Technical Support Document (TSD)
October 2014

I. General Comments:

A. Company Information

1. Inter-Fab, Inc.
2. 3050 S. Alvernon Way, Tucson, AZ 85713

B. Background

This source was issued a 5-year permit in February 2002 which was structured in anticipation of the now promulgated MACT (WWWW – Reinforced Plastic Composites Production, promulgated April 21, 2003). This revision adds the MACT rules and streamlines them with the existing 190 limits wherever possible. See discussion below in "D. Revision Approach." The source has three processes addressed by the permit: Reinforced Plastic Composites Production (RPCP), Adhesives and Activators (AA), and Surface Coating Operations (SCO).

C. Attainment Classification

This source is located in an area which is attainment for all pollutants.

D. Revision Approach

The objective of this revision was to introduce all applicable regulations of WWWW into an existing permit without disturbing too much of the existing language. The revision was done this way because the Permittee did not seek to revise/ change the various synthetic minor limitations (SMLs) established in the original permit. Wherever possible, the existing standards were retained without change, as portions of the permit which have not been revised are not subject to Public/ EPA review.

Inter-Fab has proposed to remain below 100 TPY for HAPs to avoid other applicable requirements of WWWW which would subject the source to more stringent work practice standards and controls. With Inter-Fab proposing to remain below 100 TPY for HAPs, this indirectly classifies them as a synthetic minor for VOCs since the controls on HAPs minimize VOCs as well.

In cases where the existing SML limit is more stringent than the MACT, the MACT standard and SML have been streamlined. For example, in II.A.3 – some applicable MACT standards that would have allowed HAP contents in excess of the SMLs previously established were streamlined in order to avoid confusion with the SML.

In other cases, a new MACT standard would overlap with an existing standard which covered all processes. In such cases the new standard was introduced for RPCP and the existing standard was dedicated solely to AA and SCO. For example, the Monitoring and Recordkeeping requirement III.B.1 originally covered MSDS tracking for all operations. As the MACT required more detailed MSDS tracking, the MACT standard was included and the existing standard was dedicated to AA and SCO.

SML limits which had previously been accepted by the source to remain below major source thresholds of VOC now also serve to avoid the WWWW MACT for sources emitting greater than 100 tpy of HAPs (40 CFR 63.5805.(b)).

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Finally, monitoring and recordkeeping requirements that addressed RPCP, AA, and SCO were not separated (as they were in sections I and II) as this would have required too many administrative amendments in order to do nothing more than separate conditions merely for organizational purposes. Throughout the permit the phrase "All Operations" refers to all operations, even those covered previously.

II. Source Description

A. Process Description

Inter-Fab, Inc. produces diving boards and pool slides for swimming pools, artificial rocks, boulders, fountains, waterfalls, and rock wall panels using acrylic-fiberglass composites. The company also powder coats and oven cures stainless steel railings, steel diving board stands, steel springs, and miscellaneous bolts and hardware. Wet coating, (using various types of paints), of the artificial rocks, boulders, etc. is also conducted on site as part of the production process. Interfab uses polyurethane and polyurea in the synthetic rock process; this activity has insignificant emissions of MDI (<24 lbs/year potential). For the diving board processes, some of the resin and gel-coat is applied manually with some being applied using flow coating equipment and techniques. The closed molding process uses spray application for the gel coating. The primary pollutant of concern is styrene, which is both a VOC and a HAP and is found in both the resins and the gel coats. None of the resins or gel coats used contains a vapor suppressant. Acetone is the clean-up solvent used at the facility.

Inter-Fab, Inc. is an existing major source of a single HAP (styrene), a major source of a combination of HAPs (styrene and MMA), a synthetic minor source of VOC, and a true minor source of all other criteria pollutants.

The facility operates four paint booths - one for powder coating and three for rock product spraying. The company operates primarily on a 10-hour per day, four day (Monday through Thursday) per week schedule (approximately 2080 hours per year).

B. Air Pollution Control Equipment

There are no add-on air pollution controls required by the permit.

III. Regulatory History

A. Testing & Inspections

Inspections have occurred regularly. Inter-Fab, Inc. has had violations in the past. The most recent was an NOV in September 2005 for not keeping all organic HAP or VOC-containing storage vessels completely covered except when adding or removing material. This was corrected and the source is currently in compliance with Pima County Code.

B. Excess Emissions

None

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IV. Emissions Estimates

Emissions estimates are based on the revised application dated 11/07/2005 which incorporated a closed mold operation for the diving boards in addition to open molding operations. The new PTE with the change in processing, changes in usage limits and the inclusion of the new applicable requirements are the only changes to the permit. Emission factors used in the MACT were used to calculate emissions. For closed molding operations, the emission factor provided in AP-42 was the one used for emission estimates. The use of both Polyurea and Polyurethane have been determined to have insignificant emissions in previous determinations and so calculations for those products were not done in this revision but will be addressed at the next renewal.

Resin usage in the Closed molding process is not included in the limitations enforced on the source since the combined emissions from the Pool slide and Diving Board production areas is negligible, (See PTE document). Therefore the resin limits in Part B of the permits only apply to the open-molding limits.

