MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION

June 12, 2017

PERMIT TO INSTALL
326-06D

ISSUED TO
Northwest Hardwoods, Inc.

LOCATED AT
657 76th Street SW
Byron Center, Michigan

IN THE COUNTY OF
Kent

STATE REGISTRATION NUMBER
E4437

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: **April 19, 2017**	
DATE PERMIT TO INSTALL APPROVED: **June 12, 2017**	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

Table of Contents

Section **Page**

Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	acfm	Actual cubic feet per minute
BACT	Best Available Control Technology	BTU	British Thermal Unit
CAA	Clean Air Act	°C	Degrees Celsius
CAM	Compliance Assurance Monitoring	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	CO_2e	Carbon Dioxide Equivalent
CFR	Code of Federal Regulations	dscf	Dry standard cubic foot
COM	Continuous Opacity Monitoring	dscm	Dry standard cubic meter
Department/ department	Michigan Department of Environmental Quality	°F	Degrees Fahrenheit
		gr	Grains
EU	Emission Unit	HAP	Hazardous Air Pollutant
FG	Flexible Group	Hg	Mercury
GACS	Gallons of Applied Coating Solids	hr	Hour
GC	General Condition	HP	Horsepower
GHGs	Greenhouse Gases	H_2S	Hydrogen Sulfide
HVLP	High Volume Low Pressure*	kW	Kilowatt
ID	Identification	lb	Pound
IRSL	Initial Risk Screening Level	m	Meter
ITSL	Initial Threshold Screening Level	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	NMOC	Non-methane Organic Compounds
MDEQ	Michigan Department of Environmental Quality	NO_x	Oxides of Nitrogen
		ng	Nanogram
MSDS	Material Safety Data Sheet	PM	Particulate Matter
NA	Not Applicable	PM10	Particulate Matter equal to or less than 10 microns in diameter
NAAQS	National Ambient Air Quality Standards		
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonable Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO_2	Sulfur Dioxide
SCR	Selective Catalytic Reduction	TAC	Toxic Air Contaminant
SNCR	Selective Non-Catalytic Reduction	Temp	Temperature
SRN	State Registration Number	THC	Total Hydrocarbons
TEQ	Toxicity Equivalence Quotient	tpy	Tons per year
USEPA/EPA	United States Environmental Protection Agency	µg	Microgram
		µm	Micrometer or Micron
VE	Visible Emissions	VOC	Volatile Organic Compounds
		yr	Year

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**

2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**

3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**

4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**

5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**

6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**

7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**

8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.

9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.

10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
    a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
    b) A visible emission limit specified by an applicable federal new source performance standard.
    c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EUGREENINSPECT	Sawing operations to process green hardwood lumber controlled by a bag filter collector.	NA
EUPLANER	Planning operation to process dry hardwood lumber controlled by a bag filter collector.	NA
EUHAMMERMILL1	A hammer mill controlled by a cyclone collector.	FGHAMMERMILL
EUHAMMERMILL2	A hammer mill controlled by a cyclone collector.	FGHAMMERMILL
EUBOILER1	A natural gas/hardwood-fired boiler rated at 29.3 MMBtu per hour and 25.9 MMBtu/hr heat input, respectively. The maximum steam capacity of natural gas/hardwood-fired boiler is 24,000 and 20,700 pounds per hour, respectively. The boiler includes and a wet venturi scrubber for particulate control.	NA
EUBOILER2	A natural gas-fired boiler rated at 13.0 MMBtu per hour.	NA
EUSILO	A dry sander dust storage silo for the wood-fired boiler controlled by a cyclone.	NA
EUKILN1	Indirect steam-heated lumber drying kiln. Charge capacity of 11 MBF. (MBF is equivalent to one thousand board feet.)	FGKILNS
EUKILN2	Indirect steam-heated lumber drying kiln. Charge capacity of 22 MBF.	FGKILNS
EUKILN3	Indirect steam-heated lumber drying kiln. Charge capacity of 33 MBF.	FGKILNS
EUKILN4	Indirect steam-heated lumber drying kiln. Charge capacity of 22 MBF.	FGKILNS
EUKILN5	Indirect steam-heated lumber drying kiln. Charge capacity of 11 MBF.	FGKILNS
EUKILN6	Indirect steam-heated lumber drying kiln. Charge capacity of 22 MBF.	FGKILNS
EUKILN7	Indirect steam-heated lumber drying kiln. Charge capacity of 11 MBF.	FGKILNS
EUKILN16	Indirect steam-heated lumber drying kiln. Charge capacity of 27 MBF.	FGKILNS
EUKILN17	Indirect steam-heated lumber drying kiln. Charge capacity of 27 MBF.	FGKILNS
EUKILN18	Indirect steam-heated lumber drying kiln. Charge capacity of 27 MBF.	FGKILNS
EUKILN19	Indirect steam-heated lumber drying kiln. Charge capacity of 27 MBF.	FGKILNS
EUKILN20	Indirect steam-heated lumber drying kiln. Charge capacity of 27 MBF.	FGKILNS

