NORTH CAROLINA DIVISION OF AIR QUALITY

Application Review

Issue Date: TBD

Region: Wilmington Regional Office
County: Carteret
NC Facility ID: 1600120
Inspector's Name: Ashby Armistead
Date of Last Inspection: 07/11/2024
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): Parker Offshore, LLC

Facility Address:
Parker Offshore, LLC
2570 Highway 101
Beaufort, NC 28516

SIC: 3732 / Boat Building And Repairing
NAICS: 336612 / Boat Building

Facility Classification: Before: Title V **After:**
Fee Classification: Before: Title V **After:**

Permit Applicability (this application only)

SIP: 02D .0515, .0521, .1111 and .1806, and 02Q .0317
NSPS: N/A
NESHAP: MACT VVVV
PSD: N/A
PSD Avoidance: Yes
NC Toxics: N/A
112(r): N/A
Other: 02Q .0523

Contact Data

Facility Contact	Authorized Contact	Technical Contact
Travis Small Engineering/Safety (252) 728-5621 2570 Highway 101 Beaufort, NC 28516	Scott Bauer President (252) 728-5621 2570 Highway 101 Beaufort, NC 28516	Travis Small Engineering/Safety (252) 728-5621 2570 Highway 101 Beaufort, NC 28516

Application Data

Application Number: 1600120.24A
Date Received: 03/28/2024
Application Type: Renewal
Application Schedule: TV-Renewal

Existing Permit Data
Existing Permit Number: 06848/T11
Existing Permit Issue Date: 10/03/2019
Existing Permit Expiration Date: 09/30/2024

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2023	---	---	32.08	---	---	25.23	20.75 [Styrene]
2022	---	---	22.72	---	---	22.72	20.35 [Styrene]
2021	---	---	19.65	---	---	19.63	17.47 [Styrene]
2020	---	---	16.27	---	---	16.26	14.39 [Styrene]
2019	---	---	19.30	---	---	19.31	17.16 [Styrene]

Review Engineer: Conzuela Cogdell

Review Engineer's Signature: **Date:**

Comments / Recommendations:
Issue 06848/T12
Permit Issue Date: TBD
Permit Expiration Date: TBD

1. Purpose of Application

Parker Offshore, LLC (Parker) currently holds Title V Permit 064848T11 with an expiration date of September 30, 2024, for a boat manufacturing facility located in Beaufort, Carteret County, North Carolina. The renewal application (1600120.24A) was received March 28th, 2024, or at least six months prior to the expiration date Therefore, the renewal application was received in a timely manner and 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.

Separately a 502(b)(10) Notification Form (1600120.24B) was received February 18, 2020.

2. Facility Description

Parker manufactures premium offshore and inshore sport-fishing boats, specifically 18-to 34-foot center console and sport cabin fishing boats. Many configurations are available.

Parker has laminating operations housed in the boat manufacturing building (ID No. Building No.1) with dry filters (ID No. DF) in place to collect over spray from laminating operations. The newer back building is attached to the old building and can be isolated by large doors. Twenty-two (22) filters are located down the left side of the building, twenty (20) on the right side and each side is vented via external ductwork to its own stack. The older gel coat booth (2 guns) is located against the shared wall between the buildings and the newer second gel coat booth is located at the rear of the newer back building.

Parker facility is a Title V facility, because emissions of hazardous air pollutants (HAPs) exceed the major source thresholds of 10 tons per year of any single HAP and/or 25 tons per year of all HAPs combined. Specifically, actual emissions of styrene (single HAP) exceed 10 tons per year threshold (refer to the page 1 of this document).

3. History/Background/Application Chronology

History/Background

October 3, 2019	Air Permit No. 06848T11 was issued for TV permit renewal received June 17, 2019, with an expiration date of September 30, 2024.
February 14, 2020	502(b)(10) Notification Form was received by the DAQ WIRO and forwarded to the Air Permits Section, received February 18, 2020, regarding the construction of an additional gel coating booth and stack to the existing facility, adjacent to the original manufacturing facility, to house a new gel coat booth
March 26, 2024	TV Permit Renewal Application received by WiRO

