MEMO

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DATE 6/28/2023

RE Molded Fiber Glass Co. – RACT II is RACT III Proposal
Title V Operating Permit No. 25-00035
Union City Borough, Erie County

Procedural History

As part of the Reasonably Available Control Technology (RACT) regulations codified at 25 Pa. Code §§ 129.111—129.115 (relating to additional RACT requirements for major sources of NO_x and VOCs for the 2015 ozone NAAQS) (RACT III), the Pennsylvania Department of Environmental Protection (Department) has established a method under § 129.114(i) (relating to alternative RACT proposal and petition for alternative compliance schedule) for an applicant to demonstrate that the alternative RACT compliance requirements incorporated under § 129.99 (relating to alternative RACT proposal and petition for alternative compliance schedule) (RACT II) for a source that commenced operation on or before October 24, 2016, and which remain in force in the applicable operating permit continue to be RACT under RACT III as long as no modifications or changes were made to the source after October 24, 2016. The date of October 24, 2016, is the date specified in § 129.99(i)(1) by which written RACT proposals to address the 1997 and 2008 8-hour ozone National Ambient Air Quality Standards (NAAQS) were due to the Department or the appropriate approved local air pollution control agency from the owner or operator of an air contamination source located at a major NO_x emitting facility or a major VOC emitting facility subject to § 129.96(a) or (b) (relating to applicability).

The procedures to demonstrate that RACT II is RACT III are specified in § 129.114(i)(1)(i), 129.114(i)(1)(ii) and 129.114(i)(2), that is, subsection (i), paragraphs (1) and (2). An applicant may submit an analysis, certified by the responsible official, that the RACT II permit requirements remain RACT for RACT III by following the procedures established under subsection (i), paragraphs (1) and (2).

Paragraph (1) establishes cost effectiveness thresholds of $7,500 per ton of NO_x emissions reduced and $12,000 per ton of VOC emissions reduced as ‘‘screening level values’’ to determine the amount of

analysis and due diligence that the applicant shall perform if there is no new pollutant specific air cleaning device, air pollution control technology or technique available at the time of submittal of the analysis. Paragraph (1) has two subparagraphs.

Subparagraph (i) under paragraph (1) specifies that the applicant that evaluates and determines that there is no new pollutant specific air cleaning device, air pollution control technology or technique available at the time of submittal of the analysis and that each technically feasible air cleaning device, air pollution control technology or technique evaluated for the alternative RACT requirement or RACT emission limitation approved by the Department (or appropriate approved local air pollution control agency) under § 129.99(e) had a cost effectiveness equal to or greater than $7,500 per ton of NO_x emissions reduced or $12,000 per ton of VOC emissions reduced shall include the following information in the analysis:

- A statement that explains how the owner or operator determined that there is no new pollutant specific air cleaning device, air pollution control technology or technique available.
- A list of the technically feasible air cleaning devices, air pollution control technologies or techniques previously evaluated under RACT II.
- A summary of the economic feasibility analysis performed for each technically feasible air cleaning device, air pollution control technology or technique in the previous bullet and the cost effectiveness of each technically feasible air cleaning device, air pollution control technology or technique as submitted previously under RACT II.
- A statement that an evaluation of each economic feasibility analysis summarized in the previous bullet demonstrates that the cost effectiveness remains equal to or greater than $7,500 per ton of NO_x emissions reduced or $12,000 per ton of VOC emissions reduced.

Subparagraph (ii) under paragraph (1) specifies that the applicant that evaluates and determines that there is no new pollutant specific air cleaning device, air pollution control technology or technique available at the time of submittal of the analysis and that each technically feasible air cleaning device, air pollution control technology or technique evaluated for the alternative RACT requirement or RACT emission limitation approved by the Department (or appropriate approved local air pollution control agency) under § 129.99(e) had a cost effectiveness less than $7,500 per ton of NO_x emissions reduced or $12,000 per ton of VOC emissions reduced shall include the following information in the analysis:

- A statement that explains how the owner or operator determined that there is no new pollutant specific air cleaning device, air pollution control technology or technique available.
- A list of the technically feasible air cleaning devices, air pollution control technologies or techniques previously evaluated under RACT II.
- A summary of the economic feasibility analysis performed for each technically feasible air cleaning device, air pollution control technology or technique in the previous bullet and the cost effectiveness of each technically feasible air cleaning device, air pollution control technology or technique as submitted previously under RACT II.
- A statement that an evaluation of each economic feasibility analysis summarized in the previous bullet demonstrates that the cost effectiveness remains less than $7,500 per ton of NO_x emissions reduced or $12,000 per ton of VOC emissions reduced.
- A new economic feasibility analysis for each technically feasible air cleaning device, air pollution control technology or technique.

