



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant
DATE: April 29, 2005
RE: C & C Fiberglass, Inc./099-15993-00080
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-AM.dot 1/10/05



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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Mr. Cletis Miller
C & C Fiberglass, Inc.
3659 Destiny Drive
Bremen, Indiana 46506

April 29, 2005

Re: 099-15993
Second Administrative Amendment to
Part 70 099-10107-00080

Dear Mr. Miller:

C & C Fiberglass, Inc., located at 3659 Destiny Drive, Bremen, Indiana 46506 was issued a Part 70 permit on April 20, 2001 for a fiberglass recreational vehicle parts manufacturing plant. A letter requesting a change in the permit was received on May 14, 2002. This change qualifies as "revisions to descriptive information" to the permit under the provisions of 326 IAC 2-7-11 administratively amendment. Change is as follows:

Request 1: C & C Fiberglass, Inc. currently uses and has used since Part 70 permit application, flow impingement technology (FIT) for gel coat application. The FIT system is recognized by IDEM as state of the art, low emission, non-atomizing spray technology in a Non-Rule Policy Document, Air-028-NPD (April 5, 2002).

Response 1: The source emissions for the gel coat operations has been recalculated using the latest CFA emission factors (UEF July 17, 2001) to account for the FIT system that is already being used by the source. The emission calculations from resin application will stay the same since the emission factors used in the Part 70 permit already accounted for the FIT system. See amended Appendix A.. Atomized spray application system should not be utilized in the gel coat and resin applications, since the emissions from these operations were calculated based on the FIT system.

Sections A.2, A.3 have been amended to incorporate the use of only FIT system in the gel coat and resin applications.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)]
[326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

Transportation Division

- (a) Two (2) gel coat booths, constructed in 1997, utilizing ~~air-assisted airless spray guns~~ **FIT system** with a total capacity to produce of finished product per hour. Particulate emissions shall be controlled by dry filters, then exhausted to stacks S1a and S2a.
- (b) Three (3) laminating areas, constructed in 1997, utilizing flow coaters, with a total capacity to produce 2,950 pounds of finished product per hour. Particulate emissions shall be controlled by dry filters, then exhausted to stacks S4a, S5a and S6a.

- (c) One (1) grinding area, constructed in 1997, with particulate emissions controlled by Torit-Donaldson dust collectors, then exhausted inside the building through stacks S7a and S8a.

Tub and Shower Division

- (d) Three (3) gel coat booths, constructed in 2000, utilizing ~~air-assisted airless spray guns~~, **FIT system** with a total capacity to produce 21.9 tub/shower units per hour. Particulate emissions shall be controlled by dry filters, then exhausted to stacks S1b, S2b and S3b.
- (e) One (1) laminating area, constructed in 2000, utilizing flow coaters, with a total capacity to produce 21.9 tub/shower units per hour. Particulate emissions shall be controlled by dry filters, then exhausted to stacks S4b and S5b.
- (f) One (1) grinding area, constructed in 2000, with particulate emissions controlled by Torit-Donaldson dust collectors, then exhausted inside the building through stacks S7b and S8b.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Transportation Division

- (a) Two (2) gel coat booths, constructed in 1997, utilizing ~~air-assisted airless spray guns~~ **FIT system**, with a total capacity to produce 2,950 pounds of finished product per hour. Particulate emissions shall be controlled by dry filters, then exhausted to stacks S1a and S2a.
- (b) Three (3) laminating areas, constructed in 1997, utilizing flow coaters, with a total capacity to produce 2,950 pounds of finished product per hour. Particulate emissions shall be controlled by dry filters, then exhausted to stacks S4a, S5a and S6a.
- (c) One (1) grinding area, constructed in 1997, with particulate emissions controlled by Torit-Donaldson dust collectors, then exhausted inside the building through stacks S7a and S8a.

