

Statement of Basis

**Permit to Construct No. P-2011.0126
Project ID 60935**

**Woodgrain Millwork, Inc.
Nampa, Idaho**

Facility ID 027-00060

Facility Review

March 1, 2012

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

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

AAC	acceptable ambient concentrations
AACC	acceptable ambient concentrations for carcinogens
acfm	actual cubic feet per minute
CFR	Code of Federal Regulations
CI	compression ignition
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	CO ₂ equivalent emissions
DEQ	Department of Environmental Quality
dscf	dry standard cubic feet
EL	screening emission levels
GHG	greenhouse gases
gr	grains (1 lb = 7,000 grains)
HAP	hazardous air pollutants
hp	horsepower
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
lb/hr	pounds per hour
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO _x	nitrogen oxides
NSPS	New Source Performance Standards
O&M	operation and maintenance
PM	particulate matter
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTC/T2	permit to construct and Tier II operating permit
PTE	potential to emit
PWR	process weight rate
RICE	reciprocating internal combustion engines
<i>Rules</i>	<i>Rules for the Control of Air Pollution in Idaho</i>
scf	standard cubic feet
SIP	State Implementation Plan
SM80	synthetic minor facility with emissions greater than or equal to 80% of a major source threshold
SO ₂	sulfur dioxide
T/yr	tons per consecutive 12 calendar month period
TAP	toxic air pollutants
VOC	volatile organic compounds
µg/m ³	micrograms per cubic meter

FACILITY INFORMATION

Description

Woodgrain Millwork Incorporated (Woodgrain) owns and operates a door manufacturing facility and produces interior and exterior panel doors. The facility is located at 1201 West Karcher Road in Nampa, Idaho. The facility is comprised of the following equipment: seven cyclones, four baghouses, one chip bin, one natural gas-fired boiler, ten natural gas-fired space heaters, one glue lamination area, one door prime line, one natural gas-fired drying oven, and one emergency diesel-fired water pump engine.

Permitting History

This is a permit to construct (PTC) revision to convert the existing combo Tier II operating permit and PTC (T2/PTC) No. T2-050033, issued October 5, 2006 to facility-wide PTC.

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

October 5, 2006	T2/PTC combo permit T2-050033 was issued which superseded permit No. T2-000052, issued June 27, 2000. Permit status (A, but will become S upon issuance of this permit.)
April 15, 2005	PTC No. P-040036 for construction of water-borne prime line. This permit was superseded (S) by T2/PTC combo T2-050033.
June 27, 2000	Tier II Operating Permit No. T2-000052. This permit was to amend PTC No. 027-00060, issued on January 29, 1999, in order to include baghouse pressure drop specifications on the facility's System 5 (baghouse #1), System 8 (baghouse #2), and System 1 (baghouse #3). Permit status (S).
January 29, 1999	PTC No. 027-00060, PTC modification by adding a new process equipment, (S).
September 25, 1998	T2 operating permit No.027-00060, this permit was issued in order to establish the facility as a synthetic minor source, (S).
December 27, 1996	T2 Operating Permit No. 027-00060, initial Tier II operating permit, (S).

Application Scope

This project is to renew the facility's existing combo T2/PTC No. T2-050033, issued October 5, 2006 and to convert the combo permit to PTC. This PTC also removes the veneer dryer (1.0 MMBtu/hr) drying unit from the existing T2/PTC No. T2-050033.

Application Chronology

October 3, 2011	DEQ received a permit application to renew the facility's T2/PTC and to convert the T2/PTC to PTC.
October 18, 2011	DEQ determined that the application was incomplete
November 18, 2011	DEQ approved for Woodgrain for an extension to respond to incompleteness letter.
December 2, 2011	DEQ granted a second extension for Woodgrain to respond to incompleteness letter.
December 15, 2011	DEQ received the permit application fees.
December 16, 2011	DEQ received a response for the incompleteness letter.
December 27, 2011 – January 11, 2012	DEQ provided an opportunity to request a public comment period on the application and proposed permitting action.

January 5, 2012	DEQ received supplemental information from the applicant.
January 12, 2012	DEQ determined that the application was complete.
February 6, 2012	DEQ made available the draft permit and statement of basis for peer and regional office review.
February 13, 2012	DEQ made available the draft permit and statement of basis for applicant review.
February 17, 2012	DEQ received the permit processing fee.
March 1, 2012	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Equipment

Table 1 EMISSIONS UNIT AND CONTROL EQUIPMENT INFORMATION

Sources	Control Equipment	Emission Point ID No.
<u>Wood Processing and Handling:</u>	<u>7 Cyclones:</u> Manufacturer(s): Not available (NA) Model(s): NA Pressure Drop(s): NA	<u>BH1- System 5:</u> Exit height: 26 ft Exit diameter: 3.0 ft Exit flow rate: 24,740 acfm Exit temperature: 65 °F
	<u>Four Baghouses (BH) as Follows:</u>	
	<u>BH1- System 5:</u> Manufacturer : Carter Day Model: CJ-2-144-RJ-120 PM ₁₀ control efficiency: NA	<u>BH2- System 8:</u> Exit height: 26 ft Exit diameter: 3.0 ft Exit flow rate: 34,636 acfm Exit temperature: 65 °F
	<u>BH2- System 8:</u> Manufacturer : Carter Day Model: CJ-2-144-RF-96 PM ₁₀ control efficiency: NA	<u>BH3- System 1:</u> Exit height: 55 ft Exit diameter: 1.5 ft Exit flow rate: 4,948 acfm Exit temperature: 65 °F
	<u>BH3- System 1:</u> Manufacturer : Sabourin Model: SF-BV-500-S PM ₁₀ control efficiency: NA	<u>BH4- System 10:</u> Exit height: 26 ft Exit diameter: 3.0 ft Exit flow rate: 27,921 acfm Exit temperature: 65 °F
	<u>BH4- System 10:</u> Manufacturer : MAC Model: 120W-MCF-361 PM ₁₀ control efficiency: NA	
	<u>Water-Borne Prime Line With AES Infrared Drying System:</u> Manufacturer: Graco Standard Automatic Model: 239780 Series A Type of Spray Material Used: Water borne primer Rated Capacity: 11.5 gal/hr	<u>Two Interlocked Filters:</u> Manufacturer : NA Model: SM 33 84-30 Dimension: 28" x 80" PM ₁₀ Control Efficiency: 99%
<u>Paint Drying Oven:</u> Manufacturer/Date: AES/2003 Fuel: Natural gas Rated Capacity: 0.48 MMBtu/hr Model: CDA100111GI		<u>Prime Line Oven:</u> Exit height: 23 ft Exit diameter: 1.5 ft Exit flow rate: 3,358 acfm Exit temperature: 110 °F
<u>Emergency Fire Pump Engine:</u> Manufacturer/Date: Detroit/1967 Model/Series No.: PTA-1SD-50/369362 Rated Capacity: 220 bhp (164 kW) Fuel: No. 2 diesel oil Fuel Consumption: 6 gal/hr	None	<u>Emergency Fire Pump Engine:</u> Exit height: NA Exit diameter: NA Exit flow rate: NA Exit temperature: NA
<u>Boiler:</u> Manufacturer/Date: Williams & Davis/1992 Model/Series No.: 780/6460 Rated Capacity: 2.52 MMBtu/hr Note: Boiler permit requirements are included in the Facility-Wide Condition of the permit	None	<u>Boiler:</u> Exit height: 22 ft Exit diameter: 1.0 ft Exit flow rate: 1,021 acfm Exit temperature: 195 °F

Emissions Inventories

Since this proposed project is only for a renewal of the existing combo T2/PTC that is expiring and it is also to convert the combo permit to PTC, emissions will not change as a result of issuance of this permit. The emission inventory in the application of the proposed project was submitted based on the existing combo permit No. T2-05003, issued October 5, 2006. It should be noted that one source at the facility was removed; that is the Veneer Dryer which resulted in overall decrease in emissions as a result of this permitting action.

All emission rates in the existing permit are carried over to the revised permit with no change in emissions rates as a result of this permitting action.

Also, the permittee has submitted the emission inventory for the greenhouse gases from all combustion sources at the facility and showed that the carbon dioxide gas emissions and its equivalent (CO₂e) is equal to 3,015.3 tons per year (T/yr), which is well below the new major source threshold (100,000 T/yr).

