

## STATEMENT OF BASIS

Swift Lumber, Inc.  
Atmore, Escambia County, Alabama  
Facility No. 502-S003

This draft Title V Major Source Operating Permit (MSOP) renewal is issued under the provisions of ADEM Admin. Code chap. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans, and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit. The current MSOP was issued on November 28, 2016, became effective on January 1, 2017 and is scheduled to expire on December 31, 2021. A significant modification to the current MSOP was issued on March 4, 2021, to (1) incorporate Air Permit No. X020 for four indirect heated lumber/pole dry kilns, and (2) the removal of Emission Unit Nos. 007, 009 and 010, three batch style dry kilns. An administrative amendment to the current MSOP was issued on April 19, 2021, to reincorporate Emission Unit 009, the 126' Irvington Moore, Dry Kiln No. 2 due to its accidental omission in the previous significant modification. A complete application for this renewal was submitted to ADEM on June 11, 2021 and deemed complete on July 13, 2021.

### Facility Operations

Swift Lumber, Inc. (Swift) operates a softwood lumber and pole manufacturing facility in Atmore, Alabama. The significant sources of air pollutants at this facility are a 23.25 MMBtu/hr wood-fired boiler with a multiclone, a 29.5 MMBtu/hr wood-fired boiler with a multiclone, A 16.8 MMBtu/hr natural gas-fired boiler, a 70 MBF/charge batch indirect-heated lumber/pole dry kiln, a 20 MCF pole dry kiln, and a 65,000 MBF/year continuous indirect-heated lumber/pole dry kiln. A planer mill with three (3) cyclones, CCA wood preservation and storage and an emergency backup generator are also considered to be a significant source of air pollutants. Insignificant emission sources at this facility include log debarking, sizing, and chipping; bark/sawdust handling and transfer systems; lumber sorting, stacking, and grading, wood residuals storage, and diesel fuel storage.

### Applicability: Federal Regulations

#### Title V

This facility is a major source under Title V regulations because the potential emissions for particulate matter (PM), carbon monoxide (CO), and volatile organic compounds (VOC) each exceed the 100 TPY major source threshold. The facility is a synthetic minor source of Hazardous Air Pollutants (HAP) due to facility-wide emission limits of 9.9 TPY for any single HAP and 24.5 TPY for the combined HAP emissions and production limits<sup>1</sup> for the facility's two remaining kilns.

#### Prevention of Significant Deterioration (PSD)

This facility is located in an attainment area for all criteria pollutants, and the facility operations are not one of the 28 listed major source categories. Therefore, the major source thresholds of concern are 250 TPY for criteria pollutants. The facility is a minor source under PSD regulations, as no criteria pollutant potential emissions exceed the major source thresholds.

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<sup>1</sup> The production limits were based upon a methanol emission rate of 0.21 lb/MBF for lumber production and 0.0483 lb/MBF for pole production. These emission rates were based upon emission factors obtained from NCASI Technical Bulletin No. 845.

### NSPS

The 23.25 MMBtu/hr wood-fired boiler (004), 29.5 MMBtu/hr wood-fired boiler (005), and 16.8 MMBtu/hr natural gas-fired boiler (014) are subject to NSPS, Subpart D<sub>c</sub>, which requires that records of daily or monthly fuel usage be kept in a permanent form suitable for inspection, be maintained on-site for a period of at least two (2) years from the date of generation, and be made available for inspection upon request. There are no emission standards under this subpart for wood-fired boilers with less than 30 MMBtu/hr of heat input.

The 149.2 Hp diesel-fired emergency generator engine is not subject to the New Source Performance Standards for engines (40 CFR 60, Subpart IIII), because it was manufactured prior to the applicability date.

There are no other emission units in an NSPS source category at the facility.

### NESHAP (MACT)

This facility is a synthetic minor source of HAP emissions, as listed in ADEM Admin. Code div. 335-3, Appendix G. Therefore, it is only subject to applicable National Emission Standards for Hazardous Air Pollutants (NESHAP) as an area source.

