

**AIR EMISSION PERMIT NO. 09100028- 002**

**IS ISSUED TO**

**Brand FX Body Co**

Brand FX Body Co. d/b/a Glasstite  
600 Highway 4 North  
Dunnell, Martin County, MN 56127

The emission units, control equipment and emission stacks at the stationary source authorized in this permit are as described in the following permit application(s):

Permit Type	Application Date	Issuance Date	Action Number
Total Facility Operating Permit	10/26/1999	August 31, 2000	001
Administrative Amendment	05/09/2005	See below	002

This permit authorizes the permittee to operate the stationary source at the address listed above unless otherwise noted in Table A. The permittee must comply with all the conditions of the permit. Any changes or modifications to the stationary source must be performed in compliance with Minn. R. 7007.1150 to 7007.1500. Terms used in the permit are as defined in the state air pollution control rules unless the term is explicitly defined in the permit.

**Permit Type:** Federal; Pt 70/Limits to Avoid NSR

**Issue Date:** July 18, 2005

**Expiration:** August 31, 2005

Title I Conditions do not expire.

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Richard J. Sandberg, Manager  
Air Quality Permits Section  
Industrial Division

for Sheryl A. Corrigan  
Commissioner  
Minnesota Pollution Control Agency

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**NOTICE TO THE PERMITTEE:**

Your stationary source may be subject to the requirements of the Minnesota Pollution Control Agency's (MPCA) solid waste, hazardous waste, and water quality programs. If you wish to obtain information on these programs, including information on obtaining any required permits, please contact the MPCA general information number at:

Metro Area	(651) 296-6300
Outside Metro Area	1-800-657-3864
TTY	(651) 282-5332

The rules governing these programs are contained in Minn. R. chs. 7000-7105. Written questions may be sent to: Minnesota Pollution Control Agency, 520 Lafayette Road North, St. Paul, Minnesota 55155-4194.

Questions about this air emission permit or about air quality requirements can also be directed to the telephone numbers and address listed above.

**PERMIT SHIELD:**

Subject to the limitations in Minn. R. 7007.1800, compliance with the conditions of this permit shall be deemed compliance with the specific provision of the applicable requirement identified in the permit as the basis of each condition. Subject to the limitations of Minn. R. 7007.1800 and 7017.0100, subp. 2, notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

## **FACILITY DESCRIPTION:**

Brand FX Body Co. d/b/a Glasstite manufactures fiberglass pick-up truck toppers. The process consists of spraying alternating layers of resin and gelcoat on a mold, removing the product from the mold, miscellaneous clean up, repair, grinding, and gluing operations, painting, and oven curing of the paint. Primary emissions are volatile organic compounds (VOC) from the spraying operations. These VOCs are primarily styrene and methyl methacrylate from the resin and gelcoat operations. The Permittee utilizes a mechanical non-atomized resin application process, which results in lower styrene emissions and minimizes particulate matter emissions. Each spray booth is equipped with panel filters to further reduce the amount of particulate matter emitted to the atmosphere. The grinding operations are exhausted to a fabric filter and emitted inside the building 100 percent of the time, therefore qualifying as an insignificant activity under Minnesota Rules. The primary cleaning material used is acetone, which is not categorized as a VOC and therefore does not contribute to overall emissions. The facility also has three natural gas space heaters that also qualify as insignificant activities under Minnesota Rules.

The Permittee proposes to limit VOC emissions to 220 tons per year, based on purchase records. By limiting the quantity of VOC purchased, the quantity of hazardous air pollutants (HAPs) and particulate matter are inherently limited as well. After considering the VOC purchase limit, the facility is a major source under the Part 70 permitting program (VOC and HAPs), and a non-major source under New Source Review.

