

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES**

In Re:

**TPI Composites, Inc.
373 Market Street
Warren, RI 02885-0328**

In Reference to File No. 01-05-AP

**RHODE ISLAND AIR POLLUTION CONTROL REGULATION NO. 15
REASONABLY AVAILABLE CONTROL TECHNOLOGY APPROVAL**

This Reasonably Available Control Technology (hereinafter "RACT") Approval is entered by and between the Rhode Island Department of Environmental Management, Office of Air Resources (hereinafter "the OAR"), and TPI Composites, Inc., 373 Market Street, Warren, Rhode Island 02885-0328 (hereinafter "TPI"), pursuant to the Rhode Island Clean Air Act, Title 23, Chapter 23 of the General Laws of the State of Rhode Island and Providence Plantations, as amended, and the Air Pollution Control Regulations adopted in accordance therewith, and the Department of Environmental Management Act, R.I.G.L. 42-17.1-2 et seq., and constitutes a RACT determination pursuant to Subsection 15.3.4 of Air Pollution Control Regulation No. 15, entitled "Control of Organic Solvent Emissions," effective 21 August 1975, last amended 8 April 1996.

TPI is regulated under Air Pollution Control Regulation No. 15. In order to assure that TPI complies and/or continues to comply with the provisions of Air Pollution Control Regulation No. 15, the OAR and TPI hereby agree as follows:

1. The OAR has jurisdiction over the subject matter of this RACT Approval and over the parties consenting to this RACT Approval.
2. TPI shall consist of the Facility (as that term is defined in APC Regulation No. 15)

located at 373 Market Street, Warren, Rhode Island, 02885-0328 and any person, business, company and/or corporation acting under TPI's control and/or authority, through it, or for it.

3. TPI is subject to the provisions of Title 23, Chapter 23 of the Rhode Island General Laws, as amended, and the Air Pollution Control Regulations adopted in accordance therewith.
4. The provisions of this RACT Approval shall apply to, and be binding upon the Facility located at 373 Market Street, Warren, RI (TPI), its officers, directors, agents, servants, employees, lessees, subsidiaries, operators, successors and assignees and persons, firms and corporations acting under, through and for it.
5. TPI is subject to the RACT requirements established in Subsection 15.3.4 of Air Pollution Control Regulation No. 15.
6. The requirements herein replace the requirements in TPI's 1990 RACT Consent Agreement, File No. 90-1-AP. Consent Agreement 90-1-AP shall be considered null and void upon issuance of this RACT Approval.
7. TPI will comply with the following requirements and limitations from its two fiberglass process areas that emit volatile organic compounds (VOC) – Fiberglass Production, and Research and Development (R&D):
 - A. Fiberglass Production is defined as any operation at TPI that does not fall within the definition of Research and Development (R&D) provided herein.
 - B. Research and Development (R&D) operations at TPI are defined as those which include research on new resins, gel coats, catalysts, manufacturing

processes and products. New designs of existing product lines using conventional materials are not new products under this definition. In addition, the end use of research and development is not for traditional retail sale, but for use in creating samples, prototypes and products that are made for the purpose of testing. This may include, but is not limited to, tests such as crash or impact tests where the sample, prototype or product may or may not be destroyed, or wear tests during which the sample, prototype or product may be tested for extended periods in support of warranty offers or other claims.

The nature, intent and end use of research and development is not in keeping with compliance provisions that apply to production operations such as setting maximums on individual resin, gel coat and catalyst VOC concentrations and regulating application methods. The goal of R&D is to invent new product lines that keep TPI competitive and in the forefront of composites research. To this end, materials used for R&D are exempt from compliance with the VOC maximums listed in this agreement for production chemicals and the requirement that certain application methods or tools be used for gel coat and resin application.

TPI will maintain the following records on a monthly and yearly basis for the R&D operations:

- (1) For each product used in R&D operations, the product name and identification number; manufacturer name; quantity used; total VOC content

of product; as applied VOC content; and VOC emissions for each polyester resin, vinyl ester resin, gel coat or catalyst.

- (2) Monthly records will be available by the 15th day of the month following the compliance period.
 - (3) Yearly records will be available by January 30th of the year following the compliance period.
8. TPI shall comply with the following restrictions for all fiberglass production operations:
- A. Spray guns shall be airless, air-assist, flow-coaters or have high volume low pressure (HVLP) spray heads.
 - B. TPI shall continue to calculate the maximum potential VOC emissions from the closed molding process (SCRIMP[®]) as 0.5% of the total VOC content, by weight, as-applied.
 - C. White gel coats shall not have a VOC content greater than 36% by weight, as applied.
 - D. Pigmented gel coats shall not have a VOC content greater than 50% by weight, as applied.
 - E. Vinyl ester resins shall not have a VOC content greater than 50% by weight, as applied.
 - F. Polyester resins shall not have a VOC content greater than 45% by weight, as applied.
 - G. Tooling resins shall not have a VOC content greater than 55% by weight, as

applied.

