Facility Name: **Pactiv LLC**
City: Covington
County: Newton
AIRS #: 04-13-217-00024

Application #: TV-631552
Date Application Received: March 23, 2022
Permit No: 3086-217-0024-V-07-0

Program	Review Engineers	Review Managers
SSPP	Ginger Payment	Heather Brown
ISMU	Marcus Cureton	Dan McCain
SSCP	Deirdre Edwards	Tammy Martiny
Toxics	N/A	N/A
Permitting Program Manager		Stephen Damaske

Introduction

This narrative is being provided to assist the reader in understanding the content of referenced operating permit. Complex issues and unusual items are explained here in simpler terms and/or greater detail than is sometimes possible in the actual permit. The permit is being issued pursuant to: (1) Georgia Air Quality Act, O.C.G.A § 12-9-1, et seq. and (2) Georgia Rules for Air Quality Control, Chapter 391-3-1, and (3) Title V of the Clean Air Act. Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control incorporates requirements of Part 70 of Title 40 of the Code of Federal Regulations promulgated pursuant to the Federal Clean Air Act. The narrative is intended as an adjunct for the reviewer and to provide information only. It has no legal standing. Any revisions made to the permit in response to comments received during the public participation and EPA review process will be described in an addendum to this narrative.

I. Facility Description

A. Facility Identification

1. Facility Name: Pactiv LLC

2. Parent/Holding Company Name

Pactiv Corporation

3. Previous and/or Other Name(s)

pka: Pactiv Corporation – Covington
pka: Tenneco Packaging Specialty and Consumer Products Inc.
pka: Tenneco Plastics Company – Covington
pka: Mobil Chemical Company, Plastic Packaging Division

aka: Pactiv LLC - Covington

4. Facility Location

8170 Alcovy Road, Covington, Georgia 30014

5. Attainment, Non-attainment Area Location, or Contributing Area

This facility is located in an area that was designated non-attainment for ozone. EPA has determined that the seven-county Atlanta ozone non-attainment area now meets the 2015 NAAQS for ozone based on the 2018-2020 air quality monitoring data.

B. Site Determination

There are no other facilities which could possibly be contiguous or adjacent and under common control.

C. Existing Permits

Table 1 below lists all current Title V permits, all amendments, 502(b)(10) changes, and off-permit changes, issued to the facility, based on a comparative review of form A.6, Current Permits, of the Title V application and the "Permit" file(s) on the facility found in the Air Branch office.

Table 1: List of Current Permits, Amendments, and Off-Permit Changes

Permit Number and/or Off-Permit Change	Date of Issuance/ Effectiveness	Purpose of Issuance
Permit No. 3086-217-0024-V-06-0	November 3, 2017	Title V Renewal

D. Process Description

1. SIC Codes(s)

3086

The SIC Code(s) identified above were assigned by EPD's Air Protection Branch for purposes pursuant to the Georgia Air Quality Act and related administrative purposes only and are not intended to be used for any other purpose. Assignment of SIC Codes by EPD's Air Protection Branch for these purposes does not prohibit the facility from using these or different SIC Codes for other regulatory and non-regulatory purposes.

Should the reference(s) to SIC Code(s) in any narratives or narrative addendum previously issued for the Title V permit for this facility conflict with the revised language herein, the language herein shall control; provided, however, language in previously issued narratives that does not expressly reference SIC Code(s) shall not be affected.

2. Description of Product(s)

Pactiv LLC (hereinafter "facility") manufactures polystyrene foam trays and containers by extruding polystyrene and expanding the material through use of a blowing agent.

3. Overall Facility Process Description

The facility manufactures food packaging products (i.e., trays and containers) from polystyrene foam using a blowing agent. The facility receives blowing agent and virgin polystyrene (PS) pellets via railcars or trucks. Two (2) 30,000 gallon tanks (UST1 and UST2) are used to store the blowing agent, and two heat exchangers (HE01 and HE02) are used to recover evaporative losses during unloading, transfer, and storage of the blowing agent. Storage silos are used to store the virgin PS pellets. Other raw materials, such as colorants and talc, are typically delivered in totes/bins or other small containers. Carbon dioxide (CO_2), which is also used in the process, is stored in an aboveground storage tank.

