

Hampton Lumber Mills, Inc.

Randle Facility

Title V Basis Statement

Southwest Clean Air Agency
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PERMIT #: SW97-4-R1

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PREPARED FOR: Hampton Lumber Mills, Inc.
Randle Facility
10166 US Hwy 12
Randle, WA 98377

PLANT SITE: Randle Facility
10166 US Hwy 12
Randle, WA 98377

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I. GENERAL INFORMATION AND CERTIFICATION

1. Company Name: Hampton Lumber Mills - WA Inc.
2. Facility Name: Hampton Lumber Mills - WA Inc., Randle Facility
3. Responsible Official: David Garcia, Cowlitz Division Operations Manager
4. Facility Contact Person: Steve Evans
5. Unified Business Identification Number: 219-001-738
6. SIC Code/NAICS Number: 2421/321113
7. Basis for Title V Applicability:

Hampton Lumber Mills - Randle facility (Hampton Lumber Mills) has actual emissions in excess of 100 tpy of carbon monoxide which is a regulated criteria pollutant under the Federal Clean Air Act.
8. Attainment Area:

Hampton Lumber Mills is located in an area which is in attainment for all criteria pollutants.
9. Facility Description:

Hampton Lumber Mills is a manufacturer of dimensional lumber products primarily for the construction industry.

This permit applies to a lumber mill located at 10166 US Highway 12 in Randle, Washington. Dimensional lumber manufactured mainly from Douglas fir, but also hemlock, spruce and pine, is produced at the Randle facility then shipped offsite both kiln dried and green. The facility's equipment is divided into five emission units designated as EU-1 through EU-6. All emission units are either directly or indirectly involved in lumber production.

Hampton Lumber Mills typically operates two 8 hour workshifts per day at the sawmill and planer mill. Occasionally this schedule is extended to a third workshift when demand is exceptionally high. Days of operation range from 5 to 6 days per week, depending on seasonal demand and delivery schedules. The process boiler and dry kilns operate 24 hours per day, 7 days per week.

II. EMISSION UNIT IDENTIFICATION

EU-1 Log Yard

EU-1 consists of all outdoor areas on the southside of the facility used for the handling and storage of raw logs. Raw logs are received by trucks, and stacked until needed for the sawmill. Access roads to the log yard from US Highway 12 are completely paved, but the yard area itself is packed earth. Haul road and fugitive dust emissions are controlled by water suppression. Water is applied with a water truck as necessary to minimize emissions.

The following individual pieces of equipment are associated with EU-1:

Equipment

One water truck
Various log trucks
Various log loaders and transports

EU-2 Sawmill

EU-2 consists of an enclosed building and associated equipment used to produce green dimensional lumber. The sawmill is arranged in a linear configuration. Raw logs are debarked and cut to length with bucksaws. Processed logs are then cut down to standard dimensional lumber sizes through various stages of trimming, edging, and resawing. Green sawdust from sawing operations is collected by drag chains, and pneumatically conveyed to exterior storage bins by the Sutorbilt sawdust cyclone rated at 1,000 cfm. Selected pieces of equipment, such as the planers and the fractionator, are directly connected to a Clarke's Sheet Metal, Inc. "Pneu-Aire" baghouse, model 100-20-G2 and cyclone in series, with an airflow of 40,000 cfm. Finished lumber is color coded and/or marked in a small paint application area prior to shipment off-site.

Emissions consist of fugitive particulate matter emissions from process operations as well as non-fugitive particulate matter emissions from the Clarke's Sheet Metal cyclone and baghouse. Particulate matter collected in the Clarke's Sheet Metal cyclone and baghouse cyclone is reduced in size by the fractionating system and eventually conveyed to storage bins. Bark and other streams of byproduct material are conveyed to a hogger unit and stored in an exterior bin. Other streams of unusable wood are mechanically conveyed to multiple chippers. Wood chips are mechanically conveyed to exterior storage bins prior to shipment off-site.

The following individual pieces of equipment are associated with EU-2:

Equipment

Two bucksaws
Two debarkers
One fuel hog
Three chippers
Various conveyors

Various chop saws, trim saws
Various edgers
Five 2-unit chip bins
One shavings bin
One sawdust bin
One hog fuel bin
One planer
One fractionator
One Western Pneumatics 7' cyclone rated at 10,000 cfm (Fractionator Cyclone)
One Sutorbilt green sawdust cyclone rated at 1,000 acfm (Sawdust Cyclone)
One Clarke's Sheet Metal "Pneu-Aire" cyclone/baghouse combination (Baghouse #1) rated at 40,000 acfm, model 100-20-G2

EU-3 Power House

EU-3 consists of one hog fuel boiler and associated equipment. A Seattle Iron Works hog fuel boiler, rated at 30,000 lbs of steam/hr and 49.7 million British thermal units per hour (MMBtu/hr) is used to generate steam for the lumber dry kilns on-site. An air-to-air heat exchanger on the exhaust delivers preheated combustion air to the boiler. The boiler is fired solely on wood byproducts from facility operations such as green hog fuel from the sawmill. However, chips, planer shavings, sawdust, and scrap wood are all fired in the boiler depending on required fuel characteristics.

