

December 28, 2022

Mr. Robert Babb, HR/EHS Manager
Taiga Exterior Wood
PO Box 206
Washougal, WA 98671

Subject: Final Air Discharge Permit for Replacement of Existing Boiler

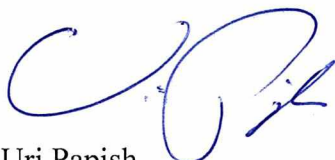
Dear Mr. Babb:

A final determination to issue Air Discharge Permit 22-3550 (ADP 22-3550) has been completed for Air Discharge Permit (ADP) Application CL-3212 pursuant to Section 400-110(4) of the General Regulations for Air Pollution Sources of the Southwest Clean Air Agency (SWCAA). Public notice for ADP Application CL-3212 was published in the permit section of SWCAA's internet website on October 7, 2022. SWCAA did not receive a request for a public comment period in response to the public notice and has concluded that significant public interest does not exist for this determination. Therefore, a public comment period will not be provided for this permitting action. Electronic copies of ADP 22-3550 and the associated Technical Support Document are available for public review in the permit section of SWCAA's internet website (<http://www.swcleanair.gov/permits/adpfinal.asp>). Original copies are enclosed for your files.

This Air Discharge Permit may be appealed directly to the Pollution Control Hearings Board (PCHB) at P.O. Box 40903, Olympia, Washington 98504-0903 within 30 days of receipt as provided in RCW 43.21B.

If you have any comments, or desire additional information, please contact me or Wess Safford at (360) 574-3058, extension 126.

Sincerely,



Uri Papish
Executive Director

UP:wls

Enclosure – Air Discharge Permit 22-3550 and Technical Support Document





**AIR DISCHARGE PERMIT
22-3550**

Issued: December 28, 2022

Taiga Exterior Wood
2685 Index Street, Washougal, WA 98671

SWCAA ID - 422

REVIEWED BY:


Clinton Lamoreaux, Chief Engineer



APPROVED BY:


Uri Papish, Executive Director

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1. Equipment/Activity Identification

ID No.	Equipment/Activity	Control Measure/Equipment
1	Lumber Dry Kiln	Limited Operating Temperature
2	Process Boiler (Superior Super Seminole)	Ultra-low Emission Burner, Low Sulfur Fuel
3	Stain Application Lines	Low VOC coating, Equipment Enclosure
4	Wood Treatment Retorts	Equipment Enclosure

2. Approval Conditions

The following tables detail the specific requirements of this permit. In addition to the requirements listed below, equipment at this facility may be subject to other federal, state, and local regulations. The permit requirement number is identified in the left-hand column. The text of the permit requirement is contained in the middle column. The emission unit, equipment, or activity to which the permit requirement applies is listed in the right-hand column.

ADP 22-3550 supersedes ADP 09-2898 in its entirety.

