STANDARD
AIR CONTAMINANT DISCHARGE PERMIT

Department of Environmental Quality
Northwest Region
2020 SW 4th Avenue, #400
Portland, Oregon 97201
(503) 229-5554

This permit is being issued in accordance with the provisions of ORS 468A.040 and based on the land use compatibility findings included in the permit record.

ISSUED TO:

Interfor Pacific, Inc.
15555 S. Hwy 211
Molalla, OR 97038

INFORMATION RELIED UPON:

Application No.: 021904 & 022017
Date Received: 5/26/2006 & 11/22/2006

PLANT SITE LOCATION:

15555 S. Hwy 211
Molalla, OR 97038

LAND USE COMPATIBILITY FINDING:

Approving Authority: Clackamas County
Approval Date: 07/26/1996

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

for Ed Druback, Northwest Region Air Quality Manager — Dated 8/28/07

Source(s) Permitted to Discharge Air Contaminants (OAR 340-216-0020):

Table 1 Code	Source Description	SIC
Part B, 62	Sawmills and/or Planing Mills 25,000 or more bd. Ft./maximum 8 hr. input	2421
Part B, 12	Boilers and other fuel burning equipment (Natural gas w/oil backup	4961

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1.0 GENERAL EMISSION STANDARDS AND LIMITS

1.1. Visible Emissions The permittee must comply with the following visible emission limits, as applicable:

a. Emissions from any air contaminant source must not exceed an opacity equal to or greater than 20% for a period aggregating more than 3 minutes in any one hour.

b. Emissions from any air contaminant source other than fuel burning equipment must not exceed an opacity equal to or greater than 20% for a period aggregating more than 3 minutes in any one hour.

1.2. Particulate Matter Emissions The permittee must comply with the following particulate matter emission limits, as applicable:

a. Particulate matter emissions from any burning equipment must not exceed 0.1 grains per standard cubic foot, corrected to 12% CO_2 or 50% excess air.

b. Particulate matter emissions from any air contaminant source other than fuel burning equipment and fugitive emission sources must not exceed 0.1 grains per standard cubic foot.

c. Non-fugitive particulate matter emissions from any process must not exceed the amount shown in Table 1 of OAR 340-226-0310 for the process weight allocated to such a process.

1.3. Fugitive Emissions The permittee must take reasonable precautions to prevent fugitive dust emissions by:

a. Treating vehicular traffic areas of the plant site under the control of the permittee.

b. Operating all air contaminant-generating processes so that fugitive type dust associated with the operation will be adequately controlled at all times.

c. Storing collected materials from air pollution control equipment in a covered container or other method equally effective in preventing the material from becoming airborne during storage and transfer.

1.4. Particulate Matter Fallout The permittee must not cause or permit the emission of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. The Department will verify that the deposition exists and will notify the permittee that the

deposition must be controlled.

1.5. Nuisance and Odors

The permittee must not cause or allow air contaminants from any source to cause a nuisance. Nuisance conditions will be verified by Department personnel.

1.6. Fuels and Fuel Sulfur Content

The permittee must not use any fuel other than natural gas, propane, butane, ASTM grade fuel oils, or on-specification used oil.

a. Fuel oils must not contain more than 0.5% sulfur by weight:

b. The permittee is allowed to use on-specification used oil as fuel that contains no more than 0.5% sulfur by weight. The permittee must obtain analyses from the marketer or, if generated on site, have the used oil analyzed, so that it can be demonstrated that each shipment of oil does not exceed the used oil specifications contained in 40 CFR Part 279.11, Table 1.

2.0 NEW SOURCE PERFORMANCE STANDARDS

2.1. Applicability §60.40c

The permittee must comply with the New Source Performance Standards (NSPS) in Subpart Dc, 40 CFR Part 60 for new steam generating units with a rated heat content of 10 million BTU per hour to 100 million BTU per hour.

2.2. Visible Emissions

When oil is burned in the boiler, visible emissions must not exceed 20% opacity as a 6-minute average, except for one 6-minute period per hour of not more than 27% opacity.

2.3. Sulfur Content

The sulfur content of fuel oil (ASTM Grade 2 Distillate oil) burned in the boiler must not exceed 0.5% by weight.

2.4. Fuel Sulfur Monitoring

Unless an approved alternate monitoring frequency is obtained from the EPA Administrator, the permittee must record and maintain records of the amount of each fuel combusted during each day in each subject boiler.

a. If oil is burned, the permittee must maintain records of the sulfur content of the fuel oil by either obtaining fuel supplier certifications or sampling and analyzing the fuel oil in accordance with ASTM procedures.

b. If relying on fuel samples of demonstrating compliance

with the fuel sulfur content limits, a sample must be collected and analyzed after each shipment of fuel is added to the storage tank.

2.5. NSPS Boiler Reporting Requirement

Unless an approved alternate monitoring frequency is obtained from the EPA Administrator, the permittee must submit semiannual (January thru June and July thru December) reports for periods during which oil was burned that include the following information:

a. The calendar dates covered in the reporting period;

b. Each 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period in the quarter; including:

i. Reasons for any noncompliance with the emission standards; and

ii. A description of corrective actions taken.

c. The semi-annual report must be postmarked by the 45th day following the end of the reporting period.

2.6. Recordkeeping

The permittee must maintain on-site, records of the amount and type of fuels burned each day for a period of at least two (2) years.

