# WASHINGTON STATE DEPARTMENT OF ECOLOGY POST OFFICE BOX 47600 OLYMPIA, WASHINGTON 98504-7600

IN THE MATTER OF:	]	
	]	
Sierra Pacific Industries	]	PSD 05-04, Amendment 2
Skagit Lumber Manufacturing Facility	]	
Burlington, Washington	]	FINAL APPROVAL
Sierra Pacific Industries	]	OF PSD APPLICATION
P.O. Box 496028	]	
Redding, California 96049	1	

Pursuant to the United States Environmental Protection Agency (EPA) regulations for the Prevention of Significant Deterioration (PSD) set forth in Title 40, Code of Federal Regulations, Part 52, regulations set forth in the Washington Administrative Code 173-400-700, based upon the complete application for PSD Permit 05-04 submitted by Sierra Pacific Industries, Skagit Lumber Manufacturing Facility (SPI-Burlington) on July 30, 2013, and the technical analysis performed by the Washington State Department of Ecology (Ecology), Ecology now finds the following:

#### **AMENDMENT 2 FINDINGS**

- 1. For this project, SPI-Burlington submitted an application on April 5, 2013, requesting to revise the dry kiln emission factor for western hemlock in PSD permit 05-04, Amendment 1. Supporting information was received from SPI on March 28, 2013, July 9, 2013, and July 22, 2013. The application was determined to be complete on July 30, 2013. Additional information was submitted on August 14, 2013.
- 2. Approval Conditions 8 and 23 have been changed as a result of this permitting action.
- 3. In support of this PSD revision, SPI submitted to Ecology two sets of source test results for a pilot dry kiln at the CHEMCO facility in Ferndale, Washington, which simulated the process of the dry kilns at SPI's Mt. Vernon facility. A February 21-23, 2013, test performed by Emission Technologies, Inc., (ETI) submitted to Ecology on March 28, 2013, resulted in 0.0158 lb PM/PM<sub>10</sub>/PM<sub>2.5</sub> per thousand board feet (Mbf). On July 9, 2013, Ecology received a second set of test results from ETI for additional source tests performed on the CHEMCO Pilot kiln on May 29-June 1, 2013. The sampling protocol used by ETI for the second set of tests included input from Ecology and the Northwest Clean Air Agency (NWCAA). The second test included a concurrent, duplicate sample run with results of 0.0194 lb PM/PM<sub>10</sub>/PM<sub>2.5</sub>/Mbf and 0.0198 lb PM/PM<sub>10</sub>/PM<sub>2.5</sub>/Mbf.

- 4. SPI proposes to keep dry kiln emission limitations of 5.86 tons per year (TPY) for PM/PM<sub>10</sub>/PM<sub>2.5</sub> and 120 tons for any consecutive 12-month period for volatile organic compounds (VOCs) (no change from Amendment 1). Per Sections 8, 23, and 25, SPI will continue to show compliance with these limits by recording species specific dry kiln production for all wood species processed (in addition to the other existing requirements listed in those sections).
- 5. It is hereby ordered in this Amendment 2 that the dry kiln emission factor for western hemlock (Section 23.3.2), is lowered from 0.04 lb PM/PM<sub>10</sub>/PM<sub>2.5</sub>/Mbf to 0.02 lb PM/PM<sub>10</sub>/PM<sub>2.5</sub>/Mbf.
- 6. Based upon the Amendment 2 Technical Support Document prepared on October 23, 2013, and the application, Ecology finds that all requirements for PSD have been satisfied and will comply with all applicable federal NSPS. Approval of the PSD application is granted subject to the conditions of this permit.

### **AMENDMENT 1 FINDINGS**

- 1. Amendment 1 involved the relaxation of the 54 TPY VOC federally-enforceable limit on the lumber drying kilns and revoking a condition limiting the annual emissions of nitrogen oxides (NO<sub>X</sub>) emissions from the wood-fired cogeneration boiler.
- 2. The original permit, issued on December 14, 2005, was based upon an application received on August 22, 2005, and determined to be complete on September 21, 2005.
- 3. For Amendment 1, SPI-Burlington submitted an application on June 10, 2008. Additional information was received on August 27, 2008, October 29, 2008, November 11, 2008, and November 12, 2008. The application was determined to be complete on December 1, 2008.
- 4. Approval Conditions 2, 5, 6, 8, 10, and their monitoring, recordkeeping, and reporting requirements are either new or have been changed as a result of this permitting action.
- 5. SPI-Burlington operates a lumber manufacturing facility and a steam turbine in the Fredonia Business Park in Skagit County in Burlington, Washington.
- 6. The original permit included a wood-fired cogeneration unit (referred to in the permit as a boiler), a baghouse, two cooling towers, six lumber drying kilns, an anti-mold spraying system, and various fugitive emission points. That permit limited plant-wide VOC emissions to 98.8 TPY. The sources of VOC emissions are the wood-fired boiler, the drying kiln, and the anti-mold spray system. SPI-Burlington proposed this restriction in order to avoid a delay in the permitting process to perform ozone impact modeling that would otherwise have been required.

- 7. The cogeneration unit is subject to New Source Performance Standards (NSPS): 40 CFR Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units).
- 8. SPI-Burlington will have the potential to emit more than 250 TPY of a pollutant that is subject to the federal Clean Air Act. This qualifies SPI-Burlington as a major stationary source as defined in federal regulations 40 CFR Part 52.21(b)(1)(i)(b).
- 9. The Amendment 1 project qualified as a major modification because SPI-Burlington proposed relaxing a 54 TPY federally-enforceable VOC limitation. This relaxation qualified the source as a major modification as defined in 40 CFR 52.21(b)(2)(iii)(f). Emissions of particulate matter (PM), PM smaller than 10 microns in diameter (PM<sub>10</sub>), PM smaller than 2.5 microns in diameter (PM<sub>2.5</sub>), VOC, NO<sub>X</sub>, sulfur oxides (SO<sub>X</sub>), and carbon monoxide (CO), when calculated had "significant" emissions increases greater than 25, 15, 10, 40, 40, 40, and 100 TPY, respectively.
- 10. The emissions of all other air pollutants from the Amendment 1 modification were subject to review under Chapter 173-400 WAC and Chapter 173-460 WAC by the NWCAA.

11. Facility-wide emission	s from the source a	are identified in the	e table below:
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Pollutant	Boiler (TPY)	Planer Mill Baghouse (TPY)	Cooling Tower (TPY)	Kiln Vents (TPY)	Anti-mold Spray (TPY)	Fugitive Emissions (TPY) <sup>1</sup>	Total (TPY)
PM	37.7	9.4	0.9	5.9		2.2	56.1
PM <sub>10</sub>	37.7	9.4	0.9	5.9		2.2	56.1
PM <sub>2.5</sub>	37.7	9.4	0.9	5.9			54
VOC	36			120	9		165
NO <sub>X</sub>	245.3						245.3
$SO_X$	47						47
CO	659						659
H <sub>2</sub> SO <sub>4</sub>	3.8						3.8

- 12. Emissions from the cooling towers and fugitive emissions are addressed in the NWCAA's permit OAC 938b.
- 13. A dry electrostatic precipitator with an emissions limit of 0.02 lb/MMBtu has been determined to be BACT for the control of PM, PM<sub>10</sub>, and PM<sub>2.5</sub> from the wood-fired boiler.
- 14. A baghouse with an emissions limit of 0.005 grains per dry standard cubic foot (gr/dscft) has been determined to be BACT for the control of PM, PM<sub>10</sub>, and PM<sub>2.5</sub> from the planer mill.

