler NG and Fuel Oil # 2

**BOILER TAPs NET CHANGE IN EMISSIONS  
NON-CARCINOGENS (POUNDS PER HOUR)**

<b>Pollutant</b>	<b>CAS #</b>	<b>Change in Emissions (lb/hr)</b>
Antimony	7440-36-0	-1.42E-03
Barium	7440-39-3	-5.19E-04
Chromium	7440-47-3	-8.57E-05
Cobalt	7440-48-4	-1.62E-03
Copper	7440-50-8	-1.66E-04
Ethylbenzene	100-41-4	4.45E-06
Fluoride (as F)	16984-48-8	-1.01E-02
Hexane	110-54-3	0.00E+00
Manganese	7439-96-5	-4.94E-04
Mercury	7439-97-6	1.26E-04
Molybdenum	7439-98-7	-1.69E-04
Naphthalene	91-20-3	7.14E-05
Pentane	109-66-0	0.00E+00
Phosphorous	7723-14-0	-2.55E-03
Selenium	7782-49-2	-1.83E-04
1,1,1-Trichloroethane	71-55-6	1.65E-05
Toluene	108-88-3	3.91E-04
o-Xylene	1330-20-7	7.63E-06
Vanadium	1314-62-1	-8.49E-03
Zinc	7440-66-6	-6.71E-03

**CARCINOGENS (POUNDS PER HOUR)**

<b>Pollutant</b>	<b>CAS #</b>	<b>Change in Emissions (lb/hr)</b>
Arsenic	7440-38-2	-3.48E-04
Benzene	71-43-2	0.00E+00
Beryllium	7440-41-7	1.53E-04
Cadmium	7440-43-9	3.88E-05
Chromium VI	7440-47-3	9.32E-05
Formaldehyde	50-00-0	1.36E-03
Nickel	7440-02-0	-1.98E-02
Benzo(a)pyrene	50-32-8	0.00E+00
Benz(a)anthracene	56-55-3	2.58E-07
Benzo(b)fluoranthene	205-82-3	8.08E-08
Benzo(k)fluoranthene	205-99-2	8.08E-08
Chrysene	218-01-9	1.44E-07
Dibenzo(a,h)anthracene	53-70-3	1.02E-07
Indeno(1,2,3-cd)pyrene	193-39-5	1.27E-07
Total PAHs		7.77E-07

**APPENDIX B**  
**PTC APPLICATION FORMS**



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

**General Information Form GI**  
 Revision 7  
 2/18/10

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

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

IDENTIFICATION	
1. Company Name Nonpareil Corporation	2. Facility Name: Same
3. Brief Project Description:	PTC for addition of dehydration air dryer, air makeup unit, space heaters and removal of scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch baghouse. Remove #6 fuel oil as a fuel option for the west boiler

FACILITY INFORMATION	
4. Primary Facility Permit Contact Person/Title	Brett Suthers Engineering Manager
5. Telephone Number and Email Address	208-785-5880 bsuthers@lovepotatoes.com
6. Alternate Facility Contact Person/Title	
7. Telephone Number and Email Address	
8. Address to Which the Permit Should be Sent	40 North 400 West
9. City/County/State/Zip Code	Blackfoot Idaho 83221
10. Equipment Location Address (if different than the mailing address above)	
11. City/County/State/Zip Code	
12. Is the Equipment Portable?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
13. SIC Code(s) and NAICS Code	Primary SIC: 2034 Secondary SIC: NAICS:
14. Brief Business Description and Principal Product	Potato Processing Plant
15. Identify any adjacent or contiguous facility that this company owns and/or operates	
16. Specify the reason for the application	<input checked="" type="checkbox"/> Permit to Construct (PTC) <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p><b>For Tier I permitted facilities only:</b> If you are applying for a PTC then you must also specify how the PTC will be incorporated into the Tier I permit.</p> <input type="checkbox"/> Incorporate the PTC at the time of the Tier I renewal  <input type="checkbox"/> Co-process the Tier I modification and PTC  <input checked="" type="checkbox"/> Administratively amend the Tier I permit to incorporate the PTC upon your request (IDAPA 58.01.01.209.05.a, b, or c)         </div> <input type="checkbox"/> Tier I Permit <input type="checkbox"/> Tier II Permit <input type="checkbox"/> Tier II/Permit to Construct

CERTIFICATION	
In accordance with IDAPA 58.01.01.123 (Rules for the Control of Air Pollution in Idaho), I certify based on information and belief formed after reasonable inquiry, the statements and information in the document(s) are true, accurate, and complete.	
17. Responsible Official's Name/Title	Brett Suthers Engineering Manager
18. Responsible Official's Signature	Date: 2/10/12
19. <input checked="" type="checkbox"/> Check here to indicate that you would like to review the draft permit prior to final issuance.	



**DEQ AIR QUALITY PROGRAM**

1410 N. Hilton, Boise, ID 83706

For assistance, call the

**Air Permit Hotline – 1-877-5PERMIT**

Cover Sheet for Air Permit Application – Permit to Construct **Form CSPTC**

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

COMPANY NAME, FACILITY NAME, AND FACILITY ID NUMBER			
1. Company Name	Nonpareil Corporation		
2. Facility Name	Same	3. Facility ID No.	011-00027
4. Brief Project Description - One sentence or less	PTC for addition of dehydration air dryer, air makeup unit, space heaters and removal of scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch baghouse. Remove #6 fuel oil as a fuel option for the west boiler		

PERMIT APPLICATION TYPE	
5. <input type="checkbox"/> New Source	<input checked="" type="checkbox"/> New Source at Existing Facility
<input type="checkbox"/> Unpermitted Existing Source	<input type="checkbox"/> Facility Emissions Cap
<input type="checkbox"/> Required by Enforcement Action: Case No.: _____	<input type="checkbox"/> PTC for a Tier I Source Processed Pursuant to IDAPA 58.01.01.209.05.c
	<input checked="" type="checkbox"/> Modify Existing Source: Permit No.: <u>P-2010.0057</u> Date Issued: <u>2010</u>

6. <input checked="" type="checkbox"/> Minor PTC	<input type="checkbox"/> Major PTC
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FORMS INCLUDED			
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Included	N/A	Forms	DEQ Verify
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form CSPTC – Cover Sheet	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form GI – Facility Information	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form EU0 – Emissions Units General	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form EU1– Industrial Engine Information	Please specify number of EU1s attached: _____ <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form EU2– Nonmetallic Mineral Processing Plants	Please specify number of EU2s attached: _____ <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form EU3– Spray Paint Booth Information	Please specify number of EU3s attached: _____ <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form EU4– Cooling Tower Information	Please specify number of EU3s attached: _____ <input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form EU5 – Boiler Information	Please specify number of EU4s attached: <u>1</u> <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form CBP– Concrete Batch Plant	Please specify number of CBPs attached: _____ <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form HMAP – Hot Mix Asphalt Plant	Please specify number of HMAPs attached: _____ <input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	PERF – Portable Equipment Relocation Form	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form AO – Afterburner/Oxidizer	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form CA – Carbon Adsorber	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form CYS – Cyclone Separator	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form ESP – Electrostatic Precipitator	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form BCE– Baghouses Control Equipment	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form SCE– Scrubbers Control Equipment	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form VSCE – Venturi Scrubber Control Equipment	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	Form CAM – Compliance Assurance Monitoring	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Forms EI– Emissions Inventory	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	PP – Plot Plan	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Forms MI1 – MI4 – Modeling	(Excel workbook, all 4 worksheets) <input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form FRA – Federal Regulation Applicability	<input type="checkbox"/>



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

IDENTIFICATION		
1. Company Name: Nonpareil Corporation	2. Facility Name: Balckfoot Facility	3. Facility ID No: 011-00027

4. Brief Project Description: PTC for addition of dehydration air dryer, air makeup unit, space heaters and removal of scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch barhouse

**EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION**

5. Emissions Unit (EU) Name:	DEHYDRATION AIR DRYER 6		
6. EU ID Number:	EU 45, EU 46, EU 47		
7. EU Type:	<input checked="" type="checkbox"/> New Source	<input type="checkbox"/> Unpermitted Existing Source	Date Issued:
	<input type="checkbox"/> Modification to a Permitted Source -- Previous Permit #:		
8. Manufacturer:	BUHLER		
9. Model:	NA		
10. Maximum Capacity:	A = 10.4 MMBTU/HR B= 3.2 MMBTU/HR C= 3.3 MMBTU		
11. Date of Construction:	WHEN PTC IS ISSUED		
12. Date of Modification (if any):	WHEN PTC IS ISSUED		
13. Is this a Controlled Emission Unit?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If Yes, complete the following section. If No, go to line 22.		

**EMISSIONS CONTROL EQUIPMENT**

14. Control Equipment Name and ID:						
15. Date of Installation:						16. Date of Modification (if any):
17. Manufacturer and Model Number:						
18. ID(s) of Emission Unit Controlled:						
19. Is operating schedule different than emission units(s) involved?	<input type="checkbox"/> Yes <input type="checkbox"/> No					
20. Does the manufacturer guarantee the control efficiency of the control equipment?	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, attach and label manufacturer guarantee)					
Control Efficiency	Pollutant Controlled					
	PM	PM10	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO

21. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

**EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)**

22. Actual Operation:	8 HR/DAY, 365 DAYS/YR
23. Maximum Operation:	24 HR/DAY, 8,760 HR/YR

**REQUESTED LIMITS**

24. Are you requesting any permit limits?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, indicate all that apply below)
<input type="checkbox"/> Operation Hour Limit(s):	
<input checked="" type="checkbox"/> Production Limit(s):	SAME AS DRYER 5- EACH STAGE = 1,200 LB/HR
<input type="checkbox"/> Material Usage Limit(s):	
<input type="checkbox"/> Limits Based on Stack Testing:	Please attach all relevant stack testing summary reports
<input type="checkbox"/> Other:	
25. Rationale for Requesting the Limit(s):	SAME AS EXISTING PERMIT



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

IDENTIFICATION		
1. Company Name: Nonpareil Corporation	2. Facility Name: Balckfoot Facility	3. Facility ID No: 011-00027

4. Brief Project Description: PTC for addition of dehydration air dryer, air makeup unit, space heaters and removal of scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch baghouse

**EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION**

5. Emissions Unit (EU) Name:	DRYER 6 AIR MAKEUP		
6. EU ID Number:	EU 48		
7. EU Type:	<input checked="" type="checkbox"/> New Source	<input type="checkbox"/> Unpermitted Existing Source	Date Issued:
	<input type="checkbox"/> Modification to a Permitted Source -- Previous Permit #:		
8. Manufacturer:	REYCO		
9. Model:	MODEL AMU-350		
10. Maximum Capacity:	3.5 MMBTU/YR		
11. Date of Construction:	WHEN PTC IS ISSUED		
12. Date of Modification (if any):	WHEN PTC IS ISSUED		
13. Is this a Controlled Emission Unit?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes If Yes, complete the following section. If No, go to line 22.		

**EMISSIONS CONTROL EQUIPMENT**

14. Control Equipment Name and ID:						
15. Date of Installation:						16. Date of Modification (if any):
17. Manufacturer and Model Number:						
18. ID(s) of Emission Unit Controlled:						
19. Is operating schedule different than emission units(s) involved?	<input type="checkbox"/> Yes <input type="checkbox"/> No					
20. Does the manufacturer guarantee the control efficiency of the control equipment?	<input type="checkbox"/> Yes <input type="checkbox"/> No (If Yes, attach and label manufacturer guarantee)					
Control Efficiency	Pollutant Controlled					
	PM	PM10	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO

21. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency.

**EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)**

22. Actual Operation:	24 HR/DAY, 365 DAYS/YR
23. Maximum Operation:	24 HR/DAY, 8,760 HR/YR

**REQUESTED LIMITS**

24. Are you requesting any permit limits?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, indicate all that apply below)
<input type="checkbox"/> Operation Hour Limit(s):	
<input type="checkbox"/> Production Limit(s):	
<input type="checkbox"/> Material Usage Limit(s):	
<input type="checkbox"/> Limits Based on Stack Testing:	Please attach all relevant stack testing summary reports
<input type="checkbox"/> Other:	
25. Rationale for Requesting the Limit(s):	



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

IDENTIFICATION		
1. Company Name: Nonpareil Corporation	2. Facility Name: Same	3 Facility ID No: 011-00027
4. Brief Project Description: PTC for addition of dehydration air dryer, air makeup unit, space heaters and removal of scratch mesh dryer and scratch mesh pneumatic conveyor, stretch dryer and stretch hoisthouse. Remove #6		

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

BOILER (EMISSION UNIT) DESCRIPTION AND SPECIFICATIONS		
5. Type of Request: <input type="checkbox"/> New Unit <input type="checkbox"/> Unpermitted Existing Unit <input checked="" type="checkbox"/> Modification to a Unit with Permit #:P-2010.0057		
6. Use of Boiler: <input checked="" type="checkbox"/> % Used For Process <input type="checkbox"/> % Used For Space Heat <input type="checkbox"/> % Used For Generating Electricity <input type="checkbox"/> Other:		
7. Boiler ID Number: EU 02	8. Rated Capacity: <input checked="" type="checkbox"/> 40.5 Million British Thermal Units Per Hour (MMBtu/hr) <input type="checkbox"/> 1,000 Pounds Steam Per Hour (1,000 lb steam/hr)	
9. Construction Date: 2008	10. Manufacturer: Erie City	11. Model: SA60H-21
12. Date of Modification (if applicable): When PTC is issued	13. Serial Number (if available):	14. Control Device (if any): NA <b>Note: Attach applicable control equipment form(s)</b>

FUEL DESCRIPTION AND SPECIFICATIONS				
15. Fuel Type	<input type="checkbox"/> Diesel Fuel (# ) (gal/hr)	<input checked="" type="checkbox"/> Natural Gas 39,706 (cf/hr)	<input type="checkbox"/> Coal (unit: /hr)	<input type="checkbox"/> Other Fuels (unit: /hr)
16. Full Load Consumption Rate		39,706		
17. Actual Consumption Rate		39,706		
18. Fuel Heat Content (Btu/unit, LHV)		1020 Btu/sc		
19. Sulfur Content wt%				
20. Ash Content wt%		N/A		

STEAM DESCRIPTION AND SPECIFICATIONS				
21. Steam Heat Content	NA	NA		
22. Steam Temperature (°F)	N/A	N/A		
23. Steam Pressure (psi)	N/A	N/A		
24 Steam Type	N/A	N/A	<input type="checkbox"/> Saturated <input type="checkbox"/> Superheated	<input type="checkbox"/> Saturated <input type="checkbox"/> Superheated

OPERATING LIMITS & SCHEDULE	
25. Imposed Operating Limits (hours/year, or gallons fuel/year, etc.):	
26. Operating Schedule (hours/day, months/year, etc.):	24 hrs/day, 365 days/yr
27. NSPS Applicability: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If Yes, which subpart:

	<b>DEQ AIR QUALITY PROGRAM</b> 1410 N. Hilton Boise, ID 83706 For assistance: (208) 373-0502		<b>PERMIT TO CONSTRUCT APPLICATION</b>
	Company Name:	Nonpareil Corporation	
	Facility Name:	Same	
	Facility ID No.:	011-00027	
	Brief Project Description:	PTC for addition of dehydration air dryer, air makeup unit, space heaters and removal of scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch bag	