Refer to the permit application for details regarding the emission estimates for this facility.

Ambient Air Quality Impact Analyses

Since emissions will not increase as a result of this permitting action, modeling is not required.

However, it should be noted that emissions from the 220 hp diesel-fired pump engine existed at the facility was not included in any previous permitting analyses. To determine if emissions from that engine would trigger new facility-wide modeling, Idaho DEQ conducted modeling analysis and has determined that compliance with the applicable National Ambient Air Quality Standards (NAAQS) for all criteria air pollutants and would have been demonstrated by the July 2005 facility-wide modeling even if emissions from the fire pump engine had been included. Also the conducted modeling by DEQ for the toxic air pollutants (TAP) emissions from the 220 hp engine has demonstrated compliance with the acceptable ambient concentration (AAC) and with the acceptable ambient concentration for carcinogens (AACC) thresholds established in IDAPA 58.01.01.585-586. Therefore, a new facility-wide modeling is not required.

For more information regarding modeling of emissions from the diesel fire pump engine refer to Appendix A of this statement of basis.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Canyon County, which is designated as attainment or unclassifiable for PM_{2.5}, PM₁₀, SO₂, NO₂, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

Facility Classification

The facility's Aerometric Information Retrieval System (AIRS) remains as "SM80" and is not changed by this permitting action.

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201Permit to Construct Required

The permittee has requested that a PTC be issued to renew the existing combo T2/PTC No.T2-050033, issued October 5, 2006, that is expiring and proposed to convert the combo permit to PTC. The proposed conversion from T2/PTC to PTC will not result in increase in any regulated air pollutants or state toxic air pollutant emissions. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

Tier II Operating Permit (IDAPA 58.01.01.401)

IDAPA 58.01.01.401 Tier II Operating Permit

The applicant did not apply for a Tier II operating permit in accordance with IDAPA 58.01.01.401. Instead, the applicant requested, in writing, that the existing/expiring Tier II operating permit/PTC be replaced by a PTC to avoid recurring renewals and fees. This request is consistent with current permitting practice. Therefore, the requirements under IDAPA 58.01.01.400-410 do not apply and a PTC will be issued instead.

Visible Emissions (IDAPA 58.01.01.625)

IDAPA 58.01.01.625 Visible Emissions

The sources of PM₁₀ emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity. This requirement, and corresponding method for showing compliance, are included in the facility-wide section of the permit.

Standards for New Sources (IDAPA 58.01.01.676)

IDAPA 58.01.01.676 Standards for New Sources

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

Particulate Matter – Existing Equipment Process Weight Limitations (IDAPA 58.01.01.702)

IDAPA 58.01.01.702 Particulate Matter –Existing Equipment Process Weight Limitations

IDAPA 58.01.01.700 through 703 set PM emission limits for process equipment based on when the piece of equipment commenced operation and the piece of equipment’s process weight (PW) in pounds per hour (lb/hr). IDAPA 58.01.01.701 and IDAPA 58.01.01.702 establish PM emission limits for equipment that commenced operation on or after October 1, 1979 and for equipment operating prior to October 1, 1979, respectively.

For equipment that commenced operation on prior to October 1, 1979, the PM allowable emission rate (E) is based on one of the following four equations:

IDAPA 58.01.01.702.01.a: If PW is < 17,00 lb/hr; $E = 0.045 (PW)^{0.60}$

IDAPA 58.01.01.702.01.b: If PW is $\geq 17,000$ lb/hr; $E = 1.12 (PW)^{0.27}$

The Wood Processing and Handling at Woodgrain was constructed prior to October 1, 1979, and thus the process weight rate (PWR) was included in the facility’s combo permit No. T2-050033, issued on October 5, 2006. In this PTC, the above equations that pertain to the PWR were removed from this permitting action because it serves no purpose to include it again in the PTC/ Tier II renewal which is being converted to PTC. The PWR equations address the PM emissions from the Wood Processing and Handling and these equations are practically not enforceable. In addition these rules address only PM emissions and they don’t address the current regulations for the PM₁₀ or PM_{2.5}. The baghouses existing at the process can control PM₁₀ emissions with a manufacturer control efficiency at approximately higher than 99%. At these control efficiencies the PWR PM emissions limits would be in compliance with the PWR, and therefore, the PWR equations are deleted from the permit. Instead a baghouse operating requirements are included for this process to replace the PWR Permit Condition 3.2, existed in T2-050033, issued on October 5, 2006. The operating requirements for the cyclones existing at this section of the permit are included in the permit with a slight revision in requirement from those included in the previous permit.

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

IDAPA 58.01.01.301 Requirement to Obtain Tier I Operating Permit

Facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for criteria pollutants (i.e., PM₁₀, SO₂, NO_x, CO, VOC, and HAP) or 10 tons per year for any one HAP or 25 tons per year for all HAPs combined as demonstrated for previously issued permits. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 do not apply. To see a list of previously issued permits, refer to the Permit History section above.

PSD Classification (40 CFR 52.21)

40 CFR 52.21 Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, that would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

NSPS Applicability (40 CFR 60)

The facility is not subject to any NSPS requirements 40 CFR Part 60.

NESHAP Applicability (40 CFR 61)

The facility is not subject to any National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements in 40 CFR 61.

MACT Applicability (40 CFR 63)

40 CFR 63 Subpart QQQQ NESHAPS: Surface Coating of Wood Building Products

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for wood building products surface coating sources.

In accordance with 40 CFR 63.4681(b), you are subject to this subpart if you own or operate a new, reconstructed, or existing affected source, as defined in §63.4682, that uses 4,170 liters (1,100 gallons) per year, or more, of coatings in the source category defined in paragraph (a) of this section and that is a major source, is located at a major source, or is part of a major source of emissions of hazardous air pollutants (HAP). A major source of HAP emissions is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any single HAP at a rate of 9.07 megagrams (Mg) (10 tons) or more per year or any combination of HAP at a rate of 22.68 Mg (25 tons) or more per year.

The Woodgrain facility is an area source for HAP emissions as they are below the major source thresholds of 10 T/yr for any one federally regulated HAP and 25 T/yr for all HAPs combined. Therefore, the Subpart QQQQ is not applicable to the facility.

40 CFR 63 Subpart ZZZZ NESHAPS for Stationary Reciprocating Internal Combustion Engines

The facility has an existing emergency fire pump engine with a capacity of 220 bhp that is subject to National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ. The requirements of this subpart are included in the permit.

§ 63.6585

Am I subject to this subpart?

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

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

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

Woodgrain does operate a 220 bhp emergency fire pump periodically throughout the year and it is used in emergency situations only. In addition, the facility is an area source for HAPs as they are below the major source thresholds of 10 T/yr for any one federally regulated HAP and 25 T/yr for all HAPs combined. This is assured by Permit Condition 30 within the permit.

§ 63.6590

What parts of my plant does this subpart cover?

This subpart applies to each affected source.

(a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) Existing stationary RICE.

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

The engine located at Woodgrain is considered existing as it was constructed in 1967.

§ 63.6595

When do I have to comply with the subpart?

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

The applicable IC engine must be in compliance with the Subpart no later than May 3, 2013.

§ 63.6600 *What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?*

The applicable IC engine is not operating at a major source for HAP emissions. Therefore there are no applicable emission and operating limitations under this section.

§ 63.6601 *What emission limitations must I meet if I own or operate a 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than 500 brake HP located at a major source of HAP emissions?*

The applicable IC engine is not operating at a major source for HAP emissions and the engine is not a 4-stroke lean burn spark ignition. Therefore there are no applicable emission and operating limitations under this section.

§ 63.6602 *What emission limitations must I meet if I own or operate an existing stationary CI RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?*

The applicable IC engine is not operating at a major source for HAP emissions. Therefore there are no applicable emission and operating limitations under this section.

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this Subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this Subpart.

(a) If you own or operate an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this Subpart and the operating limitations in Table 2b to this Subpart which apply to you.

Table 2b does not apply as it refers only to CI non-emergency engines greater than 500 bhp at area source facilities. Table 2d, however, identifies those limitations required by area sources to comply with the Subpart. The specifics of Table 2d require that the permittee perform regular maintenance on the applicable engine such as changing oil and filters every 500 operating hours, inspect air cleaner every 1,000 hours of operation and inspect all hoses and belts every 500 hours of operation. Each of the maintenance procedures shall occur at the indicated interval or annually, whichever occurs first.