Emission Limits

Req. No.	Emission Limits	Equipment/ Activity ID No.										
1.	<p>Emissions from lumber drying operations must not exceed the following:</p> <table><tr><th><u>Pollutant</u></th><th><u>Emission Limit</u></th></tr><tr><td>VOC</td><td>7.10 tpy</td></tr><tr><td>PM/PM₁₀/PM_{2.5}</td><td>0.35 tpy</td></tr><tr><td>Formaldehyde</td><td>30 lb/yr</td></tr><tr><td>Acetaldehyde</td><td>1,530 lb/yr</td></tr></table> <p>Annual emissions must be calculated based on actual lumber throughput consistent with the methodology in Section 6 of the Technical Support Document for this Permit.</p>	<u>Pollutant</u>	<u>Emission Limit</u>	VOC	7.10 tpy	PM/PM ₁₀ /PM _{2.5}	0.35 tpy	Formaldehyde	30 lb/yr	Acetaldehyde	1,530 lb/yr	1
<u>Pollutant</u>	<u>Emission Limit</u>											
VOC	7.10 tpy											
PM/PM ₁₀ /PM _{2.5}	0.35 tpy											
Formaldehyde	30 lb/yr											
Acetaldehyde	1,530 lb/yr											
2.	<p>Emissions from the Superior Super Seminole process boiler must not exceed the following:</p> <table><tr><th><u>Pollutant</u></th><th><u>Emission Limit</u></th></tr><tr><td>NO_x</td><td>0.67 tpy 12 ppmvd @ 3% O₂, 1-hr avg</td></tr><tr><td>CO</td><td>1.02 tpy 30 ppmvd @ 7% O₂, 1-hr avg</td></tr><tr><td>PM/PM₁₀/PM_{2.5}</td><td>0.34 tpy</td></tr></table> <p>Annual emissions must be calculated based on actual fuel consumption and data from the most recent emission test. If no emission test or tuning data is available, emissions must be calculated using emission factors from Section 6 of the Technical Support Document for this Permit.</p>	<u>Pollutant</u>	<u>Emission Limit</u>	NO _x	0.67 tpy 12 ppmvd @ 3% O ₂ , 1-hr avg	CO	1.02 tpy 30 ppmvd @ 7% O ₂ , 1-hr avg	PM/PM ₁₀ /PM _{2.5}	0.34 tpy	2		
<u>Pollutant</u>	<u>Emission Limit</u>											
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CO	1.02 tpy 30 ppmvd @ 7% O ₂ , 1-hr avg											
PM/PM ₁₀ /PM _{2.5}	0.34 tpy											
3.	<p>VOC emissions from the stain application line must not exceed 10.8 tpy. Emissions must be calculated based on actual material throughput consistent with the methodology in Section 6 of the Technical Support Document for this Permit.</p>	3										

Req. No.	Emission Limits	Equipment/ Activity ID No.										
4.	VOC emissions from wood treatment operations must not exceed 49.68 tpy. Emissions must be calculated based on actual treatment chemical consumption consistent with the methodology in Section 6 of the Technical Support Document for this Permit.	4										
5.	Emissions of toxic air pollutants (TAPs) as defined in WAC 173-460 (effective 8/21/98) must not exceed their respective small quantity emission rate (SQER), with the exception of formaldehyde and acetaldehyde which have specific limits established.	1-4										
6.	Visible emissions must not exceed the following values for more than 3 minutes in any one hour period as determined by a Certified Observer in accordance with SWCAA Method 9 (See Appendix A of SWCAA 400). <table><tr><th><u>Equipment</u></th><th><u>Opacity Limit</u></th></tr><tr><td>Superior Super Seminole</td><td>0%</td></tr><tr><td>Dry kilns</td><td>5%</td></tr><tr><td>Stain application</td><td>0%</td></tr><tr><td>All other operations</td><td>0%</td></tr></table>	<u>Equipment</u>	<u>Opacity Limit</u>	Superior Super Seminole	0%	Dry kilns	5%	Stain application	0%	All other operations	0%	1-4
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Superior Super Seminole	0%											
Dry kilns	5%											
Stain application	0%											
All other operations	0%											

Operating Limits and Requirements

Req. No.	Operating Limits and Requirements	Equipment/ Activity ID No.
7.	Reasonable precautions must be taken at all times to prevent and minimize fugitive emissions from plant operations.	Facility-wide
8.	The permittee must use recognized good practice and procedures to reduce odors to a reasonable minimum.	Facility-wide
9.	Each pollution control device/measure must be in use whenever the associated production equipment is in operation. Control devices must be operated and maintained in accordance with the manufacturer's specifications and operated in a manner that minimizes emissions.	2
10.	Emission units identified in this Permit must be maintained and operated in total and continuous conformity with the conditions identified in this Permit. SWCAA reserves the right to take any and all appropriate action to maintain the conditions of this Permit, including directing the facility to cease operations until corrective action can be completed.	1-4
11.	The dry bulb set temperature of the dry kiln must not exceed 180°F.	1
12.	Dry kiln doors must be kept closed at all times during active drying operations.	1
13.	The Superior Super Seminole boiler must only be fired on natural gas.	2