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Application Chronology

March 28, 2024	Received permit application 1600120.24A for renewal.
April 7, 2024	Sent acknowledgement letter indicating the application for permit renewal was received.
April 16, 2024	Contacted WiRO Ashby Armistead who verified the number of Dry Filters (DF) and searched for testing documents submitted for 502(b)(10) form. He was unable to locate a copy.
April 22, 2024	Sent request for missing forms and additional information for 502(b)(10) Technical review
April 24, 2024	Received first set of documentation and comments. Sent additional request for missing Form B.
May 2, 2024	Received Form B and Form B9.
May 6, 2024	Sent request for additional information for 502(b)(10) and Modeling report. Documentation for calculations requested.
May 10, 2024	Received before and after process diagrams for new gel coat booth depicting production flow efficiency improvements.
May 16, 2024	Met with Robert Hill with RDH Environmental Consulting via Teams to review Modeling calculations.
May 22, 2024	Spoke with Rob Hill via phone call. Updated modeling calculations will be provided at end of the week.
June 10, 2024	Received email from Rob Hill. Reported emission spreadsheet calculations were to be updated to calculate maximums and averages to determine potential emission. Updated values promised June 21, 2024.
July 2, 2024	Received Actual/PTE Emission calculations for 502(b)(10).
October 1, 2024	Received DAQ Toxics Air Dispersion Modeling Review dated September 24, 2024. Updated IBEAM database
October 3, 2024	Updated Statement of Basis with most current data from 07/25/2024 Inspection Report and Toxic Air Dispersion Modeling Review Memo conclusions.
October 3, 2024	Forwarded updated draft to Supervisor for Review.
October 10, 2024	Reviewed updated draft to be submitted for tracked comments
October 11, 2024	Forwarded final draft to Facility Representatives and DAQ representatives for track comments.

October 17, 2024	Updated Draft Permit with revised MACT VVVV revisions to recordkeeping and reporting sections. Forwarded draft to Facility Representatives and DAQ representatives
October 22, 2024	Received "No Comment" from Wilmington Regional office and Stationary Compliance Branch
October 23, 2024	Received "No Comment" from Facility Representatives
October 25, 2024	Reviewed TVEE updated description emission Building No 1. Submitted Draft Permit and Statement of Basis for Public Comment and EPA review.

4. Permit Modifications/Changes and TVEE Discussion

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

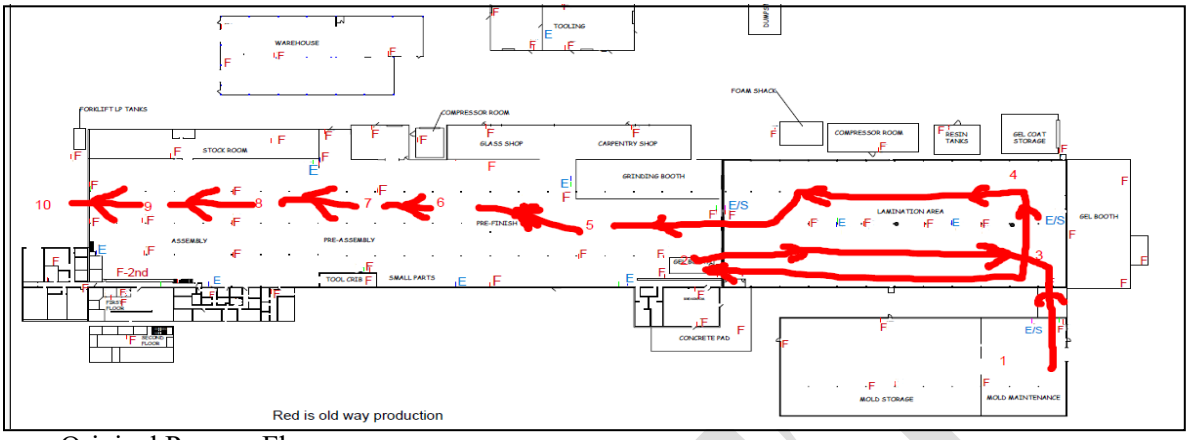
Page No.	Section	Description of Changes
--	Cover page and throughout	Updated all dates and permit revision numbers.
		Added "Notice Regarding the Right to Contest a Division of Air Quality Permit Decision"
4	Section 1	Updated Description for Emission source Building No 1 by removing square footage. General square footage does dictate compliance. To maintain consistency amongst general permitting for similar sources square footage descriptor is removed.
Throughout	Section 2.1	Added add on control device option sections Updated Reporting sections to include electronic submission per 40 CFR 63 Subpart VVVV amended 85 FR 15971, March 20, 2020.
3	Acronyms	List of Acronyms moved from last page to page 3
4-10	Section 2.1	Updated all relevant rules related to 502(b)(10) Notification Form submission
6	Section 2.1 A.3	Removed Section 2.1 A.3(b) Startup, Shutdown and Malfunction Provision due to changes to 40 CFR 63 Subpart VVVV amended 85 FR 15971, March 20, 2020
13	Section 2.1 A.3(p)	Updated reporting requirements to include electronic submissions due to changes to 40 CFR 63 Subpart VVVV
15-16	Section 3 and Section 4	Moved Insignificant Activities to Section 3 Moved Updated General Permit Conditions v8.0 to Section 4

