PRELIMINARY DETERMINATION
Packaging Corporation of America– Jackson Mill
Facility No. 102-0001
Combustion Turbine and Heat Recovery Steam Generator Project

INTRODUCTION

Packaging Corporation of America (PCA or the Mill), located in Jackson, Alabama (Clarke County), owns and operates a pulp and paperboard mill. The Mill is a major source of air emissions under the Title V Major Source Operating Permit (MSOP) program and operates under Title V MSOP No. 102-0001. The Mill is also a major source under the Prevention of Significant Deterioration (PSD) program. On December 18, 2025, the Department electronically received an application to install an existing combined cycle combustion turbine and heat recovery steam generator.

BACKGROUND

On December 18, 2025, the Mill submitted an Air Permit application to the Department for the construction and operation of a combined cycle combustion turbine (CCCT). The CCCT is an existing combustion turbine consisting of eight low-nitrogen oxide (NO_x) burners with a combined maximum heat input of 675 MMBtu/hr and 50 MW of electrical output. It was originally manufactured in 1999 and will be relocated from Jay, Maine, to the Mill site. The Mill also proposes to construct an existing duct burner-fired heat recovery steam generator (HRSG). The HRSG consists of twelve low-NO_x duct burners with a combined rating of 304 MMBtu/hr. The HRSG was also originally manufactured in 1999 and will also be relocated to the Mill from Jay, Maine. Both units will only fire natural gas.

The CCCT and HRSG will take the place of a previously proposed new bubbling fluidized bed boiler and steam turbine generator. Air Permits 102-0001-X036 and X037 were originally issued on August 21, 2024, but these units were never constructed. The Air Permits were returned to the Department and voided on February 2, 2026.

The Mill does not plan to retire any existing boilers or other equipment onsite as a part of this project. However, it is expected the three existing natural gas-fired boilers (i.e. the No. 3, No. 4, and No. 5 Power Boilers) will be used less frequently. The boilers will continue to be maintained for use in support of the CCCT and HRSG.

As previously stated, both proposed units will be equipped with low-NO_x burners to control emissions of NO_x. The combined exhaust from the CCCT and HRSG will be controlled by a selective catalytic reduction (SCR) system using aqueous ammonia injection to minimize NO_x. A catalytic oxidation system will be used to minimize carbon monoxide (CO) emissions. The Mill will also install continuous emissions monitoring systems (CEMS) for NO_x and CO emissions.

The following equipment would be installed as a result of this project:

- 675 MMBtu/hr Combined Cycle Combustion Turbine
- 304 MMBtu/hr Heat Recovery Steam Generator

Emissions

The Mill will not be retiring any equipment or taking credit for any previously shut down equipment. This project will only consist of the installation of the equipment discussed above. As a result, PCA has prepared an emissions analysis utilizing the actual-to-potential test for projects that only involve construction of new emission units.

The potential emissions are listed for filterable particulate matter (FPM), total particulate matter less than 10 microns (PM_{10}), total particulate matter less than 2.5 microns ($PM_{2.5}$), sulfur dioxide (SO_2), NO_x, CO, greenhouse gases (CO_{2e}), volatile organic compounds (VOC), sulfuric acid mist (H_2SO_4), and lead. The potential emissions were combined for the CCCT and the HRSG since they will be sharing an emission point.

It is the Department's position that site-specific tests and CEMS data provide the best representation of emissions from the Mill. However, when data gaps are present, the best available emission factors should be used. Since no site-specific factors are available for the CCCT and HRSG, the potential emissions were calculated using AP-42 factors, proposed Best Available Control Technology (BACT) limits, proposed PSD synthetic minor limits, and EPA natural gas factors. The detailed factors and calculations can be found in Appendix A of the application. The operation time of the equipment used in the calculation of potential emissions is 8,760 hours per year.

The Mill has proposed a combined NO_x limit of 116.0 tons per rolling 12-month period for the CCCT and HRSG and the No. 3, No. 4, and No. 5 Power Boilers. As a result, the emissions analysis considered the baseline actual NO_x emissions from the No. 3, No. 4, and No. 5 Power Boilers. **Table 1** summarizes the emissions analysis for this project.

Table 1: Emissions Analysis of the CCCT and HRSG (tons per year)

Emission Unit	FPM	Total PM_{10}	Total $PM_{2.5}$	SO_2	NO_x	CO	CO_{2e}	VOC	H_2SO_4	Lead
Potential Emissions: CCCT & HRSG	21.44	30.02	30.02	10.84	116.00	98.62	502,141	16.89	1.66	0.0021
Baseline Emissions: No. 3, No. 4, and No. 5 Power Boilers	N/A	N/A	N/A	N/A	76.58	N/A	N/A	N/A	N/A	N/A
Net Emissions Increase	21.44	30.02	30.02	10.84	39.42	98.62	502,141	16.89	1.66	0.0021
PSD Threshold	**25**	**15**	**10**	**40**	**40**	**100**	**75,000**	**40**	**7**	**0.6**

The Mill is currently considered a major stationary source with respect to PSD. In order for a major stationary source to be required to undergo a PSD review, it would have to undergo a major modification. The definition of a "major modification" is found in ADEM Admin. Code R. 335-3-14-.04(2)(b) and it reads as follows: A Major Modification "shall mean any physical change in or change in the method of operation of a major stationary source that would result in a significant net emission increase of any regulated NSR pollutant."

As seen in **Table 1**, the proposed project will result in a significant net increase of emissions for total PM_{10}, total $PM_{2.5,}$ and CO_2e. A PSD review will be required and conducted in respect to ADEM Code 335-3-14-.04.

Standards of Performance for New Stationary Sources (NSPS)

Implementation of this project will potentially make the following NSPS's applicable for the new sources at the Mill:

- Subpart A, General Provisions
- Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators
- Subpart Da, Standards of Performance for Electric Utility Steam Generating Units
- Subpart Db, Standards of Performances for Industrial-Commercial-Institutional Steam Generating Units
- Subpart GG, Standards of Performance for Stationary Gas Turbines
- Subpart KKKK, Standards of Performance for Stationary Gas Turbines
- Subpart KKKKa, Standards of Performance for Stationary Gas Turbines

Subpart A

Subpart A establishes requirements for initial notification and performance testing, recordkeeping, monitoring, provides reference methods, and mandates general control device requirements for all other subparts as applicable. All affected sources are subject to the general provisions of Subpart A, unless excluded by the source specific NSPS. Because the HRSG is subject to Subpart Db and the CCCT is subject to Subpart GG, Subpart A would be applicable.

Subpart D

Subpart D applies to fossil fuel-fired and wood-fired steam generating units with a maximum rated heat input capacity in excess of 250 MMBtu/hr for which construction or modification commenced after August 17, 1971. The proposed HRSG duct burner system will have a maximum capacity greater than 250 MMBtu/hr, can combust fossil fuel, and was originally constructed after 1971. However, the duct burner system will be subject to Subpart Db and will therefore not be subject to Subpart D, in accordance with 40 CFR 60.40b(j).

Subpart Da

Subpart Da applies to electric utility steam generating units that have the capability of combusting more than 250 MMBtu/hr of heat input of fossil fuel for which construction, modification, or reconstruction commenced after September 18, 1978. An electric utility steam generating unit (EUSGU) is defined as "constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW net-electrical output to any utility power distribution system for sale" in 40 CFR 60.41Da. The Mill does not currently sell or supply electricity to the grid and does not plan to sell or supply electricity upon completion of this project. As a result, Subpart Da is not applicable to any emission unit. The Mill will need to reevaluate this subpart if they decide to sell electricity to the grid in the future.

Subpart Db

Subpart Db applies to fossil fuel fired steam generating units for which construction commenced after June 19, 1984, and that have a maximum design heat input capacity greater than 100 MMBtu/hr as defined in 40 CFR 60.40b(a). The proposed HRSG duct burner system will generate steam, have a heat input capacity of greater than 100 MMBtu/hr, and was originally constructed in 1999. The Mill will not be taking a fossil fuel annual capacity limit and will have emission limits for NO_x under Subpart Db.

The duct burner system was originally constructed in 1999 and will burn only natural gas. No SO_2 limit is specified in 40 CFR 60.42b for affected units firing only natural gas that were constructed before February 28, 2005. No filterable PM limit is specified in 40 CFR 60.43b for affected units firing only natural gas.

The HRSG duct burner system was constructed after July 9, 1997, and will burn only natural gas. Therefore, the duct burner system will have a limit of 0.20 lb/MMBtu for NO_x emissions as stated in 40 CFR 60.44b(l)(1). Pursuant to 40 CFR 60.48b(h), a NO_x continuous emission monitoring system (CEMS) is not required. However, PCA proposes to install a NO_x CEMS to monitor the combined exhaust from the CCCT and HRSG to demonstrate compliance with 40 CFR 60 Subpart GG and the proposed synthetic minor limits. Compliance with the 0.20 lb/MMBtu NO_x limit will be demonstrated through compliance with the aforementioned limits. Pursuant to 40 CFR 60.49b(g), the Mill shall maintain a record of the 30-day rolling average NO_x emission rate. Records shall be kept on file available for inspection for at least five years.

Subpart GG

Subpart GG applies to all stationary gas turbines with a maximum heat input greater than or equal to 10 MMBtu/hr, for which construction, modification, or reconstruction commenced after October 3, 1977. The proposed CCCT has a maximum heat input of 675 MMBtu/hr and was originally constructed in 1999. The Mill will have emission limits for NO_x and SO_2 under Subpart GG.

The CCCT is a stationary gas turbine with a heat input greater than 10 MMBtu/hr. It does not meet the definition of an "Electric utility stationary gas turbine" under 40 CFR 60.331(q) as it will not be producing electricity for sale and is therefore subject to the NO_x emission limit under 40 CFR 60.332(a)(2). The Mill is not claiming an emissions allowance for fuel bound nitrogen (F-value), and the manufacturer's rated heat rate shall not exceed 14.4 kJ/W-hr. As a result, the CCCT will have an emission limit of 150 ppmvd corrected to 15% oxygen based on a four-hour rolling average. The Mill will not be required to monitor the nitrogen content of the natural gas pursuant to 40 CFR 60.334(h)(2). Steam or water injection will not be used to control NO_x emissions. The Mill has elected to equip the combined stack for the CCCT and HRSG with a NO_x CEMS that meets the requirements of 40 CFR 60.334(b) in accordance with 40 CFR 60.334(c). Pursuant to 40 CFR 60.334(j), the Mill shall submit a semiannual excess emission report in accordance with 60.7(c). Records of the four-hour rolling average NO_x emission rate shall be made and maintained on file available for inspection for at least five years.

Pursuant to 40 CFR 60.333(b), PCA shall not burn any fuel in the CCCT which contains total sulfur in excess of 0.8% by weight. The Mill shall demonstrate compliance by conducting fuel sampling and analysis that shows the maximum sulfur content of gaseous fuels is 20.0 grains per 100 standard cubic feet or less, pursuant to 40 CFR 60.334(h)(3)(ii). The Mill will therefore be exempt from the monitoring requirements of 40 CFR 60.334(h)(1).

Subpart KKKK

Subpart KKKK applies to stationary combustion turbines that commenced construction, modification, or reconstruction after February 18, 2005. The proposed CCCT was originally constructed in 1999. The relocation or change in ownership of the CCCT is not considered a modification under NSPS according to 40 CFR 60.14(e)(6). The CCCT will also not be reconstructed under NSPS as defined in 40 CFR 60.15(b) as the cost of any new components will not exceed 50% of the cost of a comparable new combustion turbine. Therefore, Subpart KKKK is not applicable and the CCCT will be subject to Subpart GG.

Subpart KKKKa

Subpart KKKKa applies to stationary combustion turbines that commenced construction, modification, or reconstruction after December 13, 2024, and that have a base load rating of at least 10 MMBtu/hr. This subpart also applies to any HRSG and duct burners associated with a combustion turbine subject to this subpart. As with Subpart KKKK, the relocation or change in ownership of the CCCT is not considered a modification under NSPS according to 40 CFR 60.14(e)(6). The CCCT will also not be reconstructed under NSPS as defined in 40 CFR 60.15(b) as the cost of any new components will not exceed 50% of the cost of a comparable new combustion turbine. Therefore, Subpart KKKKa is not applicable. The CCCT will be subject to Subpart GG and the HRSG will be subject to Subpart Db.