Req. No.	Operating Limits and Requirements	Equipment/ Activity ID No.
14.	Corrective action must be taken within 7 days if emission monitoring results for the Superior Super Seminole boiler indicate emission concentrations in excess of permitted emission limits. Corrective action includes, but is not limited to, service by maintenance personnel or retesting for each pollutant of concern using a reference test method. Emission monitoring of affected units must be conducted following completion of any corrective action to confirm that the corrective action has been effective. Corrective action must be pursued until observed emission concentrations no longer exceed permitted emission limits.	2
15.	Exhaust gases from the dry kiln and Superior Super Seminole boiler must be discharged vertically. Any device that obstructs or prevents vertical discharge while in operation is prohibited.	1-2

Monitoring and Recordkeeping Requirements

Monitoring and Recordkeeping Requirements																				
Req. No.	Monitoring and Recordkeeping Requirements	Equipment/ Activity ID No.																		
16.	All air quality related complaints, including odor complaints, received by the permittee and the results of any subsequent investigation or corrective action must be recorded for each occurrence.	Facility-wide																		
17.	With the exception of data logged by a computerized data acquisition system, each record required by this Permit must include the date and the name of the person making the record entry. If a control device or process is not operating during a specific time period, a record must be made to that effect.	1-4																		
18.	All records required by this Permit must be kept for a minimum period of no less than three years and must be maintained in a form readily available for inspection by SWCAA representatives.	1-4																		
19.	Excess emissions and upset conditions must be recorded for each occurrence.	1-4																		
20.	<p>The following information must be collected, recorded at the intervals specified below, and maintained readily available on-site for inspection:</p> <table><tr><td>(a) Quantity and species of dried lumber</td><td>Recorded monthly</td></tr><tr><td>(b) Maximum dry kiln temperature</td><td>Recorded for each kiln batch</td></tr><tr><td>(c) Quantity of fuel fired in Superior boiler</td><td>Recorded monthly</td></tr><tr><td>(d) Quantity and type of stain consumption</td><td>Recorded monthly</td></tr><tr><td>(e) Number of charges and quantity of lumber treated per preservative type</td><td>Recorded monthly</td></tr><tr><td>(f) Quantity and type of wood treatment chemical consumption</td><td>Recorded monthly</td></tr><tr><td>(g) Pressure inside retort</td><td>Recorded monthly</td></tr><tr><td>(h) Emission testing results</td><td>Recorded for each occurrence</td></tr><tr><td>(i) Maintenance and repair activities with potential to affect emissions</td><td>Recorded for each occurrence</td></tr></table>	(a) Quantity and species of dried lumber	Recorded monthly	(b) Maximum dry kiln temperature	Recorded for each kiln batch	(c) Quantity of fuel fired in Superior boiler	Recorded monthly	(d) Quantity and type of stain consumption	Recorded monthly	(e) Number of charges and quantity of lumber treated per preservative type	Recorded monthly	(f) Quantity and type of wood treatment chemical consumption	Recorded monthly	(g) Pressure inside retort	Recorded monthly	(h) Emission testing results	Recorded for each occurrence	(i) Maintenance and repair activities with potential to affect emissions	Recorded for each occurrence	1-4
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(g) Pressure inside retort	Recorded monthly																			
(h) Emission testing results	Recorded for each occurrence																			
(i) Maintenance and repair activities with potential to affect emissions	Recorded for each occurrence																			

Emission Monitoring and Testing Requirements

Req. No.	Emission Monitoring and Testing Requirements	Equipment/ Activity ID No.
21.	The permittee must conduct initial and periodic emission testing of Lumber Drying operations as described in Appendix C of this Permit.	1
22.	The permittee must conduct initial and periodic emission testing of the Superior Super Seminole boiler as described in Appendix A of this Permit.	2
23.	The permittee must conduct periodic emission monitoring of the Superior Super Seminole boiler as described in Appendix B of this Permit.	2