2.7. EPA Submittal Address

All submittals to the EPA must be sent to the following address:

Director
Air and Waste Management Division
EPA Region X
Mail Stop OAQ-107
1200 Sixth Avenue
Seattle, WA 98101-3132

3.0 PLANT SITE EMISSION LIMITS

3.1. Plant Site Emission Limits (PSEL)

Plant site emissions must not exceed the following:

Pollutant	Limit	Units
PM	76	tons per year
PM_{10}	25	tons per year
SO_2	39	tons per year
NO_x	39	tons per year
CO	99	tons per year

VOC	97	tons per year
Single HAP	9.0	tons per year
Combined HAPs	24	tons per year

3.2. Annual Period

The annual plant site emissions limits apply to any 12-consecutive calendar month period.

3.3. Monitoring Requirements

The permittee must monitor the operation and maintenance of the plant and associated air contaminant control devices as follows:

a. All operating and production parameters used to calculate the plant site emission as required by Condition 3.1.

Parameters		Frequency
i.	Amount of lumber produced (BF)	Monthly
ii.	Natural gas burned (cubic feet)	Monthly
iii.	Amount of fuel oil burned (NSPS Condition) (gallons)	Monthly
iv.	Sulfur content of each delivery of fuel oil	
v.	Amount of green wood residual processed through truck bins (BDT)	Monthly
vi.	Amount of dry wood residual processed through truck bins (BDT)	Monthly
vii.	Temperature of each dry kiln during operation	Continuously
viii.	Amount of Hemlock processed through dry kilns (MBF) [including amount dried above and below 200 degrees F]	Monthly
ix.	Amount of Douglas fir processed through dry kilns (MBF) [including amount dried above and below 200 degrees F]	Monthly

b. Excess emission records as defined in OAR 340-214-0300 through 340-214-0340. (on occurrence)

c. Monitor and record any maintenance to the air contaminant discharge equipment/system, or any changes to the process that took place. (on occurrence)

d. All parameters required to be reported under Condition 5.2 must be monitored.

3.4. PSEL Compliance

Compliance with the PSEL for each pollutant is determined for each

Monitoring

12 consecutive calendar month period based on the following calculation:

$$E = (P \times EF)$$

Where:

E = Individual pollutant emissions in tons/each 12 Consecutive calendar months.
P = Process parameter identified in Condition 10.0
EF = Emission factor identified for each emission unit and Pollutant in condition 9.0

3.5. Emission Factors

The permittee must use the default emission factors provided in condition 9.0 for calculating pollutant emissions, unless alternative emission factors are approved by the Department. The permittee may request or the Department may require using alternative emission factors provided they are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by the Department.

4.0 RECORDKEEPING REQUIREMENTS

4.1. Operation and Maintenance

a. The permittee must maintain records related to the operation and maintenance of the plant and associated air contaminant discharge equipment.

b. All parameters required to be monitored in Condition 3.3 must be recorded.

4.2. Excess Emissions

The permittee must maintain records of excess emissions as defined in OAR 340-214-0300 through 340-214-0340 (recorded on occurrence, the cause, duration, and corrective action taken). Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. In many cases, excess emissions are evident when visible emissions are greater than 20% opacity for 3 minutes or more in any 60-minute period.

4.3. Complaint Log

The permittee must maintain a log of all written complaints and complaints received via telephone that specifically refer to air pollution concerns associated to the permitted facility. The log must include a record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

4.4. Retention of

Unless otherwise specified, all records must be maintained on site

Records for a period of five (5) years and made available to the Department upon request.

5.0 REPORTING REQUIREMENTS

5.1. Excess Emissions The permittee must notify the Department by telephone or in person of any excess emissions which are of a nature that could endanger public health.

a. Such notice must be provided as soon as possible, but never more than one hour after becoming aware of the problem. Notice must be made to the regional office identified in Condition 6.4.

b. If the excess emissions occur during non-business hours, the permittee must notify the Department by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.

c. The permittee must also submit follow-up reports when required by the Department.

5.2. Annual Report For each year this permit is in effect, the permittee must submit to the Department by **February 15** two (2) copies of the following information for the previous calendar year:

a. Operating parameters:

i. Amount of lumber produced (10^6BF/year)

ii. Natural gas burned (10^6 cubic feet/year)

iii. Amount of fuel oil burned (gallons/year)

iv. Sulfur content of each delivery of fuel oil

v. Amount of green wood residual processed through truck bins (BDT/year)

vi. Amount of dry wood residual processed through truck bins (BDT/year)

vii. Amount of hemlock processed through dry kilns (1000 BF/year) [including a breakout for amount dried above and below 200 degrees F]

viii. Amount of Douglas fir processed through dry kilns (1000 BF/year) [including a breakout for amount dried above and below 200 degrees F]

b. Calculated emissions from the sawmill, dry kilns, and boilers using the equation in Condition 3.4 and the emission factors in Condition 9.0 unless alternate emission

factors are approved by the Department according to Condition 3.5 for 12 consecutive month period.

c. Records of all planned and unplanned excess emissions events.

d. Summary of complaints relating to air quality received by permittee during the year.

e. List permanent changes made in plant process, production levels, and pollution control equipment which affected air contaminant emissions.

f. List major maintenance performed on pollution control equipment.

