

Application Review

Issue Date: Date needed

Region: Mooresville Regional Office
County: Alexander
NC Facility ID: 0200098
Inspector's Name: Karyn Kurek
Date of Last Inspection: 05/15/2023
Compliance Code: 3 / Compliance - inspection

<p style="text-align: center;">Facility Data</p> <p>Applicant (Facility's Name): Piedmont Composites and Tooling, LLC</p> <p>Facility Address: Piedmont Composites and Tooling, LLC 33 Lewittes Road Taylorsville, NC 28681</p> <p>SIC: 3089 / Plastics Products, Nec NAICS: 326121 / Unlaminated Plastics Profile Shape Manufacturing</p> <p>Facility Classification: Before: Title V After: Title V Fee Classification: Before: Title V After: Title V</p>	<p style="text-align: center;">Permit Applicability (this application only)</p> <p>SIP: 15A NCAC 02D .0515, .0521, and .1806 NSPS: N/A NESHAP: WWWW and PPPP PSD: N/A PSD Avoidance: N/A NC Toxics: .1100 and .0711 112(r): N/A Other: N/A</p>
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Contact Data			Application Data	
Facility Contact	Authorized Contact	Technical Contact	<p>Application Number: 0200098.23A Date Received: 08/09/2023 Application Type: Renewal Application Schedule: TV-Renewal Existing Permit Data Existing Permit Number: 09941/T04 Existing Permit Issue Date: 04/02/2019 Existing Permit Expiration Date: 03/31/2024</p>	
David Himebaugh President (828) 632-8883 33 Lewittes Road Taylorsville, NC 28681	David Himebaugh President (828) 632-8883 33 Lewittes Road Taylorsville, NC 28681	Paul Zawila, P.E. Senior Environmental Engineer (803) 366-1086 5228 Norway Lane Rock Hill, SC 29732		

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2022	---	---	14.13	---	0.2200	9.97	8.43 [Styrene]
2021	---	---	15.04	---	0.2400	10.52	8.97 [Styrene]
2020	---	---	12.64	---	0.1900	8.87	7.53 [Styrene]
2019	---	---	13.47	---	0.2300	9.46	8.23 [Styrene]
2018	---	---	16.34	---	0.2800	11.60	10.33 [Styrene]

<p>Review Engineer: Jacob Larson</p> <p>Review Engineer's Signature: _____ Date: _____</p>	<p style="text-align: center;">Comments / Recommendations:</p> <p>Issue: 09941/T05 Permit Issue Date: Date needed Permit Expiration Date: Date needed</p>
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1. Purpose of Application

Piedmont Composites and Tooling, LLC. (Piedmont) currently holds Title V Permit No. 09941T04 with an expiration date of March 31, 2024 for a fiberglass manufacturing facility in Taylorsville, Alexander County, North Carolina. This permit application is for a permit renewal without modification. The renewal application was received on August 09, 2023, or at least six months prior to expiration date. Therefore, the existing permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of the existing permit shall remain in effect until the renewal permit has been issued or denied.

2. Facility Description

The facility is a fiberglass manufacturer specializing in church steeples, baptisteries, and a small number of specialized components for car dealership signs, boat parts, water slides, campers, and hospital clean rooms. The permitted equipment includes both lamination and surface coating operations and their associated dry filters for particulate control. In addition to production areas, the facility utilizes space for storage of either molds or finished products. The plant operates 10 hours per day, four days of the week (Monday through Thursday) with occasional Friday shifts.

The facility is a Title V facility because potential emissions of hazardous air pollutants (HAPs) exceed 10 tons per year of any one HAP or 25 tons per year of all HAPs combined. In this situation, Piedmont is a TV facility specifically because potential emissions of styrene exceed 10 tons per year.

3. History/Background/Application Chronology

History/Background

April 2, 2019 TV permit 09941T04 renewal issued with an expiration date of March 31, 2024.

Application Chronology

August 09, 2022 DEQ received permit application 0200098.23A for Title V renewal.

August 15, 2022 Sent acknowledgment letter indicating that the application for permit renewal was complete.

April 18, 2024 Draft permit and review forwarded for comments to Permitting Supervisor. Minor comments received April 26, 2024.

April 29, 2024 Draft permit and review forwarded to the Stationary Compliance Branch for comments. No comments were received May 07, 2024.

April 29, 2024 Draft permit and review forwarded to the Mooresville Regional Office for comments. No comments were received April 30, 2024.

April 29, 2024 Draft permit forwarded to the applicant for comments. Minor comments were received March 06, 2024.

