

Facility Name: **Sonoco Protective Solutions, Inc.**
City: Conyers
County: Rockdale
AIRS #: 04-13-247-00033

Application #: TV-40075
Date Application Received: August 29, 2017
Permit No: 3086-247-0033-V-05-0

Program	Review Engineers	Review Managers
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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: Sonoco Protective Solutions, Inc.

2. Parent/Holding Company Name

Sonoco Protective Solutions, Inc.

3. Previous and/or Other Name(s)

Previously known as SCA Packaging North America, Inc.

Previously known as Tegrant Diversified Brands, Inc.

4. Facility Location

1830 Rockdale Industrial Boulevard
Conyers, Georgia 30012
Rockdale County

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

The facility is located in Rockdale County, which is non-attainment for ozone and PM 2.5.

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. 3086-247-0033-V-04-0	March 5, 2013	Title V Renewal
Amendment No. 3086-247-0033-V-04-1	April 12, 2013	Addition of a new pre-expander
Off Permit Change	October 8, 2014	Installation of a SIP exempted Boiler
Amendment No. 3086-247-0033-V-04-2	October 14, 2016	Name Change from Tegrant to Sononco Protective Solutions
Off Permit Change	June 6, 2017	Modification of the pre-expander to handle small EPS beads.
Off Permit Change	June 6, 2017	Installation of 4 new molding press and 2 pre-puff storage bags
Amendment No. 3086-247-0033-V-04-3	December 11, 2017	Removal of the ARCEL material throughput limit

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)

The facility manufactures custom shape moldings of expandable polystyrene (EPS) and other expandable co-polymers (Arcel).

3. Overall Facility Process Description

Sonoco Protective Solutions, Inc. produces molded expandable polystyrene (EPS) products. The raw material used in the molding of EPS comes in the form of small beads which contain a pentane blowing agent. The beads are expanded using steam, then injected into aluminum molds to produce custom EPS products. The plant also produces relatively small amounts of products using proprietary polystyrene/polyethylene copolymer products, such as ARCEL.

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 classified as a major source in regard to NSR; however, the facility has taken limits for VOC for each pre-expander to avoid PSD/NSR review.

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	Yes			X
PM ₁₀	Yes			X
PM _{2.5}	Yes			X
SO ₂	Yes			X
VOC	Yes	X		
NO _x	Yes			X
CO	Yes			X
TRS	No			
H ₂ S	No			
Individual HAP	Yes			X
Total HAPs	Yes			X

3. MACT Standards

The facility is not a major source of HAPs and therefore is not subject to any MACT standards.

As a minor source of HAP emissions, the facility is potentially subject to 40 CFR 63 Subpart JJJJJ - "National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial Commercial, and Institutional Boilers," for the operation of the boilers. Because the boilers are natural gas fired, the requirements for 40 CFR 63 Subpart JJJJJ are avoided.

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	n
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 at this time.

D. Permit Conditions

None applicable.

III. Regulated Equipment Requirements

A. Equipment List for the Process

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
B004	Boiler No. 4 (6.3 MMBtu/hr)	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.2.4, 3.4.1, 3.4.2, 3.5.1, 6.1.7, 6.1.8, 6.2.16 – 6.2.19	N/A	None
B006	Boiler No. 6 (9.99 MMBtu/hr)	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.2.4, 3.4.1, 3.4.2, 3.5.1, 6.1.7, 6.1.8, 6.2.16 – 6.2.19	N/A	None
B007	Boiler No. 7 (9.99 MMBtu/hr)	391-3-1-.02(2)(d) 391-3-1-.02(2)(g)	3.2.4, 3.4.1, 3.4.2, 3.5.1, 6.1.7, 6.1.8, 6.2.16 – 6.2.19	N/A	None
PE01	Hirsch Pre-Expander No. 1	391-3-1-.02(2)(eee)	3.2.1, 3.4.3, 6.1.7, 6.1.8, 6.2.1 – 6.2.5, 6.2.15	N/A	None
PE04	Hirsch Pre-Expander No. 4	391-3-1-.02(2)(eee)	3.2.2, 3.4.3, 6.1.7, 6.1.8, 6.2.1, 6.2.6 – 6.2.9, 6.2.15	N/A	None
PE05	Hirsch Pre-Expander No. 5	391-3-1-.02(2)(eee)	3.2.3, 3.4.3, 6.1.8, 6.1.9, 6.2.1, 6.2.10 – 6.2.15	N/A	None

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

B. Equipment & Rule Applicability

Emission and Operating Caps:

In 2010, the Division reviewed the permitting approach to EPS manufacturing. It was decided that the limiting factor for VOC emissions are the expanders. The facility cannot mold more beads than it expands. Emissions from the facility will be evaluated at the pre-expanders and the residual VOC content in the warehouse before the final product leaves. The molders do not create new VOC emissions; these are already accounted for in this overall approach.

