

**DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Other**

P069968702

| | | |
|---|--------------------------------------|----------------------------------|
| FACILITY: ARAUCO NORTH AMERICA | | SRN / ID: P0699 |
| LOCATION: 5851 ARAUCO RD, GRAYLING | | DISTRICT: Cadillac |
| CITY: GRAYLING | | COUNTY: CRAWFORD |
| CONTACT: Jim Osga , Environmental Manager | | ACTIVITY DATE: 08/01/2023 |
| STAFF: Rob Dickman | COMPLIANCE STATUS: Compliance | SOURCE CLASS: MAJOR |
| SUBJECT: Records review portion of an inspection of this major source. | | |
| RESOLVED COMPLAINTS: | | |

Arauco is a medium density particleboard plant with a design capacity of 750,000 cubic meters (424 million square feet, $\frac{3}{4}$ inch basis) per year. The facility receives whole logs as well as wood chips and other wood residuals, such as saw dust. Raw wood materials have a typical moisture content of around 50 percent.

The logs are debarked and chipped. Bark is shredded and stored in a silo to be used as fuel in the facility's thermal energy plant. Wood chips are sliced into small pieces and the resulting flakes are dried in two single pass rotary dryers. The dryers are heated by natural gas and the exhaust from the thermal energy plant. The dried flakes are then be screened to separate out over size and fine material and to separate the properly sized flakes into core and surface material. Oversized flakes are sent to mills to reduce the size; the milled flakes are then be rescreened. Fine material is stored in a silo to be used as fuel for the thermal energy plant.

Core and surface material are cleaned in sifters and then blended with the appropriate urea-formaldehyde resins, catalysts, wax emulsions, and urea as needed. Resin coated material from the blenders are formed into core and surface mats. These mats are then be fed to a continuous press where heat and pressure forms the mats into raw particle board. The raw board is then be cut into panels. After being cut, the panels are sent to the board cooling system where air is circulated to prevent the panels from warping as they cool. Cooled panels are then sanded and cut to the final product size. Some panels are packaged and shipped off site while others are sent for further processing. Rejected panels are broken up and the resulting material is either stored to be used as fuel for the thermal energy plant or sent to the raw material sawdust silo.

Two paper treating lines use web-based coaters to coat paper (purchased from a third-party vendor) with a urea formaldehyde base coat and a paper formaldehyde top coat. Each coater is followed by a natural gas fired dryer. The coated paper is applied to particleboard panels in three thermally fused lamination lines. The finished boards are packaged and shipped off site.

The facility's thermal energy plant combusts wood derived fuel (such as sander dust, fines from screening, material from the board breaker, and bark), clean cellulosic biomass, and natural gas in a biomass burner. The biomass burner has suspension burners to burn fine material, such as sander dust, and grates to burn large material, such as bark. In addition, natural gas burners are used during startup of the biomass burner to minimize emissions. The heat generated in the thermal energy plant is used in the flake dryers.

The facility has two natural gas fired thermal oil heaters to supply heat to the continuous press and the thermally fused lamination lines, natural gas fired air management units to provide comfort heat, a diesel fired emergency generator engine, and a diesel fired fire pump engine. The facility also has storage tanks for resins and other materials used in the particleboard process and the paper treating lines, as well as diesel fuel storage tanks for the emergency engines and mobile equipment. In addition, the facility has silos to store wood materials and paved roadways for facility truck traffic.

Arauco is a new, large facility with extensive required recordkeeping. A request for required records per Permit to Install 59-16G was sent May 1, 2023 and these records were received on May 24, 2023. Records requested were for the time period of April of 2022 through March of 2023, referred to in this report as the reporting period. In the case where required record frequency was more than weekly, three random days were selected for review. The days were January 5, 2023, August 11, 2022, and March 31, 2022. Following is a formal review of these records.

EUFLAKERS

Seven (7) green flakers. Emissions are controlled by baghouse BH04. While the dryer is operating, emissions are also controlled by the Thermal Energy Plant dry electrostatic precipitator (DESP1) and the dryer thermal oxidizer (RTO1).

