Statement of Basis

Tier I Operating Permit No. T1-2012.0038
Project ID 61078

IFG Lewiston, LLC
Lewiston, Idaho

Facility ID 069-00003

Draft for Public Comment

DRAFT XX, 2013
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The purpose of this Statement of Basis is to set forth the legal and factual basis for the Tier I operating permit terms and conditions, including references to the applicable statutory or regulatory provisions for the terms and conditions, as required by IDAPA 58.01.01.362

1. ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent emissions
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
GHG	greenhouse gases
hr/yr	hours per consecutive 12 calendar month period
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
km	kilometers
lb/hr	pounds per hour
m	meters
MACT	Maximum Achievable Control Technology
MRRR	Monitoring, Recordkeeping and Reporting Requirements
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
NSPS	New Source Performance Standards
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
PTE	potential to emit
PW	process weight rate
Rules	*Rules for the Control of Air Pollution in Idaho*
scf	standard cubic feet
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_x	sulfur oxides
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar month period
T1	Tier I operating permit
T2	Tier II operating permit
VOC	volatile organic compound

2. INTRODUCTION AND APPLICABILITY

IFG Lewiston is a manufacturer of wood products, and is located at 807 Mill Road, Lewiston, Idaho. The facility is classified as a major facility, as defined by IDAPA 58.01.01.008.10.c, because it emits or has the potential to emit volatile organic compounds above the major source threshold of 100 tons-per-year. The facility is also classified as a major facility, as defined by Subsection 008.10.a, because it emits or has the potential to emit hazardous air pollutants above the major source thresholds of 25 tons-per-year for any combination of HAP.

IDAPA 58.01.01.362 requires that as part of its review of the Tier I application, DEQ shall prepare a technical memorandum (i.e. statement of basis) that sets forth the legal and factual basis for the draft Tier I operating permit terms and conditions including reference to the applicable statutory provisions. This document provides the basis for the draft Tier I operating permit for IFG Lewiston.

The format of Section 7 of this statement of basis follows that of the permit; each permit provision is addressed in order of occurrence.

IFG Lewiston's Tier I operating permit is organized into sections. They are as follows:

Section 1 - Tier I Operating Permit Scope

The scope describes this permitting action.

Section 2 - Facility-Wide Conditions

The Facility-Wide Conditions section contains the applicable requirements (permit conditions) that apply facility-wide. Where required, monitoring, recordkeeping and reporting requirements sufficient to assure compliance with each permit condition follows the permit condition.

Sections 4 - 6 – Lumber Drying Kilns, Sawmill, Fuel Hog

The emissions unit-specific sections of the permit contain the applicable requirements that specially apply to each regulated emissions unit. Some requirements that apply to an emissions unit (e.g. opacity limits) may be contained in the facility-wide conditions. As with the facility-wide conditions, monitoring, recordkeeping and reporting requirements sufficient to assure compliance with each applicable requirement immediately follows the applicable requirement.

Section 7 - General Provisions

The final section of the permit contains standard terms and conditions that apply to all major facilities subject to IDAPA 58.01.01.300. This section is the same for all Tier I sources. These conditions have been reviewed by EPA and contain all terms required by IDAPA 58.01.01 et al as well as requirements from other air quality laws and regulations. Each general provision has been paraphrased so it is more easily understood by the general public; however, there is no intent to alter the effect of the requirement. Should there be a discrepancy between a paraphrased general provision in this statement of basis and the rule or permit, the rule or permit shall govern.

3. FACILITY INFORMATION

3.1 Facility Description

IFG Lewiston (formerly Clearwater) manufactures dimensional kiln-dried lumber and trim board products. Wood residual in the forms of sawdust and chips are also produced as marketable products.

The facility is comprised of sawmill, lumber drying, and surfacing.

Raw logs are debarked and cut to desired lengths before entering the sawmill building. In the sawmill building the cut and debarked logs are cut to maximize the amount of lumber obtained from each log. The

rough-cut green lumber is stacked before being dried in the kilns.

Four double-track kilns are indirectly-fired and operate on processed steam obtained from the adjacent Clearwater Pulp and Paper facility. Dried lumber is removed from the kilns and either stored temporarily or sent to the surfacing department where the lumber is trimmed by saws, planed, sorted, stacked, strapped, and stored before shipment as final dimensional lumber product.

Wood chips, sawdust, planer dust, and sander dust from process equipment are conveyed to storage areas by either conveyor belt or pneumatic conveyance systems employing cyclones or baghouses.

3.2 Facility Permitting History

Tier I Operating Permit History

The following information is the permitting history of this Tier I facility from January 17, 2012 to present. Prior to January 17, 2012 the facility belonged to Clearwater Paper Corporation. This 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).

January 17, 2012 T1-2008.0183, Change in Ownership, Permit status (S)

Underlying Permit History - Includes every underlying permit issued to this facility

The following information is the comprehensive permitting history of all underlying applicable permits issued to this Tier I facility. This 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).

January 17, 2012 P- 2010.0103, Change in Ownership, Permit status (S)

January 17, 2012 P- 2011.0135, Change in Ownership, Permit status (S)

October 25, 2012 P- 2011.0135, Remove Restriction on Pine, Permit status (A)

4. APPLICATION SCOPE AND APPLICATION CHRONOLOGY

4.1 Application Scope

This permit is the renewal of the facility's currently effective Tier I operating permit.

4.2 Application Chronology

June 29, 2012	DEQ received an application.
August 27, 2012	DEQ determined that the application was complete.
February 6, 2013	DEQ made available the draft permit and statement of basis for peer and regional office review.
February 13, 2013	DEQ made available the draft permit and statement of basis for applicant review.
TBD	DEQ provided a public comment period on the proposed action.
TBD	DEQ provided a public hearing in CITY.
TBD	DEQ provided the proposed permit and statement of basis for EPA review.

5. EMISSIONS UNITS, PROCESS DESCRIPTION(S), AND EMISSIONS INVENTORY

This section lists the emissions units, describes the production or manufacturing processes, and provides the emissions inventory for this facility. The information presented was provided by the applicant in its permit application. Also listed in this section are the insignificant activities based on size or production rate.

5.1 Process No. 1 - Lumber Drying Kilns

The four lumber drying kilns process green rough cut lumber of various wood species and dimensions by reducing the moisture content in the lumber. Process steam is supplied to IFG Lewiston by the Clearwater Paper Corporation Pulp and Paper Division. The steam is supplied to heating coils within the kilns which transfer heat to the stacked lumber to drive off the desired amount of moisture. Fans inside the kilns circulate the heated air inside the kilns, and vents in the roof of each kiln are opened and closed to maintain the desired conditions within the kiln.

Emissions from the lumber drying kilns are uncontrolled.

5.2 Process No. 2 - Sawmill, Planer Mill and Material Handling Equipment

Table 5.1 lists the emissions units and control devices associated with sawmill, planer mill and material handling equipment.

Table 5.1 EMISSIONS UNITS, CONTROL DEVICE, AND DISCHARGE POINT INFORMATION

Emissions Point/Source Identification	Emissions Unit / Process	Emissions Control Device
Debarking, cutoff saws	27-inch, 35-inch, and 50-inch debarkers; 27-inch, 35-inch cutoff saws	Reasonable control
IFG-CY3, IFG-CY4A and IFG-CY4B	Ambient building air from all machine centers, including headrig, sharp chain, reducing band saw, rotary gang saw, horizontal band saw, quad band saw, No. 1 and No. 2 optimizing edgers, trimmers, and other machine centers routed to process cyclones IFG-CY3, IFG-CY4A, and IFG-CY4B. Cyclones IFG-CY4A and IFG-CY4B emit through a common stack	None
Chip belt	Division chip conveyor belt to pulp and paper	Reasonable control
IFG-CY1	No. 4 splitter	None
IFG-CY2	Chips from Bruks chipper	None
IFG-BH1, IFG-BH2, IFG-BH3	Planer shavings from No. 2 planer, No. 3 planer, and No. 4 planer, and dust from Nos. 2, 3, and 4 trimmers	Baghouses
IFG-CY6, IFG-CY7 and IFG-CY8	Pneumatic transfer system to the Dry Fuel Bins	Baghouse IFG-BH4

5.3 Process No. 3 – Fuel Hog

Table 5.2 lists the emissions units and control devices associated with the fuel hog.

Table 5.2 EMISSIONS UNITS, CONTROL DEVICE, AND DISCHARGE POINT INFORMATION

Emissions Unit Description	Control Device (if applicable)
Fuel hog	None

The Fuel Hog is used to chop scrap wood into smaller pieces for use as boiler fuel at Clearwater Paper Corporation. The Fuel Hog emission point is cyclone IFG-CY5, which is used to pneumatically transfer the hogged fuel to the storage pile at the Clearwater Pulp and Paper mill.

5.4 Emissions Inventory

Table 5.3 summarizes the emissions inventory for this major facility. All values are expressed in units of tons-per-year and represent the facility's potential to emit. Potential to emit is defined as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hour of operation or on the type or amount of material combusted, stored or processed shall be treated as part of its design if the limitation or the effect it would have on emissions is state or federally enforceable.

The documentation provided by the applicant for the emissions inventory and emission factors is provided as Appendix A of this statement of basis.