§ 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?

If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska not accessible by the FAHS are exempt from the requirements of this section.

Woodgrain operates an emergency engine; therefore this section does not apply to the facility.

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

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

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

When operating the applicable IC engine, they be operated in a manner that is consistent with reducing emissions and compliance with appropriate limitations applies at all times.

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

The engine located at Woodgrain is not required to perform any performance tests and the applicable IC engine is not operating at a major source for HAP emissions. No testing is required in accordance with Table 2d of the subpart.

§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

The engine located at Woodgrain is not required to perform any performance tests and the applicable IC engine is not operating at a major source for HAP emissions. No testing is required in accordance with Table 2d of the subpart.

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

The engine located at Woodgrain is not required to perform any performance tests. No testing is required in accordance with Table 2d of the subpart.

§ 63.6615 When must I conduct subsequent performance tests?

The engine located at Woodgrain is not required to perform any performance tests. No testing is required in accordance with Table 2d of the subpart.

§ 63.6620 What performance tests and other procedures must I use?

The engine located at Woodgrain is not required to perform any performance tests. No testing is required in accordance with Table 2d of the subpart.

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

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

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

The applicable IC engine needs to be operated in accordance with manufacturer's specifications or a maintenance plan may be developed that is consistent with good air pollution control practices.

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

A non-resettable meter shall be installed if not previously installed.

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

Idle startup time may not exceed 30 minutes. Applicable emissions standards must be met following the allowable 30 minutes.

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

program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

This section allows Woodgrain to develop their own oil analysis program to modify the oil changing frequency if the program meets all criteria set forth in subsection i of the subpart.

§ 63.6630 *How do I demonstrate initial compliance with the emission limitations and operating limitations?*

The applicable IC engine is designated as emergency, and it does not have any emission or operating limitations. Rather, maintenance requirements are specified in Table 2d of this subpart. Therefore, this section is not applicable.

§ 63.6635 *How do I monitor and collect data to demonstrate continuous compliance?*

The applicable IC engine is designated as emergency, and it does not have any emission or operating limitations. Rather, maintenance requirements are specified in Table 2d of this subpart. As a result data capture is not necessary. Therefore, this section is not applicable.

§ 63.6640 *How do I demonstrate continuous compliance with the emission limitations and operating limitations?*

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

Section 9 of Table 6 of the subpart pertains to the emergency IC engine at Woodgrain. Requirement work practices are accounted for within Permit Condition 33 of the associated permit.

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

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

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

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

supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

The above requirements pertain specifically to emergency engines. Permit Condition 38 accounts for these requirements.

§ 63.6645 *What notifications must I submit and when?*

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

This section of the subpart is not applicable to the engine at Woodgrain because it is designated as emergency. 63.6645(a)(5) explicitly exempts emergency engines from this requirement.

§ 63.6650 *What reports must I submit and when?*

(a) You must submit each report in Table 7 of this subpart that applies to you.

All required reporting is specified in Table 7 of Subpart ZZZZ. However, Table 7 does not include any requirements for emergency engines. Therefore, this section of the subpart is not applicable to Woodgrain.

§ 63.6655 *What records must I keep?*

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

(2) An existing stationary emergency RICE.

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

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

Woodgrain needs to maintain records demonstrating that the engine is being operated in accordance an appropriate maintenance plan. Records of operational hours from the non-resettable meter must also be kept. How many hours were spent in emergency situations and demand response. This requirement is established in Permit Condition 39.

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

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

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

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

Permit Condition 39 also accounts for these requirements.

New Permit Conditions: The NESHAP General Provisions and the Incorporation of Federal Requirements by Reference in Permit Conditions 18 and 40. The permittee shall comply with all applicable requirements of 40 CFR 63 Subpart ZZZZ and all applicable general provisions of 40 CFR 63 Subpart. These permit conditions are new and are included in the permit because the MACT Subpart ZZZZ is applicable to the 220 bhp emergency fire pump engine that exists at the facility.

Permit Conditions Review

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

Existing Permit Conditions:

The majority of the existing permit conditions found in T2-050033, issued on October 5, 2006 remained unchanged as a result of this PTC action. However, the existing permit conditions that are associated with the process weight rate are not carried over to this PTC – see explanation of this in the regulatory analysis section of statement of basis.

The most recent information regarding facility-wide conditions and General Provisions is provided in this permit.

Facility-Wide Conditions:

- All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with the fugitive dust requirements of Permit Condition 6 and IDAPA 58.01.01.650-651.
- Compliance with the fugitive requirements under Permit Condition 6 is assured by following the operating, monitoring and recordkeeping requirements listed in Permit Conditions 6, 7, 8, and 9.
- The permittee shall not allow, suffer, cause, or permit the emission of odorous gases, liquids, or solids to the atmosphere in such quantities as to cause air pollution in accordance with the odor requirements of Permit Condition 10 and IDAPA 58.01.01.775-776.
- Compliance with the odor requirements under Permit Condition 10 is assured by following the operating, monitoring and recordkeeping requirements in Permit Condition 11.
- Visible emissions (opacity) standards apply to any stack, vent or other equivalent opening at the facility in accordance with Permit Condition 12 and IDAPA 58.01.01.625.
- Compliance with the visible emissions requirements under Permit Condition 12 is assured by following the operating, monitoring and recordkeeping requirements in Permit Condition 13. The requirements in Permit Condition 13 were updated to match the latest version being used in the air permits template.
- If open burning is conducted at the facility, the open burning requirements apply per Permit Condition 14 and IDAPA 58.01.01.600-624 (Rules for Control of Open Burning).
- All reporting and certifications required by this permit shall be in accordance with Permit Condition 15. The certification provision requires that a responsible official certify all documents submitted to DEQ, in accordance with IDAPA 58.01.01.123.
- The fuel burning equipment of IDAPA 58.01.01.675 applies to the 2.53 MMBtu/hr boiler existing at the facility. The PM emissions limits shall not be in excess of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume for gas. Since the boiler is combusting only natural gas, this permit condition will be assured.
- New Permit Condition: The permittee shall not sell, distribute, use, or make available for use any distillate fuel oil containing more than the following percentages of sulfur: ASTM Grade 1 fuel oil - 0.3% by weight; ASTM Grade 2 fuel oil – 0.5 by weight.

Compliance with this permit condition is assured by the permittee to maintain documentation on site of supplier verification of distillate fuel oil sulfur content on as-received basis

- Existing Permit Condition 3.2 (Process weight Rate), in the combo T2/PTC No. T2-050033, issued on October 5, 2006 is removed from the permit. See DEQ's justifications of this permit condition removal from the previous permit in the Regulatory Analysis section of this statement of basis.
- Permit Condition 22 requests the permittee to install and operate six cyclones to control the PM₁₀ and PM emissions from the Wood Processing and Handling. Compliance with this permit condition is assured by developing an operation and maintenance manual for each cyclone in accordance with the manufacturer's specification.
- New Permit Condition 23 has been added to require the permittee to install four baghouses to control PM₁₀ and PM emissions from the Wood Processing and Handling stacks at the facility. This permit condition requires the permittee to develop a baghouse procedures document for the inspection and operation of the baghouses. The document must be a permittee developed document independent of the manufacturer supplied operating manual but may include summaries of procedures included in the manufacturer supplied operating manual. Baghouses are expected to be highly effective in controlling particulates from this process, provided they are operated and maintained according to manufacturer specifications and periodically inspected. If any visible emissions were present from the baghouse stack, the permittee must realize that a corrective action must be taken to fix the baghouse and a description of the correction action must be taken. At a minimum the baghouse procedures document must include procedures to determine if bags are ruptured and procedures to determine if bags are not appropriately secured in place. The permittee is required to maintain records of the results of each baghouse inspection in accordance with Monitoring and Recordkeeping requirements in the General Provisions of this permit.

Water-Borne Prime Line with AES Infrared Drying System:

- Existing Permit Condition 26 limits the VOC emissions from the prime line stack to 77.85 T/yr. This limit has not been changed. Compliance with the VOC emissions limit is demonstrated by complying with Permit Conditions 29 (Required Coating Monitoring Information) and 30 (VOC Emissions Monitoring).
- Existing Permit Condition 5.4 (Integral Filter System from the permit issued on 2006) is replaced with Permit Condition 27 (Integral Filter System Operating Requirements). This revised permit conditions requests the permittee to install and operate a filter system to control PM₁₀ and PM emissions from the water-borne prime line with AES infrared drying system stacks. Compliance with this permit conditions can be assured by monitoring the filter system in a similar situation as described in Permit Condition 23.
- Existing Permit Condition 5.5 (AES Infrared System) is now Permit Condition 28. This permit condition has not been changed.

