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:

Floragon Forest Products Molalla, Inc.
PO Box 1309
Molalla, OR 97038

INFORMATION RELIED UPON:

Application No.: 021094
Date Received: 06/29/2004

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

Audrey M O'Brien
Audrey O'Brien, Northwest Region Air Quality Manager

February 28, 2005
Dated

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

Table of Contents

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:

i. 0.3% sulfur by weight for ASTM Grade 1 distillate oil;

ii. 0.5% sulfur by weight for ASTM Grade 2 distillate oil;

iii. 1.75% sulfur by weight for residual oil;

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. Visible Emissions Monitoring

When residual oil is burned in the boiler, visible emissions must be monitored with a continuous opacity monitoring system (COMS) installed, operated, and maintained in accordance with CFR § 60.13.

2.4. Sulfur Content

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

2.5. 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.

2.6. NSPS Boiler Reporting Requirement

Unless an approved alternate monitoring frequency is obtained from the EPA Administrator, the permittee must submit semiannual 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. If residual oil is burned in the boiler and the heat input is greater than 30 million BTU/hr, the semi-annual report must include a summary of any excess visible emissions recorded by the COMS.

d. The initial semi-annual report must be postmarked by the 30th day of the third month following the actual date of startup. Each subsequent semi-annual report must be postmarked by the 30th day following the end of the reporting period.

2.7. 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.

2.8. Construction or Modification

In addition to the Notice of Intent to Construct (NC) requirement in Condition 5.5, the permittee must notify the **Department and the EPA** when the equipment becomes subject to NSPS as summarized below:

a. The date construction commences on the subject facility, postmarked no later than 30 days after such date;

b. The anticipated date of initial startup, postmarked not

more than 60 days nor less than 30 days prior to such date;

c. The actual date of initial startup, postmarked within 15 days after such date;

d. The date of completion of the construction or installation of the boilers, postmarked not more than 60 days prior to expected completion date.

2.9. 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	59	tons per year
PM_{10}	36	tons per year
SO_2	39	tons per year
NO_x	41	tons per year
CO	99	tons per year
VOC	78	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)	Monthly

(gallons)

iv. Sulfur content of each delivery of fuel oil

v. Amount of hemlock process through dry kilns (MBF) Monthly

vi. Amount of Douglas fir process through dry kilns (MBF) 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 Monitoring

Compliance with the PSEL for each pollutant is determined for each 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

a. The permittee must maintain records related to the

	Maintenance	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 Records**	Unless otherwise specified, all records must be maintained on site 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 hemlock processed through dry kilns (1000 BF/year)

vi. Amount of Douglas fir processed through dry kilns (1000 BF/year)

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 Application The completed application package for renewal of this permit is due on **December 1, 2009.** 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
SAWMILL	PM	.205	lbs/1000 BF	See Note (1)
	PM_{10}	.119	lbs/1000 BF	See Note (2)
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 of oil burned	AQ-EF04
	VOC	0.2	lbs/1000 gallons of oil burned	AQ-EF04
DRY KILN				
Hemlock	PM/PM_{10}	0.16	lbs/1000 BF of lumber dried	DEQ Emission Factor
	VOC	0.4	lbs/1000 BF of lumber dried	
Douglas fir	PM/PM_{10}	0.21	lbs/1000 BF of lumber dried	
	VOC	0.6	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.

(1) In the compliance monitoring calculations of PM emission, the EF for PM is calculated based on the emissions per unit of production, MBF. This EF for PM is being used in the past permit. The use of this EF for PM is reasonable even though the Department has not been able to determine how they were developed. With the current workload the Department is facing, it significantly reduces the monitoring requirements for both the source and the Department. But at some point the

Department will go back and redo the calculations. The EF looks reasonable, but yet conservative, in comparison to baseline year emissions. PM/PM_{10} emissions should be significantly reduced from the baseline year emissions because of upgraded planning system and the enclosure of discharge points. There is no significant PM/PM_{10} environmental issue at the source. Estimated actual emissions is expected well below the proposed PSEL.

(2) PM_{10} is 58% of PM based on past permit.