<sup>&</sup>lt;sup>1</sup> Fugitive emissions include vehicle traffic and log handling operations.

- 15. Proper operation has been determined to be BACT for the control of PM, PM<sub>10</sub>, and PM<sub>2.5</sub> from the lumber kiln.
- 16. Good combustion practices with an emission limit of 0.019 lb/MMBtu has been determined to be BACT for the control of VOC from the wood-fired boiler.
- 17. Proper operation has been determined to be BACT for controlling VOC emissions from the lumber kilns.
- 18. Proper operation has been determined to be BACT for controlling VOC emissions from the anti-mold spray system.
- 19. Selective non-catalytic reduction with an emission limit of 0.13 lb/MMBtu has been determined to be BACT for the control of NO<sub>X</sub> from the wood-fired boiler.
- 20. Proper operation with an emission limit of 0.025 lb/MMBtu has been determined to be BACT for the control of SO<sub>X</sub> from the wood-fired boiler.
- 21. Proper operation with an emission limit of 0.35 lb/MMBtu has been determined to be BACT for the control of CO from the wood-fired boiler.
- 22. SPI-Burlington is within 100 kilometers (km) of three Class I Areas: North Cascades National Park (66 km), Glacier Peak Wilderness (72 km), and Olympic National Park (75 km). It is beyond 100 km, but within 200 km of three other Class I areas: Alpine Lakes Wilderness Area (105 km), Pasayten Wilderness Area (108 km), and Mt. Rainier National Park (159 km). It is 42 km from the Mt. Baker Wilderness Area (a Class II protected area).
- 23. SPI-Burlington is 55 km from the U.S.—Canadian border (specifically, the international demarcation in the Strait of Juan deFuca, directly east of Victoria, BC).
- 24. The VOC, NO<sub>X</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions increases from the Amendment 1 project do not cause or contribute to air pollution in violation of any National Ambient Air Quality Standard (NAAQS).

Pollutant	Modeling Results, micrograms per cubic meter (μgrams/m³)		Modeling Significance Level μgrams/m³		Class I Area Allowable Increment	Class II Area Allowable Increment	Monitoring Requirement	NAAQS
2 02	Class I Area	Class II Area	Class I Area	Class II Area	Consumption µgrams/m³	Consumption µgrams/m³	Threshold µgrams/m³	μgrams/m³
NO <sub>2</sub> , annual average	0.003	0.871	0.1	1.0	2.5	25	14	100
PM <sub>10</sub> , 24-hour average, new property line	0.079	28 SPI- Burlington alone 71.8 including background	0.3	5	10	30	10	150
PM <sub>10</sub> , annual average, new property line	0.003	9.8 SPI- Burlington alone 23.2 including background	0.2	1	5	17	None	50
PM <sub>2.5</sub> , 3-year average, 98th percentile, 24-hr average, original property line	N/A	28.2 including background	N/A	5	N/A	N/A	None	35
PM <sub>2.5</sub> , 3-year average, 98th percentile, annual average, original property line	N/A	10.1 including background	N/A	1	N/A	N/A	None	15

- 25. The Amendment 1 project does not have a significant impact on ambient air quality.
- 26. The Amendment 1 project does not have a noticeable effect on industrial, commercial, or residential growth in the Ferndale area.
- 27. Visibility is not impaired in any Class 1 area due to the Amendment 1 project.
- 28. Based upon the Amendment 1 Technical Support Document prepared on August 5, 2009, and the application, Ecology found that all requirements for PSD were satisfied and complied with all applicable federal NSPS. Ecology was notified by the EPA that the EPA had satisfied its obligations under the Endangered Species and Magnuson-Stevens Acts relative

to this PSD permit on July 16, 2009. Approval of the PSD application was granted subject to the following conditions (modified per Amendment 2):

#### APPROVAL CONDITIONS

- 1. Requirements specified in the following approval conditions for SPI-Burlington to notify or report to, or acquire approval or agreement from "Ecology and the Northwest Clean Air Agency" may be satisfied by providing such notification, reporting, or approval request to the NWCAA if the approval conditions of this PSD permit have been incorporated in SPI-Burlington's Title V permit (40 CFR Part 70).
- 2. SPI shall maintain exclusive control over the property described below:

That portion of New Lot 2 of that certain Boundary Line Adjustment as shown on Record of Survey recorded under Auditor's file number 200905290102, records of Skagit County, Washington, more particularly described as follows:

Commencing at the Northeast corner of Lot 1, SP No. 94-035 and Southeast corner of Lot 3, SP No. 7-89 of said Boundary Line Adjustment;

Thence South 0°05'32" West along the East line thereof, a distance of 346.07 feet to the Northeast corner of said Lot 2 and the TRUE POINT OF BEGINNING;

Thence South 64°44'57" West a distance of 106.24 feet;

Thence South 32°07'06" West a distance of 76.28 feet;

Thence South 02°55'39" East a distance of 64.91 feet;

Thence South 36°39'48" East a distance of 80.70 feet;

Thence South 78°46'53" East a distance of 86.39 feet to a point on the East line of said Lot 2, which bears South 00°05'32" West from the TRUE POINT OF BEGINNING; Thence North 00°05'32" East a distance of 256.37 feet to the TRUE POINT OF BEGINNING.

Situated in Skagit County, Washington

#### AND ALSO INCLUDING

That portion of vacated Swinomish Avenue contiguous to the South line of Block 9, Plan of Fredonia according to the plat there of recorded in Volume 2 of Plats, page 25, records of Skagit County, said portion lying Northerly of the following described line:

Beginning at the Northwest corner of Block 10 of said Plan of Fredonia as shown on that certain Record of Survey map recorded under Skagit County Auditor's File No. 200006020092:

thence South 0°05'33" West 521.96 feet along the West line of said Plan of Fredonia to the Southwest corner of said Block 9;

thence continue South 0°05'33" West 1.8 feet, more or less, along said West line, to an existing wire fence and the TRUE POINT OF BEGINNING of said line;

thence South 86°23'42" West 29.4 feet from the Northeast corner of the Quit Claim Deed for Boundary Line Adjustment as recorded under Auditor's File number 200009250093, records of Skagit County, Washington;

thence South 45°29'47" East 40.29 feet to the East line of said Quit Claim Deed for Boundary Line Adjustment as recorded under Auditor's File Number 200009250093, records of Skagit County, Washington, at a point that is South 1°18'59" West 26.4 feet from said Northeast corner of the Quit Claim Deed for boundary Line Adjustment, said point being the terminus of said line.

Situated in Skagit County, Washington.