5.3. Notice of Change of Ownership or Company Name

The permittee must notify the Department in writing using a Departmental "Permit Application Form" within 60 days after the following:

a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or

b. Sale or exchange of the activity or facility.

5.4. Construction or Modification Notices

The permittee must notify the Department in writing using a Departmental "Notice of Construction Form," or "Permit Application Form," and obtain approval in accordance with OAR 340-210-0205 through 340-210-0250 before:

a. Constructing, installing, or establishing a new stationary source that will cause an increase in any regulated pollutant emissions;

b. Making any physical change or change in operation of an existing stationary source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions; or

c. Constructing or modifying any air pollution control equipment.

5.5. Where to Send Reports and Notices

The reports, with the permit number prominently displayed, must be sent to the Permit Coordinator for the region where the source is located as identified in Condition 6.3.

6.0 ADMINISTRATIVE REQUIREMENTS

6.1. Permit Renewal

The completed application package for renewal of this permit is

	Application	due on **December 1, 2011.** Two (2) copies of the application must be submitted to the DEQ Permit Coordinator listed in condition 6.3.
6.2.	**Permit Modifications**	Application for a modification of this permit must be submitted not less than **60** days prior to the source modification. A special activity fee must be submitted with an application for the permit modification. The fees and two (2) copies of the application must be submitted to the Business Office of the Department.
6.3.	**Permit Coordinator Address**	All reports, notices, and applications should be directed to the Permit Coordinator for the area where the source is located. The Permit Coordinator addresses are as follows: Department of Environmental Quality Northwest Region 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone: (503) 229-5582
6.4.	**Department Contact**	Information about air quality permits and the Department's regulations may be obtained from the DEQ web page at www.deq.state.or.us. All inquiries about this permit should be directed to the regional office for the area where the source is located. The Department's regional offices is at: Department of Environmental Quality Portland Office 2020 SW 4th Avenue, Suite 400 Portland, OR 97201-4987 Telephone (503) 229-5554

7.0 FEES

7.1.	**Annual Compliance Fee**	The Annual Fee specified in OAR 340-216-0020, Table 2, Part 2 for a Standard ACDP is due on **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined by Department regulations, will be mailed prior to the above date.
7.2.	**Change of Ownership or Company Name Fee**	The non-technical permit modification fee specified in OAR 340-216-0020, Table 2, Part 3(a) is due with an application for changing the ownership or the name of the company.
7.3.	**Special Activity Fees**	The special activity fees specified in OAR 340-216-0020, Table 2, Part 3 (b through i) are due with an application to modify the permit.

7.4.	**Where to Submit Fees**	Fees must be submitted to: Department of Environmental Quality Business Office 811 SW Sixth Avenue Portland, Oregon 97204-1390

8.0 GENERAL CONDITIONS AND DISCLAIMERS

8.1.	**Permitted Activities**	This permit allows the permittee to discharge air contaminants from processes and activities related to the air contaminant source(s) listed on the first page of this permit until this permit expires, is modified, or is revoked.
8.2.	**Other Regulations**	In addition to the specific requirements listed in this permit, the permittee must comply with all other legal requirements enforceable by the Department.
8.3.	**Conflicting Conditions**	In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply.
8.4.	**Masking of Emissions**	The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement.
8.5.	**Department Access**	The permittee must allow the Department's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468-095.
8.6.	**Permit Availability**	The permittee must have a copy of the permit available at the facility at all times.
8.7.	**Open Burning**	The permittee may not conduct any open burning except as allowed by OAR 340 Division 264.
8.8.	**Asbestos**	The permittee must comply with the asbestos abatement requirements in OAR 340, Division 248 for all activities involving asbestos-containing materials, including, but not limit to, demolition, renovation, repair, construction, and maintenance.
8.9.	**Property Rights**	The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local

laws or regulations.

8.10. Termination, Revocation, or Modification The Department may modify or revoke this permit pursuant to OAR 340-216-0082 and 340-216-0084.

9.0 EMISSION FACTORS

Emissions device or activity	Pollutant	Emission Factor (EF)	EF units	EF Reference
Truck Bins (green)	PM	0.06	lbs/BDT	
	PM_{10}	0.02	lbs/BDT	
Truck Bins (dry)	PM	0.36	lbs/BDT	
	PM_{10}	0.13	lbs/BDT	
BOILERS (on natural gas)	PM	2.5	lbs/$MMft^3$ natural gas	AQ-EF05
	PM_{10}	2.5	lbs/$MMft^3$ natural gas	AQ-EF05
	CO	84	lbs/$MMft^3$ natural gas	AQ-EF05
	NO_x	100	lbs/$MMft^3$ natural gas	AQ-EF05
	SO_2	1.7	lbs/$MMft^3$ natural gas	AQ-EF05
	VOC	5.5	lbs/$MMft^3$ natural gas	AQ-EF05
BOILERS (No. 2 fuel oil)	PM	3.3	lbs/1000 gallons of oil burned	AQ-EF04
	PM_{10}	2.3	lbs/1000 gallons of oil burned	AQ-EF04
	CO	5.0	lbs/1000 gallons of oil burned	AQ-EF04
	NO_x	20.0	lbs/1000 gallons of oil burned	AQ-EF04
	SO_2	*71	lbs/1000 gallons	AQ-EF04