Particulate matter emissions are controlled with a multiclone, to remove larger particulate matter, and Zurn Air Systems model Venturi Scrubber II, with venturi throat, in series. Process water for the wet scrubber is conditioned with flocculant in a settling pond located adjacent to the boiler building. Water from the settling pond is recirculated to the wet scrubber. Make-up water for the settling pond is provided from boiler blowdown and the facility's main water supply.

The facility utilizes a 5 ft³ dewatering unit to dewater the pond slurry. The water is sent back into the pond and the ash is pressed into hard cakes. The ash storage pile is covered. The ash is sent off site to be used as fertilizer.

Wood ash from the boiler is conveyed by drag chain to an exterior storage bunker.

The original scrubber flow rate and pressure were established based on manufacturer's information to be 240 gpm and 30" w.c., respectively. At over 90 gallons per minute the scrubber fan floods and introduces more particulate matter into the exhaust stream. The source test performed on April 27, 2000 established an adequate flowrate at 60 gallons per minute and an adequate scrubber pressure at 17" w.c. or higher. The original scrubber airflow rate was established based on manufacturer's information to be a maximum of 18,000 acfm.

The boiler is equipped with an excess oxygen meter, boiler furnace temperature gauge, and boiler steam flow rate meter. The Zurn Air Systems scrubber is equipped with a differential pressure gauge.

The following individual pieces of equipment are associated with EU-3:

Equipment

One Seattle Iron Works hogged fuel boiler, model SBI-3750 serial #L-4669, rated at 30,000 pounds of steam per hour and 49.7 MMBTU with an airflow of 29,500 acfm. An air-to-air heat exchanger on the exhaust delivers preheated combustion air to the boiler.

One multiclone/wet scrubber system: Exhaust from the boiler is sent through a multiclone to remove larger particulate matter. The multiclone is followed by a Zurn Air Systems model Venturi Scrubber II, with venturi throat. The operating scrubber flow rate and pressure were established based on facility source tests are 60 gpm and 17" w.c., respectively. The maximum scrubber airflow rate is 18,000 acfm.

One settling pond with a volume of 4,481 ft³.

EU-4 Dry Kilns

EU-4 consists of four American Wood Dryers, Inc. model 1156 dry kilns used to dry green lumber from the sawmill. The kilns are powered exclusively with steam from the facility's hog fuel boiler. Rough sawn lumber is stacked on carts and rolled into the kilns, each with a capacity of 153,000 board feet (BF), and dried at approximately 180 °F. The wood, Douglas fir, hemlock, pine, or spruce, is dried to approximately 16% moisture content. After drying, lumber is removed from the kilns, and sent to the sawmill planer or shipped rough.

The following individual pieces of equipment are associated with EU-4:

Equipment

Four American Wood Dryers, Inc. model 1156 steam heated dry kilns with a capacity of 153,000 BF each with added heat exchangers.

EU-5 Filing Room

EU-5 consists of an enclosed building and associated equipment used to sharpen and maintain saw blades and other cutting equipment used at the facility. Metal shavings from grinding and sharpening operations are controlled with two knock-out boxes which exhaust to the ambient atmosphere. Collected metal shavings are stored in barrels prior to disposal.

The following individual pieces of equipment are associated with EU-5:

Equipment

Various grinders

Various files

Two knock-out boxes with rated airflow of 1,200 acfm each

EU-6 Sap Stain System

EU-6 consists of a Spray Technologies Linear SS 100 mechanical spray unit, 6 ft long by 4 ft wide by 7 ft tall. The sap stain system is used to apply Mycostat-P onto specific pieces of lumber that will not be sent through the dry kilns. Mycostat-P contains no VOCs or TAPs. The unit is also permitted to use Kop-Coat NP-1 as well, which contains VOCs and TAPs, however the facility currently does not utilize this product. The airflow rate is 500 actual cubic feet per minute (acfm). It is equipped with a Spray Technologies model CT-12012 mist eliminator. The mist eliminator has a documented mist elimination of 99% based on aerosols, mists and droplets 10-20 microns in size. Excess sap stain is recycled back through the system.

The following individual pieces of equipment are associated with EU-6:

Equipment

Spray Technologies sap stain spray system, including a Spray Technologies Linear SS 100 spray booth with an airflow of 500 acfm and a Spray Technologies model CT-12012 mist eliminator.

III. EXPLANATION OF INSIGNIFICANT EMISSION UNIT DETERMINATIONS

Each emission unit listed as insignificant in the permit application has been reviewed by SWCAA to confirm its status. Emission units determined to be insignificant by SWCAA are described as follows:

IEU-1 Welding WAC 173-401-533(2)(i)

The permittee performs a variety of maintenance and repair activities on-site that involve metal fabrication and welding. These activities consume far less than one ton of welding rod per day, and are deemed insignificant in accordance with WAC 173-401-533(2)(i).