The 23.25 MMBtu/hr wood-fired boiler with multiclone (EU004) and the 29.5 MMBtu/hr wood-fired boiler with multiclone are each subject to the applicable requirements of 40 CFR 63, Subpart JJJJJ, NESHAP for Industrial, Commercial, and Institutional Boilers at Area Sources, which requires that biennial tune ups be performed on the boilers and compliance reports be provided biennially.

The chromated copper arsenate (CCA) wood preserving and storage process is subject to the applicable requirements of 40 CFR 63, Subpart QQQQQQ NESHAP for Wood Preserving Operations, which contains operating requirements and requires preparation and following of a management practice plan.

The 149.2 HP diesel-fired emergency generator engine is subject to the applicable requirements of the NESHAP for Stationary Reciprocating Internal Combustion Engines, 40 CFR Part 63, Subpart ZZZZ, which places work practice requirements and limits use of the unit.

The continuous kiln is not subject to the Plywood and Composite Wood Products (“PCWP”) MACT, 40 CFR Part 63, Subpart DDDD, as an area source and there are no other emission units subject to NESHAP at the facility.

## Applicability: State Regulations

### Particulate Matter

The two wood-fired boilers are subject to the particulate matter (as TSP) emission limitations of ADEM Admin. Code r. 335-3-4-.08(2)(d), which limits each boiler to 0.20 gr/dscf, adjusted to 50% excess air.

The natural gas-fired boiler is subject to the particulate matter emission limitations of ADEM Admin. Code r. 335-3-4-.03 for fuel burning equipment. The allowable emission rate is calculated using the following equation:

$$E = 1.38H^{0.44}$$

Where  $E$  = Emissions in pounds per million Btu  
 $H$  = Heat Input in millions of Btu/hr

The planer mill's pneumatic wood residuals transfer system with three (3) cyclones and the five (5) dry kilns are each subject to the particulate matter (as TSP) emission limitations of ADEM Admin. Code r. 335-3-4-.04(1) for Process Industries-General. The allowable emission rate for each process is calculated using the following process weight equation:

$$E = 3.59P^{0.62} \quad (P < 30 \text{ tons per hour})$$

Where  $E$  = Emissions in pounds per hour  
 $P$  = Process weight in tons per hour

In addition to the above limitations, ADEM Admin. Code r. 335-3-4-.01(1) sets forth a visible emissions standard which states that each stationary source at the facility shall not emit particulate of an opacity greater than twenty percent (20%), as determined by a six-minute average, more than once during any 60-minute period, and shall not at any time emit particulate of an opacity greater than forty percent (40%), as determined by a six-minute average.

### Sulfur Oxides (SO<sub>x</sub>)

The boilers are subject to the sulfur oxides (as SO<sub>2</sub>) emission limitations of ADEM Admin. Code r. 335-3-5-.01(b), which limits the boilers to 4.0 lb/MMBtu heat input.

## Emission Testing and Monitoring

### 004-Wood-fired Boiler No. 4 (23.25 MMBtu/hr Wood-fired Boiler with Multiclone)

This boiler is equipped with a multiclone for the capture of particulate emissions from the gas stream. An emission test to determine this boiler's compliance with the State particulate emission standard was conducted on August 29, 2003 and found the boiler capable of compliance. No testing has been conducted since. In order to better monitor compliance, Swift

would be required from this renewal onward to conduct periodic stack testing of the two wood-fired boilers, including the 23.25 wood-fired boiler with multiclone for particulate, carbon monoxide and volatile organic compounds. Testing would be would be required once every five years, not to exceed 60 months but no less than 48 months from the most recent compliance test, to demonstrate compliance. If the boiler does not operate during this testing window, testing will be required upon startup.