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

		3.											
1.	2.	PM <sub>10</sub>		SO <sub>2</sub>		NO <sub>x</sub>		CO		VOC		Lead	
Emissions units	Stack ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
<b>Point Source(s)</b>													
Processing East boiler Oil	EU_01	1.12	4.18	24.480	91.1900	6.80	25.33	1.70	6.33	0.09	0.32		
Processing East boiler NG	EU_01 NG	0.40	1.74	0.03	0.14	2.62	11.47	4.40	19.26	0.29	1.26		
Processing West boiler NG	EU_02 NG	0.30	1.32	0.024	0.10	1.99	8.70	3.34	14.61	0.22	0.96		
Process Peeler exhaust	EU_10	0.1600	0.70										
Flaker #1	EU_11	3.7900	16.62										
Flaker #2	EU_12	3.7900	16.62										
Flaker #3	EU_13	3.0400	13.29										
Flaker #4	EU_14	3.0400	13.29										
Flaker #5	EU_15	3.0400	13.29										
Grinding Circuit #1 baghouse	EU_16	0.0004	1.88E-03										
Grinding Circuit #2 baghouse	EU_18	0.0006	2.53E-03										
Flaker Baghouse	EU_19	0.0012	5.27E-03										
Dehy North Boiler	EU_20	0.0750	3.40E-01	0.0062	0.027	1.0294	4.5090	0.8600	3.787	0.057	0.248		
Dehy South Boiler	EU_21	0.0260	2.70E-01	0.0049	0.022	0.8235	3.6070	0.6900	3.03	0.045	0.198		
Dehy Dryer #1A-stage	EU_22	0.57	6.40	0.0038	0.016	0.6275	2.748	0.5300	2.309	0.035	0.151		
Dehy Dryer #1B-stage	EU_23	0.49	2.80	0.0016	0.007	0.2745	1.202	0.2300	1.010	0.015	0.066		
Dehy Dryer #2A-stage	EU_24	1.4700	6.40	0.0038	0.016	0.6275	2.748	0.5300	2.309	0.035	0.151		
Dehy Dryer #2B-stage	EU_25	0.6500	2.80	0.0016	0.007	0.2745	1.202	0.2300	1.010	0.015	0.066		
Dehy Dryer #3A-stage	EU_26	1.4700	6.40	0.0038	0.016	0.6275	2.748	0.5300	2.309	0.035	0.151		
Dehy Dryer #3B-stage	EU_27	0.6500	2.80	0.0016	0.007	0.2745	1.202	0.2300	1.010	0.015	0.066		
<b>Total</b>		24.08	109.28	24.56	91.55	15.96	65.46	13.26	56.98	0.84	3.64		

	<b>DEQ AIR QUALITY PROGRAM</b> 1410 N. Hilton Boise, ID 83706 For assistance: (208) 373-0502	<h2 style="margin: 0;">PERMIT TO CONSTRUCT APPLICATION</h2>
Company Name:		Nonpareil Corporation
Facility Name:		Same
Facility ID No.:		011-00027
Brief Project Description:		PTC for addition of dehydration air dryer, air makeup unit, space heaters and removal of scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch bag

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

		3.											
1.	2.	PM <sub>10</sub>		SO <sub>2</sub>		NO <sub>x</sub>		CO		VOC		Lead	
Emissions units	Stack ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
<b>Point Source(s)</b>													
Dehy Dryer #4A-stage	EU_28	1.1000	4.80	0.0028	0.012	0.4676	2.048	0.3900	1.721	0.026	0.113		
Dehy Dryer #4B-stage	EU_29	0.4700	2.10	0.0002	0.001	0.0324	0.142	0.0300	0.119	0.002	0.008		
Dehy Dryer #4C-stage	EU_30	0.4700	2.10	0.0002	0.001	0.0294	0.129	0.0200	0.108	0.002	0.007		
Dehy Dryer #5A-stage	EU_31	1.7800	7.80	0.0061	0.027	1.0196	4.466	0.8600	3.751	0.056	0.246		
Dehy Dryer #5B-stage	EU_32	0.7700	3.40	0.0019	0.008	0.3137	1.374	0.2600	1.154	0.017	0.076		
Dehy Dryer #5C-stage	EU_33	0.7700	3.40	0.0019	0.009	0.3235	1.417	0.2700	1.190	0.018	0.078		
Dehy Bin Dryer	EU_34	0.6449	2.87	0.0010	0.0050	0.2000	0.8600	0.1600	0.7200	0.0100	0.0500		
Dehy research Dryer	EU_39	0.1820	0.80	0.0010	0.0020	0.0863	0.378	0.0700	0.317	0.005	0.021		
Packaging Baghouse #1	EU_40	0.0001	4.74E-04										
Packaging Baghouse #2	EU_41	0.0003	1.32E-03										
Crush Room Baghouse #1	EU_42	0.0001	4.74E-04										
Crush Room Baghouse #2	EU_43	0.0003	1.32E-03										
Dehy Steam Peeler	EU_44	0.1600	0.70										
Dehy Dryer #6A-stage	EU_45	0.3274	1.43E+00	0.0061	0.027	1.0196	4.4659	0.8565	3.7513412	0.0560784	0.2456235		
Dehy Dryer #6B-stage	EU_46	0.0788	3.45E-01	0.0019	0.008	0.3137	1.3741	0.2635	1.1542588	0.0172549	0.0755765		
Dehy Dryer #6C-stage	EU_47	0.08	0.35	0.0019	0.009	0.3235	1.417	0.2718	1.190	0.018	0.078		
Office Heater #1	EU_49	0.00	0.01	0.0001	0.001	0.0245	0.107	0.0206	0.090	0.001	0.006		
Office Heater #2	EU_50	0.00	0.01	0.0001	0.001	0.0245	0.107	0.0206	0.090	0.001	0.006		
Office Heater #3	EU_51	0.00	0.00	0.0001	0.000	0.0083	0.037	0.0070	0.031	0.000	0.002		
Fab Shop Heater #1	EU_52	0.00	0.01	0.0001	0.001	0.0245	0.107	0.0206	0.090	0.001	0.006		
<b>Fab Shop Heater #2</b>	<b>EU_53</b>	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.02</b>	<b>0.11</b>	<b>0.02</b>	<b>0.09</b>	<b>0.00</b>	<b>0.01</b>		
<b>Total</b>		6.84	30.13	0.03	0.11	4.24	18.54	3.54	15.57	0.23	1.02		

	<b>DEQ AIR QUALITY PROGRAM</b> 1410 N. Hilton Boise, ID 83706 For assistance: (208) 373-0502	<b>PERMIT TO CONSTRUCT APPLICATION</b>
Company Name:	Nonpareil Corporation	
Facility Name:	Same	
Facility ID No.:	011-00027	
Brief Project Description:	PTC for addition of dehydration air dryer, air makeup unit, space heaters and removal of scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch bag	

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

		3.											
1.	2.	PM <sub>10</sub>		SO <sub>2</sub>		NO <sub>x</sub>		CO		VOC		Lead	
Emissions units	Stack ID	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
<b>Point Source(s)</b>													
Fab Shop Heater #3	EU_54	0.0022	0.01	0.0002	0.001	0.0294	0.129	0.0247	0.108	0.002	0.007		
Fab Shop Heater #4	EU_55	0.0003	0.00	0.0000	0.000	0.0044	0.019	0.0037	0.016	0.000	0.001		
Truck Shop Heater #1	EU_56	0.0022	0.01	0.0002	0.001	0.0294	0.129	0.0247	0.108	0.002	0.007		
Truck Shop Heater #2	EU_57	0.0022	0.01	0.0002	0.001	0.0294	0.129	0.0247	0.108	0.002	0.007		
Truck Shop Heater #3	EU_58	0.0022	0.01	0.0002	0.001	0.0294	0.129	0.0247	0.108	0.002	0.007		
Truck Shop Heater #4	EU_59	0.0022	0.01	0.0002	0.001	0.0294	0.129	0.0247	0.108	0.002	0.007		
Truck Shop Heater #5	EU_67	0.0003	1.47E-03	0.0000	0.000	0.0044	0.0193	0.0037	0.0162318	0.0002	0.0011		
Storage Heater #1	EU_60	0.0002	0.00	0.0000	0.0001	0.0029	0.0129	0.0025	0.0108	0.0002	0.0007		
Storage Heater #2	EU_61	0.0002	0.00	0.0000	0.0001	0.0029	0.013	0.0025	0.0108212	0.0001618	0.0007085		
Storage Heater #3	EU_62	0.0003	1.47E-03	0.0000	0.0001	0.0044	0.0193	0.0037	0.0162	0.0002	0.0011		
Well House Heater	EU_63	0.0002	9.79E-04	0.0000	0.0001	0.0029	0.0129	0.0025	0.0108	0.0002	0.0007		
Pressure Washer	EU_64	0.0030	1.31E-02	0.0002	0.0010	0.0392	0.1718	0.0329	0.1443	0.0022	0.0094		
Annex Heater #1	EU_65	0.0026	1.14E-02	0.0002	0.0009	0.0343	0.1503	0.0288	0.1262	0.0019	0.0083		
Annex Heater #2	EU_66	0.0026	0.01	0.0002	0.0009	0.0343	0.1503	0.0288	0.1262	0.0019	0.0083		
<b>Total</b>		0.02	0.09	0.00	0.01	0.28	1.21	0.23	1.02	0.02	0.07		





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

**PERMIT TO CONSTRUCT APPLICATION**

Revision 3  
4/5/2007

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

Company Name: **Nonpareil Corporation**

Facility Name: **Same**

Facility ID No.: **011-00027**

Brief Project Description: **PTC for addition of dehydration air dryer, air makeup unit, space heaters and removal of scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch baghd**

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

1. Emissions units	2. Stack ID	3.											
		PM <sub>10</sub>		SO <sub>2</sub>		NO <sub>x</sub>		CO		VOC		Lead	
		lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Point Source(s)													
Dehy Dryer #6A-stage	EU_45	0.3274	1.43E+00	0.0061	0.027	1.0196	4.4659	0.8565	3.7513412	0.0560784	0.2456235		
Dehy Dryer #6B-stage	EU_46	0.0788	3.45E-01	0.0019	0.008	0.3137	1.3741	0.2635	1.1542588	0.0172549	0.0755765		
Dehy Dryer #6C-stage	EU_47	0.08	0.35	0.0019	0.009	0.3235	1.417	0.2718	1.190	0.018	0.078		
Office Heater #1	EU_49	0.00	0.01	0.0001	0.001	0.0245	0.107	0.0206	0.090	0.001	0.006		
Office Heater #2	EU_50	0.00	0.01	0.0001	0.001	0.0245	0.107	0.0206	0.090	0.001	0.006		
Office Heater #3	EU_51	0.00	0.00	0.0001	0.000	0.0083	0.037	0.0070	0.031	0.000	0.002		
Fab Shop Heater #1	EU_52	0.00	0.01	0.0001	0.001	0.0245	0.107	0.0206	0.090	0.001	0.006		
<b>Fab Shop Heater #2</b>	EU_53	<b>0.00</b>	<b>0.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.02</b>	<b>0.11</b>	<b>0.02</b>	<b>0.09</b>	<b>0.00</b>	<b>0.01</b>		
Fab Shop Heater #3	EU_54	0.0022	0.01	0.0002	0.001	0.0294	0.129	0.0247	0.108	0.002	0.007		
Fab Shop Heater #4	EU_55	0.0003	0.00	0.0000	0.000	0.0044	0.019	0.0037	0.016	0.000	0.001		
Truck Shop Heater #1	EU_56	0.0022	0.01	0.0002	0.001	0.0294	0.129	0.0247	0.108	0.002	0.007		
Truck Shop Heater #2	EU_57	0.0022	0.01	0.0002	0.001	0.0294	0.129	0.0247	0.108	0.002	0.007		
Truck Shop Heater #3	EU_58	0.0022	0.01	0.0002	0.001	0.0294	0.129	0.0247	0.108	0.002	0.007		
Truck Shop Heater #4	EU_59	0.0022	0.01	0.0002	0.001	0.0294	0.129	0.0247	0.108	0.002	0.007		
Truck Shop Heater #5	EU_67	0.0003	1.47E-03	0.0000	0.000	0.0044	0.0193	0.0037	0.0162318	0.0002	0.0011		
Storage Heater #1	EU_60	0.0002	0.00	0.0000	0.0001	0.0029	0.0129	0.0025	0.0108	0.0002	0.0007		
Storage Heater #2	EU_61	0.0002	0.00	0.0000	0.0001	0.0029	0.013	0.0025	0.0108212	0.0001618	0.0007085		
Storage Heater #3	EU_62	0.0003	1.47E-03	0.0000	0.0001	0.0044	0.0193	0.0037	0.0162	0.0002	0.0011		
Well House Heater	EU_63	0.0002	9.79E-04	0.0000	0.0001	0.0029	0.0129	0.0025	0.0108	0.0002	0.0007		
Pressure Washer	EU_64	0.0030	1.31E-02	0.0002	0.0010	0.0392	0.1718	0.0329	0.1443	0.0022	0.0094		
Annex Heater #1	EU_65	0.0026	1.14E-02	0.0002	0.0009	0.0343	0.1503	0.0288	0.1262	0.0019	0.0083		
Annex Heater #2	EU_66	0.0026	0.01	0.0002	0.0009	0.0343	0.1503	0.0288	0.1262	0.0019	0.0083		
<b>Total</b>		0.51	2.26	0.01	0.05	2.04	8.94	1.71	7.51	0.11	0.49		



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

**PERMIT TO CONSTRUCT APPLICATION**  
 Revision 3  
 4/5/2007

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

Company Name:	<b>Nonpareil Corporation</b>
Facility Name:	<b>Same</b>
Facility ID No.:	<b>011-00027</b>
Brief Project Description:	<b>PTC for addition of dehydration air dryer, air makeup unit, space heaters and removal of scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch baghouse</b>

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

1.	2.	3.											
		Air Pollutant Maximum Change in Emissions Rate (lbs/hr or t/yr)											
Fugitive Source Name	Fugitive ID	PM <sub>10</sub>		SO <sub>2</sub>		NO <sub>x</sub>		CO		VOC		Lead	
		lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Fugitive Source(s)													
Dryer 6 Air Makeup Unit	EU_48	0.03	0.11	0.0020	0.009	0.3430	1.503	0.2880	1.262	0.019	0.083		
(insert more rows as needed)													
<b>Total</b>		0.03	0.11	0.00	0.01	0.34	1.50	0.29	1.26	0.02	0.08		



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

# AIR PERMIT APPLICATION

Revision 6  
 10/7/09

For each box in the table below, CTRL+click on the blue underlined text for instructions and information.

IDENTIFICATION	
1. Company Name:  Nonpareil Corporation	2. Facility Name:  Blackfoot Facility
3. Brief Project Description:      PTC for addition of dehydration air dryer, air makeup unit, space heaters and removal of scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch baghouse. Remove #6 fuel oil as a fuel option for the west boiler	
APPLICABILITY DETERMINATION	
4. List applicable subparts of the New Source Performance Standards (NSPS) ( <a href="#">40 CFR part 60</a> ).  Examples of NSPS affected emissions units include internal combustion engines, boilers, turbines, etc. The applicant must thoroughly review the list of affected emissions units.	List of applicable subpart(s):  X <input type="checkbox"/> Not Applicable
5. List applicable subpart(s) of the National Emission Standards for Hazardous Air Pollutants (NESHAP) found in <a href="#">40 CFR part 61</a> and <a href="#">40 CFR part 63</a> .  Examples of affected emission units include solvent cleaning operations, industrial cooling towers, paint stripping and miscellaneous surface coating. <a href="#">EPA has a web page dedicated to NESHAP</a> that should be useful to applicants.	List of applicable subpart(s): 40 CFR part 63 Subpart JJJJJJ- National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers  <input type="checkbox"/> Not Applicable
6. For each subpart identified above, conduct a complete a regulatory analysis using the instructions and referencing the example provided on the following pages.  <b>Note</b> - Regulatory reviews must be submitted with sufficient detail so that DEQ can verify applicability and document in legal terms why the regulation applies. Regulatory reviews that are submitted with insufficient detail will be determined incomplete.	<input type="checkbox"/> A detailed regulatory review is provided (Follow instructions and example).  <input type="checkbox"/> DEQ has already been provided a detailed regulatory review. Give a reference to the document including the date.

## Title 40: Protection of Environment

### [PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES \(CONTINUED\)](#)

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#### **Subpart JJJJJ—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources**

**Source:** 76 FR 15591, Mar. 21, 2011, unless otherwise noted.

#### **What This Subpart Covers**

##### **§ 63.11193 Am I subject to this subpart?**

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler as defined in §63.11237 that is located at, or is part of, an area source of hazardous air pollutants (HAP), as defined in §63.2, except as specified in §63.11195.

##### **§ 63.11194 What is the affected source of this subpart?**

(a) This subpart applies to each **new**, reconstructed, or existing affected source as defined in paragraphs (a)(1) and (2) of this section.

(1) The affected source is the collection of all existing industrial, commercial, and institutional boilers within a subcategory (coal, biomass, oil), as listed in §63.11200 and defined in §63.11237, located at an area source.

(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler within a subcategory, as listed in §63.11200 and as defined in §63.11237, located at an area source.

(b) An affected source is an existing source if you commenced construction or reconstruction of the affected source on or before June 4, 2010.

(c) An affected source is a new source if you commenced construction or reconstruction of the affected source after June 4, 2010 and you meet the applicability criteria at the time you commence construction.