IV. EXPLANATION OF SELECTED PERMIT PROVISIONS AND GENERAL TERMS AND CONDITIONS**P8. Excess Emissions**

[SWCAA 400-107, WAC 173-400-107]

WAC 173-400-107 and SWCAA 400-107 establish criteria and procedures for determining when excess emissions are considered unavoidable. Such emissions that meet the requirements to be classified as unavoidable are considered excess and reportable but are excused and not subject to penalty. Notification of excess emissions is required as soon as possible and shall occur no later than 48 hours following the excess emissions event. Excess emissions due to startup or shutdown conditions are considered unavoidable if the permittee adequately demonstrates the excess emissions could not have been prevented through careful planning and design. Upset excess emissions are considered unavoidable if the permittee adequately demonstrates the upset event was not

caused by poor or inadequate design, operation, maintenance, or other reasonably preventable condition, and the permittee takes appropriate corrective action that minimizes emissions during the event, taking into account the total emissions impact of that corrective action.

In accordance with SWCAA 400-070(2), visible emissions from the hogged fuel boiler may exceed the operational opacity limit of 15% and the general standard of 20% during periods of soot blowing and/or grate cleaning. These periods are limited to not more than 15 consecutive minutes once in any 8 hour period.

SWCAA 400-040(1)(a) approves the soot blowing and grate cleaning necessary to the operation of the boiler facilities. This practice, except for testing and trouble shooting, is to be scheduled for the same approximate times each day and the Agency shall be advised of the schedule.

G7. Portable Sources

[SWCAA 400-110(5), WAC 173-400-110(5, 6)]

WAC 173-400-110(9) and SWCAA 400-110(5) establish procedures for approving the operation of portable sources of air emissions that locate temporarily at project sites. These requirements are general statewide standards, and apply to all portable sources of air contaminants. Common equipment subject to these conditions include emergency generators, engine-powered pumps, rock crushers, concrete batch plants, and hot mix asphalt plants that operate for a short time period at a site to fulfill the needs of a specific contract. Portable sources exempt from registration under SWCAA 400-101 are exempt from SWCAA 400-110 and not subject to the portable sources requirements. Among those categories listed in SWCAA 400-101, which are exempt, are operations with potential to emit less than 1 ton/yr of all criteria pollutants plus volatile organic compounds, combined.

V. EXPLANATION OF OPERATING TERMS AND CONDITIONS

Reqs. 1-8 General Standards for Maximum Emissions

[WAC 173-400-040, SWCAA 400-040]

WAC 173-400-040 and SWCAA 400-040 establish maximum emission standards for various air contaminants. These requirements are general statewide standards, and apply to all sources of air contaminants. Therefore, these standards apply to all emission units at the source, both EU and IEU. Pursuant to WAC 401-530(2)(c), the permit does not contain any testing, monitoring, recordkeeping, or reporting requirements for IEUs except those specifically identified by the underlying requirements.

Req. 7 prohibits any concealment or masking. At present, the permittee does not operate any equipment capable of masking emissions, therefore monitoring is limited to the semi-annual compliance certification.

Req. 9 Emission Standards for Combustion and Incineration Units

[WAC 173-400-050, SWCAA 400-050]

WAC 173-400-050 and SWCAA 400-050 establish maximum emission standards for selected emissions from combustion and incineration units. These requirements apply to all combustion and incineration units at the source, both EUs and IEUs. Pursuant to WAC 401-530(2)(c), the permit does not contain any testing, monitoring, recordkeeping, or reporting requirements for IEUs except those specifically identified by the underlying requirements.

Req. 10 Emission Standards for General Process Units

[WAC 173-400-060, SWCAA 400-060]

WAC 173-400-060 and SWCAA 400-060 establish maximum particulate matter emission standards for general process units. These requirements apply to all general process units at the source, both EUs and IEUs. Pursuant to WAC 401-530(2)(c), the permit does not contain any testing, monitoring, recordkeeping, or reporting requirements for IEUs except those specifically identified by the underlying requirements.

Req. 13 Air Discharge Permit for the Sawmill

[SWCAA 91-1342]

Air Discharge Permit (ADP) SWCAA 91-1342 issued for ADP application L-254 on June 24, 1991, approved a new chipper, a new bucksaw, and associated equipment in the Sawmill (EU-2).

Req-13 limits the opacity of emissions from the sawmill to zero percent. This limit was set as part of the BACT evaluation of this source. In SWCAA's experience, enclosed sawmill operations of green lumber can easily meet the zero percent opacity limit (not to be exceeded for more than 3 minutes in any one hour).

Reqs. 13, 19, 20, 28 Air Discharge Permit for the Sap Stain System

[SWCAA 00-2263]

ADP SWCAA 00-2263 issued for ADP application L-456 on April 19, 2000, approved the installation of a sap stain system (EU-6) and established emission limits, monitoring, recordkeeping, and reporting requirements.

Req-13 limits the opacity of emissions from the sap stain system to zero percent. This limit was set as part of the BACT evaluation of this source. In SWCAA's experience, enclosed coating operations of can easily meet the zero percent opacity limit (not to be exceeded for more than 3 minutes in any one hour).