The following pollutants have limited emissions when the flakers are operating in bypass of the dry ESP and RTO:

| | |
|---|-------------|
| Volatile Organic Compound (VOC) | 76 lb/hr |
| Particulate Matter (PM) | 1.01 lb/hr |
| Particulate Matter <10 microns (PM-10) | 1.01 lb/hr |
| Particulate Matter <2.5 microns (PM2.5) | 1.01 lb/hr |
| Formaldehyde | 0.012 lb/hr |
| Acetaldehyde | 0.27 lb/hr |
| Opacity | 10% |
| lb/hr = pounds per hour | |

Compliance with these limits is through limiting flaker operation when in bypass condition to 460 hours per 12-month rolling time period. Records received from the facility indicate the highest 12-month rolling average for bypass during the reporting period occurred in October of 2022 at 113.55 hours. The department may also request testing for these parameters prior to the control equipment but have not as of the date of this report.

Pressure drop on Baghouse 4 (BH04) is to be continuously monitored. When bypassing the ESP and RTO, this reading is to be recorded at least once per day. When not in bypass, this reading must be recorded at least once per week. A review of records indicates this reading is recorded at least once daily regardless of the bypass status of the unit. As these are daily records, three random days, were selected for review. The weeks including these days were also reported. These records were complete and included pressure drop readings for this baghouse.

| | | | |
|-----------------------|------------|-------------|--------------|
| | 3/2-4/2/22 | 8/7-8/13/22 | 1/1 - 1/7/23 |
| Hours of Bypass | No | No | No |
| Visible Emissions | No | No | No |
| Pressure Drop Average | 2 | 2 | 2 |

Readings for pressure drop are in millibars.

The time and duration of bypass must be recorded. This information is gathered daily, summarized monthly, and recorded based on a 12-month rolling time period. The highest number of hours during the reporting period was in October of 2022 at 69.02 hours for that month and 113.55 hours based on a 12-month rolling time period.

For any bypass exceeding 2 hours duration, the facility must take and record at least one non-certified reading at least once per calendar day. Any corrective action in response to these readings must also be recorded. Records indicate ten events during the reporting period, where readings were taken. These were taken by a Method 9 certified reader and recorded. No visible emissions were noted and, therefore, no corrective action was taken in response to these readings.

EUENERGY

Thermal Energy Plant. Combusts wood derived fuel (such as sander dust, fines from screening, material from the board breaker, and material reject) and clean cellulosic biomass (such as, but not limited to, bark). Emissions are controlled by a dry electrostatic precipitator (DESP1) and exhaust is then routed to the dryers as make up air before exhausting through the dryer RTO (RTO1), except during bypass of RTO1 and DESP1. Propane and/or diesel fuel is used for startup.

When not in bypass secondary voltage or total power for the ESP is to be monitored and recorded continuously. As these are daily records, three random days were selected for review. Following were the readings on those days:

| Date | Trans 1 | Trans 2 | Trans 3 |
|---------|---------|---------|---------|
| 3/31/22 | 37.8 Kv | 40.3 Kv | 36.6 Kv |
| 8/11/22 | 44.5 Kv | 46.3 Kv | 43.0 Kv |
| 1/5/23 | 42.3 Kv | 36.8 Kv | 37.5 Kv |

Records of bypass time and duration are to be kept. This information is gathered daily, summarized monthly, and recorded based on a 12-month rolling time period. The highest number of hours in bypass during the reporting period was in February of 2023 at 86.45 hours for that month and 386.5 hours based on a 12-month rolling time period.

The amount of wood derived fuel used, including type of fuel, is to be recorded daily. As these are daily records, three random days were selected for review. Records indicated the following usage on those days:

| Date | DUST | BARK | TOTAL |
|---------|---------|---------|----------|
| 3/31/22 | 55 TONS | 86 TONS | 141 TONS |
| 8/11/22 | 37 TONS | 65 TONS | 102 TONS |
| 1/5/23 | 46 TONS | 65 TONS | 111 TONS |

Emissions for VOC, PM, PM10, and PM 2.5 are to be calculated and record during bypass. Records indicate these values are being kept. The month with the highest hours of bypass during the reporting period was February of 2023 at 86.5 hours. For that month, PM emissions were 2.54, PM10 emissions were 2.27, PM2.5 emissions were 1.97, and VOC emissions were 0.17. All emissions listed are in tons per 12-month rolling time period.

The total heat input during bypass is to be monitored and recorded. The highest heat input during bypass during the reporting period was in February of 2023 at 9569.00 #/MMBtu based on a 12-month rolling time period.

