

Facility Name: **Arrowhead Fiberglass Industries**

City: Fort Valley

County: Peach

AIRS #: 04-13-225-00019

Application #: 14372

Date SIP Application Received: N/A

Date Title V Application Received: March 20, 2003

Permit No: 3089-225-0019-V-02-1

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Introduction

This narrative is being provided to assist the reader in understanding the content of the referenced SIP permit to construct and draft operating permit amendment. 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 issued pursuant to: (1) Sections 391-3-1-.03(1) and 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 following narrative is designed to accompany the draft permit and is presented in the same general order as the permit. 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 comment period and EPA review process will be described in an addendum to this narrative.

I. Facility Description

A. Existing Permits

Table 1 below lists the current Title V permit, and all administrative amendments, minor and significant modifications to that permit, and 502(b)(10) attachments. Comments are listed in Table 2 below.

Table 1: Current Title V Permit and Amendments

Permit/Amendment Number	Date of Issuance	Comments	
		Yes	No
3089-225-0019-V-02-0	June 25, 2002		✓

B. Regulatory Status

1. PSD/NSR/RACT

Arrowhead Fiberglass is not subject to PSD requirements; the potential emissions of all criteria pollutants are below the PSD major source thresholds.

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				
VOC	✓			✓
NO _x				
CO				
TRS				
H ₂ S				
Individual HAP	✓	✓		
Total HAPs	✓	✓		

II. Proposed Modification

A. Description of Modification

The filter pressure drop range in Condition No. 3.5.2 is modified from 0.35 – 0.65 to 0.04 – 0.5 inches of water column in order to more accurately reflect the actual operating parameters.

This amendment also serves to incorporate the provisions of 40 CFR 63 Subpart WWWW, “National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production”. All existing equipment subject to the NESHAP is subject to the provisions of this amendment on and after April 21, 2006.

B. Emissions Change

There will be no change in emissions as a result of this modification. All operations will remain the same; the pressure drop across the filters is modified to reflect actual operating parameters and manufacturer’s specifications.

Table 4: Emissions Change Due to Modification

Pollutant	Is the Pollutant Emitted?	Net Actual Emissions Increase (Decrease) (tpy)	Net Potential Emissions Increase (Decrease) (tpy)
PM	Yes	0	0
PM ₁₀	Yes	0	0
SO ₂	No	--	--
VOC	No	0	0
NO _x	No	--	--
CO	No	--	--
TRS	No	--	--
H ₂ S	No	--	--
Individual HAP	No	0	0
Total HAPs	No	0	0

C. PSD/NSR Applicability

This modification is not subject to PSD or NSR.

III. Facility Wide Requirements

A. Emission and Operating Caps:

None associated with this modification.

B. Applicable Rules and Regulations

The facility is subject to 40 CFR 63 Subpart WWWW, “Reinforced Plastic Composites Production,” as described in detail in Section IV.C.

C. Compliance Status

Arrowhead Fiberglass Industries has not indicated any noncompliance.

D. Operational Flexibility

Arrowhead Fiberglass Industries has not requested any operational flexibility.

E. Permit Conditions

Condition No. 2.2.1 is a new condition that requires the facility to comply with all applicable parts of the General Provisions of 40 CFR Part 63, Subpart A.

Condition No. 2.2.2 is a new condition that requires the facility to comply with all applicable provisions of 40 CFR 63 Subpart WWWW, “NESHAP for Reinforced Plastic Composites Production.”

IV. Regulated Equipment Requirements

A. Brief Process Description

Component production begins with the application of a mold release agent to the mold prior to any gel coat or resin lamination. The molds are transported to the gel coat booth (GCB1), where a layer of gel coat resin is spray applied. Once the gel coat layer has cured, the parts are moved to one of three resin lamination or “chop” booths (CB1, CB2, or CB3), where additional layers of polyester resin blended with chopped fiberglass strands are applied. The primary emissions from the gel coat and resin lamination operations are in the form of unreacted styrene monomer, which escapes from the gel coat or resin before polymerization occurs. These emissions are released uncontrolled into the atmosphere. Particulate matter resulting from gel coat and resin overspray is controlled with fabric filters.

After the resin has cured, the parts are released from the molds and touched up in one of two trim booths (TB1 or TB2) through various cutting, grinding, and sanding operations. The only emissions from these operations are particulate matter, which is controlled by fabric filters.

