

**NORTH CAROLINA DIVISION OF
AIR QUALITY**

Application Review

Issue Date: XXXX XX, 2023

Region: Raleigh Regional Office
County: Johnston
NC Facility ID: 5100026
Inspector's Name: Jeff Harris
Date of Last Inspection: 12/09/2021
Compliance Code: 3 / Compliance - inspection

| Facility Data | Permit Applicability (this application only) |
|---|---|
| <p>Applicant (Facility's Name): Lampe & Malphrus Lumber Company</p> <p>Facility Address: Lampe & Malphrus Lumber Company 210 North 10th Street Smithfield, NC 27577</p> <p>SIC: 2421 / Sawmills & Planing Mills General NAICS: 321113 / Sawmills</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p> | <p>SIP: 15A NCAC 02D .0504, .0516, .0521, .0524, 02Q .0317 of 02D .0530, .1100 and .1111</p> <p>NSPS: Subpart Dc NESHAP/MACT: Avoidance condition for individual HAPs and total HAPs PSD: N/A PSD Avoidance: NOx NC Toxics: Avoidance condition for formaldehyde 112(r): N/A Other: N/A</p> |

| Contact Data | | | Application Data |
|--|---|--|--|
| Facility Contact | Authorized Contact | Technical Contact | |
| Chris Capps Dry Kiln & Boiler Supervisor (919) 631-3630 PO Box 150 Smithfield, NC 27577 | Will Lampe President & CEO (919) 934-6152 PO Box 150 Smithfield, NC 27577 | Chris Capps Dry Kiln & Boiler Supervisor (919) 631-3630 PO Box 150 Smithfield, NC 27577 | <p>Application Number: 5100026.22A Date Received: 02/22/2022 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 04369/T22 Existing Permit Issue Date: 12/05/2017 Existing Permit Expiration Date: 11/30/2022</p> |

Total Actual emissions in TONS/YEAR:

| CY | SO ₂ | NOX | VOC | CO | PM10 | Total HAP | Largest HAP |
|------|-----------------|-------|--------|-------|-------|-----------|-------------------------------------|
| 2021 | 3.68 | 34.43 | 119.01 | 25.22 | 45.26 | 13.88 | 5.67 [Methanol (methyl alcohol)] |
| 2020 | 3.94 | 37.97 | 124.08 | 27.10 | 48.51 | 14.63 | 5.90 [Methanol (methyl alcohol)] |
| 2019 | 3.70 | 36.18 | 116.52 | 25.43 | 45.46 | 13.73 | 5.54 [Methanol (methyl alcohol)] |
| 2018 | 3.97 | 38.90 | 128.89 | 27.35 | 48.91 | 15.01 | 6.14 [Methanol (methyl alcohol)] |
| 2017 | 5.04 | 47.69 | 144.33 | 34.56 | 61.97 | 17.70 | 6.85 [Methanol (methyl alcohol)] |

| | |
|---|---|
| <p>Review Engineer: Emily Supple</p> <p>Review Engineer's Signature: _____ Date: _____</p> | <p>Comments / Recommendations:</p> <p>Issue: 04369/T23 Permit Issue Date: XXXX XX, 2023 Permit Expiration Date: XXXX XX, 2028</p> |
|---|---|

1. Purpose of Application

Lampe and Malphrus Lumber Company currently holds Title V Permit No. 04369T22 with an expiration date of November 30, 2022 for a lumber mill in Smithfield, Johnston County, North Carolina. This permit application is for a permit renewal without modification. The renewal application was received on February 22, 2022, or at least nine months prior to the expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

2. Facility Description

Lampe and Malphrus Lumber Company receives green pine logs and stores them on the yard until needed. The green southern pine logs are kept from checking (cracking) by wet suppression (sprinkler system). The water spray helps prevent molds from staining the stored wood. Once they are needed, the logs are taken from the yard and sent through the mill where they are sawn and milled (planed) to the required dimensions. Green sawdust from the mill is fed into the three (3) on-site NSPS boilers used to fire eight (8) steam heated dry kilns. The permit allows only two boilers to be used at one time. The wood chips are collected and sold. The dressed lumber is then kiln dried. There is no pneumatic handling of the wood waste or sawdust.