			of oil burned	
	VOC	0.2	lbs/1000 gallons of oil burned	AQ-EF04
DRY KILN				
Hemlock	PM/PM_{10}	0.05	lbs/1000 BF of lumber dried	DEQ Emission Factor
200°F or Less Greater than 200°F	VOC	0.33 0.476	lbs/1000 BF of lumber dried	
200°F or Less Greater than 200°F	HAP Methanol	**0.070 0.231	lbs/1000 BF of lumber dried	**Draft** DEQ Emission Factor
	HAP Acetaldehyde	**0.104	lbs/1000 BF of lumber dried	
200°F or Less Greater than 200°F	HAP Total Combined	**0.177 0.341	lbs/1000 BF of lumber dried	
Douglas fir	PM/PM_{10}	0.02	lbs/1000 BF of lumber dried	DEQ Emission Factor
	VOC	0.6	lbs/1000 BF of lumber dried	
	HAP Methanol	**0.047	lbs/1000 BF of lumber dried	**Draft** DEQ Emission Factor
	HAP Acetaldehyde	**0.044	lbs/1000 BF of lumber dried	
	HAP Total Combined	**0.093	lbs/1000 BF of lumber dried	
Road dust				
Unpaved	PM	0.06	lbs/1000 BF of lumber dried	Calculation based on AP-42
	PM_{10}	0.02	lbs/1000 BF of lumber dried	
Paved	PM	0.27	lbs/1000 BF of lumber dried	
	PM_{10}	0.05	lbs/1000 BF of lumber dried	

NOTES: * The emission factor for sulfur dioxide (SO_2) emissions from fuel oil (ASTM Grade 2 Distillate oil) is proportional to the sulfur content of the oil. Based on sulfur content of 0.5% (NSPS regulatory limit), the emission factor would be 71 pound SO_2 per 1000 gallons of oil burned. The formula EF=(71)[(%S)/0.5] allows the permittee to take credit for using extra-low sulfur content oil. ** HAP emission factors are based on source test information available to the Department. The permittee may provide and use Department approved source or industry specific emission factors that are different than those listed to demonstrate compliance.

10.0 PROCESS/PRODUCTION RECORDS

Emissions device or activity	Process or production parameter (P)	Frequency
Lumber production	1000 Board Feet	Monthly/Annually
Truck Bins	Green material throughput (BDT)	Monthly/Annually
	Dry material throughput (BDT)	Monthly/Annually
Kilns	Wood Dried by species (bd. ft.)	Monthly/Annually
Boilers	Natural gas used (ft^3)	Monthly/Annually
	Fuel oil used (gal.)	Monthly/Annually
	Fuel sulfur content (%)	Each fuel delivery

12.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit	DEQ	Oregon Department of Environmental Quality
ASTM	American Society for Testing and Materials	dscf	dry standard cubic foot
AQMA	Air Quality Maintenance Area	EPA	US Environmental Protection Agency
calendar year	The 12-month period beginning January 1st and ending December 31st	FCAA	Federal Clean Air Act
CFR	Code of Federal Regulations	gal	gallon(s)
CO	carbon monoxide	gr/dscf	grains per dry standard cubic foot

HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040
I&M	inspection and maintenance
lb	pound(s)
MMBtu	million British thermal units
NA	not applicable
NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO_X	nitrogen oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O_2	oxygen
OAR	Oregon Administrative Rules
ORS	Oregon Revised Statutes
O&M	operation and maintenance
Pb	lead
PCD	pollution control device
PM	particulate matter
PM_{10}	particulate matter less than 10 microns in size
ppm	part per million
PSD	Prevention of Significant Deterioration
PSEL	Plant Site Emission Limit
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
scf	standard cubic foot
SER	Significant Emission Rate
SIC	Standard Industrial Code
SIP	State Implementation Plan
SO_2	sulfur dioxide
Special Control Area	as defined in OAR 340-204-0070
VE	visible emissions
VOC	volatile organic compound
year	A period consisting of any 12-consecutive calendar months

Department of Environmental Quality
Northwest Region
Air Quality Program

Standard
AIR CONTAMINANT DISCHARGE PERMIT
REVIEW REPORT

Interfor Pacific, Inc.
15555 S Hwy 211
Molalla, OR 97038
(503) 829-9131

Unassigned emissions	X
Emission credits	
Source test	
COMS	
CEMS	
Compliance schedule	
Special conditions	
Annual report	X
Semi-annual report	X
Quarterly report	

Monthly report	
Excess emissions report	
NSPS	X
NESHAP	
NSR	
PSD	
RACT	
FCE	X
Public Notice	Cat III

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PERMITTING

PERMITTING ACTION

1. The proposed permitting action is a modification and renewal of an existing Standard ACDP. The allowable emissions from the source are being increased in this permit action due to corrected emission factors and inclusion of all emission sources (including fugitive dust).

2. Interfor Pacific, Inc. (Interfor) operates a sawmill and a planing mill which consists of dry kilns, truck bins, a cyclone, and three natural gas-fired boilers with #2 distillate fuel oil backup.

3. Operation was previously conducted at two facilities (Hart St. and Hwy. 211), but now all operations are conducted at the Hwy 211 facility only (the Hart St. facility has been permanently shut down). Interfor operates under ACDP No. 03-2533 that was issued on 02/28/2005, modified to change the ownership on 06/16/2006 and originally scheduled to expire on 02/01/2010. This permit action is a modification to correct emission factors, capture all emission sources, and allow greater utilization of existing facility capacity.