5. Regulatory Review

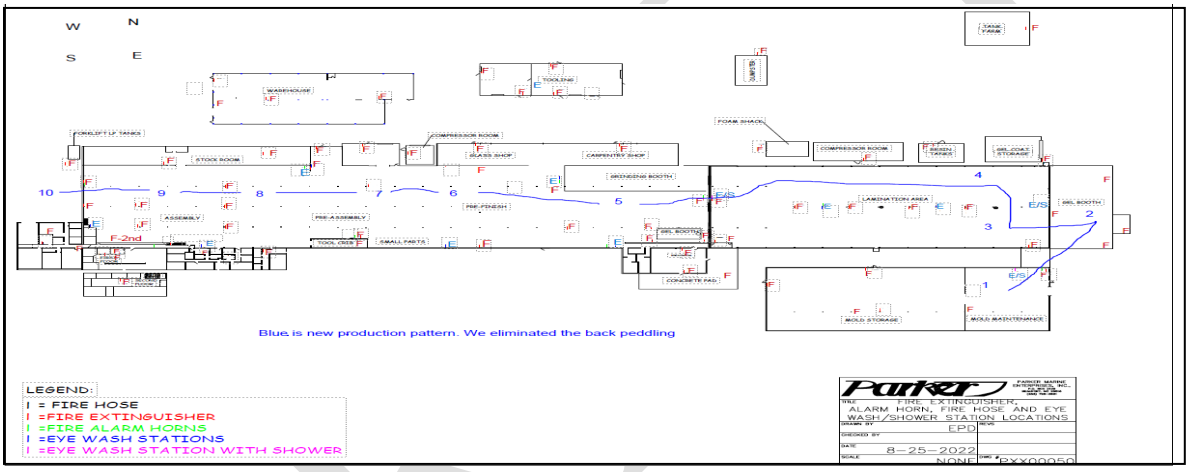
Parker is subject to the following regulations. The facility's equipment and operations have changed since the last renewal in 2019. The permit was updated to reflect the most current stipulations for all applicable regulations, where necessary.

15A NCAC 02D .0515 "Particulates from Miscellaneous Industrial Processes"
15A NCAC 02D .0521 "Control of Visible Emissions"
15A NCAC 02D .1806 "Control of Prohibition of Odorous Emissions"
15A NCAC 02D .1111 "Maximum Achievable Control Technology (40 CFR 63 Subpart VVVV)
15A NCAC 02Q .0317 "Avoidance Conditions" (PSD Avoidance)

Parker's facilities, equipment and operations were expanded since the last renewal in 2019 with the addition of 6500 sq foot operational space for a second gel coat booth. The second gel coat booth improved facility efficiency by streamlining the production process.