Paragraph (2) establishes the procedures that the applicant that evaluates and determines that there is a new or upgraded pollutant specific air cleaning device, air pollution control technology or technique available at the time of submittal of the analysis shall follow.

- Perform a technical feasibility analysis and an economic feasibility analysis in accordance with § 129.92(b) (relating to RACT proposal requirements).
- Submit that analysis to the Department (or appropriate approved local air pollution control agency) for review and approval.

The applicant shall also provide additional information requested by the Department (or appropriate approved local air pollution control agency) that may be necessary for the evaluation of the analysis submitted under § 129.114(i).

Facility details

Molded Fiber Glass operates an existing fiberglass & resin component manufacturing facility, which is currently permitted by Title V Operating Permit No. 25-00035. For the purposes of RACT, Molded Fiber Glass is a major stationary source of VOC only, and is a minor source of NOx. No modifications were made to the sources in this analysis after October 24, 2016.

RACT II for Molded Fiber Glass was submitted to US EPA on February 5, 2020, and approved on January 24, 2022 [87 FR 34].

Molded Fiber Glass submitted their RACT II is RACT III proposal to the Department on December 22, 2022.

The following sources(s) are subject to § 129.114(i) - RACT II determination assures compliance with RACT III requirements

Source ID	Source Name	RACT III provision
101	Gelcoat Operation	25 Pa. Code §129.114(i)(1)(i)
102A	Non-Atomized Resin Application (Mechanical)	25 Pa. Code §129.114(i)(1)(i)
102B	Non-Atomized Resin Application (Mechanical & Manual)	25 Pa. Code §129.114(i)(1)(i)
105	Primer Spray Operation	25 Pa. Code §129.114(i)(1)(i)

The RACT II determination/requirements can be found in the attached RACT II review memo and at the following link:

EPA Approved Pennsylvania Source-Specific Requirements | US EPA

RACT III analysis performed by the Department under § 129.114(j)(1):

The Department has reviewed the applicant's determination that no new control technologies exist for the reduction of VOC and that no significant changes to the technical capabilities or cost of existing control technologies have occurred since the RACT II analysis was completed on December 4, 2019. Information for this analysis was obtained from (1) the RACT/BACT/LAER Clearinghouse Database (RBLC

database); and (2) engineering judgement. Attached is a copy of the Department's December 4, 2019 memo in which the RACT II VOC analysis begins on page 2.

- The Department believes that there are no new control technologies or significant changes to the technical capability of the existing technology.
- A summary of the cost of VOC control for RACT II is shown in the table below.

Source ID	Source Name	Control Technology	VOC ($/Ton)
101	Gelcoat Operation	RTO (facilitywide)	$19,413
		RTO (Gelcoat Booth only)	$13,064
		Carbon Adsorption (facilitywide)	$19,722
		Fluidized Bed Preconcentrator with RTO (facilitywide)	$15,242
102A	Non-Atomized Resin Application (Mechanical)	RTO (facilitywide)	$19,413
		RTO (Custom Molding Line only)	$19,508
		Carbon Adsorption (facilitywide)	$19,722
		Fluidized Bed Preconcentrator with RTO	$15,242
102B	Non-Atomized Resin Application (Mechanical & Manual)	RTO (facilitywide)	$19,413
		Carbon Adsorption (facilitywide)	$19,722
		Fluidized Bed Preconcentrator with RTO (facilitywide)	$15,242
105	Primer Spray Operation	RTO (facilitywide)	$19,413
		Carbon Adsorption (facilitywide)	$19,722
		Fluidized Bed Preconcentrator with RTO (facilitywide)	$15,242

- An evaluation of each economic feasibility analysis summarized in the Table above demonstrates that the cost effectiveness remains equal to or greater than $12,000 per ton of VOC emissions reduced.

Public discussion

- No discussions occurred with the EPA, the company, or the public after the company submitted the RACT II is RACT III proposal application.

Conclusion

- The Department has analyzed the applicant's proposal for considering RACT II requirements as RACT III and also performed independent analysis. Based on the information provided by the applicant or owner/operator of the facility and independently verified by the Department, the Department determines that the RACT II requirements satisfy the RACT III requirements. The RACT III requirements are identical to the RACT II requirements and are as stringent as RACT II.
- The final page of this memo summarizes the existing RACT II requirements that will also satisfy RACT III.

