

Facility Name: Mr. Tubs, Inc.

City: Sugar Hill

County: Gwinnett

AIRS #: 04-13-135-000170

Application #: TV- 9022

Date Application Received: October 15, 1996

Date Application Deemed

Administratively Complete: March 24, 1997

Date of Draft Permit:

Permit No: 3088-135-0170-V-01-0

| Program | Review Engineers | Review Managers |
|----------|------------------|-----------------|
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Introduction

This narrative is being provided to assist the reader in understanding the content of the attached draft Title V operating permit. Complex issues and unusual items are explained in simpler terms and/or greater detail than is sometimes possible in the actual permit. This permit is being proposed pursuant to: (1) Section 391-3-1-.03(10) of the Georgia Rules for Air Quality Control, (2) Part 70 of Chapter I of Title 40 of the Code of Federal Regulations, and (3) Title V of the Clean Air Act Amendments of 1990. The primary purpose of this permit is to consolidate and identify existing state and federal air requirements applicable to Mr. Tubs, Inc. and to provide practical methods for determining compliance with these requirements. The following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. It initially describes the facility receiving the permit, then the applicable requirements and their significance, and finally the methods for determining compliance with those applicable requirements. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Any revisions made to the permit in response to comments received during the public participation process will be described in an addendum to this narrative.

I. Facility Description**A. Facility Identification**

1. Facility Name: Mr. Tubs, Inc.
2. Parent/Holding Company Name: Mr. Tubs, Inc.
3. Previous and/or Other Name(s): Also known as "MTI Whirlpool."
4. Facility Location: 670 North Price Road
Sugar Hill, Georgia 30518
5. Attainment or Non-attainment Area Location - The facility is located in an ozone non-attainment area.
6. Class I Area Impacts - The facility is located within 100 km of the Cohutta Class I area.

B. Site Determination - There are no other facilities which could possibly be contiguous or adjacent and under common control.

C. Existing Permits

Table 1 below lists all current permits (including Part 71 permits), as amended, issued to the facility. Based on a comparative review of Item 19 in Section 1.10 of the Title V application and the "Permit" file(s) on the facility found in the Air Branch office, comments are listed in Table 2 below."

Table 1: List of Current Permits, as Amended

| Permit Number and/or Purpose of Issuance | Date of Issuance and Date of Amendments (if any) | Comments | |
|--|--|----------|----|
| | | Yes | No |
| 3088-135-0170-E-01-0 for the entire facility | Original permit issued on 06/26/98 | | / |
| 3088-135-0170-E-01-1 | 1st amendment to 3088-135-0170-E-01-0 issued on 06/01/99 | | / |

Table 2: Comments on Specific Permits

| Permit Number | Comments |
|---------------|----------|
| N/A | N/A |

D. Process Description**1. SIC Code(s)**

Major - 3088
Other - None

2. Description of Product(s) - Fiberglass-resin reinforced plastic whirlpool tubs, bathroom basins, and kitchen sinks
3. Overall Facility Process Description

The facility manufactures fiberglass-resin reinforced plastic whirlpool tubs, bathroom basins, and kitchen sinks. The facility consists of three production buildings identified as Building Nos. 1, 2 and 3. The bathroom basins and kitchen sinks are made in Building Nos. 1 and 2. The whirlpool tubs are made in Building No. 3 across the street. The process to make these products are almost identical to each other. First, acrylic sheets are softened at elevated temperature, and then vacuum-molded into “shells” with desired shapes. The shells then are spray coated with fiberglass strands and polyester resin/catalyst. After curing for a short period of time, the coated shells are trimmed, grinded and sanded to final shape, fixed with hardware according to specification, and inspected for shipment.

Production support activities at this facility include raw material handling and storage, resin preparation, routine maintenance, comfortable heating, product inspection and repair, and packaging.

4. Overall Process Flow Diagram - Refere to the Titel V permit application.

E. Regulatory Status

1. PSD/NSR

The facility is major source under NSR regulations for its potential to emit more than 50 tons per year (TPY) of volatile organic compounds (VOC) in a serious ozone nonattainment area.