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Flexible Group ID
EUKILN21	Indirect steam-heated lumber drying kiln. Charge capacity of 27 MBF.	FGKILNS
EUKILN22	Indirect steam-heated lumber drying kiln. Charge capacity of 50 MBF.	FGKILNS
EUKILN23	Indirect steam-heated lumber drying kiln. Charge capacity of 50 MBF.	FGKILNS
EUKILN24	Indirect steam-heated lumber drying kiln. Charge capacity of 50 MBF.	FGKILNS
EUKILN25	Indirect steam-heated lumber drying kiln. Charge capacity of 50 MBF.	FGKILNS
EUKILN26	Indirect steam-heated lumber drying kiln. Charge capacity of 55 MBF.	FGKILNS
EUKILN27	Indirect steam-heated lumber drying kiln. Charge capacity of 55 MBF.	FGKILNS
EUKILN28	Indirect steam-heated lumber drying kiln. Charge capacity of 55 MBF.	FGKILNS
EUKILN29	Indirect steam-heated lumber drying kiln. Charge capacity of 56.64 MBF.	FGKILNS
EUKILN30	Indirect steam-heated lumber drying kiln. Charge capacity of 56.64 MBF.	FGKILNS
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.		

The following conditions apply to:
EUGREENINSPECT

DESCRIPTION: Sawing operations to process green hardwood lumber

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Bag filter collector

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.01 lb per 1000 lbs of exhaust gases	Test Protocol	Bag filter from EUGREENINSPECT	GC 13	R 336.1331
2. PM-10	0.83 pph	Test Protocol	Bag filter from EUGREENINSPECT	GC 13	40 CFR 52.21 (c) & (d)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUGREENINSPECT unless the bag filter is installed, maintained, and operated in a satisfactory manner. **(R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the pressure drop across the bag filter portion of EUGREENINSPECT on a continuous basis. **(R 336.1301, R 336.1331, R 336.1910)**

2. The permittee shall record at least once per calendar day (when operating) and keep, in a satisfactory manner, records of pressure drop across the bag filter portion of EUGREENINSPECT. All records shall be kept for a period of at least five years and made available to the Department upon request. **(R 336.1301, R 336.1331, R 336.1910)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVGREENINSPECT	35	14	40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

NA

The following conditions apply to:
EUPLANER

DESCRIPTION: Planing operation to process dry hardwood lumber

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Bag filter collector

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.01 lb per 1000 lbs of exhaust gases	Test Protocol	EUPLANER	GC 13	R 336.1331
2. PM-10	0.9 pph	Test Protocol	EUPLANER	GC 13	40 CFR 52.21 (c) & (d)

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUPLANER unless the bag filter is installed, maintained, and operated in a satisfactory manner. **(R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the pressure drop across the bag filter portion of EUPLANER on a continuous basis. **(R 336.1301, R 336.1331, R 336.1910)**