Tub and Shower Division

- (d) Three (3) gel coat booths, constructed in 2000, utilizing ~~air-assisted airless spray guns~~ **FIT system**, with a total capacity to produce 21.9 tub/shower units per hour. Particulate emissions shall be controlled by dry filters, then exhausted to stacks S1b, S2b and S3b.
- (e) One (1) laminating area, constructed in 2000, utilizing flow coaters, with a total capacity to produce 21.9 tub/shower units per hour. Particulate emissions shall be controlled by dry filters, then exhausted to stacks S4b and S5b.
- (f) One (1) grinding area, constructed in 2000, with particulate emissions controlled by Torit-Donaldson dust collectors, then exhausted inside the building through stacks S7b and S8b.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

D.1.2 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6] Transportation Division

The Best Available Control Technology (BACT) conditions from CP 099-7131-00080, issued on July 3, 1997, Conditions #10 and 11, are no longer applicable. These conditions, requiring certain workplace practices and a 6.9 tons per calendar month limitation on VOC emissions are based upon AP-42 emission factors for fiberglass reinforced plastics operations. IDEM, OAQ, has determined that the AP-42 emission factors for these processes are no longer valid, and that the BACT should be reevaluated with emissions calculated using the "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, ~~April 1999~~ **July 23, 2001**. The revised BACT condition for the Transportation Division follows as Condition D.1.3.

D.1.3 General Reduction Requirements for New Facilities [326 IAC 8-1-6] Transportation Division

Pursuant to the determination of Best Available Control Technology for VOC emissions from resin and gel coat application operations at the Transportation Division, the Permittee shall comply with the following conditions:

- (a) Use of gel coats and resins that contain styrene shall be limited such that the potential to emit (PTE) VOCs for resin and gel coat operations at the Transportation Division shall be less than ~~455~~ **136** tons per twelve (12) consecutive month period. Compliance with this limit shall be determined based upon the following criteria:
 - (1) Monthly usage by weight, content of monomer that is HAP, method of application, and other emission reduction techniques used for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the HAP monomer content, method of application, and other emission reduction techniques used for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.
 - (2) The emission factors approved for use by IDEM, OAQ shall be taken from the following reference: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, ~~April 1999~~ **July 23, 2001**, with the exception of the emission factors for controlled spray application. This reference is included with this permit. For HAP-emitting operations not addressed by this reference, emission factors shall be taken from U.S. EPA's AP-42 document. For the purposes of these emission calculations, HAP monomer in resins and gel coats that is not styrene or methyl methacrylate shall be considered as styrene on an equivalent weight basis.
- (b) The HAP monomer content of resins and gel coats used shall be limited to the following or their equivalent on an emissions mass basis:

Type of Gel Coat or Resin	HAP Monomer Content, % by weight
Production ¹ Gel Coat	37
Tooling ² Gel Coat	38
Production Resin	35
Tooling Resin	43

- ¹ Production refers to the manufacture of parts.
- ² Tooling refers to the manufacture of the molds from which parts are manufactured.

HAP monomer contents shall be calculated on a neat basis, which means excluding any filler. Compliance with these HAP monomer content limits shall be demonstrated on a monthly basis.

Gel coats or resins with HAP monomer contents lower than those specified in the table in this subsection or additional emission reduction techniques approved by IDEM, OAQ may be used to offset the use of gel coats or resins with HAP monomer contents higher than those specified in the table in this subsection. This is allowed to meet the HAP monomer content limits for resins and gel coats and shall be calculated on an equivalent emissions mass basis as shown below:

(Emissions from higher than compliant HAP monomer content resin or gel coat) -

(Emissions from compliant resin or gel coat) # (Emissions from compliant resin or gel coat) - (Emissions from lower than compliant HAP monomer content resin or gel coat and/or using other emission reduction techniques).

Where: Emissions, lb or ton = M (mass of resin or gel coat used, lb or ton) *
EF (HAP monomer emission factor for resin or gel coat used, %);

EF, HAP monomer emission factor = emission factor, expressed as pounds (lbs) HAP emitted per ton of resin/gel coat processed, which is indicated by the HAP monomer content, method of application, and other emission reduction techniques for each gel coat and resin used.