2. Title V Major Source Status by Pollutant

Table 3: Title V Major Source Status

| Pollutant | Is the Pollutant Emitted? | If emitted, what is the facility’s Title V status for the Pollutant? | | |
|------------------|---------------------------|--|-----------------------------------|-------------------------|
| | | Major Source Status | Major Source Requesting SM Status | Non-Major Source Status |
| PM | / | | | / |
| PM ₁₀ | / | | | / |
| SO ₂ | n/a | | | |
| VOC | / | / | | |
| NO _x | n/a | | | |
| CO | n/a | | | |
| TRS | n/a | | | |
| H ₂ S | n/a | | | |
| Individual HAP | / | / | | |
| Total HAPs | / | / | | |

3. MACT Standards

Mr Tubs, Inc. is a major emission source for HAP emissions and subject to a future MACT standard entitled “Reinforced Fiberglass Products.” This standard has yet to be proposed by EPA.

4. Program Applicability

| Program Code | Applicable (Yes/No) |
|---------------------------------|---------------------|
| Program Code 6 - PSD | No |
| Program Code 8 - Part 61 NESHAP | No |
| Program Code 9 - NSPS | No |
| Program Code M - Part 63 NESHAP | No |
| Program Code V - Title V | Yes |

Regulatory Analysis

II. Facility Wide Requirements

A. Emission and Operating Caps:

Mr. Tubs Inc. will have no facility wide emission or operating limits or caps.

B. Applicable Rules and Regulations

! Rules and Regulations Assessment -

This facility is located in a serious ozone nonattainment area and has potential to emit more than 50 TPY of VOC. It is an existing major source under nonattainment area (NAA) NSR rules. The NAA/NSR rules are implemented through SIP permitting via mainly 391-3-1-.03(8) of Georgia Rules for Air Quality Control. The NAA/NSR rules require the facility to submit a NAA/NSR permit application and obtain a NAA construction permit prior to any major modification. The Permittee will be required to: (1) use best available control technology (BACT) for VOC emissions provided that the plant wide VOC emissions still stays below 100 TPY after the modification; (2) offset the emission increase due to the modification; and (3) certify that all other major sources owned or operated or controlled by the Permittee Georgia are in compliance with all applicable emission limitations and standards under the Clean Air Act. If the plant wide VOC emissions exceeds 100 TPY after the modification, the Permittee will be required to use VOC control equipment which meets lowest achievable emission rate (LAER) rather than BACT for the subsequent major modification(s). In the case of minor modification, 391-3-1-.02(2)(t) of Georgia Rules of Air Quality Control applies. The Permittee will be required to use “Reasonable Available Control Technology” (RACT) to control the VOC emissions from the modified source/facility.

In addition to the NAA/NSR rules, this facility is subject to the general provisions in Section VIII. and Condition 2.3.1 in the Permit.

! Emission and Operating Standards - None Applicable.

- C. Compliance Status - See Section VII.F.
- D. Operational Flexibility - See Section VII.A.
- E. Permit Conditions

No facility wide conditions are included in the Title V permit other than the general provisions in Section VIII. The existing permit has facility-wide conditions for good pollution control practice, performance testing, fugitive emission prevention, and equipment malfunction or breakdown. These conditions have been addressed by conditions either in Part 4.0, 6.0 or 8.0 of the Title V Permit.

III. Regulated Equipment Requirements

A. Brief Process Description

The Permittee manufactures fiberglass-resin reinforced plastic whirlpool tubs, bathroom basins, and kitchen sinks at this facility. The facility consists of three production buildings identified as Building Nos. 1, 2 and 3. The bathroom basins and kitchen sinks are made in Building Nos. 1 and 2. The whirlpool tubs are made in Building No. 3 across the street. The processes to make these products are almost identical to each other. First, acrylic sheets are softened at approximately 280EF, and then vacuum-molded into the desired forms called "shells". The acrylic shells then are moved to a "chop booth". In the booth a chop gun mixes fiberglass strands with a polyester resin/catalyst combination and sprays the mixture onto the shells. The fiberglass-resin coating increases the strength and sturdiness of the shells. The coated shells are allowed to cure for a short period of time. After curing, the coated shells are trimmed, grinded and sanded to final shape, fixed with hardware according to specification, and inspected for shipment.

Production support activities at this facility include raw material handling and storage, resin preparation, routine maintenance, product inspection and repair, and packaging.