2. The permittee shall record at least once per calendar day (when operating) and keep, in a satisfactory manner, records of pressure drop across the bag filter portion of EUPLANER. All records shall be kept for a period of at least five years and made available to the Department upon request. **(R 336.1301, R 336.1331, R 336.1910)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVPLANER	45.1	26	40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

NA

The following conditions apply to:
EUSILO

DESCRIPTION: Dry sander dust storage silo for the wood-fired boiler

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Cyclone

I. EMISSION LIMITS

1. There shall be no visible emissions from EUSILO. **(R 336.1301, 40 CFR 52.21(c) & (d))**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUSILO unless the cyclone is installed, maintained, and operated in a satisfactory manner. **(R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor the cyclone to verify it is operating properly, by taking visible emission readings for EUSILO a minimum of once per calendar week. Either a certified or non-certified reader shall take each visible emission reading during routine operating conditions. If abnormal visible emissions (other than uncombined water vapor) are observed, the permittee shall immediately inspect the cyclone and perform any required maintenance. **(R 336.1301, R 336.1331, R 336.1910)**

2. The permittee shall record at least once per calendar week (when operating) and keep, in a satisfactory manner, records of visible emission checks from the cyclone portion of EUSILO. All records shall be kept for a period of at least five years and made available to the Department upon request. **(R 336.1301, R 336.1331, R 336.1910)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

1. The exhaust gases from EUSILO shall not be discharged to the ambient air. **(40 CFR 52.21(c) & (d))**

IX. OTHER REQUIREMENTS

NA

The following conditions apply to:
EUBOILER1

DESCRIPTION: A natural gas/hardwood-fired boiler rated at 29.3 MMBtu per hour and 25.9 MMBtu/hr heat input, respectively. The maximum steam capacity of natural gas/hardwood-fired boiler is 24,000 and 20,700 pounds per hour, respectively. There are separate dedicated stacks when firing natural gas and wood.

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: Wet venturi scrubber

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. PM	0.17 lb per 1,000 lb exhaust gas[a, b]	Test Protocol	EUBOILER1	SC V.1	R 336.1331
2. PM10	1.68 pph	Test Protocol	EUBOILER1	SC V.1	R 336.1205, R 336.1225, 40 CFR 52.21 (c) & (d)
3. NOx	12.7 pph	Test Protocol	EUBOILER1	GC 13	R 336.1205
4. CO	15.5 pph	Test Protocol	EUBOILER1	GC 13	R 336.1205
5. Acetaldehyde	2.15E-02 pph[1]	Test Protocol	EUBOILER1	GC 13	R 336.1225
6. Acrolein	2.0E-02 pph[1]	Test Protocol	EUBOILER1	GC 13	R 336.1225
7. Arsenic	5.7E-04 pph[1]	Test Protocol	EUBOILER1	GC 13	R 336.1225
8. Benzene	1.09E-01 pph[1]	Test Protocol	EUBOILER1	GC 13	R 336.1225
9. Formaldehyde	1.14E-01 pph[1]	Test Protocol	EUBOILER1	GC 13	R 336.1225

[a] corrected to 50% excess air
[b] Moisture added by the wet venturi scrubber is not included in the flue gas

10. Visible emissions from EUBOILER1 shall not exceed 20 percent opacity. This limit is based on the federal Standards of Performance for New Stationary Sources, 40 CFR Part 60 Subparts A and Dc. **(40 CFR Part 60 Subparts A & Dc)**

II. MATERIAL LIMITS

1. The permittee shall burn only virgin hardwood waste, only on-site oil spills and/or pipeline quality natural gas in EUBOILER1. The permittee shall not burn on-site oil spills absorbed by sawdust greater than 400 pounds per year.[1] **(R 336.1225)**

2. The permittee shall not feed more than 3470 pounds of hardwood in EUBOILER1 per hour, based on a calendar month operating hours average. **(R 336.1205, R 336.1225, R 336.1331)**

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The heat input capacity of EUBOILER1 shall not exceed a maximum of 25.9 million Btu per hour when firing wood. **(R 336.1205, R 336.1225, 40 CFR Part 60 Subpart Dc)**