In addition, emission monitoring for this boiler has included and will continue to include the following:

- The instant opacity of the boiler/multiclone's stack emissions shall be determined by an individual qualified to read visible emissions at least once per day during the daylight hours, while the boiler is operating. If the instant opacity is greater than 10%, an individual qualified to read visible emissions shall conduct a Method 9 visible emissions observation within 30 minutes for a minimum of 12 minutes. The results of the observations shall be recorded at the time of observation.
- If the average opacity during the Method 9 visible emissions observation exceeds 10% opacity, corrective action shall be initiated as soon as practicable but no longer than 24 hours after the observation to identify and correct the problem, followed by an additional Method 9 for 12 minutes to confirm that the visible emissions have been reduced to no greater than 10% opacity.
- The multiclone shall be inspected for proper operation at least annually, but more frequently whenever observed visible emissions are greater than normal. If the results of the inspection indicate that cleaning or maintenance is needed, such action shall be initiated within 24 hours of completing the inspection.

The boiler is also subject to the SIP SO<sub>2</sub> allowable emission rate of 4.0 lb/MMBtu of heat input. Untreated wood residuals are the primary fuel source for this boiler. Due to the minimal expected SO<sub>2</sub> emissions from the combustion of wood residuals, no emission testing or monitoring for SO<sub>2</sub> is considered necessary.

005-Wood-fired Boiler No. 5 (29.5 MMBtu/hr Wood-fired Boiler with Multiclone)

This boiler is equipped with a multiclone for the capture of particulate emissions from the gas stream. An emission test to determine this boiler's compliance with the State particulate emission standard was conducted on May 5, 2006 and found the boiler capable of compliance. No testing has been conducted since. In order to better monitor compliance, Swift would be required from this renewal onward to conduct periodic stack testing of the two wood-fired boilers, including the 29.5 wood-fired boiler with multiclone for particulate, carbon monoxide and volatile organic compounds. Testing would be would be required once every five years, not to exceed 60 months but no less than 48 months from the most recent compliance test, to demonstrate compliance.

In addition, emission monitoring for this boiler has included and will continue to include the following:

- The instant opacity of the boiler/multiclone's stack emissions shall be determined by an individual qualified to read visible emissions at least once per day during the daylight hours, while the boiler is operating. If the instant opacity is greater than 10%, an individual qualified to read visible emissions shall conduct a Method 9 visible emissions observation within 30 minutes for a minimum of 12 minutes. The results of the observations shall be recorded at the time of observation.
- If the average opacity during the Method 9 visible emissions observation exceeds 10% opacity, corrective action shall be initiated as soon as practicable no longer than 24 hours after the observation to identify and correct the problem, followed by an additional Method 9 for 12 minutes to confirm that the visible emissions have been reduced to no greater than 10% opacity.
- The multiclone shall be inspected for proper operation at least annually, but more frequently whenever observed visible emissions are greater than normal. If the results of the inspection indicate that cleaning or maintenance is needed, such action shall be initiated within 24 hours of completing the inspection.

The boiler is also subject to the SIP SO<sub>2</sub> allowable emission rate of 4.0 lb/MMBtu of heat input. Untreated wood residuals are the primary fuel source for this boiler. Due to the minimal expected SO<sub>2</sub> emissions from the combustion of wood residuals, no emission testing or monitoring for SO<sub>2</sub> is considered necessary.

006, 007, 008, 009, and 010-Nos. 1, 2, 3, 4, and 5 Dry Kilns

The lumber/poles in the kilns are dried via radiant heat from closed steam coils resulting in negligible particulate emissions. Emissions from the kiln vents are primarily condensed water vapor and VOC driven off from the drying lumber. Due to the nature of the emissions from the kilns, emission testing and monitoring for the SIP visible emission and particulate standards is not considered practical.

Emission monitoring to determine compliance with the production limits would consist of calculating and recording the 12-month rolling total production of poles and lumber within 10 days of the end of each calendar month.