FGAMU

Natural gas-fired air handling units, space heaters, and small water heaters. Emission units included in this group are EUMU-01 through EUMU-15 and EUAHU-01 through EUAHU-04.

Only pipeline natural gas is allowed to be burned in these units. The facility only receives pipeline natural gas for use from DTE. Records provided by the facility included a sample invoice from DTE.

Emission calculations for CO, NO_x, VOC, PM, PM10, and PM2.5 are to be kept monthly and annually. These records are being kept accordingly. There are no emission limits associated with these calculations. Following are these records as of March of 2023:

| Date | PM tpm/ 12-month rolling | PM10 tpm/ 12-month rolling | PM2.5 tpm/ 12-month rolling | SO2 tpm/ 12-month rolling | CO tpm/ 12-month rolling | NOx tpm/ 12-month rolling | VOC tpm/ 12-month rolling |
|---------------|--------------------------------|----------------------------------|-----------------------------------|---------------------------------|--------------------------------|---------------------------------|---------------------------------|
| March 2023 | 0.04/0.21 | 0.00/0.01 | 0.00/0.01 | 0.00/0.02 | 0.45/2.29 | 0.27/1.36 | 0.03/0.15 |

Greenhouse gases (CO₂e) emissions are to be calculated and recorded monthly and on a 12-month rolling time period. As of March of 2023, CO₂e emissions were 641 tons for the month and 3259 tons based on a 12-month rolling time period.

Natural gas usage is to be recorded monthly and on a 12-month rolling time period. Monthly and 12-month rolling natural gas usage is being recorded by the facility. As of March of 2023, monthly usage was 10.74 MMcf was used and 54.58 MMcf had been used based on a 12-month rolling time period.

FGFUGITIVES

Fugitive emission sources at the facility. Emission units included in this group are EUROADS, EUDEBARK, EUWOODSTORAGE, and EUBB.

Weekly required visible emissions readings are to be recorded. As these are weekly records, Three random weeks, 1/3/2023, 7/12/2022, and 3/8/2022 were selected for review. The facility submitted five-week blocks of records containing these weeks. These records are non-certified readings and indicated whether fugitive emissions were noted at several fugitive sources. No fugitive emissions were noted in any of these readings.

Records of any plant road maintenance including watering and sweeping are to be kept. A total of seven records were submitted as part of the records request.

FGDRYERRTO

Process equipment normally exhausted through the dryer RTO (RTO1). Emission units included in this group are EUFLAKERS, EUDRYER1, EUDRYER2, and EUENERGY.

The following pollutants have limited emissions from this group.

| Pollutant | Limit | Test Result |
|--|---------------------------------------|---|
| Carbon Monoxide (CO) | 36.3 lb/hr and 0.43 lb/oven dried ton | 12.3 lb/hr and 0.22 lb/oven dried ton |
| Nitrogen Oxides (NOx) | 170 lb/hr and 2.0 lb/oven dried ton | 80.5 lb/hr and 1.4 lb/oven dried ton |
| Volatile Organic Compound (VOC) | 7.1 lb/hr and 95% reduction by weight | 5.4 lb/hr and 97.3% reduction by weight |
| Particulate Matter (PM) | 29.1 lb/hr | 16.7 lb/hr |
| Particulate Matter <10 microns (PM-10) | 28.4 lb/hr | 16.7 lb/hr |
| Particulate Matter <2.5 microns (PM2.5) | 16.55 lb/hr | 8.4 lb/hr |
| GHG as CO2e | 257,292 tpy | EF |
| Formaldehyde | 3.5 lb/hr | 0.92 lb/hr |
| Acetaldehyde | 3.5 lb/hr | 1.2 lb/hr |
| lb/hr - pounds per hour, tpy - tons per year | | |

Compliance with these limits is through stack testing. Stack testing was performed October of 2019 and March and May of 2021 and the results of it are listed in the table.

Green House Gas as CO2e emissions are limited to 257,292 tons per year based on a 12-month rolling time period as determined at the end of each month. Compliance with this limit is through approved emission factors and emissions calculations. As of March of 2023, CO2e emissions were 9960 tons for the month and 104,604 tons based on a 12-month rolling time period.