The facility is a Title V facility because emissions of volatile organic compounds (VOCs) exceed 100 tons per year.

3. History/Background/Application Chronology

History/Background

- | | |
|------------------|---|
| December 5, 2017 | TV permit renewal issued. Air Permit No. 04369T22 was issued on December 5, 2017 with an expiration date of November 30, 2022. |
| December 9, 2021 | The facility was inspected by RRO engineer Jeff Harris. The facility appeared to operate in compliance with all applicable regulations and permit conditions at the time of the inspection. |

Application Chronology

- | | |
|-------------------|--|
| February 22, 2022 | Permit application 5100026.22A was received for a Title V renewal. |
| February 23, 2022 | A permit acknowledgement letter was sent to the facility indicating that the application for permit renewal was complete. |
| December 8, 2022 | Draft permit and review forwarded to Booker Pullen and Jenny Sheppard for initial review. Comments were received from Jenny Sheppard on December 12, 2022 and from Booker Pullen on December 13, 2022. The draft permit and review were revised and sent to Booker Pullen for review again on December 20, 2022. Comments were received from Booker Pullen on January 6, 2023. The draft permit and review were revised and sent to Booker Pullen for review again |

on January 19, 2023. Comments were received from Booker Pullen on January 24, 2023.

- January 24, 2023 Draft permit and review sent to Stationary Source Compliance. Samir Parekh indicated on January 27, 2023 that he had no comments.
- January 24, 2023 Draft permit and review sent to the Raleigh Regional Office. Jeff Harris indicated on January 26, 2023 that he had no comments.
- January 24, 2023 Draft permit and permit review sent to applicant. Comments were received from Mr. Will Lampe on January 31, 2023. Mr. Lampe had two minor comments and one significant comment.

The first minor comment: the PM limits in the Section 2.1-A table in condition 2D .0504 do not match the limits as given in Section 2.1 A.1.

As a response to the comment, the limits in permit Section 2.1 A.1 were updated to match the correctly listed limits in Table 2.1 A.

The second minor comment: the authorized contact listed on the permit cover letter is incorrectly listed and should be corrected to Mr. Will Lampe.

As a response to this comment, the contact listed on the permit cover letter was updated to Mr. Will Lampe. Mr. Lampe is also listed as the authorized contact in IBEAM.

The significant comment reads as follows: “As far as changes to permit stipulations are concerned, only the additional requirement to add Boilers ES-3 and ES-4 to subsequent stack testing for particulate matter is of any significance to L&M. It’s worth noting that the biomass fuel combusted in all L&M boilers is almost purely green sawdust generated by the adjacent sawmill with low ash, metals and sulfur content, the latter being almost negligible. The potential for **rapid** wear due to abrasion from particulate is practically non-existent. Based on prior internal inspections, plugging and other material accumulations due to condensation are also practically non-existent, as is the potential for corrosion. L&M contends that a performance level in the range of 0.2-0.3 lbs/MMBTU is practically a given. L&M is also not aware of any complaints by adjacent property owners, many of which are residential. The combination of clean, consistent, green sawdust fuel, required inspections (internal and external), required tune-ups, lack of complaints from residences in close proximity and the critical importance of forced and/or induced draft fan maintenance to kiln operations should be adequate to ensure multiclone performance. As currently written, L&M must stack test **two** boilers during CY 2023. At a minimum, L&M should be able to plan for the time and expense of such a new requirement.”

As a response to this comment, the stack testing condition in 2D .0504 was updated to give Lampe and Malphrus a year from the date of issue of the permit to test the boilers. Additionally, Mr. Lampe was informed that the facility has the option to request an extension of the deadline or an alternative stack testing schedule from the Stationary Source Compliance Branch (SSCB).