10.0 PROCESS/PRODUCTION RECORDS

Emissions device or activity	Process or production parameter (P)	Frequency
Lumber production	1000 Board Feet	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

11.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

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

Floragon Forest Products Molalla, Inc.
15555 S Hwy 211
Molalla, OR 97038
(503) 829-9131

Source Test	Compl Sched	Report				Excess		NSR	PSD	RACT	NSPS	NESHAP	Size	Public Notice
		A	S	Q	M	R	N							
		x					x				x		STD	III

TABLE OF CONTENTS

PERMITTING

PERMITTING ACTION

1. Floragon Forest Products, Inc. (Floragon) has two sawmills which historically have operated under separate permits. The primary mill was previously operated as the Brazier mill and is located off Hwy 211, (Permit # 03-2533). This mill currently consists of a sawmill, dry kilns, and natural gas-fired boilers. The second mill was previously operated as the Avison mill and is located at 7th & Hart Streets in Molalla, (Permit# 03-1772). It was shut down 2 years ago, but the boilers and kilns are still in operation. Lumber is transported from the primary mill to the second mill for drying.

2. Floragon has two existing air contaminant discharge permits, Permit #'s 03-1553 and 03-1722. Permit #03-2533 was issued on October 6, 1999, while Permit #03-1772 was issued on November 18, 1999. Both permits were originally scheduled to expire on September 1, 2004.

3. With this permit action the Department is combining the permits into one based on the definition of an air contaminant source in Oregon Administrative Rules (OAR 340-200- 0020). The definition of a source includes operations that are contiguous or adjacent, under common ownership or control, with the same major SIC or supporting facilities under a different SIC. Floragon's two mills are adjacent (approximately three miles apart), have a common ownership and control, have the same major SIC, and are supporting. They meet all the tests for a common source.

4. The existing ACDP's are being converted to one Standard ACDP in accordance with the rules adopted in May 2001.

5. The proposed permit expires on February 1, 2010

OTHER PERMITS

6. The Land Use Compatibility Statement signed by the Clackamas County granted approval on July 26, 1996, for the primary mill site off 15555 S Hwy 211 and by the city of Molalla on April 8, 1994, for the secondary mill site at 7th and Hart Streets.

7. Both mill sites also have water quality general stormwater permits issued by the Department of Environmental Quality.

ATTAINMENT STATUS

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

SOURCE DESCRIPTION

OVERVIEW

9. Floragon operates a stud/planing mill, the primary mill, located at 15555 S. Hwy 211 in Molalla. This mill was built in the 1970's. The site is permitted to dry Douglas fir and hemlock woods. The sawmill operation at the second mill at 7th & Hart Streets was shut down about two years ago except for the 2 boilers and 4 dry kilns.

PROCESS AND CONTROL DEVICES

10. Existing air contaminant sources at the Hwy 211 primary 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. 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.
    c. Multiple wood waste handling devices & sources of fugitive particulate matter, including: sawdust/chip fines bin & conveyor, dry chip bin & conveyor, green chip bin & conveyor, chip screen, shavings bin, bark loading bin & conveyor, debarker, log yard cleanup, and dry & wet material pneumatic conveyors.
    d. Airless sprayer to apply end coating (water-based).

11. Existing air contaminants sources at the second mill located at 7th & Hart Streets are the following:

    a. 2 boilers constructed prior to June 9, 1989, primary fuel is natural gas, back-up or secondary fuel distillate oil.
    b. 4 kiln dryers.

COMPLIANCE

12. Both mill sites were 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.

13. During the prior permit period, there were numerous complaints from one individual regarding particulate fallout reported for the Hwy 211 primary mill site. The site inspections conducted did not document the violations. However, a 6/25/02 inspection report documented that the facility's contractor, McFarlane's Bark, Inc. was segregating bark from dirt and had caused visible emissions from the activity. A NON was issued to the contractor, McFarlane's Bark, Inc.

14. No enforcement actions have been taken against the permittee for either mill site since the last permit renewal.

EMISSIONS

15. The detail sheet for the baseline emission rate calculations is on file with the Department. 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 *

* No baseline emission credit is allowed for the Wigwam burner (OAR 340-240-0160).

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.