4. The Netting Basis has been revisited in this permit action to properly address Baseline emissions from road dust and the Wigwam burner. Both emission sources are included in the Netting Basis and the proposed PSEL.

5. The proposed permit expires on February 1, 2012

OTHER PERMITS

6. The Land Use Compatibility Statement signed by the Clackamas County granted approval on July 26, 1996.

7. The mill also holds a water quality general stormwater permit issued by the Department of Environmental Quality.

ATTAINMENT STATUS

8. The facility is located in an area that is in attainment for all criteria air pollutants.

SOURCE DESCRIPTION

OVERVIEW

9. Interfor operates a sawmill and a planing mill originally constructed in the early 1970s. Hemlock and Douglas fir logs are brought on-site by trucks via a paved road and transferred to the paved scaling yard from which they are moved to the paved log yard for storage. An in-ground watering system distributes water across the pavement, wetting equipment tires and controlling particulate emissions. As needed, logs are removed from the log yard, debarked and run through the mill to produce green dimensional lumber. Bark removed from the logs is hogged and sent via conveyor to three truck bins. Scrap wood is conveyed to one of two chippers and the chips are conveyed to a truck bin. Green sawdust/fines are conveyed to a truck bin. The green lumber is sent to the planing mill. Trimmed ends are chipped and conveyed to a truck bin. Conveyers are enclosed mechanical systems. All material from truck bins is transported to off-site buyers. Planer shavings are pneumatically conveyed to the shavings truck bin for transportation to off-site buyers. The shavings cyclone is controlled by a baghouse. Lumber routed to one of four double track dry kilns which receive steam from one of three natural gas fired boilers (distillate backup). All lumber is typically sold dry.

PROCESS AND CONTROL DEVICES

10. Existing air contaminant sources at the mill site consist of the following:

    a. 2 Cleaver Brooks Model CB LE 800 boilers, installed July 2000. Each is rated at 33 MMBtu/hr. Primary fuel is natural gas, back–up or secondary fuel is distillate oil.
    b. 1 Cleaver Brooks boiler rated at 29.4 MMBtu/hr, installed May 2006. Primary fuel is natural gas, back-up or secondary fuel is distillate oil.
    c. 4 double track dry kilns with temperature monitors, but no emission controls.
    d. Each boiler is subject to New Source Performance Standards for boilers, 40 CFR Subpart Dc. The steam produced is used for a pair of double –track dry kilns.
    e. Multiple enclosed wood waste conveyors move waste materials to truck bins for transport to off-site buyers.
    f. One baghouse controlled cyclone handling shavings from the planing mill.
    g. Vehicle traffic on facility roads and log yards.
    h. Airless sprayer to apply end coating (water-based).

COMPLIANCE

11. The facility was inspected on 08/24/00, 4/26/01, 06/25/02, 06/27/02, 05/14/2003, and 09/28/04 and found to be in compliance with permit conditions.

12. No enforcement actions have been taken against the permittee since the last permit renewal.

EMISSIONS

13. Baseline emission calculations are included in the attached detail sheets. Below is a summary of the Baseline (1978) production figures:

A. Primary Mill Site off Hwy 211:

PRODUCTION PARAMETER	BASELINE PRODUCTION (unit/year)
Lumber Production	47 x 10^6 board feet (BF)
Sawdust	11, 600 tons
Chips	38,400 tons
Barks (hogged fuel)	15,070 tons
Hogged Fuel burned in Wigwam (discontinued)	11,450 tons *

* The wigwam burner was modified in accordance with Department rules and credit is given in this permit action for combustion emissions.

B. Secondary Mill Site at 7th & Hart:

PRODUCTION PARAMETER	BASELINE PRODUCTION (unit/year)
Lumber Production	97 x 10^6 board feet (BF)
Sawdust	19,400 tons
Chips	60,000 tons
Barks (hogged fuel)	11,600 tons
Natural gas burned in Boiler	26,000,000 cu. ft.

14. **Proposed PSEL Information:**

Pollutant	Baseline (tons/yr) (a)	Netting Basis (tons/yr) (b)	Plant Site Emission Limit (tons/yr)	Increase over Existing Permit (tons/yr)	Increase over Netting Basis (tons/yr)	SER (tons/yr)	Unassigned Emission Rate (tons/yr)
PM	96	96	76	17	-20	25	20
PM_{10}	30	30	25	-11	-5	15	5
CO	745	126	99	0	-27	100	27
NO_x	7.0	7.0	39	-2	32	40	0
SO_2	0.6	0.6	39	0	38	40	0
VOC	64	64	97	19	33	40	0

Notes:

a. The baseline emission rates differ from the previous permit due to the

correcting emission factors, and including all applicable sources (specifically wigwam burner and road dust).

b. Under OAR 340-200-0020 (71), netting basis means the baseline emission rate MINUS any emission reductions required by rule, orders, or permit conditions required by the SIP (State Implementation Plan). The wigwam burner emissions are being allowed in the Netting Basis because the wigwam burner was modified in accordance with the rules to allow continued operation. The unassigned emissions are being reduced in accordance with OAR 340-222-0045(5). The effective date of the unassigned emission reduction is July 1, 2007, so baseline emissions may be used until that time to offset emission increases. After July 1, 2007, only Netting Basis may be used to offset future increases in emissions.

c. The netting basis for each criteria pollutant is now frozen pursuant to OAR 340-200-0020 (71) (a).

d. The source is not a federal major and is not located in the ozone maintenance area.

e. The PSEL for NO_x CO and SO_2 are set at the Generic PSEL level in accordance with OAR 340-222-0041(1).

f. The PSEL is a federally enforceable limit on the potential to emit.

g. The Department's approval is required for any request for increase in the PSEL, or to move any unassigned emissions to the active PSEL.