Reporting Requirements

Req. No.	Reporting Requirements	Equipment/ Activity ID No.
24.	All air quality related complaints received by the permittee must be reported to SWCAA within three days of receipt. Complaint reports must include the following information: (a) Date and time of the complaint; (b) Name of the complainant; (c) Nature of the complaint; and (d) Description of corrective action taken in response to complaint (if any).	Facility-wide
25.	The permittee must notify SWCAA at least seven calendar days in advance of the use of any new material, which results in the emission of toxic or hazardous air pollutants. In response to the notification, SWCAA may require that a written report be submitted with the following: (a) A description of the proposed change(s) in materials with an SDS for each new material; (b) The date the change(s) is (are) to be made; (c) The change(s) in emissions of VOCs, HAPs and TAPs occurring as a result of the change; and (d) A summary of any applicable requirement(s) that would apply as a result of the change(s). If the proposed emission rate of a new TAP exceeds the applicable SQER and/or other emission limits established by this Permit or otherwise circumvents an applicable requirement, New Source Review may be required prior to making the proposed change.	Facility-wide
26.	Excess emissions must be reported to SWCAA as follows: (a) As soon as possible, but no later than 12 hours after discovery for emissions that represent a potential threat to human health or safety; (b) As soon as possible, but no later than 48 hours after discovery for emissions which the permittee wishes to claim as unavoidable pursuant to SWCAA 400-107; and (c) No later than 30 days after the end of the month of discovery for all other excess emissions.	1-4

Req. No.	Reporting Requirements	Equipment/ Activity ID No.
27.	An annual emissions inventory report must be submitted in accordance with SWCAA 400-105(1). In addition to the emissions information required under SWCAA 400-105(1), each annual report must include an estimate of annual emission quantities for each TAP compound listed in the Technical Support Document.	1-4
28.	The following emission-related information must be reported to SWCAA by March 15 th for the previous calendar year: (a) Quantity and species of dried lumber; (b) Maximum dry kiln temperature for each species of dried lumber; (c) Quantity of fuel fired in Superior boiler; (d) Quantity and type of stain consumption; (e) Number of charges and quantity of lumber treated per preservative type; (f) Quantity and type of wood treatment chemical consumption; and (g) Air emissions of criteria air pollutants, volatile organic compounds, toxic air pollutants (TAPs), and hazardous air pollutants (HAPs).	1-4
29.	Emission test results must be reported to SWCAA in writing within 45 days of test completion.	1-2
30.	Emission monitoring results must be reported to SWCAA in writing within 15 days of conducting monitoring.	2

3. General Provisions

Req. No.	General Provisions
A.	For the purpose of ensuring compliance with this ADP, duly authorized representatives of the Southwest Clean Air Agency must be permitted access to the Permittee's premises and the facilities being constructed, owned, operated and/or maintained by the Permittee for the purpose of inspecting said facilities. These inspections are required to determine the status of compliance with this ADP and applicable regulations and to perform or require such tests as may be deemed necessary.
B.	The provisions, terms, and conditions of this ADP bind the Permittee, its officers, directors, agents, servants, employees, successors and assigns, and all persons, firms, and corporations acting under or for the Permittee.
C.	The requirements of this ADP survive any transfer of ownership of the source or any portion thereof.
D.	This ADP must be posted conspicuously at or be readily available near the source.
E.	This ADP will be invalidated, in whole or in part, if construction or installation of any new or modified equipment has not commenced within eighteen (18) months from date of issuance, if construction is discontinued for a period of eighteen (18) months or more without prior SWCAA approval, or if construction is not completed within a reasonable time.
F.	This ADP does not supersede requirements of other Agencies with jurisdiction and further, this ADP does not relieve the Permittee of any requirements of any other governmental Agency. In addition to this ADP, the Permittee may be required to obtain permits or approvals from other agencies with jurisdiction.

Req. No.	General Provisions
G.	Compliance with the terms of this ADP does not relieve the Permittee from the responsibility of compliance with SWCAA General Regulations for Air Pollution Sources, previously issued Regulatory Orders, RCW 70A.15, Title 173 WAC or any other applicable emission control requirements, nor from the resulting liabilities and/or legal remedies for failure to comply.
H.	If any provision of this ADP is held to be invalid, all unaffected provisions of the ADP will remain in effect and be enforceable.
I.	No change in this ADP will be made or be effective except as may be specifically set forth by written order of the Southwest Clean Air Agency upon written application by the Permittee for the relief sought.
J.	The Southwest Clean Air Agency may, in accordance with RCW 70A.15, impose such conditions as are reasonably necessary to assure the maintenance of compliance with the terms of this ADP, the Washington Clean Air Act, and the applicable rules and regulations adopted under the Washington Clean Air Act.