Table 5.3 EMISSIONS INVENTORY - POTENTIAL TO EMIT (T/yr)

Source Description	PM_{10} T/yr	NO_x T/yr	SO_2 T/yr	CO T/yr	VOC T/yr	Lead T/yr	HAP T/yr	GHG CO_2e T/yr
Lumber Dry Kilns (4)	3.51	--	--	--	249	--	36.5	--
Cyclones								
IFG-CY1, Planer #4 Splitter	0.50	--	--	--	--	--	--	--
IFG-CY2, Planer Chipper	2.61	--	--	--	--	--	--	--
IFG-CY3, Sawmill and Machine Centers	1.59	--	--	--	--	--	--	--
IFG-CY4A, Sawmill all Machine Centers	7.56	--	--	--	--	--	--	--
IFG-CY4B, Sawmill all Machine Centers	7.56	--	--	--	--	--	--	--
IFG-CY5, Fuel Hog	2.09	--	--	--	--	--	--	--
Baghouses								
Planer Shavings (IFG-BH1)	4.05	--	--	--	--	--	--	--
Planer Shavings (IFG-BH2)	4.28	--	--	--	--	--	--	--
Planer Shavings (IFG-BH3)	4.62	--	--	--	--	--	--	--
Truck Bin (IFG-BH4)	16.22	--	--	--	--	--	--	--
Total Emissions	54.6	NA	NA	NA	249	NA	36.5	Negligible

6. EMISSIONS LIMITS AND MRRR

This section contains the applicable requirements for this major facility. Where applicable, monitoring, recordkeeping and reporting requirements (MRRR) follow the applicable requirement and state how compliance with the applicable requirement is to be demonstrated.

This section is divided into several subsections. The first subsection lists the requirements that apply facility wide. The next subsection lists the emissions units- and emissions activities-specific applicable requirements. The final subsection contains the general provisions that apply to all major facilities subject to Idaho DEQ's Tier I operating permit requirements.

This section contains the following subsections:

- Facility-Wide Conditions;
- Lumber Drying Kilns;
- Sawmill, Planer Mill and Material Handling Equipment;
- Fuel Hog;
- Tier I Operating Permit General Provisions.

MRRR

Immediately following each applicable requirement (permit condition) is the periodic monitoring regime upon which compliance with the underlying applicable requirement is demonstrated. A periodic monitoring regime consists of monitoring, recordkeeping and reporting requirements for each applicable requirement. If an applicable requirement does not include sufficient monitoring, recordkeeping and reporting to satisfy IDAPA 58.01.01.322.06, 07, and 08, then the permit must establish adequate monitoring, recordkeeping and reporting sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit. This is known as gap filling. In addition to the specific MRRR described under each permit condition, generally applicable facility-wide conditions and general provisions may also be required, such as monitoring, recordkeeping, performance testing, reporting, and certification requirements.

The discussion of each permit condition includes the legal and factual basis for the permit condition. If a permit condition was changed due to facility draft or public comments, a description of why and how the condition was changed is provided.

State Enforceability

An applicable requirement that is not required by the federal CAA and has not been approved by EPA as a SIP-approved requirement is identified as a "State-only" requirement and is enforceable only under state law. State-only requirements are not enforceable by the EPA or citizens under the CAA. State-only requirements are identified in the permit within the citation of the legal authority for the permit condition.

Federal Enforceability

Unless identified as "State-only," all applicable requirements, including MRRR, are state and federally enforceable. It should be noted that while a violation of a MRRR is a violation of the permit, it is not necessarily a violation of the underlying applicable requirement (e.g. emissions limit).

To minimize the length of this document, the following permit conditions and MRRR have been paraphrased. Refer to the permit for the complete requirements.

6.1 Facility-Wide Conditions

Permit Condition 3.1 - Fugitive Dust

All reasonable precautions shall be taken to prevent PM from becoming airborne in accordance with IDAPA 58.01.01.650-651.

[IDAPA 58.01.01.650-651, 3/30/07]

MRRR (Permit Conditions 3.2 through 3.4)

- Monitor and maintain records of the frequency and the methods used to control fugitive dust emissions;
- Maintain records of all fugitive dust complaints received and the corrective action taken in response to the complaint;
- Conduct facility-wide inspections of all sources of fugitive emissions. If any of the sources of fugitive dust are not being reasonably controlled, corrective action is required.

[IDAPA 58.01.01.322.06, 07, 08, 4/5/2000]

Permit Condition 3.5 - Odors

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.

[IDAPA 58.01.01.775-776 (State-only), 5/1/94]

MRRR (Permit Condition 3.6)

- Maintain records of all odor complaints received and the corrective action taken in response to the complaint;
- Take appropriate corrective action if the complaint has merit, and log the date and corrective action taken.

[IDAPA 58.01.01.322.06, 07 (State only), 5/1/94]

Permit Condition 3.7 - Visible Emissions

The permittee shall not discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three minutes in any 60-minute period which is greater than 20% opacity as determined by procedures contained in IDAPA 58.01.01.625. These provisions shall not apply when the presence of uncombined water, nitrogen oxides, and/or chlorine gas is the only reason for the failure of the emission to comply with the requirements of this section.

[IDAPA 58.01.01.625, 4/5/00]

MRRR (Permit Conditions 3.8 through 3.9)

- Conduct quarterly facility-wide inspections of all emissions units that are not listed in Table 5.2 of the permit subject to the visible emissions standards (or rely on continuous opacity monitoring);
- If visible emissions are observed, take appropriate corrective action and/or perform a Method 9 opacity test;
- Maintain records of the results of each visible emissions inspection.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

The existing Tier I permit required monthly monitoring. The DEQ Lewiston Regional Office was contacted regarding this requirement. It was determined that quarterly monitoring is sufficient because during the past 10 years no visibile emissions issues have arisen at the facility. The permit now requires quarterly visible emissions observations instead of monthly.

Permit Conditions 3.10 through 3.14 - Excess Emissions

The permittee shall comply with the procedures and requirements of IDAPA 58.01.01.130-136 for excess emissions. The provisions of IDAPA 58.01.01.130-136 shall govern in the event of conflicts between the excess emissions facility-wide conditions and the regulations of IDAPA 58.01.01.130-136.

MRRR (Permit Conditions 3.10 through 3.14)

Monitoring, recordkeeping and reporting requirements for excess emissions are provided in Sections 131 through 136.

- Take appropriate action to correct, reduce, and minimize emissions from excess emissions events;
- Prohibit excess emissions during any DEQ Atmospheric Stagnation Advisory or Wood Stove Curtailment Advisory;
- Notify DEQ of each excess emissions event as soon as possible, including information regarding upset, breakdown, or safety events;
- Submit a report for each excess emissions event to DEQ;
- Maintain records of each excess emissions event.

Permit Condition 3.15 - Sulfur Content Limits

The permittee shall not sell, distribute, use, or make available for use any of the following:

- 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.
- DEQ may approve an exemption from these fuel sulfur content requirements (IDAPA 58.01.01.725.01 725.04) if the permittee demonstrates that, through control measures or other means, SO2 emissions are equal to or less than those resulting from the combustion of fuels complying with these limitations.

[IDAPA 58.01.01.725, 3/29/10]

MRRR - (Permit Condition 3.16)

The permittee shall maintain documentation of supplier verification of fuel sulfur content on an as received basis.

[IDAPA 58.01.01.322.06, 5/1/94]

Permit Condition 3.17 - Open Burning

The permittee shall comply with the *Rules for Control of Open Burning*, IDAPA 58.01.01.600-623.

[IDAPA 58.01.01.600-623, 5/08/09]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 3.18 - Asbestos

The permittee shall comply with all applicable portions of 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

[40 CFR 61, Subpart M]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 3.19 - Accidental Release Prevention

An owner or operator of a stationary source that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, shall comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR 68 no later than the latest of the following dates:

- Three years after the date on which a regulated substance that is present above a threshold quantity is first listed under 40 CFR 68.130.
- The date on which a regulated substance is first present above a threshold quantity in a process.

[40 CFR 68.10 (a)]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 3.20 - Recycling and Emissions Reductions

The permittee shall comply with applicable standards for recycling and emissions reduction of refrigerants and their substitutes pursuant to 40 CFR 82, Subpart F, Recycling and Emissions Reduction.

[40 CFR 82, Subpart F]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 3.21 - Monitoring and Recordkeeping

The permittee shall maintain sufficient records to assure compliance with all of the terms and conditions of this operating permit. Records of monitoring information shall include, but not be limited to, the following: (a) the date, place, and times of sampling or measurements; (b) the date analyses were performed; (c) the company or entity that performed the analyses; (d) the analytical techniques or methods used; (e) the results of such analyses; and (f) the operating conditions existing at the time of sampling or measurement. All monitoring records and supporting information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes, but is not limited to, all calibration and maintenance records, all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. All records required to be maintained by this permit shall be made available in either hard copy or electronic format to DEQ representatives upon request.

[IDAPA 58.01.01.322.06, 07, 5/1/94]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Conditions 3.22 through 3.23 - Performance Testing

If performance testing is required, the permittee shall provide notice of intent to test to DEQ at least 15 days prior to the scheduled test or shorter time period as provided in a permit, order, consent decree, or by DEQ approval. DEQ may, at its option, have an observer present at any emissions tests conducted on a source. DEQ requests such testing not be performed on weekends or state holidays.

All testing shall be conducted in accordance with the procedures in IDAPA 58.01.01.157. Without prior DEQ approval, any alternative testing is conducted solely at the permittee's risk. If the permittee fails to obtain prior written approval by DEQ for any testing deviations, DEQ may determine that the testing does not satisfy the testing requirements. Therefore, prior to conducting any performance test, the permittee is encouraged to submit in writing to DEQ, at least 30 days in advance, the following for approval:

- The type of method to be used;
- Any extenuating or unusual circumstances regarding the proposed test;
- The proposed schedule for conducting and reporting the test.