XXXX xx, 2024 Draft permit and permit review forwarded to public notice.

XXXX xx, 2024 Public comment period ends. ___ comments received.

XXXX xx, 2024 EPA comment period ends. ___ comments received.

XXXX xx, 2024 Permit issued.

4. Permit Modifications/Changes and TVEE Discussion

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

Pages	Section	Description of Changes
--	Cover page and Throughout	Updated all dates and permit revision numbers.
--	Cover Page	Added “Notice Regarding The Right To Contest A Division Of Air Quality Permit Decision” page
--	Summary of Changes	Added summary of changes made to Permit No. 09941T04 according to the most recent requirements of the renewal Title V permit
--	Table of Content	<ul style="list-style-type: none"> • Added Section 3.0 as “Insignificant Activities List” • Added Section 4.0 as “General Permit Conditions”
--	List of Acronyms	Added “List of Acronyms”
4	Emission Source Table	<ul style="list-style-type: none"> • Removed page numbers from emission source table. • Removed sanding operation 005 and control device DC001 from the permit • Changed order of emission sources to reflect the order listed in the permit
8	2.1 B.2.c	Updated .0521 monitoring requirement to latest shell version
8	2.1 B.3	Corrected numbering format
9	2.1 C	Removed sanding operation (ID No. 005) and Dust Collector (ID No. DC001)
11	2.2 A.1	<ul style="list-style-type: none"> • Updated TPER condition to current shell language • Updated TPER table to current shell format
11	2.2 A.2	<ul style="list-style-type: none"> • Updated Toxics condition to current shell language • Updated Toxics table to current shell format
13	3	<ul style="list-style-type: none"> • Updated table to current shell format • Removed subparagraph 3 to match shell format
14	4	Updated General Conditions to latest shell version (7.0, 08/21/2023)

Changes to TVEE as a result of this renewal are as follows:

- Removed Sanding Operations 005 from permit. Source no longer exist at facility.
- Remove DC001 (Dust Collector (800 square feet of surface area)) from permit.

5. Regulatory Review

The facility is currently subject to the following regulations:

- 15A NCAC 02D .0515, Particulates from Miscellaneous Industrial Processes
- 15A NCAC 02D .0521, Control of Visible Emissions
- 15A NCAC 02D .1100, Control of Toxic Air Pollutants (State-enforceable only)
- 15A NCAC 02D .1111, Maximum Achievable Control Technology (40 CFR 63, Subpart WWWW)
- 15A NCAC 02D .1806, Control and Prohibition of Odorous Emissions (State-enforceable only)
- 15A NCAC 02Q .0317, Avoidance Conditions (40 CFR 63, Subpart PPPP)
- 15A NCAC 02Q .0711, Emission Rates Requiring a Permit (State-enforceable only)

Further discussion of these regulations are included in sections 5-7.

15A NCAC 02D .0515, Particulates from Miscellaneous Industrial Process - This regulation establishes an allowable emission rate for particulate matter from any stack, vent, or outlet resulting from any industrial process for which no other emission control standards are applicable. The regulation applies to Total Suspended Particulate (TSP) or PM less than 100 micrometers (μm). The allowable emission rate is calculated using the following equation:

$$E=4.10 \times P^{0.67} \quad \text{for } P < 30 \text{ tph}$$
$$E=55 \times P^{0.11} \quad \text{for } P \geq 30 \text{ tph}$$

Where: E = allowable emission rate in pounds per hour (lb/hr)
P = process weight rate tons per hour (tph)

The facility is required to perform monthly visual inspection of the dry filter, system ductwork, and material collection unit (ID Nos. 004), and an annual (for each 12-month period following the initial inspection) inspection of the associated ductwork noting the structural integrity. The results of the inspection and maintenance shall be maintained in a logbook. The logbook shall record the following: the date and time of each recorded action; the results of each inspection; the results of any maintenance performed on the dry filter and any variance from manufacturer's recommendations, if any and corrections made. No reporting is required. Continued compliance with this standard is expected.

15A NCAC 02D .0521, Control of Visible Emissions - Visible emission (VE) standards provided in this regulation are applicable to potential VE emissions from any stack, vent, or outlet. This regulation limits visible emissions to no more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in an hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. To ensure compliance, once a month the Permittee shall observe the emissions point(s) of these sources (ID No. 004) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. The results of monitoring (inspection and maintenance) shall be maintained in a logbook. Summary reports are required to be submitted semi-annually. Continued compliance with this standard is expected.