National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP)

Implementation of this project will potentially make the following NESHAPs applicable for the new sources at the Mill:

- Part 61, Subpart A, General Provisions
- Part 61, Subpart M, National Emission Standard for Asbestos
- Part 63, Subpart A, General Provisions
- Part 63, Subpart B, Requirements for Control Technology Determination for Major Source in Accordance with Clean Air Act Sections, Section 112(g) and 112(j)
- Part 63, Subpart YYYY, National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines
- Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

Part 61, Subpart A

Subpart A establishes the list of pollutants, applicability of Part 61, initial notification, performance testing, recordkeeping, and monitoring requirements for all other subparts as

applicable. Each source that is subject to another Part 61 subpart must comply unless specified in that subpart.

Part 61, Subpart M
Subpart M establishes standards for production, demolition, and removal of asbestos. The only provision applicable to this project is 40 CFR 61.145, Standard for demolition and renovation. The Mill does not currently plan on any demolition or renovation involving asbestos. If the Mill engages in demolition or renovation activities where asbestos may be disturbed, the Mill will need to be in full compliance with the provisions of 40 CFR 61.145.

Part 63, Subpart A
Subpart A establishes general provisions for initial notification and performance testing, recordkeeping, monitoring, provides reference methods, and mandates general control device requirements for all other subparts as applicable. All affected sources are subject to general provisions of Subpart A, unless specifically excluded by the source specific NESHAP.

Part 63, Subpart B
Subpart B details the process for case-by-case MACT for newly constructed or reconstructed major sources of HAP emissions in accordance with sections 112(g) and 112(j) of the Clean Air Act. The requirements for implementation of section 112(g) are found in Rule 335-3-14-.06 of the state regulations.

Part 63, Subpart YYYY
Subpart YYYY establishes emission limits, operating limits, testing, monitoring, reporting, and recordkeeping requirements for stationary combustion turbines located at major sources of hazardous air pollutants (HAPs) emissions. The proposed CCCT would be an affected source under Subpart YYYY since PCA is a major source of HAP emissions. An "existing stationary combustion turbine" is defined in 40 CFR 63.6090(a)(1) as a combustion turbine which "commenced construction or reconstruction… on or before January 14, 2003. A change in ownership of an existing stationary combustion turbine does not make the stationary combustion turbine a new or reconstructed stationary combustion turbine". The CCCT was originally constructed in 1999, and the relocation of the combustion turbine will not involve the replacement of components such that the cost exceeds 50% of the cost of a comparable new source as defined in 40 CFR 63.2. It is therefore an existing source and will not be subject to the requirements of Subparts A or YYYY according to 40 CFR 63.6090(b)(4). Additionally, 40 CFR 63.6092 clarifies that duct burners and waste heat recovery units are not subject to Subpart YYYY. Therefore, the HRSG will also not be subject to Subpart YYYY.

Part 63, Subpart DDDDD
Subpart DDDDD establishes emission limits, operating limits, work practice standards, testing, monitoring, reporting, and recordkeeping requirements that apply to boilers and process heaters located at major sources of HAPs. The proposed HRSG would be an affected source under Subpart DDDDD since PCA is a major source of HAP emissions. According to 40 CFR 63.7575, the HRSG meets the definition of a "waste heat boiler" as it primarily produces steam from the residual energy in the exhaust gases from the CCCT. Waste heat boilers are exempt from the definition of "boiler".

Therefore, the HRSG will not be subject to the requirements of Subpart A or DDDDD according to 40 CFR 63.7485.

State Regulations

Implementation of this project will potentially make the following State Regulations applicable for the new sources at the Mill:

- Chapter 335-3-4 – Control of Particulate Emissions
- Chapter 335-3-5 – Control of Sulfur Compound Emissions
- Chapter 335-3-8 – Control of Nitrogen Oxides Emissions
- Chapter 335-3-10 – Standards of Performance for New Stationary Sources
- Chapter 335-3-11 – National Emission Standards for Hazardous Air Pollutants
- Chapter 335-3-14 – Air Permits
- Chapter 335-3-16 – Major Source Operating Permits

Chapter 335-3-4

The CCCT and HRSG will be subject to the visible emission limitation in accordance with Rule 335-3-4-.01. Since both units would fire only natural gas, and PM emissions from the combustion of natural gas are expected to be minimal, no additional periodic monitoring for opacity would be required. If excess opacity were to become an issue, the Department retains the authority to require the facility to test at any time and could modify the permit to require more stringent monitoring.

Both units will be subject to Rule 335-3-4-.03 for PM emissions from fuel-burning equipment. According to Table 4-1 in Rule 335-3-4-.03(4), the PM emission limit for Class II counties is 0.12 lb/MMBtu. However, the Mill has proposed a synthetic minor limit of 0.0050 lb/MMBtu for filterable PM which is more stringent than the state limit. The facility is also generally subject to the process weight standards in Rule 335-3-4-.04. According to Rule 335-3-1-.02(1)(ggg), fuel burning is excluded from the definition of "process", so the process weight standard does not apply to the CCCT or HRSG. The Mill will be required to conduct a PM emission test and submit a report every five years. The natural gas firing rate shall be monitored to indicate continuous compliance.

Chapter 335-3-5

Rule 335-3-5-.01 establishes SO_2 limits for fuel burning equipment. Since Clarke County is a Category II county for SO_2, the applicable emission limit for the CCCT and HRSG is 4.0 lb/MMBtu pursuant to Rule 335-3-5-.01(1)(b). As stated above, the Mill will be subject to a fuel requirement of 0.8% sulfur content by weight under 40 CFR 60 Subpart GG, which is more stringent than Rule 335-3-5-.01(1)(b). Therefore, the Mill shall demonstrate compliance with the requirements of Subpart GG. The Mill will be required to conduct fuel sampling and analysis as required by 40 CFR 60 Subpart GG.

Chapter 335-3-8

Rule 335-3-8-.06 prescribes NO_x limits for combined cycle electricity generating units, which includes the combined systems of the CCCT and HRSG. The prescribed limit of 4.0 ppmvd corrected to 15% O_2 for natural gas fired units is more stringent than the NO_x limit prescribed by

40 CFR 60 Subpart GG. According to Rule 335-3-10-.01(2), the Subpart GG emission limit supersedes the limit in Rule 335-3-8-.06(3)(a). The Mill shall demonstrate compliance with Subpart GG. A NO_x CEMS audit shall be performed and a report submitted at least once every quarter. An excess emission report shall also be submitted semiannually.

Chapter 335-3-10
Chapter 335-3-10 adopts by reference the standards promulgated in 40 CFR Part 60. Please refer to the section 'Standards of Performance for New Stationary Sources (NSPS)' for all applicable standards.

Chapter 335-3-11
Chapter 335-3-11 adopts by reference the standards promulgated in 40 CFR Part 61 and Part 63. Please refer to the section 'National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAP)' for all applicable standards.

Chapter 335-3-14
Chapter 335-3-14 describes the permitting requirements for new and modified sources of air emissions. This Chapter addresses Prevention of Significant Deterioration, New Source Review, and permitting requirements. The project will be subject to the BACT requirements as addressed in Section 5, for total PM_{10}, total $PM_{2.5}$, and CO_2e. The required air permit application forms are available with the application.

Rule 335-3-14-.06 details the process for case-by-case MACT for newly constructed or reconstructed major sources of HAP emissions pursuant to section 112(g) of the Clean Air Act. The requirements of this rule apply to any major sources that have not been explicitly regulated or exempted from regulation under a standard issued pursuant to section 112(d), section 112(h), or section 112(j) of the Clean Air Act and incorporated in another subpart of 40 CFR 63 or Chapter 335-3-11 of this Division of the state regulations. The CCCT and HRSG have been explicitly exempted from regulation under 40 CFR 63 Subparts YYYY and DDDDD, respectively. Therefore, this rule does not apply.

Chapter 335-3-16
Chapter 335-3-16 implements the federal Title V operating permit program. PCA is currently a major source stationary source with respect to Title V and operates under Permit No. 102-0001 effective October 16, 2025, and expires October 15, 2030. The CCCT and HRSG will need to be incorporated as new emission units upon completion of construction within 12 months of startup.

Proposed Limits
In addition to federal and state limits, the Mill has proposed several PSD synthetic minor limits. As previously stated, the Mill shall burn only natural gas in the CCCT and HRSG to minimize PM and SO_2 emissions and will be subject to a filterable PM emission limit of 0.0050 lb/MMBtu.

The Mill will also limit CO emissions to the more stringent of 0.023 lb/MMBtu and 22.5 lb/hr on a 30-day rolling average. As previously stated, the Mill has proposed installing a CEMS to monitor

CO emissions. Records of the 30-day rolling average CO emission rate shall be made and maintained on file available for inspection for at least five years.

Combined NO_x emissions from the CCCT and HRSG and the No. 3, No. 4, and No. 5 Power Boilers will be limited to 116.0 tons per 12-month rolling period. NO_x emissions from the CCCT and HRSG will also be limited to the more stringent of 6.0 ppmvd at 15% oxygen (O_2) and 24.37 lb/hr on a 30-day rolling average. The Mill shall submit a quarterly excess emission report for the 30-day rolling average and combined 12-month rolling NO_x emissions. Records of the 30-day rolling average NO_x emission rate and the combined 12-month rolling NO_x emissions shall be made and maintained on file available for inspection for at least five years.

Compliance Assurance Monitoring (CAM) Plan

CAM applies to pollutant specific emission units that are subject to an emission limitation or standard where a control device is used to achieve compliance with an applicable emission limitation and whose pre-controlled emission levels exceed the major source thresholds. The CAM rule requires facilities to monitor compliance indicators for these emission units to provide reasonable assurance for compliance with regulatory emission limitations.

The pre-controlled emissions from CCCT and HRSG are greater than 100 tpy for NO_x and CO. The CCCT and HRSG will also be subject to emissions limits for these pollutants. An SCR system will be used to control NO_x emissions, and catalytic oxidation will be used to control CO emissions. Therefore, PCA would be required to submit a CAM plan specific to NO_x and CO unless a specific exemption under 40 CFR 64.2(b) is met.

The following are the exemptions that apply to the CCCT and HRSG operated by the mill:

- The requirements of 40 CFR Part 64 shall not apply to emission limitations or standards proposed by EPA after November 15, 1990, pursuant to section 111 or 112 of the Clean Air Act (40 CFR 64.2(b)(1)(i)).
- The requirements of 40 CFR Part 64 shall not apply to emission limitations or standards for which a Part 70 or 71 permit specifies a continuous compliance determination method (40 CFR 64.2(b)(1)(vi)).

The limits for NO_x from Subpart Db and GG would be exempt from CAM applicability according to 40 CFR 64.2(b)(1)(i). The Mill will also utilize CEMS to ensure compliance with NO_x and CO. These would be included in the Title V permit and would therefore meet the continuous compliance demonstration method exemption as stated in 40 CFR 64.2(b)(1)(vi).

Risk Management Program (RMP)

40 CFR Part 68 sets forth the list of regulated substances and thresholds for regulated substances in the case of an accidental release. It is determined both by the type and quantity of substances as defined by Clean Air Act Section 112(r). PCA has evaluated the amount of chemicals stored and the amount of chemicals that will be stored after the project is completed. The Mill currently has no chemicals stored above the threshold quantity for which they will need to create an RMP plan.

The SCR system will require storage and use of aqueous ammonia at a concentration of 19%. According to 40 CFR 68.130, aqueous ammonia having a concentration of 20% or greater stored in quantities of 20,000 pounds or more, will be subject to RMP requirements. At the planned concentration for the SCR system, the Mill will not be subject to any new RMP requirements.