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94]

MRRR (Permit Conditions 3.24 and 3.25)

The permittee shall submit compliance test report(s) to DEQ following testing.

[IDAPA 58.01.01.157, 4/5/00; IDAPA 58.01.01.322.06, 08.a, 09, 5/1/94]

Permit Condition 3.26 - Reports and Certifications

This permit condition establishes generally applicable MRRR for submittal of reports, certifications, and notifications to DEQ and/or EPA as specified.

[IDAPA 58.01.01.322.08, 11, 5/1/94]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Permit Condition 3.27 - Incorporation of Federal Requirements by Reference

Unless expressly provided otherwise, any reference in this permit to any document identified in IDAPA 58.01.01.107.03 shall constitute the full incorporation into this permit of that document for the purposes of the reference, including any notes and appendices therein.

[IDAPA 58.01.01.107, 4/7/11]

MRRR

No specific monitoring is required for this facility-wide condition. As with all permit conditions, the permittee must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

6.2 Lumber Drying Kilns-Specific Emissions Limits and MRR

Permit Condition 4.1

The combined VOC emissions from the four dry kiln vents shall not exceed 249 tons per any consecutive 12- calendar month period.

MRRR - (Permit Conditions 4.4 and 4.5)

Permit Condition 4.4 requires monitoring the throughput of groups of lumber each month and each consecutive 12-month period. Permit Condition 4.5 requires calculating VOC emissions using the listed emission factors for each lumber group and the corresponding throughput for that group.

Permit Condition 4.2

The throughput of lumber for the drying kilns shall not exceed 351,009 thousand board feet (Mbf) during any consecutive 12-month period.

MRRR - (Permit Condition 4.3)

Each month the permittee shall monitor and record the total throughput of all species of lumber processed in the drying kilns in units of thousand board feet (Mbf) for that month and for the most recent consecutive 12-month period.

The previous Tier I permit required monthly visible emissions observations. If four consecutive monthly observations were less than 20% opacity then monitoring could then be quarterly. During the last ten years of this permit condition, monitoring has always been quarterly because visible emissions were always less than 20%. Therefore this permit condition has been deleted and the facility-wide quarterly visible emissions observations are applicable instead. Visible emissions from a lumber drying kiln are not expected to ever be an issue.

6.3 Sawmill, Planer Mill and Material Handling Equipment-Specific Emissions Limits and MRR

Permit Condition 5.1 & 5.2

These conditions include the process weight rate emission limitations; these requirements are directly from IDAPA 58.01.01.701 & 702.

MRRR - (Permit Conditions 5.3 through 5.7)

Permit Conditions 5.3 through 5.6 include compliance assurance monitoring (CAM) provisions that apply to process equipment which are controlled by baghouses. These requirements were developed in Tier I Operating Permit No. T1-2007.0095 issued to Potlatch Forest Products Corporation, the former owner of the mill, on January 23, 2008, and the permit was transferred to IFG on January 17, 2012. These requirements have not changed as part of this permit action; nor have the emissions units covered by

CAM changed since that permit was issued. The factual basis for these permit conditions are copied from the January 23, 2008 Statement of Basis which supported the issuance of Tier I Operating Permit No. T1-2007.0095. In short, CAM consists of daily visible emissions observations from the baghouses. An excursion is defined as the presence of any visible emissions. In accordance with the CAM requirements the permittee is required to minimize the reoccurrence of excursions, and submit reports in accordance with 40 CFR 64.9. These CAM provisions provide a reasonable assurance of compliance with the process weight rate limitations.

The following paragraphs (Permit Conditions 5.3 through 5.6) are copied from the January 23, 2008 Statement of Basis that supported the initial issuance of the CAM permit conditions.

Permit Condition 5.3 CAM - Baghouse Use Required

The permittee shall use baghouses to control PM emissions from the associated processes according to Table 5.2.

Table 5.2 Processes Controlled by Baghouses

Process(es)	***Baghouse(s)***
Fines from Bruks chipper	*Baghouse No. 2*
Dropout fines collected from Bruks chipper, sawdust collected from LWP-CY-18, planer shavings from No. 2 planer, No. 3 planer, and No. 4 planer, and dust from Nos. 2, 3, and 4 Trimmers	*Baghouses No. 1 through No. 3*
Shavings, dust, and trimmer dust from No. 1 resaw, No. 2 resaw, No. 3 resaw, No. 8 resaw, No. 4 profiler, No. 5 profiler, No. 7 profiler, No. 13 planer, and sanders associated with profilers.	*Baghouses No. 4 through No. 7*

[40 CFR 64.6(b)]

The facility has installed spark detectors to minimize the possibility of a fire in the baghouses. If a spark is detected, air flow is automatically diverted from the baghouse to an uncontrolled vent. This diversion lasts a few seconds. The facility stated that this is an essential safety practice which is common in the industry.

If emissions from this safety practice result in excess emissions as defined in IDAPA 58.01.01.006.38, then parts of the provisions in Permit Condition 3.10 and IDAPA 58.01.01.130-136 are applicable.

Permit Condition 5.4 CAM – Exceedance and Excursion

CAM requires that exceedance and excursion be defined in the permit. CAM also requires certain actions if there is an exceedance or excursion. The actions required are taken from the regulation. Further action (re-assessing the indicator range and/or preparing a quality improvement plan) may be required for excessive exceedances or excursions. These regulations were not written into the permit but may be invoked under certain circumstances.

5.4.1 A CAM exceedance shall be defined as a tested emission rate that exceeds the PM emission rate limit calculated using the applicable process weight rate equation and the recorded process weight for the duration of the test.

[40 CFR 64.6(c)(2)]

5.4.2 A CAM excursion shall be defined as the presence of visible emissions that are detected during the see/no see observation conducted in accordance with Permit Condition 4.5 of any baghouse stack identified in Table 4.3.

[40 CFR 64.6(c)(2)]

5.4.3 In accordance with 40 CFR 64.7(d)(1), upon detecting an excursion or exceedance, the permittee shall restore operation of the processes identified in Table 4.3, including the

corresponding baghouse and capture system, to the normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

[40 CFR 64.7(d)(1)]

Permit Condition 5.5 CAM -Monitoring

CAM requires that monitoring of the indicator occur a minimum of once per day. EPA's example compliance assurance plan for fabric filters for PM control uses once per day monitoring of visible emissions, using six-minute EPA Reference Method 22-like procedures, with readings made at the emission point. The indicator range in the example is "no visible emissions." In a CAM course provided by EPA at DEQ, it was emphasized that pressure drop is not an indicator of control performance for baghouses. Therefore, pressure drop was not used in this permit as an indicator.

The CAM plan in the permit application also proposed to use Method 22 monitoring, but on a monthly basis instead of a daily basis. In a subsequent e-mail from the facility's consultant, it was requested that see/no see monitoring be done instead of Method 22. 40 CFR 64.3(b)(4) establishes the monitoring frequency requirements, as follows:

"4) Specifications for the frequency of conducting the monitoring, the data collection procedures that will be used (e.g., computerized data acquisition and handling, alarm sensor, or manual log entries based on gauge readings), and, if applicable, the period over which discrete data points will be averaged for the purpose of determining whether an excursion or exceedance has occurred.

(i) At a minimum, the owner or operator shall design the period over which data are obtained and, if applicable, averaged consistent with the characteristics and typical variability of the pollutant-specific emissions unit (including the control device and associated capture system). Such intervals shall be commensurate with the time period over which a change in control device performance that would require actions by owner or operator to return operations within normal ranges or designated conditions is likely to be observed.

A change in control performance for a baghouse may be noticed on the same day that a malfunction occurs or it make take several days or weeks before the baghouse performance deteriorates to the extent that an excursion or exceedance is observed. This section of the rule allows flexibility in determining a time interval between monitoring assessments. The permit application has requested monthly visible emissions monitoring, decreasing to quarterly if no visible emissions are observed.

Section (4)(iii) of the CAM rule requires a minimum of once-daily data collection (see discussion following Section (4)(ii)).

(ii) For all pollutant-specific emissions units with the potential to emit, calculated including the effect of control devices, the applicable regulated air pollutant in an amount equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source, for each parameter monitored, the owner or operator shall collect four or more data values equally spaced over each hour and average the values, as applicable, over the applicable averaging period as determined in accordance with paragraph (b)(4)(i) of this section. The

permitting authority may approve a reduced data collection frequency, if appropriate, based on information presented by the owner or operator concerning the data collection mechanisms available for a particular parameter for the particular pollutant-specific emissions unit (e.g., integrated raw material or fuel analysis data, noninstrumental measurement of waste feed rate or visible emissions, use of a portable analyzer or an alarm sensor).

(iii) For other pollutant-specific emissions units, the frequency of data collection may be less than the frequency specified in paragraph (b)(4)(ii) of this section but the monitoring shall include some data collection at least once per 24-hour period (e.g., a daily inspection of a carbon adsorber operation in conjunction with a weekly or monthly check of emissions with a portable analyzer)."

This section requires data collection at least once per 24-hour period. The EPA example for CAM for baghouses uses a once-daily six-minute Method 22-like observation. Section (4)(iii) allows for some data collection at least once per 24-hour period in conjunction with a more thorough monitoring measurement weekly or monthly.

DEQ has determined that it is a reasonable assurance of compliance to require a see/no see observation on a daily basis.