Req-19 limits the emissions of VOCs from the sap stain system to 2.0 tpy and the amount of Kop-Coat NP-1 sap stain applied to 2,650 gallons per year. This limit was established based on the expected use of coating materials and the VOC content of those coatings.

Req-20 limits the emissions of ethyl alcohol from the sap stain system to 1.1 tpy. This limit was established based on the expected use of coating materials and the VOC content of those coatings.

Req-28 prohibits the use of an open container to store materials containing VOCs and requires reasonable handling of VOC containing materials to prevent volatilization. The sap stain system is on a recycled system, therefore monitoring was limited to the annual compliance certification.

Reqs. 13, 16 - 18, 23 Air Discharge Permit for Modification of the Facility
[SWCAA 01-2399]

ADP SWCAA 01-2399 issued for ADP application L-487 on December 17, 2001, addressed the removal of the remanufacturing facilities and established emission limits, monitoring, recordkeeping, and reporting requirements and routine emissions testing of the control equipment.

Req-13 limits the opacity of emissions from the particulate matter control equipment (Baghouse #1, Sawdust Cyclone, knock-out boxes) to zero percent. This limit was set as part of the BACT evaluation of this source. In SWCAA's experience, baghouses, cyclones and knock-out boxes can easily meet the zero percent opacity limit (not to be exceeded for more than 3 minutes in any one hour).

Req-16 limits the emissions of PM from the Clarke's Sheet Metal, Inc. "Pneu-Aire" baghouse model 100-20-G2 (Baghouse #1) to 9.0 tpy and 0.005 gr/dscf. This limit was established based on a maximum intended use of 8,760 hours per year and 0.005 gr/dscf.

Req-17 limits the emissions of PM from the Sutorbilt cyclone (Sawdust Cyclone) to 2.0 tpy and 0.05 gr/dscf. This limit was established based on a maximum intended use of 8,760 hours per year and 0.05 gr/dscf.

Req-18 limits the emissions of PM from the two filing room knock-out boxes to 1.0 tpy and 0.01 gr/dscf. This limit was established based on a maximum intended use of 8,760 hours per year and 0.01 gr/dscf.

Req-23 requires Baghouse #1 to be equipped with a differential pressure gauge to indicate the pressure differential across the filtering media. The pressure drop across filtration media can be used to gage baghouse performance and determine the baghouse bag cleaning/replacement schedule. SWCAA uses this data to assess system performance during inspections.

Reqs. 11 - 15, 21, 22, 24-27 Air Discharge Permit for the Scrubber Modifications
[SWCAA 02-2414]

ADP SWCAA 02-2414 issued for ADP application L-440 on June 17, 2002, addressed the modification of the wet scrubber and boiler operations and established emission limits, monitoring, recordkeeping, and reporting requirements and routine emissions testing.

Req-11 limits the opacity of emissions from the Seattle Iron Works boiler to fifteen percent. This limit was set as part of the BACT evaluation of this source. Data from the boiler source tests has shown that while under proper operation the opacity can be maintained at 15% or below (not to be exceeded for more than 3 minutes in any one hour).

Req-12 limits the opacity of emissions from the four dry kilns to five percent. This limit was set as part of the BACT evaluation of this source. The dry kilns have indicated that while under proper operation the opacity can be maintained at 5% or below (not to be exceeded for more than 3 minutes in any one hour).

Req-13 limits the opacity of emissions from all other facility equipment (other than the Seattle Iron Works boiler and dry kilns) to zero percent (not to be exceeded for more than 3 minutes in any one hour). This limit was set as part of the BACT evaluation of this source.

Req-14 limits the emissions of PM from the Seattle Iron Works boiler to a concentration of 0.070 gr/dscf. This limit was established based on facility source tests.

Req-15 limits the emissions from the dry kilns of PM to 10.0 tpy, VOCs to 22.0 tpy, toluene to 1.80 tpy and 2,2,4 trimethylpentane to 1.00 tpy. This limit was established based on wood species dried, drying moisture, and emission factors from facility source tests.

Req-21 limits the temperature for lumber drying to 250 °F. This limit was established to assure excess VOC emissions are not emitted.

Req-22 limits the wood species approved for drying in the dry kilns to pine, hemlock, and Douglas fir. Other wood species can be dried after an emission factor is developed for the wood type. This limit was established to assure proper emissions from lumber drying operations. Spruce is approved for drying as well at the facility dry kilns because the required emission factor test has been performed.

Req-24 limits the operations of the wet scrubber. The minimum differential pressure is limited to 17" w.c., and the minimum process water circulation rate is limited to 60 gpm. The scrubber settling pond volume must have a capacity greater or equal to 3,000 ft³ and the deep end of the settle pond must be at least 3 feet deep. These requirements are established to assure proper operation of the scrubber system. Monitoring, recordkeeping and reporting requirements were not established for the volume of the settling pond. The volume of the settling pond is assured at the required depth of 3 feet, therefore monitoring of the volume was limited to the annual compliance certification.