Clean Air Markets Regulations

40 CFR Part 96, NO_x Budget Trading Program and CAIR NO_x and SO_2 Trading Programs for State Implementation Plans, outlines the general provisions and applicability, permitting, allowance, excess emissions, monitoring, and opt-in provisions for the NO_x Budget Trading Program. As stated in 40 CFR 96.4(a)(2), any unit that has a maximum design heat input greater than 250 MMBtu/hr and sells any amount of electricity are subject to the NO_x Budget. The NO_x Budget would not apply to the Mill or the CCCT and HRSG because the Mill will not sell electricity in any amount.

The CCCT and HRSG could potentially be subject to the NO_x State Implementation Plan (SIP) Call Regulations. However, according to Chapter 335-3-8-.71(4), Clarke County is not listed under the counties that are subject to the NO_x SIP Call. Therefore, the CCCT and HRSG will not be subject to the NO_x SIP Call.

Best Available Control Technology (BACT)

BACT is an emission limitation based on the maximum degree of reduction of each pollutant subject to the regulation under the PSD program which the Department determines is achievable by the source. The determination is made on a case-by-case basis, taking into account energy, environmental impacts and other costs. The emission limitation limits the amount of a pollutant which can be emitted or sets equipment specifications, which are individualized for a particular source. The Mill has elected to use the "top-down" approach in determining BACT for this proposed project. This approach identifies the most stringent or top-level technology and emission limits for the process in question and requires the applicant to provide a basis for elimination of this technology. Elimination may be based on technical feasibility and/or economic considerations. The Mill presented all this information for each pollutant requiring a BACT analysis as part of this project. The Department reviewed the listed technologies for each pollutant to ensure that each technology that was rejected due to technical feasibility was justifiable. Each process of the project that will be subject to the PSD review will be discussed below and BACT limitations will be presented for each of the pollutants that are applicable.

BACT requires a review of all new or modified emission units from which there is emissions increase of pollutants subject to PSD review. According to ADEM Administrative Code R. 335-3-14-.04(9)(c), "a major modification shall apply BACT for each regulated NSR pollutant for which it would result in a significant net emission increase at the source. This requirement applies to each proposed emissions unit at which a new increase in the pollutant would occur as a result of a physical change or change in the method of operation in a unit." The pollutants of concern for BACT review for this proposed project are total PM_{10}, total $PM_{2.5}$, and CO_2e. As a result, the CCCT and HRSG were considered in the BACT analysis. There would be no affected emissions units that would be modified as part of this project and were not included in the BACT analysis.

Greenhouse Gases

Greenhouse gases emitted due to the combustion of natural gas include carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). The emission calculations presented by the Mill indicated that 99.9% of the greenhouse gases to be emitted by the CCCT and HRSG would be CO_2. Therefore, the BACT analysis only focused on control technologies for controlling CO_2 emissions. The Mill evaluated three types of controls: (1) energy efficiency; (2) use of low carbon fuels; and (3) carbon capture, utilization, and storage (CCUS).

The proposed combustion turbine to be installed is a high-efficiency model designed to minimize the amount of fuel required to produce a given electrical output, which minimizes the CO_2 emissions per unit of energy. Design elements include filtration systems to remove contaminants in the inlet air, insulation blankets to minimize heat loss, and a digital-type control system to automatically manage the fuel flow rate and burner operations. Regularly scheduled maintenance programs shall be followed to clean the equipment of fouling and minimize steam venting and leaks. It was determined that energy efficiency is technically feasible.

Greenhouse gas emissions from fuel combustion depend on the carbon content of the fuel. Natural gas combustion has much lower greenhouse gas emissions than the combustion of other fossil fuels, such as coal or oil. The proposed CCCT and HRSG are designed to burn natural gas as a primary fuel source. It was determined that the use of low carbon fuels by burning only natural gas is technically feasible.

CCUS is a combination of technologies designed to capture, separate, and purify CO_2 from stationary source emissions; compress and transport it to a suitable location; and use it or pump it into underground geologic formations for permanent storage. To date, the technology has not yet been demonstrated on a commercial scale natural gas-fired combustion cycle (NGCC) unit as an environmental control. For CCUS to be technically feasible, each individual component must be technically feasible, and the group of components must not interfere with the essential operations of the unit.

Carbon capture is the process of separating CO_2 from flue gas or upstream fuel sources, such as with solvent-based absorbers or a membrane system. Capture technology demonstrated on coal-fired applications is applicable to NGCC units. However, natural gas combustion produces significantly less CO_2 than the combustion of other fossil fuels. This would require larger capture technologies and more energy to achieve similar rates of CO_2 removal. Higher concentrations of O_2 in the flue gases would also stimulate oxidation of solvents and degradation of membrane systems. It was determined that carbon capture is technically infeasible.

Captured CO_2 must be compressed prior to sequestration and transportation via pipelines. There are pipelines for transporting CO_2 already in existence. However, these pipelines are typically reserved for certain private industries and are not open access. Additionally, the intermittent operation of power plants means the transportation of CO_2 would be discontinuous and unpredictable. It is not fully understood what effect this has on the operation of pipelines.

Constructing a new pipeline would require the same design and permitting process as a natural gas pipeline and would likely require substantial time and money to complete. Compression and transportation were determined to be technically feasible.

Captured CO_2 can either be used in oil fields for enhanced oil recovery operations or pumped into deep geological formations for permanent storage. Viable geological formations include saline reservoirs, oil and gas fields, un-mineable coal seams, and basalt formations, among others. The Mill is located near deep saline formations, but there are no active enhanced oil recovery operations in the State of Alabama. Transitioning oil fields for this purpose would require significant capital expenditure. Pumping CO_2 into deep geological formations would require ownership of pore space. The Mill currently does not have legal rights to pore space in the nearest geological structure, the Citronelle Dome. The use and storage of CO_2 was determined to not be technically feasible. For the above-listed reasons, it was determined that CCUS is not technically feasible.

PCA proposes the following are representative of BACT for CO_2e:

- Use of combined-cycle technology
- Energy efficiency design, practices, and procedures for the CCCT and HRSG
- Use of only natural gas as fuel

In addition to the control technologies proposed above for CO_2e, PCA proposes a CO_2e BACT emission limit of 117.1 lb/MMBtu (12-month rolling average) and 502,141 tons per 12-month rolling period. Compliance with these limits will be demonstrated by measuring and recording the total heat input to the combustion turbine expressed in MMBtu/yr. CO_2, CH_4, and N_2O emissions will be calculated using the methodology for calculating greenhouse gas emissions in 40 CFR 98 Subpart C using emission factors in Tables C-1 and C-2. CO_2e emissions will be calculated using each pollutant's respective Global Warming Potential (GWP) as defined in Table A-1 of 40 CFR 98 Subpart A. Records of natural gas usage and calculated monthly CO_2e shall be made and maintained on file available for inspection for at least five years.

Total PM_{10} and Total$PM_{2.5}$

It was determined that proper combustion and exclusive use of natural gas as fuel is technically feasible for the CCCT and HRSG. Typical emissions rates provided in the EPA's RBLC database for NGCC units are in the range of 0.0037 to 0.0090 lb/MMBtu, although these reports do not typically speciate particulate emissions by size or indicate whether these emissions are filterable PM only or filterable and condensable PM emissions. Post-combustion control technologies for PM, such as electrostatic precipitators and baghouses, are considered technically infeasible due to the small concentration of particulates in the flue gases of NGCC units. Additionally, the EPA noted when proposing 40 CFR 60 Subpart KKKK in 2005 that no BACT determinations since 2003 required the use of add-on control devices to limit PM emissions from combustion turbines. Therefore, PCA proposes that good combustion practices and firing only pipeline-quality natural gas are representative of BACT for total PM_{10} and total $PM_{2.5}$.

The Mill proposed BACT limits of 0.0070 lb/MMBtu and/or 6.85 lb/hr for total PM_{10} and total $PM_{2.5}$ and the exclusive use of natural gas. The Mill will demonstrate compliance with the total

PM_{10} and total $PM_{2.5}$ BACT limits by performing a stack test and submitting a report every five years. The Mill will indicate compliance with the BACT limits through parametric monitoring of the natural gas firing rate as set during the five-year tests. Records of all three-hour block average natural gas firing rates shall be made and maintained on file available for inspection for at least five years.

BACT Summary

Table 2 summarizes the Mill's proposed BACT limitations and control technologies for the CCCT and HRSG.

Table 2: BACT Summary

Pollutant	Control Technology	Short Term Limit	Mass Based Limit
GHG	Energy Efficiency and Firing Only Low Carbon Fuels (Natural Gas)	117.1 lb/MMBtu (12-month rolling average)	502,141 tpy (12-month rolling average)
PM_{10}	Good Combustion Practices and Firing Only Pipeline Quality Natural Gas	0.0070 lb/MMBtu (3-hour rolling average)	6.85 lb/hr
$PM_{2.5}$	Good Combustion Practices and Firing Only Pipeline Quality Natural Gas	0.0070 lb/MMBtu (3-hour rolling average)	6.85 lb/hr

Ambient Air Impact Analysis (Modeling)

The memorandum found in Appendix A from the Air Division's Planning Branch addresses all dispersion modeling issues from the proposed project. As can be seen in this modeling report, the Mill would not exceed the PSD increment or the NAAQS for PM_{10} and $PM_{2.5}$.

Class I

The PSD regulations require that an analysis of the potential ambient impacts of Federal Class I areas within 100 km of a proposed source be completed. This project would be located greater than 100 km from the nearest Class I Area (Breton Wilderness Area). PCA submitted an Air Quality Relate Value Applicability Request Form to the U.S. Fish and Wildlife Service on January 29, 2026. The project emissions are not expected to affect the Breton Wilderness Area.

Visibility

The PSD regulations require that an analysis of the potential impairment to visibility in Class I areas be completed. Since the Mill is located greater than 100 km from the nearest Class I area (Breton Wilderness Area), it is unlikely that the proposed project would adversely affect visibility in this area.

Secondary Impacts

There are no ozone precursors triggered by this project. Additionally, particulate emissions are not expected to cause adverse effects on vegetation. As such, a soil and vegetation analysis were not performed.

Coastal Consistency

The facility is not located in Mobile or Baldwin County. Therefore, the ADEM – Coastal Section was not contacted concerning the proposed project.

Recommendation

The analysis indicates that the proposed project would meet all the requirements of the ADEM Administrative Code R. 335-3. Therefore, I recommend that Air Permit 102-0001-X038 be issued and Air Permits 102-0001-X020, X025, and X029 be reissued incorporating the provisos found in Appendix B, pending the results of a 30-day public comment period.

Michael Bragg
Industrial Chemicals Section
Chemical Branch
Air Division

March 11, 2026
Date

Appendix A

Modeling Analysis

Edward F. Poolos
Director

Jeffery W. Kitchens
Deputy Director

Kay Ivey
Governor

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March 9, 2026

MEMORANDUM

TO: Michael Bragg MAB
Industrial Chemicals Section
Chemical Branch
Air Division

FROM: Michael Leach ML
Megan Travis MT
Ryan Gruver RG
Meteorological Unit
Planning Branch
Air Division

SUBJECT: Air Dispersion Modeling for Packaging Corporation of America – Jackson Mill
Prevention of Significant Deterioration (PSD) Permit Application

ADEM has completed its review of an air quality modeling analysis performed by Spivey Engineering Solutions, LLC on behalf of Packaging Corporation of America (PCA) – Jackson Mill. The purpose of the analysis was to assess the impacts on air quality from emissions of particulate matter less than 10 microns (PM_{10}) and particulate matter less than 2.5 microns ($PM_{2.5}$), from proposed modifications at the unbleached Kraft pulp and paperboard mill located in Jackson, Alabama. An air quality analysis was performed for these pollutants to demonstrate that emissions from the proposed facility will not cause or contribute to a violation of any applicable National Ambient Air Quality Standard (NAAQS) or PSD Increment.

AIR QUALITY MODELS:

The American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD), version 24142, was used in default mode for modeling all pollutants.

METEOROLOGICAL DATA:

Five years (2018-2022) of surface data from Evergreen Regional Airport in Evergreen, Alabama, and upper air data from Shelby County Airport in Alabaster, Alabama were used in the analysis.