The raw materials are conveyed to the extruders at the facility. In each of the foam extruders, virgin PS resin pellets, reprocessed plastic pellets, colorants, and talc are combined with blowing agent to form the foam in a two-stage extrusion process. The raw materials are first heated in the primary extruder area, and then cooled in the secondary extruder. The molten mixture is then extruded through an annular die and cooled via an, air-cooled or a water-cooled extrusion system. After cooling, the foam sheets are slit and wound on a mill roll. The rolls are then aged in roll storage for approximately three days before being sent to the thermoforming lines. The foam sheet is reheated on the thermoforming lines and molded into shape by a vacuum assisted mold. The final product is then cut, punched from the foam sheets, and stored in one of the finished goods warehouses or shipped to other destinations.

Scrap material from the final product is processed through on-line choppers (also called an "under press grinder") and ground up. In addition, stand-alone, off-line grinders are used to batch grind any scrap (e.g., off-specification product) that is accumulated. The solids (called "fluff") from the

grinders are conveyed to and accumulated in fluff bins (i.e., silos) for temporary storage. From the fluff bin, the fluff is conveyed, and extruded into reprocessed plastic pellets (RPP) using reclaim extruders, where it can be used again to make foam sheet.

A baghouse is present on top of each fluff bin; however, the baghouses are considered inherent process equipment since they provide particulate control for the protection of the downstream thermal oxidizers. Off-line grinders can be used to process additional scrap material into the reclaim processes/system. The on-line choppers, off-line grinders, fluff bins/silos, and reclaim extruders comprise the reclaim processes/system, which is controlled by two thermal oxidizers (RTO1 and RTO2). RTO1 operates as the sole primary oxidizer, while RTO2 functions only as a backup control device, as needed.

4. Overall Process Flow Diagram

The facility provided a process flow diagram in their Title V permit application.

E. Regulatory Status

1. PSD/NSR

The facility is major under non-attainment NSR regulations. The facility has potential emissions in excess of 100 tons per year of VOC since the facility emits greater than 670 tpy VOC emissions from the extruders, roll storage area, thermoformers, and the reclaim system. The permit includes a limit for the on-line choppers, off-line grinders, reclaim fluff storage bins, and reclaim extrusion lines (Reclaim Processes) of 248 tpy VOC which allows PSD avoidance.

The potential NO_x emissions are less than 100 tpy for the entire facility.

2. Title V Major Source Status by Pollutant

Table 2: Title V Major Source Status

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
PM	✓			✓
PM_{10}	✓			✓
$PM_{2.5}$	✓			✓
SO_2	✓			✓
VOC	✓	✓		
NO_x	✓			✓
CO	✓			✓
TRS	N/A			
H_2S	N/A			
Individual HAP	✓			✓

Pollutant	Is the Pollutant Emitted?	If emitted, what is the facility's Title V status for the pollutant?		
		Major Source Status	Major Source Requesting SM Status	Non-Major Source Status
Total HAPs	✓			✓

3. MACT Standards

   This site is not a major source of HAPs and there are no area source MACT standards applicable to the facility.

4. Program Applicability (AIRS Program Codes)

Program Code	Applicable (y/n)
Program Code 6 - PSD	N
Program Code 8 – Part 61 NESHAP	N
Program Code 9 - NSPS	Y
Program Code M – Part 63 NESHAP	N
Program Code V – Title V	Y

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

None applicable.

B. Applicable Rules and Regulations

Not applicable.

C. Compliance Status

There are no compliance issues noted with this application.

D. Permit Conditions

None applicable.

III. Regulated Equipment Requirements

A. Equipment List for the Process

Emission Units		Applicable Requirements/Standards	Air Pollution Control Devices	
ID No.	Description		ID No.	Description
Reclaim Processes	Reclaim Fluff Bins (FB)*** Reclaim Extrusion Lines (REL) On-line Choppers (CHO) Off-line Grinders (GDR)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(qqq)	RTO1 and RTO2	Thermal Oxidizers
Other VOC Processes	Production Extrusion Lines (PEL) Thermoforming Lines (TL) Finish Goods Warehouses (FG)	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 391-3-1-.02(2)(qqq)	None	None
UST1 and UST2	Storage Tanks	391-3-1-.02(2)(b) 391-3-1-.02(2)(vv) 40 CFR 60 Subpart Kb	HE01 and HE02	Heat Exchangers (Condensers)
RS	Roll Storage	391-3-1-.02(2)(b) 391-3-1-.02(2)(qqq)	None	None

* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards are intended as a compliance tool and may not be definitive.