Table A-4
Alternative RACT Conditions of TVOP No. 25-00035
Molded Fiber Glass Companies - Union City, PA

Source ID	Source Name	TVOP Citation	Alternative RACT Requirement
101	Gelcoat Operation	Section D, Source ID 101, Condition #002	Resins and gelcoats used in this process shall have no more than 45% VOC content, by weight, as applied, averaged monthly over all resins and gelcoats used.
		Section D, Source ID 101, Condition #004	Records shall be maintained of VOC content for the resins and gelcoats to ensure compliance with the VOC limit. These records shall be maintained for five years and be made available to PADEP upon request.
		Section D, Source ID 101, Condition #006	This source shall be operated according to good operating practices to minimize emissions of VOC. This shall, at a minimum, consist of the following: • The permittee shall comply with the applicable work practice standards of 40 CFR 63 Subpart WWWW, Table 4. • The permittee shall, to the extent practicable, use lower-VOC gelcoat materials. • The permittee shall minimize emissions from mixing and cleanup operations to the extent practicable, which shall include covering containers during mixing operations, and the use of lower-VOC cleanup solvents.
102A	Non-Atomized Resin Application Mechanical	Section D, Source ID 102A, Condition #002	Resins and gelcoats used in this process shall have no more than 45% VOC content, by weight, as applied, averaged monthly over all resins and gelcoats used.
		Section D, Source ID 102A, Condition #004	Records shall be maintained of VOC content for the resins and gelcoats to ensure compliance with the VOC limit. These records shall be maintained for five years and be made available to PADEP upon request.
		Section D, Source ID 102A, Condition #006	This source shall be operated according to good operating practices to minimize emissions of VOC. This shall, at a minimum, consist of the following: • The permittee shall comply with the applicable work practice standards of 40 CFR 63 Subpart WWWW, Table 4. • The permittee shall, to the extent practicable, use lower-VOC resin materials. • The permittee shall, to the extent practicable, use non-atomizing mechanical resin application methods. • The permittee shall, to the extent practicable, use closed molding methods. • The permittee shall minimize emissions from mixing and cleanup operations to the extent practicable; which shall include covering containers during mixing operations, and the use of lower-VOC cleanup solvents.
102B	Non-Atomized Resin Application Mechanical and Manual	Section D, Source ID 102B, Condition #002	Resins and gelcoats used in this process shall have no more than 45% VOC content, by weight, as applied, averaged monthly over all resins and gelcoats used.
		Section D, Source ID 102B, Condition #004	Records shall be maintained of VOC content for the resins and gelcoats to ensure compliance with the VOC limit. These records shall be maintained for five years and be made available to PADEP upon request.
		Section D, Source ID 102B, Condition #006	This source shall be operated according to good operating practices to minimize emissions of VOC. This shall, at a minimum, consist of the following: • The permittee shall comply with the applicable work practice standards of 40 CFR 63 Subpart WWWW, Table 4. • The permittee shall, to the extent practicable, use lower-VOC resin materials. • The permittee shall, to the extent practicable, use non-atomizing mechanical resin application methods. • The permittee shall, to the extent practicable, use closed molding methods. • The permittee shall minimize emissions from mixing and cleanup operations to the extent practicable; which shall include covering containers during mixing operations, and the use of lower-VOC cleanup solvents.
105	Primer Spray Operation (3 Booths & 1 Flash Area)	Section D, Source ID 105, Condition #002	Resins and gelcoats used in this process shall have no more than 45% VOC content, by weight, as applied, averaged monthly over all resins and gelcoats used.
		Section D, Source ID 105, Condition #003	a) The surface coatings used in this process shall contain no more than 4.0 pounds of VOCs per gallon, as applied, averaged monthly over all coatings used. b) VOC emissions from the surface coating operations shall not exceed 40.0 tons per year, based on any consecutive 12-month rolling period.
		Section D, Source ID 105, Condition #005	Records shall be maintained of VOC content for the resins and gelcoats to ensure compliance with the VOC limit. These records shall be maintained for five years and be made available to PADEP upon request.
		Section D, Source ID 105, Condition #006	Records shall be maintained of VOC content for the coating to ensure compliance with the VOC per gallon limit. Records shall also be maintained of total VOC emissions calculated on a 12-month rolling basis to ensure compliance with the 40.0 ton per year VOC limit. These records shall be maintained for five years and be made available to PADEP upon request.
		Section D, Source ID 105, Condition #009	This source shall be operated according to good operating practices to minimize emissions of VOC. This shall, at a minimum, consist of the following: • The permittee shall, to the extent practicable, use lower-VOC coating materials. • The permittee shall use only HVLP paint application methods. • The permittee shall minimize emissions from mixing and cleanup operations to the extent practicable; which shall include covering containers during mixing operations, and the use of lower-VOC cleanup solvents.