GOOD ENGINEERING PRACTICE ANALYSIS:

A Good Engineering Practice (GEP) Analysis was performed to assess possible building downwash effects. It was determined that the stacks modeled will be within 5L (the influence area) of one or more of the controlling buildings. Building downwash was considered for those sources in the modeling.

MERPs ANALYSIS:

Precursor emission impacts to $PM_{2.5}$ (secondary $PM_{2.5}$) were considered and a Modeled Emission Rates for Precursors (MERPs) analysis was performed for this application. The precursor emissions of interest for secondary $PM_{2.5}$ are NO_x and SO_2. The results of the MERPs analyses are presented in Table 1. The details of the analysis can be found in the application.

Table 1
$PM_{2.5}$ MERPs Analysis

Pollutant	Results
Secondary $PM_{2.5}$ (24 hour)	7.79E-03 $\mu g/m^3$
Secondary $PM_{2.5}$ (Annual)	3.14E-04 $\mu g/m^3$

The secondary $PM_{2.5}$ concentrations were added to the project's direct modeled $PM_{2.5}$ concentrations (using AERMOD) to estimate total project concentrations.

SCREENING MODELING:

The sources modeled at the facility associated with the modification are provided in Appendix A of this memo. The tables include stack parameters as well as emission rates for the modified sources.

The base receptor grid consisted of a cartesian grid and discrete receptors placed along the ambient air boundary and was extended to the extent of the SIA (Significant Impact Area) for the respective pollutants. The receptor grids were generated using the following:

- 25 m spacing along the property boundary,
- 100 m spacing from the ambient air boundary to 5,000 m,
- 250 m spacing from 5,000 m to 8,000 m,
- 500 m spacing from 8,000 m to 20,000 m.

All maximum predicted concentrations for all pollutants for all averaging periods were resolved to within 100-meter receptor spacing. Receptor terrain elevations were generated using the EPA AERMAP program developed from the USGS National Elevation Data (NED) using data from the 1/3 arc-second resolution map.

Table 2 lists the results of screening modeling performed for $PM_{2.5}$, and PM_{10},

TABLE 2
Screening Modeling Results for $PM_{2.5}$, and PM_{10}

Pollutant	Averaging Period	Max. Conc. ($\mu g/m^3$)	Calculated MERPs ($\mu g/m^3$)	Max Concentration + MERPs	Significance Level ($\mu g/m^3$)
$PM_{2.5}$	24-Hour	0.18	7.79E-03	0.19	1.2
$PM_{2.5}$	Annual	0.01	3.14E-04	0.01	0.13
PM_{10}	24-Hour	0.29	--	--	5
PM_{10}	Annual	0.02	--	--	1

The modeling results indicated that the maximum predicted concentrations did not exceed the significance levels for all averaging periods of $PM_{2.5}$ nor PM_{10}. Therefore, refined modeling was not required for these pollutants.

Also, during this initial screening modeling analysis, preconstruction monitoring requirements were addressed, and it was determined that preconstruction monitoring was not required for this application. Representative monitoring data provided by ADEM was included in the application.

CLASS I AREA ANALYSIS:

The proposed facility is located approximately 188 km from the nearest Class I area, the Breton Wildlife Refuge. ADEM did not require a Class I analysis. The FLM did not request an AQRV analysis for this project and their response can be found in the application.

CONCLUSION:

In conclusion, emissions of PM_{10} and $PM_{2.5}$ from the proposed PCA – Jackson Mill project in Jackson, Alabama, are not expected to cause or contribute to any violation of the NAAQS or PSD Class II Increments.

Appendix A

Proposed Stack Characteristics

Source	Unit ID	UTM East (m)	UTM North (m)	PM2.5 Emissions (g/s)	PM_{10} Emissions (g/s)	Stack Height (m)	Stack Temp. (K)	Stack Velocity (m/s)	Stack Diameter (m)
New Turbine	TURB1	414427	3484417	0.863	0.863	64.62	423.71	23.80	3.89

Appendix B

Proposed Permits

Alabama Department of Environmental Management

AIR PERMIT

PERMITTEE: PACKAGING CORPORATION OF AMERICA

FACILITY NAME: JACKSON MILL

LOCATION: JACKSON, AL

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
102-0001-X020	No. 3 Power Boiler – 343.4 MMBtu/hr

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§ 22-28-1 to 22-28-23, as amended, the Alabama Environmental Management Act, Ala. Code §§ 22-22A-1 to 22-22A-17, as amended, and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE: DRAFT

Alabama Department of Environmental Management

General Permit Provisos

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.

2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.

3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.

4. The permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.

5. Each point of emission, which requires testing, will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.

6. All air pollution control equipment shall be operated at all times while this process is operational. In the event of scheduled maintenance, unscheduled maintenance, or a breakdown of the pollution control equipment, the process shall be shut down as expeditiously as possible (unless this act and subsequent re-start would clearly cause greater emissions than continuing operations of the process for a short period). The Department shall be notified of all such events within 24 hours. The notification shall include all pertinent facts, including the duration of the process operating without the control device and the level of excess emissions which have occurred.

7. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.

8. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.

9. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The

device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.

11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.

12. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.

13. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.

14. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

    To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

    a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
    b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
    c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
    d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

    A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

    All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

15. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.

16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

    Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

    (a) by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;

    (b) by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;

    (c) by paving;

    (d) by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

    Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

17. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.

18. Should this facility, at any time, exceed the emission limits, the permittee shall notify the Air Division within two (2) working days of determining that the exceedance occurred.

19. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.

20. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

21. The permittee shall submit an annual compliance certification to the Department no later than 60 days following the anniversary of the issuance of this permit or with the Annual Major Source Operating Permit certification. The compliance certification shall include the following:
    1. The identification of each term or condition of this permit that is the basis of the certification.

2. The compliance status, whether continuous or intermittent.
3. The method(s) used for determining the compliance status of the source, currently and over the reporting period.
4. Other facts the Department may require to determine the compliance status of the source.

The compliance certification shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

No. 3 Power Boiler
Informational Summary

Description: No. 3 Power Boiler
Utilities Area

Installation Date: 1991 **Reconstruction/Modification Date:** N/A

Operating Capacity: 343.4 MMBtu/hr

Operating Schedule: 8760 hours/year

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:

40 CFR Part 60 Subpart Db
40 CFR Part 63 Subpart DDDDD

Pollutants Emitted

Emission Point	Point Description	Pollutant	Emission Limit	Standard
X020-609	No. 3 Power Boiler	PM	≤ 1.64 lb/hr	Rule 335-3-14-.04 (9)
X020-609	No. 3 Power Boiler	NOx	≤ 0.05 lb/MMBtu and/or ≤ 17.2 lb/hr	Rule 335-3-14-.04 (9)
X020-609	No. 3 Power Boiler	NO_x	≤ 116.0 tons/12-month rolling period, combined from Combustion Turbine with Duct Burner, No. 3, No. 4, and No. 5 Power Boilers	Rule 335-3-14-.04
X020-609	No. 3 Power Boiler	SO_2	≤ 0.2 lb/hr	Rule 335-3-14-.04 (9)
X020-609	No. 3 Power Boiler	CO	≤ 0.09 lb/MMBtu	Rule 335-3-14-.04 (9)
X020-609	No. 3 Power Boiler	VOC	≤ 3.43 lb/hr	Rule 335-3-14-.04
X020-609	No. 3 Power Boiler	Opacity	≤ 20% with one six-minute period up to 40% in any one-hour period	Rule 335-3-4-.01

Permitted Fuels

Fuel	Max % Sulfur	Max % Ash
Natural Gas		

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to a Prevention of Significant Deterioration limitation for particulate matter, nitrogen dioxide, sulfur dioxide, and carbon monoxide.	Rule 335-3-14-.04 (9)
3. This source is subject to a Prevention of Significant Deterioration synthetic minor limit for volatile organic compounds and nitrogen oxides.	Rule 335-3-14-.04
4. This source is subject to the applicable requirements of 40 CFR Part 60 Subpart Db and ADEM Admin. Code 335-3-10-.02 (2)(b).	Rule 335-3-10-.02 (1) and (2)(b)
5. This source is subject to the applicable requirements of ADEM Admin. Rule 335-3-4-.01 for opacity.	Rule 335-3-4-.01
6. This source is subject to 40 CFR Part 63, Subpart DDDDD – Emission Standards for Hazardous Air Pollutants for Major Sources: Commercial, Industrial, and Institutional Boilers and Process Heaters as a Gas 1 Boiler with a continuous oxygen trim system that maintains an optimum air to fuel ratio.	Rule 335-3-11-.06 (1) and (107)
Emission Standards	
1. Particulate matter emissions shall not exceed 1.64 pound per hour.	Rule 335-3-14-.04 (9)
2. Nitrogen oxide emissions shall not exceed either 0.05 pounds per million Btu or 17.2 pound per hour while firing natural gas as measured in accordance with the nitrogen oxides continuous emissions monitoring system required pursuant to 40 CFR 60 Subpart Db.	Rule 335-3-10-.02 (2)(b) Rule 335-3-14-.04 (9)
3. The combined nitrogen oxide emissions from the Combustion Turbine with Duct Burner and the No. 3, No. 4, and No. 5 Power Boilers shall not exceed 116.0 tons per 12 month rolling period.	Rule 335-3-14-.04
4. Sulfur dioxide emissions shall not exceed 0.2 pound per hour.	Rule 335-3-14-.04 (9)
5. Carbon monoxide emissions shall not exceed 0.09 pounds per million Btu.	Rule 335-3-14-.04 (9)
6. Volatile organic compound emissions shall not exceed 3.43 pounds per hour measured as carbon or other appropriate organic calibration gas.	Rule 335-3-14-.04
7. Opacity shall not exceed 20 percent as determined by six-minute average. During one six-minute period in any 60-minute period, a person may discharge into the atmosphere from any source of emission, particulate of an opacity not greater than that designated as 40 percent.	Rule 335-3-4-.01
Compliance and Performance Test Methods and Procedures	
1. Compliance with the particulate matter emission rates of this unit shall be determined by Reference Method 5 or 17 in Appendix A of 40 CFR 60.	Rule 335-3-10-.03 (1)
2. Compliance with the sulfur dioxide emission limit shall be determined by Reference Method 6 or 19 in Appendix A of 40 CFR Part 60 or by analysis of natural gas sulfur content in accordance with the appropriate ASTM method.	Rule 335-3-10-.03 (1)
3. Compliance with the nitrogen oxide pounds per million Btu limit shall be determined with the continuous emission monitor based on a thirty-day rolling average. Compliance with the pound per hour emission limit shall be	Rule 335-3-10-.03 (1)

Federally Enforceable Provisos	Regulations
determined in accordance with 40 CFR Part 60 Appendix A Method 7, 7A, 7B, 7C, 7D or 7E.	
4. Compliance with the opacity standard for this unit shall be determined by Reference Method 9 in Appendix A of 40 CFR 60.	Rule 335-3-10-.03 (1)
5. Compliance with the carbon monoxide emission limit shall be determined by Reference Method 10 in Appendix A of 40 CFR Part 60.	Rule 335-3-10-.03 (1)
6. Compliance with the volatile organic compound emission limit shall be determined by Reference Method 25, 25A, or 25 B in Appendix A of 40 CFR Part 60.	Rule 335-3-10-.03 (1)
Emission Monitoring	
1. A continuous emission monitoring systems to record the nitrogen oxides and oxygen shall be installed, calibrated, maintained, and operated in accordance with 40 CFR 60, Subpart Db, 60.48b(e). The continuous emission monitoring systems shall be subject to the quality control and quality assurance requirements of 40 CFR Part 60 Appendix B Specification 2 and Appendix F.	Rule 335-3-10-.02 (2)(b)
2. The NO_x CEMS shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.	Rule 335-3-10-.02 (2)(b)
3. The nitrogen oxide continuous emission monitoring system shall be audited at least once per calendar quarter. A relative accuracy test audit shall be performed at least once every four calendar quarters. A cylinder gas audit may be performed in three of four calendar quarters but in no more than three quarters in succession.	Rule 335-3-10-.03 (3)
4. A carbon monoxide and volatile organic compound emission test shall be performed at least once during the current five-year permitting cycle.	Rule 335-3-16-.05
5. For carbon monoxide and volatile organic compounds periodic monitoring, if any three-hour block average fuel firing rate is 110 percent of the average fuel firing rate set by the required complying periodic test or a complying carbon monoxide or volatile organic compound emission test approved by the Department, the fuel firing rate is to be lowered until compliance is successfully demonstrated at the higher rate. If any three-hour block average oxygen furnace percentage is less than seventy-five percent of the average oxygen percentage set by the required complying periodic test or a complying carbon monoxide or volatile organic compound emission test approved by the Department, the oxygen percentage is to be raised until compliance is successfully demonstrated at the lower rate.	Rule 335-3-16-.05
6. Pursuant to §63.7500(a) and Table 3, the facility must conduct a tune-up of the boiler every 5 years as specified in §63.7540(a)(12). Each five-year tune-up must be conducted no more than 61 months after the previous tune-up.	Rule 335-3-11-.06 (107)
7. For sulfur dioxide periodic monitoring obtain natural gas vendor certification of sulfur in fuel or obtain a fuel sulfur analysis of the natural gas once per year.	Rule 335-3-16-.05