- (c) Non-atomized spray application technology shall be used to apply unfilled production resins. Non-atomized spray application technology includes flow coaters, flow choppers, pressure-fed rollers, or other non-spray applications of a design and specifications approved by IDEM, OAQ.

If it is not possible to apply a portion of unfilled resins with non-atomized spray application technology, equivalent emissions reductions must be obtained via use of other emission reduction techniques. Examples of other emission reduction techniques include, but are not limited to, lower HAP monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging/bonding, or installing a control device.

- (d) ~~Optimized spray techniques according to a manner approved by IDEM, OAQ shall be used for gel coats and filled resins (where fillers are required for corrosion or fire retardant purposes) at all times. Optimized spray techniques include, but are not limited to, the use of airless, air-assisted airless, high volume low pressure (HVLP), or other spray applicators demonstrated to the satisfaction of IDEM, OAQ, to be equivalent to the spray applicators listed above.~~

~~HVLP spray is the technology used to apply material to substrate by means of application equipment that operates between one tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.~~

- (e d) The listed work practices shall be followed:
- (1) To the extent possible, a non-VOC, non-HAP solvent shall be used for cleanup.
 - (2) For VOC- and/or HAP-containing materials:
 - (i) Cleanup solvent containers shall be used to transport solvent from drums to work.
 - (ii) Cleanup stations shall be closed containers having soft-gasketed, spring-loaded closures and shall be kept completely closed when not in use.
 - (iii) Cleanup rags saturated with solvent shall be stored, transported, and disposed of in containers that are closed tightly.
 - (iv) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent into the air.
 - (v) All solvent sprayed during cleanup or resin changes shall be directed into containers. Such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.
 - (3) All material storage containers shall be kept covered when not in use.

D.1.4 New Source Toxics Control [326 IAC 2-4.1-1] **Tub and Shower Division**

Pursuant to the MACT determination under 326 IAC 2-4.1-1, operating conditions for the new fiberglass tub and shower manufacturing facility shall be the following:

- (a) Use of resins and gel coats that contain styrene shall be limited such that the potential to emit (PTE) volatile organic HAP from use of such resins and gel coats only shall be less than 100 tons per twelve (12) consecutive month period. Compliance with this limit shall be determined based upon the following criteria:
 - (1) Monthly usage by weight, content of monomer that is HAP, method of application, and other emission reduction techniques used for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the HAP monomer content, method of application, and other emission reduction techniques used for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.
 - (2) The emission factors approved for use by IDEM, OAQ shall be taken from the following reference: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, ~~April 1999~~ **July 23, 2001**, with the exception of the emission factors for controlled spray application. This reference is included with this permit. For HAP-emitting operations not addressed by this reference, emission factors shall be taken from U.S. EPA's AP-42 document. For the purposes of these emission calculations, HAP monomer in resins and gel coats that is not styrene or methyl methacrylate shall be considered as styrene on an equivalent weight basis.

- (b) The HAP monomer content of resins and gel coats used shall be limited to the following or their equivalent on an emissions mass basis:

Type of Gel Coat or Resin	HAP Monomer Content, % by weight
Production ¹ Gel Coat	37
Tooling ² Gel Coat	38
Production Resin	35
Tooling Resin	43

¹ Production refers to the manufacture of parts.

² Tooling refers to the manufacture of the molds from which parts are manufactured.

HAP monomer contents shall be calculated on a neat basis, which means excluding any filler. Compliance with these HAP monomer content limits shall be demonstrated on a monthly basis.

Gel coats or resins with HAP monomer contents lower than those specified in the table in this subsection or additional emission reduction techniques approved by IDEM, OAQ may be used to offset the use of gel coats or resins with HAP monomer contents higher than those specified in the table in this subsection. This is allowed to meet the HAP monomer content limits for resins and gel coats and shall be calculated on an equivalent emissions mass basis as shown below:

(Emissions from higher than compliant HAP monomer content resin or gel coat) - (Emissions from compliant resin or gel coat) # (Emissions from compliant resin or gel coat) - (Emissions from lower than compliant HAP monomer content resin or gel coat and/or using other emission reduction techniques).