The main air pollutant of concern is volatile organic compounds (VOC) emitted from polyester resins and catalysts used. A majority of the VOC emissions is styrene evaporated out of the polyester resin being used. Resin catalysts also emit small amount of VOC compounds. Some VOC emissions also come from the use of clean-up solvents. Particulate matter (PM) emissions are generated mainly by coating spray and trimming/finishing operations. Dry fiber exhaust filters are used in fiberglass-resin coating spray booths to reduce PM emissions due to overspray. There are no VOC emission controls.

B. Equipment List for the Process

| Emission Units | | Specific Limitations/Requirements | | Air Pollutants & Control Devices | |
|----------------|--|--|--|----------------------------------|----------------------------|
| ID No. | Description | Applicable Requirements/Standards | Corresponding Permit Conditions | Pollutants | Control Device/ ID No. |
| SB01 | Fiberglass-resin spray process/booth located in Building No. 1 | 391-3-1-.02(2)(tt), 391-3-1-.02(2)(e), 391-3-1-.02(2)(b) | 3.2.1, 3.4.1, 3.4.2, 3.4.3, 3.4.4, 3.4.5, 3.4.6, 3.5.1, 5.2.1, 6.2.1, 6.2.2, 6.2.3, 6.2.4, 6.2.5, 6.2.6 , 6.2.7 | VOC, HAP, PM | Exhaust fiber filters/FT01 |
| SB02 | Fiberglass-resin spray process/booth located in Building No. 2 | 391-3-1-.02(2)(tt), 391-3-1-.02(2)(e), 391-3-1-.02(2)(b) | 3.2.1, 3.4.1, 3.4.2, 3.4.3, 3.4.4, 3.4.5, 3.4.6, 3.5.1, 5.2.1, 6.2.1, 6.2.2, 6.2.3, 6.2.4, 6.2.5, 6.2.6 , 6.2.7 | VOC, HAP, PM | Exhaust fiber filters/FT02 |
| SB03 | Fiberglass-resin spray process/booth located in Building No. 3 | 391-3-1-.02(2)(tt), 391-3-1-.02(2)(e), 391-3-1-.02(2)(b) | 3.2.2, 3.4.1, 3.4.2, 3.4.3, 3.4.4, 3.4.5, 3.4.6, 3.5.1, 5.2.1, 6.2.1, 6.2.2, 6.2.3, 6.2.4, 6.2.5, 6.2.6 , 6.2.7 | VOC, HAP, PM | Exhaust fiber filters/FT03 |
| TK01 | Resin storage tank located between Building No. 1 and Building No. 2 | 391-3-1-.02(2)(vv) | 3.2.1, 3.4.7, 6.2.1, 6.2.2, 6.2.3, 6.2.4, 6.2.5, 6.2.6, 6.2.7 | VOC, HAP | None |
| TK02 | Resin storage tank located outside Building No. 3 | 391-3-1-.02(2)(vv) | 3.2.1, 3.4.7, 6.2.1, 6.2.2, 6.2.3, 6.2.4, 6.2.5, 6.2.6, 6.2.7 | VOC, HAP | None |

* Generally Applicable Requirements contained in this permit may apply also to emission units listed above.

C. Equipment & Rule Applicability

! Emission and Operating Caps - The facility has two VOC emissions caps. Building Nos. 1 and 2 share a VOC emissions cap of 40 tons per year (TPY); Building No. 3 itself has a VOC emission cap of 30 TPY. The 40 TPY VOC emissions cap confirmed the minor source status when the facility only had Building Nos. 1 and 2 as VOC emission sources. The 30 TPY VOC emissions cap confirmed that the expansion, i.e., the addition of Building No. 3 as a VOC emissions source, was not a major modification under NAA/NSR and SIP rules thus not subject to BACT per 391-3-1-.03(8)13.

! Applicable Rules and Regulations -

Rules and Regulations Assessment: With potential to emit more than 50 TPY but less than 100 TPY of VOC, more than 10 TPY of single HAP, and more than 25 TPY of combined HAP compounds, its operations with VOC, HAP, and/or NO_x emissions are subject to NAA/NSR, Title V, 112(g), and/or 391-3-1-.02(2)(tt) of Georgia Rules of Air Quality Control. Any future modification to this facility with net VOC, NO_x, and/or

HAP emissions increases would be subject to the applicability test/analysis of these rules, and subject to some or all these rules, depending on the quantity the VOC, NO_x, and/or HAP emissions.