16. 1978 Baseline Emission Rate:

A. Primary Mill Site off Hwy 211 Facility:

EMISSION POINTS	OPERATING PARAMETER (1978 Actual)	EMISSION FACTOR		PM (ton/yr)	PM_{10} (ton/yr)	CO (ton/yr)	NO_x (ton/yr)	SO_2 (ton/yr)	VOC (ton/yr)
MATERIAL TRANSFER		PM	PM_{10}						
Sawdust & Chip fines Bin (open)	11,600 BDT/yr	0.200 lb/BDT (3)	0.100 lb/BDT	1.16	0.58				
Sawdust & Chip fines conveyor	11,600 BDT/yr	0.007 lb/BDT (1)	0.006 lb/BDT	0.04	0.03				
Green Chip Bin (Open)	38,400 BDT/yr	0.200 lb/BDT (3)	0.100 lb/BDT	3.84	1.92				
Green Chip Conveyor	38,400 BDT/yr	0.036 lb/BDT (1)	0.032 lb/BDT	0.70	0.61				
Chip Screen	38,400 BDT/yr	0.007 lb/BDT (1)	0.006 lb/BDT	0.13	0.12				
Shavings Bin (open)	5,483 BDT/yr	2.000 lb/BDT (3)	1.000 lb/BDT	5.48	2.74				
Bark Loading Bin (Open)	15,700 BDT/yr	0.200 lb/BDT (3)	0.100 lb/BDT	1.57	0.79				
Bark Conveyor	15,700 BDT/yr	0.080 lb/BDT (1)	0.070 lb/BDT	0.63	0.55				
SAWMILL									
debarker	178,031 BDT/yr	0.010 lb/BDT	0.005 lb/BDT	0.89	0.45				
Yard Cleanup	1,780 BDT/yr	0.100 lb/BDT	0.050 lb/BDT	0.09	0.04				
PNEUMATIC CONVEYORS									
Dry material	2,742 BDT/yr	0.500 lb/BDT (DEQ)	0.250 lb/BDT	0.69	0.34				
Wet Material	2,742 BDT/yr	0.500 lb/BDT (DEQ)	0.250 lb/BDT	0.69	0.34				
END Coating (2)	10,000 gal/yr	0.100 lb/gal	0.050 lb/BDT	0.50	0.25				
WIGWAM BURNERS									
Hogged Fuel used in	11,450 tons/yr	5.70 lb/ton	5.70 lb/ton	32.63 or 33	33	229			6.00

EMISSION POINTS	OPERATING PARAMETER (1978 Actual)	EMISSION FACTOR		PM (ton/yr)	PM_{10} (ton/yr)	CO (ton/yr)	NO_x (ton/yr)	SO_2 (ton/yr)	VOC (ton/yr)
Wigwam Burners (WB)									
Insignificant Activities				1.00	1.00	1.00	1.00	1.00	1.00
TOTAL				17.41 (w/o WB) w/ WB emissions is 50	9.76 (w/o WB) w/ WB emissions is 42.76	230	1.00	1.00	7.00

NOTES:

(1) Emission factor is calculated with the equation EF = (K) x (D) x (0.0032) x $(U/5)^{1.3}/(M/2)^{1.4}$. K is the particle diameter. D is the number of drops. U is the wind speed. M is the % moisture content , dry basis. From AP-42.

(2) Applied with airless gun. Assume transfer efficiency of 98%. Assume 50% falls out immediately. Therefore, 0.1 lb/gal emitted. 50% PM_{10}.

(3) All bin emissions assumed to be uncontrolled.

References:

(a) Lumbers were not dried during the baseline year and therefore no emission from kilns.
(b) From Wigwam Burners, DEQ EF for CO – 40 lb/ton; VOC – 1 lb/ton