15A NCAC 02D .1806, Control of Odors (State-enforceable only) - The facility is currently subject to this state-enforceable only regulation that provides for the control and prohibition of objectionable

odorous emissions. During facility inspection conducted by Karyn Kurek on 05/15/2023, there were no detectible odors along the facilities boundaries. Continued compliance with this regulation is expected.

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

NSPS

The facility is not currently subject to any New Source Performance Standards. This permit renewal does not change the facility's NSPS status.

NESHAP/MACT

MACT WWWW

Piedmont is a major source of Hazardous Air Pollutants (HAP) and is subject to the Reinforced Plastic Composite Manufacturing NESHAP published under 40 CFR 63 Subpart WWWW. The Piedmont Composites' Taylorsville plant is classified as an existing MACT source, because the facility was a major HAP source on April 21, 2003. Piedmont Composites has filed the required initial notification and notification of compliance status notifications. Piedmont Composites has elected to use the "HAP emissions averaging option" described in 40 CFR 63.5810 of Subpart WWWW. This option compares the rolling 12-month weighted-average facility-wide HAP emission rate to the corresponding facility-wide HAP emission rate limit. The facility-wide average HAP emission rate is calculated from the associated HAP emission equations listed in Table 1 to Subpart WWWW for each applicable material/process combination. The corresponding facility-wide average HAP emission rate limit is computed from the specific HAP emission rate limits listed in Table 3 to Subpart WWWW which include:

If your operation is...	And you use...	Your organic HAP emissions limit is...
Open molding – non-corrosion-resistant and/or high strength	Mechanical resin application	88 (lb/ton)
	Filament application	188 (lb/ton)
	Manual resin application	87 (lb/ton)
Open molding – tooling	Mechanical resin application	254 (lb/ton)
	Manual resin application	157 (lb/ton)
Open molding – gel coat	Tooling gel coating	440 (lb/ton)
	White/off white pigmented gel coating	267 (lb/ton)
	All other pigmented gel coating	377 (lb/ton)
	Clear production gel coat	522 (lb/ton)

The Piedmont Composites Taylorsville plant is also subject to the applicable work practice standards listed in Table 4 to Subpart WWWW which include:

For...	You must...
All cleaning operations	Not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin.
All HAP-containing materials storage operations	Keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.

For...	You must...
All mixing operations	Use mixer covers with no visible gaps present in the mixing covers, except that gaps of up to one inch are permissible around the mixer shafts and any required instrumentation. Keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels.

Piedmont Composites is required to submit semiannual MACT compliance reports regarding the compliance status of the facility. This permit renewal does not affect this status.

MACT PPPP (Avoidance)

In order to avoid applicability of this rule, the facility is limited to using less than 100 gallon of HAP coatings per consecutive 12-month period to coat plastic parts or products. This permit renewal does not affect this status.

PSD

The facility is considered a minor source as the potential to emit is less than 250 tons per year. Recent actual VOC emissions have been less than 30 TPY. Alexander County has only been triggered for PSD increment tracking for SO₂. This permit renewal does not affect this status.

112(r)

The facility is not subject to Section 112(r) of the Clean Air Act requirements because it does not store any of the regulated substances in quantities above the 112(r) thresholds. No change with respect to 112(r) is anticipated under this permit renewal.

CAM

The CAM rule (40 CFR 64; 15A NCAC 02D .0614) applies to each pollutant specific emissions unit (PSEU) at major TV facilities that meets all three following criteria:

- the unit is subject to any (non-exempt: e.g. pre November 15, 1990, Section 111 or Section 112 standard) emission limitation or standard for the applicable regulated pollutant.
- the unit uses any control device to achieve compliance with any such emission limitation or standard.
- The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source (i.e., 100 tons per year for criteria pollutants or 10/25 tons per year for HAPs).

The emission sources – Laminating/gel coat operation (ID No. 002), Dry filter-type surface coating operation (ID No. 004), and Resin storage tank (ID No. 006) do not meet any of the three conditions mentioned above. Therefore, the facility is not subject to CAM requirements and a CAM plan is not required. This permit renewal does not affect this status.

7. Facility Wide Air Toxics

15A NCAC 02D .1100: “Control of Toxic Air Pollutants” (State-enforceable only)

The Permittee submitted a toxic air pollutant dispersion modeling analysis dated November 02, 2009 for the facility’s toxic air pollutant emissions as listed in the table below. The modeling analysis was

reviewed and approved by the AQAB on November 20, 2009. A second analysis was submitted on January 24, 2023 and approved on March 30, 2023 as a result of the reconfiguration of emission points.