Original Process Flow



New Process Flow

The permit was updated to reflect the most current stipulations for all applicable regulations, when necessary. Parker is subjected to the following regulations:

15A NCAC 02D .0515"Particulates from Miscellaneous Industrial Processes"
This rule applies to sources that emit particles and are not subject to any other particulate emission standard in 02D .0500. The boat manufacturing building source (DF) is subject to this rule as below:

Emissions of particulate matter from this source (ID No. Building 1) shall not exceed an allowable emission rate as calculated by the following equation:

eq-1
$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or eq-2
$E = 55.0 \times P^{0.11} - 40$ (for process rates greater than 30 tons per hour)

Where E = allowable emission rate in pounds per hour
P = process rate in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

The rule limits particulate emissions based on the process rate of the specific sources. The reported maximum process rates for the facility are 0.0949 tons per hour for resin process and 0.0334 tons per hour for gel applications for a total of 0.1283 tons per hour. Due to maximum rates less than 30 tons per hour, equation 1 applies. The allowable emission rate for particulate matter (PM) is 1.036 pounds per hour (4.537 tons per year). Parker's CY 2023 Air Pollutant Point Source Emissions Report indicated zero tons/yr. for PM(TSP), PM10 and PM2.5.

To ensure PM emissions meet this standard, monitoring, recordkeeping, and reporting requirements apply to the dry filters (ID No. DF). Continued compliance is anticipated.

Form 502(b)(10) was submitted regarding the installation of the newer second gel coat booth located at the rear of the newer back building. Emission control measures utilize existing control devices. Maximum processing rates include the newer second gel booth and were considered in the above evaluation. Continued compliance is anticipated.

02D .0521 "Control of Visible Emissions"
This rule applies to sources with visible emissions ("VE") that are not subject to 15A NCAC 02D .0506, .0508, .0524, .1110, .1111, .1206, or .1210 a different VE standard. Each source at this facility is limited to 20% opacity. Parker must perform regular observations to ensure that VE does not exceed this limit and keep records of those observations. Records must be reported twice per year.

The only point sources, from the boat manufacturing building, are two stacks that are connected to the laminating operations and a third stack connected to the second gel booth. Due to the minimal PM emissions from the laminating processes, compliance with 02D .0521 is assumed. The second gel coat booth, noted in the submitted 502(b)(10) notification form, does not increase assembly production; therefore, PM emissions are not significantly impacted. Continued compliance with this VE requirement is anticipated.

15A NCAC 02D.1806"Control and Prohibition of Odorous Emissions"
This regulation is state enforceable only. Continued compliance is anticipated.

15A NCAC 02Q .0317"Avoidance Conditions"
This rule allows facilities to accept enforceable limits in the Title V permit to avoid triggering requirements of certain rules. Parker has accepted a permit limit on VOC emissions to avoid 15A NCAC 02D .0530, Prevention of Significant Deterioration (PSD). The limit is for VOC emission to be less than 250 tons per year. Parker's facilities, equipment and operations were expanded since the last renewal in 2019 with the addition of 6500 sq foot operational space for a second gel coat booth. The second gel coat booth improved facility efficiency by streamlining the production process by reducing the number of steps to prevent repetitive movements. If Parker complies with this limit with the addition of the VOCs emissions generated from the second gel booth outlined in form 502(b)(10), the facility will continue to be a minor stationary source for PSD, and thus not subject to 02D .0530.

To demonstrate compliance with the limit, Parker calculates facility-wide VOC emissions using emission factors contained in the permit. The calculation is made monthly and reported twice per year. The CY 2023 VOC emissions report reported 25.0678 Tons of VOC emissions indicating compliance. Continued compliance is expected.

15A NCAC 02D .1111"Maximum Achievable Control Technology (MACT)"
Parker is subject to National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing, 40 CFR Part 63 Subpart VVVV. More discussion on MACT is provided below in Section 6.

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

In 2001, EPA promulgated the National Emissions Standards for Hazardous Air Pollutants for Boat Manufacturing, 40 CFR Part 63 Subpart VVVV (2001 NESHAP). The 2001 NESHAP established organic hazardous air pollutant (HAP) emission limits based on low-HAP resins and gel coats and low-emitting resin application. In 2020, EPA reviewed 40 CFR Part 63 Subpart VVVV. The rule was amended at 85 FR 15971, March 20, 2020, and became effective March 30, 2020. The following were addressed: Startup, Shutdown and Malfunction (SSM), amended provisions regarding electronic reporting of performance tests and performance evaluation results and semiannual reports, removal of regulatory language that is inconsistent with the requirement that the standards apply at all times, inclusion of language requiring electronic reporting of reporting of performance test and evaluation results and semiannual reports and an amendment to the NESHAP to clarify that mixers that route to a capture and control device system with at least 95-percent efficiency overall are not required to have covers. The numeric emission limits of the standards for both source categories remain unchanged.