MAJOR SOURCE APPLICABILITY

CRITERIA POLLUTANTS

15. A major source for Title V applicability is a facility that has the potential to emit more than 100 tons per year of any criteria pollutant. This facility is not a major source of criteria pollutant emissions. The PSEL is the federally enforceable limit on the capacity to emit and has been established at a level that is below the Title V major source threshold.

16. In the compliance monitoring calculation of emission factors (EF) for PM & PM_{10} (see permit condition 9.0) a composite EF, for road dust emissions, based on lumber production will be used to minimize and simplify monitoring. The past permits included PM/PM_{10} EFs for the sawmill based on emissions per unit of production, MBF. This gives a reasonable estimate of emissions if the EF is reasonable. It significantly reduces the monitoring requirements for both the source and the Department.

17. Recent inspections found no evidence of visible emission or fugitive fallout. There is no significant PM/PM_{10} environmental issue at the source.

HAZARDOUS AIR POLLUTANTS

18. A major source for Title III applicability is a facility that has the potential to emit more than 10 tons/year of any single HAP or 25 tons/year of combined HAPs. This source is not a major source of hazardous air pollutants due to the PSEL limitations in the permit.

19. The facility is not a major source of hazardous air pollutants (HAPs) because the total estimated annual HAP emissions remain less than 10 tons per individual HAP and less than 25 tons for the HAPs in aggregate. Without the HAP PSEL limit on PTE, this source has single HAP potential emission for methanol of approximately 36 tons per year and combined HAP PTE of approximately 54 tons per year. These HAP emission estimate is based on running 100% hemlock in the dry kilns (@>200 degrees F) and 315,000,000 board feet/yr dried. Operating temperatures of the dry kilns are normally below 200 degrees F, but the permittee wants to maintain the option of operating at higher temperatures, so the higher emission factors are being used to estimate emissions. Estimated kiln HAP emissions from drying hemlock are based on Department developed emission factors from OSU source test study data. The permittee is allowed to develop source or industry specific emission factors that are different, than those provided in the permit, to demonstrate compliance with the HAP PSEL.

20. The source PTE is more than 80% of the threshold values for Title V for criteria pollutants and for single HAPs or combined HAPs, therefore, a full compliance evaluation (FCE) is required

ADDITIONAL REQUIREMENTS

NSPS APPLICABILITY

21. The site has three natural gas fired boilers (w/distillate backup) that are subject to NSPS 40 CFR Part 60, Subpart Dc because the boilers were constructed after June 1989. Dc affects newly installed boilers, greater than 10 mm BTU/hr. The NSPS includes notification, emission (particulate and sulfur dioxide) limitation, recordkeeping, monitoring, testing, and reporting requirements. The initial performance test required by NSPS Subparts A and Dc was completed October 2000.

NSR/PSD APPLICABILITY

22. This source is not subject to federal regulations for New Source Review (NSR) or

further air quality analysis.

23. This source is not subject to federal regulations for Prevention of Significant Deterioration (PSD).

NESHAPS/MACT APPLICABILITY

24. Based on currently available data, the facility is not a major source of HAPs. No NESHAPS/MACT standards have been promulgated that are applicable to this facility.

RACT APPLICABILITY

25. The RACT rules are not applicable to this source because it is not in the Portland AQMA, Medford AQMA, or Salem SATS.

TACT APPLICABILITY

26. The mills and boilers are existing facilities and have emission controls that are typical for existing facilities in this industry. There is no currently known environmental problem associated with this source. As such, the source meets the requirements for TACT for existing facilities; no additional emission controls are required.

PUBLIC NOTICE

27. The proposed Plant Site Emission Limits are greater than the previous permit, so a Category III public notice is required. The proposed permit was placed on public notice from July 6, 2007 through August 13, 2007. Comments received during this period asked for spelling corrections and removal of the HAP PSEL. The spelling corrections have been made, but the HAP PSEL has not been removed. Interfor will need to apply for, and obtain, a Title V permit to have the HAP PSEL removed.