Where: Emissions, lb or ton = M (mass of resin or gel coat used, lb or ton) * EF (HAP monomer emission factor for resin or gel coat used, %);

EF, HAP monomer emission factor = emission factor, expressed as pounds (lbs) HAP emitted per ton of resin/gel coat processed, which is indicated by the HAP monomer content, method of application, and other emission reduction techniques for each gel coat and resin used.

- (c) Non-atomized spray application technology shall be used to apply unfilled production resins. Non-atomized spray application technology includes flow coaters, flow choppers, pressure-fed rollers, or other non-spray applications of a design and specifications approved by IDEM, OAQ.

If it is not possible to apply a portion of unfilled resins with non-atomized spray application technology, equivalent emissions reductions must be obtained via use of other emission reduction techniques. Examples of other emission reduction techniques include, but are not limited to, lower HAP monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging/bonding, or installing a control device.

- ~~(d) Optimized spray techniques according to a manner approved by IDEM, OAQ shall be used for gel coats and filled resins (where fillers are required for corrosion or fire retardant purposes) at all times. Optimized spray techniques include, but are not limited to, the use of airless, air-assisted airless, high volume low pressure (HVLP), or other spray applicators demonstrated to the satisfaction of IDEM, OAQ, to be equivalent to the spray applicators listed above.~~

~~HVLP spray is the technology used to apply material to substrate by means of application equipment that operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.~~

- (e d) The listed work practices shall be followed:

- (1) To the extent possible, a non-VOC, non-HAP solvent shall be used for cleanup.
- (2) For VOC- and/or HAP-containing materials:
 - (i) Cleanup solvent containers shall be used to transport solvent from drums to work.
 - (ii) Cleanup stations shall be closed containers having soft-gasketed, spring-loaded closures and shall be kept completely closed when not in use.
 - (iii) Cleanup rags saturated with solvent shall be stored, transported, and disposed of in containers that are closed tightly.
 - (iv) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent into the air.
 - (v) All solvent sprayed during cleanup or resin changes shall be directed into containers. Such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.
- (3) All material storage containers shall be kept covered when not in use.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: C & C Fiberglass, Inc.
 Source Address: 3659 Destiny Drive, Bremen, Indiana 46506
 Mailing Address: 3659 Destiny Drive, Bremen, Indiana 46506
 Part 70 Permit No.: T 099-10107-00080
 Facility: Entire Source
 Parameter: Volatile Organic Compound emissions
 Limit: Less than 249 tons per consecutive twelve (12) month period

Monthly usage by weight, percent volatiles, and method of application shall be recorded for each resin and solvent. Volatile organic HAP emissions shall be calculated by multiplying the usage of each resin and solvent by the emission factor that is appropriate for the percent volatiles or monomer content, and the method of application, and summing the emissions for all resins and solvents. Emission factors shall be obtained from a reference approved by IDEM, OAQ.

The emission factors approved for use by IDEM, OAQ for resin and gelcoat operations shall be taken from the following reference: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, ~~April 1999~~ **July 23, 2001**, with the exception of the emission factors for controlled spray application. This reference is included with this permit. The emission factors for all other VOC emitting compounds shall be 100% of the input volatile organic compounds.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on:

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: C & C Fiberglass, Inc.
 Source Address: 3659 Destiny Drive, Bremen, Indiana 46506
 Mailing Address: 3659 Destiny Drive, Bremen, Indiana 46506
 Part 70 Permit No.: T 099-10107-00080
 Facility: Transportation Division
 Parameter: Volatile Organic HAP emissions
 Limit: Less than ~~455~~ **136** tons per consecutive twelve (12) month period

Monthly usage by weight, percent volatiles, and method of application shall be recorded for each resin and solvent. Volatile organic HAP emissions shall be calculated by multiplying the usage of each resin and solvent by the emission factor that is appropriate for the percent volatiles or monomer content, and the method of application, and summing the emissions for all resins and solvents. Emission factors shall be obtained from a reference approved by IDEM, OAQ.