- 3. SPI-Burlington shall use only wood preservatives that have been approved by the EPA under the Federal Insecticide, Fungicide, and Rodenticide Act.
- 4. Start-up and shutdown defined:
  - 4.1 Cold start-ups and shutdowns:
    - 4.1.1 A cold start-up is one that starts or resumes feeding fuel of any type when the wood-fired cogeneration unit furnace temperature is 150 degrees Fahrenheit (°F) or lower. A cold start-up ends upon the earlier of:
      - 4.1.1.1 Four hours after starting wood fuel feed to the boiler,
      - 4.1.1.2 Dry basis flue gas carbon dioxide concentration has been greater than or equal to 11 percent and less than or equal to 13 percent for one hour while the flue gas CO concentration has simultaneously not exceeded 260 ppmdv,
      - 4.1.1.3 Steam flow exceeded 150,000 pounds over the previous hour, or
      - 4.1.1.4 Twenty-four hours after starting or resuming feeding fuel of any type.
    - 4.1.2 A cold shutdown is one wherein wood fuel feed stops, and the furnace is allowed to cool to 150°F or lower. A cold shutdown ends when:
      - 4.1.2.1 No fuel of any type is being feed, and the furnace temperature is 150°F or lower and the FD fan is off-line, or
      - 4.1.2.2 Twenty-four hours after wood fuel feed was stopped, whichever comes first.

- 4.2 Warm start-ups and shutdown:
  - 4.2.1 A warm start-up is one that starts or resumes feeding fuel of any type when the wood-fired cogeneration unit furnace temperature is higher than 150°F. A warm start-up ends upon the earlier of:
    - 4.2.1.1 Four hours after starting wood fuel feed to the boiler,
    - 4.2.1.2 Dry basis flue gas carbon dioxide concentration has been greater than or equal to 11 percent and less than or equal to 13 percent for one hour while the flue gas CO concentration has simultaneously not exceeded 260 ppmdy,
    - 4.2.1.3 Steam flow exceeded 150,000 pounds over the previous hour, or
    - 4.2.1.4 Eight hours after starting or resuming feeding fuel of any type.
  - 4.2.2 A warm shutdown is one wherein wood fuel feed stops, but the furnace temperature does not cool to 150°F or lower before wood fuel feed is resumed. A warm shutdown ends when:
    - 4.2.2.1 Wood fuel feed is resumed,
    - 4.2.2.2 No fuel of any type is being feed, and the furnace temperature is 150°F or lower (at which point the shutdown becomes a "cold shutdown"), or
    - 4.2.2.3 Twenty-four hours after wood fuel feed was stopped, whichever comes first.
- 5. The wood-fired cogeneration unit may burn natural gas in the wood-fired cogeneration unit only:
  - 5.1 To ignite the wood fuel, or
  - 5.2 To maintain good combustion.

#### **Emission Limits**

- 6. Wood-fired cogeneration unit exhaust stack:
  - 6.1 NO<sub>X</sub> emissions shall not exceed the following limits on a calendar day average:
    - 6.1.1 Fifty-six pounds  $NO_X$  per hour.
    - 6.1.2 0.13 lb NO<sub>X</sub>/MMBtu based on heat input value of the fuel.

#### 6.2 CO emissions:

- 6.2.1 Shall not exceed the following limits:
  - 6.2.1.1 0.35 lb CO/MMBtu (1-hour average) based on heat input value of the fuel except during start-up or shutdown.
  - 6.2.1.2 659 tons CO in any consecutive 12-month period including start-ups and shutdowns.
  - 6.2.1.3 400 lb CO/hr (1-hour average) during cold start-ups and shutdowns.
  - 6.2.1.4 300 lb CO/hr (1-hour average) during warm start-ups and shutdowns.
- 6.2.2 CO emissions measurement is to continue at all times the wood-fired cogeneration unit furnace temperature is above 150°F.
- 6.3  $PM/PM_{10}/PM_{2.5}$  emissions:
  - 6.3.1 All particulate matter (PM/PM $_{10}$ /PM $_{2.5}$ ) emissions shall be expressed as PM $_{10}$ .
  - 6.3.2 The sum of filterable and condensable  $PM/PM_{10}/PM_{2.5}$  emissions shall not exceed the following limits:
    - 6.3.2.1 0.02 lb PM<sub>10</sub>/MMBtu (24-hour average) based on heat input value of the fuel.
    - $6.3.2.2\ 37.7\ tons\ PM_{10}$  in any consecutive 12-month period.
- 6.4 SO<sub>2</sub> emissions shall not exceed the following limits:
  - 6.4.1 0.025 lb SO<sub>2</sub>/MMBtu (3-hour average) based on heat input value of the fuel.
  - 6.4.2 47.1 tons in any consecutive 12-month period.
- 6.5 VOC emissions:
  - 6.5.1 VOCs shall be calculated as propane (three carbons per molecular weight: 44).
  - 6.5.2 VOC emissions shall not exceed the following limits:
    - 6.5.2.1 0.019 lb VOC/MMBtu (1-hour average) based on heat input value of the fuel.
    - 6.5.2.2 35.8 tons in any consecutive 12 months.

- 7. Planer mill bag house exhaust stack:
  - 7.1 All particulate matter (PM/PM $_{10}$ /PM $_{2.5}$ ) emissions shall be expressed as PM $_{10}$ .
  - 7.2  $PM/PM_{10}/PM_{2.5}$  emissions shall not exceed the following limits:
    - 7.2.1  $0.005 \text{ gr PM}_{10}/\text{dscft (1-hour average)}$ .
    - 7.2.2 9.4 tons  $PM_{10}$  in any consecutive 12-month period.
- 8. Drying kilns:
  - 8.1  $PM/PM_{10}/PM_{2.5}$  emissions:
    - 8.1.1 All particulate matter (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) emissions shall be expressed as PM<sub>10</sub>.
    - 8.1.2 Prior to satisfaction of Approval Condition 10 or if SPI cannot demonstrate satisfaction of Approval Condition 17, PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions from the dry kilns shall not exceed four tons in any consecutive 12-month period.
    - 8.1.3 After satisfaction of Approval Condition 10,: PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions from the dry kilns shall not exceed 5.86 tons in any consecutive 12-month period.
  - 8.2 VOC emissions:
    - 8.2.1 VOCs shall be calculated as pinene (10 carbons per molecule, molecular weight: 136).
    - 8.2.2 SPI-Burlington will operate the computerized steam management system for the drying kilns to minimize steam demand in accordance with the manufacturer's specifications.
    - 8.2.3 VOC emissions shall not exceed 120 tons in any consecutive 12-month period.
- 9. Anti-mold spray system:
  - 9.1 Anti-mold spray chamber shall be a "drip-free" design.
  - 9.2 SPI-Burlington will operate and maintain the spray chamber mist eliminator and condensate recycle system in accordance with the manufacturer's specifications.
  - 9.3 VOC emissions shall not exceed nine tons in any consecutive 12-month period.