Final assembly takes place after trimming in the bonding and finishing area (ABFA). Small amounts of VOC and HAP are emitted from the application of cleaning solvents and adhesives. Some of the parts are painted prior to assembly and bonding in paint booth PB1. The primary emissions from the painting operation are VOC and HAP from the paints. Fabric filters capture particulate matter from the paint overspray.

Small portions of the parts manufactured by Arrowhead Fiberglass are produced through a closed-molding, low-pressure resin transfer operation (LRTM). This operation results only in emissions of unreacted styrene, which are released uncontrolled into the atmosphere. Molds are cleaned, repaired and prepared for use in the mold cleaning and waxing area MCWA.

B. Equipment List for the Process

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
GCB1	Gelcoat Booth	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart WWWW	2.1.1, 2.2.1, 2.2.2, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 5.2.1, 5.2.2, 5.3.1, 6.2.1 through 6.2.17	GCBF	Fabric Filters
CB1	Chop Booth #1	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart WWWW	2.1.1, 2.2.1, 2.2.2, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 5.2.1, 5.2.2, 5.3.1, 6.2.1 through 6.2.17	CBF1	Fabric Filters
CB2	Chop Booth #2	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart WWWW	2.1.1, 2.2.1, 2.2.2, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 5.2.1, 5.2.2, 5.3.1, 6.2.1 through 6.2.17	CBF2	Fabric Filters
CB3	Chop Booth #3	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart WWWW	2.1.1, 2.2.1, 2.2.2, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 5.2.1, 5.2.2, 5.3.1, 6.2.1 through 6.2.17	CBF3	Fabric Filters

TITLE V SIGNIFICANT MODIFICATION (WITHOUT CONSTRUCTION) APPLICATION REVIEW

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
PB1	Paint Booth #1	391-3-1-.02(2)(b) 391-3-1-.02(2)(e)	2.1.1, 2.2.1, 2.2.2, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 5.2.1, 5.2.2, 5.3.1, 6.2.1, 6.2.2, 6.2.3, 6.2.4	PB1F	Fabric Filters
LRTM	Low-Pressure Transfer Molding	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart WWWW	2.1.1, 2.2.1, 2.2.2, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 5.2.1, 5.2.2, 5.3.1, 6.2.1 through 6.2.17	N/A	None
MCWA	Mold Cleaning & Waxing	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart WWWW	2.1.1, 2.2.1, 2.2.2, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 5.2.1, 5.2.2, 5.3.1, 6.2.1 through 6.2.17	N/A	None
ABFA	Assembly, Bonding & Finishing Area	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart WWWW	2.1.1, 2.2.1, 2.2.2, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 5.2.1, 5.2.2, 5.3.1, 6.2.1 through 6.2.17	N/A	None
TB1	Trim Booth #1	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart WWWW	2.1.1, 2.2.1, 2.2.2, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 5.2.1, 5.2.2, 5.3.1, 6.2.1 through 6.2.17	TB1F	Fabric Filters
TB2	Trim Booth #2	391-3-1-.02(2)(b) 391-3-1-.02(2)(e) 40 CFR 63 Subpart WWWW	2.1.1, 2.2.1, 2.2.2, 3.3.1, 3.3.2, 3.3.3, 3.4.1, 3.4.2, 3.5.1, 3.5.2, 5.2.1, 5.2.2, 5.3.1, 6.2.1 through 6.2.17	TB2F	Fabric Filters

C. Equipment & Rule Applicability

Emission and Operating Caps –

None associated with this modification.

Applicable Rules and Regulations -

With a potential to emit more than 10 tpy of any single HAP, and more than 25 tpy of all HAPs combined, the operations at Arrowhead Fiberglass Industries that use HAP-containing materials are subject to the requirements of 40 CFR 63 Subpart WWWW, “Reinforced Plastic Composites Production.”