Once per day, when any of the processes listed in Table 5.2 are operating, the permittee shall monitor and record the presence or absence of visible emissions using a see/no see observation for each baghouse stack listed in Table 5.2 Records shall be maintained in accordance with Permit Condition 3.21 and 40 CFR 64.9.

[40 CFR 64.6(c)(1)(ii) and (iii)]

Permit Condition 5.6 CAM Reporting

The CAM reporting requirements of 40 CFR 64.9 are included in the permit. A report must be submitted each 6-month period as specified by Permit Condition 7.22.

The previous permit required monthly visible emissions observations. If four consecutive monthly observations were less than 20% opacity then monitoring could be quarterly. During the last ten years of this permit condition, monitoring has always been quarterly because visible emissions were always less than 20%. Therefore this permit condition has been deleted and the facility-wide quarterly visible emissions observations are applicable instead. Also the DEQ Lewiston Regional Office indicated that quarterly monitoring is sufficient because visible emissions have not historically been an issue at the facility.

6.4 Fuel Hog

Permit Condition 6.1

These conditions include the process weight rate emission limitations; these requirements are directly from IDAPA 58.01.01.701.

MRRR

It is presumed that complying with visible emissions standards also assures compliance with process weight rate emission standards. The underlying Permit to Construct issued October 25, 2012 includes a visible emission monitoring requirement that is similar to the Facility-Wide visible emissions monitoring requirement of Permit Conditions 3.8 and 3.9. The underlying permit requires quarterly visible emissions observations, if visible emissions are observed then either corrective action or a Method 9 opacity observation must be conducted. The Facility-Wide visible emissions monitoring requirement is identical but has an additional requirement that if corrective action does not eliminate visible emissions then a Method 9 visible emissions observation must be conducted. Since the visible emissions monitoring requirements of the underlying permit are inherent to the Facility-Wide requirements the underlying permit's requirement is not included as a separate permit condition.

6.5 General Provisions

Unless expressly stated, there are no MRRR for the general provisions.

General Compliance, Duty to Comply

The permittee must comply with the terms and conditions of the permit.

[IDAPA 58.01.01.322.15.a, 5/1/94; 40 CFR 70.6(a)(6)(i)]

General Compliance, Need to Halt or Reduce Activity Not a Defense

The permittee cannot use the fact that it would have been necessary to halt or reduce an activity as a defense in an enforcement action.

[IDAPA 58.01.01.322.15.b, 5/1/94; 40 CFR 70.6(a)(6)(ii)]

General Compliance, Duty to Supplement or Correct Application

The permittee must promptly submit such supplementary facts or corrected information upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application. The permittee must also provide information as necessary to address any new requirements that become applicable after the date a complete application has been filed but prior to the release of a draft permit.

[IDAPA 58.01.01.315.01, 5/1/94; 40 CFR 70.5(b)]

Reopening, Additional Requirements, Material Mistakes, Etc.

This term lists the instances when the permit must be reopened and revised, including times when additional requirements become applicable, when the permit contains mistakes, or when revision or revocation is necessary to assure compliance with applicable requirements.

[IDAPA 58.01.01.322.15.c, 5/1/94; IDAPA 58.01.01.386, 3/19/99; 40 CFR 70.7(f)(1), (2); 40 CFR 70.6(a)(6)(iii)]

Reopening, Permitting Actions

This term discusses modification, revocation, reopening, and/or reissuance of the permit for cause. If the permittee files a request to modify, revoke, reissue, or terminate the permit, the request does not stay any permit condition, nor does notification of planned changes or anticipated noncompliance.

[IDAPA 58.01.01.322.15.d, 5/1/94; 40 CFR 70.6(a)(6)(iii)]

Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

[IDAPA 58.01.01.322.15.e, 5/1/94; 40 CFR 70.6(a)(6)(iv)]

Information Requests

The permittee must furnish, within a reasonable time to DEQ, any information, including records required by the permit, that is requested in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.

[Idaho Code §39-108; IDAPA 58.01.01.122, 4/5/00; IDAPA 58.01.01.322.15.f, 4/5/00; 40 CFR 70.6(a)(6)(v)]

Information Requests, Confidential Business Information

Upon request, the permittee must furnish to DEQ copies of records required to be kept by this permit. For information claimed to be confidential, the permittee may furnish such records along with a claim of confidentiality in accordance with Idaho Code §9-342A and applicable implementing regulations including IDAPA 58.01.01.128.

[IDAPA 58.01.01.322.15.g, 5/1/94; IDAPA 58.01.01.128, 4/5/00; 40 CFR 70.6(a)(6)(v)]

Severability

If any provision of the permit is held to be invalid, all unaffected provisions of the permit will remain in effect and enforceable.

[IDAPA 58.01.01.322.15.h, 5/1/94; 40 CFR 70.6(a)(5)]

Changes Requiring Permit Revision or Notice

The permittee may not commence construction or modification of any stationary source, facility, major facility, or major modification without first obtaining all necessary permits to construct or an approval under IDAPA 58.01.01.213, or complying with IDAPA 58.01.01.220 through 223. The permittee must comply with IDAPA 58.01.01.380 through 386 as applicable.

[IDAPA 58.01.01.200-223, 4/2/08; IDAPA 58.01.01.322.15.i, 3/19/99; IDAPA 58.01.01.380-386, 7/1/02; 40 CFR 70.4(b)(12), (14), (15), and 70.7(d), (e)]

Changes that are not addressed or prohibited by the Tier I operating permit require a Tier I operating permit revision if such changes are subject to any requirement under Title IV of the CAA, 42 U.S.C. Section 7651 through 7651c, or are modifications under Title I of the CAA, 42 U.S.C. Section 7401 through 7515. Administrative amendments (IDAPA 58.01.01.381), minor permit modifications (IDAPA 58.01.01. 383), and significant permit modifications (IDAPA 58.01.01.382) require a revision to the Tier I operating permit. IDAPA 58.01.01.502(b)(10) changes are authorized in accordance with IDAPA 58.01.01.384. Off permit changes and required notice are authorized in accordance with IDAPA 58.01.01.385.

[IDAPA 58.01.01.381-385, 7/1/02; IDAPA 58.01.01.209.05, 4/11/06; 40 CFR 70.4(b)(14) and (15)]

Federal and State Enforceability

All permit conditions are federally enforceable unless specified in the permit as a state or local only requirement. State and local only requirements are not required under the CAA and are not enforceable by EPA or by citizens.

[IDAPA 58.01.01.322.15.j, 5/1/94; IDAPA 58.01.01.322.15.k, 3/23/98; Idaho Code §39-108; 40 CFR 70.6(b)(1), (2)]

Inspection and Entry

Upon presentation of credentials, the facility shall allow DEQ or an authorized representative of DEQ to do the following:

- Enter upon the permittee's premises where a Tier I source is located or emissions related activity is conducted, or where records are kept under conditions of this permit;
- Have access to and copy, at reasonable times, any records that are kept under the conditions of this permit;
- Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and

- As authorized by the Idaho Environmental Protection and Health Act, sample or monitor, at reasonable times, substances or parameters for the purpose of determining or ensuring compliance with this permit or applicable requirements.

[Idaho Code §39-108; IDAPA 58.01.01.322.15.l, 5/1/94; 40 CFR 70.6(c)(2)]

New Applicable Requirements

The permittee must continue to comply with all applicable requirements and must comply with new requirements on a timely basis.

[IDAPA 58.01.01.322.10, 4/5/00; IDAPA 58.01.01.314.10.a.ii, 5/1/94; 40 CFR 70.6(c)(3) citing 70.5(c)(8)]

Fees

The owner or operator of a Tier I source shall pay annual registration fees to DEQ in accordance with IDAPA 58.01.01.387 through IDAPA 58.01.01.397.

[IDAPA 58.01.01.387, 4/2/03; 40 CFR 70.6(a)(7)]

Certification

All documents submitted to DEQ shall be certified in accordance with IDAPA 58.01.01.123 and comply with IDAPA 58.01.01.124.

[IDAPA 58.01.01.322.15.o, 5/1/94; 40 CFR 70.6(a)(3)(iii)(A); 40 CFR 70.5(d)]

Renewal

The permittee shall submit an application to DEQ for a renewal of this permit at least six months before, but no earlier than 18 months before, the expiration date of this operating permit. To ensure that the term of the operating permit does not expire before the permit is renewed, the owner or operator is encouraged to submit a renewal application nine months prior to the date of expiration.

[IDAPA 58.01.01.313.03, 4/5/00; 40 CFR 70.5(a)(1)(iii)]

If a timely and complete application for a Tier I operating permit renewal is submitted, but DEQ fails to issue or deny the renewal permit before the end of the term of this permit, then all the terms and conditions of this permit including any permit shield that may have been granted pursuant to IDAPA 58.01.01.325 shall remain in effect until the renewal permit has been issued or denied.

[IDAPA 58.01.01.322.15.p, 5/1/94; 40 CFR 70.7(b)]

Permit Shield

Compliance with the terms and conditions of the Tier I operating permit, including those applicable to all alternative operating scenarios and trading scenarios, shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

- Such applicable requirements are included and are specifically identified in the Tier I operating permit; or
    - DEQ has determined that other requirements specifically identified are not applicable and all of the criteria set forth in IDAPA 58.01.01.325.01(b) have been met.
- The permit shield shall apply to permit revisions made in accordance with IDAPA 58.01.01.381.04 (administrative amendments incorporating the terms of a permit to construct), IDAPA 58.01.01.382.04 (significant modifications), and IDAPA 58.01.01.384.03 (trading under an emissions cap).
- Nothing in this permit shall alter or affect the following:
    - Any administrative authority or judicial remedy available to prevent or terminate emergencies or imminent and substantial dangers;
    - The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

- The applicable requirements of the acid rain program, consistent with 42 U.S.C. Section 7651(g)(a); and
- The ability of EPA to obtain information from a source pursuant to Section 114 of the CAA; or the ability of DEQ to obtain information from a source pursuant to Idaho Code §39-108 and IDAPA 58.01.01.122.