**ACTION 001:** Issuance of Total Facility Part 70 permit

**ACTION 002:** Administrative amendment. The amendment is for a change in ownership.

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

07/18/05

Facility Name: Brand FX Body Co dba Glasstite

Permit Number: 09100028 - 002

**Table A contains limits and other requirements with which your facility must comply. The limits are located in the first column of the table (What To do). The limits can be emission limits or operational limits. This column also contains the actions that you must take and the records you must keep to show that you are complying with the limits. The second column of Table A (Why to do it) lists the regulatory basis for these limits. Appendices included as conditions of your permit are listed in Table A under total facility requirements.**

Subject Item:	Total Facility
What to do	Why to do it
<p>This permit establishes limits on the facility to keep it a minor source under New Source Review. The Permittee cannot make any change at the source that would make the source a major source under New Source Review unless and until a major amendment has been issued. This includes changes that might otherwise qualify as insignificant modifications and minor or moderate amendments.</p>	<p>Title I Condition: Limits to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>
<p>The Permittee shall not begin construction of any project or projects that are connected or phased which will cause a total increase in actual emissions of greater than 99 tons per year for any criteria pollutant without first getting a permit amendment to authorize the project. "Connected" and "phased" have the meanings as defined in Minn. R. 4410.0200 subps 9b and 60. The Permittee shall not begin construction of any other project which is listed in Minn. R. 4410.4300 or Minn. R. 4410.4400 without first getting a permit amendment to authorized the project. Such projects may require the completion of an Environmental Assessment Worksheet or an Environmental Impact Statement prior to the amendment being issued.</p> <p>This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.</p>	<p>Minn. R. 4410.4300 and Minn. R. 4410.4400</p>
<p>Operation and Maintenance Plan: Retain at the stationary source an operation and maintenance plan for all air pollution control equipment.</p>	<p>Minn. R. 7007.0800, subp. 14 and Minn. R. 7007.0800, subp. 16(J)</p>
<p>Circumvention: Do not install or use a device or means that conceals or dilutes emissions, which would otherwise violate a federal or state air pollution control rule, without reducing the total amount of pollutant emitted.</p>	<p>Minn. R. 7011.0020</p>
<p>Shutdown Notifications: Notify the Commissioner at least 24 hours in advance of a planned shutdown of any control equipment or process equipment if the shutdown would cause any increase in the emissions of any regulated air pollutant. If the owner or operator does not have advance knowledge of the shutdown, notification shall be made to the Commissioner as soon as possible after the shutdown. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 3.</p> <p>At the time of notification, the owner or operator shall inform the Commissioner of the cause of the shutdown and the estimated duration. The owner or operator shall notify the Commissioner when the shutdown is over.</p>	<p>Minn. R. 7019.1000, subp. 3</p>
<p>Breakdown Notifications: Notify the Commissioner within 24 hours of a breakdown of more than one hour duration of any control equipment or process equipment if the breakdown causes any increase in the emissions of any regulated air pollutant. The 24-hour time period starts when the breakdown was discovered or reasonably should have been discovered by the owner or operator. However, notification is not required in the circumstances outlined in Items A, B and C of Minn. R. 7019.1000, subp. 2.</p> <p>At the time of notification or as soon as possible thereafter, the owner or operator shall inform the Commissioner of the cause of the breakdown and the estimated duration. The owner or operator shall notify the Commissioner when the breakdown is over.</p>	<p>Minn. R. 7019.1000, subp. 2</p>
<p>Notification of Deviations Endangering Human Health or the Environment: As soon as possible after discovery, notify the Commissioner or the state duty officer, either orally or by facsimile, of any deviation from permit conditions which could endanger human health or the environment.</p>	<p>Minn. R. 7019.1000, subp. 1</p>
<p>Notification of Deviations Endangering Human Health or the Environment Report: Within 2 working days of discovery, notify the Commissioner in writing of any deviation from permit conditions which could endanger human health or the environment. Include the following information in this written description:</p> <ol style="list-style-type: none"> <li>1. the cause of the deviation;</li> <li>2. the exact dates of the period of the deviation, if the deviation has been corrected;</li> <li>3. whether or not the deviation has been corrected;</li> <li>4. the anticipated time by which the deviation is expected to be corrected, if not yet corrected; and</li> <li>5. steps taken or planned to reduce, eliminate, and prevent reoccurrence of the deviation.</li> </ol>	<p>Minn. R. 7019.1000, subp. 1</p>