** Tables detailing grouping of emissions units and associated control devices are found in Attachment D.

*** Reclaim fluff bins received ground-up foam from the on-line choppers as well as ground-up foam from the off-line grinders

B. Equipment & Rule Applicability

All emission units at the facility will continue to be subject to Georgia Rule (b) – Visible Emissions. This permit also subjects all emission units except for the blowing agent storage tanks, roll storage areas, and the finish goods warehouses to Rule (e) - Particulate Emissions from Manufacturing Processes.

All emission units except for the blowing agent storage tanks will continue to be subject to Georgia Rule (qqq).

The storage tanks (Emission Unit ID Nos. UST1 and UST2) will continue to be subject to Georgia Rule (vv) – Volatile Organic Liquid handling and Storage which requires all storage tanks greater than 4,000 gallons be equipped with submerged fill pipes.

The storage tanks (Emission Unit ID Nos. UST1 and UST2) will continue to be subject to 40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels for which Construction, Reconstruction or Modification Commenced after July 23, 1984. The blowing agent storage tanks are subject to this rule because the tanks have an effective installation date of 1991, are 30,000 gallons in capacity each, and store a volatile organic liquid (blowing agent, usually pentane). Any storage tank installed after July 23, 1984, and has a volume greater than 40 m^3 (10,567 gallons) is subject to Subpart Kb. The tanks each have a capacity of greater than 75 m^3 (19,812 gallons) and store a volatile organic liquid that has a maximum true vapor pressure of

greater than 76.6 kPa (pentane has a maximum true vapor pressure of 137 kPa), therefore, the vessels must comply with 40 CFR 60.112b(a)(3).

Permit No. 3086-217-0024-V-05-1 allowed for the construction and operation of an under press grinder, an off line grinder and fluff bins.

Emission and Operating Caps:

The initial permit, Permit No. 3086-217-0024-V-03-0, included a 249 tpy VOC emission limitation from the Reclaim Processes (on-line choppers, off-line grinders, reclaim fluff storage bins, and reclaim extrusion lines). This emissions limitation was imposed upon the reclaim system as a previous avoidance limitation of PSD.

Permit No. 3086-217-0024-V-03-1 modified this VOC emission limit from 249 to 248 tons per year because the facility desired to avoid recordkeeping for the 1 ton of VOC emissions per year from pellet dryers, extrusion line L803 and screen changer losses. Permit No. 3086-217-0024-V-04-0 removed extrusion line L803 from service.

Permit No. 3086-217-0024-V-03-3 included a VOC emission limit of 130 tpy combined from the roll storage units in order to avoid PSD review and the BACT requirements of Georgia Rule 391-3-1-.03(8)(c)14. For the determination of the 130 tons per year, the roll storage unit RS04 was limited to less than 40 tons per year and this limit was combined with the past actual VOC emissions for the existing three roll storage units.

Rules and Regulations Assessment:

Georgia Rule (qqq) - VOC Emissions from Extruded Polystyrene Products Manufacturing Utilizing a Blowing Agent establishes reasonably available control technology (RACT) for VOC emissions from the production of extruded polystyrene products from major sources. The facility is limited to a rolling average limit of 0.8 pounds of VOC used as a blowing agent emitted during production per 100 pounds of raw material processed during any three consecutive month period.

As subject to 40 CFR 60 Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels for which Construction, Reconstruction or Modification Commenced after July 23, 1984, the facility is required to control each of the storage tanks using a closed vent system meeting the following specifications:

- The closed vent system shall be designed to collect all VOC emissions from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background inspections, as determined in Part 60 Subpart VV.
- The control device shall be designed and operated to reduce the inlet VOC emissions by 95 percent or greater.

The facility utilizes a heat exchanger for each storage tank to comply with NSPS Subpart Kb. The heat exchangers [condensers] (Air Pollution Control Device ID Nos. HE01 and HE02) control the VOC emissions from the tanks to at least 95 percent per the Division memorandum

dated April 4, 1997. The heat exchangers (condensers) also ensure that there are no detectable emissions as indicated by an instrument reading of less than 500 ppm above background inspections. Additional information (submitted October 12, 2001, and made part of the Title V application) indicates that the heat exchangers achieve the 95 percent VOC emissions reduction with a lower chilled water flow rate (lowered from 70 °F to 60 °F). The facility submitted documentation to the Division that the heat exchangers achieve the require control efficiency and specified the parameters to be monitored [per 40 CFR 60.113b(c)(1) and (2)]. The facility continuously monitors and manually records (at least once per loading or unloading period) the temperature of the chilled water into and out of the condenser (heat exchanger), the chilled water flow rate into the condenser, the blowing agent unload flow rate, and the blowing agent unloading temperature to UST1. To ensure proper operation, the facility maintains the temperature of the chilled water into and out of the condenser at or below 60 ºF, maintains a chilled water flow rate of greater than 15 gallons per minute, maintains a blowing agent unload flow rate of 200 gpm for UST1 and 300 gpm for UST1 when transferring through UST2, and maintains a blowing agent unloading temperature of no higher than 80 °F. The above process parameters are used to set excursions values in the permit. The facility keeps a copy of the operating plan for the heat exchangers and continuously measures the parameters.