Req-25 requires the water quality to be visually evaluated in accordance with Appendix B of the Permit. This is to assure the flocculant is performing adequately.

Req-26 requires installation and maintenance of equipment capable of continuously monitoring the dry kiln exhaust temperature, steam flow of the boiler, oxygen concentration of the boiler, and pressure drop of the scrubber. This allows for proper monitoring to assure the equipment is operating correctly.

Req-27 requires installation and maintenance of equipment capable of monitoring the scrubber water circulation rate. This allows for proper monitoring to assure the equipment is operating correctly.

Req. 29 WAC Source Emission Reduction Plan

[WAC 173-435-050, SWCAA 435, SERP No. 08-106]

The source emission reduction plan requires the facility to reduce emissions during an air pollution episode. Actions required by this plan shall be started when telephone notification of an episode is received. The plan requires the following activities when activated: cease all open burning, water the log yard, divert all sawdust and shavings to storage, refrain from using cedar or other high-dust logs, divert all bark to waste wood boiler, and shutdown. With the exception of shutdown, the majority of the measures are standard procedures that the operations normally follow. It is highly unlikely that an air pollution episode will be called for this operation.

VI. EXPLANATION OF OBSOLETE AND FUTURE REQUIREMENTS

1. Obsolete Air Discharge Permits

SWCAA has issued a total of fifteen Air Discharge Permits (ADPs) to the permittee. As identified in Section V, only four of these ADPs are still active. The approval conditions in the remaining eleven ADPs have been superseded or have become obsolete as described below.

ADP SWCAA 77-204 was issued October 26, 1977 for ADP application L-89. SWCAA 77-204 approved installation of a baghouse filtration system in the Sawmill (EU-2). A visible emission limit of 0% opacity was established for approved operations. SWCAA 77-204 was superseded by SWCAA 02-2414.

ADP SWCAA 78-338 was issued May 4, 1978 for ADP application L-94. SWCAA 78-338 approved installation of a wet scrubber for control of particulate matter emissions from the Power House (EU-3). SWCAA 78-338 was superseded by SWCAA 97-2033.

ADP SWCAA 78-380 was issued August 29, 1978. SWCAA 78-380 required the Permittee to discontinue use of the wood waste incinerator at the Randle facility by June 30, 1979. The permittee complied with the requirements of this ADP in a timely fashion. SWCAA's inspection on April 27, 1983 confirmed that the wood waste incinerator has been dismantled and removed from the facility.

ADP SWCAA 88-1033 was issued January 16, 1989 for ADP application L-180. SWCAA 88-1033 approved installation of a new planer and baghouse for the Sawmill (EU-2). SWCAA 88-1033 was superseded by SWCAA 96-1962.

ADP SWCAA 90-1209 was issued May 21, 1990 for ADP application L-223. SWCAA 90-1209 approved installation of a small log processing system and other lumber production equipment for the Sawmill (EU-2). SWCAA 90-1209 was superseded by SWCAA 96-1962.

ADP SWCAA 93-1495 was issued July 12, 1993 for ADP application L-291. SWCAA 93-1495 approved installation of a new fingerjointer and baghouse for Remanufacturing Plant #1. SWCAA 93-1495 was superseded by SWCAA 94-1608.

ADP SWCAA 94-1608 was issued May 16, 1994 for ADP applications L-251, L-293, and L-304. SWCAA 94-1608 approved expansion of Remanufacturing Plant #1 and installation of Remanufacturing Plant #2. SWCAA 94-1608 established emission limits for both particulate matter and VOC emissions. SWCAA 94-1608 was superseded by SWCAA 96-1962 with the exception of the VOC limit. SWCAA 94-1608 was entirely superseded by SWCAA 01-2399.

ADP SWCAA 95-1835 was issued December 13, 1995 for ADP application L-290. SWCAA 95-1835 approved installation of new knock-out boxes for the filing room (EU-5). SWCAA 95-1835 was superseded by SWCAA 96-1962.

ADP SWCAA 96-1953 was issued December 2, 1996 for ADP application L-371. SWCAA 96-1953 approved installation of one new dry kiln and four new vent heat exchangers at the Randle facility (EU-4). SWCAA 96-1953 established emission limits for both particulate matter and VOC emissions from dry kilns. SWCAA 96-1953 was superseded by SWCAA 02-2414.

ADP SWCAA 96-1962 was issued January 2, 1996 for ADP application L-340. SWCAA 96-1962 approved modification of existing particulate matter emission limits for the baghouses, sawdust cyclone, and knock-out boxes (EU-2 and EU-5). Prior to the issuance of SWCAA 96-1962, approval conditions for particulate matter control equipment at the Randle facility were drawn from five different ADPs of Approval. Each ADP had a different schedule for emission testing, and in some cases a different exhaust concentration limit. The permittee requested that all of the particulate matter control equipment be given a consistent set of approval conditions and a facilitywide testing schedule. SWCAA 96-1962 standardized emissions testing requirements for all baghouses, cyclones, and knock-out boxes at the Randle facility and established other requirements. SWCAA 96-1962 was superseded by SWCAA 01-2339.