B. Site at 7th and Hart Streets :

EMISSION POINTS	OPERATING PARAMETER (1978 Actual)	EMISSION FACTOR		PM (ton/yr)	PM_{10} (ton/yr)	CO (ton/yr)	NO_x (ton/yr)	SO_2 (ton/yr)	VOC (ton/yr)
MATERIAL TRANSFER		PM	PM_{10}						
Sawdust Bin (open)	19,400 BDT/yr	0.200 lb/BDT	0.100 lb/BDT	1.94	0.97				
Sawdust conveyor	19,400 BDT/yr	0.007 lb/BDT	0.006 lb/BDT	0.07	0.06				
Green Chip Bin (open)	60,100 BDT/yr	0.200 lb/BDT	0.100 lb/BDT	6.01	3.01				
Green Chip Conveyor	60,100 BDT/yr	0.036 lb/BDT	0.032 lb/BDT	1.08	0.96				
Chip Screen	60,100 BDT/yr	0.007 lb/BDT	0.006 lb/BDT	0.21	0.18				
Bark Loading Bin (open)	11.600 BDT/yr	0.200 lb/BDT	0.100 lb/BDT	1.16	0.58				
Bark Conveyor	11,600 BDT/yr	0.080 lb/BDT	0.070 lb/BDT	0.46	0.41				
Planer Shaving Bin	60,200 BDT/yr	0.200 lb/BDT	0.100 lb/BDT	6.02	3.01				

EMISSION POINTS	OPERATING PARAMETER (1978 Actual)	EMISSION FACTOR		PM (ton/yr)	PM_{10} (ton/yr)	CO (ton/yr)	NO_x (ton/yr)	SO_2 (ton/yr)	VOC (ton/yr)
Hogged Fuel Bin	13,700 BDT/yr	0.200 lb/BDT	0.100 lb/BDT	1.37	0.69				
DRY KILN (4)	(5,000,000 BDT/yr)								
Douglas Fir	2,500,000 BDT/yr	0.21 lb/MBF	0.21 lb/MBF (2)	0.26	0.26				0.75
Hemlock	2,500,000 BDT/yr)	0.16 lb/MBF	0.16 lb/MBF (2)	0.20	0.20				0.50
SAWMILL									
Debarker	11,600 BDT/yr	0.010 lb/BDT	0.005 lb/BDT	0.58	0.03				
Yard Cleanup	1,160 BDT/yr	0.100 lb/BDT	0.005 lb/BDT	0.06	0.003				
Cyclones (1)	14,500 BDT/yr	0.5 lb/BDT	0.25 lb/BDT	3.63	1.81				
BOILERS (natural gas) (3)	26x $10^6 ft^3$/yr	2.5 lb/$MMft^3$	2.5 lb/$MMft^3$ (2)	0.03	0.03	1.09	1.3	0.02	0.07
Insignificant Activities				1.00	1.00	1.00	1.00	1.00	1.00
TOTAL				24.08	13.20	2.09	2.13	1.02	2.32

NOTES:

(1) The baseline emissions data are limited. Therefore lumber production ratio (baseline/proposed = 97/120) was used to estimate the baseline emissions from the cyclones.

(2) PM_{10} conservatively assumed to be 50% of PM except in the dry kilns and the boilers in which all PM is assumed to be PM_{10}. PM from complete combustion sources (sources from volatiles or condensables) are very small. However, PM_{10} emission from mechanical processes (sawmill) are smaller fraction than PM.

(3) Boilers (natural gas) EF reference is AQ-EF05.

(4) Dry kiln EF from NCASI July 1996 Technical Bulletin No. 7180.

17. Summary of combined emissions during the baseline year for the two mill facilities:

	COMBINED BASELINE EMISSION (tons/yr)					
	PM	PM_{10}	CO	NO_x	SO_2	VOC
Site off Hwy 211 (emisiions from Wigwam Burner are included)	50.00	42.76	230	1.0	1.0	7
Site at 7th & Hart Streets	24	13.0	2.09	2.13	1.02	2.32
TOTAL (a)	74.0 – 1= **73**	55.76 – 1= **54.76**	232.09 -1 = **231.09**	3.13- 1 = **2.13**	2.02 – 1 = **1.02**	9.32 -1 = **8.32**

Notes:

(a) Only one categorically insignificant activity allotment of 1 ton per year can be taken into account when baseline emissions rates are combined in the recognition of the two mill facilities as a single source.