Pollutant	CAS No.	Allowable Facility Wide Emission Rate (lb/hr)
Styrene	100-42-5	39.2

The facility is required to maintain a logbook that records the facility-wide hourly styrene emissions. The hourly rate is determined and recorded on a monthly basis. The facility is also required to report semi-annually the single highest facility-wide hourly emission rate for styrene for the previous six months. This permit review does not affect this status.

15A NCAC 02Q .0711 “Emission Rates Requiring a Permit” (State-enforceable only)

Pursuant to 15A NCAC 02Q .0711 “Emission Rates Requiring a Permit,” for each of the below listed state-enforceable only toxic air pollutants (TAPs), the Permittee has made a demonstration that actual emissions do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 02Q .0711.

Pollutant	CAS No.	Carcinogens (lb/yr)	Chronic Toxicant (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
ethyl acetate	141-78-6			36	
methyl ethyl ketone	78-93-3		78		22.4
methyl isobutyl ketone	108-10-1		52		7.6
n-hexane	110-54-3		23		
Toluene	108-88-3		98		14.4
Xylene	1330-20-7		57		16.4

In accordance with the approved application, the Permittee shall either (1) maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs for ethyl acetate, methyl ethyl ketone, methyl isobutyl ketone, n-hexane, toluene, and xylene, or (2) obtain a permit to emit a TAP before exceeding the TPER associated with that TAP. This permit renewal does not affect this status.

8. Facility Emissions Review

The facility-wide potential emissions do not change under this TV permit renewal. Actual emissions for criteria pollutants and HAPs for the years 2018 through 2022 are provided in the header of this permit review.

9. Compliance Status

DAQ has reviewed the compliance status of Piedmont. During the most recent inspection, conducted on May 15, 2023 by Karyn Kurek of MRO, the facility appeared to be in compliance with all applicable requirements. Further, the facility has had no air quality violations within the last five years. The facility’s Annual Compliance Certification was received on January 26, 2024 and indicated compliance with all applicable requirements in 2023.

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

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

11. Other Regulatory Considerations

- A P.E. seal is NOT required for this renewal application.
- A zoning consistency determination is NOT required for this renewal application.
- A permit fee is NOT required for this renewal application.
- EPA has promulgated a rule (88 FR 47029, July 21, 2023), with an effective date of August 21, 2023, removing the emergency affirmative defense provisions in operating permits programs, codified in both 40 CFR 70.6(g) and 71.6(g). EPA has concluded that these provisions are inconsistent with the EPA's current interpretation of the enforcement structure of the CAA, in light of prior court decisions¹. Moreover, per EPA, the removal of these provisions is also consistent with other recent EPA actions involving affirmative defenses² and will harmonize the EPA's treatment of affirmative defenses across different CAA programs.

As a consequence of this EPA action to remove these provisions from 40 CFR 70.6(g), it will be necessary for states and local agencies that have adopted similar affirmative defense provisions in their Part 70 operating permit programs to revise their Part 70 programs (regulations) to remove these provisions. In addition, individual operating permits that contain Title V affirmative defenses based on 40 CFR 70.6(g) or similar state regulations will need to be revised.

Regarding NCDAQ, it has not adopted these discretionary affirmative defense provisions in its Title V regulations (15A NCAC 02Q .0500). Instead, DAQ has chosen to include them directly in individual Title V permits as General Condition (GC) J.

Per EPA, DAQ is required to promptly remove such impermissible provisions, as stated above, from individual Title V permits, after August 21, 2023, through normal course of permit issuance.

¹ NRDC v. EPA, 749 F.3d 1055 (D.C. Cir. 2014).

² In newly issued and revised New Source Performance Standards (NSPS), emission guidelines for existing sources, and NESHAP regulations, the EPA has either omitted new affirmative defense provisions or removed existing affirmative defense provisions. See, e.g., National Emission Standards for Hazardous Air Pollutants for the Portland Cement Manufacturing Industry and Standards of Performance for Portland Cement Plants; Final Rule, 80 FR 44771 (July 27, 2015); National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters; Final Rule, 80 FR 72789 (November 20, 2015); Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units; Final Rule, 81 FR 40956 (June 23, 2016).

12. Recommendations

The permit renewal application for Piedmont Composites and Tooling, LLC. located in Taylorsville, Alexander County, North Carolina has been reviewed by DAQ to determine compliance with all procedures and requirements. DAQ has determined this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. DAQ recommends the issuance of Air Permit No. 09941T05.