Compression Ignition Emergency Internal Combustion Engine:

The permit condition requirements and the methods for determining compliance for these requirements associated with the emergency internal combustion engine are addressed in in the MACT Applicability section of this statement of basis.

PTC General Provisions:

The most current version of PTC General Provisions is used in this permit, as described below:

The duty to comply general compliance provision requires that the permittee comply with all of the permit terms and conditions pursuant to Idaho Code §39-101.

The maintenance and operation general compliance provision requires that the permittee maintain and operate all treatment and control facilities at the facility in accordance with IDAPA 58.01.01.211.

The obligation to comply general compliance provision specifies that no permit condition is intended to relieve or exempt the permittee from compliance with applicable state and federal requirements, in accordance with IDAPA 58.01.01.212.01.

The inspection and entry provision requires that the permittee allow DEQ inspection and entry pursuant to Idaho Code §39-108.

The requirement in Permit Condition 40 that "this permit shall expire if construction has not begun within two years of its issue date, or if construction is suspended for one year" does not apply to this renewal permit. This is because the sources described in the application for this permit qualified for a PTC exemption instead of being required to obtain a PTC.

The construction and operation notification provision in Permit Condition 41 requires that the permittee notify DEQ of the dates of construction and operation, in accordance with IDAPA 58.01.01.211. For this renewal permit, the notification requirements in Permit Condition 41 don't apply. This is because the sources described in the application for this permit qualify for a PTC exemption instead of being required to obtain a PTC.

The performance testing notification of intent provision requires that the permittee notify DEQ at least 15 days prior to any performance test to provide DEQ the option to have an observer present, in accordance with IDAPA 58.01.01.157.03.

The performance test protocol provision requires that any performance testing be conducted in accordance with the procedures of IDAPA 58.01.01.157, and encourages the permittee to submit a protocol to DEQ for approval prior to testing.

The performance test report provision requires that the permittee report any performance test results to DEQ within 30 days of completion, in accordance with IDAPA 58.01.01.157.04-05.

The monitoring and recordkeeping provision requires that the permittee maintain sufficient records to ensure compliance with permit conditions, in accordance with IDAPA 58.01.01.211.

The excess emissions provision requires that the permittee follow the procedures required for excess emissions events, in accordance with IDAPA 58.01.01.130. If a reportable excess emission event occurs, send the notifications to the DEQ Coeur d'Alene Regional Office as described in the rule.

The certification provision requires that a responsible official certify all documents submitted to DEQ, in accordance with IDAPA 58.01.01.123.

The false statement provision requires that no person make false statements, representations, or certifications, in accordance with IDAPA 58.01.01.125.

The tampering provision requires that no person render inaccurate any required monitoring device or method, in accordance with IDAPA 58.01.01.126.

The transferability provision specifies that this permit to construct is transferable, in accordance with the procedures of IDAPA 58.01.01.209.06.

The severability provision specifies that permit conditions are severable, in accordance with IDAPA 58.01.01.211.

PUBLIC REVIEW

Public Comment Opportunity

An opportunity for public comment period on the application was provided in accordance with IDAPA 58.01.01.209.01.c. During this time, there were no comments on the application and there was not a request for a public comment period on DEQ's proposed action. Refer to the chronology for public comment opportunity dates.

APPENDIX A – AMBIENT AIR QUALITY IMPACT ANALYSES

MEMORANDUM

DATE: December 12, 2011

TO: Harbi Elshafei, Permit Engineer, Air Quality Division

FROM: Cheryl Robinson, P.E., Air Quality Engineer/Modeling Analyst, Air Quality Division

PROJECT NUMBER: P-2011.0010, Project 60707

SUBJECT: T2 to PTC Conversion, Woodgrain Millwork - Nampa, Facility ID 027-00060
Is Modeling Required for the Diesel Fire Pump Engine?

Woodgrain's consultant, Greg Hildebrand, contacted me on Friday, December 9, 2011. He understands that no additional modeling will be required to convert Woodgrain Nampa's current Tier 2 to a PTC as long as there have been no changes to this door manufacturing facility. He noticed, however, that the 220 bhp (164 kW) diesel fire pump engine at the facility does not appear to have been included in any of the previous permitting analyses. DEQ has determined that compliance with the applicable NAAQS would have been demonstrated by the July 2005 facility-wide modeling even if emissions from the fire pump engine had been included.

1. Permit History/Emissions:

Tier II OP #027-00060 was issued Dec 27, 1996. Emissions of particular concern: PM₁₀ from the cyclones & baghouses.

Modified T2 #027-00060, issued September 25, 1998. Emissions of particular concern: PM₁₀ from the cyclones & baghouses.

PTC #027-00060, issued January 19, 1999. SCREEN3 modeling for emissions of formaldehyde, updated PM₁₀ emission factors and baghouse static pressures (out of compliance with pressures and opacity per inspection report).

Amended T2#027-00060, issued June 27, 2000. Revised baghouse pressure drop specs. Emission limits: PM₁₀

PTC P-040036, issued April 15, 2005, to install water-borne prime line with 0.48 MMBtu/hr natural gas-fired infrared drying system. Emission limits: VOCs
Emissions of all other pollutants were below 2002 DEQ modeling thresholds.

T2-050033 (renewal) issued October 5, 2006, expired October 5, 2011. Describes the 1.0 MMBtu natural gas-fired veneer dryer, space heaters, a 2.52 MMBtu/hr boiler, paint drying oven, and 0.48 MMBtu/hr water-borne prime line drying system. Emission limits: PM₁₀, VOCs. Modeling was conducted for all criteria pollutants.

2. What Emission Standards (NAAQS and TAPs) Apply to the Fire Pump Engine?

The initial permit for the Woodgrain Nampa facility was issued in 1996, after the promulgation in 1995 of Idaho's state-only toxic air pollutant (TAP) increment standards. **FINDING: Idaho TAPs standards apply.**

If the engine was installed as part of initial facility construction, the emissions from the fire pump engine should have been included in the facility-wide total for comparison with DEQ modeling thresholds. ***Facility-wide modeling should have been conducted in 1996 for all pollutants and averaging times with emissions in excess of DEQ's modeling thresholds.***

If the engine was installed after the initial facility construction but before PM_{2.5} and 1-hour NO_x and SO₂ NAAQS were implemented in Idaho in early 2011, the engine would have been exempt from permitting requirements per IDAPA 58.01.01.200.d because the 220 bhp fire pump engine is used exclusively for emergency purposes, would be operated fewer than 500 hours per year, and is fueled by distillate fuel oil. *Note: DEQ has confirmed that the fire pump engine was installed prior to 2011. Modeling should have been conducted for the fire pump engine*

emissions prior to installation of the fire pump engine (i.e., prior to 2011) for all pollutants and averaging times with emissions in excess of DEQ's 2002 modeling thresholds.

The increases in emissions of criteria pollutants associated with installation of the water-borne prime line drying system in 2005 were below DEQ modeling thresholds. Modeling was therefore not required.

Facility-wide modeling was conducted in 2006 to justify removing a number of PM₁₀ monitoring and recordkeeping conditions from the permit. *Modeling in 2005 should have included PM₁₀ emissions from the fire pump engine.*

The NAAQS in effect in Idaho in 2010 were as stringent or more stringent than the NAAQS in effect in 1996.

FINDING: If emissions from the diesel fire pump engine can be shown to demonstrate compliance with the NAAQS that were in effect in Idaho in 2010, compliance would have been demonstrated for the NAAQS in effect when the initial permit was issued for the Woodgrain Millwork – Nampa facility.

3. Diesel Fire Pump Engine Emissions:

Emissions from a 220 bhp (164 kW) diesel fire pump engine can be estimated as follows, assuming:

Fire pump engines are typically tested annual for a maximum of 4 hours per day (annual flow test), and typically tested for 30 minutes each week = 26 + 4 = 50 hours per year.

Assume max operations = 4 hrs per day and 100 hours per year.

Uncertified engine

Fuel sulfur content = 0.5% (the old standard) and 0.0015% (the new standard).