Hwy 211 Facility Emission Points	Operating Parameters		Emission factor			PM (tons/yr)	PM10 (tons/yr)	CO (tons/yr)	NOx (tons/yr)	SO2 (tons/yr)	VOC (tons/yr)
MATERIAL TRANSFER			PM	PM10							
Planer Shavings Cyclone	5483	BDT/yr	0.5	0.25	lb/BDT	1.37	0.69				
TRUCK BIN UNLOADING											
Chips (green)	38400	BDT/yr	0.062	0.022	lb/BDT	1.19	0.42				
Hog fuel (green)	15070	BDT/yr	0.062	0.022	lb/BDT	0.47	0.17				
Sawdust (green)	11600	BDT/yr	0.062	0.022	lb/BDT	0.36	0.13				
Shavings (dry)	5483	BDT/yr	0.359	0.126	lb/BDT	0.98	0.35				
WIGWAM BURNER											
Hogged fuel used	11450	BDT/yr	1	0.5	lb/BDT	5.7	2.9	744.25	5.725	0.5725	62.975
			CO	**130**							
			NOx	**1**							
			SOx	**0.1**							
			VOC	**11**							

Wigwam Burner emission factors are based on AP-42 (2/1972) for "Satisfactory Operation": properly maintained burner.
AP-42 assumes 50% moisture (1 lb PM, 130 lbs CO, 1 lb NOx, 0.1 lb SOx, 11 lbs VOC/ton burned). 1 BDT = 2 tons at 50% moisture by weight.
Wigwam Burner combusted materials is based on the amount of hog fuel generated at the Hart facility in baseline year.

7th and Hart Street Facility Emission Points											
MATERIAL TRANSFER			PM	PM10							
Planer Shavings Cyclone	60200	BDT/yr	0.5	0.25	lb/BDT	15.05	7.53				
TRUCK BIN UNLOADING											
Chips (green)	60000	BDT/yr	0.062	0.022	lb/BDT	1.86	0.66				
Hog fuel (green)	11600	BDT/yr	0.062	0.022	lb/BDT	0.36	0.13				
Sawdust (green)	19400	BDT/yr	0.062	0.022	lb/BDT	0.60	0.21				
Shavings (dry)	60200	BDT/yr	0.359	0.126	lb/BDT	10.81	3.79				
Dry Kiln (4)											
Douglas Fir	2500	mBF	0.02	0.02	lb/mBF	0.03	0.03				0.625
Hemlock	2500	mBF	0.05	0.05	lb/mBF	0.06	0.06				0.3125
			VOC doug	**0.5**							
			VOC Hem	**0.25**							
Boiler - NG fired	26	mmcf/yr	2.5	2.5	lb/mmcf	0.0	0.0	1.092	1.3	0.0221	0.0715
			CO	**84**	**lb/mmcf**						
			NOx	**100**	**lb/mmcf**						
			SOx	**1.7**	**lb/mmcf**						
			VOC	**5.5**	**lb/mmcf**						

		Baseline 1978	
Unpaved Roads (logyards)	Refer to application for calculations of road dust emissions	40.5	10.1
Paved Roads	AP-42 13.2.4 Equations used	16.4	3.2

	PM (tons/yr)	PM10 (tons/yr)	CO (tons/yr)	NOx (tons/yr)	SO2 (tons/yr)	VOC (tons/yr)
Baseline Totals	**95.8**	**30.3**	**745.3**	**7.0**	**0.6**	**64.0**

Baseline Road Dust calculations

Paved Road Data

	Product Hart	Product 211	Residuals Hart	Residuals 211
Trucks in	2940	1420	3464	1679
Trucks out	2940	1420	3464	1679
Days	250	250	250	250
miles in	0.2	0.1	0.3	0.1
miles out	0.2	0.1	0.3	0.09
weight in	19	19	17	17
weight out	51	51	50	50
VMT/yr in	588	142	1039.2	167.9
VMT/yr out	588	142	1039.2	151.11
PM lbs/VMT in	3.6474933	3.647493292	3.0870061	3.0870061
PM lbs/VMT out	16.040554	16.04055403	15.571093	15.571093
PM tons in	1.072363	0.258972024	1.6040084	0.2591542
PM tons out	4.7159229	1.138879336	8.0907401	1.176474
Controlled PM	**5.193599**	**1.254236494**	**8.6987126**	**1.2881321**
PM10 lbs/VMT in	0.711706	0.711706008	0.6023426	0.6023426
PM10 lbs/VMT out	3.1298642	3.129864202	3.0382621	3.0382621
PM10 tons in	0.2092416	0.050531127	0.3129772	0.0505667
PM10 tons out	0.9201801	0.222220358	1.578681	0.2295559
Controlled PM10	**1.0133852**	**0.244729072**	**1.6973098**	**0.2513428**

16.4

3.2

E (lb/vmt) = k(sL/2)^a(W/3)^b

	PM	PM10	
k	0.082	0.016	lb/vmt
a	0.65	0.65	
b	1.5	1.5	
sL	9.7		g/m^2

control	0% Sweeping		0% weeping system
	(1-P/4N)	P =150, N=365)	Rainfall

Un-Paved Road Data

	Log Build Hart	Log Build 211	Log empty Hart	Log Empty 211	Log Trucks Hart	Log Trucks 211
Trucks in	10800	8100	10800	8100	9490	4600
Trucks out	10800	8100	10800	8100	9490	4600

Baseline Road dust

miles in	0.14	0.09	0.19	0.1	0.21	0.05	
miles out	0.14	0.09	0.19	0.1	0.21	0.02	
weight in	92.5	92.5	97.5	97.5	40.5	40	
weight out	65	65	70	70	13	12.5	
ave tons	78.75	78.75	83.75	83.75	26.75	26.25	
VMT/yr	3024	1458	4104	1620	3985.8	322	
PM emissions	9.4078776	4.535940965	13.12646	5.1814976	7.6279585	0.6110281	**40.5**
PM10 emissions	2.3563572	1.136100782	3.2877372	1.297791	1.9105473	0.153042	**10.1**