# **Initial Compliance Demonstration**

- 10. Initial compliance with Approval Condition 2:
  - 10.1 Providing Ecology and the NWCAA with documentation that Ecology and the NWCAA deem adequate as demonstration of exclusive control over the necessary property.
  - 10.2 With respect to property acquired to satisfy Approval Condition 2 relative to dry kiln emissions, constructing a fence to the extent of prohibiting public access.
- 11. Compliance demonstration data conversions to "per MMBtu" basis shall either be determined by:
  - 11.1 The method outlined in the paragraph in Appendix A, Method 19 of 40 CFR Part 60 titles "Determined F Factors" (in the 2004 version of 40 CFR Part 60: Paragraph 12.3.2), or
  - 11.2 Factors from table in Appendix A, Method 19 of 40 CFR Part 60 titles, "F Factors for Various Fuels" (in the 2004 version of 40 CFR Part 60: Table 19-2). The factor shall reflect the proportions of wood, bark, and natural gas in the fuel by either:
    - 11.2.1 Determining the wood and bark proportions of the fuel used during the test based on randomized fuel sampling following procedure outlined in the corresponding test plan approved by Ecology and the NWCAA, or
    - 11.2.2 A default assumption of equal proportions of wood and bark. Example: a 50:50 wood/bark mixture with no natural gas will have an  $F_{d}$  factor of 9,420 dscf/MMBtu.
- 12. NO<sub>X</sub> emissions from the wood-fired cogeneration unit exhaust stack: SPI-Burlington will demonstrate initial compliance with Condition 6.1.
  - 12.1 SPI-Burlington will conduct a compliance test within 60 days of achieving the maximum firing rate at which the wood-fired cogeneration unit will be operated, but not later than 180 days after initial start-up.
  - 12.2 The compliance test will use a continuous emission monitoring system (CEMS) that measures and records NO<sub>X</sub> emissions from the wood-fired cogeneration unit exhaust stack.
  - 12.3 The CEMS will meet the requirements of Condition 26.1.

- 12.4 For the compliance test, NO<sub>X</sub> emissions from the wood-fired cogeneration unit are continuously monitored.
  - 12.4.1 For not less than 24 consecutive cogeneration unit operating hours.
  - 12.4.2 At an average firing rate of not less than 90 percent of rated capacity.
- 12.5 Compliance will be determined from the arithmetic mean of the NO<sub>X</sub> emissions data in lb NO<sub>X</sub>/MMBtu monitored pursuant to Condition 12.4, using a continuous 24-hour period of the compliance test.
- 12.6 SPI-Burlington will submit a test plan to Ecology and the NWCAA for approval at least 30 days prior to initial performance testing.
- 13. CO emissions from the wood-fired cogeneration unit exhaust stack: SPI-Burlington will demonstrate initial compliance with Condition 6.2.1.1.
  - 13.1 SPI-Burlington will have a compliance test conducted by an independent testing vendor within 60 days of achieving the maximum firing rate at which the wood-fired cogeneration unit will be operated, but not later than 180 days after initial start-up.
  - 13.2 The compliance test shall be performed after each installed CEMS has satisfied all performance demonstration requirements under 40 CFR 60.13(c).
  - 13.3 The wood-fired cogeneration unit is to be operated at an average firing rate of not less than 90 percent of rated capacity during the compliance test.
  - 13.4 Compliance will be determined by EPA Reference Method 10.
    - 13.4.1 Compliance will be demonstrated from the arithmetic mean of not less than three 1-hour test samples.
    - 13.4.2 The non-dispersive infrared analyzer must have performance specifications allowing a minimum detectable sensitivity appropriate to the CO concentration limits specified in this condition.
    - 13.4.3 The span and linearity calibration gas concentrations in Method 10 will be appropriate to the CO concentration limits specified in this condition.
    - 13.4.4 Equivalent concentration test methods may be used if approved in advance by Ecology and the NWCAA.

- 13.4.5 Mass emission rates will be determined using the appropriate procedures outlined in 40 CFR Part 60, Appendix A, Method 19 with indicated calculations modified to be applicable to CO.
- 13.4.6 An equivalent mass emission rate calculation method may be used if approved in advance by Ecology and the NWCAA.
- 13.5 SPI-Burlington will submit a test plan to Ecology and the NWCAA for approval at least 30 days prior to initial performance testing.

## 14. PM/PM<sub>10</sub>/PM<sub>2.5</sub>:

- 14.1 Emission limits for the wood-fired cogeneration unit exhaust stack: SPI-Burlington will demonstrate initial compliance with Condition 6.3.2.1.
  - 14.1.1 SPI-Burlington will have a compliance test conducted by an independent testing vendor within 60 days of achieving the maximum firing rate at which the wood-fired cogeneration unit will be operated, but not later than 180 days after initial start-up.
  - 14.1.2 The compliance test shall be performed after each installed CEMS has satisfied all required performance demonstration requirements under 40 CFR 60.13(c).
  - 14.1.3 The test shall be scheduled concurrently with the initial compliance demonstrations required in Condition 15 (SO<sub>2</sub>) and in Condition 16 (VOCs).
  - 14.1.4 The wood-fired cogeneration unit is to be operated at an average firing rate of not less than 90 percent of rated capacity during the compliance test.
  - 14.1.5 Compliance will be determined by EPA Reference Methods 5 and 202.
    - 14.1.5.1 EPA Reference Method 5 will be conducted in the manner prescribed in 40 CFR 60.46b(d).
    - 14.1.5.2 Compliance will be demonstrated from the arithmetic mean of not less than three <u>2-hour</u> test samples.
    - 14.1.5.3 The emission rate expressed in lb  $PM_{10}/MMBtu$  will be determined using the procedure described in 40 CFR 60.46b(d)(6).
    - 14.1.5.4 Equivalent concentration test methods may be used if approved in advance by Ecology and the NWCAA.

- 14.1.6 SPI-Burlington will submit a test plan to Ecology and the NWCAA for approval at least 30 days prior to initial performance testing.
- 14.2 Emission limits for the planer mill bag house exhaust stack: SPI-Burlington will demonstrate initial compliance with Condition 7.2.1.
  - 14.2.1 SPI-Burlington will have a compliance test conducted by an independent testing vendor within 60 days of achieving the maximum rate at which the planer mill will be operated, but not later than 180 days after initial start-up.
  - 14.2.2 The planer mill is to be operated at not less than 50,000 board feet per hour during the compliance test.
  - 14.2.3 Compliance will be determined by EPA Reference Methods 5 and 202.
    - 14.2.3.1 Compliance will be demonstrated from the arithmetic mean of not less than three 2-hour test samples.
    - 14.2.3.2 Equivalent concentration test methods may be used if approved in advance by Ecology and the NWCAA.
  - 14.2.4 Compliance with Condition 7.2.1 will be deemed demonstrated if the result of the test pursuant to Condition 14.2.1 is not greater than the limit specified in Condition 7.2.1 and not greater than 0.045 pounds PM<sub>10</sub> per thousand board feet planer throughput.
- 14.3 Emissions limits from the drying kilns: SPI-Burlington will demonstrate initial compliance with Condition 8.1 by incorporating the manufacturer's operating specifications for the drying kilns in the facility operating manual.
- 15. SO<sub>2</sub> emissions from the wood-fired cogeneration unit exhaust stack: SPI-Burlington will demonstrate initial compliance with Condition 6.4.1.
  - 15.1 SPI-Burlington will have a compliance test conducted by an independent testing vendor within 60 days of achieving the maximum firing rate at which the wood-fired cogeneration unit will be operated, but not later than 180 days after initial start-up.
  - 15.2 The compliance test shall be performed after each installed CEMS has satisfied all required performance demonstration requirements under 40 CFR 60.13(c).
  - 15.3 The test shall be scheduled concurrently with the initial compliance demonstrations required in Condition 14.1 (PM/PM<sub>10</sub>) and Condition 16 (VOCs).