Due to the amendment cited above electronic submittal of reports and evaluations are now available. Additionally, the removal of Section 2.1 A.3(b) (Startup, Shutdown and Malfunction Provision) was due to the above amendment. The TV Permit Renewal has been updated to reflect the most recent promulgation of 40 CFR 63 Subpart VVVV.

Parker is a major source of HAPs because emissions of styrene exceed 10 tons per year. As such, the facility is subject to the National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing, 40 CFR Part 63 Subpart VVVV.

The 40 CFR 63 Subpart VVVV applies to the facility's open molding resin and gel operations. HAPs are potentially emitted from the product resin, pigmented gel coat, tooling resin and tooling gel coat used at the facility.

The facility has selected the "Model Point Value Averaging (Emissions Averaging)", 40 CFR 63.5704(a), option to meet the MACT emission limits in 40 CFR 63.5698 for the resins and gel coats used in the lamination and gel coating areas (I-ES-01). They currently use compliant materials except for a clear primer, which is not subject to 40 CFR 63 Subpart VVVV as it differs from the clear gel coat specified in 40 CFR 63.5698(a)(3).

Under this Emission Averaging Option, Parker tracks facility wide monthly usage of HAP containing resin, pigmented gel coat, clear gel coat, tooling resin and tooling gel and calculates facility wide monthly usage of each HAP containing resin and gel coat. They calculate the facility-12 month rolling average organic HAP emission limit per 40 CFR 63.5698(b) Equation 1 and 12-month rolling MACT model point value calculation in accordance with 40 CFR 63.5710 procedures monthly. Compliance is demonstrated if organic HAP contents calculated under 40 CFR 63.5710(b) are no greater than the applicable organic HAP content limits calculated under 40 CFR 63.5698(b) of the same 12-month period.

Since the last permit renewal, DAQ received 502(b)(10) Notification form regarding the construction of a second gel coat booth. The second gel coat booth does not use add on controls and demonstrates

compliance with 40 CFR 63 Subpart VVVV via the emission averaging option. Continued compliance is expected.

PSD

a) To avoid applicability of this regulation, facility-wide emissions shall be less than 250 tons of volatile organic compounds (VOC) per consecutive 21-month period.

b) *monitoring and Recordkeeping:* Calculations of VOC emissions per month shall be made at the end of each month. VOC emissions shall be determined by multiplying the total amount of each type of VOC-containing material consumed during the month by the VOC content of the material by the emission factor for a given material. Parker shall be deemed in noncompliance with 15A NCAC 02D .0530 if the amounts of VOC containing materials are not monitored and recorded.

c) Calculations and the total amount of VOC emissions shall be recorded monthly in a logbook (written or electronic). Parker shall be deemed in noncompliance with 15A NCAC 02D .0530 if the emissions exceed the limit outlined above.

d) *Reporting:* Parker shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked or electronically submitted on or before January 30 of each calendar year for the proceeding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the monthly VOC emissions for the previous 17 months. The emissions must be calculated for each of the 12-month period over the previous 17 months. All instances of deviations from the requirements of this permit must be clearly identified.

e) DAQ received Parker's Title V Annual Compliance Certification form on February 1, 2024, for the reporting period of January 1, 2023, to December 31, 2023, indicating the facility was in compliance with all terms and conditions of the existing permit.

As indicated above, Parker has accepted a PSD avoidance condition to limit emissions of VOC to less than 250 tons of VOCs per consecutive 12-month period to remain classified as a PSD minor source. VOC emissions are determined by multiplying the total amount of each type of VOC-containing material consumed during the month by the VOC content of the material. As shown in the header of this permit review, the VOC emissions are much less than 250 tons per year, which demonstrates compliance with the PSD avoidance limit.

Combined VOC emissions from the existing facility and the second gel booth, reported in form 502(b)(10), are less than 250 tons per consecutive 12-month period thus remaining classified as a PSD minor source and in compliance with the PSD avoidance limit.

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) located at facilities required to hold Title V permits, where all three of the following criteria are met:

- 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).

Parker currently employs dry filters (ID No. DF) for its laminating operations. These filters are in place to collect overspray from the boat manufacturing process and are used to meet the PM emission standard of 15A NCAC 02D .0515.