There are separate VOC emission limits of 49.9 tpy for Pre-Expander PE01 and Pre-Expander PE04. These limits were placed on these expanders to avoid NSR review. At the time the limits were issued, the major source threshold was 50 tpy of VOC. The combined limits made the facility a major source for Title V with VOC emissions of 99.8 tpy VOC, which exceeds the threshold of 50 tpy.

Pre-Expander PE05 was permitted with Permit Amendment No. 3086-247-0033-V-04-1 and included an NSR avoidance limited of 24 tpy of VOC emissions.

The facility will continue to limit sulfur dioxide emissions below major source thresholds with a limit of 245,300 gallons of No. 2 fuel oil.

Previously, the facility had limited the amount of ARCEL beads used to 25,000 lb/yr and by limiting the VOC content of the beads to less than 10.5% in order to remain below 50 tpy of VOC emissions and in order to avoid Georgia Rule (tt). However, the facility has chosen to consider ARCEL beads as EPS beads; therefore, subject to Georgia Rule (eee) which limits the average bead content to 4.5% VOC by weight. Rule (tt) applies when no other state rules are applicable. Since Georgia Rule (eee) is applicable to the ARCEL, Georgia Rule (tt) is no longer necessary.

Rules and Regulations Assessment:

Georgia Rule 391-3-1-.02(2)(d), “Fuel-Burning Equipment”

This rule limits the particulate emissions and opacity from the boilers at this facility. Boilers B004, B006 and B007 are less than 10 MMBtu/hr and therefore are subject to section i. of this Rule. Also, the boilers cannot discharge or cause the discharge into the atmosphere any gases which exhibit 20 percent opacity or greater, except for one six-minute period per hour of not more than 27 percent opacity.

Georgia Rule 391-3-1-.02(2)(g), “Sulfur Dioxide”

The Rule states that all fuel burning sources below 100 MMBtu/hr of heat input shall not burn fuel containing more than 2.5% sulfur by weight. Condition 3.2.3 limits amount of No. 2 fuel oil at the facility to limit the total SO₂ emissions. The boilers are limited to natural gas or No. 2 fuel oil and No. 2 fuel oil is limited to less than 0.5% sulfur.

Georgia Rule 391-3-1-.02(2)(tt), “VOC Emissions from Major Sources”

This Rule requires facilities that have the potential to emit VOC emissions over the major source threshold from their operations that are not subject to any other operation specific Rule, to utilize reasonably attainable control technology (RACT) to control emissions. The EPS operations are subject to Rule (eee) and therefore not subject. Because the facility chose to consider ARCEL as EPS beads, ARCEL is subject to Georgia Rule (eee). As a result, Georgia Rule (tt) is no longer included with the permit renewal.

Georgia Rule 391-3-1-.02(2)(eee), “VOC Emissions from Expanded Polystyrene Products Manufacturing”

This Rule requires any EPS custom shape manufacturing facility existing before January 1, 1990 to limit the monthly weighted average of all beads used to 4.5 percent, or less, initial VOC content. “Expandable Polystyrene Products Manufacturing” means the manufacturing of products utilizing expandable polystyrene bead impregnated with a VOC blowing agent. ARCEL is now considered a polystyrene bead and therefore subject to this Rule.

Boiler B005 had previously been subject to Georgia Rule 391-3-1-.02(2)(III) – “NO_x Emissions from Fuel burning Equipment” and 40 CFR 60 Subpart Dc - “Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units”; however, this boiler has been removed. As a result, these conditions were removed from the permit renewal.

40 CFR 63 Subpart JJJJJ - “National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial Commercial, and Institutional Boilers”

As a minor source of HAP emissions, the facility is subject to Area Source GACT standards. The boilers at this facility are subject to this regulation. The facility avoids any requirements of the GACT by limiting the fuel used in the boilers to be gas-fired.