- 15.4 The wood-fired cogeneration unit is to be operated at an average firing rate of not less than 90 percent of rated capacity during the compliance test.
- 15.5 Compliance with Condition 6.4.1 will be determined by EPA Reference Methods 6, 6A, or 6C.
  - 15.5.1 Compliance will be demonstrated from the arithmetic mean of not less than three 1-hour test samples.
  - 15.5.2 An equivalent concentration test method may be used if approved in advance by Ecology and the NWCAA.
  - 15.5.3 SO<sub>2</sub> mass emissions will be determined using the procedures outlined in 40 CFR Part 60, Appendix A, Method 19, and based on the total heat value of fuel consumed over each operating hour.
  - 15.5.4 An equivalent mass emission rate calculation method may be used as an alternative to Condition 15.5.3 if approved in advance by Ecology and the NWCAA.
- 15.6 SPI-Burlington will submit a test plan to Ecology and the NWCAA for approval at least 30 days prior to initial performance testing.

### 16. VOCs:

- 16.1 Emission limits for the wood-fired cogeneration unit exhaust stack: SPI-Burlington will demonstrate initial compliance with Condition 6.5.2.1
  - 16.1.1 SPI-Burlington will have a performance test conducted by an independent testing vendor within 60 days of achieving the maximum firing rate at which the wood-fired cogeneration unit will be operated, but not later than 180 days after initial start-up.
  - 16.1.2 The compliance test shall be performed after each installed CEMS has satisfied all required performance demonstration requirements under 40 CFR 60.13(c).
  - 16.1.3 The test shall be scheduled concurrently with the initial compliance demonstrations required in Condition 14.1 (PM/PM<sub>10</sub>) and in Condition 15 (SO<sub>2</sub>).
  - 16.1.4 The wood-fired cogeneration unit is to be operated at an average firing rate of not less than 90 percent of rated capacity during the compliance test.

- 16.1.5 Compliance will be determined by the arithmetic mean of not fewer than three test samples using EPA Reference Methods 25, 25A, or 25B.
  - 16.1.5.1 An equivalent concentration test method may be used if approved in advance by Ecology.
  - 16.1.5.2 VOC mass emissions will be determined using the procedures outlined in 40 CFR Part 60, Appendix A, Method 19, and based on the total heat value of fuel consumed over each operating hour.
  - 16.1.5.3 An equivalent mass emission rate calculation method may be used as an alternative to Condition 16.1.5.2 if approved in advance by Ecology.
- 16.1.6 SPI-Burlington will submit a test plan to Ecology and the NWCAA for approval at least 30 days prior to initial performance testing.
- 16.2 Drying kilns: SPI-Burlington will demonstrate initial compliance with Condition 8.2.2 by incorporating the manufacturer's operating specifications for the computerized steam management system for the drying kilns in the facility operating manual.
- 16.3 Anti-mold spray system: SPI-Burlington will demonstrate initial compliance with Condition 9.1 by incorporating the manufacturer's operating specifications for the spray chamber mist eliminator and condensate recycle system in the facility operating manual.

# **Compliance Monitoring**

- 17. Continuous compliance with Approval Condition 2 shall be monitored by:
  - 17.1 Documentation that Ecology and the NWCAA deem adequate as demonstration of exclusive control over the necessary property.
  - 17.2 With respect to property acquired to satisfy Approval Condition 2 relative to dry kiln emissions, said property shall be fenced to the extent of prohibiting public access.
- 18. Ambient PM<sub>2.5</sub> monitoring:
  - 18.1 Within 180 days after the final and effective date of this permit, SPI shall have installed and begin operation of a PM<sub>2.5</sub> monitoring at a location and of a design approved in writing by Ecology and the NWCAA.
  - 18.2 Monitoring shall continue until there are not less than 10 days sampled in each of the months of October through March with a cumulative average dry kiln  $PM_{10}$  emission

- level greater than 27.5 lb/day. Data may include days from any month of October through March in any year that follows the effective date of this permit.
- 18.3 Notwithstanding Condition 18.2, SPI may terminate ambient PM<sub>2.5</sub> monitoring with the written approval of Ecology and the NWCAA.
- 19. Compliance monitoring data conversions to "per MMBtu" basis shall be determined by the same procedure outlined for compliance demonstration in Condition 11.
- 20. NO<sub>X</sub> emissions from the wood-fired cogeneration unit exhaust stack:
  - 20.1 SPI-Burlington will monitor continuing compliance with Condition 6.1:
    - 20.1.1 Following the date the initial performance test in Condition 12 is completed, or is required to be complete, whichever date comes first.
    - 20.1.2 Continuous compliance will be monitored by a CEMS that measures and records NO<sub>X</sub> emissions from the wood-fired cogeneration unit exhaust stack.
    - 20.1.3 The CEMS will meet the requirements of Condition 26.1.
    - 20.1.4 Compliance will be determined from the arithmetic mean of the hours of valid  $NO_X$  emissions data in lb  $NO_X/MMBtu$  monitored pursuant to Condition 20.1.2.
      - 20.1.4.1 Data that is "valid" shall be as defined in 40 CFR 60.13(h).
      - 20.1.4.2 A calendar day used for compliance monitoring shall have at least 18 hours of valid data.
      - 20.1.4.3 Valid data from any calendar day having fewer than 18 hours of valid data shall be included in either the following or preceding day's data, whichever is contiguous, and the 24-hour average calculated using the cumulative hours of the conjoined periods.
- 21. CO emissions from the wood-fired cogeneration unit exhaust stack:
  - 21.1 SPI-Burlington will monitor continuing compliance with Condition 6.2.1.1.
    - 21.1.1 Following the date the initial performance test in Condition 13.1 is completed, or is required to be complete, whichever date comes first.
    - 21.1.2 Continuous compliance will be determined by a CEMS that measures and records CO emissions from the wood-fired cogeneration unit exhaust stack.
    - 21.1.3 The CEMS will meet the requirements of Condition 26.2.

21.2 SPI-Burlington will monitor continuing compliance with Conditions 6.2.1.2, 6.2.1.3, and 6.2.1.4 from the arithmetic mean of the emissions data for each corresponding operating scenario and averaging period.

## 22. PM/PM<sub>10</sub>/PM<sub>2.5</sub>

- 22.1 Emission limits from the wood-fired cogeneration unit exhaust stack:
  - 22.1.1 SPI-Burlington will monitor continuing compliance with Condition 6.3.2.1.
    - 22.1.1.1 SPI-Burlington will have periodic compliance tests conducted by an independent testing vendor:
      - 22.1.1.1.1 At least once every 12 months, beginning from the date the initial performance test in Condition 14.1.1, is completed, or is required to be complete, whichever date comes first.
      - 22.1.1.1.2 If all source tests conducted during a consecutive 30-month period (not less than three separate tests) demonstrate emissions are less than 75 percent of the limit in Condition 6.3.2.1, the testing interval shall be changed to not less frequently than once every 24 months.
      - 22.1.1.1.3 If the test frequency described in Condition 22.1.1.1.2 has been enacted, any subsequent source test result greater than 75 percent of the limit in Condition 6.3.2.1 shall require reversion to Condition 22.1.1.1.1 until such time as the provision recurs described in Condition 22.1.1.1.2 and allows its reinstatement.
    - 22.1.1.2 Compliance will be determined by EPA Reference Methods 5 and 202.
      - 22.1.1.2.1 EPA Reference Method 5 will be conducted in the manner prescribed in 40 CFR 60.46b(d).
      - 22.1.1.2.2 Compliance will be demonstrated from the arithmetic mean of not less than three <u>2-hour</u> test samples.
      - 22.1.1.2.3 The emission rate expressed in lb PM<sub>10</sub>/MMBtu will be determined using the procedure described in 40 CFR 60.46b(d)(6).
  - 22.1.2 SPI-Burlington will monitor continuing compliance with Condition 6.3.2.2.