40 CFR 63 Subpart WWWW, “Reinforced Plastic Composites Production”, applies to open molding, closed molding, and storage operations at Arrowhead Fiberglass Industries using styrene-containing materials. The NESHAP requires regulated sources to meet a total HAP emissions limit based on a point value system, weighted and determined by the facility’s method of operation and application methods. Sources are also subject to work practice standards that include utilizing cleaning solutions that do not contain HAPs and ensuring all HAP-containing storage vessels remain covered. The NESHAP provides that, if total HAP emissions for an existing source from centrifugal casting or continuous lamination/casting operations exceed 100 tons per year, then the facility must install pollution abatement technology in order to realize a 95% decrease in emissions. Arrowhead

Fiberglass Industries is an existing source that does not operate any centrifugal or continuous lamination/casting operations; therefore, the facility is not subject to that control requirement as specified in 40 CFR 63.5799 (and not required to calculate emissions to determine if 95% control is applicable, because the facility does not operate a centrifugal or continuous lamination/casting operation).

D. Compliance Status

Arrowhead Fiberglass Industries has not indicated any noncompliance.

E. Operational Flexibility

Arrowhead Fiberglass Industries has not requested any operational flexibility.

F. Permit Conditions

Condition No. 3.3.1 is a new condition that describes the applicable HAP emission limits (or HAP content limits) as specified by the Reinforced Plastic Composites NESHAP for specific facility operations.

Condition No. 3.3.2 is a new condition that describes the applicable work practice standards as specified by the Reinforced Plastic Composites NESHAP.

Condition No. 3.3.3 is a new condition that lists the operations that are excluded from applicability to the Reinforced Plastic Composites NESHAP.

Condition No. 3.5.2 was modified to more accurately reflect actual operating parameters. Condition No. 3.5.2 now requires the facility to change the filters if the pressure drop is outside the range of 0.04 to 0.5 inches of water column.

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

- A. Individual Equipment: There are not any new or modified testing (and associated record keeping and reporting) requirements for individual pieces of equipment as a result of this amendment.
- B. Equipment Groups (all subject to the same test requirements): There are not any new or modified testing (and associated record keeping and reporting) requirements for pieces of equipment that can be grouped together because they have the same or similar requirements as a result of this amendment.

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

- A. Individual Equipment: There are not any new or modified monitoring (and associated record keeping and reporting) requirements for individual pieces of equipment as a result of this amendment.
- B. Equipment Groups (all subject to the same monitoring requirements): There are not any new or modified monitoring (and associated record keeping and reporting) requirements for pieces of equipment that can be grouped together because they have the same or similar requirements as a result of this amendment.

VII. Other Record Keeping and Reporting Requirements

Conditions 6.2.5 through 6.2.12 describe the emission calculation, notification and reporting requirements of all materials that contain HAP in order to prove compliance with the HAP emission limits of the Reinforced Plastic Composites NESHAP specified in Conditions 3.3.1 and 3.3.2.

Condition 6.2.5 describes how the facility can determine the HAP content of materials used.

Condition 6.2.6 details how the facility can demonstrate compliance with NESHAP requirements by either calculating HAP emission factors, HAP emission factor averaging, or HAP content limits.

Condition 6.2.7 requires the facility maintain records of all resin and gel coat materials used at the facility.

Condition 6.2.9 describes the facility's option to avoid the requirements of Condition 6.2.8 (records of HAP content of resins and gel coats used) by an initial demonstration that the materials used comply the NESHAP's HAP emission or content limits.

Condition 6.2.10 describes how long the facility must maintain records and gives examples of what types of media can be used to store them.

Initial compliance requirements of the NESHAP (HAP emission limits and work practice standards) are detailed by Condition 6.2.11.

Condition Nos. 6.2.12 through 6.2.17 describes the notifications and reports the facility must submit to the Division as required by the NESHAP.

VIII. Specific Requirements

A. Operational Flexibility

None applicable.

B. Alternative Requirements

There are not any alternative requirements requested by the facility under Rule 391-3-1-.03(10)(d)8.

C. Insignificant Activities

No insignificant activities were added as part of this minor modification.

D. Temporary Sources

None applicable.

E. Short-Term Activities

No short term activities were included in this modification.

F. Compliance Schedule/Progress Reports

None applicable.

G. Emissions Trading

Not applicable.

H. Acid Rain Requirements

Not applicable.

I. Prevention of Accidental Releases

This modification does not change the source's applicability.

J. Stratospheric Ozone Protection Requirements

This modification does not change the source's applicability to Title VI.

K. Pollution Prevention

None applicable.

L. Specific Conditions

None applicable.

Addendum to Narrative

A public notice was published by Arrowhead Fiberglass Industries in The Leader-Tribune on July 27, 2005. The 30-day public comment period expired on August 26, 2005. The Division did not receive comments.