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

07/18/05

Facility Name: Brand FX Body Co dba Glasstite

Permit Number: 09100028 - 002

Operation Changes: In any shutdown, breakdown, or deviation the Permittee shall immediately take all practical steps to modify operations to reduce the emission of any regulated air pollutant. The Commissioner may require feasible and practical modifications in the operation to reduce emissions of air pollutants. No emissions units that have an unreasonable shutdown or breakdown frequency of process or control equipment shall be permitted to operate.	Minn. R. 7019.1000, subp. 4
Fugitive Emissions: Do not cause or permit the handling, use, transporting, or storage of any material in a manner which may allow avoidable amounts of particulate matter to become airborne. Comply with all other requirements listed in Minn. R. 7011.0150.	Minn. R. 7011.0150
Application for Permit Amendment: If a permit amendment is needed, submit an application in accordance with the requirements of Minn. R. 7007.1150 through Minn. R. 7007.1500. Submittal dates vary, depending on the type of amendment needed.	Minn. R. 7007.1150 through Minn. R. 7007.1500
Application for Permit Reissuance: due 180 days before expiration of existing permit.	Minn. R. 7007.0400, subp. 3
Extension Requests: The Permittee may apply for an Administrative Amendment to extend a deadline in a permit by no more than 120 days, provided the proposed deadline extension meets the requirements of Minn. R. 7007.1400, subp. 1(H).	Minn. R. 7007.1400, subp. 1(H)
Recordkeeping: Maintain records describing any insignificant modifications (as required by Minn. R. 7007. 1250, subp. 3) or changes contravening permit terms (as required by Minn. R. 7007.1350 subp. 2), including records of the emissions resulting from those changes.	Minn. R. 7007. 0800, subp. 5(B)
Record keeping: Retain all records at the stationary source for a period of five (5) years from the date of monitoring, sample, measurement, or report. Records which must be retained at this location include all calibration and maintenance records, all original recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Records must conform to the requirements listed in Minn. R. 7007.0800, subp. 5(A).	Minn. R. 7007.0800, subp. 5(C)
Noise: The Permittee shall comply with the noise standards set forth in Minn. R. 7030.0010 to 7030.0080 at all times during the operation of any emission units. This is a state only requirement and is not enforceable by the EPA Administrator or citizens under the Clean Air Act.	Minn. R. 7030.0010 - 7030.0080
The Permittee shall comply with the General Conditions listed in Minn. R. 7007.0800, subp. 16.	Minn. R. 7007.0800, subp. 16
Inspections: The Permittee shall comply with the inspection procedures and requirements as found in Minn. R. 7007.0800, subp. 9(A).	Minn. R. 7007.0800, subp. 9(A)
Emissions Inventory Report: due April 1 of each year. To be submitted on a form approved by the Commissioner.	Minn. R. 7019.3000 through Minn. R. 7019.3010
Emission Fees: due 60 days after receipt of an MPCA bill.	Minn. R. 7002.0005 through Minn. R. 7002.0095

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

07/18/05

Facility Name: Brand FX Body Co dba Glasstite

Permit Number: 09100028 - 002

**Subject Item: GP 001 VOC Emitting Operations**

- Associated Items:** EU 001 Mold Development & Repair Booth/Area (1 gun)  
 EU 002 Gelcoat Booth (2 guns)  
 EU 003 Skin Booth (1 gun)  
 EU 004 HAF Booth #1 (2 guns)  
 EU 005 HAF Booth #2 (2 guns)  
 EU 006 Interior Gelcoat Booth (1 gun)  
 EU 007 Basecoat Booth (1 gun)  
 EU 008 Clearcoat Booth (1 gun)  
 EU 011 Glue, cleanup area