Total HAP emissions are limited to any one of the following:

- 90% reduction, measured as THC (as carbon)
- 20 ppmvd THC (as carbon)
- 90% reduction of methanol
- 1 ppmvd methanol (if uncontrolled methanol entering the control device is greater than 10 ppmvd)
- 90% reduction of formaldehyde; or 1 ppmvd formaldehyde (if formaldehyde emissions entering the control device are greater than 10 ppmvd).

Compliance with these limits is through stack testing. Stack testing was performed in October of 2019 and demonstrated a result of 97.3% THC reduction (as carbon).

Records of the firebox temperature of the RTO are to be kept. The minimum temperature, as determined by testing, for the RTO is 1525F. This RTO consists of four chambers and the facility is only required to operate three of the four as part of normal operation. These records are continuous, therefore, three random days, 3/31/2022, 8/11/2022, and 1/5/2023, were selected for review. Records for these days indicate no time when the RTO temperature was below the tested minimum.

Natural gas usage rate by the dryers and RTO are to be recorded monthly and on a 12-month rolling time period. Records indicate dryer natural gas usage as of March of 2023 was 76.75 MMcf for the month and 777,984 MMcf based on a 12-month rolling time period. Records for the RTO indicate natural gas usage as of March of 2023 was 8.17 MMcf for the month and 102,836 MMcf based on a 12-month rolling time period.

To comply with opacity limits, weekly required visible emissions readings are to be recorded. As these are weekly records, three random weeks, 3/27/2022, 8/7/2022 and 1/1/2023 were selected for review. While only weekly readings are required, daily readings are taken and recorded. These records are non-certified readings and indicated whether emissions were noted. No emissions were noted in any of these readings.

The facility is required to monitor and collect certain data in a certain manner including not using data for averaging during SU/SD/Malfunctions, three-hour block averaging for RTO temperatures, and having a 75% minimum data availability requirement. The facility collects data pursuant to the criteria in the PTI.

The time and duration of bypass must be recorded. This information is gathered daily, summarized monthly, and recorded based on a 12-month rolling time period. The highest number of hours in bypass during the reporting period was in October of 2022 at 14 hours and 91.1 hours based on a 12-month rolling time period.

Total heat input to the dryers and RTO are to be recorded during bypass. These records are kept on 12-month rolling basis. As of March of 2023, heat input during bypass was 9569 MMBTU based on a 12-month rolling time period.

Tune ups on the dryers and RTO are to be kept. Records indicate the equipment was tuned on 3/10/2022 and 10/21/2022.

FGMTRLHNDL

Material handling sources at the facility with emissions controlled by baghouses. Emission units included in this group are EUOVERS1, EUOVERS2, EUOVERS3, EUFINES, EUSIFTER, and EUBARKSTG.

Each baghouse in this group is to have continuous monitoring of the pressure drop across the baghouse. Pressure drop is to be recorded at least once per day. As these are daily records, three random days were selected for review. These records are listed below.

| | 3/31/2022 | 8/11/2022 | 1/5/2023 | MAP |
|------------|-----------|-----------|----------|------|
| EUOVERS1-3 | 4 | 6 | 4 | 0-20 |
| EUFINES | 4 | 5 | 2 | 0-20 |
| EUSIFTER | 3 | 3 | 2 | 0-20 |
| EUBARKSTG | 4 | NIO | NIO | 0-20 |

* All readings in millibars

NIO - Not in Operation

Non-certified visible emissions readings are to be taken and recorded on each unit in this group at least once per week. Any corrective actions relating to these readings must also be recorded. As these are weekly records, three random weeks, 3/27/2022, 8/7/2022 and 1/1/2023 were selected for review. These records are non-certified readings and indicated whether emissions were noted. No emissions were noted in any of these readings.

Calculations demonstrating compliance with emission limits are to be kept. These records are being kept on a monthly and 12-month rolling basis. Following are the calculated emissions, in tons, as of March of 2023 for each unit in this group:

| | PM Monthly | PM 12-month | VOC Monthly | VOC 12-Month |
|--------------|------------|-------------|-------------|--------------|
| Bark Storage | 0.02 | 0.22 | 0.17 | 2.06 |
| Fines | 0.01 | 0.11 | 0.94 | 11.34 |
| Overs | 0.19 | 2.28 | 3.86 | 46.69 |
| Sifter | 0.12 | 1.54 | 3.36 | 40.73 |

FGBLNDFRM

Blending and forming operations. Emission units included in this group are EUBLENDING and EUFORMING.