[Idaho Code §39-108 and 112; IDAPA 58.01.01.122, 4/5/00; IDAPA 58.01.01.322.15.m, 325.01, 5/1/94; IDAPA 58.01.01.325.02, 3/19/99; IDAPA 58.01.01.381.04, 382.04, 383.05, 384.03, 385.03, 3/19/99; 40 CFR 70.6(f)]

Compliance Schedule and Progress Reports

- For each applicable requirement for which the source is not in compliance, the permittee shall comply with the compliance schedule incorporated in this permit.
- For each applicable requirement that will become effective during the term of this permit and that provides a detailed compliance schedule, the permittee shall comply with such requirements in accordance with the detailed schedule.
- For each applicable requirement that will become effective during the term of this permit that does not contain a more detailed schedule, the permittee shall meet such requirements on a timely basis.
- For each applicable requirement with which the permittee is in compliance, the permittee shall continue to comply with such requirements.

[IDAPA 58.01.01.322.10, 4/5/00; IDAPA 58.01.01.314.9, 5/1/94; IDAPA 58.01.01.314.10, 4/5/00; 40 CFR 70.6(c)(3) and (4)]

Periodic Compliance Certification

The permittee shall submit compliance certifications during the term of the permit for each emissions unit to DEQ and the EPA as specified.

- Compliance certifications for all emissions units shall be submitted annually unless otherwise specified;
- All original compliance certifications shall be submitted to DEQ and a copy of all compliance certifications shall be submitted to the EPA.

[IDAPA 58.01.01.322.11, 4/6/05; 40 CFR 70.6(c)(5)(iii) as amended, 62 Fed. Reg. 54900, 54946 (10/22/97); 40 CFR 70.6(c)(5)(iv)]

False Statements

The permittee may not make any false statement, representation, or certification in any form, notice, or report required under this permit, or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.125, 3/23/98]

No Tampering

The permittee may not render inaccurate any monitoring device or method required under this permit or any applicable rule or order in force pursuant thereto.

[IDAPA 58.01.01.126, 3/23/98]

Semiannual Monitoring Reports.

In addition to all applicable reporting requirements identified in this permit, the permittee shall submit reports of any required monitoring at least every six months as specified.

[IDAPA 58.01.01.322.15.q, 3/23/98; IDAPA 58.01.01.322.08.c, 4/5/00; 40 CFR 70.6(a)(3)(iii)]

Reporting Deviations and Excess Emissions

Each and every applicable requirement, including MRRR, is subject to prompt deviation reporting. Deviations due to excess emissions must be reported in accordance Sections 130-136. All instances of deviation from Tier I operating permit requirements must be included in the deviation reports. The reports must describe the probable cause of the deviation and any corrective action or preventative measures

taken. Deviation reports must be submitted at least every six months unless the permit specifies a different time period as required by IDAPA 58.01.01.322.08.c. Examples of deviations include, but are not limited to, the following:

- Any situation in which an emissions unit fails to meet a permit term or condition
- Emission control device does not meet a required operating condition
- Observations or collected data that demonstrate noncompliance with an emissions standard
- Failure to comply with a permit term that requires a report

[IDAPA 58.01.01.322.15.q, 3/23/98; IDAPA 58.01.01.135, 4/11/06; 40 CFR 70.6(a)(3)(iii)]

Permit Revision Not Required, Emissions Trading

No permit revision will be required, under any approved, economic incentives, marketable permits, emissions trading, and other similar programs or processes, for changes that are provided for in the permit.

[IDAPA 58.01.01.322.05.b, 4/5/00; 40 CFR 70.6(a)(8)]

Emergency

In accordance with IDAPA 58.01.01.332, an "emergency" as defined in IDAPA 58.01.01.008, constitutes an affirmative defense to an action brought for noncompliance with such technology-based emissions limitation if the conditions of IDAPA 58.01.01.332.02 are met.

[IDAPA 58.01.01.332.01, 4/5/00; 40 CFR 70.6(g)]

7. REGULATORY REVIEW

7.1 Attainment Designation (40 CFR 81.313)

The facility is located in Nez Perce County which is designated as attainment or unclassifiable for $PM_{10,}$ $PM_{2.5}$, CO, NO_2, SO_x, and Ozone. Reference 40 CFR 81.313.

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

The facility is classified as a major facility, as defined by IDAPA 58.01.01.008.10.c, because it emits or has the potential to emit volatile organic compounds above the major source threshold of 100 tons-per-year. The facility is also classified as a major facility, as defined by Subsection 008.10.a, because it emits or has the potential to emit hazardous air pollutants above the major source thresholds of 25 tons-per-year for any combination of HAP.

7.3 NSPS Applicability (40 CFR 60)

The facility does not have any emissions units that are affected by the NSPS.

7.4 NESHAP Applicability (40 CFR 61)

The facility does not have any emissions units that are affected by 40 CFR 61.

7.5 MACT Applicability (40 CFR 63)

40 CFR 63 Subpart DDDD, National Emission Standards for Hazardous Air Pollutant: Plywood and Composite Wood Products (PCWP)

In accordance with 40 CFR 63.2231 lumber drying kilns located at major sources of HAP emissions are defined as affected emission units. However the only applicable requirement that applies to IFG is the initial notifications, as specified in 40 CFR 63.9(b)(2). Initial notification was required within 120 calendar days of October 1, 2007, the effective date of the MACT. Therefore no requirements regarding this subpart are included in the modified Tier I operating permit.

7.6 CAM Applicability (40 CFR 64)

The factual basis, provided below, for CAM permit conditions are copied from the January 23, 2008 Statement of Basis which supported the issuance of Tier I Operating Permit No. T1-2007.0095. CAM applicability has not been reanalyzed as part of this permit renewal.

From the January 23, 2008 statement of basis -

> CAM applies to an emission unit with potential pre-control device emissions greater than 100% of the major source threshold for a regulated air pollutant and that uses a control device to achieve compliance with an applicable requirement for the regulated air pollutant.
>
> The control equipment identified at the facility are baghouses. The cyclones are process equipment and not considered control equipment.
>
> Cyclone Applicability Determination
>
> The cyclones were determined to be process equipment, and not control equipment, as follows:
>
> In CAM definitions, 40 CFR 64.1, *""Control device" means equipment, other than inherent process equipment, that is used to destroy or remove air pollutant(s) prior to discharge to the atmosphere. The types of equipment that may commonly be used as control devices include, but are not limited to, fabric filters, mechanical collectors, electrostatic precipitators, inertial separators, afterburners, thermal or catalytic incinerators, adsorption devices (such as carbon beds), condensers, scrubbers (such as wet collection and gas absorption devices), selective catalytic or non-catalytic reduction systems, flue gas recirculation systems, spray dryers, spray towers, mist eliminators, acid plants, sulfur recovery plants, injection systems (such as water, steam, ammonia, sorbent or limestone injection), and combustion devices independent of the particular process being conducted at an emissions unit (e.g., the destruction of emissions achieved by venting process emission streams to flares, boilers or process heaters). For purposes of this part, a control device does not include passive control measures that act to prevent pollutants from forming, such as the use of seals, lids, or roofs to prevent the release of pollutants, use of low-polluting fuel or feedstocks, or the use of combustion or other process design features or characteristics. If an applicable requirement establishes that particular equipment which otherwise meets this definition of a control device does not constitute a control device as applied to a particular pollutant-specific emissions unit, then that definition shall be binding for purposes of this part."*
>
> This definition applies to control devices, such as inertial separators (cyclones), other than inherent process equipment, that are used to remove air pollutants.
>
> Inherent process equipment is defined as follows:
>
> *"Equipment that is necessary for the proper or safe functioning of the process, or material recovery equipment that the owner or operator documents is installed and operated primarily for purposes other than compliance with air pollution regulations. Equipment that must be operated at an efficiency higher than that achieved during normal process operations in order to comply with the applicable emission limitation or standard is not inherent process equipment. For the purposes of this part, inherent process equipment is not considered a control device."*
>
> In an e-mail dated 7/18/07, the facility's consultant wrote the following explanation of use of the cyclones:
>
> *At LWP, larger cyclones are used to transfer wood residuals (sawdust, shavings, bark, etc), with exhaust air venting directly to atmosphere. These cyclones were installed with the primary purpose of moving material; similar equipment may be found at virtually any sawmill in the country, regardless of local air pollution requirements. These cyclones (CY-1, 2, 3, 4, and 6 at Specialties; CY-18, 25 at Surfacing; CY-26, 27A, 27B at the sawmill; and CY-FH at the fuel hog) are clearly inherent process equipment, as defined in 64.2 (excerpted above). Consequently, a CAM plan is not required for them.*

LWP also uses cyclones used to collect and dispose of metal files in the saw filing room. These cyclones are very small, and are appropriately listed as insignificant emission units in Appendix D of the Tier I renewal application.

In addition, a letter from the EPA, dated Nov. 27, 2005, identified three findings that should be considered in making a case-by-case judgment as to whether certain devices or practices should be treated as pollution controls or as inherent to the process:

1. Is the primary purpose of the equipment to control air pollution?
2. Where the equipment is recovering product, how do the cost savings from the product recovery compare to the cost of the equipment?
3. Would the equipment be installed if no air quality regulations are in place?