In addition, this facility is also subject to the following Georgia State Rules:

! 391-3-1-.02(2)(b) Visible Emissions;

! 391-3-1-.02(2)(e) Particulate Emission from Manufacturing; and

! 391-3-1-.02(2)(vv) Volatile Organic Liquid Handling and Storage

Rule (b) limits visible emissions from this facility to less than 40% opacity. Rule (e) sets PM emission rate limits for manufacturing processes at the facility. Rule (vv) requires submerged transfer of volatile organic liquid from any delivery vessel into a stationary storage tank of greater than 4,000 gallons at the facility.

Based on a current RACT determination, the styrene content of resin(s) used in the fiberglass-resin coating processes is limited to no more than 38% by weight. The RACT determination also requires the use of high volume low pressure (HVLP) internally mixed chop spray guns in the fiberglass-resin spray coating processes, and the closed storage of VOC compounds and VOC-laden materials. However, in the case that any of the VOC emissions caps is ever raised, the RACT should be re-examined.

D. Compliance Status - See Section V.II.F.

E. Operational Flexibility - See Section V.II.A.

F. Permit Conditions

Many of the following conditions are incorporated from the existing SIP permit and the permit amendment mentioned earlier. Conditions 3.4.2, 3.4.3, 3.4.7, 3.5.1 and 3.5.2 are new conditions.

Condition 3.2.1 and 3.2.2 establish VOC emission rate limits for two process groups at the facility. These two sources account for a majority of VOC emissions from the facility. [Avoidance of 40 CFR 51.165 - NAA/NSR & 391-3-1-.03(8)13.]

Condition 3.4.1 establishes a resin styrene content limit which is based on a RACT determination. [391-3-1-.02(2)(tt)]

Condition 3.4.2 establishes SIP PM emission standards for process units with PM emissions such as fiberglass-resin spray and shell grinding/finishing processes. [391-3-1-.02(2)(e)]

Condition 3.4.3 establishes a SIP visible emission standards for process emission units which also have SIP PM emission standards. [391-3-1-.02(2)(b)]

Condition 3.4.4 specifies an existing RACT requirement for the use of the fiberglass-resin coating guns at the facility. [391-3-1-.02(2)(tt)]

Condition 3.4.5 specifies an existing RACT requirement for the use of the containers of VOC compounds at the facility. [391-3-1-.02(2)(tt)]

Condition 3.4.6 specifies a RACT requirement for closed storage of VOC-laden materials when they are not in use. [391-3-1-.02(2)(tt)]

Condition 3.4.7 specifies a RACT equivalent requirement for submerged fill of resin tanks from any delivery vessel. [391-3-1-.02(2)(vv)]

Condition 3.5.1 establishes a schedule to change the overspray filters serving the coating spray booths. Proper maintenance of the filter control system would reduce PM emissions from overspray. [391-3-1-.02(2)(a)]

Existing permit conditions eliminated include those for nullifying a previous permit, conducting product quality evaluations required for a RACT determination, notifying the Division of the evaluation, submitting a VOC RACT plan, and prohibiting a previous expansion until the approval by the Division of the VOC RACT plan. All these conditions have been fulfilled by the Permittee.

IV. Testing Requirements (with Associated Record Keeping and Reporting)

A. General Testing Requirements

The standard general requirements/conditions are included in the permit. These conditions specify that performance test(s) may be required to determine compliance with the emission limit(s) in Part 3.0, list the test method(s) to be used in the compliance determination(s) requested, and require the submittal of written notification of the test(s).

B. Specific Testing Requirements - None Applicable

V. Monitoring Requirements (with Associated Record Keeping and Reporting)

A. General Monitoring Requirements

The standard general requirements are included in the permit. The condition requires that any monitoring system installed be in continuous operation except when under repair, that maintenance or repair be conducted in an expedient manner and that the downtime due to maintenance should be minimized.

B. Specific Monitoring Requirements

The facility has one so called "chop" booth (Emission Unit ID Nos. SB01, SB02 and SB03) located in each production building (Building Nos. 1, 2 and 3). In these booths a mixture of fiberglass strands and resin/catalyst combination is sprayed onto various acrylic shells. Particulate matter (PM) emissions due to the coating overspray are being controlled by fiber exhaust filters. The booths are subject to Georgia Rules (b) and (e). PM and visible emissions from the coating operations are very unlikely to exceed their respective Rule (e) and (b) limitations, as the booths exhaust ambient air at atmospheric temperature and pressure, and the blockage/caking of the filters by PM increases their capture efficiencies. Monitoring for these sources consists of performing filter changes once per week of operation, as specified in Condition 3.5.1. The Permittee is required to keep a log of filter changes, and any failure to adhere to the filter change schedule is to be reported as an excursion in the facility's semiannual report.