G1 Engine < 600 bhp (447 kW) AP-42 Section 3.3 (diesel fueled)

Fuel Type Toggle =	1	164 kw
Fuel Consumption Rate	11.23 gal/hr	
Calculated MMBtu/hr	1.539 MMBtu/hr	
Max Daily Operation	4 hr/day	
Max Annual Operation	100 hrs/yr	

Table 1. DIESEL FIRE PUMP ENGINE EMISSIONS

Pollutant	Emission Factor ^a (lb/MMBtu)	Emissions (lb/hr)	Emissions (T/yr)	Emissions (lb/hr) 24-hr Average
PM ₁₀ (including condensables)	0.31	0.48	0.024	0.020
CO	0.95	1.5	0.073	---
NOx	4.41	6.8	0.34	---
SO ₂ (total SOx presumed SO ₂), fuel S = 0.0015%	0.29 @ 0.5%S	0.0014	2.01E-07	2.2E-04
fuel S = 0.5%	0.29 @ 0.5%S	0.45	0.022	0.075
VOC (total TOC--> VOCs)	0.36	0.55	0.028	---
Lead	---	---	---	---

^a AP-42, Section 3.3, Gasoline and Diesel Industrial Engines, 10/96

All TAPs emissions are below the applicable screening EL (see the attached emissions inventory).

4. Potential to Emit (2006/2007 without and with the Fire Pump Engine):

The potential to emit (PTE) for materials handling emissions shown in pounds per hour (lb/hr) and tons per year (T/yr) in Table 2 were taken from the 2006 statement of basis (T2-050033). The PTE in T/yr for other emission sources (except for the fire pump engine) were also taken from the 2006 statement of basis (T2-050033), but hourly emissions were obtained from the 2005 ISC modeling files.

Table 2. WOODGRAIN MILLWORK – NAMPA POTENTIAL TO EMIT (2006)

Emission Source	PM ₁₀		NOx	SO ₂		VOC		CO	
	lb/hr	T/yr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
System 7, Cyclone #1 Sawdust Louver Door Fab Line	0.071	0.310	---	---	---	---	---	---	---
System 4, Cyclone #2. Sawdust Specialty Door Fab, Slicer Reclaim	0.073	0.318	---	---	---	---	---	---	---
System 6, Cyclone #3 Sawdust Louver Door Fab Line	0.123	0.538	---	---	---	---	---	---	---
System 3, Cyclone #4 Sawdust Colonial Door Fab Line	0.307	1.343	---	---	---	---	---	---	---
System 2, Cyclone #5 Sawdust Wood Chipper, Prime Line	0.326	1.429	---	---	---	---	---	---	---
System 9, Cyclone #7 Chip bin cleanup cyclone	0.058	0.254	---	---	---	---	---	---	---
System 5, Baghouse #1. Sander dust, Vents to plant and atmosphere	0.0005	0.002	---	---	---	---	---	---	---
System 8, Baghouse #2. Sander dust, Vents to plant and atmosphere	0.0004	0.002	---	---	---	---	---	---	---
System 1, Baghouse #3 Sawdust, shavings, sander dust	0.0030	0.013	---	---	---	---	---	---	---
System 10, Baghouse #4 Sander dust, Vents to plant and atmosphere	0.0004	0.002	---	---	---	---	---	---	---
Fugitives, Chip Bin Loadout	1.7844	7.816	---	---	---	---	---	---	---
Total, Materials Handling	2.75	12.03	---	---	---	---	---	---	---
Various Lamination Sources	---	---	---	---	---	---	10.01	---	---
Miscellaneous Gluing Sources	---	---	---	---	---	---	2.77	---	---
Space Heaters (10) (19.71 MMscf/yr nat gas)	0.017	0.0749	0.9855	0.0016	0.0059	---	0.0542	0.19	0.8278
Boiler (2.52 MMBtu/hr, burns 22.07 MMscf/yr nat gas)	7.94E-04	0.0839	1.1038	0.0016	0.0066	---	0.0607	0.21	0.9272
Water-borne Prime Line Paint Drying Oven (4.205 MMscf/yr nat gas)	7.94E-04	0.0160	0.2102	0.0003	0.0013	---	0.0116	0.04	0.1766
Water-borne Prime Line with AES Infrared Drying System (process emissions)	---	---	---	---	---	17.77	77.85	---	---
Veneer Dryer	7.94E-04	2.1	---	---	---	---	---	---	---
Total, Facility-Wide (2006 Permit)	3.58	14.30	2.30	0.027	0.026	---	90.8	3.30	1.93
Diesel Fire Pump Engine, 164 kW, 0.5% S diesel	0.080 ^a	0.024 ^a	0.34 ^a	0.075 ^a	0.022 ^a	---	---	1.46	0.073 ^a
Total, Facility-Wide (2006, with FP)	3.60	14.33	2.64	0.102	0.048	---	90.8	4.77	2.00
Diesel Fire Pump Engine, 164 kW, 0.0015% S diesel ^b	“	“	“	2.2E-04 ^a	2.0E-07 ^a	---	“	“	“
Total, Facility-Wide (2007, with FP)	3.60	14.33	2.64	0.027	0.026	---	90.8	4.77	2.00

^a Based on operating the engine a maximum of 4 hours per day and 100 hours per year for routine maintenance and testing.

^b Use of ULSD in this engine was required beginning in 2007 by 40 CFR 63 Subpart ZZZZ.

5. Estimated Ambient Impacts:

Modeling was conducted in 2005 for emissions of criteria pollutants from the emission sources described in the 2006 permit. The total modeled emission rate for each pollutant is shown in Table 3, along with the model results and background concentrations used to determine the full ambient impact. Modeled emission rates were determined based on continuous operation of each unit, i.e., operation for 8,760 hours per year. As shown in the table, the highest modeled impacts were for PM₁₀ emissions, at slightly more than 80% of the NAAQS for both the 24-hour and annual averaging periods.

	PM ₁₀		NO _x	SO ₂		VOC		CO		
	lb/hr	T/yr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	
Facility-Wide Emissions (2006 Permit)	2.77	14.30	2.30	0.0035	0.026	---	90.8	0.44	1.93	
2005 ISCST3 Modeling Results										
July 20, 2005, ISCST3 with PRIME downwash										
Pollutant:	PM ₁₀		NO _x	SO ₂			VOC		CO	
	Averaging Period:	24-hr (µg/m ³)	Annual (µg/m ³)	Annual (µg/m ³)	3-hr (µg/m ³)	24-hr (µg/m ³)	Annual (µg/m ³)	---	---	1-hr (µg/m ³)
Modeled Ambient Impact	22.27	6.1	8.4	1.32	0.32	0.054	---	---	393	104
Background Concentration	103	34.1	32	42	26	8	---	---	10,200	3,400
Total Ambient Impact	125.7	40.2	40.4	43.32	26.32	8.054	---	---	10,594	3,504
NAAQS	150	50	100	1,300	365	80	---	---	40,000	10,000
Percent of NAAQS	83.8%	80.4%	40.4%	3.33%	7.21%	10.1%	---	---	26.5%	35.0%

Additional ambient impacts associated with the diesel fire pump engine, which was not included in the 2005 modeling, may be estimated by comparing the fire pump engine emissions with DEQ's 2002 (ISC-PRIME) and 2011 (AERSCREEN) modeling thresholds. The Tier I thresholds are generally approvable for most projects. Tier II thresholds are typically more appropriate for emission sources with relatively high stack heights or exit velocities with exhaust temperatures above 400 K (260°F), or where the distance to ambient air is greater than 100 meters (328 feet). As shown in Table 4, the ambient impacts associated with the diesel fire pump engine emissions can reasonably be expected to be below the SCL for all pollutants and averaging periods. Clearly, adding the estimated impacts from the fire pump engine (from Table 4) to the 2005 full impact modeling results shown in Table 3 will not result in an exceedance of any applicable NAAQS.