Federally Enforceable Provisos	Regulations
Recordkeeping and Reporting Requirements	
1. The nitrogen oxide continuous emission monitoring system audit report shall be submitted to the Department within thirty days of the end of each calendar quarter.	Rule 335-3-16-.05
2. In accordance to the requirements of 40 CFR 60.49(g) of NSPS, Subpart Db, the owner or operator of an affected facility subject to the NO_X standards under 40 CFR 60.44b shall maintain records of the following information for each steam generating unit operating day: a. Calendar date; b. The average hourly NO_X emission rates (expressed as NO_2) (ng/J or lb/MMBtu heat input) measured or predicted; c. The 30-day average NO_X emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; d. Identification of the steam generating unit operating days when the calculated 30-day average NO_X emission rates are in excess of the NO_X emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken; e. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; f. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; g. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; h. Identification of the times when the pollutant concentration exceeded full span of the CEMS; i. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and j. Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.	Rule 335-3-10-.02 (2)(b)
3. The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only natural gas shall obtain and maintain at the affected facility fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that gaseous fuel meets the definition of natural gas as defined in 40 CFR 60.41b for a period of two years following the date of such record.	Rule 335-3-10-.02 (2)(b)
4. The NO_x emission rate shall be determined each day in lb/MMBtu and shall calculate a 30-day rolling average emission rate on a daily basis.	Rule 335-3-10-.02 (2)(b)
5. A carbon monoxide and volatile organic compound emission test report shall be submitted to the Department at least once during the current five-year permitting cycle.	Rule 335-3-16-.05

Federally Enforceable Provisos	Regulations
6. Records of all fuel firing rate and oxygen furnace percentage three-hour block averages shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-16-.05
7. A report of excess nitrogen oxide emissions, as defined below, will be submitted to the Department for each calendar quarter within the month following the end of the quarter. The reports will include the following information: a. The magnitude of excess emissions greater than 0.05 pounds per million Btu computed on a 30-day rolling average (data recorded during periods of nitrogen oxide emission monitoring system breakdowns, repairs, calibration checks and zero and span adjustments shall not be included in the data averages). b. The magnitude of excess emissions over 116.0 tons/12 month rolling period combined for the Combustion Turbine with Duct Burner and the No. 3, 4, and 5 Power Boilers. c. The date and time of commencement and completion of each time period of excess emissions. d. The nature and cause of the excess emissions (if known) and the corrective action taken or preventative measures adopted. e. The date and time identifying each period during which the nitrogen oxide emission monitoring system was inoperative (except for zero and span checks) and the nature of the system repairs or adjustments. When no excess emissions have occurred and the nitrogen oxide emission monitoring system was not inoperative or did not require repairs or adjustments, such information will be stated in the report.	Rule 335-3-16-.05
8. This source shall submit a five-year compliance report documenting the required tune-ups, as specified in 40 CFR 63.7550(c)(1). The report must be postmarked or submitted no later than January 31.	Rule 335-3-11-.06 (107)
9. Natural gas sulfur content records shall be maintained on file available for inspection for at least five years.	Rule 335-3-16-.05
10. A record of combined nitrogen oxide emissions from the combustion turbine and duct burner and the No. 3, No. 4, and No. 5 Power Boilers shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-16-.05

CHECKLIST FOR ISSUANCE OF AIR PERMIT

Permit Number:	102-0001-X020
Company:	PACKAGING CORPORATION OF AMERICA
Location:	Jackson, Alabama
Description of Permit Unit	No. 3 Power Boiler

Pollutant Type:

Particulates	01	Total Reduced Sulfur	06	Lead	11
Sulfur Oxides	02	Asbestos	07	Mercury	12
Carbon Monoxide	03	Beryllium	08	Benzene	13
Hydrocarbons	04	Chlorine	09		
Nitrogen Oxides	05	Hydrogen Sulfide	10		

Pollutant Type	Expected Emissions (ppm)	Method of Estimate	Uncontrolled Emissions (lbs/hr)	Controlled Emissions (lbs/hr)	Allowable Emissions (lbs/hr)

Operating Hours per year: 8760

Provisos: See Attached

Mail to: Mr. Bill Davis
Packaging Corporation of America
4585 Industrial Road
Jackson, AL 36545

Engineer: Michael Bragg

Date: DRAFT

Type: PSD [X] SMS [ ] NAME [ ] MOD [ ] TEMP [ ] OTHER _____
Source: NSPS [X] NESHAP [X] SIP [X] OTHER:

Alabama Department of Environmental Management

AIR PERMIT

PERMITTEE: PACKAGING CORPORATION OF AMERICA

FACILITY NAME: JACKSON MILL

LOCATION: JACKSON, AL

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
102-0001-X025	No. 4 Power Boiler – 346.4 MMBtu/hr

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§ 22-28-1 to 22-28-23, as amended, the Alabama Environmental Management Act, Ala. Code §§ 22-22A-1 to 22-22A-17, as amended, and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE: DRAFT

Alabama Department of Environmental Management

General Permit Provisos

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.

2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.

3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.

4. The permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.

5. Each point of emission, which requires testing, will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.

6. All air pollution control equipment shall be operated at all times while this process is operational. In the event of scheduled maintenance, unscheduled maintenance, or a breakdown of the pollution control equipment, the process shall be shut down as expeditiously as possible (unless this act and subsequent re-start would clearly cause greater emissions than continuing operations of the process for a short period). The Department shall be notified of all such events within 24 hours. The notification shall include all pertinent facts, including the duration of the process operating without the control device and the level of excess emissions which have occurred.

7. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.

8. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.

9. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The

device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.

11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.

12. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.

13. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.

14. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

    To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

    a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
    b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
    c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
    d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

    A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

    All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

15. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.

16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

    Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

    (a) by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;

    (b) by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;

    (c) by paving;

    (d) by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

    Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

17. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.

18. Should this facility, at any time, exceed the emission limits, the permittee shall notify the Air Division within two (2) working days of determining that the exceedance occurred.

19. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.

20. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

21. The permittee shall submit an annual compliance certification to the Department no later than 60 days following the anniversary of the issuance of this permit or with the Annual Major Source Operating Permit certification. The compliance certification shall include the following:
    1. The identification of each term or condition of this permit that is the basis of the certification.

2. The compliance status, whether continuous or intermittent.
3. The method(s) used for determining the compliance status of the source, currently and over the reporting period.
4. Other facts the Department may require to determine the compliance status of the source.

The compliance certification shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

No. 4 Power Boiler
Informational Summary

Description: No. 4 Power Boiler
Utilities Area

Installation Date: 1995 **Reconstruction/Modification Date:** N/A

Operating Capacity: 346.4 MMBtu/hr

Operating Schedule: 8760 hours/year

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:

40 CFR Part 60 Subpart Db
40 CFR Part 63 Subpart DDDDD

Pollutants Emitted

Emission Point	Point Description	Pollutant	Emission Limit	Standard
X025-610	No. 4 Power Boiler	PM	$\leq$ 0.005 lb/MMBtu	Rule 335-3-14-.04 (9)
X025-610	No. 4 Power Boiler	NOx	$\leq$ 0.05 lb/MMBtu and/or $\leq$ 17.32 lb/hr	Rule 335-3-14-.04 (9)
X025-610	No. 4 Power Boiler	NO_x	$\leq$ 116.0 tons/12-month rolling period, combined from Combustion Turbine with Duct Burner, No. 3, No. 4, and No. 5 Power Boilers	Rule 335-3-14-.04
X025-610	No. 4 Power Boiler	SO_2	$\leq$ 0.6 lb/MM ft^3 natural gas	Rule 335-3-14-.04 (9)
X025-610	No. 4 Power Boiler	CO	$\leq$ 0.09 lb/MMBtu	Rule 335-3-14-.04 (9)
X025-610	No. 4 Power Boiler	VOC	$\leq$ 0.01 lb/MMBtu	Rule 335-3-14-.04 (9)
X025-610	No. 4 Power Boiler	Opacity	$\leq$ 20% with one six-minute period up to 40% in any one-hour period	Rule 335-3-4-.01

Permitted Fuels

Fuel	Max % Sulfur	Max % Ash
Natural Gas		

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to a Prevention of Significant Deterioration Best Available Control Technology limitation for particulate matter, nitrogen dioxide, sulfur dioxide, carbon monoxide and volatile organic compounds.	Rule 335-3-14-.04 (9)
3. This source is subject to the applicable requirements of 40 CFR Part 60 Subpart Db and ADEM Admin. Code 335-3-10-.02 (2)(b).	Rule 335-3-10-.02 (1) and (2)(b)
4. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-14-.04 Prevention of Significant Deterioration synthetic minor limits for nitrogen oxides	Rule 335-3-14-.04
5. This source is subject to the applicable requirements of ADEM Admin. Code 335-3-4-.01 for opacity.	Rule 335-3-4-.01
6. This source is subject to 40 CFR Part 63, Subpart DDDDD – Emission Standards for Hazardous Air Pollutants for Major Sources: Commercial, Industrial, and Institutional Boilers and Process Heaters as a Gas 1 Boiler with a continuous oxygen trim system that maintains an optimum air to fuel ratio.	Rule 335-3-11-.06 (1) and (107)
Emission Standards	
1. Particulate matter emissions shall not exceed 0.005 pounds per million Btu.	Rule 335-3-14-.04 (9)
2. Nitrogen oxide emissions shall not exceed either 0.05 pounds per million Btu while firing natural gas as measured in accordance with the nitrogen oxides continuous emissions monitoring system required pursuant to 40 CFR 60 Subpart Db or 17.32 pound per hour.	Rule 335-3-10-.02 (2)(b) Rule 335-3-14-.04 (9)
3. The combined nitrogen oxide emissions from the Combustion Turbine with Duct Burner and the No. 3, No. 4, and No. 5 Power Boilers shall not exceed 116.0 tons per 12 month rolling period.	Rule 335-3-14-.04
4. Sulfur dioxide emissions shall not exceed 0.60 lb/MM ft^3 natural gas.	Rule 335-3-14-.04 (9)
5. Carbon monoxide emissions shall not exceed 0.09 pounds per million Btu.	Rule 335-3-14-.04 (9)
6. Volatile organic compound emissions shall not exceed 0.01 pounds per million Btu measured as carbon or other appropriate organic calibration gas.	Rule 335-3-14-.04 (9)
7. Opacity shall not exceed 20 percent as determined by six-minute average. During one six-minute period in any 60-minute period, a person may discharge into the atmosphere from any source of emission, particulate of an opacity not greater than that designated as 40 percent.	Rule 335-3-4-.01
Compliance and Performance Test Methods and Procedures	
1. Compliance with the particulate matter emission rates of this unit shall be determined by Reference Method 5 or 17 in Appendix A of 40 CFR 60.	Rule 335-3-10-.03 (1)
2. Compliance with the sulfur dioxide emission limit shall be determined by Reference Method 6 or 19 in Appendix A of 40 CFR Part 60 or by analysis of natural gas sulfur content in accordance with the appropriate ASTM method.	Rule 335-3-10-.03 (1)