- 22.1.2.1 Beginning from the date the initial performance test in Condition 14.1.1 is completed, or is required to be complete, whichever date comes first.
- 22.1.2.2 Compliance will be monitored from the arithmetic mean of the test results from Condition 22.1.1 in TPY PM<sub>10</sub> based on monthly average firing rates.
- 22.2 Emission limits from the planer mill exhaust stack:
  - 22.2.1 SPI-Burlington will monitor continuing compliance with Condition 7.2.1.
    - 22.2.1.1 SPI-Burlington will have periodic compliance tests:
      - 22.2.1.1.1 Conducted by an independent testing vendor.
      - 22.2.1.1.2 Test frequency.
      - 22.2.1.1.2.1 Beginning from the required or actual completion date of the initial performance test in Condition 14.2.1 whichever date comes first.
      - 22.2.1.1.2.2 At least once every 12 months unless the provision described in Condition 22.2.1.1.2.3 occurs.
      - 22.2.1.1.2.3 If all source tests conducted during a consecutive 30-month period (not less than three separate tests) show  $PM/PM_{10}/PM_{2.5}$  emissions less than or equal to 0.0025 gr/dscft, test frequency may be reduced to once every 36 months.
      - 22.2.1.1.2.4 If the test frequency described in Condition 22.2.1.1.2.3 has been enacted, any subsequent source test result greater than 0.0025 gr/dscft shall require reversion to Condition 22.2.1.1.2.1 until such time as the provision recurs described in Condition 22.2.1.1.2.3 and allows its reinstatement.
    - 22.2.1.2 Compliance will be determined by EPA Reference Methods 5 and 202.
      - 22.2.1.2.1 Compliance will be demonstrated from the arithmetic mean of not less than three <u>2-hour</u> test samples.
      - 22.2.1.2.2 Equivalent concentration test methods may be used if approved in advance by Ecology and the NWCAA.

- 22.2.2 SPI-Burlington will monitor continuing compliance with Condition 7.2.2:
  - 22.2.2.1 Beginning from the date the initial performance test in Condition 14.2.1 is completed, or is required to be complete, whichever date comes first.
  - 22.2.2.2 Compliance will be monitored from the arithmetic mean of the test results from Condition 22.2.1 and monthly production rates.
    - 22.2.2.2.1 SPI-Burlington will determine an emission factor based on the test results from Condition 22.2.1, and the planer mill production rate maintained during the corresponding tests.
    - 22.2.2.2.2 SPI-Burlington will update the emission factor as soon as the results are available from each compliance monitoring test.
    - 22.2.2.3 SPI-Burlington will use the updated emission factor until the next compliance monitoring test results are available.
- 23. Emission limits from the drying kilns: SPI-Burlington will monitor continuing compliance with Conditions 8.1.2 or 8.1.3, as applicable.
  - 23.1 Beginning with the date of initial start-ups of the drying kilns.
  - 23.2 For each wood species processed, SPI-Burlington will separately determine drying kiln loading in board feet each day.
  - 23.3 Each month's drying kiln PM/PM<sub>10</sub> emissions shall be determined based on each specie's emission factor:
    - 23.3.1 Douglas Fir: 0.02 pounds  $PM/PM_{10}/PM_{2.5}/thousand$  board feet (lb  $PM/PM_{10}/PM_{2.5}/Mbf$ ).
    - 23.3.2 Western Hemlock: 0.02 lb PM/PM<sub>10</sub>/PM<sub>2.5</sub>/Mbf.
- 24. SO<sub>2</sub> emissions from the wood-fired cogeneration unit exhaust stack:
  - 24.1 SPI-Burlington will monitor continuing compliance with Condition 6.4.1:
    - 24.1.1 SPI-Burlington will have periodic compliance tests conducted by an independent testing vendor:

- 24.1.1.1 At least once every 12 months, beginning from the date the initial performance test in Condition 15.1 is completed, or is required to be complete, whichever date comes first.
- 24.1.1.2 If three consecutive tests demonstrate emissions are less than 75 percent of the limits in Condition 6.4.1, the testing interval shall be changed to not less frequently than once every 24 months.
- 24.1.1.3 If the test frequency described in Condition 24.1.1.2 has been enacted, any subsequent source test result greater than 75 percent of the limit in Condition 6.4.1 shall require reversion to Condition 24.1.1.1 until such time as the provision recurs described in Condition 24.1.1.2 and allows its reinstatement.
- 24.1.2 At least one source test within any relevant test frequency period is to coincide with the Relative Accuracy Test Audit required for each installed CEMS.
- 24.1.3 Compliance will be determined by EPA Reference Methods 6, 6A, or 6C.
  - 24.1.3.1 Compliance will be demonstrated from the arithmetic mean of not less than three 1-hour test samples.
  - 24.1.3.2 An equivalent concentration test method may be used if approved in advance by Ecology.
  - 24.1.3.3 SO<sub>2</sub> mass emissions will be determined using the procedures outlined in 40 CFR Part 60, Appendix A, Method 19, and based on the total heat value of fuel consumed over each operating hour.
  - 24.1.3.4 An equivalent mass emission rate calculation method may be used as an alternative to Condition 24.1.3.3 if approved in advance by Ecology and the NWCAA.
- 24.1.4 SPI-Burlington will notify Ecology and the NWCAA at least 30 days prior to the scheduled performance testing.
- 24.2 SPI-Burlington will monitor continuing compliance with Condition 6.4.2.
  - 24.2.1 Beginning from the date the initial performance test in Condition 15.1 is completed, or is required to be complete, whichever date comes first.
  - 24.2.2 Compliance will be monitored from the arithmetic mean of the test results from Condition 24.1 and monthly average firing rates.

- 24.2.2.1 Mass emission rates will be determined using the appropriate procedures outlined in 40 CFR Part 60, Appendix A, Method 19.
- 24.2.2.2 An equivalent mass emission rate calculation method may be used if approved in advance by Ecology and the NWCAA.