Pollutant	Tons Per Year
Volatile Organic Compounds (VOC)	90
Total Hazardous Air Pollutants (HAPS)	90

Affected Emission Source Classification: Class I major source for HAPs, synthetic minor for VOCs and true minor for all other pollutants. The source is subject to the provisions of 40 CFR 63 Subpart WWWW National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, the Pima County State Implementation Plan (Pima County SIP) and Title 17 of the Pima County Code, (PCC)

V. Applicable Requirements

Title 40 of the Code of Federal Regulations Part 63:
Subpart WWWW National Emission Standards for Hazardous Pollutants: Reinforced Plastics Composites Production

State Implementation Plan, Pima County:
Rule 321 Emissions-Discharge: Opacity Limiting Standards and Applicability
Rule 343 Visibility Limiting Standard
Rule 344 Odor limiting Standard

NON-Federally Enforceable Regulations:

Pima County Code (PCC) Title 17, Chapter 17.16:
17.16.030 Odor Limiting Standards
17.12.035 Affirmative defenses for excess emissions due to malfunctions, startup, and shutdown
17.12.040 Reporting requirements
17.12.050 Performance tests
17.12.080 Permit display or posting
17.12.160 Permit application processing procedures for Class I permit
17.12.180 Permit contents for Class I permits
17.12.190 Permits containing synthetic emission limitations and standards
17.12.220 Compliance plan - Certification
17.12.245 Administrative permit amendments
17.12.255 Minor permit revisions
17.12.260 Significant permit revisions
17.12.270 Permit reopenings - Revocation and reissuance - Termination
17.12.310 Permit shields
17.12.320 Annual emissions inventory questionnaire

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17.12.510	Fees related to Class I permit
17.16.030	Odor Limiting Standards
17.16.040	Standards and Applicability (Visible Emissions)
17.16.050	Visibility Limiting Standards
17.16.430	Standards of Performance for Unclassified Sources
17.16.400	Organic Solvents and Other Organic Materials
17.20.010	Source Sampling, Monitoring, and Testing (Section A)

VI. Permit Contents

Each standard will be addressed relative to the corresponding standard in the previous permit. Where applicable, the citation of the related standard is included [in brackets].

A. Applicability:

This is a Class I Stationary Source for a single HAP (styrene) and a combination of HAPs (chiefly styrene and methyl methacrylate); a synthetic minor source of VOC and a true minor of all other pollutants. The three processes which are specifically covered by the permit are Reinforced Plastic Composites Production, Adhesives, and Surface Coating Operations.

B. Emission Limits/ Standards:

II.A.	Reinforced Plastic Composites Production
II.A.1	Resin and Gel Coat usage limits changed based on 10-03-2006 application.
II.A.2	Resin application limited to non-atomized spray based on 10-03-2006 application.
II.A.3	The resin HAP content limits have been changed to reflect open-molding or closed-molding limits and streamlined with the WWWW HAP limits.
II.A.4	The gel coat HAP content limits have been have been changed to reflect the 10-03-2006 application and streamlined with the WWWW HAP limits. The application requested that Infusion gelcoat application be atomized. This use amounts to approx 361, 771 lbs of Valspar per 12-month rolling total based on ~ 77% use of Valspar gelcoats from the maximum potentials declared in the application.
II.B	Work Practice Standards – applies to all sources subject to the Subpart WWWW.
II.C	Adhesives, limitation based on PTE determination and application dated 10-03-2006.
II.C.1	Adhesive usage limit unchanged.
II.C.2	Adhesive HAP/VOC content limit unchanged.
II.D	Surface Coating Operations
II.D.1	Paint usage limits unchanged.
II.D.2	Overspray standard unchanged.
II.D.3	Architectural coating standards unchanged.
II.E	All Operations
II.E.1	Closed container standard unchanged.
II.E.2	Odor standard unchanged.
II.E.3	Opacity Standards unchanged.
II.E.4	Property line standard unchanged.
II.E.5	Volatile and miscellaneous substances transportation standard unchanged.
II.E.6	Stack emissions standard unchanged.

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C. Monitoring and Recordkeeping Requirements:

III.A Reinforced Plastic Composites Production

III.A.1 Recordkeeping requirement for compliance demonstration with product use limitations (II.A.1 and II.A.5). Compliance demonstration, usage limits will be required for the most recent 12-consecutive month period in addition to single months (as the standard limits use by 12-month periods).

II.A.2 In order to dispense resin or gel coat from a spray gun or flow coater in a useful manner a fluid stream must be converted into a flat, symmetrical shape. This shape is termed a fan pattern or a atomizing air. Non-atomized applicators use specialized fluid tips as the primary means to shape the fluid stream into a fan pattern, without the need of atomization. The Permittee is required to ensure non-atomized application is used in the spray coating activities.

III.A.3 Emissions recordkeeping requirement to demonstrate that the source has remained below projected emission (and more importantly) below the 90 ton threshold. The Permittee is required to maintain records for the individual months in addition to the 12-consecutive month period. The emission factors provided were based on the 10-03-2006 application and match the calculations provided in the MACT.

III.B Work Practice Standards

III.B.1-6 These are general compliance requirements that apply to all facilities subject to subpart WWWW.

III.C. Adhesives

III.C.1 Product usage requirement to demonstrate that the source has remained below projected emission limitation (90 ton threshold).

III.C.2 Record keeping requirement to demonstrate that the source remains below projected emission limitation (90 ton threshold).

D. Surface Coating Operations:

III.D.1 Product usage requirement to demonstrate that the source has remained below projected emission limitation (90 ton threshold).

III.D.2 Record keeping requirement to demonstrate that the source remains below projected emission limitation (90 ton threshold).

E. All Operations:

III.E.1-4 These are general compliance requirements that apply to all facilities subject to subpart WWWW. The conditions have remained unchanged since the initial permit issuance.

VII. Reporting Requirements:

IV.A Semiannual summary reports amended to include emissions from use of adhesives and activators (reason for omission of this requirement in the previous permit is unknown).

IV.B Compliance certification reporting amended to include WWWW requirements.

IV.C Emissions Inventory requirement unchanged.

VIII. Testing Requirements:

Testing requirements unchanged.

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