The emission factors approved for use by IDEM, OAQ for resin and gelcoat operations shall be taken from the following reference: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, ~~April 1999~~ **July 23, 2001**, with the exception of the emission factors for controlled spray application. This reference is included with this permit. The emission factors for all other VOC emitting compounds shall be 100% of the input volatile organic compounds.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on:

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: C & C Fiberglass, Inc.
 Source Address: 3649 Destiny Drive, Bremen, Indiana 46506
 Mailing Address: 3659 Destiny Drive, Bremen, Indiana 46506
 Part 70 Permit No.: T 099-10107-00080
 Facility: Tub and Shower Division
 Parameter: Volatile Organic HAP emissions
 Limit: Less than 100 tons per consecutive twelve (12) month period

Monthly usage by weight, percent volatiles, and method of application shall be recorded for each resin and solvent. Volatile organic HAP emissions shall be calculated by multiplying the usage of each resin and solvent by the emission factor that is appropriate for the percent volatiles or monomer content, and the method of application, and summing the emissions for all resins and solvents. Emission factors shall be obtained from a reference approved by IDEM, OAQ.

The emission factors approved for use by IDEM, OAQ for resin and gelcoat operations shall be taken from the following reference: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, ~~April 1999~~ **July 23, 2001**, with the exception of the emission factors for controlled spray application. This reference is included with this permit. The emission factors for all other VOC emitting compounds shall be 100% of the input volatile organic compounds.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
 Deviation has been reported on:

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

Attach a signed certification to complete this report.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Aida De Guzman, at (800) 451-6027, press 0 and ask for Aida De Guzman or extension (3-4972), or dial (317) 233-4972.

Sincerely,

Original signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

APD

cc:

File - Marshall County
U.S. EPA, Region V
Marshall County Health Department
Northern Regional Office
Air Compliance Section Inspector - Rick Reynolds
Compliance Data Section -
Administrative and Development
Technical Support and Modeling -



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
 Governor

Thomas W. Easterly
 Commissioner

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**PART 70 OPERATING PERMIT
 OFFICE OF AIR QUALITY**

**C & C Fiberglass, Inc.
 3659 Destiny Drive
 Bremen, Indiana 46506**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T 099-10107-00080	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: April 20, 2001 Expiration Date: April 20, 2006
First Administrative Amendment No.: 099-19922-00080, issued on February 3, 2005	
Second Administrative Amendment No.: 099-15993-00080	Pages affected: 5, 26, 27, 28, 29, 30, 37, 38, 39
Issued by: Original signed by Paul Dubenetzky, Chief Permit Branch Office of Air Quality	Issuance Date: April 29, 2005

SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary recreational vehicle fiberglass parts manufacturing source.

Responsible Official:	Cletis A. Miller
Source Address:	3659 Destiny Drive, Bremen, Indiana 46506
Mailing Address:	3659 Destiny Drive, Bremen, Indiana 46506
Phone Number:	219 - 546 - 2868
SIC Code:	3089
County Location:	Marshall
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD or Emission Offset Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

Transportation Division

- (a) Two (2) gel coat booths, constructed in 1997, utilizing FIT system with a total capacity to produce of finished product per hour. Particulate emissions shall be controlled by dry filters, then exhausted to stacks S1a and S2a.
- (b) Three (3) laminating areas, constructed in 1997, utilizing flow coaters, with a total capacity to produce 2,950 pounds of finished product per hour. Particulate emissions shall be controlled by dry filters, then exhausted to stacks S4a, S5a and S6a.
- (c) One (1) grinding area, constructed in 1997, with particulate emissions controlled by Torit-Donaldson dust collectors, then exhausted inside the building through stacks S7a and S8a.