- February 7, 2023 The draft permit and review were revised to update condition 2D .0504 and sent to Stationary Source Compliance for review. Comments were received from

Samir Parekh, Shannon Vogel, and Steve Hall on February 8, 2023. The draft permit and review were updated per their comments.

- February 9, 2023 The draft permit was sent to the applicant for further review. On February 13, 2023, Mr. Lampe indicated that the facility is agreeable to the permit stipulations and has no further comments.
- February XX, 2023 Draft permit and permit review sent to public notice.
- March XX, 2023 Draft permit and permit review sent to EPA for review.

4. Permit Modifications/Changes and TVEE Discussion

The following table describes the modifications to the current permit as part of the renewal process.

| Page No. | Section | Description of Changes |
|----------------------|--------------------|--|
| Cover and throughout | Throughout | • Updated all tables, dates, and permit revision numbers |
| 5-6 | 2.1 A.1 | • Updated condition to be consistent with shell language |
| 7 | 2.1 A.3 | • Updated condition to be consistent with shell language |
| 7 | 2.1 A.4 | • Updated condition to be consistent with shell language |
| 8-9 | 2.1 A.5 | • Updated condition to be consistent with shell language |
| 11-14 | 2.2 B.3 | • Updated condition to be consistent with shell language |
| 16 | 2.2 A.2 | • Updated reporting requirements for clarity |
| 17 | 2.2 A.3 | • Updated reporting requirements for clarity |
| 19-27 | General Conditions | • Updated to the latest version of DAQ shell version 6.0 01/17/2022. |

This permit renewal is without modification, and no changes to the Title V Equipment Editor are needed.

5. Regulatory Review

The facility is currently subject to the following regulations. The facility’s equipment and operations have not changed since the last renewal in 2017. The permit was updated to reflect the most current stipulations for all applicable regulations, where necessary.

- 15A NCAC 02D .0504, Particulates from Wood Burning Heat Exchangers

This Rule applies to fuel burning equipment that burns 100 percent wood. All other fuel burning equipment that burns both wood and other fuels in combination shall be subject to 15A NCAC 02D .0503. For the purpose of this Rule, the following definitions shall apply:

- (1) "Functionally dependent" means that structures, buildings or equipment are interconnected through common process streams, supply lines, flues, or stacks.
- (2) "Indirect heat exchanger" means any equipment used for the alteration of the temperature of one fluid by the use of another fluid in which the two fluids are separated by an impervious surface such that there is no mixing of the two fluids.
- (3) "Plant site" means any single or collection of structures, buildings, facilities, equipment, installations, or operations that: (A) are located on one or more adjacent properties; (B) are under common legal control; and (C) are functionally dependent in their operations.

This Rule applies to installations in which wood is burned for the primary purpose of producing heat or power by indirect heat transfer. For the purpose of this Rule, the heat content of wood shall be 8,000 Btu per pound (dry-weight basis).

The sum of maximum heat inputs of all wood burning indirect heat exchangers at a plant site that are in operation, under construction, or permitted pursuant to 15A NCAC 02Q, shall be considered as the total heat input for the purpose of determining the allowable emission limit for particulate matter for each wood burning indirect heat exchanger. The removal of a wood burning indirect heat exchanger shall not change the allowable emission limit of any wood burning indirect heat exchanger subject to this Rule whose allowable emission limit has previously been established.

Emissions of particulate matter from the combustion of wood shall not exceed the allowable emission limits as calculated in the following equation. Particulate matter (PM) emissions result from the sawdust-fired boilers (ID Nos. ES-3, ES-4, and ES-6).

Allowable Emission Limit Maximum Heat Input In

$$E = 1.1698 * Q^{-.2230}$$

Where: E equals the allowable emission limit for particulate matter in lb/million Btu.

Q equals the maximum heat input in million Btu/hour.

Boiler ES-6 (29 million Btu per hour heat input) was constructed in 1996 after both ES-3 and ES-4 had been constructed.