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
Volatile Organic Compounds: less than or equal to 220 tons/year using 12-month Rolling Sum , to be calculated by the 15th day of each month for the previous 12-month period, as described in this permit. All VOC-containing materials used in all operations included in GP 001 shall be included in this calculation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Pre-Authorized Changes: The Permittee may replace listed emission units with emission units similar to those listed in GP 001, and may install additional spray equipment in existing booths, provided VOC emissions are tracked and calculated as specified in this permit.  If a proposed change triggers an applicable requirement that is not contained in this permit, the change must go through the appropriate procedure in Minn. R. ch. 7007.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
The Permittee shall vent emissions from all spray booths to control equipment meeting the requirements of GP 002.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. This limit applies separately to each emission unit in GP 001.	Minn. R. 7011.0715, subp. 1(A)
Opacity: less than or equal to 20 percent opacity . This limit applies separately to each emission unit in GP 001.	Minn. R. 7011.0715, subp. 1(B)
MONITORING AND RECORDKEEPING REQUIREMENTS	hdr
Material Content: VOC contents in all materials shall be determined by the Material Safety Data Sheet (MSDS) or Certificate of Analysis (COA) provided by the supplier for each material used. If a material content range is given on the MSDS or COA, the highest number in the range shall be used in all permit calculations. Other alternative methods approved by the MPCA may be used to determine the VOC content. The Commissioner reserves the right to require the Permittee to determine the VOC content of any material according to EPA and/or ASTM reference methods. If an EPA or ASTM reference method is used for material content determination, the data obtained shall supersede the MSDS or COA data.	Minn. R. 7007.0800, subp. 4 and subp. 5
Monthly Recordkeeping - VOC Emissions By the 15th of each month, the Permittee shall calculate and record the following: 1. The total purchases of all VOC containing materials for the previous calendar month. This record shall include the VOC content of each material as determined by the Material Content requirement of this permit. 2. The VOC emissions for the previous month using the formulas specified in this permit. 3. The 12-month rolling sum of VOC emissions for the previous 12 months, by summing the monthly VOC emissions calculated for the previous 12 months.	Minn. R. 7007.0800, subp. 4 and subp. 5

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

07/18/05

Facility Name: Brand FX Body Co dba Glasstite

Permit Number: 09100028 - 002

<p>Monthly Calculation -- VOC Emissions</p> <p>The Permittee shall calculate VOC emissions using the following equations:</p> $\text{VOC (tons/month)} = S + M + V$ $S = (A1 \times B1 / 2000) + (A2 \times B2 / 2000) + (A3 \times B3 / 2000) + \dots$ $M = (C1 \times D1 / 2000) + (C2 \times D2 / 2000) + (C3 \times D3 / 2000) + \dots$ $V = (E1 \times F1) + (E2 \times F2) + (E3 \times F3) + \dots$ <p>where:</p> <p>S = styrene emissions in tons per month  A# = Amount of styrene-containing resin/gelcoat material purchased, in tons  B# = Emission factor for styrene, based on weight percent styrene and the spray technology used. (see Note 1)</p>	<p>Minn. R. 7007.0800. subp. 4 and subp. 5</p>
<p>Monthly Calculation, continued</p> <p>M = methyl methacrylate (MMA) emissions in tons per month  C# = Amount of MMA-containing gelcoat material purchased, in tons  D# = Emission factor for MMA, based on weight percent MMA and the spray technology used. (see Note 1)  V = Non-styrene and non-MMA VOC emissions in tons per month  E# = Amount of material containing VOC other than styrene or MMA purchased, in tons  F# = weight percent non-styrene and non-MMA VOC in each material purchased, determined as required in the Material Content requirement of this permit.</p> <p>NOTE 1: The emission factor shall be the appropriate factor from Appendix 1, until such time as EPA finalizes a new AP-42 emission factor. When finalized, the new AP-42 factor shall be used. The Permittee may propose to use a site-specific emission factor derived from MPCA approved performance tests. If approved by MPCA, this site-specific factor shall be used.</p>	<p>Minn. R. 7007.0800, subp. 4 and subp. 5</p>
<p>Recordkeeping of Equipment and Formulation Changes:</p> <p>The Permittee shall keep records of any equipment that is replaced or added. This record shall be updated at the time the equipment is replaced or added. The record shall include the date the equipment was replaced or added (including dates of shutdown of old equipment and/or startup of new equipment), the corresponding emission unit number (EU001 - EU008, EU011), the manufacturer and model numbers of the new equipment, the spray technology and manufacturer specified transfer efficiency, and the spray capacity in pounds per hour.</p> <p>The Permittee shall keep a log of all resin/gelcoat and coating formulations, as applied, as determined by the Material Content requirement of this permit.</p>	<p>Title I Condition: Limit to avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000</p>