Criteria Air Pollutant	Averaging Period	DEQ Modeling Threshold (2002)				DEQ Modeling Threshold (2011)			
		Tier I		Tier II (Case-by-Case)		Tier I		Tier II (Case-by-Case)	
PM ₁₀	24-hr	0.2	lb/hr	0.9	lb/hr	0.22	lb/hr	2.6	lb/hr
	Fire Pump:	0.08	lb/hr	0.02	lb/hr	0.02	lb/hr	0.02	lb/hr
	SCL	5.0	µg/m ³	---	---	---	---	---	---
	Impact (24-hr)	0.5	µg/m³	---	---	---	---	---	---
	Annual	1	T/yr	7	T/yr	---	---	---	---
	Fire Pump	0.024	T/yr	0.024	T/yr	---	---	---	---
	SCL	1.0	µg/m ³	---	---	---	---	---	---
	Impact (Annual)	0.024	µg/m³	---	---	---	---	---	---
CO	1-hr, 8-hr	14	lb/hr	70	lb/hr	15	lb/hr	175	lb/hr
	Fire Pump	1.46	lb/hr	1.46	lb/hr	1.46	lb/hr	1.46	lb/hr
	SCL (1-hr / 8-hr)	2,000 / 500	µg/m ³	---	---	---	---	---	---
	Impact (1-hr/8-hr)	209 / 52.1	µg/m³	---	---	---	---	---	---
NO ₂	Annual	1	T/yr	7	T/yr	1.2	T/yr	14	T/yr
	Fire Pump	0.34	T/yr	0.34	T/yr	0.34	T/yr	0.34	T/yr

Table 4. COMPARISON OF FP ENGINE EMISSIONS AND DEQ MODELING THRESHOLDS

Criteria Air Pollutant	Averaging Period	DEQ Modeling Threshold (2002)				DEQ Modeling Threshold (2011)			
		Tier I		Tier II (Case-by-Case)		Tier I		Tier II (Case-by-Case)	
	SCL	1.0	µg/m ³	---	---	---	---	---	---
	Impact (Annual)	0.34	µg/m ³	---	---	---	---	---	---
SO ₂	3-hr, 24-hr	0.2	lb/hr	0.9	lb/hr	0.22	lb/hr	2.6	lb/hr
	@0.5% S	0.075	lb/hr	0.075	lb/hr	0.075	lb/hr	0.075	lb/hr
	@0.0015% S	2.2E-04	lb/hr	2.2E-04	lb/hr	2.2E-04	lb/hr	2.2E-04	lb/hr
	SCL (3-hr / 24-hr)	25 / 5	µg/m ³	---	---	---	---	---	---
	Impact (3-hr/24-hr)	9.4 / 1.9	µg/m ³	---	---	---	---	---	---
	Impact (3-hr/24-hr)	0.03 / 0.006	µg/m ³	---	---	---	---	---	---
	Annual	1	T/Yr	7	T/yr	1.2	T/yr	14	T/yr
	@0.5% S	0.022	T/Yr	0.022	T/Yr	0.022	T/yr	0.022	T/Yr
	@0.0015% S	2.01E-07	T/Yr	2.01E-07	T/yr	2.01E-07	T/yr	2.01E-07	T/yr
	SCL	1.0	µg/m ³	---	---	---	---	---	---
	Impact (Annual)	0.022	µg/m ³	---	---	---	---	---	---
	Impact (Annual)	2.0E-07	µg/m ³	---	---	---	---	---	---

^c Based on operating the engine a maximum of 4 hours per day and 100 hours per year for routine maintenance and testing.

Woodgrain Millwork - Nampa

G1 Electrical Generator < 600 hp (447 kW) AP-42 Section 3.3 (diesel fueled)

Fuel Type Toggle = 1 164 kw
 Fuel Consumption Rate 11.23 gal/hr
 Calculated MMBtu/hr 1.539 MMBtu/hr Weight % Sulfur = 0.6000%
 Max Daily Operation 4 hr/day
 Max Annual Operation 100 hrs/yr

User Input Weight % Sulfur = 0.5000%
 AP-42 3.3 SO2 EF = 0.29 for #2 fuel oil, presumed max 0.5%
 SO2 emissions are multiplied by a factor: User Input Value/0.5% = 1.00
 Not an EPA-Certified Generator

Pollutant	Emission Factor ^a (lb/MMBtu)	Emissions (lb/hr)	Emissions (T/yr)	Emissions (lb/hr) Annual or 24-hr Average
PM _{2.5} (total) ^b	0.31	0.48	0.024	
PM-10 (total) ^b	0.31	0.48	0.024	0.080
CO ^b	0.95	1.46	0.073	
NOx ^b	4.41	6.8	0.34	
SO ₂ ^b (total SOx presumed SO2)	0.29	4.46E-01	2.23E-02	7.44E-02
VOC ^b (total TOC-> VOCs)	0.36	0.55	0.028	
Lead				
HCl ^c				
Dioxins^c				
2,3,7,8-TCDD				
Total TCDD				
1,2,3,7,8-PeCDD				
Total PeCDD				
1,2,3,4,7,8-HxCDD ^c				
1,2,3,6,7,8-HxCDD				
1,2,3,7,8,9-HxCDD ^c				
Total HxCDD				
1,2,3,4,6,7,8-HpCDD ^c				
Total HpCDD _e				
Octa CDD ^c				
Total PCDD ^c				
Furans^c				
2,3,7,8-TCDF				
Total TCDF ^c				
1,2,3,7,8-PeCDF				
2,3,4,7,8-PeCDF				
Total PeCDF ^c				
1,2,3,4,7,8-HxCDF				
1,2,3,6,7,8-HxCDF				
2,3,4,6,7,8-HxCDF				
1,2,3,7,8,9-HxCDF				
Total HxCDF ^c				
1,2,3,4,6,7,8-HpCDF				
1,2,3,4,7,8,9-HpCDF				
Total HpCDF ^c				
Octa CDF ^c				
Total PCDF ^c				
Total PCDD/PCDF ^c				
Non-PAH HAPs				
Acetaldehyde ^c	7.67E-04	1.18E-03	5.90E-05	1.35E-05
Acrolein ^c	9.25E-05	1.42E-04	7.12E-06	2.37E-05
Benzene ^{c,d}	9.33E-04	1.44E-03	7.18E-05	1.64E-05
1,3-Butadiene ^{c,e}	3.91E-05	6.02E-05	3.01E-06	6.87E-07
Ethylbenzene ^c				
Formaldehyde ^{c,e}	1.18E-03	1.82E-03	9.08E-05	2.07E-05
Hexane ^c				
Isooctane				
Methyl Ethyl Ketone ^c				
Pentane ^c				
Propionaldehyde ^c				
Quinone ^c				
Methyl chloroform ^c				
Toluene ^{c,e}	4.09E-04	6.30E-04	3.15E-05	1.05E-04
Xylene ^{c,e}	2.85E-04	4.39E-04	2.19E-05	7.31E-05
POM (7-PAH Group)		5.29E-06		6.03E-08

Pollutant	Emission Factor ^a (lb/MMBtu)	Emissions (lb/hr)	Emissions (T/yr)	TAPs Emissions (lb/hr) Annual or 24-hr Average
PAH HAPs				
2-Methylnaphthalene				
3-Methylchloranthrene^c				
Acenaphthene ^c	1.42E-06	2.19E-06	1.09E-07	2.50E-08
Acenaphthylene ^c	5.06E-06	7.79E-06	3.89E-07	8.89E-08
Anthracene ^c	1.87E-06	2.88E-06	1.44E-07	3.29E-08
Benzo(a)anthracene ^c	1.68E-06	2.59E-06	1.29E-07	2.95E-08
Benzo(a)pyrene ^c	1.88E-07	2.89E-07	1.45E-08	3.30E-09
Benzo(b)fluoranthene ^c	9.91E-08	1.53E-07	7.83E-09	1.74E-09
Benzo(e)pyrene				
Benzo(g,h,i)perylene ^c	4.89E-07	7.53E-07	3.76E-08	8.59E-09
Benzo(k)fluoranthene ^c	1.55E-07	2.39E-07	1.19E-08	2.72E-09
Chrysene ^c	3.53E-07	5.43E-07	2.72E-08	6.20E-09
Dibenzo(a,h)anthracene ^c	5.83E-07	8.98E-07	4.49E-08	1.02E-08
Dichlorobenzene				
Fluoranthene ^c	7.61E-06	1.17E-05	5.86E-07	1.34E-07
Fluorene ^c	2.92E-05	4.50E-05	2.25E-06	5.13E-07
Indeno(1,2,3-cd)pyrene ^c	3.75E-07	5.77E-07	2.89E-08	6.59E-09
Naphthalene ^{c,d}	8.48E-05	1.31E-04	6.53E-06	1.49E-06
Perylene				
Phenanthrene ^c	2.94E-05	4.53E-05	2.26E-06	5.17E-07
Pyrene ^c	4.78E-06	7.36E-06	3.68E-07	8.40E-08
Non-HAP Organic Compounds				
Acetone ^c				
Benzaldehyde				
Butane				
Butylaldehyde				
Crotonaldehyde ^c				
Ethylene				
Heptane				
Hexanal				
Isovaleraldehyde				
2-Methyl-1-pentene				
2-Methyl-2-butene				
3-Methylpentane				
1-Pentene				
n-Pentane				
Valeraldehyde				
Metals				
Antimony ^c				
Arsenic ^c				
Barium ^c				
Beryllium ^c				
Cadmium ^c				
Chromium ^c				
Cobalt ^c				
Copper ^c				
Hexavalent Chromium^c				
Manganese ^c				
Mercury ^c				
Molybdenum ^c				
Nickel ^c				
Phosphorus ^c				
Silver ^c				
Selenium ^c				
Thallium ^c				
Vanadium ^c				
Zinc ^c				