2. The permittee shall immediately cease the fuel input feed to EUBOILER1 except for natural gas, consistent with safe operating procedures, upon initiation of the wet venturi scrubber bypass. Fuel input feed to EUBOILER1 except for natural gas shall not restart until the wet venturi scrubber is back on line and operating in a satisfactory manner. **(R 336.1220, R 336.1224, R 336.1702, R 336.1910, R 336.1911, R 336.2802, 40 CFR 52.21)**

3. The permittee shall not operate EUBOILER1 unless an acceptable plan that describes how emissions will be minimized during all startups, shutdowns and malfunctions has been submitted to the AQD District Supervisor within 60 days after the issuance of this permit, and is implemented and maintained. The plan shall incorporate procedures recommended by the equipment manufacturer, if available, as well as incorporating standard industry practices. **(R 336.1911, R 336.1912)**

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate EUBOILER1 unless the wet venturi scrubber collector is installed, maintained, and operated in a satisfactory manner. **(R 336.1205, R 336.1225, R 336.1331)**

2. The permittee shall not operate EUBOILER1 without an interlock system which precludes the operation of the boiler using wood waste fuel without a properly operating scrubber. **(R 336.1205, R 336.1225, R 336.1331)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. Verification of the PM and PM-10 emission rates from EUBOILER1 when firing virgin hardwood waste by testing at owner's expense, in accordance with Department requirements, may be required for continued operation. Within 60 days upon notification from AQD District Supervisor, the permittee shall submit a complete test plan to the AQD. The AQD must approve the final plan prior to testing. Verification of emission rates includes the submittal of a complete report of the test results to the AQD within 60 days following the last date of the test. **(R 336.1205, R 336.1224, R 336.1225, R 336.1299, R 336.2001, R 336.2003, R 336.2004, 40 CFR 52.21(c) & (d))**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor and record the average hourly wood fuel usage for EUBOILER1 based on monthly hours of operation records. **(R 336.1205(1)(a) and (3))**

2. The permittee shall keep calendar monthly wood fuel and oil spill usage records, in a format acceptable to the AQD District Supervisor, indicating the amount of wood fuel used, in pounds, on an average hourly basis. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1331, R 336.1205(1)(a))**

3. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period fuel use records for EUBOILER1. The records must indicate the total amount of fuel used in EUBOILER1. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205(1)(a), 40 CFR 60.48c (g))**

4. The permittee shall record the time and duration of the use of SVNGBOILER1 when firing natural gas only. The permittee shall keep all records on file at the facility for a period of five years and make them available to the Department upon request. **(R 336.1220, R 336.1224, R 336.1702, R 336.1910, R 336.1911, R 336.2802, 40 CFR 52.21)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVNGBOILER1	21.75	43.5	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVWBOILER1	32	63.5	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

1. The permittee shall comply with the reporting and recordkeeping requirements of the federal Standards of Performance for New Stationary Sources, 40 CFR 60, Subpart Dc, §60.48c. The permittee shall submit the notifications to the AQD District Supervisor within the time frames specified in 40 CFR 60.48c. **(40 CFR 60.48c)**

2. The permittee shall submit a start-up; shut-down; maintenance and malfunction abatement plan for EUBOILER1 required under Special Condition III.3 to the AQD District Supervisor within 60 days of permit issuance. The permittee shall retain a copy of the startup plan at the facility at all times. **(R 336.1205, R 336.1911, R 336.1912)**

3. The permittee shall submit the following notifications to the AQD District Supervisor in accordance with 40 CFR 60.48c:
   a) A notification of the date when construction was commenced, submitted no later than 30 calendar days after such date.
   b) A notification of the actual date of startup of the source, submitted within 30 calendar days after such date.

   (40 CFR Part 60 Subparts A & Dc)

Footnotes:
[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).