C. Permit Conditions

- Condition 3.2.1 limits the VOC emissions from Reclaim Processes Group (except for the pellet dryers and screen changer losses) to 248 tons per year in order to avoid PSD review.
- Condition 3.2.2 limits the VOC emissions from the RS Group (Roll Storage) to 130 tons per year in order to avoid PSD review.
- Condition 3.3.1 subjects the storage tanks to 40 CFR 60 Subpart Kb.
- Condition 3.4.1 subjects the facility to Georgia Rule (b).
- Condition 3.4.2 subjects the applicable emission units to Georgia Rule (e).
- Condition 3.4.3 requires a submerged fill pipes for the storage tanks as required by Georgia Rule (vvv).
- Condition 3.4.4 subjects the extruder equipment to Georgia Rule (qqq) by limiting the VOC emissions to 0.8 lbs per 100 lbs of raw material. The condition was updated to reflect a simplified equation.
- Condition 3.4.5 requires the facility to operate the capture systems for the control devices at all times that the control equipment is operating.
- Condition 3.4.6 requires the facility to operate the RTOs at all times that the associated equipment is operating.

IV. Testing Requirements (with Associated Record Keeping and Reporting)

A. General Testing Requirements

The permit includes a requirement that the Permittee conduct performance testing on any specified emission unit when directed by the Division. Additionally, a written notification of any performance test(s) is required 30 days (or sixty (60) days for tests required by 40 CFR Part 63) prior to the date of the test(s) and a test plan is required to be submitted with the test notification. Test methods and procedures for determining compliance with applicable emission limitations are listed and test results are required to be submitted to the Division within 60 days of completion of the testing.

B. Specific Testing Requirements

Condition 4.2.1 requires the facility to conduct a VOC destruction efficiency performance test for the two thermal oxidizers of the reclaim system (Air Pollution Control Device Nos. RTO1 and RTO2) at least once every five calendar years. This condition was modified to include the date of the most recent performance tests which will provide a quick reference to determine the next performance tests.

V. Monitoring Requirements

A. General Monitoring Requirements

Condition 5.1.1 requires that all continuous monitoring systems required by the Division be operated continuously except during monitoring system breakdowns and repairs. Monitoring system response during quality assurance activities is required to be measured and recorded. Maintenance or repair is required to be conducted in an expeditious manner.

B. Specific Monitoring Requirements

- Condition 5.2.1 requires a device to continuously measure and record the thermal oxidizer combustion zone temperature for the two thermal oxidizer and requires a device to measure and record the flow rate through thermal oxidizer RTO2. The flow rate through thermal oxidizer RTO2 is to be monitored to ensure a minimum residence time for the thermal oxidizer. The facility does not need to monitor the inlet flow rate to thermal oxidizer RTO1 because the flow rate to thermal oxidizer RTO1 cannot exceed 33,000 scfm from a design standpoint. The flow rate for RTO2 is measured because the flow rate through RTO2 can easily exceed 16,000 scfm.
- Condition 5.2.2 requires devices to continuously measure the inlet and outlet water temperatures and to continuously measure the chilled water flow rate of the two heat exchangers [condensers] (Air Pollution Control Device ID Nos. HE01 and HE02) when the storage tanks are loading or unloading. This condition also requires devices to continuously measure the blowing agent unload flow rates and the blowing agent unload temperatures for the first blowing agent storage tank (Emission Unit ID Nos. UST1) when a railcar or truck is unloading into the first tank and the blowing agent transfer rate from UST2. The blowing agent transfer rates must be recorded at least once per unloading period. The transfer rate from UST1 to UST2 is effectively limited to 100 gpm by the installed pump capacity. These conditions are required for compliance 40 CFR 60 Subpart Kb.
- Condition 5.2.5 limits the hours of operation of Regenerative Thermal Oxidizer RTO2 to 225 hours during any calendar month and to 500 hours per twelve consecutive months. RTO2 provides backup emission control for RTO1 while it is not in operation such as maintenance activities. Due to RTO2 being a smaller design, it cannot handle the same volume of airflow as RTO1. Therefore, this condition also limits the control to the Reclaim Processes excluding Reclaim Extruders 892 and 895.