C. Record Keeping and Reporting Requirements

Monitoring for these sources consists of performing filter changes once per week of operation, as specified in Condition 3.5.1. The Permittee is required to keep a log of filter changes, and any failure to adhere to the filter change schedule is to be reported as an excursion in the facility's semiannual report.

VI. Other Record Keeping and Reporting Requirements**A. General Record Keeping and Reporting Requirements**

The standard general requirements are included in the permit. The Permit contains requirements for the maintenance of all records for a period of five years following the date of entry and requires the prompt reporting of all information related to deviations from applicable requirements.

B. Specific Record Keeping and Reporting Requirements

The facility has two VOC emissions caps. One confirmed the facility as a minor source when the facility only had Building Nos. 1 and 2 as VOC emission sources. The other confirmed that the expansion, i.e., the addition of Building No.3 as a VOC emissions source, was not a major modification under NAA/NSR and SIP rules thus not subject to BACT per 391-3-1-.03(8)13. In order to show compliance with each of these two emission limits, Condition 6.2.1 requires the Permittee to maintain separate monthly usage records of the VOC containing materials used by the processes regulated by each of the two VOC annual emissions caps. Conditions 6.2.3. and 6.2.4 require and instruct the Permittee to use these records to calculate corresponding monthly totals and twelve month rolling totals of VOC emissions for each month in the reporting period. The Permittee is required to report to the Division any monthly VOC emissions greater than 3.33 and/or 2.5 tons and/or any twelve month rolling total of VOC emissions greater than 40 and/or 30 tons, as required in Conditions 6.2.3 and/or 6.2.5.

The facility has HAP emissions, mainly styrene evaporated from the polyester resin(s) used to coat the shells. Condition 6.2.2 requires the Permittee to maintain monthly usage of all materials containing listed HAP compounds. Condition 6.2.6 requires the Permittee to use these records to calculate monthly plant wide total HAP emissions.

The facility is subject to an annual emissions statement reporting requirement for VOC emissions under Rule 391-3-1-.02(6)(a)4. Condition 6.2.7 requires that this report be submitted by March 31 of each year.

VII. Specific Requirements**A. Operational Flexibility**

In the Title V application, the Permittee has listed same type of production activities in different buildings as “alternative operating scenarios”. Nonetheless, these activities are subject to the same set of the applicable Federal and State rules and/or regulations, emission standards, and permit conditions. Therefore, no additional permit conditions are necessary for the operational flexibility.

B. Alternative Requirements

There are no alternative requirements that need to be incorporated into this Title V Permit.

C. Insignificant Activities

Refer to §4.10 of the Title V permit application.

D. Temporary Sources

The Permittee has not requested to operate any temporary sources.

E. Short-Term Activities

The Permittee did not report any short-term activities.

F. Compliance Schedule/Progress Reports

The Permittee did not include any Section 11.10 forms in the Title V permit application.

G. Emissions Trading

This facility is not involved in any emission trading program.

H. Acid Rain Requirements

This facility is not subject to any requirements in Title IV of the Clean Air Act.

I. Prevention of Accidental Releases

This facility is not subject to requirements of the Prevention of Accidental Releases.

J. Stratospheric Ozone Protection Requirements

The facility has indicated that they are not subject to Title VI.

K. Pollution Prevention

There are no pollution prevention provisions incorporated into this Title V Permit.

L. Specific Conditions

None.

VIII. General Provisions

Generic provisions have been included in this permit to address the requirements in 40 CFR Part 70 that apply to all Title V sources, and the requirements in Chapter 391-3-1 of the Georgia Rules for Air Quality Control that apply to all stationary sources of air pollution.

Closing Block: We have reviewed and recommend issuance of draft Permit No. 3088-135-0170-V-01-0

| Program | Review Engineers | Dates | Review Managers | Dates |
|----------|------------------|-------|-----------------|-------|
| SSPP/ASU | | | | |
| SSCP/ASU | | | | |
| ISMP | | | | |
| TOXICS | | | | |

Stationary Source Permitting Program Manager

Date