### 25. VOCs:

- 25.1 Emission limits from the wood-fired cogeneration unit exhaust stack:
  - 25.1.1 SPI-Burlington will monitor continuing compliance with Condition 6.5.2.1.
    - 25.1.1.1 SPI-Burlington will have periodic compliance tests conducted by an independent testing vendor:
      - 25.1.1.1.1 At least once every 12 months, beginning from the date the initial performance test in Condition 16.1.1 is completed, or is required to be complete, whichever date comes first.
      - 25.1.1.1.2 If three consecutive tests demonstrate emissions are less than 75 percent of the limits in Condition 6.5.2.1, the testing interval shall be changed to not less frequently than once every 24 months.
      - 25.1.1.1.3 If the test frequency described in Condition 25.1.1.1.2 has been enacted, any subsequent source test result greater than 75 percent of the limit in Condition 6.5.2.1 shall require reversion to Condition 25.1.1.1.1 until such time as the provision recurs described in Condition 25.1.1.1.2 and allows its reinstatement.
    - 25.1.1.2 At least one source test within any 12-month period is to coincide with the Relative Accuracy Test Audit required for each installed CEMS.
    - 25.1.1.3 Compliance will be determined by EPA Reference Methods 25, 25A, or 25B.
      - 25.1.1.3.1 Compliance will be demonstrated from the arithmetic mean of not less than three 1-hour test samples.
      - 25.1.1.3.2 An equivalent concentration test method may be used if approved in advance by Ecology.

- 25.1.1.3.3 VOC mass emissions will be determined using the procedures outlined in 40 CFR Part 60, Appendix A, Method 19 with indicated calculations modified to be applicable to VOCs measured as propane, and based on the total heat value of fuel consumed over each operating hour.
- 25.1.1.3.4 An equivalent mass emission rate calculation method may be used as an alternative to Condition 25.1.1.3.3 if approved in advance by Ecology and the NWCAA.
- 25.1.1.4 SPI-Burlington will notify Ecology and the NWCAA at least 30 days prior to the scheduled performance testing.
- 25.1.2 SPI-Burlington will monitor continuing compliance with Condition 6.5.2.2.
  - 25.1.2.1 Beginning from the date the initial performance test in Condition 16.1.1 is completed, or is required to be complete, whichever date comes first.
  - 25.1.2.2 Compliance will be monitored from the arithmetic mean of the test results from Condition 25.1 and monthly average firing rates.
    - 25.1.2.2.1 Mass emission rates will be determined using the appropriate procedures outlined in 40 CFR Part 60, Appendix A, Method 19 with indicated calculations modified to be applicable to VOCs measured as propane.
    - 25.1.2.2.2 An equivalent mass emission rate calculation method may be used if approved in advance by Ecology and the NWCAA.
- 25.2 Emission limits from the drying kilns: SPI-Burlington will monitor continuing compliance with Condition 8.2.3.
  - 25.2.1 Beginning with the date of initial start-ups of the drying kilns.
  - 25.2.2 For each wood species processed, SPI-Burlington will separately record monthly drying kiln production in board feet.
  - 25.2.3 Each month's drying kiln VOC emissions shall be determined based on each specie's emission factor:
    - 25.2.3.1 Douglas Fir: 0.6 lb VOC/Mbf.

- 25.2.3.2 Western Hemlock: 0.33 lb VOC/Mbf.
- 25.3 Emission limits from the anti-mold spray system: SPI-Burlington will monitor continuing compliance with Condition 9.3.
  - 25.3.1 Beginning with the date of initial start-ups of the drying kilns.
  - 25.3.2 SPI-Burlington will quantify its consumption of wood treatment materials in the anti-mold spray system each month.
  - 25.3.3 VOCs shall be calculated monthly as the proportion VOC identified in the wood treatment Material Safety Data (MSD) sheets.

Example: The MSD sheet for NP-1® Plus (Sapstain Control) indicates it is 25 percent VOC by weight. The MSD sheet for Alpha<sup>TM</sup>-700 (Wood Brightener) indicates it is 95 percent VOC by weight.

- 26. Continuous Emission Monitoring Systems:
  - 26.1 Installation, calibration, maintenance, and operation of the CEMS for  $NO_X$  compliance will satisfy the requirements contained in 40 CFR 60.48b(b) through 40 CFR 60.48b(f).
  - 26.2 CEMS for CO will satisfy the requirements contained in 40 CFR Part 60, Appendix B, Performance Specification 4 and 40 CFR Part 60, Appendix F, Quality Assurance Procedures.
  - 26.3 Required Relative Accuracy Test Audit for the  $NO_X$  and CO CEMS will be performed during the same test periods.

# Recordkeeping, Notification, and Reporting

- 27. SPI-Burlington will notify and report to Ecology and the NWCAA, and maintain related records as follows:
  - 27.1 Notifications and reports will be in written format unless otherwise approved by Ecology.
  - 27.2 The following notifications shall be submitted to Ecology and the NWCAA:
    - 27.2.1 Commencement of construction of the mill and of the wood-fired cogeneration unit: No later than 30 calendar days after such date.
    - 27.2.2 Initial start-ups of the mill and of the wood-fired cogeneration unit: No later than 15 calendar days after such date.

- 27.2.3 Completion of the entry into the operation and maintenance manual of the items specified in Condition 29, within 15 days after such entries were completed.
- 27.2.4 At the time of submittal of the notification required in Condition 27.2.3, certification by the responsible party for the facility that the relevant equipment was installed consistent with the parameters developed pursuant to Condition 29.
- 27.2.5 The date on which the NO<sub>X</sub> CEMS first demonstrated satisfactory performance pursuant to Condition 26.1, no later than 30 calendar days after such date.
- 27.2.6 The date on which the CO CEMS first demonstrated satisfactory performance pursuant to Condition 26.2, no later than 30 calendar days after such date.
- 27.3 The following reports shall be submitted to Ecology and the NWCAA:
  - 27.3.1 Report results of all initial compliance demonstration source tests, no later than 45 calendar days after completion of each respective source test.
  - 27.3.2 Continuing performance monitoring reports required under Condition 27.3.3 shall be submitted for each calendar quarter:
    - 27.3.2.1 Beginning with the quarter that includes the initial start-ups of the wood-fired cogeneration unit.
    - 27.3.2.2 Postmarked no later than one calendar month after the close of each respective calendar quarter.
    - 27.3.2.3 In the report format approved by Ecology and the NWCAA.
    - 27.3.2.4 Another reporting schedule may be used if approved by Ecology and the NWCAA.
  - 27.3.3 Continuing performance monitoring reports will include, but not necessarily be limited to, the following:
    - 27.3.3.1 Certification by the responsible party for the facility that the relevant equipment was operated and maintained in accordance with the operational parameters and practices developed pursuant to Condition 29.
    - 27.3.3.2 Emissions from the wood-fired cogeneration unit exhaust stack:

- 27.3.3.2.1 Pursuant to compliance under Condition 6.1, NO<sub>X</sub> emissions (lb/MMBtu) since the last report.
- 27.3.3.2.2 Pursuant to compliance under Condition 6.2.1.1, CO emission (lb/MMBtu) since the last report.
- 27.3.3.2.3 Pursuant to compliance under Condition 6.2.1.2, for each month since the last report, show the 12-month CO mass emissions ending with that month.
- 27.3.3.2.4 Pursuant to compliance under Conditions 6.2.1.3 and 6.2.1.4, the times, durations, and average hourly CO mass emissions for any cold or warm start-ups and shutdowns.
- 27.3.3.2.5 Pursuant to compliance under Condition 6.3.2.1, results of any required source tests for PM<sub>10</sub> since the last report.
- 27.3.3.2.6 Pursuant to compliance under Condition 6.3.2.2, for each month since the last report, show the 12-month  $PM_{10}$  mass emissions ending with that month.
- 27.3.3.2.7 Pursuant to compliance under Condition 6.4.1, results of any required source tests for SO<sub>2</sub> since the last report.
- 27.3.3.2.8 Pursuant to compliance under Condition 6.4.2, for each month since the last report, show the 12-month SO<sub>2</sub> mass emissions ending with that month.
- 27.3.3.2.9 Pursuant to compliance under Condition 6.5.2.1, results of any required source tests for VOCs since the last report.
- 27.3.3.2.10 Pursuant to compliance under Condition 6.5.2.2, for each month since the last report, show the 12-month VOC mass emissions ending with that month.
- 27.3.3.3 Emissions from the planer mill bag house exhaust stack:
  - 27.3.3.3.1 Pursuant to compliance under Condition 7.2.1, PM/PM<sub>10</sub> emissions (gr PM/PM<sub>10</sub>/dscft) since the last report.
  - 27.3.3.3.2 Pursuant to compliance under Condition 7.2.2, for each month since the last report, show the 12-month total PM/PM<sub>10</sub> mass emissions ending with that month.