(d) A boiler is a new affected source if you commenced fuel switching from natural gas to solid fossil fuel, biomass, or liquid fuel after June 4, 2010.

**Regulatory Analysis:** *The Nonpareil East boiler has burned natural gas exclusively since its construction in 2008, but has the capability of burning ASTM Grade 2 fuel oil. The boiler will be considered a new affected source at the time fuel switching occurs from natural gas to ASTM Grade 2 fuel oil.*

(e) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or part 71 as a result of this subpart. You may, however, be required to obtain a title V permit due to another reason or reasons. See 40 CFR 70.3(a) and (b) or 71.3(a) and (b). Notwithstanding the exemption from title V permitting for area sources under this subpart, you must continue to comply with the provisions of this subpart.

### **§ 63.11195 Are any boilers not subject to this subpart?**

The types of boilers listed in paragraphs (a) through (g) of this section are not subject to this subpart and to any requirements in this subpart.

(a) Any boiler specifically listed as, or included in the definition of, an affected source in another standard(s) under this part.

(b) Any boiler specifically listed as an affected source in another standard(s) established under section 129 of the Clean Air Act.

(c) A boiler required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by subpart EEE of this part (e.g., hazardous waste boilers).

(d) A boiler that is used specifically for research and development. This exemption does not include boilers that solely or primarily provide steam (or heat) to a process or for heating at a research and development facility. This exemption does not prohibit the use of the steam (or heat) generated from the boiler during research and development, however, the boiler must be concurrently and primarily engaged in research and development for the exemption to apply.

(e) A gas-fired boiler as defined in this subpart.

*Regulatory Analysis: The Nonpareil West boiler is a gas-fired boiler and is not subject to this subpart. The East boiler will only be subject to this subpart upon commencement of fuel switching from natural gas to liquid fuel.*

(f) A hot water heater as defined in this subpart.

(g) Any boiler that is used as a control device to comply with another subpart of this part, provided that at least 50 percent of the heat input to the boiler is provided by the gas stream that is regulated under another subpart.

### **§ 63.11196 What are my compliance dates?**

(a) If you own or operate an existing affected boiler, you must achieve compliance with the applicable provisions in this subpart as specified in paragraphs (a)(1) through (3) of this section.

(1) If the existing affected boiler is subject to a work practice or management practice standard of a tune-up, you must achieve compliance with the work practice or management standard no later than March 21, 2012.

(2) If the existing affected boiler is subject to emission limits, you must achieve compliance with the emission limits no later than March 21, 2014.

(3) If the existing affected boiler is subject to the energy assessment requirement, you must achieve compliance with the energy assessment requirement no later than March 21, 2014.

(b) If you start up a new affected source on or before May 20, 2011, you must achieve compliance with the provisions of this subpart no later than May 20, 2011.

(c) If you start up a new affected source after May 20, 2011, you must achieve compliance with the provisions of this subpart upon startup of your affected source.

(d) If you own or operate an industrial, commercial, or institutional boiler and would be subject to this subpart except for the exemption in §63.11195(b) for commercial and industrial solid waste incineration units covered by 40 CFR part 60, subpart CCCC or subpart DDDD, and you cease combusting solid waste, you must be in compliance with this subpart on the effective date of the waste to fuel switch.

### **Emission Limits, Work Practice Standards, Emission Reduction Measures, and Management Practices**

#### **§ 63.11200 What are the subcategories of boilers?**

The subcategories of boilers are coal, biomass, and oil. Each subcategory is defined in §63.11237.

#### **§ 63.11201 What standards must I meet?**

(a) You must comply with each emission limit specified in Table 1 to this subpart that applies to your boiler.

*Regulatory Analysis: See Table 1 for requirements.*

(b) You must comply with each work practice standard, emission reduction measure, and management practice specified in Table 2 to this subpart that applies to your boiler. An energy assessment completed on or after January 1, 2008 that meets the requirements in Table 2 to this subpart satisfies the energy assessment portion of this requirement.

*Regulatory Analysis: See Table 2 for requirements.*

(c) You must comply with each operating limit specified in Table 3 to this subpart that applies to your boiler.

*Regulatory Analysis: See Table 3 for requirements.*

(d) These standards apply at all times.

### **General Compliance Requirements**

#### **§ 63.11205 What are my general requirements for complying with this subpart?**

(a) 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 that 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.

(b) You can demonstrate compliance with any applicable mercury emission limit using fuel analysis if the emission rate calculated according to §63.11211(c) is less than the applicable emission limit. Otherwise, you must demonstrate compliance using stack testing.

(c) If you demonstrate compliance with any applicable emission limit through performance stack testing and subsequent compliance with operating limits (including the use of continuous parameter monitoring system), with a CEMS, or with a COMS, you must develop a site-specific monitoring plan according to the requirements in paragraphs (c)(1) through (3) of this section for the use of any CEMS, COMS, or continuous parameter monitoring system. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under §63.8(f).

(1) For each continuous monitoring system required in this section (including CEMS, COMS, or continuous parameter monitoring system), you must develop, and submit to the delegated authority for approval upon request, a site-specific monitoring plan that addresses paragraphs (c)(1)(i) through (vi) of this section. You must submit this site-specific monitoring plan, if requested, at least 60 days before your initial performance evaluation of your CMS. This requirement to develop and submit a site specific monitoring plan does not apply to affected sources with existing monitoring plans that apply to CEMS and COMS prepared under appendix B to part 60 of this chapter and which meet the requirements of §63.11224.

(i) Installation of the continuous monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions ( *e.g.*, on or downstream of the last control device);

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

(iii) Performance evaluation procedures and acceptance criteria ( *e.g.*, calibrations).

(iv) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1)(ii), (c)(3), and (c)(4)(ii);

(v) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and

(vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c) (as applicable in Table 8 to this subpart), (e)(1), and (e)(2)(i).

(2) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(3) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

### **Initial Compliance Requirements**

#### **§ 63.11210 What are my initial compliance requirements and by what date must I conduct them?**

(a) You must demonstrate initial compliance with each emission limit specified in Table 1 to this subpart that applies to you by either conducting performance (stack) tests, as applicable, according to

§63.11212 and Table 4 to this subpart or, for mercury, conducting fuel analyses, as applicable, according to §63.11213 and Table 5 to this subpart.

(b) For existing affected boilers that have applicable emission limits, you must demonstrate initial compliance no later than 180 days after the compliance date that is specified in §63.11196 and according to the applicable provisions in §63.7(a)(2).

(c) For existing affected boilers that have applicable work practice standards, management practices, or emission reduction measures, you must demonstrate initial compliance no later than the compliance date that is specified in §63.11196 and according to the applicable provisions in §63.7(a)(2).

(d) For new or reconstructed affected sources, you must demonstrate initial compliance no later than 180 calendar days after March 21, 2011 or within 180 calendar days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

*Regulatory Analysis: Nonpareil will demonstrate initial compliance within 180 calendar days after commencement of fuel switching from natural gas to ASTM Grade 2 fuel oil.*

(e) For affected boilers that ceased burning solid waste consistent with §63.11196(d), you must demonstrate compliance within 60 days of the effective date of the waste-to-fuel switch. If you have not conducted your compliance demonstration for this subpart within the previous 12 months, you must complete all compliance demonstrations before you commence or recommence combustion of solid waste.

#### **§ 63.11211 How do I demonstrate initial compliance with the emission limits?**

(a) For affected boilers that demonstrate compliance with any of the emission limits of this subpart through performance (stack) testing, your initial compliance requirements include conducting performance tests according to §63.11212 and Table 4 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler according to §63.11213 and Table 5 to this subpart, establishing operating limits according to §63.11222, Table 6 to this subpart and paragraph (b) of this section, as applicable, and conducting continuous monitoring system (CMS) performance evaluations according to §63.11224. For affected boilers that burn a single type of fuel, you are exempted from the compliance requirements of conducting a fuel analysis for each type of fuel burned in your boiler. For purposes of this subpart, boilers that use a supplemental fuel only for startup, unit shutdown, and transient flame stability purposes still qualify as affected boilers that burn a single type of fuel, and the supplemental fuel is not subject to the fuel analysis requirements under §63.11213 and Table 5 to this subpart.

(b) You must establish parameter operating limits according to paragraphs (b)(1) through (4) of this section.

(1) For a wet scrubber, you must establish the minimum liquid flowrate and pressure drop as defined in §63.11237, as your operating limits during the three-run performance stack test. If you use a wet scrubber and you conduct separate performance stack tests for particulate matter and mercury emissions, you must establish one set of minimum scrubber liquid flowrate and pressure drop operating limits. If you conduct multiple performance stack tests, you must set the minimum liquid flowrate and pressure drop operating limits at the highest minimum values established during the performance stack tests.

(2) For an electrostatic precipitator operated with a wet scrubber, you must establish the minimum voltage and secondary amperage (or total electric power input), as defined in §63.11237, as your operating limits during the three-run performance stack test. (These operating limits do not apply to electrostatic precipitators that are operated as dry controls without a wet scrubber.)

(3) For activated carbon injection, you must establish the minimum activated carbon injection rate, as defined in §63.11237, as your operating limit during the three-run performance stack test.

(4) The operating limit for boilers with fabric filters that demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in §63.11224, and that each fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period.

(c) If you elect to demonstrate compliance with an applicable mercury emission limit through fuel analysis, you must conduct fuel analyses according to §63.11213 and Table 5 to this subpart and follow the procedures in paragraphs (c)(1) through (3) of this section.

(1) If you burn more than one fuel type, you must determine the fuel type, or mixture, you could burn in your boiler that would result in the maximum emission rates of mercury.

(2) You must determine the 90th percentile confidence level fuel mercury concentration of the composite samples analyzed for each fuel type using Equation 1 of this section.

$$P_{90} = \text{mean} + (SD * t) \quad (\text{Eq. 1})$$

Where:

$P_{90}$  = 90th percentile confidence level mercury concentration, in pounds per million Btu.  
mean = Arithmetic average of the fuel mercury concentration in the fuel samples analyzed according to §63.11213, in units of pounds per million Btu.  
SD = Standard deviation of the mercury concentration in the fuel samples analyzed according to §63.11213, in units of pounds per million Btu.  
 $t$  = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable mercury emission limit, the emission rate that you calculate for your boiler using Equation 1 of this section must be less than the applicable mercury emission limit.

### **§ 63.11212 What stack tests and procedures must I use for the performance tests?**

(a) You must conduct all performance tests according to §63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in §63.7(c).

(b) You must conduct each stack test according to the requirements in Table 4 to this subpart.

(c) You must conduct performance stack tests at the representative operating load conditions while burning the type of fuel or mixture of fuels that have the highest emissions potential for each regulated pollutant, and you must demonstrate initial compliance and establish your operating limits based on these performance stack tests. For subcategories with more than one emission limit, these requirements could result in the need to conduct more than one performance stack test. Following each performance stack test and until the next performance stack test, you must comply with the

operating limit for operating load conditions specified in Table 3 to this subpart.

(d) You must conduct a minimum of three separate test runs for each performance stack test required in this section, as specified in §63.7(e)(3) and in accordance with the provisions in Table 4 to this subpart.

(e) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of appendix A-7 to part 60 of this chapter to convert the measured particulate matter concentrations and the measured mercury concentrations that result from the initial performance test to pounds per million Btu heat input emission rates.

#### **§ 63.11213 What fuel analyses and procedures must I use for the performance tests?**

(a) You must conduct fuel analyses according to the procedures in paragraphs (b) and (c) of this section and Table 5 to this subpart, as applicable. You are not required to conduct fuel analyses for fuels used for only startup, unit shutdown, and transient flame stability purposes. You are required to conduct fuel analyses only for fuels and units that are subject to emission limits for mercury in Table 1 of this subpart.

(b) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in Table 5 to this subpart. Each composite sample must consist of a minimum of three samples collected at approximately equal intervals during a test run period.

(c) Determine the concentration of mercury in the fuel in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 5 to this subpart.

#### **§ 63.11214 How do I demonstrate initial compliance with the work practice standard, emission reduction measures, and management practice?**

(a) If you own or operate an existing or new coal-fired boiler with a heat input capacity of less than 10 million Btu per hour, you must conduct a performance tune-up according to §63.11223(b) and you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the boiler.

(b) If you own or operate an existing or new biomass-fired boiler or an existing or new oil-fired boiler, you must conduct a performance tune-up according to §63.11223(b) and you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the boiler.

*Regulatory Analysis: Nonpareil will conduct the necessary performance tune-up and submit a signed statement in the Notification of Compliance Status report.*

(c) If you own or operate an existing affected boiler with a heat input capacity of 10 million Btu per hour or greater, you must submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed and submit, upon request, the energy assessment report.

(d) If you own or operate a boiler subject to emission limits in Table 1 of this subpart, you must minimize the boiler's startup and shutdown periods following the manufacturer's recommended procedures, if available. If manufacturer's recommended procedures are not available, you must

follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. You must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available.

*Regulatory Analysis: Nonpareil will minimize the East boiler's startup and shutdown periods following manufacturer's recommended procedures and submit a signed statement in the Notification of Compliance Status report.*

## **Continuous Compliance Requirements**

### **§ 63.11220 When must I conduct subsequent performance tests?**

(a) If your boiler has a heat input capacity of 10 million Btu per hour or greater, you must conduct all applicable performance (stack) tests according to §63.11212 on an triennial basis, unless you follow the requirements listed in paragraphs (b) through (d) of this section. Triennial performance tests must be completed no more than 37 months after the previous performance test, unless you follow the requirements listed in paragraphs (b) through (d) of this section.

(b) You can conduct performance stack tests less often for particulate matter or mercury if your performance stack tests for the pollutant for at least 3 consecutive years show that your emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions. In this case, you do not have to conduct a performance stack test for that pollutant for the next 2 years. You must conduct a performance stack test during the third year and no more than 37 months after the previous performance stack test.

(c) If your boiler continues to meet the emission limit for particulate matter or mercury, you may choose to conduct performance stack tests for the pollutant every third year if your emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions, but each such performance stack test must be conducted no more than 37 months after the previous performance test.

(d) If you have an applicable CO emission limit, you must conduct triennial performance tests for CO according to §63.11212. Each triennial performance test must be conducted between no more than 37 months after the previous performance test.

*Regulatory Analysis: Nonpareil will conduct performance (stack) tests as applicable.*

(e) If you demonstrate compliance with the mercury emission limit based on fuel analysis, you must conduct a fuel analysis according to §63.11213 for each type of fuel burned monthly. If you plan to burn a new type of fuel or fuel mixture, you must conduct a fuel analysis before burning the new type of fuel or mixture in your boiler. You must recalculate the mercury emission rate using Equation 1 of §63.11211. The recalculated mercury emission rate must be less than the applicable emission limit.

### **§ 63.11221 How do I monitor and collect data to demonstrate continuous compliance?**

(a) You must monitor and collect data according to this section.

(b) You must operate the monitoring system and collect data at all required intervals at all times the affected source is operating except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods (see section 63.8(c)(7) of this part), and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. You are required to effect monitoring system repairs in response to monitoring system malfunctions or out-of-control periods and to return the monitoring system to operation as expeditiously as practicable.

(c) You may not use data recorded during monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, or required monitoring system quality assurance or control activities in calculations used to report emissions or operating levels. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system.

(d) Except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks and required zero and span adjustments, failure to collect required data is a deviation of the monitoring requirements.

*Regulatory Analysis: Nonpareil will monitor and collect data as applicable.*

#### **§ 63.11222 How do I demonstrate continuous compliance with the emission limits?**

(a) You must demonstrate continuous compliance with each emission limit and operating limit in Tables 1 and 3 to this subpart that applies to you according to the methods specified in Table 7 to this subpart and to paragraphs (a)(1) through (4) of this section.

(1) Following the date on which the initial compliance demonstration is completed or is required to be completed under §§63.7 and 63.11196, whichever date comes first, you must continuously monitor the operating parameters. Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in paragraph (a) of this section constitutes a deviation from your operating limits established under this subpart, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. Operating limits are confirmed or reestablished during performance tests.

(2) If you have an applicable mercury or PM emission limit, you must keep records of the type and amount of all fuels burned in each boiler during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would result in lower emissions of mercury than the applicable emission limit (if you demonstrate compliance through fuel analysis), or result in lower fuel input of mercury than the maximum values calculated during the last performance stack test (if you demonstrate compliance through performance stack testing).