18. **Proposed PSEL Information:**

Pollutant	Netting Basis (a)	*Baseline Emission Rate (tons/yr) (b)	Plant Site Emission Limit (tons/yr)			Increase Over Netting Basis (tons/yr)	SER	Unassigned Emission Rate (tons/year)
			Previous Separate PSELs (tons/yr)		Proposed Combined PSEL (tons/yr)	Increase Over Existing Permit (combined) (tons/yr)		
			Hwy 211	7th & Hart Sts.				
PM	73 - 33 = **40**	73	30	32	59	-3	19	25	0
PM_{10}	55 - 33 = **22**	55	22	32	36	-18	14	15	0
CO	231-229 = **2**	231	13	15	99	71	97	100	0
NO_x	**2**	2	20	20	41	1	39	40	0
SO_2	**1**	1	33	18	39	-12	38	40	0
VOC	8 - 6 = **2**	8	19	28	78	31	76	40	0

Notes:

a. 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 rule changes that prohibit the operation of wigwam waste burners are included in the State of

Oregon Clean Air Act Implementation Plan as adopted by the Environmental Quality Commission under OAR 340-200-0040. OAR 340-240-0160 states that, "No person owning or controlling any wigwam burner is allowed to cause or permit the operation of wigwam burner. Emissions from Wigwam Burners from the site off Hwy 211 cannot be credited toward the netting basis (OAR 340-240-0160)." The netting basis is less than the baseline emission rate because of the deduction of the emissions associated from Wigwam Burners [see table below]

b. The baseline emission rates differ from the previous permit due to the rounding off to whole numbers.

CRITERIA POLLUTANT	BASELINE (emission from wigwam burner are included) (tons/yr)	EMISSION FROM WIGWAM BURNER (tons/yr)	NETTING BASIS (tons/yr)
PM	73	33	40
PM_{10}	55	33	22
CO	231	229	2
NO_x	2		2
SO_2	1		1
VOC	8	6	2

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

d. When combining existing sources care must be taken when calculating the baseline, netting basis, and SER. Under ordinary circumstances, a source is only allowed a single SER complement which cannot be exceeded without performing applicable requirements under the major or minor new source review programs. Each of the mill sites now owned by Floragon were originally independently owned and operated. While under independent ownership, each of the two mills consumed all or most of its available SER. In a scenario such as this, when two originally distinct sources, fall under common ownership and are combined as a single source, it is the Department's practice to allow that combined source to keep all of the SER once used. Based on the previously issued permits, revised for changes to the EFs for VOC emissions from the dry kilns, the site off Hwy 211 would have used all of its available SER growth allowance (39 tons) and the site at 7th and Hart Streets would have used 36 tons of VOC SER for emissions from the kilns plus boiler VOC emissions. The combined VOC netting basis is 2 tons. The allowable emissions from SER growth allowance equals 76 tons (39 + 37). The new PSEL for the combined facility is now 78 tons (allowable SER + 2 tons netting basis). Therefore, any future VOC emission rate increase for

the facility to a level above 78 tons per year would trigger minor new source review. A minor new source review permitting action would require an air quality analysis pursuant to OAR 340-222-0041(3)(C).

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

f. The VOC PSEL for the primary mill at Hwy 211, corrected for revised VOC kiln emission factors, is the maximum allowable 39 tons. The company requested a higher amount of VOC emissions based on drying 90,000 MBF of hemlock and 140,000 MBF of Douglas fir using old emission factors. This request equates to 60 tons of VOC from the kilns alone which exceeds the maximum allowable PSEL (39 tons). DEQ has revised the emission factors in this permit. The company will need to limit production to ensure that they stay below the VOC PSEL or go through new source review if they wish to increase emissions above the PSEL.

Table I: Site off Hwy 211 –Capacity to Emit VOCs Using revised EF

SPECIES	PROPOSED PRODUCTION	EMISSION FACTOR	VOC EMISSIONS IN TONS/YR
Hemlock	90,000 MBF	0.4 lbs/MBF	18
Douglas Fir	140,000 MBF	0.6 lbs/MBF	42
Boilers (natural gas)	690 x $10^6 ft^3$	5.5 lbs/$MMft^3$	2
Significant activities			1
Total			63

g. VOC emissions attributed to the Hwy 211 mill site in the past had the potential to be well above 39 tons per year. Actual VOC emissions could have approached or exceeded 39 tons per year. Actual VOC emissions based on the EF in the existing permit would not have exceeded the existing PSEL.

h. The VOC PSEL for the existing permit for the mill site at 7th & Hart, when corrected for revised VOC kiln emission factors, would be 30 tons plus boiler emissions. This is based on 120,000 MBF dried, 50% hemlock and 50% douglas fir.