- 27.3.3.4 Emissions from the drying kilns:
  - 27.3.3.4.1 Pursuant to compliance under Conditions 8.1.2 and 8.1.3, for each month since the last report, show the 12-month total PM/PM<sub>10</sub> mass emissions ending with that month.
  - 27.3.3.4.2 Pursuant to compliance under Condition 8.2.3, for each month since the last report, show the 12-month total VOC mass emissions ending with that month.
- 27.3.3.5 Emissions from the anti-mold spray system: Pursuant to compliance under Condition 9.3, for each month since the last report, show the 12- month total VOC mass emissions ending with that month.
- 27.3.3.6 The duration and nature of any CEMS down-time excluding zero and span checks.
- 27.3.3.7 Results of any CEMS audits or accuracy checks.
- 27.3.4 Each occurrence of monitored emissions measured in excess of the limits shall be reported in writing to Ecology and the NWCAA after the respective exceedance in accordance with WAC 173-400-107(3). Such reports shall, as a minimum, include:
  - 27.3.4.1 The time of the occurrence.
  - 27.3.4.2 Magnitude of excess from the emission limit.
  - 27.3.4.3 The duration of the excess.
  - 27.3.4.4 The probable cause.
  - 27.3.4.5 Corrective actions taken or planned.
  - 27.3.4.6 Any other agency contacted.
- 27.4 SPI-Burlington will maintain monitoring, source test, CEM audit tests and process records:
  - 27.4.1 At the Skagit County facility.
  - 27.4.2 For at least five years.
  - 27.4.3 Records of the times and quantity of natural gas used in the wood-fired cogeneration unit.

27.4.4 SPI-Burlington will provide Ecology and the NWCAA with the monitoring and process records for any period within the five year archive, within 10 working days of request.

## **Standard Requirements**

- 28. SPI-Burlington will provide safe access and sampling ports for source testing of the wood-fired cogeneration unit exhaust stack after the final pollution control device:
  - 28.1 Safe access will consist of permanently constructed platforms on the stacks.
  - 28.2 The sampling ports will meet the requirements of 40 CFR Part 60, Appendix A, Method 1.
  - 28.3 Other arrangements may be acceptable if approved by Ecology and the NWCAA prior to installation.
- 29. Operation and maintenance (O&M) manual for the facility:
  - 29.1 Within 90 days of start-ups, SPI-Burlington will identify operational parameters and practices for the planer mill bag house, drying kilns, anti-mold spray system, and wood-fired cogeneration unit.
  - 29.2 The operational parameters and practices will constitute proper operation relative to compliance with the emission limitation conditions of this permit.
  - 29.3 SPI-Burlington will include these operational parameters and practices in the planer mill bag house, the drying kilns, the anti-mold spray system, and the wood-fired cogeneration unit O&M manuals. As a minimum, and to the extent they relate to the emission limitations specified in the conditions of this PSD permit, these will include:
    - 29.3.1 Inspection and maintenance procedures and schedule.
    - 29.3.2 Prescribed acceptable ranges for operation based on manufacturer recommendations.
    - 29.3.3 Section specifying maintenance and calibration of all required monitors used to assure compliance with the terms and conditions of this PSD permit.
  - 29.4 SPI-Burlington will keep the operational parameters and practices in the O&M manuals up to date to reflect any modifications of the equipment or its operating procedures.
  - 29.5 SPI-Burlington will keep the O&M manuals readily available at the facility for review by state, federal, and local agencies.

- 29.6 Within 30 days of request from Ecology, SPI-Burlington shall submit the O&M manual to Ecology and the NWCAA for approval within the scope of Condition 29.2.
- 30. Nothing in this determination will be construed so as to relieve SPI-Burlington of its obligations under any state, local, or federal laws or regulations.
- 31. Subject to RCW 70.94.200, SPI-Burlington will permit the United States Environmental Protection Agency (EPA), state and local regulatory personnel access to the source upon request for the purposes of compliance assurance inspections.
- 32. This approval will become invalid:
  - 32.1 If construction of the project is not commenced within eighteen (18) months after receipt of the final approval, or if construction of the facility is discontinued for a cumulative period of eighteen (18) months. Ecology may extend either 18-month period upon a satisfactory showing by SPI-Burlington that an extension is justified, pursuant to 40 CFR 52.21(r)(2) and applicable EPA guidance.
    - 32.1.1 The extension request must be received by Ecology prior to expiration of the permit.
    - 32.1.2 The Best Available Control Technology (BACT) analysis and determination must be updated to current standards.
    - 32.1.3 PSD increment consumption and air quality impacts must be reassessed to assure that interim source growth would not materially alter the conclusions made relative to the original permit decision.
    - 32.1.4 The decision to extend the permit must be subjected to the same public review and comment procedures as applicable to the original permit.
- 33. The effective date of this permit shall not be earlier than the date upon which the EPA notifies Ecology that the EPA has satisfied its obligations, if any, under Section 7 of the Endangered Species Act 16 U.S.C. § 1531 et seq., 50 CFR Part 402, Subpart B (Consultation Procedures) and Section 305(b)(2) of the Magnuson-Stevens Fishery and Conservation Act 16 U.S.C. § 1801 et seq., 50 CFR Part 600, Subpart K (EFH Coordination, Consultation, and Recommendations) (see Amendment 1 Findings 28).
- 34. For federal regulatory purposes and in accordance with 40 CFR 124.15 and 124.19: During the public review period for the preliminary determination, any public reviewer may submit a request for a change in any permit condition. If this occurs, the effective date of this permit shall not be earlier than 30 days after service of notice to the commenters and applicant of the final determination accompanied by the associated summary of responses to comments.

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- 34.1 If a review of the final determination is requested under 40 CFR 124.19 within the 30-day period following the date of the final determination, the effective date of the permit be suspended until such time as the review and any subsequent appeal against the permit are resolved.
- 34.2 If there was no public comment requesting a change in the preliminary determination or a proposed permit condition during the public review and comment period, this permit is effective upon the date of finalization subject to consideration of Condition 33 (EPA's ESA requirement) above.

Reviewed by:

Gary J. Huitsing, P.E.
Science and Engineering Section
Air Quality Program
Washington State Department of Ecology

Approved by:

Stuart A. Clark

Date