(3) If you have an applicable mercury emission limit and you plan to burn a new type of fuel, you must determine the mercury concentration for any new fuel type in units of pounds per million Btu, using the procedures in Equation 1 of §63.11211 based on supplier data or your own fuel analysis, and meet the requirements in paragraphs (a)(3)(i) or (ii) of this section.

- (i) The recalculated mercury emission rate must be less than the applicable emission limit.
- (ii) If the mercury concentration is higher than mercury fuel input during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in §63.11212 to demonstrate that the mercury emissions do not exceed the emission limit.

(4) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm is counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.

(b) You must report each instance in which you did not meet each emission limit and operating limit in Tables 1 and 3 to this subpart that apply to you. These instances are deviations from the emission limits in this subpart. These deviations must be reported according to the requirements in §63.11225.

*Regulatory Analysis: Nonpareil will demonstrate continuous compliance with each emission limit and operating limit according to the methods specified in Table 7 to this subpart.*

#### **§ 63.11223 How do I demonstrate continuous compliance with the work practice and management practice standards?**

(a) For affected sources subject to the work practice standard or the management practices of a tune-up, you must conduct a biennial performance tune-up according to paragraphs (b) of this section and keep records as required in §63.11225(c) to demonstrate continuous compliance. Each biennial tune-up must be conducted no more than 25 months after the previous tune-up.

(b) You must conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in paragraphs (b)(1) through (7) of this section.

(1) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown, but you must inspect each burner at least once every 36 months).

(2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

(3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly.

(4) Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available.

(5) Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made).

(6) Maintain onsite and submit, if requested by the Administrator, biennial report containing the information in paragraphs (b)(6)(i) through (iii) of this section.

(i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured before and after the tune-up of the boiler.

(ii) A description of any corrective actions taken as a part of the tune-up of the boiler.

(iii) The type and amount of fuel used over the 12 months prior to the biennial tune-up of the boiler.

(7) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within one week of startup.

*Regulatory Analysis: Nonpareil will conduct a tune-up of the boiler biennially to demonstrate continuous compliance as outlined above.*

(c) If you own or operate an existing or new coal-fired boiler with a heat input capacity of 10 million Btu per hour or greater, you must minimize the boiler's time spent during startup and shutdown following the manufacturer's recommended procedures and you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted startups and shutdowns according to the manufacturer's recommended procedures.

#### **§ 63.11224 What are my monitoring, installation, operation, and maintenance requirements?**

(a) If your boiler is subject to a carbon monoxide emission limit in Table 1 to this subpart, you must install, operate, and maintain a continuous oxygen monitor according to the procedures in paragraphs (a)(1) through (6) of this section by the compliance date specified in §63.11196. The oxygen level shall be monitored at the outlet of the boiler.

(1) Each monitor must be installed, operated, and maintained according to the applicable procedures under Performance Specification 3 at 40 CFR part 60, appendix B, and according to the site-specific monitoring plan developed according to paragraph (c) of this section.

(2) You must conduct a performance evaluation of each CEMS according to the requirements in §63.8(e) and according to Performance Specification 3 at 40 CFR part 60, appendix B.

(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(4) The CEMS data must be reduced as specified in §63.8(g)(2).

(5) You must calculate and record the 12-hour block average concentrations.

(6) For purposes of calculating data averages, you must use all the data collected during all periods in assessing compliance, excluding data collected during periods when the monitoring system malfunctions or is out of control, during associated repairs, and during required quality assurance or

control activities (including, as applicable, calibration checks and required zero and span adjustments). Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions. Any period for which the monitoring system malfunctions or is out of control and data are not available for a required calculation constitutes a deviation from the monitoring requirements. Periods when data are unavailable because of required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments) do not constitute monitoring deviations.

(b) If you are using a control device to comply with the emission limits specified in Table 1 to this subpart, you must maintain each operating limit in Table 3 to this subpart that applies to your boiler as specified in Table 7 to this subpart. If you use a control device not covered in Table 3 to this subpart, or you wish to establish and monitor an alternative operating limit and alternative monitoring parameters, you must apply to the United States Environmental Protection Agency (EPA) Administrator for approval of alternative monitoring under §63.8(f).

*Regulatory Analysis: If Nonpareil uses a control device to comply with emission limits they will maintain each operating limit.*

(c) If you demonstrate compliance with any applicable emission limit through stack testing and subsequent compliance with operating limits, you must develop a site-specific monitoring plan according to the requirements in paragraphs (c)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under §63.8(f).

*Regulatory Analysis: If Nonpareil demonstrates compliance with an emission limit through stack testing they will develop a site-specific monitoring plan.*

(1) For each continuous monitoring system (CMS) required in this section, you must develop, and submit to the EPA Administrator for approval upon request, a site-specific monitoring plan that addresses paragraphs (b)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan (if requested) at least 60 days before your initial performance evaluation of your CMS.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected unit such that the measurement is representative of control of the exhaust emissions ( e.g., on or downstream of the last control device).

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.

(iii) Performance evaluation procedures and acceptance criteria ( e.g., calibrations).

(2) In your site-specific monitoring plan, you must also address paragraphs (b)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (3), and (4)(ii).

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d).

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).

(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(d) If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system according to the procedures in paragraphs (d)(1) through (5) of this section.

*Regulatory Analysis: If Nonpareil uses a CMS it will install, operate and maintain the monitoring system accordingly.*

(1) The continuous parameter monitoring system must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.

(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for a required calculation constitutes a deviation from the monitoring requirements.

(4) Determine the 12-hour block average of all recorded readings, except as provided in paragraph (d)(3) of this section.

(5) Record the results of each inspection, calibration, and validation check.

(e) If you have an applicable opacity operating limit under this rule, you must install, operate, certify and maintain each continuous opacity monitoring system (COMS) according to the procedures in paragraphs (e)(1) through (7) of this section by the compliance date specified in §63.11196.

(1) Each COMS must be installed, operated, and maintained according to Performance Specification 1 of 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each COMS according to the requirements in §63.8 and according to Performance Specification 1 of 40 CFR part 60, appendix B.

(3) As specified in §63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each

successive 6-minute period.

(4) The COMS data must be reduced as specified in §63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in §63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of §63.8(e). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.

(7) You must determine and record all the 1-hour block averages collected for periods during which the COMS is not out of control.

(f) If you use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate the bag leak detection system as specified in paragraphs (f)(1) through (8) of this section.

*Regulatory Analysis: If Nonpareil uses a fabric filter it will install, calibrate, operate and maintain the bag leak detection system accordingly*

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with EPA-454/R-98-015 (incorporated by reference, see §63.14).

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system must be equipped with an audible or visual alarm system that will activate automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard or seen by plant operating personnel.

(7) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.

(8) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

**§ 63.11225 What are my notification, reporting, and recordkeeping requirements?**

(a) You must submit the notifications specified in paragraphs (a)(1) through (a)(5) of this section to the delegated authority.

(1) You must submit all of the notifications in §§63.7(b); 63.8(e) and (f); 63.9(b) through (e); and 63.9(g) and (h) that apply to you by the dates specified in those sections.

(2) As specified in §63.9(b)(2), you must submit the Initial Notification no later than 120 calendar days after May 20, 2011 or within 120 days after the source becomes subject to the standard.

(3) If you are required to conduct a performance stack test you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance stack test is scheduled to begin.

(4) You must submit the Notification of Compliance Status in accordance with §63.9(h) no later than 120 days after the applicable compliance date specified in §63.11196 unless you must conduct a performance stack test. If you must conduct a performance stack test, you must submit the Notification of Compliance Status within 60 days of completing the performance stack test. In addition to the information required in §63.9(h)(2), your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(i) “This facility complies with the requirements in §63.11214 to conduct an initial tune-up of the boiler.”

(ii) “This facility has had an energy assessment performed according to §63.11214(c).”

(iii) For an owner or operator that installs bag leak detection systems: “This facility has prepared a bag leak detection system monitoring plan in accordance with §63.11224 and will operate each bag leak detection system according to the plan.”

(iv) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: “No secondary materials that are solid waste were combusted in any affected unit.”

(5) If you are using data from a previously conducted emission test to serve as documentation of conformance with the emission standards and operating limits of this subpart consistent with §63.7(e)(2)(iv), you must submit the test data in lieu of the initial performance test results with the Notification of Compliance Status required under paragraph (a)(4) of this section.

(b) You must prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the information specified in paragraphs (b)(1) through (4) of this section. You must submit the report by March 15 if you had any instance described by paragraph (b)(3) of this section. For boilers that are subject only to a requirement to conduct a biennial tune-up according to §63.11223(a) and not subject to emission limits or operating limits, you may prepare only a biennial compliance report as specified in paragraphs (b)(1) through (4) of this section, instead of a semi-annual compliance report.

(1) Company name and address.

(2) Statement by a responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart.

(3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.

(4) The total fuel use by each affected boiler subject to an emission limit, for each calendar month within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by you or EPA through a petition process to be a non-waste under §241.3(c), whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of §241.3, and the total fuel usage amount with units of measure.

**Regulatory Analysis: Nonpareil will submit all applicable notifications and reports.**

**(c) You must maintain the records specified in paragraphs (c)(1) through (5) of this section.**

(1) As required in §63.10(b)(2)(xiv), you must keep a copy of each notification and report that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.

(2) You must keep records to document conformance with the work practices, emission reduction measures, and management practices required by §63.11214 as specified in paragraphs (c)(2)(i) and (ii) of this section.

(i) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.

(ii) Records documenting the fuel type(s) used monthly by each boiler, including, but not limited to, a description of the fuel, including whether the fuel has received a non-waste determination by you or EPA, and the total fuel usage amount with units of measure. If you combust non-hazardous secondary materials that have been determined not to be solid waste pursuant to §241.3(b)(1), you must keep a record which documents how the secondary material meets each of the legitimacy criteria. If you combust a fuel that has been processed from a discarded non-hazardous secondary material pursuant to §241.3(b)(4), you must keep records as to how the operations that produced the fuel satisfies the definition of processing in §241.2. If the fuel received a non-waste determination pursuant to the petition process submitted under §241.3(c), you must keep a record that documents how the fuel satisfies the requirements of the petition process.

(3) For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation that were done to demonstrate compliance with the mercury emission limits. Supporting documentation should include results of any fuel analyses. You can use the results from one fuel analysis for multiple boilers provided they are all burning the same fuel type.

(4) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

(6) You must keep the records of all inspection and monitoring data required by §§63.11221 and 63.11222, and the information identified in paragraphs (c)(6)(i) through (vi) of this section for each

required inspection or monitoring.

(i) The date, place, and time of the monitoring event.

(ii) Person conducting the monitoring.

(iii) Technique or method used.

(iv) Operating conditions during the activity.

(v) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem to the time that monitoring indicated proper operation.

(vi) Maintenance or corrective action taken (if applicable).

(7) If you use a bag leak detection system, you must keep the records specified in paragraphs (c)(7)(i) through (iii) of this section.

(i) Records of the bag leak detection system output.

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings.

(iii) The date and time of all bag leak detection system alarms, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

(d) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each recorded action. You must keep each record onsite for at least 2 years after the date of each recorded action according to §63.10(b)(1). You may keep the records off site for the remaining 3 years.

(e) As of January 1, 2012 and within 60 days after the date of completing each performance test, as defined in §63.2, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) ( *see* [http://www.epa.gov/ttn/chief/ert/ert\\_tool.html/](http://www.epa.gov/ttn/chief/ert/ert_tool.html/) ) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(f) If you intend to commence or recommence combustion of solid waste, you must provide 30 days prior notice of the date upon which you will commence or recommence combustion of solid waste. The notification must identify:

(1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that will commence burning solid waste, and the date of the notice.

(2) The currently applicable subcategory under this subpart.

(3) The date on which you became subject to the currently applicable emission limits.

(4) The date upon which you will commence combusting solid waste.

(g) If you intend to switch fuels, and this fuel switch may result in the applicability of a different subcategory or a switch out of subpart JJJJJ due to a switch to 100 percent natural gas, you must provide 30 days prior notice of the date upon which you will switch fuels. The notification must identify:

(1) The name of the owner or operator of the affected source, the location of the source, the boiler(s) that will switch fuels, and the date of the notice.

(2) The currently applicable subcategory under this subpart.

(3) The date on which you became subject to the currently applicable standards.

(4) The date upon which you will commence the fuel switch.

*Regulatory Analysis: Nonpareil will keep all necessary records to meet the recordkeeping requirements outlined above.*

**§ 63.11226 How can I assert an affirmative defense if I exceed an emission limit during a malfunction?**

In response to an action to enforce the standards set forth in paragraph §63.11201 you may assert an affirmative defense to a claim for civil penalties for exceedances of numerical emission limits that are caused by malfunction, as defined at §63.2. Appropriate penalties may be assessed, however, if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) To establish the affirmative defense in any action to enforce such a limit, you must timely meet the notification requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that:

(1) The excess emissions:

(i) Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner, and

(ii) Could not have been prevented through careful planning, proper design or better operation and maintenance practices; and

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for; and

(iv) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and

(2) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs; and

(3) The frequency, amount and duration of the excess emissions (including any bypass) were

minimized to the maximum extent practicable during periods of such emissions; and

(4) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage; and

(5) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health; and

(6) All emissions monitoring and control systems were kept in operation if at all possible, consistent with safety and good air pollution control practices; and

(7) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs; and

(8) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions; and

(9) A written root cause analysis has been prepared, the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(b) *Notification.* The owner or operator of the facility experiencing an exceedance of its emission limit(s) during a malfunction shall notify the Administrator by telephone or facsimile (FAX) transmission as soon as possible, but no later than two business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in §63.11201 to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

### **Other Requirements and Information**

#### **§ 63.11235 What parts of the General Provisions apply to me?**

Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you.

#### **§ 63.11236 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by EPA or a delegated authority such as your state, local, or tribal agency. If the EPA Administrator has delegated authority to your state, local, or tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your state, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal

agency under 40 CFR part 63, subpart E, the authorities contained in paragraphs (c) of this section are retained by the EPA Administrator and are not transferred to the state, local, or tribal agency.

(c) The authorities that cannot be delegated to state, local, or tribal agencies are specified in paragraphs (c)(1) through (5) of this section.

(1) Approval of an alternative non-opacity emission standard and work practice standards in §63.11223(a).

(2) Approval of alternative opacity emission standard under §63.6(h)(9).

(3) Approval of major change to test methods under §63.7(e)(2)(ii) and (f). A “major change to test method” is defined in §63.90.

(4) Approval of a major change to monitoring under §63.8(f). A “major change to monitoring” is defined in §63.90.

(5) Approval of major change to recordkeeping and reporting under §63.10(f). A “major change to recordkeeping/reporting” is defined in §63.90.

#### **§ 63.11237 What definitions apply to this subpart?**

Terms used in this subpart are defined in the Clean Air Act, in §63.2 (the General Provisions), and in this section as follows:

*Affirmative defense* means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

*Annual heat input basis* means the heat input for the 12 months preceding the compliance demonstration.

*Bag leak detection system* means a group of instruments that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter ( *i.e.*, baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

*Biomass* means any biomass-based solid fuel that is not a solid waste. This includes, but is not limited to, wood residue and wood products (e.g., trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings); animal manure, including litter and other bedding materials; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff ( *e.g.*, almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds. This definition of biomass is not intended to suggest that these materials are or are not solid waste.

*Biomass subcategory* includes any boiler that burns at least 15 percent biomass on an annual heat input basis.

*Boiler* means an enclosed device using controlled flame combustion in which water is heated to recover thermal energy in the form of steam or hot water. Controlled flame combustion refers to a

steady-state, or near steady-state, process wherein fuel and/or oxidizer feed rates are controlled. Waste heat boilers are excluded from this definition.

*Boiler system* means the boiler and associated components, such as, the feedwater system, the combustion air system, the boiler fuel system (including burners), blowdown system, combustion control system, steam system, and condensate return system.

*Coal* means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by the American Society for Testing and Materials in ASTM D388 (incorporated by reference, see §63.14), coal refuse, and petroleum coke. For the purposes of this subpart, this definition of “coal” includes synthetic fuels derived from coal including, but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures. Coal derived gases are excluded from this definition.

*Coal subcategory* includes any boiler that burns any solid fossil fuel and no more than 15 percent biomass on an annual heat input basis.

*Commercial boiler* means a boiler used in commercial establishments such as hotels, restaurants, and laundries to provide electricity, steam, and/or hot water.

*Deviation* (1) Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the standard is up to the discretion of the entity responsible for enforcement of the standards.