ADP SWCAA 97-2033 was issued September 5, 1997 for ADP application L-385. SWCAA 97-2033 approved modification of existing emission limits for the hog fuel boiler at the Randle facility (EU-3). SWCAA 97-2033 established requirements for the boiler and control equipment. SWCAA 97-2033 was superseded by SWCAA 02-2414.

2. Future Requirements

No future requirements are anticipated.

VII. EXPLANATION OF MONITORING TERMS AND CONDITIONS**M1. Visible Emissions Monitoring**

This monitoring requirement is used to provide a reasonable assurance of compliance with the applicable requirements drawn from 40 CFR 60.250, WAC 173-400, SWCAA 400, SWCAA 91-1342, SWCAA 00-2263, SWCAA 01-2399, and SWCAA 02-2414. These requirements do not directly establish any specific regime of monitoring or recordkeeping. Consequently, SWCAA has implemented monitoring and recordkeeping requirements under the "gap filling" provisions of WAC 173-401-615.

M1 is designed to assure compliance through periodic facility inspections and prompt corrective action. M1 requires a survey of EU-2, EU-3, EU-4, EU-5, and EU-6 to identify potential visible emissions. If emissions are not apparent during the initial survey, it is highly unlikely that the source is in violation with particulate matter or opacity standards and it is unnecessary to perform a formal Method 9 opacity observation. Demonstration of compliance is required in some cases via visible emissions evaluation.

M2. Particulate Matter Emission Monitoring

The applicable requirements cited in this monitoring/recordkeeping section are general requirements drawn from WAC 173-400 and SWCAA 400. These requirements do not directly establish any specific regime of monitoring or recordkeeping. Consequently, SWCAA has implemented monitoring and recordkeeping requirements under the "gap filling" provisions of WAC 173-401-615.

M2 is designed to assure compliance through periodic facility inspections and prompt corrective action. M2 requires a survey of EU-2, EU-3, EU-4, and EU-5 to identify potential excess particulate matter emissions.

M3. Particulate Matter Emission Testing

The applicable requirements cited in this monitoring/recordkeeping section are drawn from SWCAA 01-2399, Section 12.e. A schedule of emission testing to confirm compliance with the requirements is provided. Testing is to be conducted in accordance with SWCAA 01-2399, Appendix A which prescribes sampling points, testing protocols, data reduction, and reporting formats. M3 is designed to provide periodic demonstration of compliance with particulate matter emission limits.

M3 is intended to supplement the routine compliance monitoring provided in M2. M3 requires testing for EU-2 and EU-5.

M4. Fugitive Emissions Monitoring

The applicable requirements cited in this monitoring/recordkeeping section are requirements drawn from WAC 173-400, SWCAA 400, and SWCAA 02-2414, Sections 19 and 20.m. SWCAA 02-2414, Sections 19 and 20.m require that reasonable precautions shall be taken to prevent and minimize fugitive emissions. These precautions include

utilizing equipment such as street sweepers and watering trucks on facility roads and venting dry kilns through elevated stacks. The use of the street sweepers and watering trucks shall be recorded.

M4 requires the permittee to perform monthly inspections of the facility during daylight hours to identify any excess fugitive emissions, including fugitive dust.

M5. Complaint Monitoring

The applicable requirements cited in this monitoring/recordkeeping section are general requirements drawn from WAC 173-400 and SWCAA 400. These requirements do not directly establish any specific regime of monitoring or recordkeeping. Consequently, SWCAA has implemented monitoring and recordkeeping requirements under the "gap filling" provisions of WAC 173-401-615.

M5 is designed to ensure compliance through prompt complaint response and corrective action.

M6. Compliance Certification

The applicable requirements cited in this monitoring/recordkeeping section are drawn from WAC 173-400-040(7) and SWCAA 400-040(7), SWCAA 01-2399, Section 13.d, and SWCAA 02-2414, Sections 18 h. & i. WAC 173-400-040(7) and SWCAA 400-040(7) are general requirements which do not directly establish any specific regime of monitoring or recordkeeping. Consequently, SWCAA has implemented monitoring and recordkeeping requirements under the "gap filling" provisions of WAC 173-401-615. The applicable requirements are also utilized to assure compliance with CAM requirements.

WAC 173-400-040(7) and SWCAA 400-040(7) prohibit the concealment or masking of emissions which would otherwise violate a general standard. The permittee does not operate any equipment capable of masking emissions so semi-annual certification is deemed sufficient to assure compliance.

SWCAA 01-2399, Section 13.d and SWCAA 02-2414, Sections 18.h & 18.i require the permittee to install specific equipment. Consequently, a general regime of periodic monitoring has been deemed ineffective for the purposes of assuring compliance. SWCAA has required semi-annual certification that the monitoring equipment is installed and maintained.

SWCAA 02-2414, Section 18.e requires the settling pond to be of a minimum volume of 3,000 ft³. Periodic monitoring was not required in the permit. SWCAA has required annual certification that the pond is of the minimum volume.