Table II: Site at 7th & Hart Streets –Capacity to Emit Using Revised EF

SPECIES	PROPOSED PRODUCTION	EMISSION FACTOR	VOC EMISSIONS in TONS/YR
Hemlock	60,000 MBF	0.4 lbs/MBF	12
Douglas Fir	60,000 MBF	0.6 lbs/MBF	18
Boilers	360 x $10^6 ft^3$	5.5 lbs/$MMft^3$ natural gas	1.0
Insignificant activities			1
TOTAL			32

i. The maximum allowable emissions from this mill site equaled 39 tons per

year (2 tons netting basis plus 37 tons growth allowance from SER). When calculating the current PSEL it was presumed that all the lumber dried was Douglas fir. As such, VOC emissions attributed to lumber drying would be 36 tons (see Revised Table II below). When combined with VOC emissions from the boilers and insignificant activities potential emissions would exceed the maximum allowable 39 tons. Therefore, 39 tons VOC per year was allotted for this component of the PSEL.

Revised Table II:

SPECIES	PROPOSED PRODUCTION	EMISSION FACTOR	VOC EMISSIONS in TONS/YR
Hemlock	0	0.4 lbs/MBF	0
Douglas Fir	120,000 MBF	0.6 lbs/MBF	36
Boilers	360 x 10^6 ft^3	5.5 lbs/MMft^3 natural gas	1.0
TOTAL			37

j. Combine maximum allowable VOC emissions from both sites: 39+ 37 + 2 netting basis= 78 tons per year.

k. The PM PSEL has been set at the combined facility's netting basis plus 19 tons of emissions from the SER. The PM_{10} PSEL has been set equal to the combined facility's netting basis plus the SER minus one ton.

I. SITE OFF HWY 211	PROPOSED PRODUCTION	EMISSION FACTOR (m)		PM EMISSIONS (tons/yr)	PM_{10} EMISSIONS (tons/yr)
EMISSION POINTS		PM	PM_{10}		
Material transfer	558,000 BDT/yr.			12.6	8.83
Sawmill	808,000 BDT/yr			4.4	1.6
End coating	1000 lb/gals			.05	0.025
Pneumatic Conveyors	30,000 BDT/yr			7.5	3.76
Boilers	690 x $10^6 ft^3$			0.86	0.86
Dry Kilns					
hemlock	90,000 MBF/yr	0.16 lbs/MBF	0.16 lbs/MBF	7.2	7.2
Douglas fir	140,000 MBF/yr	0.21 lbs/MBF	0.21 lbs/MBF	14.7	14.7
SUB - TOTAL				47	37
II. SITE AT 7th & HART STREETS					
EMISSION POINTS					
Dry kilns					
hemlock	60,000 MBF/yr	0.16 lbs/MBF	0.16 lbs/MBF	4.8	4.8
Douglas Fir	60,000 MBF/yr	0.21	0.21	6.3	6.3

		lbs/MBF	lbs/MBF		
Boilers	360 x $10^6 ft^3$			0.45	0.45
SUB -TOTAL				12	12
TOTAL FOR BOTH FACILITIES				**59**	**49**

l. Based on the previously issued permits revised for changes to the EFs for PM/PM_{10} emissions from dry kilns, the site off Hwy 211 would have used all of its SER and the site at 7th & Hart Streets would have used 24/14 tons of PM/PM_{10} SER for emissions from the kiln plus the boiler PM/PM_{10} emissions. The combined PM and PM_{10} netting basis would be 40 and 22 tons, respectively.

m. The allowable combined PM SER would be 59 tons and for PM_{10} SER would be 36 tons. The new combined PSEL for PM is 59 tons per year and 36 tons per year for PM_{10}. Any PM/PM_{10} PSEL increases above these levels will trigger minor new source review.

n. In accordance with OAR 340-222-0041(1), the PSELs for CO and SO_2 have been set equal to the respective SERs minus 1 ton.