Example calculation for boiler ES-6:

Total heat input at the facility is: 29 (ES-3) + 29 (ES-4) + 29 (ES-6) = 87 million Btu per hour heat input.

$$E = 1.1698 \times (87)^{-.2230}$$

$$1.1698 \times 0.3694 = 0.43 \text{ lbs PM per million Btu heat input (ES-6)}$$

Burning wood at an assumed heat content of 8,000 Btu per pound gives an emission factor of 0.417 lbs PM per million Btu heat input as per the NC DAQ Wood Waste Combustion emissions spreadsheet (Revision L). Testing performed on the boilers (ES-3 and ES-4 were tested in 1999, ES-6 was tested on October 5, 2021) indicates that the actual PM emissions from the combustion of wood waste in the boilers are expected to be below the permitted limits. However, to ensure continued compliance with the emission limits in this regulation, it is standard procedure for facilities to stack test wood-fired boilers at least once every 5 years. In the previous permit revision, the facility was only required to stack test boiler ES-6. With this permit renewal, it is the intent of DAQ to include a stack testing requirement for the other two boilers, ES-3 and ES-4, which have not been stack tested since 1999. Comments from Steve Hall on February 8, 2023 provided suggested stack test deadlines for the three boilers as follows: testing shall be completed by December 31, 2023 for boiler ES-3, by December 31, 2025 for boiler ES-4, and by December 31, 2027 for boiler ES-6. This testing schedule would put boiler ES-6 outside of the current every 5-year window, but ES-6 has been tested twice since 2016 while neither ES-3 or ES-4 have been tested since 1999.

Comments were received from Mr. Will Lampe, President & CEO of Lampe and Malphrus Lumber Company, on January 31, 2023 in response to the draft permit sent on January 24, 2023 with the

updated stack testing requirement. Mr. Lampe indicated in his comments that the boilers are not expected to emit PM at levels above the permitted emission limit and that the facility would need more than 180 days to conduct the stack testing. Due to Mr. Lampe's comments, it was considered if the stack testing requirements could be removed from the permit or if the frequency/schedule could be reduced. It was considered that the facility is currently subject to 40 CFR Part 63 Subpart JJJJJ (6J), but since the wood-fired boilers are all considered to be existing sources under this Rule, there are no PM emission limits or source testing requirements given in 6J. Additionally, there are no PM emission limits or testing requirements in any other rule or regulation in the facility's permit. Thus, with this renewal, the testing requirement will be expanded to include boilers ES-3 and ES-4 such that all three boilers will have a 5-year testing requirement since there are no other rules or regulations which limit or require testing for PM emissions.

To ensure compliance with the emission standards, testing, monitoring, recordkeeping, and reporting requirements will continue to apply to these boilers. Continued compliance is anticipated.

- 15A NCAC 02D .0516, Sulfur Dioxide Emissions from Combustion Sources

Emissions of sulfur dioxide (SO₂) from any source shall not exceed 2.3 pounds of SO₂ per million Btu heat input. SO₂ emissions result from the combustion of sawdust in the boilers (ID Nos. ES-3, ES-4, and ES-6) as well as from the combustion of diesel fuel in the peak shaving generator (ID No. ES-5).

The SO₂ emission factor for wood waste combustion is 0.025 pounds of SO₂ per million Btu heat input as per the NC DAQ Wood Waste Combustion emissions spreadsheet (Revision L). The SO₂ emission factor for fuel oil combustion is 0.5 pounds of SO₂ per million Btu heat input as calculated per the NC DAQ Fuel Oil Combustion emissions spreadsheet (Revision G). The emissions factors for both wood waste and fuel oil combustion demonstrate that the emission limit of 2.3 pounds of SO₂ per million Btu heat input will not be exceeded. Continued compliance is anticipated.

- 15A NCAC 02D .0521, Control of Visible Emissions

This Rule applies to all fuel burning sources and to other industrial processes having a visible emission. For sources manufactured after July 1, 1971, visible emissions shall not be more than 20 percent opacity when averaged over a six-minute period. Six-minute averaging periods may exceed 20 percent opacity if:

- (1) no six-minute period exceeds 87 percent opacity;
- (2) no more than one six-minute period exceeds 20 percent opacity in any hour; and
- (3) No more than four six-minute periods exceed 20 percent opacity in any 24-hour period.