Appendix A

Emission Testing Requirements Superior Super Seminole Boiler

1. Introduction:

The purpose of this testing is to quantify emissions from the Superior Super Seminole boiler, and demonstrate compliance with the requirements of this Permit and applicable air quality regulations.

2. Testing Requirements:

- a. **Testing Schedule.** Initial emission testing of Superior Super Seminole boiler must be conducted no later than 90 days after commencing regular operation, but no later than 180 days after initial operation. Subsequent emission testing must be conducted every 5 years thereafter, no later than the end of April of the year in which testing is due. Emission testing conducted more than three months prior to a scheduled due date will not satisfy the periodic source emission testing requirement unless prior written approval is obtained from SWCAA.
- b. **Test Plan.** A comprehensive test plan must be submitted to SWCAA for review and approval at least 10 business days prior to each test. SWCAA personnel must be informed at least 5 business days prior to testing so that a representative may be present during testing.
- c. **Test Location.** Sampling must be conducted at the boiler exhaust stack.
- d. **Test Runs/Reference Test Methods.** A minimum of 3 test runs must be for each constituent listed below to ensure the data are representative. Compliance must be demonstrated by averaging the results of the individual sampling runs.

<u>Constituent</u>	<u>Reference Test Method</u>	<u>Minimum Test Run Duration</u>
Flow rate, temperature	EPA Methods 1 and 2	N/A
O ₂ , CO ₂ content	EPA Method 3 or 3A	60 minutes
Moisture content	EPA Method 4	60 minutes
NO _x	EPA Method 7E	60 minutes
CO	EPA Method 10	60 minutes

3. Source Operation:

- a. **Source Operations.** Source operations during the emissions test must be representative of maximum intended operating conditions.
- b. **Record of Production Parameters.** Production related parameters and equipment operating conditions must be recorded during emissions testing to correlate operating conditions with emissions. All recorded production parameters must be documented in the test results report. At a minimum, the following parameters must be recorded:
 - (1) Boiler fire rate,
 - (2) Process startups/shutdowns, and
 - (3) Process upsets.

Appendix A

Emission Testing Requirements

Superior Super Seminole Boiler

4. Reporting Requirements:

- a. **Test Report.** A final emission test report must be prepared and submitted to SWCAA within 45 calendar days of test completion. Each test report must include, at a minimum, the following information:
- (1) Description of the source including manufacturer, model number and design capacity of the equipment, and the location of the sample ports or test locations,
 - (2) Time and date of the test and identification and qualifications of the personnel involved, including SWCAA personnel who observed the testing,
 - (3) Summary of results, reported in units and averaging periods consistent with the applicable emissions standard or unit,
 - (4) Summary of control system or equipment operating conditions,
 - (5) Summary of production related parameters cited in Section 3,
 - (6) A description of the test methods or procedures used including all field data, quality assurance/quality control procedures and documentation,
 - (7) A description of the analytical procedures used including all laboratory data, quality assurance/quality control procedures and documentation,
 - (8) Copies of field data and example calculations,
 - (9) Chain of custody information,
 - (10) Calibration documentation,
 - (11) Discussion of any abnormalities associated with the results, and
 - (12) A statement signed by the senior management official of the testing firm certifying the validity of the source test report.
- b. **Test Results.** All test results must be corrected to 3% oxygen.

5. Changes to Testing Requirements:

Emission testing must be conducted as specified in the sections above. The Permittee may submit a written request to SWCAA for approval of minor modifications to the requirements above or the testing schedule. Upon review of the request and in accordance with EPA delegation, SWCAA will inform the Permittee in writing of any approved modifications.

Appendix B

Emission Monitoring Requirements

Superior Super Seminole Boiler

1. Introduction:

The purpose of periodically monitoring boiler exhaust is to minimize emissions and provide a reasonable assurance of proper operation. Periodic monitoring may be conducted with an electrochemical cell combustion analyzer, analyzers used for reference method testing, or other analyzers pre-approved by SWCAA.