EMISSION POINTS	CRITERIA POLLUTANTS	EMISSION FACTOR	EMISSIONS (tons/year)
I. SITE OFF HWY 211			
Boilers (690 x $10^6 ft^3$)	CO	84 lbs/$MMft^3$ natural gas	28.9
	NO_x	100 lbs/$MMft^3$ natural gas	34.5
	SO_2	1.7 lbs/$MMft^3$ natural gas	0.59
II. SITE AT 7th & HART STREETS			
Boilers (360 x $10^6 ft^3$)	CO	84 lbs/$MMft^3$ natural gas	15.12
	NO_x	100 lbs/$MMft^3$ natural gas	18
	SO_2	1.7 lbs/$MMft^3$ natural gas	0.31
		TOTAL (combined)	**CO = 44**
			NO_x= 52.5
			SO_2= 1.00

o. The NO_x PSEL is set equal to the combined netting basis plus the SER minus one ton.

p. The PSEL is a federally enforceable limit on the capacity to emit.

q. The Department's approval is required for any request for increase in the PSEL.

MAJOR SOURCE APPLICABILITY

CRITERIA POLLUTANTS

19. 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.

20. In the compliance monitoring calculation of emission factors (EF) for PM & PM_{10} (see permit condition 11.0) a composite EF 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.

21. Historically there have been three PM/PM_{10} EFs used for estimating emissions in past permits. The Department has not been able to determine how they were developed. The latest factor has been determined to be reasonable and conservative in comparison to baseline year emissions. PM/PM_{10} emissions should be significantly reduced from the baseline year emissions because of reduced kerf, planning, and the enclosure of discharge points. No additional in-depth analysis of the emission factor is being performed at this time as developing a new factor would be burdensome in light of other workload priorities, and would not likely result in real world reductions in PM/PM_{10} emissions.

22. Recent inspections found no evidence of visible emission or fugitive fallout. There is no significant PM/PM_{10} environmental issue at the source. It is unlikely that the source will significantly expand above current projected levels.

HAZARDOUS AIR POLLUTANTS

23. 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.

24. 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. The largest single HAP potential emission is methanol at approximately 4.5 tons per year. The HAP emission estimate assumes that the ratio of total HAP emissions from the kilns to the total VOC emissions from the kilns is the same for hemlock and pine. Estimated kiln HAP emission from drying pine is based on NCASI Technical Bulletin No. 845 dated May 2002. .

25. The source PTE is less 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 not required

ADDITIONAL REQUIREMENTS

NSPS APPLICABILITY

26. There are no sources at the 7th and Hart Streets site for which NSPS standards have been promulgated. The permittee indicated both boilers were constructed prior to June 9, 1989 and neither has been modified since. A source test was required at this site upon switching to natural gas as the primary fuel in the boilers and was completed on April 19, 2001.

27. The site off Hwy 211 has two natural gas fired boilers 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

28. This source is not subject to federal regulations for New Source Review (NSR) or further air quality analysis.

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

NESHAPS/MACT APPLICABILITY

30. The facility is not a major source of HAPs. No NESHAPS/MACT standards had been promulgated that are applicable to this facility.

RACT APPLICABILITY

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

TACT APPLICABILITY

32. The two mills and boilers are existing facilities and have emission controls that are typical for existing facilities in this industry. There is no 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

33. The proposed Plant Site Emission Limits are greater than the previous permit and are shown below. The proposed permit was placed on public notice from January 19, 2005 through February 24, 2005. No comments were received.

POLLUTANT	COMBINED PREVIOUS PSEL (tons/yr)		PROPOSED PSEL (tons/yr)	ESTIMATED (combined) ACTUAL EMISSIONS (tons/yr) (a)
	Site off Hwy 211	7th * Hart Streets Site		
PM	30	32	59	7.55
PM_{10}	22	32	36	4.55
CO	13	15	99	15
NO_x	20	20	41	18
SO_2	33	18	39	0.31
VOC	19	28	78	34

Note:

(a) The Revised EF are used in the calculation of the est. actual emission of the facility. DEQ Guidance: Dry kiln EF from NCASI July 1996 Technical Bulletin No. 7180. (Hemlock – 0.4 lb/MBF; Douglas Fir – 0.6 lb/MBF)