This Rule applies to visible emissions for all emission sources at the facility including the sawdust-fired boilers (ID Nos. ES-3, ES-4, and ES-6) and the peak shaving generator (ID No. ES-5). To ensure this standard is met, testing, monitoring, recordkeeping, and reporting requirements apply to the boilers via 02D .0521 and to the generator via 02D .1111 (NESHAP ZZZZ). Continued compliance is anticipated.

- 15A NCAC 02D .0524, NSPS 40 CFR Part 60 Subpart Dc

The facility is subject to New Source Performance Standards, 40 CFR Part 60 Subpart Dc, for the sawdust-fired boilers (ID Nos. ES-3, ES-4, and ES-6). The boilers were all constructed after June 9, 1989, so they are all considered new sources and thus, subject to NSPS Dc. Sources subject to NSPS shall comply with emission standards, monitoring and reporting requirements, maintenance

requirements, notification and recordkeeping requirements, performance test requirements, test method and procedural provisions, and any other provisions as required by 40 CFR Part 60. Since all three boilers are rated at less than 30 million Btu per hour maximum heat input rate, NSPS does not have an applicable standard for SO₂ or PM. Thus, the boilers are subject to 02D .0516 and 02D .0504 for the respective SO₂ and PM limits provided in those Rules. To comply with NSPS Dc, the facility must only keep records of the amounts of fuel fired during each month. Continued compliance is anticipated.

- 15A NCAC 02D .0524, NSPS 40 CFR Part 60 Subpart IIII

The facility is subject to the New Source Performance Standards in accordance with 40 CFR Part 60 Subpart IIII for the insignificant diesel-fired generators (ID Nos. IES-EG1 and IES-EG2) since these generators were constructed after the NSPS 4I applicability date of July 11, 2005. The peak shaving generator (ID No. ES-5) is not subject to NSPS 4I since it was constructed in 2004, before the NSPS 4I applicability date of July 11, 2005. Sources subject to NSPS shall comply with emission standards, monitoring and reporting requirements, maintenance requirements, notification and recordkeeping requirements, performance testing requirements, test method and procedural provisions, and any other provisions as required by 40 CFR Part 60. The engines must be certified to meet the emission standards specified in the subpart. The engines also must install non-resettable hour meters, and the engines must be operated and maintained according to the manufacturer's instructions. Continued compliance is anticipated.

- 15A NCAC 02D .1111, MACT 40 CFR Part 63, Subpart JJJJJ

The facility is subject to National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources, 40 CFR Part 63 Subpart JJJJJ, for the sawdust-fired boilers (ID Nos. ES-3, ES-4, and ES-6). This facility has taken a HAP avoidance condition, which is listed in the Title V permit, to avoid being a major source of HAPs. Sources subject to the Subpart JJJJ NESHAP shall comply with emission standards, monitoring and reporting requirements, maintenance requirements, notification and recordkeeping requirements, performance test requirements, test method and procedural provisions, and other provisions as required by 40 CFR Part 63. The Permittee must perform a tune-up on each boiler at least biennially and keep records of each tune-up performed. A one-time energy assessment and initial tune-up were required for boilers ES-3 and ES-4. This requirement was met on January 24, 2014 for both boilers. Boiler ES-6 is considered an existing source since it was constructed prior to June 4, 2010. ES-6 was relocated to the facility and had the initial tune-up conducted on July 27, 2016. Records must be maintained of each energy assessment and tune-up. The reporting requirements of NESHAP 6J for this facility are met by complying with General Condition P of Section 3 of the permit. Continued compliance is anticipated.