The facility does not emit PM (uncontrolled) in quantities greater than the major source threshold; therefore, CAM does not apply. This permit renewal does not change the facility's CAM status.

Per 502(b)(10) notification form, the second gel coat booth does not utilize add-on controls and does not emit PM in quantities greater than the major source therefore, CAM does not apply.

7. Facility Wide Air Toxics

All sources of toxic air pollutants (TAPS) from Parker are subject to 40 CFR 63 Subpart VVVV (MACT VVVV), North Carolina G.S. 143-215.107(a) exempts emission sources subject to MACT standards from NC Air Toxics regulations provided their emissions do not "present an unacceptable risk to human health", in accordance with G.S. 143-215.107(b) as codified on May 1, 2014. As part of the 06848T10 permit, the DAQ conducted a TAP evaluation and demonstrated emission sources of TAPs present no unacceptable risk to human health. The conditions referencing 15A NCAC 02D .1100 were removed from the permit. The current permit renewal does not change the facility's status with respect to NC Air Toxics.

DAQ received Parker's 502(b)(10) February 18, 2020, detailing the addition of a new gel booth and its possible impact to the facility's status with respect to NC Air Toxics. DAQ evaluated Parker's 502(b)(10) notification with their 2024 TV permit renewal application and performed a toxic air dispersion modeling review. The purpose of DAQ's toxic air dispersion modeling is to ensure TAP emissions do not exceed acceptable ambient levels (AAL) listed in 15A NCAC 02D .1104. The September 24, 2024, DAQ Toxic Air Dispersion Modeling review evaluated Parker's styrene production using AIRMOD (22112) with five years (2014-2018) of surface meteorological data from Morehead City, NC and upper-level data from Newport NC. Additionally, direction-specific building dimensions, derived from EPA's BPIP-Prime program (04274), were used as input to the model for building wake effect determination and EPA's AERMAP terrain processor was used to determine elevations. The initial modeling was performed under the hourly and daily restriction of eight hours a day, five days per week and forty-eight weeks per year. The modeling was rerun without time restrictions and with maximum concentrations. The modeling results for the listed scenarios remained below the AAL; therefore, no operating restrictions are necessary and Parker's TAP emission sources present no unacceptable risk to human health. The submitted 502(b)(10) does not change the facility's status with respect to NC Air Toxics.

8. Facility Emissions Review

The facility-wide potential emissions do not change under this TV permit renewal and 502(b)(10) notification form. Actual emissions for criteria pollutants and HAPs for the previous five years are provided in the header of this permit review.

9. Compliance Status

DAQ has reviewed the compliance status of Parker. During the most recent inspection conducted on July 25, 2024, by Ashby Armistead of WiRO, the facility appeared to comply with all applicable requirements. The June 2024 VOC emission total for the previous 12 months is 27.3 tons. Parker has off-white, yellow, gray, tan, light and dark blue gel coats. Each color has different VOC contents, and Parker uses the highest value for all gel coats in their calculations.

502(b)10) notification components were operational during the July 25th, 2024, inspection. Continued compliance is expected.

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 the 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. However, DAQ voluntarily provides notice to each bordering State (Virginia, Tennessee, Georgia, and South Carolina).

11. Other Regulatory Considerations

- A. P.E. seal is NOT required for the application.
- A zoning consistency determination is NOT required for this renewal application.
- A zoning consistently determination is NOT required for the 502(b)(10) notification

12. Recommendations

The permit renewal application for Parker Offshore, LLC, 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. 06848T12.

The technical review of the 502(b)(10) submitted February 18, 2020, has met the following four criteria (conditions) in accordance with 15A NCAC 02Q .0523:

- The changes are not a modification under 14A BCAC 02D or Title I of the federal Clean Air Act
- The changes do not cause the emissions allowed under the permit to be exceeded,
- The Permittee notifies the Director and the EPA with written notification at least seven days before the change is made and
- The Permittee attaches the notices to the relevant permit.

The 502(b)(10) Notification Form has been reviewed by DAQ and was determined to be compliant with all procedures and requirements. DAQ has determined the facility will achieve compliance with, as specified in the permit, all requirements that are applicable to the affected sources. DAQ recommends the issuance of Air Permit No. 06848T12.