Each baghouse in this group is to have continuous monitoring of the pressure drop across the baghouse. Pressure drop is to be recorded at least once per day. As these are daily records, three random days, 3/31/2022, 8/11/2022, and 1/5/2023 were selected for review.

| | 3/31/2022 | 8/11/2022 | 1/5/2023 | MAP |
|---------------|-----------|-----------|----------|------|
| Blending BH12 | 1.1 | 1.3 | 1 | 0-20 |
| Forming BH11 | 5.2 | 2.5 | 6.5 | 0-20 |
| Forming BH13 | 2 | 2.3 | 1.7 | 0-20 |

* All readings in millibars

NIO - Not in Operation

Non-certified visible emissions readings are to be taken and recorded on each unit in this group at least once per week. Any corrective actions relating to these readings must also be recorded. As these are weekly records, three random weeks, 3/27/2022, 8/7/2022 and 1/1/2023 were selected for review. These records are non-certified readings and indicate if emissions were noted but are not quantified. No emissions were noted in any of these readings.

Records of VOC and formaldehyde content of each resin used are to be kept. A letter from the supplier, Bakelite, dated May 24, 2023, lists the content of each material used at the facility. This letter was included in the records submission.

Calculations demonstrating compliance with emission limits are to be kept. A review of these records indicated they a being kept. Emissions calculations used by the facility utilize the VOC detection limit for the methodology used by the resin supplier.

Monthly and 12-month rolling time period records for PM, 10, and 2.5, and VOC are required. Following are the calculated monthly and 12-month rolling emissions, in tons, as of March of 2023:

| | PM/10/2.5 Monthly | PM/10/2.5 12-month | VOC Monthly | VOC 12-Month |
|-------------|-------------------|--------------------|-------------|--------------|
| Forming 11 | 0.32 | 3.93 | 1.75 | 21.14 |
| Forming 13 | 0.20 | 2.48 | 0.00 | 0.00 |
| Blending 12 | 0.12 | 1.54 | 4.05 | 49.00 |

FGPRESSCOOL

Continuous Press and Board cooling system. Equipped with a wet scrubber (WS01) to control particulate emissions. Emission units included in this group are EUPRESS and EUCOOLING.

Water flow rate to the wet scrubber is to be monitored and recorded continuously. Three random days, 3/31/2022, 8/11/2022, and 1/5/2023 were selected for review. All values listed are in gallons per minute.

| Date | Min Flow Rate | Max Flow Rate | Avg Flow Rate |
|-----------|---------------|---------------|---------------|
| 3/31/2022 | 885.32 | 897.50 | 892.54 |
| 8/11/2022 | 892.62 | 915.13 | 911.24 |
| 1/5/2023 | 820.34 | 874.66 | 871.10 |

Monthly and 12-month rolling time period CO, NO_x, and VOC for FGPRESSCOOL emission rates using the most recent valid emission testing data are to be calculated and recorded. A review of these records indicated they a being kept. Following are emissions calculations for these pollutants, in tons, as of March of 2023.

| CO Monthly | CO 12-month | NOx Monthly | NOx 12-Month | VOC Monthly | VOC 12-Month |
|------------|-------------|-------------|--------------|-------------|--------------|
| 0.30 | 3.65 | 0.27 | 3.27 | 5.74 | 69.56 |

Production rate in units of 1,000 square feet on a ¾ inch basis (gross), in FGPRESSCOOL on a monthly and 12-month rolling time period basis as determined at the end of each calendar month are to be recorded. These records are being kept. As of March of 2023, monthly production was 31,735.6 million square feet and 384,287 million square feet based on a 12-month rolling time period.

Daily non-certified visible emissions observations are to be taken. These readings, along with any corrective action taken, are to be recorded. As these are daily records, three random days, 3/31/2022, 8/11/2022, and 1/5/2023 were selected for review. The facility provided records for the week that contained these days. No visible emissions were indicated on any of the days reviewed.

To demonstrate compliance with the FGPRESSCOOL CO, NO_x, VOC, formaldehyde, total HAP, and acetaldehyde emission limits, records, including the emission factors, operating parameters, calculations, and other information are to be kept. A review of these records indicated they a being kept.