The facility's consultant addressed Items No. 1 and No. 3 in the 7/18/07 e-mail, and addressed Item No. 2 in a 7/24/07 e-mail as follows:

"Although the primary product is lumber, the sawdust, bark, shavings, chips, and trimmings (which I refer to as wood residuals) have value and may be sold. For example, bark may be sold for gardens, chips to pulp mills, shavings for animal bedding – and all of it can be sold for hog fuel. Consequently, I think cyclones may be considered process equipment that is recovering a product, even if it may not be the primary product. Eventually, the recovery of this secondary product pays for the cyclone and pneumatic blower system, but I don't know the economics."

Based on this information, it has been determined that the cyclones are necessary for the proper functioning of the process, the cyclones are operated primarily for purposes other than compliance with air pollution regulations, and the recovered secondary product from the cyclones can be sold to recover the cost of the cyclone. The cyclones have been determined to be inherent process equipment and are therefore not subject to CAM.

Baghouse Applicability Determination

CAM applicability for the baghouses is determined as follows:

The facility is subject to Title V permitting requirements

The process weight rate limits (applicable requirements) which apply to the units which use the baghouses are not an emission limitation or standard that is exempt in accordance with 40 CFR 64.2(b).

The baghouses are used to control particulate emissions from various wood processing operations at the facility. The baghouses are required to be used to achieve compliance with the process weight rate rule, IDAPA 58.01.01.700.

For each process that is controlled by a baghouse, the process emissions of PM (a surrogate for PM_{10}) are estimated to be greater than 100 tons per year (the major source threshold of PM_{10}, the applicable regulated air pollutant) without the baghouse.

Baghouse CAM Permit Conditions

Based on the CAM plan in the application and on EPA guidance for CAM for fabric filters, permit conditions were written establishing the following:

Baghouses are required to be used to control PM emissions from the associated processes. (40 CFR 64.6(b))

The definitions of an exceedance and an excursion were written, with the required action if an exceedance or excursion is detected.

The requirement to monitor visible emissions (the indicator of control performance) once daily, when process equipment is operating, using see/no see observations, and record the results.

A requirement to submit reports in accordance with 40 CFR 64.9 and Permit Condition 2.12 [now Permit Condition 3.26].

7.7 Acid Rain Permit (40 CFR 72-75)

The facility is not subject to the acid rain permit requirements.

8. PUBLIC COMMENT

As required by IDAPA 58.01.01.364, a public comment period will be made available

In addition to the public comment period, DEQ will also provide an opportunity for a public hearing for persons interested to appear and submit written or oral comments.

9. EPA REVIEW OF PROPOSED PERMIT

As required by IDAPA 58.01.01.366, after the comment period DEQ will provide the proposed permit to EPA Region 10 for its review and comment.

Appendix A - Emissions Inventory

IDAHO FOREST GROUP
LEWISTON, IDAHO
Emission Inventory/Calculations
PTE Emission Calculations

Fugitive Sources	PM (ton/yr)	PM10 (ton/yr)	PM2.5 (ton/yr)	SO_2 (ton/yr)	NOx (ton/yr)	VOC (ton/yr)	CO (ton/yr)	HAPS (ton/yr)
Log and Bark Handling, Fugitives								
DEBARKER	12.6	6.95	2.02	---	---	---	---	---
FUEL HOG	1.21	0.30	0.17	---	---	---	---	---
BARK TRANSFER TO OFF-SITE FUEL PILE	5.35	2.68	0.78	---	---	---	---	---
SCRAP WOOD HANDLING	2.41	1.21	0.12					
Sawmill, Fugitives								
SAWMILL, INDOOR	2.21	1.26	0.37	---	---	---	---	---
SAWMILL CHIPPER, INDOOR	1.32	0.66	0.19	---	---	---	---	---
SAWDUST AND CHIP CONVEY OFF-SITE	6.58	3.29	0.95	---	---	---	---	---
SAWDUST DIVERT TO CHIP VAULT	0.02	0.04	0.01					
Truck Bin Loadout, Fugitives								
TRUCK BIN LOADOUT, GREEN	6.84	4.10	1.19	---	---	---	---	---
TRUCK BIN LOADOUT, DRY	12.30	7.38	3.69	---	---	---	---	---
PNEUMATIC DIVERT - GREEN AND DRY MATERIAL	0.34	0.20	0.10					
Fugitive Road Dust								
Fugitive Dust - PAVED ROADS	3.40	0.68	0.17	---	---	---	---	---
Fugitive Dust - UNPAVED ROADS	55.82	10.40	1.04	---	---	---	---	---
Fugitive Totals	**110.4**	**39.1**	**10.80**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Point Sources								
Lumber Drying								
LUMBER DRY KILNS	3.51	3.51	1.76	---	---	140	---	36.5
Cyclones								
IFG-CY1, Planer #4 Splitter	1.26	0.50	0.07	---	---	---	---	---
IFG-CY2, Planer Chipper	6.53	2.61	0.88	---	---	---	---	---
IFG-CY3, Sawmill all Machine Centers	3.13	1.59	0.47	---	---	---	---	---
IFG-CY4A, Sawmill all Machine Centers	14.83	7.56	2.22	---	---	---	---	---
IFG-CY4B, Sawmill all Machine Centers	14.83	7.56	2.22	---	---	---	---	---
IFG-CY5, Fuel Hog	4.10	2.09	0.62	---	---	---	---	---
Baghouses								
PLANER SHAVINGS BAGHOUSE (IFG-BH1)	4.05	4.05	2.03	---	---	---	---	---
PLANER SHAVINGS BAGHOUSE (IFG-BH2)	4.28	4.28	2.14	---	---	---	---	---
PLANER SHAVINGS BAGHOUSE (IFG-BH3)	4.62	4.62	2.03	---	---	---	---	---
TRUCK BIN CYCLONES BAGHOUSE (IFG-BH4)	16.22	16.22	8.11					
Point Source Totals	**77.4**	**54.6**	**22.5**	**0.00**	**0.00**	**140**	**0**	**37**
Plant Wide Total	**188**	**93.7**	**33.3**	**0.0**	**0.0**	**140**	**0**	**36.5**

The Lewiston sawmill does not have any combustion sources, so has negligible greenhouse gas.

IDAHO FOREST GROUP, LEWISTON
Emission Inventory/Calculations
Production Information Supporting PTE Calculations

Lumber Production

Sawmill	351,009	mbdft/year, from permit
Dry Kilns	351,009	mbdft/year
Planer	351,009	mbdft/year
Logs Used	1,263,632	tons/year, based on std. ratio
Sawmill Hours	8,760	hours/year, PTE
Planer Hours	8,760	hours/year, PTE
Kiln Hours	8,760	hours/year, PTE

Residuals Production

	tons/year	Ratio from typical mill production	
Sawmill Chips to convey	263,000	1500	lb chips/mbdft sawmill
Sawdust to cyclones	114,000	650	lb sawdust/mbdft sawmill
Bark	107,000	170	lb bark/ton logs
Planer Chips	21,000	120	lb chips/mbdft planer
Shavings	61,000	350	lb shavings/mbdft planer
Wood to Fuel Hog	48,200	from PTC permit	

LUMBER DRY KILNS

Wood mix is general, to demonstrate calculation method.

351,009 Mbf/yr, lumber dried
8760 hours per year

CRITERIA POLLUTANTS

PM/PM10 :		
Emission Factor:	0.02 lbs/Mbf	Oregon General Permit
Emissions:	3.51 tons/year	AQGP-010
PM2.5 :		
Emission Factor:	0.01 lbs/Mbf	Assume PM2.5 is 50% of PM10
Emissions:	1.76 tons/year	AQGP-010
VOC:		
Emission Factor:	0.80 lbs/Mbf	VOC Emissions based on
Emissions:	140 tons/year	mix shown below.

Wood Species:	% of Total	VOC (lb/Mbf)	Weighted (lb/Mbf)
Redwood (use white spruce)	0%	0.11	0.00
Cedar (use white spruce)	15%	0.11	0.02
Hemlock	50%	0.24	0.12
Red Fir and Larch (used DF)	15%	1.21	0.18
White Fir (use white wood)	0%	2.31	0.00
Douglas Fir , all	0%	1.21	0.00
Ponderosa Pine	10%	2.46	0.25
Lodgepole (white wood)	0%	2.31	0.00
White Wood (white pine, ESLPAF)	10%	2.31	0.23
Other (use DF)	0%	1.21	0.00
Total	100%		**0.80**

Idaho Forest Group - Lewiston
Dry Kiln Haps, based on 2008 Research and kiln temperatures
Wood mix for calculation demonstration

EMISSIONS YEAR	PTE

* white wood is Engelmann spruce, white fir, etc.