Source Emission Reduction Plan (SERP) No. 08-106 was issued under the requirements of WAC 173-435 and SWCAA 435. SWCAA adopted this rule by reference on November 9, 1998. This rule requires the permittee follow the SERP whenever an air pollution episode has been declared. It is unlikely that an episode will be declared during

the term of this permit. Consequently, a general regime of periodic monitoring has been deemed ineffective for the purposes of assuring compliance. SWCAA has required semi-annual certification that the plan is followed if triggered.

M7. SO₂ Emission Standard

The applicable requirement cited in this monitoring/recordkeeping section is drawn from WAC 173-400-040(6) and SWCAA 400-040(6). WAC 173-400-040(6) and SWCAA 400-040(6) limit the emission of sulfur dioxide from combustion sources to a maximum of 1000 ppm_v corrected to a specified oxygen percentage. The boiler at this source is only fired with hog fuel and other wood byproducts from facility operations. These fuels have extremely low fuel sulfur contents relative to other petroleum-based fuels. Based on stoichiometric analysis, it is not physically possible for the combustion sources in question to exceed the limit of 1000 ppm_v sulfur dioxide while firing on these fuels. Monitoring has therefore been limited to certification of fuel type.

M8. Sap Stain System

The applicable requirement cited in this monitoring/recordkeeping requirement is drawn from SWCAA 00-2263, Section 10.h. Specific requirements are established to monitor and record the amount and type of stain used in the system.

M8 is designed to collect data to determine emissions from the sap stain system, EU-6.

M9. Maintenance and Monitoring of Boiler Operations

The applicable requirement cited in this monitoring/recordkeeping requirement is drawn from SWCAA 02-2414, Sections 20.b through 20.d and 20.f through 20.h. Proper maintenance of the boiler assures clean and efficient operations.

M9 is designed to ensure maximum performance from the boiler, EU-3, and to comply with CAM requirements.

M10. Maintenance and Monitoring of Settling Pond Water Quality

The applicable requirement cited in this monitoring/recordkeeping requirement is drawn from SWCAA 02-2414, Sections 18.j and 20.e. Proper maintenance of water quality in the settling pond is essential to operation of the boiler's wet scrubber because poor water quality can greatly diminish scrubber effectiveness.

M10 is designed to ensure maximum performance from the boiler's wet scrubber, EU-3, and to comply with CAM requirements by maintaining optimum water quality in the settling pond.

M11. Monitoring and Emissions from Lumber Drying

The applicable requirement cited in this monitoring/recordkeeping requirement is drawn from SWCAA 02-2414, Sections 20.k & 20.l. Compliance with the specified emission

limits is calculated based on lumber throughput and emission factors derived from emission testing as required in M13. Kiln temperature is limited to assure there will not be excess VOC emissions.

M11 is designed to collect and retain process data which will then be used to calculate emissions for EU-4.

M12. Material Handling Operations Monitoring

The applicable requirements cited in this monitoring/recordkeeping requirement are drawn from SWCAA 01-2399, Section 13.f and SWCAA 02-2414, Section 20.j. These requirements do not directly establish any specific regime of monitoring or recordkeeping for all particulate matter emission sources. Consequently, SWCAA has implemented monitoring and recordkeeping requirements under the "gap filling" provisions of WAC 173-401-615.

M12 is designed to assure compliance through periodic facility inspections and prompt corrective action. M12 requires a survey of EU-2 to identify potential excess particulate matter emissions.

SWCAA 01-2399, Section 13.f requires the permittee to monitor the baghouse differential pressure weekly. This assures proper operation of the baghouse.

SWCAA 02-2414, Section 20.j requires the permittee to monitor the tons of chips/shavings/sawdust unloaded from load-out bunkers monthly. This allows for accurate calculation of particulate matter emissions from load-out bunkers.

M13. Lumber Drying Emission Testing

The applicable requirement cited in this monitoring/recordkeeping section is drawn from SWCAA 02-2414, Section 25.b. SWCAA 02-2414, Section 25.b establishes a schedule of emission testing to confirm compliance with the requirement. Testing is to be conducted in accordance with the "Dry Kiln VOC Testing" method found in Appendix A of the permit. The method prescribes sampling points, testing protocols, data reduction, and reporting formats. It is important to note that the specified test method does not directly test the kilns. Testing is performed on wood samples in a laboratory environment. Lumber drying emissions are calculated based on lumber throughput and an emission factor established by the test results.

M13 is designed to provide validation of existing emission factors through periodic testing for EU-4.

M14. Boiler Testing

The applicable requirement cited in this monitoring/recordkeeping section is drawn from SWCAA 02-2414, Section 25.a. SWCAA 02-2414, Section 25.a establishes a schedule of emission testing to confirm compliance with the requirement. Testing is to be

conducted in accordance with SWCAA 02-2414, Appendix A which prescribes sampling points, testing protocols, data reduction, and reporting formats.

M14 is designed to demonstrate compliance through periodic testing for EU-3.