011-Planer Mill with Three (3) Cyclones and Pneumatic Wood Residuals Transfer System

This process utilizes cyclone separators in the transfer of wood residuals to storage. They are subject to the SIP allowable particulate emission rate as determined by the process weight equation (ADEM Admin. Code r. 335-3-4-.04(1)) and to the SIP opacity standard of 20% opacity. For compliance with the particulate and visible emission standards, emission monitoring for the cyclones would include:

- While the process is operating, someone familiar with the process shall observe the visible emissions from each cyclone at least daily during daylight hours for greater than normal visible emissions as determined by previous observations of normal operations. The results of the observations shall be recorded at the time of observation.

- Whenever observed visible emissions are greater than normal, corrective action to minimize emissions shall be initiated as soon as practicable but no longer than 24 hours after the observation, followed by an additional observation to confirm that emissions are reduced to normal.
- The cyclones shall be inspected for proper operation at least annually, but more frequently whenever observed visible emissions are greater than normal. If the results of the inspection indicate that cleaning or maintenance is needed, such action shall be initiated within 24 hours of completing the inspection.

012-CCA Wood Preservation and Storage

No monitoring beyond what is required by the Wood Preserving NESHAP would be required.

013-149.2 Hp Diesel-fired Emergency Generator Engine

No monitoring beyond what is required by the Stationary Reciprocating Internal Combustion Engines NESHAP would be required.

014-16.8 MMBtu/hr Natural Gas-fired Boiler

No emission testing is required for the natural gas-fired boiler since the emission calculations indicate that it is capable of complying with all applicable emission standards. However, if emission problems are observed, an increase in the emission rate is made, or a valid complaint is received, a reassessment of this determination will be made

**Recordkeeping and Reporting Requirements**

The facility would be required to maintain records for the required emission monitoring of Emission Unit Nos. 004, 005, and 011 on-site in a permanent form suitable for inspection and readily available for inspection for at least five (5) years from the date of generation of each record. These records would include (as applicable):

- The date, time, and results of each emission observation;
- The date(s), nature, and results of any corrective action taken when deviations from an emission monitoring parameter were observed; and
- The date(s) the control device was inspected for proper operation and, if the results of the inspection indicated that cleaning or emission-related maintenance was needed, the date(s) and nature of the cleaning/maintenance performed.

For Emission Unit Nos. 006-010 (5 Dry Kilns), the facility would be required to maintain records of pole and lumber production on a monthly and 12-month rolling total basis to determine compliance with the production limitations applicable to these units. The facility would be required to maintain these records on-site in a permanent form suitable for inspection and readily available for inspection for at least five (5) years from the date of generation of each record.

The facility would be required to include the following information (as applicable) in the Semiannual Monitoring Report required by General Permit Proviso No. 21:

- A statement as to whether all emission observations were completed as required during the reporting period, and if not, the date(s) and reasons(s) why the monitoring was not performed;
- A statement as to whether the annual inspection of the cyclone/multiclone was accomplished during the reporting period, and if so, the date and results of the inspection;
- The date(s), nature, and results of any corrective action taken when (1) a deviation from an emission monitoring parameter was observed or (2) an inspection of the cyclone/multiclone indicated that cleaning or emission-related maintenance was needed; and
- The pole and lumber production for each consecutive 12-month period during the reporting period.

### **Compliance Assurance Monitoring (CAM)**

The 23.25 MMBtu/hr wood-fired boiler (004) and the 29.5 MMBtu/hr wood-fired boiler (005) are each equipped with multiclones. The multiclones capture particulate matter in the gas streams. The pre-controlled particulate emissions from each boiler are less than the applicable major source threshold (100 TPY). Because the potential particulate matter emissions from each of these emission units are insufficient to constitute a major source before control, these units are not subject to CAM. There are no other processes at the facility that meet CAM applicability, as the wood residuals transfer cyclones function as material separators and are considered an inherent part of the planer mill operation.

### **Environmental Justice**

An EJ Screen report is provided for a 1 mile, 3 mile, and 5 mile radius from Swift Lumber.

### **Recommendation**

Based on the above analysis, I recommend that Swift Lumber, Inc. be issued a Major Source Operating Permit (502-S003) pending a public notice period and an EPA review.

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Anna Wood  
Chemical Branch  
Air Division

October 1, 2021  
Date