15A NCAC 02D .1111, MACT 40 CFR Part 63, Subpart ZZZZ

This facility is subject to National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR Part 63 Subpart ZZZZ (for area and major sources), for the peak shaving generator (ID No. ES-5) and the insignificant diesel-fired generators (ID Nos. IES-EG1 and IES-EG2). The Permittee shall be in compliance with NESHAP 4Z for insignificant generators (ID Nos. IES-EG1 and IES-EG2) by complying with NSPS 4I. The peak shaving generator (ID No. ES-5) subject to NESHAP 4Z shall comply with all emission standards, monitoring and reporting requirements, maintenance requirements, notification and record keeping requirements, performance test requirements, test method and procedural provisions, and other provisions as required by 40 CFR Part 63. Continued compliance is anticipated.

- 15A NCAC 02D .1806, Control and Prohibition of Odorous Emissions – This Rule applies to all operations that may produce odorous emissions that can cause or contribute to objectionable odors beyond the facility’s boundaries. The owner or operator of the facility shall not operate without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility’s boundary. Continued compliance is anticipated.
- 15A NCAC 02Q .0317, Avoidance Condition for 15A NCAC 02D .0530, Prevention of Significant Deterioration

The facility has accepted a permit limit on NOx emissions to avoid 15A NCAC 02D .0530, Prevention of Significant Deterioration (PSD). Specifically, the peak shaving generator (ID No. ES-5) is limited to operate no more than 8,000 hours per year to ensure that NOx potential emissions would not exceed the major source threshold of 250 tons per year, as shown in the example calculation below.

Summary of NOx emissions for boilers at 8760 hours:

$$3 \text{ boilers} \times 27.94 \text{ ton/yr} = 83.82 \text{ tons per year}$$

Summary of NOx emissions for peak shaver/generator operating at requested limit of 8,000 hr/year:

$$40.22 \text{ lb/hr} \times 8,000 \text{ hr/yr} = 160.9 \text{ tons per year}$$

$$\text{Total NOx PTE} = 244.72 \text{ tons per year}$$

It should be noted that no more than two boilers will be operating at any one time, so actual NOx emissions will be lower than the calculation shown above. Boiler and generator emissions were based on AP-42 factors for NOx from the combustion of wood waste and diesel fuel.

The operating limit of 8,000 hours per year will ensure facility-wide emissions of NOx will not exceed 250 tons per year. No other limitation is required, and the only monitoring, recordkeeping and reporting required is the hours of operation of the peak shaving generator (ID No. ES-5). Continued compliance is anticipated.

- 15A NCAC 02Q .0317, Avoidance Condition for 15A NCAC 02D .1111

The facility has accepted a permit limit on HAP emissions to avoid being considered a major source in accordance with 15A NCAC 02D .1111. The facility is limited to dried kiln wood production of 99.5 million BF/year or consecutive 12-month period. The summary table below shows the HAP emissions from the kilns at a maximum production of 99.5 million BF/year. The emissions come from the NC DAQ Lumber Kilns emissions spreadsheet (Revision C).

| HAP | Potential Emissions (lb/yr) | Potential Emissions (tons/yr) |
|--------------|-----------------------------|-------------------------------|
| Acetaldehyde | 5,174 | 2.59 |
| Acrolein | 746 | 0.91 |
| Formaldehyde | 1,821 | 0.91 |

| HAP | Potential Emissions (lb/yr) | Potential Emissions (tons/yr) |
|--------------|-----------------------------|-------------------------------|
| Methanol | 19,801 | 9.90 |
| Phenol | 995 | 0.50 |
| Total | 28,537 | 14.27 |

It is shown that the operating limit of 99.5 million BF/year will ensure HAP emissions will not exceed the major source threshold of 10 tons per year of individual HAP emissions or 25 tons per year of total HAP emissions. The facility must monitor and record the production in board feet each month and submit a semiannual summary report containing the board feet of kiln dried wood for each of the previous 17 months and the rolling 12-month totals for each month over the 17-month period. Continued compliance is anticipated.