Federally Enforceable Provisos	Regulations
3. Compliance with the nitrogen oxide pounds per million Btu limit shall be determined with the continuous emission monitor based on a thirty-day rolling average. Compliance with the pound per hour emission limit shall be determined in accordance with 40 CFR Part 60 Appendix A Method 7, 7A, 7B, 7C, 7D or 7E.	Rule 335-3-10-.03 (1)
4. Compliance with the opacity standard for this unit shall be determined by Reference Method 9 in Appendix A of 40 CFR 60.	Rule 335-3-10-.03 (1)
5. Compliance with the carbon monoxide emission limit shall be determined by with the continuous emission monitor or Reference Method 10 in Appendix A of 40 CFR Part 60.	Rule 335-3-10-.03 (1)
6. Compliance with the volatile organic compound emission limit shall be determined by Refence Method 25, 25A, or 25B in Appendix A of 40 CFR Part 60.	Rule 335-3-10-.03 (1)
Emission Monitoring	
1. A continuous emission monitoring systems to record the nitrogen oxides shall be installed, calibrated, maintained, and operated in accordance with 40 CFR 60, Subpart Db, 60.48b(e). The continuous emission monitoring systems shall be subject to the quality control and quality assurance requirements of 40 CFR Part 60 Appendix B Specification 2 and Appendix F.	Rule 335-3-10-.02 (2)(b)
2. The NOx CEMS shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.	Rule 335-3-10-.02 (2)(b)
3. The nitrogen oxide and carbon monoxide continuous emission monitoring systems shall be audited at least once per calendar quarter. A relative accuracy test audit shall be performed at least once every four calendar quarters. A cylinder gas audit may be performed in three of four calendar quarters but in no more than three quarters in succession.	Rule 335-3-10-.03 (3)
4. The CO and O_2 CEMS shall be operated and data recorded according to Procedure 1 of Part 60 Appendix F.	Rule 335-3-10-.03 (3)
5. A volatile organic compound emission test shall be performed at least once during the current five-year permitting cycle.	Rule 335-3-16-.05
6. For volatile organic compounds periodic monitoring, if any three-hour block average fuel firing rate is greater than 110 percent of the average fuel firing rate set by the required complying periodic test or a complying volatile organic compound emission test approved by the Department, the fuel firing rate is to be lowered until compliance is successfully demonstrated at the higher rate.	Rule 335-3-16-.05
7. Pursuant to §63.7500(a) and Table 3, the facility must conduct a tune-up of the boiler every 5 years as specified in §63.7540(a)(12). Each five-year tune-up must be conducted no more than 61 months after the previous tune-up.	Rule 335-3-11-.06 (107)
8. For sulfur dioxide periodic monitoring obtain natural gas vendor certification of sulfur in fuel or obtain a fuel sulfur analysis of the natural gas once per year.	Rule 335-3-16-.05

Federally Enforceable Provisos	Regulations
Recordkeeping and Reporting Requirements	
1. The nitrogen oxide and carbon monoxide continuous emission monitoring system audit reports shall be submitted to the Department within thirty days of the end of each calendar quarter.	Rule 335-3-16-.05
2. In accordance to the requirements of 40 CFR 60.49 (g) of NSPS, Subpart Db, the owner or operator of an affected facility subject to the NO_X standards under 40 CFR 60.44b shall maintain records of the following information for each steam generating unit operating day: a. Calendar date; b. The average hourly NO_X emission rates (expressed as NO_2) (ng/J or lb/MMBtu heat input) measured or predicted; c. The 30-day average NO_X emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; d. Identification of the steam generating unit operating days when the calculated 30-day average NO_X emission rates are in excess of the NO_X emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken; e. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; f. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; g. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; h. Identification of the times when the pollutant concentration exceeded full span of the CEMS; i. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and j. Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.	Rule 335-3-10-.02 (2)(b)
3. The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only natural gas shall obtain and maintain at the affected facility fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that gaseous fuel meets the definition of natural gas as defined in 40 CFR 60.41b for a period of 2 years following the date of such record.	Rule 335-3-10-.02 (2)(b)
4. The NO_x emission rate shall be determined each day in lb/MMBtu and shall calculate a 30-day rolling average emission rate on a daily basis.	Rule 335-3-10-.02 (2)(b)
5. A thirty-day rolling average carbon monoxide continuous emission monitor report shall be recorded and maintained on file for at least five years.	Rule 335-3-16-.05

Federally Enforceable Provisos	Regulations
6. Records of all fuel firing rate three-hour block averages shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-16-.05
7. A report of excess nitrogen oxide emissions, as defined below, will be submitted to the Department for each calendar quarter within the month following the end of the quarter. The reports will include the following information: a. The magnitude of excess emissions greater than 0.05 pounds per million Btu computed on a 30-day rolling average (data recorded during periods of nitrogen oxide emission monitoring system breakdowns, repairs, calibration checks and zero and span adjustments shall not be included in the data averages). b. The magnitude of excess emissions over 116.0 tons/12 month rolling period combined for the Combustion Turbine with Duct Burner and the No. 3, 4, and 5 Power Boilers. c. The date and time of commencement and completion of each time period of excess emissions. d. The nature and cause of the excess emissions (if known) and the corrective action taken or preventative measures adopted. e. The date and time identifying each period during which the nitrogen oxide emission monitoring system was inoperative (except for zero and span checks) and the nature of the system repairs or adjustments. When no excess emissions have occurred and the nitrogen oxide emission monitoring system was not inoperative or did not require repairs or adjustments, such information will be stated in the report.	Rule 335-3-16-.05
8. A volatile organic compound emission test report shall be submitted to the Department at least once during the current five-year permitting cycle.	Rule 335-3-16-.05
9. This source shall submit a five-year compliance report documenting the required tune-ups, as specified in 40 CFR 63.7550(c)(1). The report must be postmarked or submitted no later than January 31.	Rule 335-3-11-.06 (107)
10. Natural gas sulfur content records shall be maintained on file available for inspection for at least five years.	Rule 335-3-16-.05
11. A record of combined nitrogen oxide emissions from the combustion turbine and duct burner and the No. 3, No. 4, and No. 5 Power Boilers shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-16-.05

CHECKLIST FOR ISSUANCE OF AIR PERMIT

Permit Number:	102-0001-X025
Company:	PACKAGING CORPORATION OF AMERICA
Location:	Jackson, Alabama
Description of Permit Unit	No. 4 Power Boiler

Pollutant Type:

Particulates	01	Total Reduced Sulfur	06	Lead	11
Sulfur Oxides	02	Asbestos	07	Mercury	12
Carbon Monoxide	03	Beryllium	08	Benzene	13
Hydrocarbons	04	Chlorine	09		
Nitrogen Oxides	05	Hydrogen Sulfide	10		

Pollutant Type	Expected Emissions (ppm)	Method of Estimate	Uncontrolled Emissions (lbs/hr)	Controlled Emissions (lbs/hr)	Allowable Emissions (lbs/hr)

Operating Hours per year: 8760

Provisos: See Attached

Mail to: Mr. Bill Davis
Packaging Corporation of America
4585 Industrial Road
Jackson, AL 36545

Engineer: Michael Bragg

Date: DRAFT

Type: PSD [X] SMS [ ] NAME [ ] MOD [ ] TEMP [ ] OTHER _____
Source: NSPS [X] NESHAP [X] SIP [X] OTHER:

Alabama Department of Environmental Management

AIR PERMIT

PERMITTEE: PACKAGING CORPORATION OF AMERICA

FACILITY NAME: JACKSON MILL

LOCATION: JACKSON, AL

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
102-0001-X029	No. 5 Power Boiler – 346.4 MMBtu/hr

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§ 22-28-1 to 22-28-23, as amended, the Alabama Environmental Management Act, Ala. Code §§ 22-22A-1 to 22-22A-17, as amended, and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE: DRAFT

Alabama Department of Environmental Management

General Permit Provisos

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.

2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.

3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.

4. The permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.

5. Each point of emission, which requires testing, will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.

6. All air pollution control equipment shall be operated at all times while this process is operational. In the event of scheduled maintenance, unscheduled maintenance, or a breakdown of the pollution control equipment, the process shall be shut down as expeditiously as possible (unless this act and subsequent re-start would clearly cause greater emissions than continuing operations of the process for a short period). The Department shall be notified of all such events within 24 hours. The notification shall include all pertinent facts, including the duration of the process operating without the control device and the level of excess emissions which have occurred.

7. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.

8. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.

9. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The

device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.

11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.

12. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.

13. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.

14. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

    To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

    a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
    b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
    c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
    d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

    A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

    All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

15. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.

16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

    Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

    (a) by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;

    (b) by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;

    (c) by paving;

    (d) by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

    Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

17. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.

18. Should this facility, at any time, exceed the emission limits, the permittee shall notify the Air Division within two (2) working days of determining that the exceedance occurred.

19. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.

20. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

21. The permittee shall submit an annual compliance certification to the Department no later than 60 days following the anniversary of the issuance of this permit or with the Annual Major Source Operating Permit certification. The compliance certification shall include the following:

1. The identification of each term or condition of this permit that is the basis of the certification.
2. The compliance status, whether continuous or intermittent.
3. The method(s) used for determining the compliance status of the source, currently and over the reporting period.
4. Other facts the Department may require to determine the compliance status of the source.

The compliance certification shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

No. 5 Power Boiler
Informational Summary

Description: No. 5 Power Boiler
Utilities Area

Installation Date: 1997 **Reconstruction/Modification Date:** N/A

Operating Capacity: 346.4 MMBtu/hr

Operating Schedule: 8760 hours/year

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:

40 CFR Part 60 Subpart Db
40 CFR Part 63 Subpart DDDDD

Pollutants Emitted

Emission Point	Point Description	Pollutant	Emission Limit	Standard
X029-611	No. 5 Power Boiler	PM	≤ 0.12 lb/MMBtu	Rule 335-3-4-.03
X029-611	No. 5 Power Boiler	NOx	≤ 0.05 lb/MMBtu and/or ≤ 17.32 lb/hr	Rule 335-3-14-.04 (9)
X029-611	No. 5 Power Boiler	NO_x	≤ 116.0 tons/12-month rolling period, combined from Combustion Turbine with Duct Burner, No. 3, No. 4, and No. 5 Power Boilers	Rule 335-3-14-.04
X029-611	No. 5 Power Boiler	CO	≤ 0.09 lb/MMBtu	Rule 335-3-14-.04 (9)
X029-611	No. 5 Power Boiler	Opacity	≤ 20% with one six-minute period up to 40% in any one-hour period	Rule 335-3-4-.01

