

Statement of Basis
Carfair Composites USA, Inc.
301-0089

INTRODUCTION:

On August 6, 2024, the Department received applications from Carfair Composites USA, Inc. (Carfair) for a renewal of the Title V Major Source Operating Permit (MSOP) for its fiberglass manufacturing facility in Anniston, Alabama. Carfair is an existing facility that manufactures and finishes fiberglass original equipment manufacturer (OEM) components and assemblies for agricultural equipment, food processing, and transportation and recreational manufacturing customers. The facility has one gelcoat station, two lamination areas for spraying, two trimming stations, and three paint booths. The facility operates ten hours a day, four days a week, and 50 weeks per year for a total of 2,000 hours a year.

The facility originally began operations in 2015. The initial MSOP was issued on February 7, 2020, and this is the first renewal. The current MSOP expired on February 6, 2025, but a renewal application was received on August 6, 2024. ADEM Admin. Code r. 335-3-16-12(c) states “If a timely and complete application for a permit renewal is submitted, but the Department fails to take final action to issue or deny the renewal permit before the end of the term of the previous permit, then the permit shall not expire until the renewal permit has been issued or denied and any permit shield granted for the permit shall continue in effect during that time”; therefore, the current MSOP was administratively continued.

The facility is located in Calhoun County, which is in compliance with all National Ambient Air Quality Standards (NAAQS).

There are no current or ongoing enforcement actions against Carfair Composites USA, Inc. necessitating additional requirements to achieve compliance with the proposed permit conditions. The enforcement and compliance history for the facility can be found at <https://echo.epa.gov/> (Search using Facility ID AL0000000101500089).

CHANGES:

There are slight administrative changes made from the previous MSOP.

OPERATIONS:

Fiberglass Manufacturing Operation

The facility applies gelcoat to the mold surfaces with an atomizing applicator. The gelcoat acts as a protective layer for the finished laminate. Open molding operations are performed using manual application to apply glass mat and a non-atomizing spray applicator to apply resin. Some resin is also applied by hand brush. Parts are finished in the two grinding booths where grinding, trimming, and sanding are performed.

Coating Operation

The plastic coating operation consists of the high volume, low pressure (HVLP)/airless atomized spray application of low volatile organic compound (VOC) paints and the non-

atomized application of a two-part reactive polyurethane rubber liner to plastic composite substrates. The painting is performed in two industrial semi-down draft spray booths with built in heaters to provide a high temperature bake cycle. The polyurethane rubber liner is applied with a binary non-atomizing applicator in a third non-heated booth.

EMISSIONS:

Emissions from the facility are mostly styrene. Styrene is both a VOC and a hazardous air pollutant (HAP). All potential and actual styrene emissions were calculated using emission factor equations from 40 CFR Part 63, Subpart WWWW. Table 1 below shows the facility's approximate potential and actual emissions for VOCs, HAPs, and particulate matter (PM). The potential emissions are based on the facility operating 8,760 hours a year at the maximum capacity, and the actual emissions are from the 12-month operating period of July 2023 through June 2024.

<i>Table 1 Potential Emissions (ton/yr)</i>			
Emissions	Fiberglass Operations	Coating Operations	Total
Styrene	100.4	--	100.4
Total HAP	106.1	1.18	107.28
VOC	139.9	11.5	151.4
PM ₁₀	37.12	3.1	40.22
PM	41.19	3.45	44.64

<i>Table 2 12-Month Rolling Total Actual Emissions July 2023-June 2024 (ton/yr)</i>			
Emissions	Fiberglass Operations	Coating Operations	Total
Styrene	11.72	--	11.72
Total HAP	12.45	0.11	12.56
VOC	16.86	1.19	18.05
PM ₁₀	4.23	0.35	4.58
PM	4.7	0.39	5.09

APPLICABLE REGULATIONS:

Title V

The entire facility is subject to the Title V permitting program since potential emissions for HAP and VOC are above the significance thresholds for Title V applicability.

Prevention of Significant Deterioration (PSD)

The operations at Carfair are not listed under ADEM Admin. Code 335-3-14-.04(2)(a); therefore, the applicable threshold for New Source Review (NSR) permitting is 250 tons

per year. Carfair has elected to limit VOC emissions to 245 tons per year. This limit was established in the initial MSOP issued on February 7, 2020. The potential emissions of all other regulated NSR pollutants from this facility are below the major source threshold of 250 tons per year; therefore, Carfair is considered a synthetic minor source with respect to PSD.

New Source Performance Standards (NSPS)

There are no NSPS, as listed in 40 CFR Part 60, that apply to the facility.

Maximum Achievable Control Technology (MACT)

X001: Fiberglass manufacturing operations with associated equipment

Carfair is subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP), as listed in 40 CFR Part 63, Subpart WWWW (Reinforced Plastic Composites (RPC) MACT). The facility is considered a new facility under the conditions of §63.5795 because no fiberglass operations existed at this facility prior to August 2, 2001. Under §63.5805(c) of the RPC MACT, Carfair is required to meet the applicable emissions limits for organic HAP listed in Table 3 of the subpart and work practice standards listed in Table 4 of the subpart. Carfair may switch between corrosion resistance/high strength (CR/HS) and non-CR/HS gelcoats and resins depending on what parts are being produced. Depending on which gelcoat or resin types are used, Carfair will meet the applicable HAP standards. The work practice standards for this facility are for a cleaning operation, a HAP-containing materials storage operation, and possibly a mixing operation in the future. The facility will also be subject to the applicable recordkeeping and reporting requirements of this MACT.

X002: Coating Operation

The facility's paint booth operations are subject to the National Emission Standards for Hazardous Air Pollutants for Surface Coating of Plastic Parts and Products listed under 40 CFR Part 63, Subpart PPPP. Under Subpart PPPP, Carfair is required to limit its HAP emissions from the applicable coatings to 0.16 lb HAP emitted per lb coating solids used during each 12-month period. Carfair uses the emission rate without add-on controls option listed under §63.4491(b) to meet the requirements of this subpart. The facility is subject to the semiannual reporting requirements under §63.4520 and recordkeeping requirements under §63.4530.

Compliance Assurance Monitoring (CAM)

CAM is not applicable because Carfair is subject to MACT standards that were promulgated after November 15, 1990. According to 40 CFR 64.2(b)(1)(i) on exemptions from CAM, emission limitations or standards proposed after November 15, 1990 pursuant to section 111 or 112 of the Clean Air Act are exempt from CAM requirements, and there are no other source specific standards applicable to this facility.

MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS:

Given the extremely large compliance margins with the synthetic minor for PSD limitations (~20 tpy of actual emissions vs. a limit of 245 tpy), the Department finds that annual source testing at this facility is unnecessary.

According to 40 CFR Part 63, Subpart WWWW (63.5796), the facility “may also use the organic HAP emissions factors calculated using the equations in Table 1 to this subpart, combined with resin and gel coat use data, to calculate [its] organic HAP emissions.” Carfair is required to keep records of the type and quantity of each VOC and HAP containing material used each calendar month, the quantity of VOCs and HAPs emitted each calendar month, and the rolling 12-month total of VOCs and HAPs emitted from fiberglass operations. These records will be evaluated by the Department during the annual inspection. The facility is required to submit a semi-annual report detailing emission totals (Section 5, Proviso 2 of both units), a deviation report on a semi-annual basis (Section 5, Proviso 3), and an Annual Compliance Certification (ACC) (General Proviso 12.).

FUGITIVE DUST:

The fugitive dust potential was evaluated and is not expected to be of concern at this facility. The plant property is grassed, and travel areas are covered by asphalt, concrete, or gravel surfaces. No stockpiles of dust producing materials are planned. Therefore, it has been determined by the Department that a dust plan is not required at this time.

ODORS:

This facility uses products containing styrene, which is a pollutant with a strong odor. Should obnoxious odors that arise from plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Department that these measures are technically and economically feasible.

RECOMMENDATION:

I recommend that after a public comment period and EPA review, Major Source Operating Permit 301-0089 be issued to Carfair Composites USA, Inc. for the operations of their fiber glass operations and associated equipment.

John Robert Gill
Chemical Branch
Air Division

December 2, 2025

Date