2. Monitoring Procedure:

- a. Monitoring of boiler exhaust gases to determine emission concentrations of the constituents listed below must be conducted on a continuing 12 month cycle, no later than the end of April each year. Emission monitoring is not required during any year in which emission testing is conducted pursuant to Appendix A of this permit.

Constituents to be Measured

CO
NO_x
O₂

- b. Source operation during testing must be representative of maximum intended operating conditions.
- c. Alternative testing methodologies must be pre-approved by SWCAA.

3. Minimum Quality Assurance/Quality Control Measures:

- a. The analyzer(s) response to span gas of a known concentration must be determined before and after testing. No more than 12 hours may elapse between span gas response checks. The results of the analyzer response must not be valid if the difference between the pre and post response check results vary by more than 10% of the initial span gas value.
- b. Span gas concentrations must be no less than 50% and no more than 200% of the emission concentration of the corresponding permitted emission limit. A lower concentration span gas may be used if it is more representative of actual measured concentrations. Ambient air may be used to zero the CO and NO_x cells/analyzer(s) and span the oxygen cell/analyzer.
- c. Sampling must consist of at least 1 test consisting of at least 5 minutes of data collection. Data must not be collected until after analyzer readings have stabilized (less than 5% per minute change in emission concentration). Emission concentrations must be recorded at least once every 30 seconds during the data collection phase for a minimum of 10 readings. All test data collected following the ramp-up phase(s) must be reported to SWCAA in the designated format.

Appendix B
Emission Monitoring Requirements
Superior Super Seminole Boiler

4. Reporting:

- a. All monitoring results must be recorded at the facility and reported to SWCAA in writing in a format designated by the Agency. Results must be reported within 15 calendar days of monitoring completion. At a minimum, the following information must be included in the report:
 - (1) Time and date of the performance monitoring;
 - (2) Identification of the personnel involved;
 - (3) Identification of the affected unit;
 - (4) A summary of results (NO_x, CO, O₂, etc.), reported in units consistent with the applicable emission standard or limit;
 - (5) A summary of equipment operating conditions (e.g., firing rate, fuel flow, stack temperature, etc.);
 - (6) A description of the evaluation methods or procedures used including all field data, quality assurance/quality control procedures and documentation;
 - (7) Copies of span gas documentation; and
 - (8) Analyzer response check documentation.
- b. Individual monitoring results must be reported as read. Final average monitoring results must be reported corrected to 3% O₂ and adjusted to reflect analyzer response to the zero and span gases (bias/drift adjustment).

5. Changes to Monitoring Requirements:

Emission monitoring must be conducted as specified in the sections above. The Permittee may submit a written request to SWCAA for approval of minor modifications to the requirements above or the monitoring schedule. Upon review of the request and in accordance with EPA delegation, SWCAA will inform the Permittee in writing of any approved modifications.

Appendix C

Emission Testing Requirements

Lumber Drying

1. Introduction:

The purpose of this testing is to quantify emissions from lumber drying operations, and demonstrate compliance with the requirements of this Permit and applicable air quality regulations.

2. Testing Requirements:

- a. **Testing schedule.** Emission testing of the lumber drying process must be conducted upon request by SWCAA. SWCAA may not request testing pursuant to this permit more than once every five years. Unless otherwise directed by SWCAA, the testing must be conducted on the dominate species dried at the facility.
- b. **Test plan.** A comprehensive test plan must be submitted to SWCAA for review and approval at least 10 calendar days prior to each test. SWCAA personnel must be informed at least 5 calendar days prior to testing so that a representative may be present during testing.
- c. **Test runs/reference test methods.** The sampling methods identified below must be used unless alternate methods are approved in writing by SWCAA in advance of the emission testing.

<u>Constituent</u>	<u>Reference Test Method</u>	<u>Minimum Test¹ Run Duration</u>
Exhaust Flow	EPA Methods 1-4	N/A
Volatile organic compounds ²	EPA Method 25A / 18 or 320	N/A
Methanol	NCASI Method 105	N/A
Ethanol	NCASI Method 105	N/A
Formaldehyde	NCASI Method 105	N/A
Acetaldehyde	NCASI Method 105	N/A
Acrolein	NCASI Method 105	N/A
Propionaldehyde	NCASI Method 105	N/A
Acetic Acid	NCASI Method 105 ³	N/A
Mono Turpenes	EPA Method 18	N/A

¹ Test duration will be as necessary to yield representative results. In some cases, multiple test runs will be conducted over the drying cycle.