*Dry scrubber* means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers are included in this definition. A dry scrubber is a dry control system.

*Electrostatic precipitator (ESP)* means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper. An electrostatic precipitator is a dry control system, except when it is operated with a wet scrubber.

*Energy assessment* means the following only as this term is used in Table 3 to this subpart:

(1) Energy assessment for facilities with affected boilers using less than 0.3 trillion Btu (TBtu) per year heat input will be one day in length maximum. The boiler system and energy use system accounting for at least 50 percent of the affected boiler(s) energy output will be evaluated to identify energy savings opportunities, within the limit of performing a one day energy assessment.

(2) Energy assessment for facilities with affected boilers and process heaters using 0.3 to 1 TBtu/year

will be three days in length maximum. The boiler system(s) and any energy use system(s) accounting for at least 33 percent of the affected boiler(s) energy output will be evaluated to identify energy savings opportunities, within the limit of performing a 3-day energy assessment.

(3) Energy assessment for facilities with affected boilers and process heaters using greater than 1.0 TBtu/year, the boiler system(s) and any energy use system(s) accounting for at least 20 percent of the affected boiler(s) energy output will be evaluated to identify energy savings opportunities.

*Energy use system* includes, but not limited to, process heating; compressed air systems; machine drive (motors, pumps, fans); process cooling; facility heating, ventilation, and air-conditioning (HVAC) systems; hot heater systems; building envelop; and lighting.

*Equivalent* means the following only as this term is used in Table 5 to this subpart:

(1) An equivalent sample collection procedure means a published voluntary consensus standard or practice (VCS) or EPA method that includes collection of a minimum of three composite fuel samples, with each composite consisting of a minimum of three increments collected at approximately equal intervals over the test period.

(2) An equivalent sample compositing procedure means a published VCS or EPA method to systematically mix and obtain a representative subsample (part) of the composite sample.

(3) An equivalent sample preparation procedure means a published VCS or EPA method that: Clearly states that the standard, practice or method is appropriate for the pollutant and the fuel matrix; or is cited as an appropriate sample preparation standard, practice or method for the pollutant in the chosen VCS or EPA determinative or analytical method.

(4) An equivalent procedure for determining heat content means a published VCS or EPA method to obtain gross calorific (or higher heating) value.

(5) An equivalent procedure for determining fuel moisture content means a published VCS or EPA method to obtain moisture content. If the sample analysis plan calls for determining mercury using an aliquot of the dried sample, then the drying temperature must be modified to prevent vaporizing this metal. On the other hand, if metals analysis is done on an “as received” basis, a separate aliquot can be dried to determine moisture content and the mercury concentration mathematically adjusted to a dry basis.

(6) An equivalent mercury determinative or analytical procedure means a published VCS or EPA method that clearly states that the standard, practice, or method is appropriate for mercury and the fuel matrix and has a published detection limit equal or lower than the methods listed in Table 5 to this subpart for the same purpose.

*Fabric filter* means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse. A fabric filter is a dry control system.

*Federally enforceable* means all limitations and conditions that are enforceable by the EPA Administrator, including the requirements of 40 CFR part 60 and 40 CFR part 61, requirements within any applicable state implementation plan, and any permit requirements established under §52.21 or under §§51.18 and 51.24.

*Fuel type* means each category of fuels that share a common name or classification. Examples

include, but are not limited to, bituminous coal, sub-bituminous coal, lignite, anthracite, biomass, distillate oil, residual oil. Individual fuel types received from different suppliers are not considered new fuel types.

*Gaseous fuels* includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, hydrogen, and biogas.

*Gas-fired boiler* includes any boiler that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment, gas supply emergencies, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year.

*Heat input* means heat derived from combustion of fuel in a boiler and does not include the heat input from preheated combustion air, recirculated flue gases, or returned condensate.

*Hot water heater* means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which the heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210 degrees Fahrenheit (99 degrees Celsius).

*Industrial boiler* means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

*Institutional boiler* means a boiler used in institutional establishments such as medical centers, research centers, and institutions of higher education to provide electricity, steam, and/or hot water.

*Liquid fuel* means, but not limited to, petroleum, distillate oil, residual oil, any form of liquid fuel derived from petroleum, used oil, liquid biofuels, and biodiesel.

*Minimum activated carbon injection rate* means load fraction (percent) multiplied by the lowest 1-hour average activated carbon injection rate measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limits.

*Minimum oxygen level* means the lowest 1-hour average oxygen level measured according to Table 6 of this subpart during the most recent performance stack test demonstrating compliance with the applicable CO emission limit.

*Minimum PM scrubber pressure drop* means the lowest 1-hour average PM scrubber pressure drop measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limit.

*Minimum sorbent flow rate* means the boiler load (percent) multiplied by the lowest 2-hour average sorbent (or activated carbon) injection rate measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limits.

*Minimum voltage or amperage* means the lowest 1-hour average total electric power value (secondary voltage × secondary current = secondary electric power) to the electrostatic precipitator measured according to Table 6 to this subpart during the most recent performance stack test demonstrating compliance with the applicable emission limits.

*Natural gas* means:

- (1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane including intermediate gas streams generated during processing of natural gas at production sites or at gas processing plants; or
- (2) Liquefied petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §63.14).
- (3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).
- (4) Propane or propane-derived synthetic natural gas. Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure  $C_3H_8$ .

*Oil subcategory* includes any boiler that burns any liquid fuel and is not in either the biomass or coal subcategories. Gas-fired boilers that burn liquid fuel during periods of gas curtailment, gas supply emergencies, or for periodic testing not to exceed 48 hours during any calendar year are not included in this definition.

*Opacity* means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

*Particulate matter (PM)* means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an alternative method.

*Performance testing* means the collection of data resulting from the execution of a test method used (either by stack testing or fuel analysis) to demonstrate compliance with a relevant emission standard.

*Period of natural gas curtailment or supply interruption* means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.

*Qualified energy assessor* means:

- (1) someone who has demonstrated capabilities to evaluate a set of the typical energy savings opportunities available in opportunity areas for steam generation and major energy using systems, including, but not limited to:
  - (i) Boiler combustion management.
  - (ii) Boiler thermal energy recovery, including
    - (A) Conventional feed water economizer,
    - (B) Conventional combustion air preheater, and
    - (C) Condensing economizer.
  - (iii) Boiler blowdown thermal energy recovery.
  - (iv) Primary energy resource selection, including

- (A) Fuel (primary energy source) switching, and
- (B) Applied steam energy versus direct-fired energy versus electricity.
- (v) Insulation issues.
- (vi) Steam trap and steam leak management.
- (vi) Condensate recovery.
- (viii) Steam end-use management.

(2) Capabilities and knowledge includes, but is not limited to:

- (i) Background, experience, and recognized abilities to perform the assessment activities, data analysis, and report preparation.
- (ii) Familiarity with operating and maintenance practices for steam or process heating systems.
- (iii) Additional potential steam system improvement opportunities including improving steam turbine operations and reducing steam demand.
- (iv) Additional process heating system opportunities including effective utilization of waste heat and use of proper process heating methods.
- (v) Boiler-steam turbine cogeneration systems.
- (vi) Industry specific steam end-use systems.

*Responsible official* means responsible official as defined in §70.2.

*Solid fossil fuel* includes, but not limited to, coal, petroleum coke, and tire derived fuel.

*Waste heat boiler* means a device that recovers normally unused energy and converts it to usable heat. Waste heat boilers are also referred to as heat recovery steam generators.

*Work practice standard* means any design, equipment, work practice, or operational standard, or combination thereof, which is promulgated pursuant to section 112(h) of the Clean Air Act.

**Table 1 to Subpart JJJJJ of Part 63—Emission Limits**

As stated in §63.11201, you must comply with the following applicable emission limits:

<b>If your boiler is in this subcategory</b>	<b>For the following pollutants. . .</b>	<b>You must achieve less than or equal to the following emission limits, except during periods of startup and shutdown. . .</b>
1. New coal-fired boiler with heat input capacity of 30 million Btu per hour or greater	a. Particulate Matter	0.03 lb per MMBtu of heat input.
	b. Mercury	0.0000048 lb per MMBtu of heat input.
	c. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen.
2. New coal-fired boiler with heat input capacity of between 10 and 30 million Btu per hour	a. Particulate Matter	0.42 lb per MMBtu of heat input.
	b. Mercury	0.0000048 lb per MMBtu of heat input.
	c. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen.
3. New biomass-fired boiler with heat input capacity of 30 million Btu per hour or greater	a. Particulate Matter	0.03 lb per MMBtu of heat input.
4. New biomass fired boiler with heat	a. Particulate	0.07 lb per MMBtu of heat input.

input capacity of between 10 and 30 million Btu per hour	Matter	
5. New oil-fired boiler with heat input capacity of 10 million Btu per hour or greater	a. Particulate Matter	0.03 lb per MMBtu of heat input.
6. Existing coal (units with heat input capacity of 10 million Btu per hour or greater)	a. Mercury	0.0000048 lb per MMBtu of heat input.
	b. Carbon Monoxide	400 ppm by volume on a dry basis corrected to 3 percent oxygen.

**Table 2 to Subpart JJJJJ of Part 63—Work Practice Standards, Emission Reduction Measures, and Management Practices**

As stated in §63.11201, you must comply with the following applicable work practice standards, emission reduction measures, and management practices:

<b>If your boiler is in this subcategory. . .</b>	<b>You must meet the following. . .</b>
1. Existing or new coal, new biomass, and new oil (units with heat input capacity of 10 million Btu per hour or greater)	Minimize the boiler's startup and shutdown periods following the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, you must follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available.
2. Existing or new coal (units with heat input capacity of less than 10 million Btu per hour)	Conduct a tune-up of the boiler biennially as specified in §63.11223.
3. Existing or new biomass or oil	Conduct a tune-up of the boiler biennially as specified in §63.11223.
4. Existing coal, biomass, or oil (units with heat input capacity of 10 million Btu per hour and greater)	Must have a one-time energy assessment performed by a qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table satisfies the energy assessment requirement. The energy assessment must include: (1) A visual inspection of the boiler system, (2) An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints, (3) Inventory of major systems consuming energy from affected boiler(s), (4) A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage, (5) A list of major energy conservation measures, (6) A list of the energy savings potential of the energy conservation measures identified, (7) A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

**Table 3 to Subpart JJJJJ of Part 63—Operating Limits for Boilers With Emission Limits**

As stated in §63.11201, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable emission limits using . . .	You must meet these operating limits. . .
1. Fabric filter control	a. Maintain opacity to less than or equal to 10 percent opacity (daily block average); OR
	b. Install and operate a bag leak detection system according to §63.11224 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period.
2. Electrostatic precipitator control	a. Maintain opacity to less than or equal to 10 percent opacity (daily block average); OR
	b. Maintain the secondary power input of the electrostatic precipitator at or above the lowest 1-hour average secondary electric power measured during the most recent performance test demonstrating compliance with the particulate matter emission limitations.
3. Wet PM scrubber control	Maintain the pressure drop at or above the lowest 1-hour average pressure drop across the wet scrubber and the liquid flow-rate at or above the lowest 1-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with the PM emission limitation.
4. Dry sorbent or carbon injection control	Maintain the sorbent or carbon injection rate at or above the lowest 2-hour average sorbent flow rate measured during the most recent performance test demonstrating compliance with the mercury emissions limitation. When your boiler operates at lower loads, multiply your sorbent or carbon injection rate by the load fraction (e.g., actual heat input divided by the heat input during performance stack test, for 50 percent load, multiply the injection rate operating limit by 0.5).
5. Any other add-on air pollution control type	This option is for boilers that operate dry control systems. Boilers must maintain opacity to less than or equal to 10 percent opacity (daily block average).
6. Fuel analysis	Maintain the fuel type or fuel mixture (annual average) such that the mercury emission rates calculated according to §63.11211(b) is less than the applicable emission limits for mercury.
7. Performance stack testing	For boilers that demonstrate compliance with a performance stack test, maintain the operating load of each unit such that is does not exceed 110 percent of the average operating load recorded during the most recent performance stack test.
8. Continuous Oxygen Monitor	Maintain the oxygen level at or above the lowest 1-hour average oxygen level measured during the most recent CO performance stack test.

**Table 4 to Subpart JJJJJ of Part 63—Performance (Stack) Testing Requirements**

As stated in §63.11212, you must comply with the following requirements for performance (stack) test for affected sources:

To conduct a performance test for	You must. . .	Using. . .
-----------------------------------	---------------	------------

<b>the following pollutant. . .</b>		
1. Particulate Matter	a. Select sampling ports location and the number of traverse points	Method 1 in appendix A-1 to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G in appendix A-2 to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A-2 to part 60 of this chapter, or ASTM D6522-00 (Reapproved 2005), <sup>a</sup> or ANSI/ASME PTC 19.10-1981. <sup>a</sup>
	d. Measure the moisture content of the stack gas	Method 4 in appendix A-3 to part 60 of this chapter.
	e. Measure the particulate matter emission concentration	Method 5 or 17 (positive pressure fabric filters must use Method 5D) in appendix A-3 and A-6 to part 60 of this chapter and a minimum 1 dscm of sample volume per run.
	f. Convert emissions concentration to lb/MMBtu emission rates	Method 19 F-factor methodology in appendix A-7 to part 60 of this chapter.
2. Mercury	a. Select sampling ports location and the number of traverse points	Method 1 in appendix A-1 to part 60 of this chapter.
	b. Determine velocity and volumetric flow-rate of the stack gas	Method 2, 2F, or 2G in appendix A-2 to part 60 of this chapter.
	c. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A-2 to part 60 of this chapter, or ASTM D6522-00 (Reapproved 2005), <sup>a</sup> or ANSI/ASME PTC 19.10-1981. <sup>a</sup>
	d. Measure the moisture content of the stack gas	Method 4 in appendix A-3 to part 60 of this chapter.
	e. Measure the mercury emission concentration	Method 29, 30A, or 30B in appendix A-8 to part 60 of this chapter or Method 101A in appendix B to part 61 of this chapter or ASTM Method D6784-02. <sup>a</sup> Collect a minimum 2 dscm of sample volume with Method 29 of 101A per run. Use a minimum run time of 2 hours with Method 30A.
	f. Convert emissions concentration to lb/MMBtu emission rates	Method 19 F-factor methodology in appendix A-7 to part 60 of this chapter.
3. Carbon Monoxide	a. Select the sampling ports location and the number of traverse points	Method 1 in appendix A-1 to part 60 of this chapter.

	b. Determine oxygen and carbon dioxide concentrations of the stack gas	Method 3A or 3B in appendix A–2 to part 60 of this chapter, or ASTM D6522–00 (Reapproved 2005), <sup>a</sup> or ANSI/ASME PTC 19.10–1981. <sup>a</sup>
	c. Measure the moisture content of the stack gas	Method 4 in appendix A–3 to part 60 of this chapter.
	d. Measure the carbon monoxide emission concentration	Method 10, 10A, or 10B in appendix A–4 to part 60 of this chapter or ASTM D6522–00 (Reapproved 2005) <sup>a</sup> and a minimum 1 hour sampling time per run.

<sup>a</sup>Incorporated by reference, see §63.14.

**Table 5 to Subpart JJJJJ of Part 63—Fuel Analysis Requirements**

As stated in §63.11213, you must comply with the following requirements for fuel analysis testing for affected sources:

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
1. Mercury	a. Collect fuel samples	Procedure in §63.11213(b) or ASTM D2234/D2234M <sup>a</sup> (for coal) or ASTM D6323 <sup>a</sup> (for biomass) or equivalent.
	b. Compose fuel samples	Procedure in §63.11213(b) or equivalent.
	c. Prepare composited fuel samples	EPA SW–846–3050B <sup>a</sup> (for solid samples) or EPA SW–846–3020A <sup>a</sup> (for liquid samples) or ASTM D2013/D2013M <sup>a</sup> (for coal) or ASTM D5198 <sup>a</sup> (for biomass) or equivalent.
	d. Determine heat content of the fuel type	ASTM D5865 <sup>a</sup> (for coal) or ASTM E711 <sup>a</sup> (for biomass) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173 <sup>a</sup> or ASTM E871 <sup>a</sup> or equivalent.
	f. Measure mercury concentration in fuel sample	ASTM D6722 <sup>a</sup> (for coal) or EPA SW–846–7471B <sup>a</sup> (for solid samples) or EPA SW–846–7470A <sup>a</sup> (for liquid samples) or equivalent.
	g. Convert concentrations into units of lb/MMBtu of heat content	

<sup>a</sup>Incorporated by reference, see §63.14.