FGTOH

Two natural gas-fired thermal oil heaters. EUTOH is 38 MMBtu/hr and EUTFLTOS1 is 10.2 MMBtu/hr. Emission units included in this group are EUTOH and EUTFLTOS1.

Only pipeline natural gas is allowed to be burned in these units. The facility only receives pipeline natural gas for use from DTE. Records provided by the facility included a sample invoice from the natural gas vendor.

Emission calculations for CO, NO_x, VOC, PM, PM10, and PM2.5 are to be kept monthly and annually. These records are being kept accordingly. Following are these records as of March of 2023:

EUTOH

| Date | PM tpm/ 12-month rolling | PM10 tpm/ 12-month rolling | PM2.5 tpm/ 12-month rolling | CO tpm/ 12-month rolling | NOx tpm/ 12-month rolling | VOC tpm/ 12-month rolling |
|------------|--------------------------|----------------------------|-----------------------------|--------------------------|---------------------------|---------------------------|
| March 2023 | 0.04/0.47 | 0.003/0.03 | 0.002/0.03 | 0.43/5.19 | 0.26/3.09 | 0.03/0.34 |

EUTFLTOS1

| Date | PM tpm/ 12-month rolling | PM10 tpm/ 12-month rolling | PM2.5 tpm/ 12-month rolling | CO tpm/ 12-month rolling | NOx tpm/ 12-month rolling | VOC tpm/ 12-month rolling |
|------------|--------------------------|----------------------------|-----------------------------|--------------------------|---------------------------|---------------------------|
| March 2023 | 0.01/0.08 | 0.001/0.01 | 0.00/0.00 | 0.08/.94 | 0.05/0.56 | 0.01/0.06 |

Greenhouse gases (CO₂e) emissions are to be calculated and recorded monthly and on a 12-month rolling time period. As of March of 2023, for EUTOH, monthly CO₂e emissions were 614 tons and 7730 tons based on a 12-month rolling time period. For EUTFLTOS1 monthly CO₂e emissions were 116 tons and 1332 tons based on a 12-month rolling time period.

Natural gas usage is to be recorded monthly and on a 12-month rolling time period. Monthly and 12-month rolling natural gas usage is being recorded by the facility. As of March of 2023, for EUTOH monthly usage was 10.28 MMcf and 123.52 MMcf based on a 12-month rolling time period. For EUTFLTOS1 monthly usage was 1.94 MMcf and 22.3 MMcf based on a 12-month rolling time period.

FGFINISH

Sanding, sawing, and cutting of boards and conveyance of reject material to the RM silo. Emissions are controlled by baghouses. Emission units included in this group are EUFCOS, EUSANDING, EUCTPSAW and EURMSILO.

Each baghouse in this group is to have continuous monitoring of the pressure drop across the baghouse. Pressure drop is to be recorded at least once per day. As these are daily records, three random days, 3/31/2022, 8/11/2022, and 1/5/2023 were selected for review.

| | 3/31/2022 | 8/11/2022 | 1/5/2023 |
|-----------|-----------|-----------|----------|
| EUFCOS | 0.3 | 0.3 | 0.2 |
| EUSANDING | 3.5 | 6.9 | 3.5 |
| EUCTPSAW | 2.3 | 2.9 | 2.3 |
| EURMSILO | 3.1 | 3.9 | 1.1 |

* All readings are in millibars

NIO - Not in Operation

Opacity limit verification is to be performed by daily non-certified visible emissions observations. These readings, along with any corrective action taken, are to be recorded. As these are daily records, three random days, 3/31/2022, 8/11/2022, and 1/5/2023 were selected for review. The facility provided records for the week that contained these days. These records indicated that these readings are being taken and indicated no visible emissions from the processes.

Records of VOC and Formaldehyde emissions are to be kept. Following are these records as of March of 2023:

| | VOC month/12 month | Formaldehyde annual |
|-----------|-----------------------|------------------------|
| EUFCOS | 2.4/29.01 | 5.6 |
| EUSANDING | 1.59/19.21 | 0.28 |
| EUCTPSAW | 0.7/8.45 | 0.62 |
| EURMSILO | 0.94/11.34 | 0.25 |

* All values in tons

FGTFL

The three thermally fused lamination lines. Emission units included in this group are EUTFL1, EUTFL2, and EUTFL3. Line 3 is not in operation.