**TABLE A: LIMITS AND OTHER REQUIREMENTS**

07/18/05

Facility Name: Brand FX Body Co dba Glasstite

Permit Number: 09100028 - 002

**Subject Item: GP 002 Panel Filters**

- Associated Items:**
- CE 001 Mat or Panel Filter
  - CE 002 Mat or Panel Filter
  - CE 003 Mat or Panel Filter
  - CE 004 Mat or Panel Filter
  - CE 005 Mat or Panel Filter
  - CE 006 Mat or Panel Filter
  - CE 007 Mat or Panel Filter
  - CE 008 Mat or Panel Filter
  - CE 009 Mat or Panel Filter
  - CE 010 Mat or Panel Filter
  - CE 011 Mat or Panel Filter
  - CE 012 Mat or Panel Filter
  - CE 013 Mat or Panel Filter
  - CE 014 Mat or Panel Filter

What to do	Why to do it
EMISSION AND OPERATING LIMITS	hdr
The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Particulate Matter < 10 micron: greater than or equal to 73.6 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Equipment used under Minn. R. 7019.3020(F)
The Permittee shall operate and maintain control equipment such that it achieves an overall control efficiency for Total Particulate Matter: greater than or equal to 73.6 percent control efficiency	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Equipment used under Minn. R. 7019.3020(F)
The Permittee shall operate and maintain each particulate filter any time the corresponding process equipment is in operation.	Title I Condition: To avoid major source classification under 40 CFR Section 52.21 and Minn. R. 7007.3000; Equipment used under Minn. R. 7019.3020(F)
Operation and Maintenance of Filters: The Permittee shall operate and maintain each filter in accordance with the Operation and Maintenance (O & M) Plan. The Permittee shall keep copies of the O & M Plan available onsite for use by staff and review by MCPA staff.	Minn. R. 7007.0800, subp. 14
MONITORING AND RECORDKEEPING	hdr
Daily Inspections: Once each operating day, the Permittee shall visually inspect the condition of each panel filter with respect to alignment, saturation, tears, holes, and any other matter that may affect the filter's performance. The Permittee shall maintain a daily written record of filter inspections.	Minn. R. 7007.0800, subp. 2, subp. 5, and subp. 14
Periodic Inspections: The Permittee shall inspect the control equipment components as required by the manufacturer's specifications. The frequency of the inspections shall be specified in the O & M Plan. The Permittee shall maintain a written record of these inspections.	Minn. R. 7007.0800, subp. 2, subp. 5, and subp. 14
Corrective Actions: If the filters or any of their components are found to need repair, the Permittee shall follow the O & M Plan for the panel filter and take corrective action as soon as possible. The Permittee shall keep a record of the type and date of any corrective action taken for each filter.	Minn. R. 7007.0800, subp. 2, subp. 5, and subp. 14
Hood Certification: Each booth/panel filter system must conform to the requirements listed in Minn. R. 7011.0070, subp. 1, and the Permittee shall certify this for each hood (spray booth) as specified in Minn. R. 7011.0070, subp. 3. The Permittee shall maintain a copy of each certification on site, as well as an annual record of fan rotation speed, fan power draw, or face velocity of each hood, or other comparable air flow indication method.	Minn. R. 7007.0800, subp. 2 and subp. 14