ENTER			
Total MBF processed	**351,009**		
% Douglas Fir /Larch	15%	52,651	*MBF/Yr by species*
% Hemlock	50%	175,505	
% Ponderosa Pine	10%	35,101	
% White Wood*	10%	35,101	
% Cedar	15%	52,651	
% Other (name species)	0%	0	
	100%	351,009	

EMISSION FACTORS:						
Pollutant	Total HAP	Methanol	Formal-dehyde	Acetal-dehyde	Propion-aldehyde	Acrolein
Douglas Fir	0.1530	0.0955	0.0035	0.0522	0.0007	0.0010
Western Hemlock	0.2549	0.1565	0.0037	0.0824	0.0107	0.0017
Ponderosa Pine	0.1483	0.1021	0.0067	0.0334	0.0027	0.0034
White Fir (white wood)	0.2572	0.1880	0.0101	0.0490	0.0043	0.0058
Cedar (use white spruce)	0.1151	0.0780	0.0044	0.0310	0.0007	0.0010

EMISSIONS

	Emission lb/Yr					
Species	Total HAP	Methanol	Formal-dehyde	Acetal-dehyde	Propion-aldehyde	Acrolein
Douglas Fir	8056	5030	184	2750	37	55
Western Hemlock	44738	27458	641	14455	1883	300
Ponderosa Pine	5205	3583	235	1172	95	120
White Fir (white wood)	9028	6599	355	1720	151	204
Cedar	6060	4107	232	1632	37	53
TOTAL, lb/yr	73,087	46,777	1,647	21,729	2,203	731
TOTAL, ton/yr	36.54	23.39	0.82	10.86	1.10	0.37

LOGS AND BARK, FUGITIVE EMISSIONS

DEBARKER

1,263,632 Tons of Logs/Year
8,760 Hours/Year

PM:	Emission Factor:	0.02 lbs/ton	AIRS 3-07-008-01
	Emissions:	12.64 tons/year	
PM10:	Emission Factor:	0.011 lbs/ton	AIRS 3-07-008-01
	Emissions:	6.95 tons/year	
PM2.5:	Emission Factor:	0.00319 lbs/ton	29% of PM10 for green material
	Emissions:	2.02 tons/year	

BARK TRANSFER TO OFF-SITE FUEL PILE

107,000 Tons of Bark/Year
8,760 Hours/Year

PM:	Emission Factor:	0.1 lbs/ton	General Material Handling Factor
	Emissions:	5.35 tons/year	
PM10:	Emission Factor:	0.05 lbs/ton	General Material Handling Factor
	Emissions:	2.68 tons/year	
PM2.5:	Emission Factor:	0.0145 lbs/ton	29% of PM10 for green material
	Emissions:	0.78 tons/year	

FUEL HOG

48,200 Tons of wood/Year
8,760 Hours/Year

PM:	Emission Factor:	0.1 lbs/ton	General Material Handling Factor
	Controlled EF:	0.05 lbs/ton	Hog is partially enclosed, 50% control.
	Emissions:	1.21 tons/year	
PM10:	Emission Factor:	0.025 lbs/ton	General Material Handling Factor
	Controlled EF:	0.0125 lbs/ton	Hog is partially enclosed, 50% control.
	Emissions:	0.30 tons/year	Hog is partially enclosed, 50% control.
PM2.5:	Emission Factor:	0.00725 lbs/ton	29% of PM10 for green material
	Emissions:	0.17 tons/year	

SCRAP WOOD HANDLING

Includes wood from headrig and bins transported to fuel hog

48,200 Tons of wood/Year
8,760 Hours/Year

PM:	Emission Factor:	0.1 lbs/ton	General Material Handling Factor
	Emissions:	2.41 tons/year	
PM10:	Emission Factor:	0.050 lbs/ton	General Material Handling Factor
	Emissions:	1.21 tons/year	
PM2.5:	Emission Factor:	0.005 lbs/ton	29% of PM10 for green material
	Emissions:	0.12 tons/year	

SAWMILL PROCESSES

SAWMILL, INDOOR

1,263,632 Tons of Logs/Year
8,760 hr/yr

PM:	Emission Factor:	0.35 lbs/ton	Idaho Factor
	Controlled EF:	0.0035 lbs/ton	Indoors with pneumatic dust pickup.
	Emissions:	2.21 tons/year	99% removal efficiency.
PM10:	Emission Factor:	0.2 lbs/ton	Idaho Factor
	Corrected Factor:	0.002 lbs/ton	Indoors with pneumatic dust pickup.
	Emissions:	1.26 tons/year	99% removal efficiency.
PM2.5:	Emission Factor:	0.00058 lbs/ton	29% of PM10 for green material
	Emissions:	0.37 tons/year	

SAWMILL CHIPPER, INDOOR

263,000 Tons of Chips/Year
8,760 hr/yr

PM:	Emission Factor:	0.1 lbs/ton	General Material Handling Factor
	Controlled EF:	0.01 lbs/ton	Enclosed process, 90% control.
	Emissions:	1.32 tons/year	
PM10:	Emission Factor:	0.05 lbs/ton	General Material Handling Factor
	Controlled EF:	0.005 lbs/ton	Enclosed process, 90% control.
	Emissions:	0.66 tons/year	
PM2.5:	Emission Factor:	0.00145 lbs/ton	29% of PM10 for green material
	Emissions:	0.19 tons/year	

PLANER PROCESSES

PLANERS, INDOOR

This is an insignificant source because the planer emissions pneumatically controlled through the shavings transport system. Planer shavings are picked up inside the building and blown to three baghouses. The baghouses transfer the shavings to a high-pressure line for pneumatic transport to the truck bins.

PLANER SHAVINGS BAGHOUSE (IFG-BH1)

		36,000 scfm	Rated Flow
		8,760 hours/yr	Potential Hours
PM/PM10:	Emission Factor:	0.003 gr/dscf	Manufacturer Baghouse Emission Rate
	Emissions:	4.05 tons/year	
		0.93 lbs/hr	
PM2.5:	Emission Factor:	0.0015 gr/dscf	50% of PM10 for Dry Material
	Emissions:	2.03 tons/year	
		0.46 lbs/hr	

PLANER SHAVINGS BAGHOUSE (IFG-BH2)

		38,000 scfm	Rated Flow
		8,760 hours/yr	Potential
PM/PM10:	Emission Factor:	0.003 gr/dscf	Manufacturer Baghouse Emission Rate
	Emissions:	4.28 tons/year	
		0.98 lbs/hr	
PM2.5:	Emission Factor:	0.0015 gr/dscf	50% of PM10 for Dry Material
	Emissions:	2.14 tons/year	
		0.49 lbs/hr	

PLANER SHAVINGS BAGHOUSE (IFG-BH3)

		41,000 scfm	Rated Flow
		8,760 hours/yr	Potential
PM/PM10:	Emission Factor:	0.003 gr/dscf	Manufacturer Baghouse Emission Rate
	Emissions:	4.62 tons/year	
		1.05 lbs/hr	
PM2.5:	Emission Factor:	0.0015 gr/dscf	50% of PM10 for Dry Material
	Emissions:	2.03 tons/year	
		0.46 lbs/hr	

MATERIAL HANDLING CYCLONES

The previous permittee developed cyclone emission factors for PM. IFG is using those emissions factors where possible, and have made corresponding factors for PM10 and PM2.5.

PTE Emission Calculations

Cyclone	Throughput (tons/yr)	PM (tpy)	PM10 (tpy)	PM2.5 (tpy)	comments:
IFG-CY1, Planer #4 Splitter	4,200	1.26	0.50	0.07	Assume 20% of total planer chips
IFG-CY2, Planer Chipper	16,800	6.53	2.61	0.88	Assume 80% of total planer chips
IFG-CY3, Sawmill all Machine Centers	38,000	3.13	1.59	0.47	1/3 to each cyclone
IFG-CY4A, Sawmill all Machine Centers	38,000	14.83	7.56	2.22	1/3 to each cyclone
IFG-CY4B, Sawmill all Machine Centers	38,000	14.83	7.56	2.22	1/3 to each cyclone
IFG-CY5, Fuel Hog	48,200	4.10	2.09	0.62	This may be removed

Source	PM Emission Factor From Potlatch (1)	PM10 Emission Factor	PM2.5 Emission Factor	Comments:
CY-1, Specialties Gang Rip Cyclone	0.778 lb/ton	0.311 lb/ton (2)	0.156 lb/ton (2)	REMOVED
CY-2, Specialties Gang Rip Cyc.	0.164 lb/ton	0.066 lb/ton (2)	0.033 lb/ton (2)	REMOVED
CY-3, Specialties GRECON	0.164 lb/ton	0.066 lb/ton (2)	0.033 lb/ton (2)	REMOVED
CY-4, Specialties NULOC	0.522 lb/ton	0.209 lb/ton (2)	0.104 lb/ton (2)	REMOVED
CY-6, Specialties	0.164 lb/ton	0.066 lb/ton (2)	0.033 lb/ton (2)	REMOVED
CY-18, Surfacing, #4 Splitter	0.600 lb/ton	0.240 lb/ton (2)	0.120 lb/ton (2)	IFG-CY1
CY-24, Surfac., Brooks Chip., Fines	0.778 lb/ton	0.311 lb/ton (2)	0.156 lb/ton (2)	REMOVED IN PAST
CY-25, Surfac., Brooks Chip., Chips (3)	0.062 lb/ton	0.025 lb/ton (2)	0.012 lb/ton (2)	IFG-CY2
CY-26, Sawmill, All Machine Ctrs	0.165 lb/ton	0.084 lb/ton (3)	0.025 lb/ton (3)	IFG-CY3
CY-27A, Sawmill, All Machine Ctrs	0.780 lb/ton	0.398 lb/ton (3)	0.117 lb/ton (3)	IFG-CY4A
CY-27B, Sawmill, All Machine Ctrs	0.780 lb/ton	0.398 lb/ton (3)	0.117 lb/ton (3)	IFG-CY4B
CY-FH, Complex, Fuel Hog	0.170 lb/ton	0.087 lb/ton (3)	0.026 lb/ton (3)	IFG-CY5

Notes:

(1) Original note from Potlatch said: Calculated using cyclone and dust parameters per Rex. M. Robbins, Pollution Engineering, March, 1988 , with number of turns (Ne) calc. According to Wark and Warner, 1981

(2) SCC Code, Info from PM Calculator, 307008(PM10 is 40% of PM and PM2.5 is 20% of PM, dry wood

(3) Emission factor is not plausible for a planer chipper cyclone. Use the emission factors for removed cyclone CY-24

(2) SCC Code, Info from PM Calculator, 307008: PM10 is 51% of PM and PM2.5 is 15% of PM, green wood

TRUCK BIN LOADOUT

Sawdust picked up pneumatically and transferred to cyclones IFG-CY3, IFG-CY4A and IFG-CY4B drops to a high pressure line and is transported pneumatically to the cyclones on the truck bins (IFG-CY6, IFG-CY7 and IFG-CY8). If needed, the sawdust can be diverted from cyclones IFG-CY3, IFG-CY4A and IFG-CY4B to the floor of the chip vault.