**Table 6 to Subpart JJJJJ of Part 63—Establishing Operating Limits**

As stated in §63.11211, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
1. Particulate	a. Wet scrubber	i. Establish a site-	(1) Data from the	(a) You must collect

matter or mercury	operating parameters	specific minimum pressure drop and minimum flow rate operating limit according to §63.11211(b)	pressure drop and liquid flow rate monitors and the particulate matter or mercury performance stack test	pressure drop and liquid flow-rate data every 15 minutes during the entire period of the performance stack tests;
	(b) Determine the average pressure drop and liquid flow-rate for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.			
	b. Electrostatic precipitator operating parameters (option only for units that operate wet scrubbers)	i. Establish a site-specific minimum secondary electric power according to §63.11211(b)	(1) Data from the secondary electric power monitors during the particulate matter or mercury performance stack test	(a) You must collect secondary electric power input data every 15 minutes during the entire period of the performance stack tests; (b) Determine the secondary electric power input for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.
2. Mercury	a. Activated carbon injection	i. Establish a site-specific minimum activated carbon injection rate operating limit according to §63.11211(b)	(1) Data from the activated carbon rate monitors and mercury performance stack tests	(a) You must collect activated carbon injection rate data every 15 minutes during the entire period of the performance stack tests; (b) Determine the average activated carbon injection rate for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run. (c) When your unit operates at lower loads, multiply your activated carbon injection rate by the load fraction

				(e.g., actual heat input divided by heat input during performance stack test, for 50 percent load, multiply the injection rate operating limit by 0.5) to determine the required injection rate.
3. Carbon monoxide	a. Oxygen	i. Establish a unit-specific limit for minimum oxygen level according to §63.11211(b)	(1) Data from the oxygen monitor specified in §63.11224(a)	(a) You must collect oxygen data every 15 minutes during the entire period of the performance stack tests; (b) Determine the average oxygen concentration for each individual test run in the three-run performance stack test by computing the average of all the 15-minute readings taken during each test run.

**Table 7 to Subpart JJJJJ of Part 63—Demonstrating Continuous Compliance**

As stated in §63.11222, you must show continuous compliance with the emission limitations for affected sources according to the following:

<b>If you must meet the following operating limits. . .</b>	<b>You must demonstrate continuous compliance by. . .</b>
1. Opacity	a. Collecting the opacity monitoring system data according to §63.11224(e) and §63.11221; and
	b. Reducing the opacity monitoring data to 6-minute averages; and
	c. Maintaining opacity to less than or equal to 10 percent (daily block average).
2. Fabric filter bag leak detection operation	Installing and operating a bag leak detection system according to §63.11224 and operating the fabric filter such that the requirements in §63.11222(a)(4) are met.
3. Wet scrubber pressure drop and liquid flow-rate	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§63.11224 and 63.11221; and
	b. Reducing the data to 12-hour block averages; and
	c. Maintaining the 12-hour average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to §63.1140.
4. Dry scrubber sorbent or carbon injection rate	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§63.11224 and 63.11220; and
	b. Reducing the data to 12-hour block averages; and
	c. Maintaining the 12-hour average sorbent or carbon injection rate at or above the minimum sorbent or carbon injection rate as defined in §63.11237.
5. Electrostatic precipitator secondary amperage and voltage,	a. Collecting the secondary amperage and voltage, or total power input monitoring system data for the electrostatic precipitator

or total power input	according to §§63.11224 and 63.11220; and
	b. Reducing the data to 12-hour block averages; and
	c. Maintaining the 12-hour average secondary amperage and voltage, or total power input at or above the operating limits established during the performance test according to §63.11214.
6. Fuel pollutant content	a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to §63.11214 as applicable; and
	b. Keeping monthly records of fuel use according to §63.11222.
7. Oxygen content	a. Continuously monitor the oxygen content in the combustion exhaust according to §63.11224.
	b. Maintain the 12-hour average oxygen content at or above the operating limit established during the most recent carbon monoxide performance test.

**Table 8 to Subpart JJJJJ of Part 63—Applicability of General Provisions to Subpart JJJJJ**

As stated in §63.11235, you must comply with the applicable General Provisions according to the following:

General provisions cite	Subject	Does it apply?
§63.1	Applicability	Yes.
§63.2	Definitions	Yes. Additional terms defined in §63.11237.
§63.3	Units and Abbreviations	Yes.
§63.4	Prohibited Activities and Circumvention	Yes.
§63.5	Preconstruction Review and Notification Requirements	No
§63.6(a), (b)(1)–(b)(5), (b)(7), (c), (f)(2)–(3), (g), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes.
§63.6(e)(1)(i)	General Duty to minimize emissions	No. <i>See</i> §63.11205 for general duty requirement.
§63.6(e)(1)(ii)	Requirement to correct malfunctions ASAP	No.
§63.6(e)(3)	SSM Plan	No.
§63.6(f)(1)	SSM exemption	No.
§63.6(h)(1)	SSM exemption	No.
§63.6(h)(2) to (9)	Determining compliance with opacity emission standards	Yes.
§63.7(a), (b), (c), (d), (e)(2)–(e)(9), (f), (g), and (h)	Performance Testing Requirements	Yes.
§63.7(e)(1)	Performance testing	No. <i>See</i> §63.11210.
§63.8(a), (b), (c)(1), (c)(1)(ii), (c)(2) to (c)(9),	Monitoring Requirements	Yes.

(d)(1) and (d)(2), (e),(f), and (g)		
§63.8(c)(1)(i)	General duty to minimize emissions and CMS operation	No.
§63.8(c)(1)(iii)	Requirement to develop SSM Plan for CMS	No.
§63.8(d)(3)	Written procedures for CMS	Yes, except for the last sentence, which refers to an SSM plan. SSM plans are not required.
§63.9	Notification Requirements	Yes.
§63.10(a) and (b)(1)	Recordkeeping and Reporting Requirements	Yes.
§63.10(b)(2)(i)	Recordkeeping of occurrence and duration of startups or shutdowns	No.
§63.10(b)(2)(ii)	Recordkeeping of malfunctions	No. <i>See</i> §63.11225 for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunctions.
§63.10(b)(2)(iii)	Maintenance records	Yes.
§63.10(b)(2)(iv) and (v)	Actions taken to minimize emissions during SSM	No.
§63.10(b)(2)(vi)	Recordkeeping for CMS malfunctions	Yes.
§63.10(b)(2)(vii) to (xiv)	Other CMS requirements	Yes.
§63.10(b)(3)	Recordkeeping requirements for applicability determinations	No.
§63.10(c)(1) to (9)	Recordkeeping for sources with CMS	Yes.
§63.10(c)(10)	Recording nature and cause of malfunctions	No. <i>See</i> §63.11225 for malfunction recordkeeping requirements.
§63.10(c)(11)	Recording corrective actions	No. <i>See</i> §63.11225 for malfunction recordkeeping requirements.
§63.10(c)(12) and (13)	Recordkeeping for sources with CMS	Yes.
§63.10(c)(15)	Allows use of SSM plan	No.
§63.10(d)(1) and (2)	General reporting requirements	Yes.
§63.10(d)(3)	Reporting opacity or visible emission observation results	No.

§63.10(d)(4)	Progress reports under an extension of compliance	Yes.
§63.10(d)(5)	SSM reports	No. <i>See</i> §63.11225 for malfunction reporting requirements.
§63.10(e) and (f)		Yes.
§63.11	Control Device Requirements	No.
§63.12	State Authority and Delegation	Yes.
§63.13–63.16	Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions	Yes.
§63.1(a)(5), (a)(7)–(a)(9), (b)(2), (c)(3)–(4), (d), 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2)–(4), (c)(9)	Reserved	No.

**APPENDIX C**

**AIR DISPERSION MODEL REPORT**

**Nonpareil Corporation**  
**Air Quality Modeling Report**  
**Proposed Modification to P-2010.0057**

**Prepared for:**

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Air Quality Modeling Report  
Nonpareil Corporation, Blackfoot, Idaho

**PURPOSE**

This air quality modeling report describes modeling prepared to support a proposed modification to the facility's current permit P-2010.0057. Nonpareil Corporation (Nonpareil) proposes to install new equipment, remove existing equipment, and modify boiler fuel usage at their facility in Blackfoot, Idaho. Specifically, the proposed changes include:

- Addition of new dehydration air dryer #6;
- Addition of new 35,000 cfm air makeup unit;
- Addition of new space heaters (as insignificant activities);
- Removal of the following equipment from permit: scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch baghouse; and
- Remove #6 fuel oil as a fuel option for the west boiler.

In addition, Nonpareil has purchased three additional buildings: the Annex building, Truck/Fabrication Shop and associated office building, and a small well house where the well house heater and pressure water heater will be located. Property surrounding these buildings has been purchased by Nonpareil, and public access to this property will be restricted. This document describes the air quality analyses prepared to support the Permit to Construct (PTC) application for the proposed addition and removal of equipment and modification to fuel usage at their facility just west of Blackfoot, Idaho.

**INTRODUCTION**

This modeling analysis was prepared to support the facility's PTC application for the above listed items. According to IDEQ modeling guidelines, activities considered as a modification only include those that increase emissions. Therefore, removal of an existing source is not considered a modification, and the emission reduction associated with such activities will not be considered in the evaluation of whether emissions exceed modeling thresholds. Despite this, the net emissions change from the proposed modifications listed above will be a decrease in emissions from the currently permitted rate. A summary of the emissions change is shown in Tables 1-3 below.

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Nonpareil Corporation, Blackfoot, Idaho

**Table 1 - Change in Combustion Emissions**

Description	PM-10/PM-2.5 Emissions		NOx Emissions		SOx Emissions		CO Emissions		VOC Emissions	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Processing East Boiler and West Boiler <sup>a</sup>	-4.09	-15.51	-8.68	-34.06	-42.07	-156.73	0.00	0.00	-0.13	-0.47
New Combustion Equipment	0.18	0.79	2.38	10.44	0.01	0.06	2.00	8.77	0.13	0.57
<b>TOTAL</b>	<b>-3.91</b>	<b>-14.72</b>	<b>-6.30</b>	<b>-23.62</b>	<b>-42.05</b>	<b>-156.67</b>	<b>2.00</b>	<b>8.77</b>	<b>0.00</b>	<b>0.10</b>

<sup>a</sup> East boiler lb/hr and ton/yr maximum emissions between NG and Fuel Oil # 2. West boiler will now run solely on NG.

**Table 2 - Change in Process Emissions**

Description	PM-10 Emissions		PM-2.5 Emissions	
	lb/hr	T/yr	lb/hr	T/yr
New Process Equipment	0.36	1.58	0.22	0.97
<b>TOTAL</b>	<b>0.36</b>	<b>1.58</b>	<b>0.22</b>	<b>0.97</b>

**Table 3 - Total Change in Emissions**

Description	PM-10 Emissions		PM-2.5 Emissions		NOx Emissions		SOx Emissions		CO Emissions		VOC Emissions	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Current Facility-Wide PTE		164.98		n/a		119.9		248.31		77.4		5.7
Facility Permit Modification Change	-3.55	-13.14	-3.69	-13.75	-6.30	-23.62	-42.05	-156.67	2.00	8.77	0.00	0.10
<b>TOTAL</b>		<b>151.84</b>		<b>-13.75</b>		<b>96.28</b>		<b>91.64</b>		<b>86.17</b>		<b>5.80</b>

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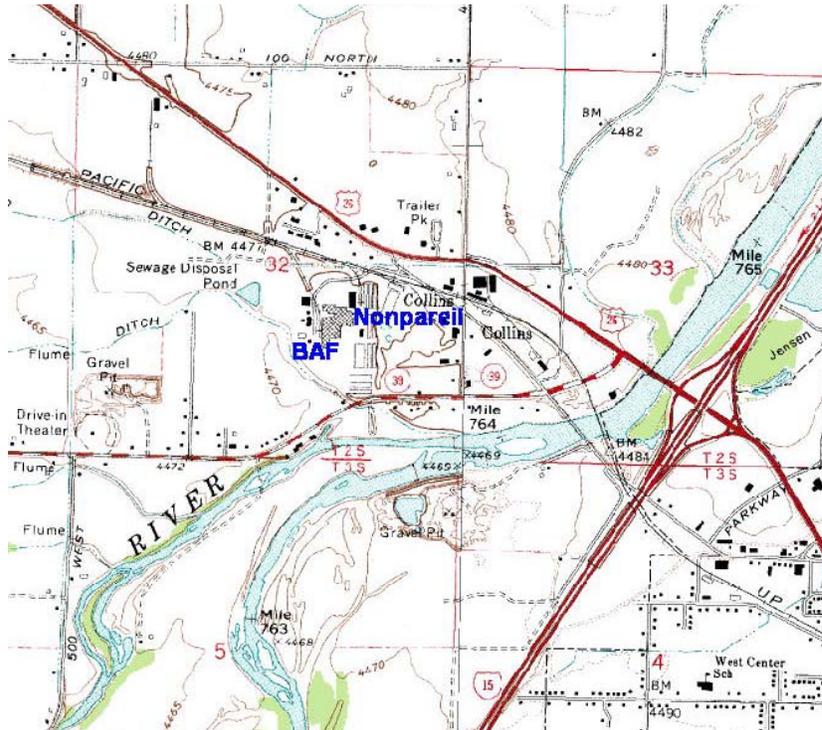
As discussed above, the net change in emissions from the proposed modification will be negative, even without taking into account the combustion and process particulate emissions reduction from removal of the scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch baghouse. Therefore, the facility-wide emissions increase from the modification is below the IDEQ Level I Thresholds for criteria pollutants, and modeling is not required for criteria pollutants. In addition, stack parameters for existing equipment (including the east and west boiler) will not change from the currently permitted parameters.

The potential increase of four IDAPA 58.01.01 586 TAPs, beryllium, cadmium, chromium IV, and formaldehyde exceed the emissions screening level, and therefore modeling for these TAPs is required.

**Figure 1** below shows the facility location.

Air Quality Modeling Report  
Nonpareil Corporation, Blackfoot, Idaho

**Figure 1 - Nonpareil Facility Location**



### MODEL DESCRIPTION / JUSTIFICATION

The model chosen is AERMOD, the US EPA approved model recommended by IDEQ. AERMOD was applied as recommended in EPA's *Guideline on Air Quality Models*, consistent with guidance in IDEQ's *Air Quality Modeling Guideline*. Recommended regulatory default options were employed. Terrain data was processed consistent with the IDEQ guidance, and EPA guidance for AERMAP. Meteorological used for this application is the data for the Blackfoot area supplied by IDEQ for the 2010 modeling analysis. The Prime building downwash algorithm was employed.

Modeling analyses were performed for beryllium, cadmium, chromium VI, and formaldehyde. The impact analyses assessed the potential increase in impacts from the boilers as a result of the proposed change in fuels and the addition of new combustion equipment (dryer, air makeup unit, and space heaters), and also considered the decrease in emissions due to removal of the starch dryer and scratch mash dryer. Chemical transformation of emissions was not considered.

### EMISSION AND SOURCE DATA

Emissions from the proposed modifications, excluding the reduction in emissions from removal of the starch dryer and scratch mash dryer were estimated to exceed the IDEQ modeling threshold for four IDAPA TAPs as described above. The change in emissions of each TAP was modeled; no net change in emissions from the east boiler from previously

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modeled emissions will occur, therefore emissions rates from the east boiler were set to zero in the model for all TAPs. Although, reduction in emissions from removal of equipment may not be included toward determine the modeling threshold, such decreases may be included in the modeling analyses as negative emissions, therefore, emission rates from the starch dryer and scratch mash dryer used in the model are negative. The decrease in emissions from the change in fuel for the west boiler from #6 fuel oil to natural gas was modeled as negative emission rates; emissions rates from the new combustion equipment were modeled as the maximum PTE emission rates for those units. Impact assessment requirements were met by showing that the maximum increase in impacts as a result of the proposed action is below the IDAPA 58.01.01.586 AACC impact limits for beryllium, cadmium, chromium VI, and formaldehyde. Existing stack parameters are consistent with the current permit for all currently existing equipment. The derivation of all emission rates is documented in the permit application that this modeling report accompanies. In addition, emission rate calculations used for input into the model are included with this modeling report as Appendix A. IDEQ modeling forms are included in Appendix B.