VIII. EXPLANATION OF RECORDKEEPING TERMS AND CONDITIONS

K1. Basic Recordkeeping

This recordkeeping section is taken directly from SWCAA 00-2263, Sections 10.g and h, SWCAA 01-2399, Sections 13.f and Appendix A, SWCAA 02-2414, Section 25, and WAC 173-401-615(2). Recordkeeping requirements were separated into Sections (a) through (d) to organize the requirements.

K1(d) "Sampling and Emission Testing" applies to source testing reports. SWCAA expects that the only source testing to be performed will be the performance testing of EU-2, EU-3 and EU-4 during the performance demonstration detailed in M3, M13 and M14.

IX. EXPLANATION OF REPORTING TERMS AND CONDITIONS

R1. Deviations from Permit Conditions

The permittee is required to report all permit deviations. This reporting section is taken directly from WAC 173-401-615(3) and SWCAA 400-107. The permittee is required to report all permit deviations no later than 30 days following the end of the month during which the deviation is discovered. Permit deviations due to excess emissions shall be reported to SWCAA as soon as possible. SWCAA may request a full report of any deviation if determined necessary. These deviations are also reported in each semi-annual report.

R2. Complaint Reports

The permittee is required to report all complaints to SWCAA within three business days of receipt to ensure prompt complaint response. This reporting section is based on WAC 173-401-615(3).

R3. Semi-annual Reports

The permittee is required to provide a report on the status of all monitoring records and provide a certification of all reports on a semi-annual basis. Semi-annual reporting and certification of monitoring records is required by WAC 173-401-615(3). A Responsible Official must certify all reports required by the Title V permit.

The semi-annual report provides information on the status of all required monitoring. The actual results (e.g. measured pressure drops, opacity readings, etc.) do not need to be submitted unless specifically required by the permit.

R4. Annual Reports

Annual Compliance Certification: The permittee is required to report and certify compliance with all permit terms and conditions on an annual basis. Annual compliance certification is required by SWCAA 401-630(5). Any deviations from permit conditions or certifications of intermittent compliance need to be accompanied by an explanation.

Annual Report: The contents of the annual report are specified. The requirements include a boiler grate cleaning schedule, particulate matter control equipment annual hours operated, and annual coating consumption. The report is designed to collect data to determine emissions and establish a regular schedule for grate cleaning operations.

R5. Emission Inventory Reports

The permittee is required to report an inventory of emissions from the source, and certify compliance with all permit terms and conditions on an annual basis. The annual emissions inventory must be submitted to SWCAA by March 15th for the previous calendar year as provided in SWCAA 400-105. WAC 173-400-105 sets a later emission inventory due date of April 15th. A complete emissions inventory includes quantifiable emissions from all EUs described in Section II and the IEUs described in Section III.

R6. Source Test Reports

This reporting section is taken from SWCAA 400-106(1)(g), SWCAA 01-2399, Appendix A and SWCAA 02-2414 Appendices B and C. The permittee is required to report test results within 45 days of test completion to allow timely review by SWCAA.

X. APPENDICES**1. Appendix A - Dry Kiln VOC Testing**

Appendix A contains the method by which VOC emission factors for lumber drying operations are to be established. There is no EPA or DOE reference test method for this type of source. SWCAA has specified use of the "Dry Kiln VOC Testing" method developed by one of the permittee's consultants. Direct testing of the lumber drying process was determined to be too difficult and cost prohibitive. As an alternative, the specified method is designed to test wood samples under laboratory conditions which are similar to the actual drying process. Test results produce an emission factor that can be used to calculate process emissions based on lumber throughput, species, and final moisture content.

2. Appendix B - Scrubber Water Visual Evaluations Method

Appendix B contains the method by which the scrubber water will be visually evaluated to determine the effectiveness of flocculent addition.

3. Appendix C - Source Emission Reduction Plan (SERP)

Appendix C contains the timeline and actions required by the facility in the event of an air pollution episode.

XI. PERMIT ACTIONSInitial Permitting Actions

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|----|---------------------------------------|--------------------|
| 1. | Initial Permit Application: | June 7, 1995 |
| | Additional Information Submitted: | November 25, 1995 |
| 2. | Application Complete: | December 7, 1995 |
| 3. | Application Sent to EPA: | September 19, 1997 |
| 4. | Draft Permit Issued: | September 19, 1997 |
| 5. | Proposed Permit Issued: | November 24, 1997 |
| 6. | Final Permit Issued: | December 15, 1997 |
| 7. | Administrative Revised Permit Issued: | October 15, 2001 |

Current Permitting Actions

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|----|---|-------------------|
| 1. | Notice to Submit Application for Permit Renewal | May 1, 2001 |
| 2. | Initial Permit Renewal Application: | December 15, 2001 |
| 3. | Renewal Application Complete: | February 14, 2002 |
| 4. | Draft Permit Issued: | April 15, 2004 |
| 5. | Proposed Permit Issued: | November 23, 2004 |
| 6. | Final Permit Issued: | January 10, 2005 |