Permitted Fuels

Fuel	Max % Sulfur	Max % Ash
Natural Gas		

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to a Prevention of Significant Deterioration best available control technology limitation for nitrogen dioxide and carbon monoxide.	Rule 335-3-14-.04 (9)
3. This source is subject to the applicable requirements of ADEM Admin. Code 335-3-4-.03 for particulate matter.	Rule 335-3-4-.03
4. This source is subject to the applicable requirements of 40 CFR Part 60 Subpart Db and ADEM Admin. Code 335-3-10-.02 (2)(b).	Rule 335-3-10-.02 (1) and (2)(b)
5. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-14-.04 Prevention of Significant Deterioration synthetic minor limits for nitrogen oxides.	Rule 335-3-14-.04
6. This source is subject to the applicable requirements of ADEM Admin. Code 335-3-4-.01 for opacity.	Rule 335-3-4-.01
7. This source is subject to 40 CFR Part 63, Subpart DDDDD – Emission Standards for Hazardous Air Pollutants for Major Sources: Commercial, Industrial, and Institutional Boilers and Process Heaters as a Gas 1 Boiler with a continuous oxygen trim system that maintains an optimum air to fuel ratio.	Rule 335-3-11-.06 (1) and (107)
Emission Standards	
1. Particulate matter emissions shall not exceed 0.12 pounds per million Btu.	Rule 335-3-4-.03
2. Nitrogen oxide emissions shall not exceed either 0.05 pounds per million Btu or 17.32 pound per hour while firing natural gas as measured in accordance with the nitrogen oxides continuous emissions monitoring system required pursuant to 40 CFR 60 Subpart Db.	Rule 335-3-10-.02 (2)(b) Rule 335-3-14-.04 (9)
3. The combined nitrogen oxide emissions from the Combustion Turbine with Duct Burner and the No. 3, No. 4, and No. 5 Power Boilers shall not exceed 116.0 tons per 12 month rolling period.	Rule 335-3-14-.04
4. Carbon monoxide emissions shall not exceed 0.09 pounds per million Btu.	Rule 335-3-14-.04 (9)
5. Opacity shall not exceed 20 percent as determined by six-minute average. During one six-minute period in any 60-minute period, a person may discharge into the atmosphere from any source of emission, particulate of an opacity not greater than that designated as 40 percent.	Rule 335-3-4-.01
Compliance and Performance Test Methods and Procedures	
1. Compliance with the nitrogen oxide pounds per million Btu limit shall be determined with the continuous emission monitor based on a thirty-day rolling average. Compliance with the pound per hour emission limit shall be determined in accordance with 40 CFR Part 60 Appendix A Method 7, 7A, 7B, 7C, 7D or 7E.	Rule 335-3-10-.03 (1)
2. Compliance with the opacity standard for this unit shall be determined by Reference Method 9 in Appendix A of 40 CFR 60.	Rule 335-3-10-.03 (1)

Federally Enforceable Provisos	Regulations
3. Compliance with the carbon monoxide emission limit shall be determined by Reference Method 10 in Appendix A of 40 CFR Part 60 Method 10.	Rule 335-3-10-.03 (1)
4. Compliance with the particulate matter emission rates of this unit shall be determined by Reference Method 5 or 17 in Appendix A of 40 CFR 60.	Rule 335-3-10-.03 (1)
Emission Monitoring	
1. A continuous emission monitoring systems to record the nitrogen oxides shall be installed, calibrated, maintained, and operated in accordance with 40 CFR 60, Subpart Db, 60.48b(e). The continuous emission monitoring systems shall be subject to the quality control and quality assurance requirements of 40 CFR Part 60 Appendix B Specification 2 and Appendix F.	Rule 335-3-10-.02 (2)(b)
2. The NOx CEMS shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.	Rule 335-3-10-.02 (2)(b)
3. The nitrogen oxide continuous emission monitoring system shall be audited at least once per calendar quarter. A relative accuracy test audit shall be performed at least once every four calendar quarters. A cylinder gas audit may be performed in three of four calendar quarters but in no more than three quarters in succession.	Rule 335-3-10-.03 (3)
4. A continuous emission monitoring system for the measurement of carbon monoxide and oxygen shall be installed, operated and maintained.	Rule 335-3-16-.05
5. The CO and O_2 CEMS shall be operated and data recorded according to Procedure 1 of Part 60 Appendix F.	Rule 335-3-10-.03 (3)
6. Pursuant to §63.7500(a) and Table 3, the facility must conduct a tune-up of the boiler every five years as specified in §63.7540(a)(12). Each five-year tune-up must be conducted no more than 61 months after the previous tune-up.	Rule 335-3-11-.06 (107)
Recordkeeping and Reporting Requirements	
1. The nitrogen oxide continuous emission monitoring system audit report shall be submitted to the Department within thirty days of the end of each calendar quarter.	Rule 335-3-16-.05
2. In accordance to the requirements of 40 CFR 60.49(g) of NSPS, Subpart Db, the owner or operator of an affected facility subject to the NO_X standards under 40 CFR 60.44b shall maintain records of the following information for each steam generating unit operating day: a. Calendar date; b. The average hourly NO_X emission rates (expressed as NO_2) (ng/J or lb/MMBtu heat input) measured or predicted; c. The 30-day average NO_X emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days; d. Identification of the steam generating unit operating days when the calculated 30-day average NO_X emission rates are in excess of the	Rule 335-3-10-.02 (2)(b)

Federally Enforceable Provisos	Regulations
NO_X emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken; e. Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken; f. Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data; g. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted; h. Identification of the times when the pollutant concentration exceeded full span of the CEMS; i. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and j. Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.	
3. The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only natural gas shall obtain and maintain at the affected facility fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that gaseous fuel meets the definition of natural gas as defined in 40 CFR 60.41b for a period of 2 years following the date of such record.	Rule 335-3-10-.02 (2)(b)
4. The NO_x emission rate shall be determined each day in lb/MMBtu and shall calculate a 30-day rolling average emission rate on a daily basis.	Rule 335-3-10-.02 (2)(b)
5. A 30-day rolling average carbon monoxide continuous emission monitor report shall be recorded and maintained on file for at least five years.	Rule 335-3-16-.05
6. A report of excess nitrogen oxide emissions, as defined below, will be submitted to the Department for each calendar quarter within the month following the end of the quarter. The reports will include the following information: a. The magnitude of excess emissions greater than 0.05 pounds per million Btu computed on a 30-day rolling average (data recorded during periods of nitrogen oxide emission monitoring system breakdowns, repairs, calibration checks and zero and span adjustments shall not be included in the data averages). b. The magnitude of excess emissions over 116.0 tons/12 month rolling period combined for the Combustion Turbine with Duct Burner and the No. 3, 4, and 5 Power Boilers. c. The date and time of commencement and completion of each time period of excess emissions. d. The nature and cause of the excess emissions (if known) and the corrective action taken or preventative measures adopted. e. The date and time identifying each period during which the nitrogen oxide emission monitoring system was inoperative (except for zero and span checks) and the nature of the system repairs or adjustments.	Rule 335-3-16-.05

Federally Enforceable Provisos	Regulations
When no excess emissions have occurred and the nitrogen oxide emission monitoring system was not inoperative or did not require repairs or adjustments, such information will be stated in the report.	
7. This source shall submit a five-year compliance report documenting the required tune-ups, as specified in 40 CFR 63.7550(c)(1). The report must be postmarked or submitted no later than January 31.	Rule 335-3-11-.06 (107)
8. A record of combined nitrogen oxide emissions from the combustion turbine and duct burner and the No. 3, No. 4, and No. 5 Power Boilers shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-16-.05

CHECKLIST FOR ISSUANCE OF AIR PERMIT

Permit Number:	102-0001-X029
Company:	PACKAGING CORPORATION OF AMERICA
Location:	Jackson, Alabama
Description of Permit Unit	No. 5 Power Boiler

Pollutant Type:

Particulates	01	Total Reduced Sulfur	06	Lead	11
Sulfur Oxides	02	Asbestos	07	Mercury	12
Carbon Monoxide	03	Beryllium	08	Benzene	13
Hydrocarbons	04	Chlorine	09		
Nitrogen Oxides	05	Hydrogen Sulfide	10		

Pollutant Type	Expected Emissions (ppm)	Method of Estimate	Uncontrolled Emissions (lbs/hr)	Controlled Emissions (lbs/hr)	Allowable Emissions (lbs/hr)

Operating Hours per year: 8760

Provisos: See Attached

Mail to: Mr. Bill Davis
Packaging Corporation of America
4585 Industrial Road
Jackson, AL 36545

Engineer: Michael Bragg

Date: DRAFT

Type: PSD [X] SMS [ ] NAME [ ] MOD [ ] TEMP [ ] OTHER _____
Source: NSPS [X] NESHAP [X] SIP [X] OTHER:

Alabama Department of Environmental Management

AIR PERMIT

PERMITTEE: PACKAGING CORPORATION OF AMERICA

FACILITY NAME: JACKSON MILL

LOCATION: JACKSON, AL

PERMIT NUMBER	DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE
102-0001-X038	Combustion Turbine with Duct Burner – 979 MMBtu/hr

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§ 22-28-1 to 22-28-23, as amended, the Alabama Environmental Management Act, Ala. Code §§ 22-22A-1 to 22-22A-17, as amended, and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE: DRAFT

Alabama Department of Environmental Management

General Permit Provisos

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.

2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.

3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.

4. The permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.

5. Each point of emission, which requires testing, will be provided with sampling ports, ladders, platforms, and other safety equipment to facilitate testing performed in accordance with procedures established by Part 60 of Title 40 of the Code of Federal Regulations, as the same may be amended or revised.

6. All air pollution control equipment shall be operated at all times while this process is operational. In the event of scheduled maintenance, unscheduled maintenance, or a breakdown of the pollution control equipment, the process shall be shut down as expeditiously as possible (unless this act and subsequent re-start would clearly cause greater emissions than continuing operations of the process for a short period). The Department shall be notified of all such events within 24 hours. The notification shall include all pertinent facts, including the duration of the process operating without the control device and the level of excess emissions which have occurred.

7. This process, including all air pollution control devices and capture systems for which this permit is issued, shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.

8. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.

9. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The

device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.

11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.

12. Nothing in this permit or conditions thereto shall negate any authority granted to the Air Division pursuant to the Alabama Environmental Management Act or regulations issued thereunder.

13. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.

14. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

    To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

    a. The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
    b. A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
    c. A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
    d. A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

    A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis.

    All test reports must be submitted to the Air Division within 30 days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

15. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.

16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

    Plant or haul roads and grounds will be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

    (a) by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;

    (b) by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;

    (c) by paving;

    (d) by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

    Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

17. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.

18. Should this facility, at any time, exceed the emission limits, the permittee shall notify the Air Division within two (2) working days of determining that the exceedance occurred.

19. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.

20. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.

21. The permittee shall submit an annual compliance certification to the Department no later than 60 days following the anniversary of the issuance of this permit or with the Annual Major Source Operating Permit certification. The compliance certification shall include the following:
    1. The identification of each term or condition of this permit that is the basis of the certification.

2. The compliance status, whether continuous or intermittent.
3. The method(s) used for determining the compliance status of the source, currently and over the reporting period.
4. Other facts the Department may require to determine the compliance status of the source.

The compliance certification shall contain certification by a responsible official of truth, accuracy and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

Combustion Turbine with Duct Burner
Informational Summary

Description: Combustion Turbine with Duct Burner
Utilities Area

Installation Date: 2026 **Reconstruction/Modification Date:** N/A

Operating Capacity: 50 MW
675 MMBtu/hr (Combustion Turbine)
304 MMBtu/hr (Duct Burner)

Operating Schedule: 8760 hours/year

This unit contains equipment that is subject to the following NSPSs, NESHAPs, or MACTs:
40 CFR Part 60 Subpart Db
40 CFR Part 60 Subpart GG

Pollutants Emitted

Emission Point	Point Description	Pollutant	Emission Limit	Standard
X038	Combustion Turbine and Duct Burners	Filterable PM	≤ 0.0050 lb/MMBtu	Rule 335-3-14-.04
X038	Combustion Turbine and Duct Burners	PM_{10}	≤ 0.0070 lb/MMBtu (3-hour rolling average) and/or ≤ 6.85 lb/hr	Rule 335-3-14-.04 (9)
X038	Combustion Turbine and Duct Burners	$PM_{2.5}$	≤ 0.0070 lb/MMBtu (3-hour rolling average) and/or ≤ 6.85 lb/hr	Rule 335-3-14-.04 (9)
X038	Combustion Turbine and Duct Burners	Opacity	≤ 20% except for one six-minute period per hour of ≤ 40%	Rule 335-3-4-.01 (1)
X038	Combustion Turbine	NO_x	≤ 150 ppmvd at 15% O_2 (4-hour rolling average)	Rule 335-3-10-.02 (33)
X038	Duct Burners	NO_x	≤ 0.20 lb/MMBtu (30-day rolling average)	Rule 335-3-10-.02 (2)(b)
X038	Combustion Turbine and Duct Burners	NO_x	≤ 6.0 ppmvd at 15% O_2 and/or ≤ 24.37 lb/hr (30-day rolling average)	Rule 335-3-14-.04
X038	Combustion Turbine and Duct Burners	NO_x	≤ 116.0 tons/12-month rolling period, combined from Combustion Turbine with Duct Burner, No. 3, No. 4, and No. 5 Power Boilers	Rule 335-3-14-.04
X038	Combustion Turbine and Duct Burners	CO	≤ 0.023 lb/MMBtu and/or ≤ 22.5 lb/hr (30-day rolling average)	Rule 335-3-14-.04
X038	Combustion Turbine and Duct Burners	CO_2e	≤ 117.1 lb/MMBtu (12-month rolling average)	Rule 335-3-14-.04 (9)