**Table 4** summarizes all model source data consistent with the proposed modification.

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**Table 4 - Model Source Data**

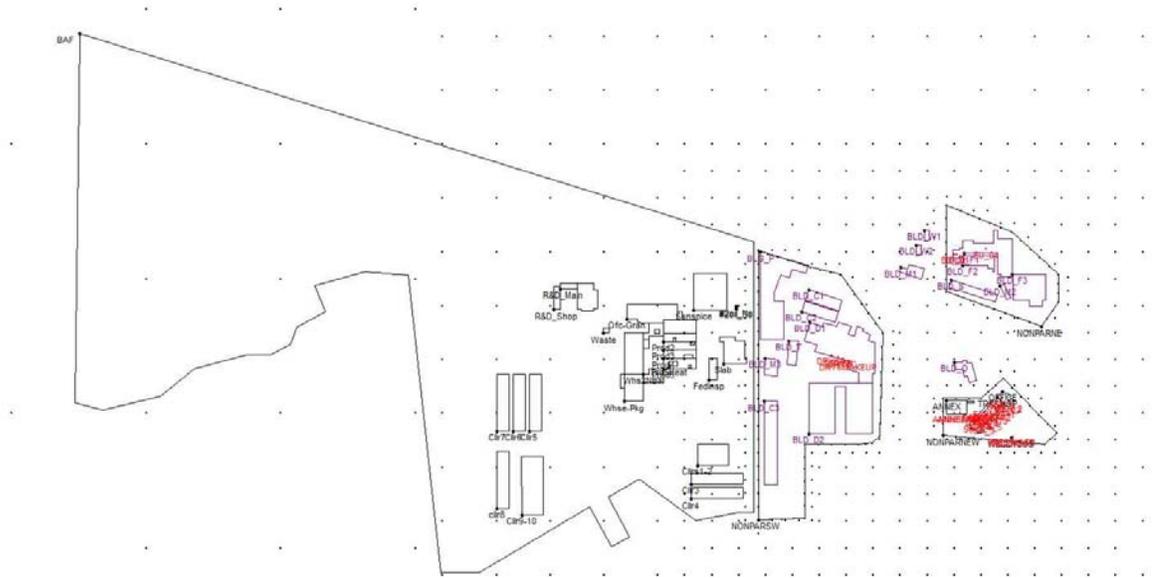
POINT SOURCES												
Source ID	Description	Easting, X (m)	Northing, Y (m)	Base Elevation (m)	Stack Height (ft)	Temp. (F)	Exit Velocity (fps)	Stack Diameter (ft)	Beryllium (lb/hr)	Cadmium (lb/hr)	Chromium VI (lb/hr)	Formaldehyde (lb/hr)
EU_01	Proc. East boiler	388255	4784295	1366	60.0	410	37.7	2.30	0	0	0	0
EU_02	Proc. West boiler	388250	4784295	1366	60.0	410	22.2	3.00	-7.03E-06	-6.38E-06	-6.70E-05	-0.00593
OSH_1	Office Space Heater #1	388340	4784027	1366	16.0	110	3.0	0.50	2.90E-09	2.70E-07	0	1.84E-05
OSH_2	Office Space Heater #2	388351	4784019	1366	23.0	110	3.0	0.50	2.90E-09	2.70E-07	0	1.84E-05
OSH_3	Office Space Heater #3	388337	4784022	1366	27.5	110	0.9	0.50	1.00E-09	9.20E-08	0	6.25E-06
FABHEAT1	Fab Shop Space Heater #1	388326	4784009	1366	26.5	110	3.0	0.50	2.90E-09	2.70E-07	0	1.84E-05
FABHEAT2	Fab Shop Space Heater #2	388319	4784002	1366	26.5	110	3.0	0.50	2.90E-09	2.70E-07	0	1.84E-05
FABHEAT3	Fab Shop Space Heater #3	388313	4783996	1366	26.5	110	3.4	0.50	3.50E-09	3.20E-07	0	2.21E-05
FABHEAT4	Fab Shop Space Heater #4	388307	4784002	1366	21.0	110	2.0	0.25	5.30E-10	4.90E-08	0	3.31E-06
TSH_1	Truck Shop Heater #1	388309	4783992	1366	26.5	110	3.4	0.50	3.50E-09	3.20E-07	0	2.21E-05
TSH_2	Truck Shop Heater #2	388308	4783993	1366	26.5	110	3.4	0.50	3.50E-09	3.20E-07	0	2.21E-05
TSH_3	Truck Shop Heater #3	388302	4783979	1366	26.5	110	3.4	0.50	3.50E-09	3.20E-07	0	2.21E-05
TSH_4	Truck Shop Heater #4	388296	4783985	1366	26.5	110	3.4	0.50	3.50E-09	3.20E-07	0	2.21E-05
TSH_5	Truck Shop Heater #5	388315	4783987	1366	21.0	110	2.0	0.25	5.30E-10	4.90E-08	0	3.31E-06
SH_1	Storage Heater #1	388303	4784000	1366	19.0	110	1.7	0.25	3.50E-10	3.20E-08	0	2.21E-06
SH_2	Storage Heater #2	388297	4783995	1366	19.0	110	1.7	0.25	3.50E-10	3.20E-08	0	2.21E-06
SH_3	Storage Heater #3	388287	4783982	1365	21.0	110	2.0	0.25	5.30E-10	4.90E-08	0	3.31E-06
WELLHEAT	Well House Heater	388359	4783955	1366	14.0	110	1.7	0.25	3.50E-10	3.20E-08	0	2.21E-06
PRESWASH	Pressure Washer	388357	4783957	1366	14.0	110	4.6	0.50	4.70E-09	4.30E-07	0	2.94E-05
ANNHEAT1	Annex Heater #1	388261	4784000	1365	23.5	110	4.0	0.50	4.10E-09	3.80E-07	0	2.57E-05
ANNHEAT2	Annex Heater #2	388251	4784000	1365	23.5	110	4.0	0.50	4.10E-09	3.80E-07	0	2.57E-05
DRY6A	Dryer 6 A stage	388022	4784108	1365	41.5	160	58.6	3.07	1.20E-07	1.10E-05	0	7.65E-04
DRY6B	Dryer 6 B stage	388035	4784104	1365	27.0	150	34.8	2.59	3.80E-08	3.50E-06	0	2.35E-04
DRY6C	Dryer 6 C stage	388043	4784102	1365	27.0	130	39.9	1.93	3.90E-08	3.60E-06	0	2.43E-04
EU_03	Starch Dryer	388352	4784018	1365	28.0	92	29.7	2.00	-4.90E-08	-4.50E-06	0	-3.09E-04
EU_04	Scratch Mash Dryer	388310	4784305	1365	45.0	92	55.5	2.80	-6.50E-08	-5.90E-06	0	-4.04E-04
VOLUME SOURCES												
Source ID	Description	Easting, X (m)	Northing, Y (m)	Base Elevation (m)	Release Height (ft)	Horizontal Dimension (ft)	Vertical Dimension (ft)	Beryllium (lb/hr)	Cadmium (lb/hr)	Chromium VI (lb/hr)	Formaldehyde (lb/hr)	
DRY6MAKEUP	Dryer 6 Air Makeup	388053	4784096	1365.04	8	1	7.66994751	4.10E-08	3.80E-06	0	2.57E-04	

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Building downwash was accounted for by including in the AERMOD model analysis Prime building downwash from all buildings within the facility, including the new Annex building, Truck/Fabrication shop and office and well house, and at the neighboring Basic American Foods (BAF) facility. All Nonpareil buildings and tanks over 10' tall were included in the building downwash analysis included in the modeling.

**Figure 2** shows the model layout, with the facility property / ambient air boundary. The Nonpareil boundary can be seen in three separate sections on the right of the figure. The larger black perimeter on the left side of the figure is the BAF property and ambient air boundary. This analysis has receptors across the BAF boundary. Facility buildings and tanks are shown in black within the facility boundary; emissions units affected by this modification are shown and labeled in red. The background grid is the UTM coordinate system, NAD 83, whose units are in meters.

**Figure 2 - Model Facility Layout**



### **RECEPTOR NETWORK / MODEL DOMAIN**

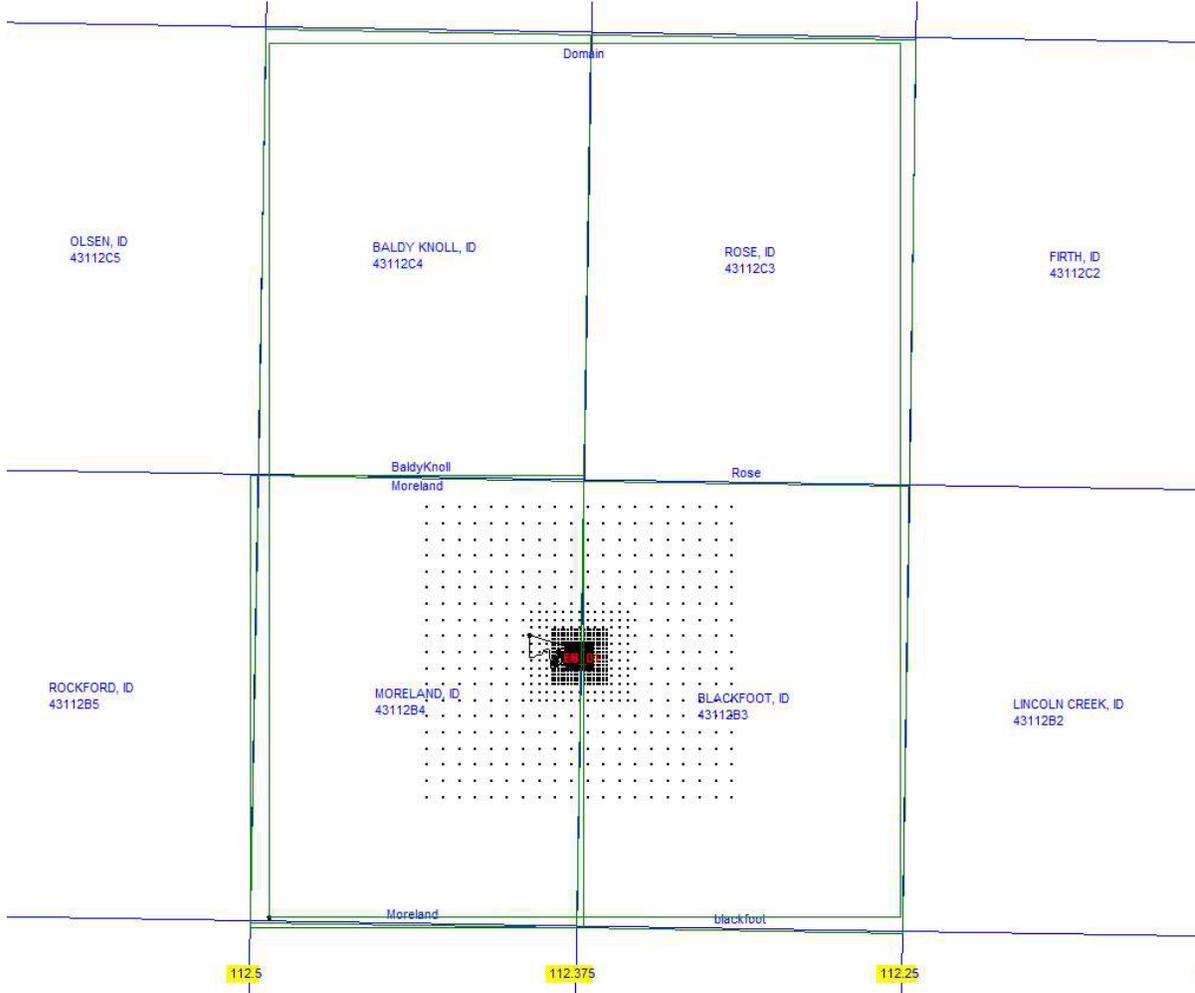
The Nonpareil property boundary / public access limit was used as the ambient air boundary for this analysis. The BAF property boundary / public access limit is shown, but receptors were placed regularly across the BAF property. Model receptors were placed from the public access limit out at least 4 kilometers in every direction. The dense inner model receptors can be seen as black dots outside the ambient air boundary in Figure 2. The AERMOD modeling domain was conservatively calculated to include nearly the entire USGS quad for any receptor or any elevated point beyond the edge of the receptor network that meets the AERMAP / AERMOD guidance condition of 10% elevation gain. This method is built into the BeeLine BEEST software used to prepare these analyses, and is recommended as conservative in meeting or exceeding new EPA guidance by software developer Dick Perry of Bee-Line software.

Receptor density is 25 meters along the ambient air boundary, 50 meters for at least the first 100 meters, then 100 meters out to 500 meters away from the property boundary, 250 meters out to 1,000 meters from the ambient air boundary, and 500 meters to 4 kilometers.

**Figure 3** shows the facility and its ambient air boundary (the white spot in the middle of dense inner receptor network that show up as black in the center), the receptor network (the black dots around the denser inner model receptors), the model domain (green line just inside USGS quad lines around the receptor network), the latitude and longitude grids in the vicinity, and the USGS quad maps that cover the model domain.

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**Figure 3 - Model Domain and Receptor Network**



The receptor networks employed ensures that the analysis meets or exceeds IDEQ receptor network requirements and captures the maximum impact from the facility. Therefore, no supplemental receptor network or expansion of the model domain is required or included.

**AERMAP INPUT AND ELEVATION DATA**

All source base and receptor elevations were calculated from USGS NED data using the Bee-Line BEEST preprocessing system. The anchor location and user location required by AERMAP are near the center of the southwestern Nonpareil facility section. Electronic data files sufficient to review or duplicate the AERMAP model application are included with the final modeling report.

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## METEOROLOGICAL DATA AND LOCAL PARAMETERS

Preprocessed AERMOD ready meteorological files were provided upon request from Kevin Schilling of IDEQ for the 2010 modeling analysis submitted to IDEQ; this data was also used for this analysis.

The meteorological data was processed using two sources of surface meteorological data. The first source was hourly NWS data from Pocatello, ID. The second data source was onsite meteorological data from another facility located in Blackfoot, ID. This data was agreed upon for use in prior analyses as it was most representative of the facility location and the conditions in Blackfoot. The upper air data included in the analysis were twice daily NWS sounding from Boise, ID. This represented the closest NWS site with reliable upper air data. The meteorological data included in this analysis covers 5 consecutive years over a period from 1995 through 1999.

## LAND USE CLASSIFICATION

Though the facility is near Blackfoot and its downtown area and there is some industrial land use in the vicinity, by the traditional Auer algorithm or most other reasoning, the land in the vicinity of the facility and across the model domain is generally open and features limited development that will affect wind flow at emission release heights. Therefore, the urban dispersion algorithm was not employed in this analysis; the rural dispersion algorithms were used.

## BACKGROUND CONCENTRATIONS

Since only modeling of TAPs will be performed, no background concentrations were used.

## EVALUATION OF COMPLIANCE WITH IMPACT STANDARDS

The impact limit standards applicable to this permit application are the IDAPA 58.01.01.586 limits for carcinogenic TAPs listed in **Table 5**. Predicted total concentrations reported are the model predicted maximum ambient impacts during facility operation. Model predicted maximum impacts reported are the highest predicted impact for the TAP analyses.