- a) Emission factors are from AP-42
- b) AP-42, Table 3.3-1, Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines, 10/96
- c) AP-42, Table 3.3-2, Speciated Organic Compound Emission Factors for Uncontrolled Diesel Engine, Emission Factor Rating E, 10/96
- d) (reserved)
- e) IDAPA Toxic Air Pollutant

TAPs lb/hr rates are 24-hr averages except for those in bold text. Lb/hr rates for bold TAPs (carcinogens) are annual averages.

Woodgrain Millwork - Nampa

G1 Electrical Generator < 600 hp (447 kW) AP-42 Section 3.3 (diesel fueled)

Fuel Type Toggle = 1 164 kw
 Fuel Consumption Rate 11.23 gal/hr
 Calculated MMBtu/hr 1.539 MMBtu/hr Weight % Sulfur = 0.0016%
 Max Daily Operation 4 hr/day
 Max Annual Operation 100 hrs/yr

User Input Weight % Sulfur = 0.0016%
 AP-42 3.3 SO2 EF = 0.29 for #2 fuel oil, presumed max 0.5%
 SO2 emissions are multiplied by a factor: User Input Value/0.5% = 0.00
 Not an EPA-Certified Generator

Pollutant	Emission Factor ^a (lb/MMBtu)	Emissions (lb/hr)	Emissions (T/yr)	Emissions (lb/hr) Annual or 24-hr Average
PM (total) ^b	0.31	0.48	0.024	
PM-10 (total) ^b	0.31	0.48	0.024	0.080
P.M.-2.5				
CO ^b	0.95	1.46	0.073	
NOx ^b	4.41	6.8	0.34	
SO ₂ ^b (total SOx presumed SO2)	0.29	1.34E-03	2.01E-07	2.23E-04
VOC ^b (total TOC -> VOCs)	0.36	0.55	0.028	
Lead				
HCl ^c				
Dioxins^c				
2,3,7,8-TCDD				
Total TCDD				
1,2,3,7,8-PeCDD				
Total PeCDD				
1,2,3,4,7,8-HxCDD^d				
1,2,3,6,7,8-HxCDD				
1,2,3,7,8,9-HxCDD^d				
Total HxCDD				
1,2,3,4,6,7,8-Hp-CDD^d				
Total HpCDD_e				
Octa CDD^d				
Total PCDD^d				
Furans^c				
2,3,7,8-TCDF				
Total TCDF^d				
1,2,3,7,8-PeCDF				
2,3,4,7,8-PeCDF				
Total PeCDF^d				
1,2,3,4,7,8-HxCDF				
1,2,3,6,7,8-HxCDF				
2,3,4,6,7,8-HxCDF				
1,2,3,7,8,9-HxCDF				
Total HxCDF^d				
1,2,3,4,6,7,8-HpCDF				
1,2,3,4,7,8,9-HpCDF				
Total HpCDF^d				
Octa CDF^d				
Total PCDF^d				
Total PCDD/PCDF^d				
Non-PAH HAPs				
Acetaldehyde ^e	7.67E-04	1.18E-03	5.90E-05	1.35E-05
Acrolein ^e	9.25E-05	1.42E-04	7.12E-06	2.37E-05
Benzene ^{e,a}	9.33E-04	1.44E-03	7.18E-05	1.64E-05
1,3-Butadiene ^{e,a}	3.91E-05	6.02E-05	3.01E-06	6.87E-07
Ethylbenzene ^e				
Formaldehyde ^{e,a}	1.18E-03	1.82E-03	9.08E-05	2.07E-05
Hexane ^e				
Isooctane				
Methyl Ethyl Ketone ^e				
Pentane ^e				
Propionaldehyde ^e				
Quinone ^e				
Methyl chloroform ^e				
Toluene ^{e,a}	4.09E-04	6.30E-04	3.15E-05	1.05E-04
Xylene ^{e,a}	2.85E-04	4.39E-04	2.19E-05	7.31E-05
PM10 (7-PAH Group)		5.29E-08		6.03E-08

Pollutant	Emission Factor ^a (lb/MMBtu)	Emissions (lb/hr)	Emissions (T/yr)	TAPs Emissions (lb/hr) Annual or 24-hr Average
PAH HAPs				
2-Methylnaphthalene				
3-Methylchloranthrene^e				
Acenaphthene ^e	1.42E-06	2.19E-06	1.09E-07	2.50E-08
Acenaphthylene ^e	5.06E-06	7.79E-06	3.89E-07	8.89E-08
Anthracene ^e	1.87E-06	2.88E-06	1.44E-07	3.29E-08
Benzo(a)anthracene ^e	1.68E-06	2.59E-06	1.29E-07	2.95E-08
Benzo(a)pyrene ^e	1.88E-07	2.89E-07	1.45E-08	3.30E-09
Benzo(b)fluoranthene ^e	9.91E-08	1.53E-07	7.63E-09	1.74E-09
Benzo(e)pyrene				
Benzo(g,h,i)perylene ^e	4.89E-07	7.53E-07	3.76E-08	8.69E-09
Benzo(k)fluoranthene ^e	1.55E-07	2.39E-07	1.19E-08	2.72E-09
Chrysene ^e	3.53E-07	5.43E-07	2.72E-08	6.20E-09
Dibenzo(a,h)anthracene ^e	5.83E-07	8.98E-07	4.49E-08	1.02E-08
Dichlorobenzene				
Fluoranthene ^e	7.61E-06	1.17E-05	5.86E-07	1.34E-07
Fluorene ^e	2.92E-05	4.50E-05	2.25E-06	5.13E-07
Indeno(1,2,3-cd)pyrene ^e	3.75E-07	5.77E-07	2.89E-08	6.69E-09
Naphthalene ^{e,a}	8.48E-05	1.31E-04	6.53E-06	1.49E-06
Perylene				
Phenanthrene ^e	2.94E-05	4.53E-05	2.28E-06	5.17E-07
Pyrene ^e	4.78E-06	7.36E-06	3.68E-07	8.40E-08
Non-HAP Organic Compounds				
Acetone ^e				
Benzaldehyde				
Butane				
Butyraldehyde				
Crotonaldehyde ^e				
Ethylene				
Heptane				
Hexanal				
Isovaleraldehyde				
2-Methyl-1-pentene				
2-Methyl-2-butene				
3-Methylpentane				
1-Pentene				
n-Pentane				
Valeraldehyde				
Metals				
Antimony ^e				
Arsenic ^e				
Barium ^e				
Beryllium ^e				
Cadmium ^e				
Chromium ^e				
Cobalt ^e				
Copper ^e				
Hexavalent Chromium ^e				
Manganese ^e				
Mercury ^e				
Molybdenum ^e				
Nickel ^e				
Phosphorus ^e				
Silver ^e				
Selenium ^e				
Thallium ^e				
Vanadium ^e				
Zinc ^e				

- a) Emission factors are from AP-42
- b) AP-42, Table 3.3-1, Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines, 10/96
- c) AP-42, Table 3.3-2, Speciated Organic Compound Emission Factors for Uncontrolled Diesel Engine, Emission Factor Rating E, 10/96
- d) (reserved)
- e) IDAPA Toxic Air Pollutant

TAPs lb/hr rates are 24-hr averages except for those in bold text. Lb/hr rates for bold TAPs (carcinogens) are annual averages.