² The purpose of the testing is to quantify actual VOC emissions. This might involve developing an appropriate scaling factor for Method 25A results, or quantifying the individual components of the kiln exhaust without performing Method 25A.

³ Acetic acid may be collected in the NCASI Method 105 impinger train and analyzed by HPLC.

Appendix C

Emission Testing Requirements

Lumber Drying

3. Kiln Operation:

- a. **Quality assurance.** The following quality assurance measures must be met unless otherwise approved by SWCAA in advance of the testing:
- (1) The lumber used for the source test must be preserved in a manner to assure the freshness of the lumber. The lumber must be wrapped in plastic wrap or some other material to prevent off-gassing and contamination during storage and shipment;
 - (2) The log(s) from which lumber is taken should be newly arrived at the lumber yard;
 - (3) The lumber must be maintained below 45°F if the lumber is stored for more than two but less than seven days prior to the commencement of testing;
 - (4) The lumber must be maintained below 10°F if stored for seven or more days prior to testing.
 - (5) The ends of each test board must be trimmed prior to testing;
 - (6) The kiln must be operated as close as practical to the dominant drying schedule (dry bulb and wet bulb temperatures) at the subject facility for the wood species being tested; and
 - (7) The wood samples must be dried to a moisture content at or below the moisture content targeted by the subject facility.
- b. **Record of testing parameters.** Production related parameters and equipment operating conditions must be recorded during emissions testing to correlate operating conditions with emissions. Recorded parameters must include the following if reasonably attainable:
- (1) Testing kiln details including: kiln dimensions, kiln air velocity, and heating method;
 - (2) Sample size (board feet), sample weight, and lumber size (2" x 4", 4" x 8", etc.);
 - (3) Drying time;
 - (4) Wood moisture content (initial and final);
 - (5) Temperature (continuously monitored and recorded wet bulb and dry bulb temperatures);
 - (6) Lumber information including: percentage of heartwood vs. sapwood, ring count, percentage of face area that consists of knots, etc.;
 - (7) Tree information: coastal or inland tree, tree age, approximate date harvested, if log was stored in fresh or salt water, etc.; and
 - (8) Any interruptions in kiln operation.

All recorded production parameters must be documented in the test report.

Appendix C

Emission Testing Requirements

Lumber Drying

4. Reporting Requirements:

- a. A final emission test report must be prepared and submitted to SWCAA within 45 calendar days of test completion. Each report must include:
 - (1) Description of the source including manufacturer, model number and design capacity of the equipment, and the location of the sample ports or test locations;
 - (2) Time and date of the test and identification and qualifications of the personnel involved, including SWCAA personnel who observed the testing,
 - (3) Summary of results, reported in units and averaging periods consistent with the application emissions standard or unit;
 - (4) Summary of control system or equipment operating conditions;
 - (5) Summary of production related parameters;
 - (6) A description of the test methods or procedures used including all field data, quality assurance/quality control procedures and documentation;
 - (7) A description of the analytical procedures used including all laboratory data, quality assurance/quality control procedures and documentation;
 - (8) Copies of field data and example calculations;
 - (9) Chain of custody information;
 - (10) Calibration documentation;
 - (11) Discussion of any abnormalities associated with the results; and
 - (12) A statement signed by the senior management official of the testing firm certifying the validity of the source test report.
- b. VOC emissions must be reported in pounds per thousand board feet (lb/Mbf) as VOC. Emissions of each VOC species quantified during the test must be reported in units of lb/Mbf as the individual species. For the purposes of reporting total VOC emissions, the unspciated fraction of the VOC emissions must be assumed to be mono turpenes (C₁₀H₁₆).

5. Changes to Monitoring Requirements:

Emission monitoring must be conducted as specified in the sections above. The Permittee may submit a written request to SWCAA for approval of minor modifications to the requirements above or the monitoring schedule. Upon review of the request and in accordance with EPA delegation, SWCAA will inform the Permittee in writing of any approved modifications.