**Table 5 - Model Predicted Ambient Impacts and Applicable Standards**

Pollutant	Averaging Period	Modeled Maximum Increase in Impact ( $\mu\text{g}/\text{m}^3$ )	IDEQ AACC ( $\mu\text{g}/\text{m}^3$ )	Max Increase as % of applicable Impact limit
Beryllium	Annual	0.00000	0.0042	0%
Cadmium	Annual	1.8E-04	0.00056	32%
Chromium VI	Annual	0.00000	0.000083	0%
Formaldehyde	Annual	1.1E-02	0.077	14%

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**APPENDIX A**

**MODEL EMISSION CALCULATION**

**TOXIC AIR POLLUTANTS (TAPs) CALCULATIONS - NONPAREII  
WEST BOILER CHANGE IN EMISSIONS**

**CARCINOGENS (POUNDS PER HOUR)**

<b>Pollutant</b>	<b>CAS #</b>	<b>EF for NG Combustion (lb/10<sup>6</sup> scf)<sup>a</sup></b>	<b>EF for Fuel Oil #6 Combustion (lb/10<sup>3</sup> gal)<sup>b</sup></b>	<b>West Boiler NG Combustion (lb/hr)</b>	<b>West Boiler #6 Combustion (currently permitted) (lb/hr)</b>	<b>West Boiler Change in Emissions (lb/hr)</b>
Arsenic	7440-38-2	2.0E-04	1.32E-03	7.94E-06	3.56E-04	-3.48E-04
Benzene	71-43-2	2.1E-03	2.14E-04	8.34E-05	5.78E-05	2.56E-05
Beryllium	7440-41-7	1.2E-05	2.78E-05	4.76E-07	7.51E-06	-7.03E-06
Cadmium	7440-43-9	1.1E-03	3.98E-04	4.37E-05	1.07E-04	-6.38E-05
Chromium VI	7440-47-3	0.0E+00	2.48E-04	0.00E+00	6.70E-05	-6.70E-05
Formaldehyde	50-00-0	7.5E-02	3.30E-02	2.98E-03	8.91E-03	-5.93E-03
Nickel	7440-02-0	2.1E-03	7.40E-02	8.34E-05	2.00E-02	-1.99E-02
Benzo(a)pyrene	50-32-8	1.2E-06	0.00E+00	4.76E-08	0.00E+00	4.76E-08
Benz(a)anthracene	56-55-3	1.8E-06	4.01E-06	7.15E-08	1.08E-06	-1.01E-06
Benzo(b)fluoranthene	205-82-3	1.8E-06	1.48E-06	7.15E-08	4.00E-07	-3.28E-07
Benzo(k)fluoranthene	205-99-2	1.8E-06	1.48E-06	7.15E-08	4.00E-07	-3.28E-07
Chrysene	218-01-9	1.8E-06	2.38E-06	7.15E-08	6.43E-07	-5.71E-07
Dibenzo(a,h)anthracene	53-70-3	1.2E-06	1.67E-06	4.76E-08	4.51E-07	-4.03E-07
Indeno(1,2,3-cd)pyrene	193-39-5	1.8E-06	2.14E-06	7.15E-08	5.78E-07	-5.06E-07
Total PAHs		1.1E-05	1.3E-05	4.53E-07	3.55E-06	-3.10E-06

<sup>a</sup>EFs from AP-42, Tables 1.4-3 and 1.4-4, 7/98

<sup>b</sup>EFs from AP-42, Tables 1.3-9 and 1.3-11, 9/98

**TOXIC AIR POLLUTANTS (TAPs) COMBUSTION CALCULATIONS  
NONPAREIL CORPORATION**

**Fuel Usage**

New Combustion Equipment  
Removed Combustion Equipment  
**Net Change**

23,833.33 scf/hr  
-9,509.80 scf/hr  
14,323.53 scf/hr

For modeling threshold, do not count the removed equipment.  
Use new combustion equipment total, not net change in the tables below.

**NON-CARCINOGENS (POUNDS PER HOUR)**

Pollutant	CAS #	EF for NG Combustion (lb/10 <sup>6</sup> scf) <sup>a</sup>	Net Change TAP Emissions Comb. Eqt. (lb/hr)	Net Change TAP Emissions Boilers (lb/hr)	Total Net Change TAP Emissions (lb/hr)	Screening Level (lb/hr)	Modeling? (Y/N)
Antimony	7440-36-0	0.0E+00	0.00E+00	-1.42E-03	-1.42E-03	3.3E-02	No
Barium	7440-39-3	4.4E-03	1.05E-04	-5.19E-04	-4.14E-04	3.3E-02	No
Chromium	7440-47-3	1.4E-03	3.34E-05	-8.57E-05	-5.23E-05	3.3E-02	No
Cobalt	7440-48-4	8.4E-05	2.00E-06	-1.62E-03	-1.62E-03	3.3E-03	No
Copper	7440-50-8	8.5E-04	2.03E-05	-1.66E-04	-1.45E-04	6.7E-02	No
Ethylbenzene	100-41-4	0.0E+00	0.00E+00	4.45E-06	4.45E-06	2.9E+01	No
Fluoride (as F)	16984-48-8	0.0E+00	0.00E+00	-1.01E-02	-1.01E-02	1.67E-01	No
Hexane	110-54-3	1.8E+00	4.29E-02	0.00E+00	4.29E-02	1.2E+01	No
Manganese	7439-96-5	3.8E-04	9.06E-06	-4.94E-04	-4.85E-04	3.33E-01	No
Mercury	7439-97-6	2.6E-04	6.20E-06	1.26E-04	1.33E-04	3.E-03	No
Molybdenum	7439-98-7	1.1E-03	2.62E-05	-1.69E-04	-1.43E-04	3.33E-01	No
Naphthalene*	91-20-3	6.1E-04	1.45E-05	7.14E-05	8.59E-05	9.10E-05	No
Pentane	109-66-0	2.6E+00	6.20E-02	0.00E+00	6.20E-02	1.18E+02	No
Phosphorous	7723-14-0	0.0E+00	0.00E+00	-2.55E-03	-2.55E-03	7.E-03	No
Selenium	7782-49-2	2.4E-05	5.72E-07	-1.83E-04	-1.83E-04	1.3E-02	No
1,1,1-Trichloroethane	71-55-6	0.0E+00	0.00E+00	1.65E-05	1.65E-05	1.27E+02	No
Toluene	108-88-3	3.4E-03	8.10E-05	3.91E-04	4.72E-04	2.5E+01	No
o-Xylene	1330-20-7	0.0E+00	0.00E+00	7.63E-06	7.63E-06	2.9E+01	No
Zinc	7440-66-6	2.9E-02	6.91E-04	-8.49E-03	-7.80E-03	6.67E-01	No

\*Although listed as a noncarcinogen in the Rules, DEQ has determined that naphthalene is a possible/probable carcinogen. Compliance for naphthalene emissions should be based on the EL or AACC listed in Section 586 for PAH.

**TOXIC AIR POLLUTANTS (TAPs) COMBUSTION CALCULATIONS  
NONPAREIL CORPORATION**

**Fuel Usage**

New Combustion Equipment  
Removed Combustion Equipment  
**Net Change**

23,833.33 scf/hr  
-9,509.80 scf/hr  
14,323.53 scf/hr

For modeling threshold, do not count the removed equipment.  
Use new combustion equipment total, not net change in the tables below.

**CARCINOGENS (POUNDS PER HOUR)**

<b>Pollutant</b>	<b>CAS #</b>	<b>EF for NG Combustion (lb/10<sup>6</sup> scf)<sup>a</sup></b>	<b>Net Change TAP Emissions Comb. Eqt. (lb/hr)</b>	<b>Net Change TAP Emissions Boilers (lb/hr)</b>	<b>Total Net Change TAP Emissions (lb/hr)</b>	<b>Screening Level (lb/hr)</b>	<b>Modeling? (Y/N)</b>
Arsenic	7440-38-2	2.0E-04	4.77E-06	-3.48E-04	-3.44E-04	1.5E-06	No
Benzene	71-43-2	2.1E-03	5.01E-05	0.00E+00	5.01E-05	8.0E-04	No
Beryllium	7440-41-7	1.2E-05	2.9E-07	1.53E-04	1.53E-04	2.8E-05	Yes
Cadmium	7440-43-9	1.1E-03	2.6E-05	3.88E-05	6.50E-05	3.7E-06	Yes
Chromium VI	7440-47-3	0.0E+00	0.0E+00	9.32E-05	9.32E-05	5.6E-07	Yes
Formaldehyde	50-00-0	7.5E-02	1.8E-03	1.36E-03	3.15E-03	5.1E-04	Yes
Nickel	7440-02-0	2.1E-03	5.0E-05	-1.98E-02	-1.98E-02	2.7E-05	No
Benzo(a)pyrene	50-32-8	1.2E-06	2.9E-08	0.00E+00	2.86E-08	2.0E-06	No
Benz(a)anthracene	56-55-3	1.8E-06	4.3E-08	2.58E-07	3.01E-07	NA	No
Benzo(b)fluoranthene	205-82-3	1.8E-06	4.3E-08	8.08E-08	1.24E-07	NA	No
Benzo(k)fluoranthene	205-99-2	1.8E-06	4.3E-08	8.08E-08	1.24E-07	NA	No
Chrysene	218-01-9	1.8E-06	4.3E-08	1.44E-07	1.87E-07	NA	No
Dibenzo(a,h)anthracene	53-70-3	1.2E-06	2.9E-08	1.02E-07	1.30E-07	NA	No
Indeno(1,2,3-cd)pyrene	193-39-5	1.8E-06	4.3E-08	1.27E-07	1.70E-07	NA	No
Total PAHs		1.1E-05	2.72E-07	7.77E-07	1.05E-06	9.10E-05	No

<sup>a</sup>EFs from AP-42, Tables 1.4-3 and 1.4-4, 7/98

<sup>b</sup>EFs from AP-42, Table 1.3-10, 9/98

**TOXIC AIR POLLUTANTS (TAPs) COMBUSTION CALCULATIONS  
NONPAREIL CORPORATION**

**Fuel Usage**

New Combustion Equipment      23,833.33 scf/hr  
 Removed Combustion Equipment    -9,509.80 scf/hr  
**Net Change**                            14,323.53 scf/hr

For modeling threshold, do not count the removed equipment.  
 Use new combustion equipment total, not net change in the table

<b>TAPS EMISSIONS FOR MODELING</b>					
<b>Source</b>	<b>scf/hr</b>	<b>Beryllium Emissions (lb/hr)</b>	<b>Cadmium Emissions (lb/hr)</b>	<b>Chromium VI Emissions (lb/hr)</b>	<b>Formaldehyde Emissions (lb/hr)</b>
Starch Dryer (removed)	4117.647059	4.9E-08	4.5E-06	0	3.09E-04
Scratch Mash Dryer (removed)	5392.156863	6.5E-08	5.9E-06	0	4.04E-04
New Dehy Dryer #6 A Stage	10,196.1	1.2E-07	1.1E-05	0	7.65E-04
New Dehy Dryer #6 B Stage	3,137.3	3.8E-08	3.5E-06	0	2.35E-04
New Dehy Dryer #6 C Stage	3,235.3	3.9E-08	3.6E-06	0	2.43E-04
New Air Makeup Unit	3,431.4	4.1E-08	3.8E-06	0	2.57E-04
Office Space Heater #1	245.1	2.9E-09	2.7E-07	0	1.84E-05
Office Space Heater #2	245.1	2.9E-09	2.7E-07	0	1.84E-05
Office Space Heater #3	83.3	1.0E-09	9.2E-08	0	6.25E-06
Fab Shop Space Heater #1	245.1	2.9E-09	2.7E-07	0	1.84E-05
Fab Shop Space Heater #2	245.1	2.9E-09	2.7E-07	0	1.84E-05
Fab Shop Space Heater #3	294.1	3.5E-09	3.2E-07	0	2.21E-05
Fab Shop Space Heater #4	44.1	5.3E-10	4.9E-08	0	3.31E-06
TruckShop Heater #1	294.1	3.5E-09	3.2E-07	0	2.21E-05
Truck Shop Heater #2	294.1	3.5E-09	3.2E-07	0	2.21E-05
Truck Shop Heater #3	294.1	3.5E-09	3.2E-07	0	2.21E-05
Truck Shop Heater #4	294.1	3.5E-09	3.2E-07	0	2.21E-05
Truck Shop Heater #5	44.1	5.3E-10	4.9E-08	0	3.31E-06
Storage Heater #1	29.4	3.5E-10	3.2E-08	0	2.21E-06
Storage Heater #2	29.4	3.5E-10	3.2E-08	0	2.21E-06
Storage Heater #3	44.1	5.3E-10	4.9E-08	0	3.31E-06
Well House Heater	29.4	3.5E-10	3.2E-08	0	2.21E-06
Pressure Washer	392.2	4.7E-09	4.3E-07	0	2.94E-05
Annex Heater #1	343.1	4.1E-09	3.8E-07	0	2.57E-05
Annex Heater #2	343.1	4.1E-09	3.8E-07	0	2.57E-05

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Nonpareil Corporation, Blackfoot, Idaho

**APPENDIX B**  
**IDEQ MODEL FORMS**

	DEQ AIR QUALITY PROGRAM 1410 N. Hilton, Boise, ID 83706 For assistance, call the <b>Air Permit Hotline - 1-877-5PERMIT</b>	<b>PERMIT TO CONSTRUCT APPLICATION</b> Revision 3 3/27/2007
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*Please see instructions on page 2 before filling out the form.*

Company Name:	Nonpareil Corporation
Facility Name:	Same
Facility ID No.:	011-00027
Brief Project Description:	PTC for addition of dehydration air dryer, air makeup unit, space heaters and removal of scratch mash dryer and scratch mash pneumatic conveyor, starch dryer and starch baghouse.

**POINT SOURCE STACK PARAMETERS**

1.	2.	3a.	3b.	4.	5.	6.	7.	8.	9.	10.
Emissions units	Stack ID	UTM Easting (m)	UTM Northing (m)	Base Elevation (m)	Stack Height (m)	Modeled Diameter (m)	Stack Exit Temperature (K)	Stack Exit Flowrate (acfm)	Stack Exit Velocity (m/s)	Stack orientation (e.g., horizontal, rain cap)
<b>Point Source(s)</b>										
EU_01	EU_01	388,255.07	4,784,294.96	1,366.32	18.29	0.70	483.15	9,397.24	11.49	
EU_02	EU_02	388,250.07	4,784,294.96	1,366.32	18.29	0.91	483.15	9,415.35	6.77	
EU_49	OSH_1	388,340.00	4,784,027.00	1,366.28	4.88	0.15	316.48	35.00	0.91	
EU_50	OSH_2	388,351.00	4,784,019.00	1,366.27	7.01	0.15	316.48	35.00	0.91	
EU_51	OSH_3	388,337.00	4,784,022.00	1,366.20	8.38	0.15	316.48	11.00	0.28	
EU_52	FABHEAT1	388,326.00	4,784,009.00	1,365.98	8.08	0.15	316.48	35.00	0.91	
EU_53	FABHEAT2	388,319.00	4,784,002.00	1,365.90	8.08	0.15	316.48	35.00	0.91	
EU_54	FABHEAT3	388,313.00	4,783,996.00	1,365.79	8.08	0.15	316.48	40.00	1.03	
EU_55	FABHEAT4	388,307.00	4,784,002.00	1,365.80	6.40	0.08	316.48	6.00	0.62	
EU_56	TSH_1	388,309.00	4,783,992.00	1,365.71	8.08	0.15	316.48	40.00	1.03	
EU_57	TSH_2	388,308.00	4,783,993.00	1,365.71	8.08	0.15	316.48	40.00	1.03	
EU_58	TSH_3	388,301.50	4,783,979.00	1,365.53	8.08	0.15	316.48	40.00	1.03	
EU_59	TSH_4	388,295.50	4,783,984.70	1,365.50	8.08	0.15	316.48	40.00	1.03	
EU_67	TSH_5	388,314.74	4,783,986.60	1,365.72	6.40	0.08	316.48	6.00	0.62	
EU_60	SH_1	388,302.60	4,784,000.00	1,365.73	5.79	0.08	316.48	5.00	0.52	
EU_61	SH_2	388,297.00	4,783,995.00	1,365.61	5.79	0.08	316.48	5.00	0.52	
EU_62	SH_3	388,287.00	4,783,981.90	1,365.42	6.40	0.08	316.48	6.00	0.62	
EU_63	WELLHEAT	388,358.52	4,783,955.45	1,365.75	4.27	0.08	316.48	5.00	0.52	
EU_64	PRESWASH	388,357.26	4,783,956.63	1,365.75	4.27	0.15	316.48	54.00	1.40	
EU_65	ANNHEAT1	388,261.00	4,784,000.00	1,365.45	7.16	0.15	316.48	47.00	1.22	
EU_66	ANNHEAT2	388,251.00	4,784,000.00	1,365.41	7.16	0.15	316.48	47.00	1.22	
EU_45	DRY6A	388,022.00	4,784,108.00	1,365.04	12.65	0.94	344.26	26,037.00	17.87	
EU_46	DRY6B	388,035.00	4,784,104.00	1,365.04	8.23	0.79	338.71	10,990.00	10.60	

EU_47	DRY6C	388,043.00	4,784,102.00	1,365.04	8.23	0.59	327.59	7,012.70	12.18	
EU_03	EU_03	388,351.59	4,784,018.00	1,365.00	8.53	0.61	306.48	5,598.30	9.05	
EU_04	EU_04	388,310.00	4,784,305.00	1,365.00	13.72	0.85	306.48	20,503.00	16.92	
<b>(insert more rows as needed)</b>										



**APPENDIX D**

**PLOT PLAN**