C. Permit Conditions

- Condition 3.2.1 limits the VOC emissions from Pre-Expander PE01 to 49.9 tpy in order to avoid NSR review.
- Condition 3.2.2 limits the VOC emissions from Pre-Expander PE04 to 49.9 tpy in order to avoid NSR review.
- Condition 3.2.3 limits the VOC emissions from Pre-Expander PE5 to 24.0 tpy in order to avoid NSR review.
- Condition 3.2.4 limits the No. 2 fuel oil used to 245,300 gallons per year to limit the total SO₂ emissions.
- Condition 3.4.1 subjects the boilers to Georgia Rule (d).
- Condition 3.4.2 subjects the boilers to Georgia Rule (g) by limiting the sulfur content to 0.5%.
- Condition 3.4.3 subjects the pre-expanders to Georgia Rule (eee) and includes all expandable polystyrene-containing beads including ARCEL.
- Condition 3.5.1 limits the fuel used on the boilers to natural gas, propane and fuel oil in order to avoid the requirements of the Boiler GACT.

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

Not applicable.

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

Not applicable.

C. Compliance Assurance Monitoring (CAM)

Compliance Assurance Monitoring (CAM) is not applicable because there are no control devices at the facility.

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 daily usage records of all materials containing pentane and monthly usage records of all other volatile organic compounds used.
- Conditions 6.2.2 through 6.2.5 require the facility to maintain daily records of EPS usage in Pre-expander PE01 and to calculate a monthly and a 12-month rolling total for VOC emissions from Pre-expander PE01. Guidance for emission calculations is included. Condition 6.2.4 was modified to include notifications of monthly VOC emission exceedances. Condition 6.2.5 is a new condition which requires notifications for any 12-month rolling total VOC emission exceedances.
- Conditions 6.2.6 through 6.2.9 require the facility to maintain daily records of EPS usage in Pre-expander PE04 and to calculate a monthly and a 12-month rolling total for VOC emissions from Pre-expander PE04. Guidance for emission calculations is included. Condition 6.2.8 was modified to include notifications of monthly VOC emission exceedances. Condition 6.2.9 is a new condition which requires notifications for any 12-month rolling total VOC emission exceedances.
- Conditions 6.2.10 through 6.2.13 require the facility to maintain daily records of EPS usage in Pre-expander PE05 and to calculate a monthly and a 12-month rolling total for VOC emissions from Pre-expander PE05. Guidance for emission calculations is included. Condition 6.2.12 was modified to include notifications of monthly VOC emission exceedances. Condition 6.2.13 is a new condition which requires notifications for any 12-month rolling total VOC emission exceedances.
- Conditions 6.2.14 and 6.2.15 subjects the facility to Georgia Rule (eee) by requiring the facility to maintain all the records used in the VOC emissions calculations for five years, including the methods used to determine the VOC content of the EPS beads including ARCEL, and the certification of each analysis and then use these records to show compliance with the initial VOC content requirement for the beads. These conditions were modified to include ARCEL for the requirements of Georgia Rule (eee) at the request of the facility.
- Condition 6.2.16 requires fuel oil certifications for the boilers in order to comply with NSPS Dc and Georgia Rule (g).
- Condition 6.2.17 requires the facility to maintain records of the amount of fuel oil combusted in the boilers in order to comply with NSPS Dc and Georgia Rule (g).
- Condition 6.2.18 requires the facility to submit semiannual reports when combusting fuel oil which contain the amount of fuel oil burned during the period in order to comply with NSPS Dc.
- Condition 6.2.19 requires the facility to maintain records of any fuel oil usage in order to avoid the requirements of the Boiler GACT.

VII. Specific Requirements

A. Operational Flexibility

- None applicable.

B. Alternative Requirements

- None applicable.

C. Insignificant Activities

Refer to <http://gatv.georgiaair.org/GATV/default.asp> for the Online Title V Application.

Refer to the following forms in the Title V permit application:

- Form D.1 (Insignificant Activities Checklist)
- Form D.2 (Generic Emissions Groups)
- Form D.3 (Generic Fuel Burning Equipment)
- Form D.6 (Insignificant Activities Based on Emission Levels of the Title V permit application)

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