C. Compliance Assurance Monitoring (CAM)

Because the VOC emissions from the On-line Thermoformers Choppers exceed the major source threshold, the Regenerative Thermal Oxidizers (RTO 1 and RTO2) are subject to CAM. The On-line Thermoformers Choppers are part of the Reclaim Processes. Condition 5.2.3 identifies the Reclaim to be subject to Rule in 40 CFR 64. Condition 5.2.4 includes a table of performance criteria for compliance assurance monitoring for VOC emissions. RTO combustion zone temperature and RTO operational status and maintenance checks are the two indicators for CAM. The table includes information concerning data representativeness, Verification of Operational Status (new/modified monitoring equipment only), QA/QC Practices and Criteria, Monitoring Frequency, Data Collection Procedures and Averaging Period for the two indicators.

VI. Record Keeping and Reporting Requirements

A. General Record Keeping and Reporting Requirements

The Permit contains general requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all information related to deviations from the applicable requirements. Records, including identification of any excess emissions, exceedances, or excursions from the applicable monitoring triggers, the cause of such occurrence, and the corrective action taken, are required to be kept by the Permittee and reporting is required on a semiannual basis.

B. Specific Record Keeping and Reporting Requirements

- Condition 6.2.1 requires the facility to maintain usage records of all materials (including blowing agents) containing volatile organic compounds (VOC) and all of the materials processed in the production extruders (including polystyrene, additives, and colorants).
- Condition 6.2.2 details the methods, formulas, definitions, and emission factors approved by the Division to calculate VOC emissions.
- Conditions 6.2.3 and 6.2.4 require the facility to use the records and the equations and methodologies to determine the VOC emissions for the on-line choppers, off-line grinders, fluff bins, and reclaim extruders for each calendar month and calculate the twelve month rolling total VOC emissions. These conditions were modified to remove the individual equipment names and to include the group name of Reclaim Processes.
- Condition 6.2.5 requires the facility to calculate the three-month rolling total of VOC emitted from production and post-production operations per 100 pounds of raw material processed each month as required by Georgia Rule (qqq).
- Condition 6.2.6 requires that the facility maintain records for the storage tanks concerning usage of submerged fill pipes as required by Georgia Rule (vv).
- Condition 6.2.7 requires the facility to keep a copy of the operating plan for the two heat exchangers (Air Pollution Control Device ID Nos. HE01 and HE02) that describes the monitoring parameters and provides documentation that the control device will achieve the required control efficiency of 95 percent during maximum loading conditions.
- Conditions 6.2.8 and 6.2.9 require the facility to calculate the monthly and the twelve-month rolling total VOC emissions from the roll storage units and to notify the Division if the VOC emissions exceed 10.8 during any one month or 130 tpy.
- Condition 6.2.10 requires the facility to notify the Division if the hours of RTO2 usage exceeds 225 hours during any calendar month or 500 hours per twelve consecutive months.

VII. Specific Requirements

A. Operational Flexibility

- None applicable.

B. Alternative Requirements

- None applicable.

C. Insignificant Activities

See Permit Application on GEOS website.
See Attachment B of the permit

D. Temporary Sources

- None applicable.

E. Short-Term Activities

- None applicable.

F. Compliance Schedule/Progress Reports

- Not applicable.

G. Emissions Trading

- Not applicable.

H. Acid Rain Requirements

- Not applicable

I. Stratospheric Ozone Protection Requirements

- Not applicable.

J. Pollution Prevention

- Not applicable.

K. Specific Conditions

- There are no additional facility-specific conditions that are not covered elsewhere.

VIII. General Provisions

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

Template Condition 8.14.1 was updated in September 2011 to change the default submittal deadline for Annual Compliance Certifications to February 28.

Template Condition Section 8.27 was updated in August 2014 to include more detailed, clear requirements for emergency generator engines currently exempt from SIP permitting and considered insignificant sources in the Title V permit.

Template Condition Section 8.28 was updated in August 2014 to more clearly define the applicability of the Boiler MACT or GACT for major or minor sources of HAP.

Addendum to Narrative

The 30-day public review started on month day, year and ended on month day, year. Comments were/were not received by the Division.

//If comments were received, state the commenter, the date the comments were received in the above paragraph. All explanations of any changes should be addressed below.//