Un-Paved Road emission factors: E(lbs/VMT) = k*(s/12)^a * (W/3)^b *(365-P)/365

k	particle size multiplyer	4.9 for PM, 1.5 for PM10 (lbs/VMT)
s	road silt loading %	4.4 (%) based on AP-42 average for Oregon
W	Average Vehicle weight	31 (tons)
a	0.7 for PM and 0.9 for PM10	
b	0.45 for PM and PM10	
P	Number of days w/rain >0.01"	(150 days/year)

PSEL

Emission Points	Operating Parameters		Emission factor PM	Emission factor PM10		PM (tons/yr)	PM10 (tons/yr)	SO2 EF	SO2 tons/yr	NOx EF	NOx tons/yr	CO EF	CO tons/yr	VOC EF	VOC tons/yr	SingleHAP EF	SingleHAP tons/yr	Comb EF
Shavings Cyclone	28000	BDT/yr	0.001	0.001	lb/BDT	**0.01**	**0.01**											
Truck Bins (green)	286000	BDT/yr	0.06	0.02	lb/BDT	**8.58**	**2.86**											
Truck Bins (dry)	28000	BDT/yr	0.36	0.13	lb/BDT	**5.04**	**1.82**											
Boilers																		
Natual Gas	580.0	mmcuft/yr	2.5	2.5	lbs/mmcuft	**0.73**	**0.73**	1.7	**0.5**	100	**29.0**	84	**24.4**	5.5	**1.6**			
#2 Distillate Oil	680.4	mgal/yr	3.3	2.3	lbs/mgal	**1.12**	**0.78**	71	**24.2**	20	**6.8**	5	**1.7**	0.2	**0.1**			
Boiler Distilate usage: 1080 hrs/yr * 630 gal/hr = 680.4 mgal/yr																		
Dry Kilns highest EF's used (PM = Hemlock, VOC = Douglas Fir)	315000	mbdft/yr	0.05	0.05	lbs/mbdft	**7.88**	**7.88**							0.6	**94.5**	0.23	**36.383**	0.34
Paved Roads	AP-42 equations used to calculate road emissions					**42**	**8.2**											
Unpaved Roads	Refer to application for specific calculations					**10.2**	**2.6**											
TOTAL PSEL (tons/yr)						Total Emissions 75.6	24.9		24.6		35.8		26.1		96.1		36.4	

PSEL

)ined HAP
tons/yr

53.7075

53.7

PSEL Road dust

Paved Road Data

	Product	log	residuals	loaders	loaders 2
Trucks in	38	123	45	123	136
Trucks out	38	123	45	123	136
Days	250	250	250	250	250
miles in	0.1	0.1	0.1	0.1	0.15
miles out	0.1	0.1	0.1	0.1	0.15
weight in	19	40.5	17	92.5	70
weight out	51	13	50	65	95
VMT/yr in	950	3075	1125	3075	5100
VMT/yr out	950	3075	1125	3075	5100
PM lbs/VMT in	3.647493	11.35133	3.087006	39.18111	25.79355
PM lbs/VMT out	16.04055	2.06433	15.57109	23.07991	40.78021
PM tons in	1.732559	17.45267	1.736441	60.24095	65.77356
PM tons out	7.619263	3.173907	8.75874	35.48536	103.9895
Controlled PM	**4.195509**	**9.253702**	**4.708454**	**8.589142**	**15.23217**
PM10 lbs/VMT in	0.711706	2.214893	0.602343	7.645094	5.032888
PM10 lbs/VMT out	3.129864	0.402796	3.038262	4.503397	7.957115
PM10 tons in	0.33806	3.405398	0.338818	11.75433	12.83387
PM10 tons out	1.486685	0.619299	1.709022	6.923973	20.29064
Controlled PM10	**0.818636**	**1.8056**	**0.918723**	**1.67593**	**2.972131**

E (lb/vmt) = k(sL/2)^a(W/3)^b	
	PM PM10
k	0.082 0.016 lb/vmt
a	0.65 0.65
b	1.5 1.5
sL	9.7 g/m^2
control	50% Sweeping 90% weeping system
	(1-P/4N) P =150, N=365) Rainfall

42.0

8.2

Emission factor based on 315,000,000 board feet dryed
0.27 lbs/1000 BF dried

0.05 lbs/1000 BF dried

Un-Paved Road Data

	weekly	
Trucks in	120	
Trucks out	120	
Days	150	w/rain
miles in	0.4	
miles out	0.4	
weight in	26	
weight out	36	
ave tons	31	
VMT/yr	4992	

Un-Paved Road emission factors: E(lbs/VMT) = k*(s/12)^a * (W/3)^b *(365-P)/365

			PM	PM10
k	particle size multiplyer	4.9 for PM, 1.5 for PM10 (lbs/VMT)	4.090156	1.024447
s	road silt loading %	4.4 (%) based on AP-42 average for Oregon		
W	Average Vehicle weigh	31 (tons)		
a	0.7 for PM and 0.9 for PM10			
b	0.45 for PM and PM10			
P	Number of days w/rain >0.01" (150 days/year)			
VMT trucks		4992		

Total tons/yr 10.2 2.6

Emission factor based on 315,000,000 board feet dryed (lbs/1000 BF dried) 0.06 0.02