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

07/18/05

Facility Name: Brand FX Body Co dba Glasstite

Permit Number: 09100028 - 002

**Subject Item:** EU 009 Oven #1**Associated Items:** SV 015 Oven #1

What to do	Why to do it
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. (Due to equipment design, the PTE of this unit is 0.002 gr/dscf.)	Minn. R. 7011.0610, subp. 1(A)(1)
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0610, subp. 1(A)(2)
Fuel Type: Natural gas only, by equipment design	Minn. R. 7005.0100, subp. 35a

**TABLE A: LIMITS AND OTHER REQUIREMENTS**

07/18/05

Facility Name: Brand FX Body Co dba Glasstite

Permit Number: 09100028 - 002

**Subject Item:** EU 010 Oven #2**Associated Items:** SV 016 Oven #2

<b>What to do</b>	<b>Why to do it</b>
Total Particulate Matter: less than or equal to 0.3 grains/dry standard cubic foot of exhaust gas unless required to further reduce emissions to comply with the less stringent limit of either Minn. R. 7011.0730 or Minn. R. 7011.0735. (Due to equipment design, the PTE of this unit is 0.0017 gr/dscf.)	Minn. R. 7011.0610, subp. 1(A)(1)
Opacity: less than or equal to 20 percent opacity except for one six-minute period per hour of not more than 60 percent opacity.	Minn. R. 7011.0610, subp. 1(A)(2)
Fuel Type: Natural gas only, by equipment design	Minn. R. 7005.0100, subp. 35a

**TABLE B: SUBMITTALS**

07/18/05

Facility Name: Brand FX Body Co dba Glasstite  
Permit Number: 09100028 - 002

Table B lists most of the submittals required by this permit. Please note that some submittal requirements may appear in Table A or, if applicable, within a compliance schedule located in Table C. Table B is divided into two sections in order to separately list one-time only and recurrent submittal requirements.

Each submittal must be postmarked or received by the date specified in the applicable Table. Those submittals required by parts 7007.0100 to 7007.1850 must be certified by a responsible official, defined in Minn. R. 7007.0100, subp. 21. Other submittals shall be certified as appropriate if certification is required by an applicable rule or permit condition.

Send any application for a permit or permit amendment to:

Permit Technical Advisor  
Permit Section  
Air Quality Division  
Minnesota Pollution Control Agency  
520 Lafayette Road North  
St. Paul, Minnesota 55155-4194

Also, where required by an applicable rule or permit condition, send to the Permit Technical Advisor notices of:

- accumulated insignificant activities,
- installation of control equipment,
- replacement of an emissions unit, and
- changes that contravene a permit term.

Unless another person is identified in the applicable Table, send all other submittals to:

Supervisor  
Compliance Determination Unit  
Air Quality Division  
Minnesota Pollution Control Agency  
520 Lafayette Road North  
St. Paul, Minnesota 55155-4194

Send submittals that are required to be submitted to the U.S. EPA regional office to:

Mr. George Czerniak  
Air and Radiation Branch  
EPA Region V  
77 West Jackson Boulevard  
Chicago, Illinois 60604

Send submittals that are required by the Acid Rain Program to:

U.S. Environmental Protection Agency  
Clean Air Markets Division  
1200 Pennsylvania Avenue NW (6204N)  
Washington, D.C. 20460