The following conditions apply to:
EUBOILER2

DESCRIPTION: A natural gas-fired boiler rated at 13.0 MMBtu per hour

Flexible Group ID: NA

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

NA

II. MATERIAL LIMITS

1. The permittee shall burn only pipeline quality natural gas in EUBOILER2. **(R 336.1205(1)(a))**

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1205(1)(a))**

2. The permittee shall keep, in a satisfactory manner, monthly and 12-month rolling time period fuel use records for EUBOILER2. The records must indicate the total amount of fuel used in EUBOILER2. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1205(1)(a), 40 CFR 60.48c (g))**

VII. REPORTING

1. The permittee shall submit the following notifications to the AQD District Supervisor in accordance with 40 CFR 60.48c:
   a) A notification of the date when construction was commenced, submitted no later than 30 calendar days after such date.
   b) A notification of the actual date of startup of the source, submitted within 30 calendar days after such date.

   (40 CFR Part 60 Subparts A & Dc)

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVBOILER2	21.75	43.5	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

NA

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FGHAMMERMILL	Two hammer mills	EUHAMMERMILL1, EUHAMMERMILL2
FGKILNS	22 indirect steam-heated lumber drying kilns	EUKILN1, EUKILN2, EUKILN3, EUKILN4, EUKILN5, EUKILN6, EUKILN7, EUKILN16, EUKILN17, EUKILN18, EUKILN19, EUKILN20, EUKILN21, EUKILN22, EUKILN23, EUKILN24, EUKILN25, EUKILN26, EUKILN27, EUKILN28, EUKILN29, EUKILN30

The following conditions apply to:
FGHAMMERMILL

DESCRIPTION: Two hammer mills

Emission Units: EUHAMMERMILL1, EUHAMMERMILL2

POLLUTION CONTROL EQUIPMENT: Cyclone

I. EMISSION LIMITS

1. There shall be no visible emissions from FGHAMMERMILL. **(R 336.1301, 40 CFR 52.21(c) & (d))**

II. MATERIAL LIMITS

NA

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall not operate FGHAMMERMILL unless the cyclone is installed, maintained, and operated in a satisfactory manner. **(R 336.1301, R 336.1331, R 336.1910, 40 CFR 52.21(c) & (d))**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor the cyclone to verify it is operating properly, by taking visible emission readings for FGHAMMERMILL a minimum of once per calendar week. Either a certified or non-certified reader shall take each visible emission reading during routine operating conditions. If abnormal visible emissions (other than uncombined water vapor) are observed, the permittee shall immediately inspect the cyclone and perform any required maintenance. **(R 336.1301, R 336.1331, R 336.1910)**

2. The permittee shall record at least once per calendar week (when operating) and keep, in a satisfactory manner, records of visible emission checks from the cyclone portion of FGHAMMERMILL. All records shall be kept for a period of at least five years and made available to the Department upon request. **(R 336.1301, R 336.1331, R 336.1910)**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

1. The exhaust gases from the cyclone portion of FGHAMMERMILL shall not be discharged to the ambient air. **(40 CFR 52.21(c) & (d))**

IX. OTHER REQUIREMENTS

NA

The following conditions apply to:
FGKILNS

DESCRIPTION: 22 indirect steam-heated lumber drying kilns

Emission Units: EUKILN1, EUKILN2, EUKILN3, EUKILN4, EUKILN5, EUKILN6, EUKILN7, EUKILN16, EUKILN17, EUKILN18, EUKILN19, EUKILN20, EUKILN21, EUKILN22, EUKILN23, EUKILN24, EUKILN25, EUKILN26, EUKILN27, EUKILN28, EUKILN29, EUKILN30

POLLUTION CONTROL EQUIPMENT: NA

I. EMISSION LIMITS

Pollutant	Limit	Time Period / Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	10 tpy *	12-month rolling time period as determined at the end of each calendar month.	FGKILNS	SC VI.2	R 336.1702(a)
2. Acetaldehyde	0.306 pph[1]	Testing Protocol	FGKILNS	GC 13	R 336.1225
* VOC calculations are based on the amount of wood dried (in MBF) multiplied by its corresponding VOC emission factor in pounds per thousand board feet (lbs/MBF)					