Pollutant	11.23 gal/hour C2. Generator G2:		100 Hours/year 0 Hours/year	
	TOTAL of Max Emission Rates from A, B, C & D (lb/hr)	TAPs Screening Emission Limit (EL) Increment ^b (lb/hr)	TAPs Emissions Exceed EL Increment?	Modeled? Meets AAC or AACQ?
HCl ^a	0.000	0.05	No	
Dioxins		Toxic Equivalency Factor^c	Adjusted Emission Rate (lb/hr)	
2,3,7,8-TCDD	0.00E+00	1.0	0.00E+00	
Total TCDD	0.00E+00	n/a		
1,2,3,7,8-PeCDD	0.00E+00	1.0	0.00E+00	
Total PeCDD	0.00E+00	n/a		
1,2,3,4,7,8-HxCDD	0.00E+00	0.1	0.00E+00	
1,2,3,6,7,8-HxCDD	0.00E+00	0.1	0.00E+00	
1,2,3,7,8,9-HxCDD	0.00E+00	0.1	0.00E+00	
Total HxCDD	0.00E+00	n/a		
1,2,3,4,6,7,8-HpCDD	0.00E+00	0.01	0.00E+00	
Total HpCDD	0.00E+00	n/a		
Octa CDD	0.00E+00	0.0003	0.00E+00	
Total PCDD	0.00E+00	n/a		
Furans				
2,3,7,8-TCDF	0.00E+00	0.1	0.00E+00	
Total TCDF	0.00E+00	n/a		
1,2,3,7,8-PeCDF	0.00E+00	0.03	0.00E+00	
2,3,4,7,8-PeCDF	0.00E+00	0.3	0.00E+00	
Total PeCDF	0.00E+00	n/a		
1,2,3,4,7,8-HxCDF	0.00E+00	0.1	0.00E+00	
1,2,3,6,7,8-HxCDF	0.00E+00	0.1	0.00E+00	
2,3,4,6,7,8-HxCDF	0.00E+00	0.1	0.00E+00	
1,2,3,7,8,9-HxCDF	0.00E+00	0.1	0.00E+00	
Total HxCDF	0.00E+00	n/a		
1,2,3,4,6,7,8-HpCDF	0.00E+00	0.01	0.00E+00	
1,2,3,4,7,8,9-HpCDF	0.00E+00	0.01	0.00E+00	
Total HpCDF	0.00E+00	n/a		
Octa CDF	0.00E+00	0.0003	0.00E+00	
Total PCDF	0.00E+00	n/a		
Total PCDD/PCDF	0.00E+00	n/a		
TOTAL Dioxin/Furans^c	Adjusted lb/hr	TAPs EL for 2,3,7,8 TCDD	Exceeds TAPs EL?	Modeled?
Non-PAH HAPs	0.00E+00	1.50E-10	No	
Acetaldehyde	1.35E-05	3.00E-03	No	
Acrolein	2.37E-05	0.017	No	
Benzene	1.64E-05	8.00E-04	No	
1,3-Butadiene				
Ethylbenzene	0.00E+00	29	No	
Formaldehyde	2.07E-05	5.10E-04	No	
Hexane	0.00E+00	12	No	
Isooctane	0.00E+00			
Methyl Ethyl Ketone	0.00E+00	39.3	No	
Pentane	0.00E+00	118	No	
Propionaldehyde	0.00E+00	0.0287	No	
Quinone	0.00E+00	0.027	No	
Methyl chloroform	0.00E+00	127	No	
Toluene	1.05E-04	25	No	
Xylene	7.31E-05	29	No	

Pollutant	Generator <600hp Generator > 600hp		#2 Fuel Oil #2 Fuel Oil	
	TOTAL of Max Emission Rates from A, B, C & D (lb/hr)	TAPs Screening Emission Limit (EL) Increment ^b (lb/hr)	TAPs Emissions Exceed EL Increment?	Modeled? Meets AAC or AACQ?
PAH HAPs				
2-Methylnaphthalene	0.00E+00	9.10E-05	No	
3-Methylchloranthrene	0.00E+00	2.50E-06	No	
Acenaphthene	2.50E-08	9.10E-05	No	
Acenaphthylene	8.89E-08	9.10E-05	No	
Anthracene	3.29E-08	9.10E-05	No	
Benzo(a)anthracene	2.95E-08			see POM
Benzo(a)pyrene	3.30E-09	2.00E-06	No	see POM
Benzo(b)fluoranthene	1.74E-09			see POM
Benzo(e)pyrene	0.00E+00	9.10E-05	No	
Benzo(g,h,i)perylene	8.59E-09	9.10E-05	No	
Benzo(k)fluoranthene	2.72E-09			see POM
Chrysene	6.20E-09			see POM
Dibenzo(a,h)anthracene	1.02E-08			see POM
Dichlorobenzene	0.00E+00	9.10E-05	No	
Fluoranthene	1.34E-07	9.10E-05	No	
Fluorene	5.13E-07	9.10E-05	No	
Indeno(1,2,3-cd)pyrene	6.59E-09			see POM
Naphthalene ^a	1.49E-06	9.10E-05	No	
Perylene	0.00E+00	9.10E-05	No	
Phenanthrene	5.17E-07	9.10E-05	No	
Pyrene	8.40E-08	9.10E-05	No	
PolycyclicOrganicMatter ^d	6.03E-08	2.00E-06	No	
Non-HAP Organic Compounds				
Acetone	0.00E+00	119	No	
Benzaldehyde	0.00E+00			
Butane	0.00E+00			
Butyraldehyde	0.00E+00			
Crotonaldehyde	0.00E+00	0.38	No	
Ethylene	0.00E+00			
Heptane	0.00E+00	109	No	
Hexanal	0.00E+00			
Isovaleraldehyde	0.00E+00			
2-Methyl-1-pentene	0.00E+00			
2-Methyl-2-butene	0.00E+00			
3-Methylpentane	0.00E+00			
1-Pentene	0.00E+00			
n-Pentane ^a	0.00E+00	118	No	
Valeraldehyde (n-Valeraldehyde)	0.00E+00	11.7	No	
Metals				
Antimony ^a	0.00E+00	0.033	No	
Arsenic	0.00E+00	1.50E-06	No	
Barium	0.00E+00	0.033	No	
Beryllium	0.00E+00	2.80E-05	No	
Cadmium	0.00E+00	3.70E-06	No	
Chromium	0.00E+00	0.033	No	
Cobalt	0.00E+00	0.0033	No	
Copper	0.00E+00	0.013	No	
Hexavalent Chromium	0.00E+00	5.60E-07	No	
Manganese	0.00E+00	0.067	No	
Mercury	0.00E+00	0.003	No	
Molybdenum	0.00E+00	0.333	No	
Nickel	0.00E+00	2.70E-05	No	
Phosphorus	0.00E+00	0.007	No	
Silver	0.00E+00	0.007	No	
Selenium	0.00E+00	0.013	No	
Thallium	0.00E+00	0.007	No	
Vanadium	0.00E+00	0.003	No	
Zinc	0.00E+00	0.667	No	

a) Reserved.

b) Toxic Air Pollutants, IDAPA 58.01.01.585 and .586, levels in effect as of February 25, 2009

c) 2005, Van den Berg, et al, The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds, *Toxicological Sciences* 93(2), 223-241 (2006). Accessible at <http://toxsci.oxfordjournals.org/cgi/reprint/93/2/223>.

Use of the 2005 WHO toxic equivalency factors (TEFs) is consistent with current EPA recommendations for TRI reporting (72 FR 26544, May 10, 2007)

n/a = not available. IDAPA 58.01.01.586, TAPs Carcinogenic Increments: Total of adjusted emission rates are treated as a single TAP (2,3,7,8 TCDD)

d) IDAPA 58.01.01.586, Polycyclic Organic Matter: Emissions of highlighted PAHs shall be considered together as one TAP equivalent in potency to benzo(a)pyrene.

e) Naphthalene is listed as a noncarcinogenic TAP in IDAPA 58.01.01.585 (EL = 3.33 lb/hr), but must also be considered as a carcinogenic PAH (EL = 9.10E-05 lb/hr)

TAPs lb/hr rates are 24-hr averages except for those in bold text. Lb/hr rates for bold TAPs (carcinogens) are annual averages.