- 15A NCAC 02Q .0317, Avoidance Condition for 15A NCAC 02D .1100

This regulation is State-enforceable only. The facility has accepted a permit limit such that only two of the three sawdust-fired boilers (ID Nos. ES-3, ES-4, and ES-6) may be in operation at once to avoid triggering a toxics review for formaldehyde. The Permittee shall maintain daily records of boiler operation and submit a quarterly summary report of all monitoring and recordkeeping activities. Continued compliance is anticipated.

6. NSPS, NESHAPS/MACT, PSD, 112(r), CAM

NSPS:

Boilers ES-3, 4 and 6 are subject to New Source Performance Standards, Subpart Dc. The three boilers were all constructed after June 9, 1989 and are all considered to be new sources.

Since all three boilers are rated at less than 30 million Btu per hour maximum heat input rate, NSPS Dc does not have an applicable standard for SO₂ or PM. Thus, the boilers are subject to 02D .0516 and 02D .0504 for the respective SO₂ and PM limits provided in those Rules.

This renewal does not affect this status.

Insignificant emergency engines IES-ES1 and IES-EG2 are subject to New Source Performance Standards, Subpart IIII since they were both constructed after July 11, 2005. The generators are subject to the notification, testing, recordkeeping, and reporting requirements of NSPS for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII. The peak shaving generator (ID No. ES-5) is not subject to NSPS 4I since it was constructed in 2004, prior to the NSPS construction date of July 11, 2005.

NESHAPS/MACT: The Permittee is currently subject to the Maximum Achievable Control Technology Standards 40 CFR 63 Subpart JJJJJ and ZZZZ for its existing boilers and existing emergency engines, respectively located in at area source of HAPs. The permit currently includes references to the requirements in each of the paragraphs of these Subpart. This permit renewal does not affect this status.

PSD – The facility has taken a PSD avoidance condition for NO_x. The Permittee is subject to the following Prevention of Significant Deterioration permit conditions:

- * 15A NCAC 02Q .0317, Avoidance Conditions (for 15A NCAC 02D .0530, Prevention of Significant Deterioration).

This renewal does not affect this status.

112(r) – The facility is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the thresholds in the Rule. This permit renewal does not affect this status.

CAM – 40 CFR 64 requires that a compliance assurance monitoring plan be developed for all equipment located at a major facility, that have pre-controlled emissions above the major source threshold and use a control device to meet an applicable standard. The Permittee is not subject to CAM.

7. Facility Wide Air Toxics

The Permittee is not currently subject to NC Air Toxics. This renewal does not affect this status.

8. Facility Emissions Review

The following comments are taken from the CY2021 emissions inventory review, “Only minor changes (<10%) for all pollutants due to changes in production/operating hours. The only pollutant with a change of >10% was xylene, mixed isomers. This pollutant only comes from the combustion of diesel fuel in the emergency generators. The emergency generators operated for a combined total of 17 hours per year in CY2021 as compared to a combined total of 112 hours in CY2020, an 86% reduction which accounts for the difference in xylene emissions”. Actual emissions for criteria pollutants and HAPs for the years 2017 through 2021 are provided in the header of this permit review.

9. Compliance Status

The facility has had no compliance issues in the last five years.

10. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit, and each final permit shall be provided to EPA. Also, pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice is provided to the public under 02Q .0521 above. No affected states or local agencies are within 50 miles of this facility.

- Draft Title V permit was sent to a 30 day public notice from XXXXX xx, 2023 through XXXXXX xx 20223. ___ comments were received.....
- Draft Title V permit was sent to the EPA for a 45 day review from XXXXX xx, 2023 through XXXXXX xx, 2023. ___ comments were received....

11. Other Regulatory Considerations

- A P.E. seal is NOT required for this renewal application.

- A consistency determination is NOT required for this renewal.
- An application fee is NOT required for this renewal.
- Johnston County has triggered increment tracking under PSD for PM10 and SO₂. However, this permit renewal does not consume or expand increments for any pollutants.

12. Recommendations

The permit renewal application for Lampe and Malphrus Lumber Company in Smithfield, Johnston County, North Carolina has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. DAQ recommends the issuance of Air Permit No. 04369T23.