**TABLE B: RECURRENT SUBMITTALS**

07/18/05

Facility Name: Brand FX Body Co dba Glasstite

Permit Number: 09100028 - 002

<b>What to send</b>	<b>When to send</b>	<b>Portion of Facility Affected</b>
Semiannual Deviations Report	due 30 days after end of each calendar half-year starting 08/31/2000 . The first semiannual report submitted by the Permittee shall cover the calendar half-year in which the permit is issued. The first report of each calendar year covers January 1 - June 30. The second report of each calendar year covers July 1 - December 31.	Total Facility
Compliance Certification	due 30 days after end of each calendar year starting 08/31/2000 (for the previous calendar year). To be submitted on a form approved by the Commissioner, both to the Commissioner, and to the U.S. EPA regional office in Chicago. This report covers all deviations experienced during the calendar year. The EPA copy shall be sent to: Mr. George Czerniak, Chief, Air Enforcement and Compliance Assurance Branch, Air and Radiation Division, EPA Region V, 77 West Jackson Boulevard, Chicago, Illinois 60604	Total Facility

APPENDIX MATERIAL

Facility Name: Brand FX Body Co dba Glasstite

Permit Number: 09100028-002

**Emission Factors for Open Molding of Composites**  
Emission Rate in Pounds of Styrene Emitted per Ton of Resin or Gelcoat Processed

Application Process	Styrene content in resin/gelcoat, % <sup>(1)</sup>																			
	<33 <sup>(2)</sup>	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	>50 <sup>(2)</sup>
<b>Manual</b>	0.126 x %styrene x 2000	83	89	94	100	106	112	117	123	129	134	140	146	152	157	163	169	174	180	((0.286 x %styrene) - 0.0529) x 2000
<b>Manual w/ Vapor Suppressed Resin VSR<sup>(3)</sup></b>	<b>Manual emission factor</b> [listed above] x (1 - (0.50 x specific VSR reduction factor for each resin/suppressant formulation))																			
<b>Mechanical Atomized</b>	0.169 x %styrene x 2000	111	126	140	154	168	183	197	211	225	240	254	268	283	297	311	325	340	354	((0.714 x %styrene) - 0.18) x 2000
<b>Mechanical Atomized with VSR<sup>(3)</sup></b>	<b>Mechanical Atomized emission factor</b> [listed above] x (1 - (0.45 x specific VSR reduction factor for each resin/suppressant formulation))																			
<b>Mechanical Non-Atomized</b>	0.107 x %styrene x 2000	71	74	77	80	83	86	89	93	96	99	102	105	108	111	115	118	121	124	((0.157 x %styrene) - 0.0165) x 2000
<b>Mechanical Non-Atomized with VSR<sup>(3)</sup></b>	<b>Mechanical Non-Atomized emission factor</b> [listed above] x (1 - (0.45 x specific VSR reduction factor for each resin/suppressant formulation))																			
<b>Filament application</b>	0.184 x %styrene x 2000	122	127	133	138	144	149	155	160	166	171	177	182	188	193	199	204	210	215	((0.2746 x %styrene) - 0.0298) x 2000
<b>Filament application with VSR<sup>(4)</sup></b>	0.120 x %styrene x 2000	79	83	86	90	93	97	100	104	108	111	115	118	122	125	129	133	136	140	0.65 x ((0.2746 x %styrene) - 0.0298) x 2000
<b>Gelcoat Application</b>	0.445 x %styrene x 2000	294	315	336	356	377	298	418	439	460	481	501	522	543	564	584	605	626	646	((1.03646 x %styrene) - 0.195) x 2000
<b>Covered-Cure after Roll-Out</b>	<b>Non-VSR process emission factor</b> [listed above] x (0.80 for Manual <or> 0.85 for Mechanical)																			
<b>Covered-Cure without Roll-Out</b>	<b>Non-VSR process emission factor</b> [listed above] x (0.50 for Manual <or> 0.55 for Mechanical)																			