X038	Combustion Turbine and Duct Burners	CO_2e	≤ 502,141 tons/12-month rolling period	Rule 335-3-14-.04 (9)

Permitted Fuels

Fuel	Max % Sulfur	Max % Ash
Natural Gas	0.8	N/A

Federally Enforceable Provisos	Regulations
Applicability	
1. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "Major Source Operating Permits".	Rule 335-3-16-.03
2. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-4-.01 for visible emissions.	Rule 335-3-4-.01
3. The duct burner is subject to the applicable requirements of ADEM Admin. Code R. 335-3-10-.02(1) and (2)(b), 40 CFR 60 Subpart Db for nitrogen oxides.	Rule 335-3-10-.02 (1) and (2)(b)
4. The combustion turbine is subject to the applicable requirements of ADEM Admin. Code R. 335-3-10-.02(1) and (33), 40 CFR 60 Subpart GG for nitrogen oxides and sulfur dioxide.	Rule 335-3-10-.02 (1) and (33)
5. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-14-.04 Prevention of Significant Deterioration synthetic minor limits for filterable particulate matter, nitrogen oxides, and carbon monoxide.	Rule 335-3-14-.04
6. This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-14-.04(9) Prevention of Significant Deterioration Best Available Control Technology limits for PM_{10}, $PM_{2.5}$, and greenhouse gases.	Rule 335-3-14-.04 (9)
Emission Standards	
1. Filterable particulate matter emissions shall not exceed 0.0050 pounds per million Btu.	Rule 335-3-14-.04
2. Total PM_{10} emissions shall not exceed the more stringent of 0.0070 pounds per million Btu (three-hour rolling average) and 6.85 pounds per hour.	Rule 335-3-14-.04 (9)
3. Total $PM_{2.5}$ emissions shall not exceed the more stringent of 0.0070 pounds per million Btu (three-hour rolling average) and 6.85 pounds per hour.	Rule 335-3-14-.04 (9)
4. Opacity shall not be greater than 20 percent except for one six-minute period per hour of not more than 40%.	Rule 335-3-4-.01 (1)
5. This source shall only be fired with pipeline quality natural gas.	Rule 335-3-14-.04 (9)
6. The combustion turbine shall fire only natural gas containing no more than 0.8% sulfur by weight.	Rule 335-3-10-.02 (33)
7. Nitrogen oxide emissions from the combustion turbine shall not exceed 150 parts per million by volume at 15 percent oxygen on a dry basis (four-hour rolling average).	Rule 335-3-10-.02 (33)
8. Nitrogen oxide emissions from the duct burners shall not exceed 0.20 pounds per million Btu (30-day rolling average).	Rule 335-3-10-.02 (2)(b)
9. The combined nitrogen oxide emissions from the combustion turbine and duct burners shall not exceed the more stringent of 6.0 parts per million by volume at 15 percent oxygen on a dry basis and 24.37 pounds per hour (30-day rolling average).	Rule 335-3-14-.04
10. The combined nitrogen oxide emissions from the Combustion Turbine with Duct Burners and the No. 3, No. 4, and No. 5 Power Boilers shall not exceed 116.0 tons per 12 month rolling period.	Rule 335-3-14-.04

Federally Enforceable Provisos	Regulations
11. Carbon monoxide emissions shall not exceed the more stringent of 0.023 pounds per million Btu and 22.5 pounds per hour (30-day rolling average).	Rule 335-3-14-.04
12. Greenhouse gas emissions shall not exceed 117.1 pounds per million Btu (12-month rolling average).	Rule 334-3-14-.04 (9)
13. Greenhouse gas emissions shall not exceed 502,141 tons per 12 month rolling period.	Rule 335-3-14-.04 (9)
Compliance and Performance Test Methods and Procedures	
1. Compliance with the filterable particulate matter emission limit shall be determined by Reference Method 5 or 17 in Appendix A of 40 CFR 60.	Rule 335-3-10-.03 (1)
2. Compliance with the total $PM_{2.5}$ and total PM_{10} emission limits shall be determined by EPA Test Method 201A and/or EPA Test Method 202.	Rule 335-3-10-.03 (1)
3. Compliance with the nitrogen oxide limit shall be determined by Reference Method 20 or 7E in Appendix A of 4 CFR 60 or by continuous emission monitoring system.	Rule 335-3-10-.02 (33) Rule 335-3-10-.03 (1) Rule 335-3-16-.05
4. Compliance with the carbon monoxide limit shall be determined by Reference Method 10 in Appendix A of 40 CFR 60 or by continuous emissions monitoring system.	Rule 335-3-10-.03 (1) Rule 335-3-16-.05
5. Compliance with the opacity limit shall be determined by Reference Method 9 in Appendix A of 40 CFR 60.	Rule 335-3-4-.01 (2)
6. Compliance with the sulfur dioxide limit shall be determined by Reference Method 6 or 6C in Appendix A of 40 CFR 60 or the permittee may demonstrate compliance with the applicable SO_2 emission standard by performing fuel sampling and analysis which shows that the maximum total sulfur content of the fuel is 20.0 grains per 100 standard cubic feet or less, using the appropriate ASTM method as listed in 40 CFR 60.335(b)(10)(ii).	Rule 335-3-10-.02 (33) Rule 335-3-10-.03 (1)
7. Compliance with the greenhouse gas limit shall be determined by the applicable method prescribed in 40 CFR 98 Subpart C.	Rule 335-3-16-.05 40 CFR 98
Emission Monitoring	
1. A filterable particulate matter, total PM_{10}, and total $PM_{2.5}$ emission test shall be performed at least once every five years.	Rule 335-3-16-.05
2. The permittee shall perform fuel sampling and analysis in accordance with the applicable requirements of Appendix D of 40 CFR 75. The sulfur content of the fuel shall be determined on a quarterly basis.	Rule 335-3-10-.02 (33) Rule 335-3-16-.05
3. The duct burners shall not be operated when the combustion turbine is not in operation and shall be equipped with an automatic shut-off device to prevent their operation at exhaust gas duct temperatures in excess of 1450 degrees Fahrenheit.	Rule 335-3-16-.05

Federally Enforceable Provisos	Regulations
4. Continuous emission monitoring systems for the measurements of nitrogen oxides and carbon monoxide shall be installed, calibrated, operated and maintained. The continuous emission monitoring systems shall be subject to the quality control and quality assurance requirements of 40 CFR Part 60 Appendix B.	Rule 335-3-10-.02 (33) Rule 335-3-16-.05
5. For filterable particulate matter, total PM_{10}, and total $PM_{2.5}$ periodic monitoring, if any three-hour block average natural gas firing rate is greater than 110 percent of its average value set by the required complying periodic test, the natural gas firing rate is to be lowered until compliance is successfully demonstrated at the higher rate.	Rule 335-3-16-.05
6. The nitrogen oxide and carbon monoxide continuous emission monitoring systems shall be audited at least once per calendar quarter. A relative accuracy test shall be performed at least once every four calendar quarters. A cylinder gas audit may be performed in three of the four calendar quarters but in no more than three quarters in succession.	Rule 335-3-10-.03 (3)
7. The amount of monthly natural gas fired shall be monitored.	Rule 335-3-16-.05
Recordkeeping and Reporting Requirements	
1. A filterable particulate matter, total PM_{10}, and total $PM_{2.5}$ emission test report shall be submitted at least once every five years.	Rule 335-3-16-.05
2. The permittee shall make and maintain fuel sampling data on file available for inspection for at least five years.	Rule 335-3-16-.05
3. Records of all three-hour block average natural gas firing rates shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-16-.05
4. The nitrogen oxide and carbon monoxide continuous emission monitoring system audit reports shall be submitted to the Department within thirty days of the end of each calendar quarter.	Rule 335-3-16-.05
5. Records of monthly natural gas consumption and calculated greenhouse gas emissions shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-16-.05
6. Records of the thirty-day rolling average carbon monoxide emission rate shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-16-.05
7. Records of the four-hour rolling average nitrogen oxide emission rate for the combustion turbine shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-16-.05
8. Records of the thirty-day rolling average nitrogen oxide emission rate shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-16-.05
9. A record of the combined 12-month rolling nitrogen oxide emissions from the Combustion Turbine with Duct Burner and the No. 3, No. 4, and No. 5 Power Boilers shall be made and maintained on file available for inspection for at least five years.	Rule 335-3-16-.05

Federally Enforceable Provisos	Regulations
10. A report of excess nitrogen oxide emissions, as defined below, will be submitted to the Department for each semiannual period within the month following the end of the six-month period. The reports will include the following information: a. The magnitude of excess emissions over the permitted limits for the combustion turbine computed on any four-hour period (arithmetic average of four contiguous one-hour periods). Data recorded during periods of system breakdowns, repairs and adjustments shall not be included in any of the above data averages. b. The date and time of commencement and completion of each time period of excess emissions. c. The nature and cause of the excess emissions (if known) and the corrective action taken or preventative measures adopted. d. The date and time identifying each period during which the total reduced sulfur emission monitoring system was inoperative (except for zero and span checks) and the nature of the system repairs or adjustments. When no excess emissions have occurred and the nitrogen oxide emission monitoring system was not inoperative or did not require repairs or adjustments, such information will be stated in the report.	Rule 335-3-10-.02 (25)
11. A written report of excess nitrogen oxide emissions, as defined below, will be submitted to the Department for each calendar quarter within the month following the end of the quarter. The reports will include the following information: a. The magnitude of excess emissions over 6.0 ppmvd at 15% oxygen and 24.37 lb/hr from the combined exhaust of the combustion turbine and duct burner computed by the nitrogen oxide CEMS on a 30-day rolling average. b. The magnitude of excess emissions over 116.0 tons/12 month rolling period combined for the Combustion Turbine with Duct Burner and the No. 3, 4, and 5 Power Boilers. c. The date and time of commencement and completion of each time period of excess emissions. d. The nature and cause of the excess emissions (if known) and the corrective action taken or preventative measures adopted. e. The date and time identifying each period during which the nitrogen oxide emission monitoring system was inoperative (except for zero and span checks) and the nature of the system repairs or adjustments. When no excess emissions have occurred and the nitrogen oxide emission monitoring system was not inoperative or did not require repairs or adjustments, such information will be stated in the report.	Rule 335-3-16-.05

CHECKLIST FOR ISSUANCE OF AIR PERMIT

Permit Number:	102-0001-X038
Company:	PACKAGING CORPORATION OF AMERICA
Location:	Jackson, Alabama
Description of Permit Unit	Combustion Turbine with Duct Burner

Pollutant Type:

Particulates	01	Total Reduced Sulfur	06	Lead	11
Sulfur Oxides	02	Asbestos	07	Mercury	12
Carbon Monoxide	03	Beryllium	08	Benzene	13
Hydrocarbons	04	Chlorine	09		
Nitrogen Oxides	05	Hydrogen Sulfide	10		

Pollutant Type	Expected Emissions (ppm)	Method of Estimate	Uncontrolled Emissions (lbs/hr)	Controlled Emissions (lbs/hr)	Allowable Emissions (lbs/hr)

Operating Hours per year: 8760

Provisos: See Attached

Mail to: Mr. Bill Davis
Packaging Corporation of America
4585 Industrial Road
Jackson, AL 36545

Engineer: Michael Bragg

Date: DRAFT

Type: PSD [X] SMS [ ] NAME [ ] MOD [ ] TEMP [ ] OTHER _____
Source: NSPS [X] NESHAP [ ] SIP [X] OTHER: