

STATEMENT OF BASIS

Toray Fluorofibers America, Inc.
Decatur, Alabama
Morgan County
Facility Number: 712-0086

On April 23, 2025, the Department received an application to renew the Title V Major Source Operating Permit (MSOP) for the Toray Fluorofibers America, Inc. (TFA) facility in Decatur, Alabama. This proposed renewal of the Title V Major Source Operating Permit is issued under the provisions of ADEM Admin. Code R. 335-3-16. The above-named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management (ADEM) in accordance with the terms and conditions of this permit.

Initial Air Permit Nos. 712-0086-X001 and X002 were issued on February 10, 2003. The initial Title V MSOP for this facility was issued on November 3, 2005, and incorporated the limits and requirements established in Air Permits X001 and X002. The current Title V MSOP was issued on November 3, 2020, and expires November 2, 2025. This will be the fourth renewal.

The facility is located in Morgan County, which is currently in compliance with the National Ambient Air Quality Standards (NAAQS).

There are no current or ongoing enforcement actions against TFA necessitating additional requirements to achieve compliance with the proposed permit conditions. The enforcement and compliance history for this facility can be found at <https://echo.epa.gov/> (Search using Facility ID AL0000000110300086).

Background

TFA operates a fluorocarbon (PTFE) fiber manufacturing facility that is located off Highway 20 in Decatur, Alabama. The plant is a minor source of regulated air pollutants. However, TFA shares a site with Toray Composite Materials America, Inc. (CMA), which is a major source under Title V for the pollutant nitrogen oxides (NO_x). TFA and CMA share common ownership under Toray Holdings (USA), Inc., but are managed by two completely different organizations. For the purpose of Title V and Prevention of Significant Deterioration (PSD) applicability, they are considered one facility. The combined emissions make TFA a major source with respect to Title V and with respect to PSD. The facilities have opted to hold separate Title V permits. TFA and CMA have separate environmental staff, and neither can certify compliance for the other.

The sources of air pollutants at this facility are the Wet Suppression System (Duct Spray and Scrubber) that controls emissions from the Fluorocarbon Fiber Manufacturing Process and the Catalyst Treatment System that controls emissions from the Bleaching Process.

TFA has classified their emissions as volatile organic compounds (VOCs). TFA states that there may be formation of secondary organic particulate matter (PM) emissions due to cellulose degradation. However, this is very complex and depends on a variety of factors such as types of reactions, the constant change in equilibrium between the gaseous and PM phases, concentration of the precursors, and environmental conditions including temperature and relative humidity. Therefore, due to the complexity of the secondary PM formation processes, TFA would continue to classify the emissions as VOCs.

The facility is manned 8,760 hours per year and is permitted to operate on this schedule unless otherwise stated. The potential to emit (PTE) for TFA, including the consideration of PTE from CMA, is listed on the table below:

Regulated Pollutant	PTE, TFA (tons/year)	PTE, CMA (tons/year)	Combined PTE (tons/year)	Major Source? (yes/no)
VOC	17.66	37.10	54.76	No
PM	—*	58.45	58.45	No
NO _x	—	620.41	620.41	Yes

**Potential secondary PM emissions from cellulose degradation to glucose matter (GM) are considered VOC emissions. VOC as GM was calculated based on maximum fiber production per year (662 tpy for the Fluorocarbon Fiber Manufacturing and 112 tpy for the Bleaching Process) at a rate of 1 ton GM per 10.64 tons of fiber for the Fluorocarbon Manufacturing and 1 ton GM per 21.54 tons of fiber for the Bleaching Process.*

Changes from the Existing Title V Permit

No changes to facility units, operations, limits, or requirements will be applied to the renewal Title V MSOP.

Operating Permit Summary No. 1

Emission Unit: Fluorocarbon Fiber Manufacturing

Overview

This unit was constructed in 2003 after TFA purchased the property from DuPont and was initially permitted under Air Permit 712-0086-X001. Air Permit X001 was reissued on July 2, 2004, and subsequently incorporated into the initial Title V MSOP. This unit is not subject to any federal requirements and is considered a minor source with respect to prevention of significant deterioration (PSD).

Emission Standards

Particulates

Opacity: ADEM Admin. Code R. 335-3-4-.01

PM: ADEM Admin. Code R 335-3-4-.04(1), Class I Counties

Potential Emissions

VOC: 12.40 tons per year (tpy)

PM: Negligible.

Periodic Monitoring

PM/Opacity: There are negligible PM emissions present in this process. Therefore, no periodic monitoring for PM is required and no periodic monitoring for opacity is required.

VOC: There are no VOC numerical limits. These emissions are vented to the Wet Suppression System. This process shall operate only when the scrubber is operating. Otherwise, this process shall cease operations. This system shall maintain a removal efficiency of at least 80% for VOC emissions. The differential pressure ranging between 0.1 and 15.0 in. H₂O and the scrubber water flowrate ranging between 10.0 and 25.0 gallons per minute will be monitored to indicate compliance with VOC emissions at least once every 12 hours.

Recordkeeping and Reporting

Records shall be kept of the differential pressure and water flowrate to the scrubber along with any occurrence and duration of startup, shutdown, or malfunction (SSM) of the air pollution control equipment for at least five years. These records will be reviewed by the Department during each annual compliance inspection. A compliance certification report shall be submitted to the Department annually within 60 days of the anniversary of the MSOP issuance date.

Operating Permit Summary No. 2

Emission Unit: **Bleaching Process**

Overview

This unit was constructed in 2003 and was initially permitted under Air Permit 712-0086-X002. Air Permit X002 was reissued on July 2, 2004, and subsequently incorporated into the initial Title V MSOP. This unit is not subject to any federal requirements and is considered a minor source with respect to PSD.

Emission Standards

Particulates

Opacity: ADEM Admin. Code R. 335-3-4-.01

PM: ADEM Admin. Code R. 335-3-4-.04(1), Class I Counties

Potential Emissions

VOC: 5.26 tpy

Particulate Matter: Negligible.

Periodic Monitoring

PM/Opacity: There are negligible PM emissions present in this process. Therefore, no periodic monitoring for PM is required. Daily documented visual observation while the unit is operating shall constitute periodic monitoring for opacity.

VOC: There are no VOC numerical limits. These emissions are vented to the Catalyst Treatment System. No periodic monitoring is required because the VOC PTE is based on the uncontrolled emission rate.

Recordkeeping and Reporting

Records shall be kept of the daily visual monitoring of the ovens along with any corrective actions taken and subsequent visual observations for at least five years. These records will be reviewed by the Department during each annual compliance inspection. A compliance certification report shall be submitted to the Department annually within 60 days of the anniversary of the MSOP issuance date.

Compliance Assurance Monitoring (CAM)

The CAM rule does not apply because there are no pollutant-specific emission units that are subject to an emission limitation or standard where a control device is used to achieve compliance with an applicable emission limitation.

Permitting Fees

Title V major sources are subject to operating permit fees which charge the facility a yearly amount based on the actual emission rate of pollutants for the previous year.

Recommendation

Based on the requirements described above, TFA should be able to demonstrate compliance with all applicable state and federal regulations. I recommend that the attached permit be issued to Toray Fluorofibers America, Inc, pending a 45-day review by EPA and a 30-day public notice period.



Paul M. Contorno
Industrial Chemicals Section
Chemical Branch
Air Division

October 29, 2025

Date