- H. The maximum percentage of catalyst used in polyester resin, vinyl ester resin, or gel coat shall not exceed 2% by weight, as applied.
- I. TPI will demonstrate compliance with above production requirements B through H by maintaining the following records on a monthly and yearly basis:
 - (a) For each product used in the fiberglass manufacturing operations, the product name and identification number; manufacturer name; quantity used; total VOC content of product; as applied VOC content; VOC emissions totals for each polyester resin, vinyl ester resin, gel coat or catalyst; and the total amount of catalyst used as a percent of the total amount of polyester resin, vinyl ester resin and gel coat used.
 - (b) Monthly records will be available by the 15th day of the month following the compliance period.
 - (c) Yearly records will be available by January 30th of the year following the compliance period.
- 9. TPI shall only use acetone or other solvents that do not contain VOC to clean all tools, buckets, and equipment associated with operations performed at the facility.
- 10. TPI shall comply with the requirements of Air Pollution Control Regulation No. 35, entitled "Control of Volatile Organic Compounds and Volatile Hazardous Air Pollutants from Wood Products Manufacturing Operations" for the wood products manufacturing operations conducted at the facility. In addition to meeting the emission limitations contained in Table 2 of section 35.3 for each coating category TPI will not,

however, exceed 5.9 pounds VOC per gallon of coating applied (minus water) for any wood coating in the coating category "low solid stains, toners and washcoats not containing HOC".

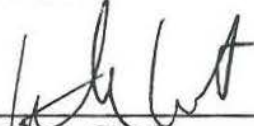
11. All records required by this RACT Approval shall be maintained by TPI at the 373 Market Street facility for a period of five years, and made available to representatives of the OAR and the United States Environmental Protection Agency upon request. Failure to maintain or produce the required records is a violation of this RACT Approval.
12. It is hereby agreed and understood by the parties that the implementation of the requirements of this RACT Approval does not relieve TPI from compliance with any and all requirements of the Rhode Island Clean Air Act and applicable Air Pollution Control Regulations, or with any applicable Air Pollution Control Regulations that become effective and/or amended subsequent to the execution of this RACT Approval.

Consented to in Substance and in Form:

State of Rhode Island and Providence Plantations
Department of Environmental Management

For the Director:

16 Jul 03
Date

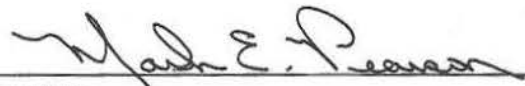


Stephen Majkut, Chief
Office of Air Resources

TPI Composites, Inc. hereby agrees to the above RACT Approval, which becomes effective immediately upon being entered and issued.

Authorized Representative:

6/19/03
Date



Signature

President

Title

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES**

In Re:

**TPI Composites, Inc.
373 Market Street
Warren, RI 02885-0328**



Amendment to File No. 01-05-AP

**RHODE ISLAND AIR POLLUTION CONTROL REGULATION NO. 15
REASONABLY AVAILABLE CONTROL TECHNOLOGY APPROVAL**

The Rhode Island Department of Environmental Management (hereinafter the "DEM") and TPI Composites, Inc., 373 Market Street, Warren, RI 02885-0328 (hereinafter "TPI") entered into a Reasonably Available Control Technology (RACT) Approval on 16 July 2003 (File #01-05-AP). The Parties have agreed that the RACT Approval may be amended by altering the language in Condition 8.E. in order that the 16 July 2003 RACT Approval will result in equivalent or greater reductions of volatile organic compound (VOC) emissions as in the 5 June 1990 Consent Agreement. Specifically, TPI shall be restricted, when applying vinyl ester resin, to using the closed molding process or using a roller except that TPI may apply vinyl ester resin by spray lay up for corrosion proof laminate, as is the case with the consent agreement currently in the State Implementation Plan.

Condition 8.E. is amended as follows:

Vinyl ester resins shall not have a VOC content greater than 50% by weight, as applied. Vinyl ester resin used in a corrosion-proof laminate may be applied by spray lay-up. All other vinyl

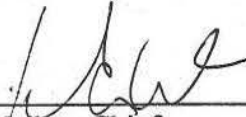
ester resin must be applied in a closed molding process, or by roller.

Consented to in Substance and in Form:

State of Rhode Island and Providence Plantations
Department of Environmental Management

For the Director:

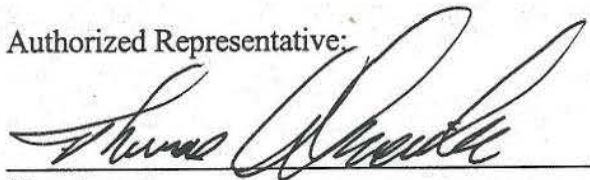
17 FEB 07
Date
SM



Stephen Majkut, Chief
Office of Air Resources

TPI Composites, Inc. hereby agrees to the above Amendment to the RACT Approval, which becomes effective immediately upon being entered and issued.

2/6/04
Date

Authorized Representative:


Signature
General Manager
Title