II. MATERIAL LIMITS

1. The permittee shall only process hardwood in FGKILNS. (Hardwood is defined as the wood of a deciduous or broad-leafed tree.) **(R 336.1225, R 336.1702(a))**

2. The permittee shall not dry more than 30,000 MBF of wood in FGKILNS per 12-month rolling time period as determined at the end of each calendar month. **(R 336.1225, R 336.1702(a))**

III. PROCESS/OPERATIONAL RESTRICTIONS

NA

IV. DESIGN/EQUIPMENT PARAMETERS

NA

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

NA

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall complete all required calculations in a format acceptable to the AQD District Supervisor and make them available by the 15th day of the calendar month, for the previous calendar month, unless otherwise specified in any recordkeeping, reporting or notification special condition. **(R 336.1225, R 336.1702(a))**

2. The permittee shall keep the following information on a monthly basis for FGKILNS:
   a) The wood species and amount in MBF dried per calendar month.
   b) The wood species and amount in MBF dried per 12-month rolling time period as determined at the end of each calendar month.
   c) The VOC emission factor (in lbs C/MBF) for each wood species dried. If a VOC emission factor for each species is not available, the worse-case VOC emission factor is assumed to be 0.358 lbs VOC/MBF. This emission factor is based on "Effects of Drying Parameters on Hardwood Lumber Drying Defects and VOC Emissions," by Blankenhorn, P.R., Pennsylvania State University. Other emission factors may be approved by the AQD District Supervisor.
   d) VOC mass emission calculations determining the monthly emission rate in tons per calendar month.
   e) VOC mass emission calculations determining the annual emission rate in tons per 12-month rolling time period as determined at the end of each calendar month.

   The records shall be kept in a format acceptable to the AQD District Supervisor. All records shall be kept on file for a period of at least five years and made available to the Department upon request. **(R 336.1225, R 336.1702(a))**

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVKILN1 (4 vents)	14 x 14 (each vent)	23.3 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
2. SVKILN2 (8 vents)	14 x 14 (each vent)	23.3 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
3. SVKILN3 (12 vents)	14 x 14 (each vent)	23.3 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
4. SVKILN4 (8 vents)	14 x 14 (each vent)	23.3 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
5. SVKILN5 (4 vents)	14 x 14 (each vent)	23.3 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
6. SVKILN6 (8 vents)	14 x 14 (each vent)	23.3 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
7. SVKILN7 (4 vents)	14 x 14 (each vent)	23.3 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
8. SVKILN16 (12 vents)	18.0 (each vent)	28.0 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)

Stack & Vent ID	Maximum Exhaust Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
9. SVKILN17 (12 vents)	18.0 (each vent)	28.0 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
10. SVKILN18 (12 vents)	18.0 (each vent)	28.0 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
11. SVKILN19 (6 vents)	24 x 24 (each vent)	28.0 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
12. SVKILN20 (6 vents)	24 x 24 (each vent)	28.0 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
13. SVKILN21 (6 vents)	24 x 24 (each vent)	28.0 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
14. SVKILN22 (6 vents)	24 x 24 (each vent)	28.0 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
15. SVKILN23 (6 vents)	24 x 24 (each vent)	28.0 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
16. SVKILN24 (6 vents)	24 x 24 (each vent)	28.0 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
17. SVKILN25 (6 vents)	24 x 24 (each vent)	28.0 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
18. SVKILN26 (14 vents)	21 x 21 (each vent)	25 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
19. SVKILN27 (14 vents)	21 x 21 (each vent)	25 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
20. SVKILN28 (14 vents)	21 x 21 (each vent)	25 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
21. SVKILN29 (12 vents)	24 x 24 (each vent)	28 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)
22. SVKILN30 (12 vents)	24 x 24 (each vent)	28 (each vent)	R 336.1225, 40 CFR 52.21(c) & (d)

IX. OTHER REQUIREMENTS

NA

Footnotes:

[1]This condition is state only enforceable and was established pursuant to Rule 201(1)(b).