Each baghouse in this group is to have continuous monitoring of the pressure drop across the baghouse. Pressure drop is to be recorded at least once per day. As these are daily records, three random days, 3/31/2022, 8/11/2022, and 1/5/2023 were selected for review.

| | 3/31/2022 | 8/11/2022 | 1/5/2023 |
|-----------|-----------|-----------|----------|
| TFL1-BH28 | 3.7 | 3.7 | NIO |
| TFL2-BH29 | 3.9 | 3.9 | NIO |

* All readings in millibars

NIO - Not in Operation

Opacity limit verification is to be performed by daily non-certified visible emissions observations. These readings, along with any corrective action taken, are to be recorded. As these are daily records, three random days, 3/31/2022, 8/11/2022, and 1/5/2023 were selected for review. The facility provided records for the week that contained these days. These records indicated that these readings are being taken and indicated no visible emissions from the processes.

Using the most recent valid emission testing data (if available) or emission factors, each emission unit in FGTFI is to keep monthly and 12-month rolling time period records of emissions for VOC, PM, PM10, and PM2.5. Following are those emissions as of March of 2023.

| | VOC month/12 month | PM,PM10, PM2.5 month/12-month |
|-----------|--------------------|-------------------------------|
| TFL1-BH28 | 0.79/9.61 | 0.1/1.24 |
| TFL2-BH29 | 0.79/9.61 | 0.1/1.24 |

FGTANKS

Storage tanks for resins and other materials for the particle board line, resins for the paper treating lines, diesel fuel, and liquid propane. Emission units included in this group are EUCHEMICAL, EUMRESIN, EUUFRESIN, EUDIESEL, and EULPTANKS.

Records of all material deliveries to each emission unit in this group are to be kept and were reviewed during the on-site inspection as these. Records kept appeared to be complete and up to date.

FGRICE

Emergency diesel generator engine, 1,500-kilowatt, emergency diesel generator engine, 568-kilowatt, and diesel fire pump engine, 187-kilowatt. Emission units included in this group are EUEMRGRICE1, EUEMRGRICE2, and EUFIREPUMP.

Each of these engines is EPA certified for emissions. Records of these certifications were included in the records submittal.

For each engine in this group, the total hours of operation and the hours of operation during non-emergencies is to be recorded on a monthly and 12-month rolling time period. As of March of 2023 the following times were recorded.

| | Hours month/12-month |
|-------------|----------------------|
| EUEMRGRICE1 | 0.4/4.1 |
| EUEMRGRICE2 | 0.4/3.9 |
| EUFIREPUMP | 3.9/83.4 |

Fuel sampling or fuel supplier records indicating sulfur content are to be kept. Fuel supplier records were submitted as part of the records request. These records indicate ultra low sulfur diesel fuel was delivered to the facility.

Greenhouse gases (CO2e) emissions are to be calculated and recorded monthly and on a 12-month rolling time period. As of March of 2021, CO2e emissions were 3.0 tons for the month and 35 tons based on a 12-month rolling time period for all three RICE engines.

FGPCWPMACT

Emission units subject to the PCWP MACT, 40 CFR 63, Subpart DDDD. Emission units included in this group are EUPRESS, EUCOOLING, EUDRYER1, EUDRYER2, EUFLAKERS, and EUENERGY.

The facility must only use HAP free coatings. The only coating used at the facility are for maintenance purposes. Supplier specifications from the facility are for HAP free coatings only for this purpose.

FGBOILERMACT

Gas 1 Fuel Subcategory requirements for new Boilers/Process Heaters at major sources of Hazardous Air Pollutants per 40 CFR Part 63, Subpart DDDDD. These new boilers or process heaters must comply with this subpart upon startup. Emission units included in this group EUTOH and EUTFLTOS1.

The facility is required to keep records of any boiler tune ups. The last tune up was on EUTOH on 10/22/23. Records of this were submitted with this records request.

FGFACILITY

The following conditions apply source-wide to all process equipment including equipment covered by other permits, grand-fathered equipment, and exempt equipment.

All compliance tests, monitoring data, and calculations are being recorded and kept by the facility. Details regarding this are located in the unit specific sections of this report or have been previously reviewed and documented.

This facility appears in compliance with all recordkeeping requirements detailed in their Permit to Install.

NAME DATE 11-16-23SUPERVISOR 