TRUCK BIN LOADOUT, GREEN

114,000 Tons of Sawdust/Year
8,760 Hours per year, PTE

PM:	Emission Factor:	0.80 lbs/ton	Idaho DEQ Bin Unloading Factor, green material
	Controlled EF:	0.12 lbs/ton	85% control for side enclosures
	Emissions:	6.84 tons/year	
PM10:	Emission Factor:	0.48 lbs/ton	Idaho DEQ Bin Unloading Factor, green material
	Controlled EF:	0.07 lbs/ton	85% control for side enclosures
	Emissions:	4.10 tons/year	Based on site observations
PM2.5:	Emission Factor:	0.02088 lbs/ton	PM2.5 is 29% of PM10 for green material handling
	Emissions:	1.19 tons/year	Based on EPA's PM Calculator Program

SAWDUST DIVERT TO CHIP VAULT

Chip vault is enclosed on the sides.
Allow 50% control efficiency

200 units per year
1.68 tons per unit
336 tons per year diverted

PM:	Emission Factor:	0.80 lbs/ton	Idaho DEQ Bin Unloading Factor, green material
	Controlled EF:	0.12 lbs/ton	85% control for side enclosures
	Emissions:	0.02 tons/year	
PM10:	Emission Factor:	0.48 lbs/ton	Idaho DEQ Bin Unloading Factor
	Controlled EF:	0.24 lbs/ton	85% control for side enclosures
	Emissions:	0.04 tons/year	
PM2.5:	Emission Factor:	0.0696 lbs/ton	PM2.5 is 29% of PM10 for green material handling
	Emissions:	0.01 tons/year	

Planer shavings picked up pneumatically and transferred to baghouses IFG-BH1, IFG-BH2 and IFG-BH3 drop to a high pressure line and are transported pneumatically to the cyclones on the truck bins (IFG-CY6, IFG-CY7 and IFG-CY8). Planer chips from cyclones IFG-CY1 and IFG-CY2 are also blown to the cyclones on the truck bins.

TRUCK BIN LOADOUT, DRY

61,000 Tons of shavings/year
21,000 Tons of planer chips/year
82,000 Total dry tons/year
8,760 Hours per year, PTE

PM:	Emission Factor:	2.00 lbs/ton	Idaho DEQ Bin Unloading Factor, dry material
	Controlled EF:	0.30 lbs/ton	85% control for side enclosures
	Emissions:	12.30 tons/year	
PM10:	Emission Factor:	1.20 lbs/ton	Idaho DEQ Bin Unloading Factor, dry material
	Controlled EF:	0.18 lbs/ton	85% control for side enclosures
	Emissions:	7.38 tons/year	
PM2.5:	Emission Factor:	0.09 lbs/ton	PM2.5 is 50% of PM10 for dry material handling
	Emissions:	3.69 tons/year	Based on EPA's PM Calculator Program

TRUCK BIN LOADOUT, CONTINUED

The pneumatic transport systems for green and dry material are equipped with diversion gates, upstream of the cyclones. If the bins cannot receive material, the diversion gates allow material to be blown directly into a truck or to the ground. This is part of the system, and emissions have been estimated for this operation.

PNEUMATIC DIVERT - GREEN AND DRY MATERIAL

Divert is equipped with water sprays
Allow 50% control efficiency

28 tons per truck
24 trucks per year
672 tons per year diverted

PM:	Emission Factor:	2.0 lbs/ton	Idaho DEQ Bin Unloading Factor, dry material
	Controlled EF:	1.0 lbs/ton	50% control for water spray
	Emissions:	0.34 tons/year	
PM10:	Emission Factor:	1.2 lbs/ton	Idaho DEQ Bin Unloading Factor, dry material
	Controlled EF:	0.6 lbs/ton	50% control for water spray
	Emissions:	0.20 tons/year	
PM2.5:	Emission Factor:	0.3 lbs/ton	PM2.5 is 50% of PM10 for dry material handling
	Emissions:	0.10 tons/year	(use dry factor for green and dry material)

The air exhaust streams from the cyclones on the truck bins (IFG-CY6, IFG-CY7 and IFG-CY8) are routed through a pollution control baghouse, IFG-BH4. Emissions from baghouse IFG-BH4 are calculated below.

Total Fugitive Emissions Associated with Dry Fuel Bins
Former CWP Source PNP383

Total PM:	Total PM:	19.50 tons/year	
Total PM10:	Total PM10:	11.73 tons/year	(PNP383 was 11.9 tpy)
Total PM2.5:	Total PM2.5:	4.99 tons/year	

TRUCK BIN CYCLONES BAGHOUSE (IFG-BH4)

		72,000 scfm	Rated Flow
		8,760 hours/yr	Potential
PM/PM10:	Emission Factor:	0.006 gr/dscf	Manufacturer Baghouse Emission Rate
	Emissions:	16.22 tons/year	
		3.70 lbs/hr	
PM2.5:	Emission Factor:	0.003 gr/dscf	PM2.5 is 50% of PM10 for dry material handling
	Emissions:	8.11 tons/year	
		1.85 lbs/hr	

Fugitive Dust - PAVED ROADS

Calculations based on AP-42 Section 13.2.1.3, rev. 1/11

Source	Class	Number Trips Per Year	Distance per Trip (miles)	VMT per Year	Avg. Vehicle Weight W	Weighted Vehicle Weight
Fork Lifts	Paved, Loaded	2,106,054	0.10	210,605	4.2	1.97
	Paved, Empty	2,106,054	0.10	210,605	1	0.47
LumberTrucks	Paved, Loaded	19,501	0.70	13,650	40	1.22
	Paved, Empty	19,501	0.70	13,650	13	0.40
Other	Paved, Loaded	0	0.00	0	0	0.00
	Paved, Empty	0	0.00	0	0	0.00
Misc. Vehicles incl employee	Paved	0	0.00	0	3	0.00
		4,251,109		448,512		4

E=k(sL)^0.91(W)^1.02 *[1-1.2*P/N]

	PM	PM10	PM2.5		
k =	0.011	0.0022	0.00054	P=	120
sL=	1.1	1.1	1.1	N=	365
W =	4	4	4		
E=	0.030	0.006	0.001		
	lb/VMT	lb/VMT	lb/VMT		
% control from washing/sw	50%	50%	50%		

Total PM Emissions:	**3.4**	**tpy**
Total PM10 Emissions:	**0.68**	**tpy**
Total PM2.5 Emissions:	**0.17**	**tpy**

Fugitive Dust - UNPAVED ROADS

Calculations based on AP-42 Section 13.2.2, rev. 12/06

Source	Class	Number Trips Per Year	Distance per Trip (miles)	VMT per Year	Avg. Vehicle Weight W	Weighted Vehicle Weight
Log Trucks	Unpaved, Loaded	45,130	1.00	45,130	42.5	13.6
	Unpaved, Empty	45,130	1.00	45,130	17.0	5.4
Log Yard Loaders	Unpaved, Loaded	63,182	0.10	6,318	78.0	3.5
	Unpaved, Empty	63,182	0.10	6,318	53.0	2.4
Dump Truck Scrap Wood	Unpaved, Loaded	4,820	0.20	964	52.5	0.4
	Unpaved, Empty	4,820	0.20	964	15.0	0.1
Bucket Loaders Scrap Wood	Unpaved, Loaded	9,640	0.10	964	15.0	0.1
	Unpaved, Empty	9,640	0.10	964	10.0	0.1
Shavings/Sawdust Trucks	Unpaved, Loaded	9,608	0.50	4,804	52.5	1.8
	Unpaved, Empty	9,608	0.50	4,804	18.0	0.6
Misc. Vehicles incl employee	Unpaved	50,000	0.50	25,000	1.0	0.2
		314,758		141,360		28.1

E = [k(s/12)^a*(w/3)^b]

	PM	PM10	PM2.5	
k =	4.9	1.5	0.15	
Composite s=	1	1	1	Only a little traffic is in the logyard at 4.8% silt.
W =	28	28	28	The rest is on graveled plant areas.
a=	0.7	0.9	0.9	Use s=1%
b=	0.45	0.45	0.45	
Uncontrolled E=	2.353 lb/VMT	0.438 lb/VMT	0.044 lb/VMT	
Uncontrolled Eext=	1.58 lb/VMT	0.29 lb/VMT	0.03 lb/VMT	P= 120
				N= 365
Controlled E=	0.790 lb/VMT	0.147 lb/VMT	0.015 lb/VMT	Watering provides 50% control

Total PM Emissions:	**55.8**	**tpy**
Total PM10 Emissions:	**10.40**	**tpy**
Total PM2.5 Emissions:	**1.04**	**tpy**