Tub and Shower Division

- (d) Three (3) gel coat booths, constructed in 2000, utilizing FIT system with a total capacity to produce 21.9 tub/shower units per hour. Particulate emissions shall be controlled by dry filters, then exhausted to stacks S1b, S2b and S3b.
- (e) One (1) laminating area, constructed in 2000, utilizing flow coaters, with a total capacity to produce 21.9 tub/shower units per hour. Particulate emissions shall be controlled by dry filters, then exhausted to stacks S4b and S5b.
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SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

Transportation Division

- (a) Two (2) gel coat booths, constructed in 1997, utilizing FIT system with a total capacity to produce of finished product per hour. Particulate emissions shall be controlled by dry filters, then exhausted to stacks S1a and S2a.
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Tub and Shower Division

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- (f) One (1) grinding area, constructed in 2000, with particulate emissions controlled by Torit-Donaldson dust collectors, then exhausted inside the building through stacks S7b and S8b.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

This source shall emit less than 249 tons of VOC, including resins, gel coats, coatings, dilution solvents, and cleaning solvents, per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.1.2 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6] Transportation Division

The Best Available Control Technology (BACT) conditions from CP 099-7131-00080, issued on July 3, 1997, Conditions #10 and 11, are no longer applicable. These conditions, requiring certain workplace practices and a 6.9 tons per calendar month limitation on VOC emissions are based upon AP-42 emission factors for fiberglass reinforced plastics operations. IDEM, OAQ, has determined that the AP-42 emission factors for these processes are no longer valid, and that the BACT should be reevaluated with emissions calculated using the "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, July 23, 2001. The revised BACT condition for the Transportation Division follows as Condition D.1.3.

D.1.3 General Reduction Requirements for New Facilities [326 IAC 8-1-6] Transportation Division

Pursuant to the determination of Best Available Control Technology for VOC emissions from resin and gel coat application operations at the Transportation Division, the Permittee shall comply with the following conditions:

- (a) Use of gel coats and resins that contain styrene shall be limited such that the potential to emit (PTE) VOCs for resin and gel coat operations at the Transportation Division shall be less than 136 tons per twelve (12) consecutive month period. Compliance with this limit shall be determined based upon the following criteria:
- (1) Monthly usage by weight, content of monomer that is HAP, method of application, and other emission reduction techniques used for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the HAP monomer content, method of application, and other emission reduction techniques used for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.
 - (2) The emission factors approved for use by IDEM, OAQ shall be taken from the following reference: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, July 23, 2001, with the exception of the emission factors for controlled spray application. This reference is included with this permit. For HAP-emitting operations not addressed by this reference, emission factors shall be taken from U.S. EPA's AP-42 document. For the purposes of these emission calculations, HAP monomer in resins and gel coats that is not styrene or methyl methacrylate shall be considered as styrene on an equivalent weight basis.
- (b) The HAP monomer content of resins and gel coats used shall be limited to the following or their equivalent on an emissions mass basis:

Type of Gel Coat or Resin	HAP Monomer Content, % by weight
Production ¹ Gel Coat	37
Tooling ² Gel Coat	38
Production Resin	35
Tooling Resin	43

¹ Production refers to the manufacture of parts.

² Tooling refers to the manufacture of the molds from which parts are manufactured.

HAP monomer contents shall be calculated on a neat basis, which means excluding any filler. Compliance with these HAP monomer content limits shall be demonstrated on a monthly basis.

Gel coats or resins with HAP monomer contents lower than those specified in the table in this subsection or additional emission reduction techniques approved by IDEM, OAQ may be used to offset the use of gel coats or resins with HAP monomer contents higher than those specified in the table in this subsection. This is allowed to meet the HAP monomer content limits for resins and gel coats and shall be calculated on an equivalent emissions mass basis as shown below:

(Emissions from higher than compliant HAP monomer content resin or gel coat) -
(Emissions from compliant resin or gel coat) # (Emissions from compliant resin or gel
coat) - (Emissions from lower than compliant HAP monomer content resin or gel coat
and/or using other emission reduction techniques).

Where: Emissions, lb or ton = M (mass of resin or gel coat used, lb or ton) *
EF (HAP monomer emission factor for resin or gel coat used, %);

EF, HAP monomer emission factor = emission factor, expressed as pounds
(lbs) HAP emitted per ton of resin/gel coat processed, which is indicated by
the HAP monomer content, method of application, and other emission
reduction techniques for each gel coat and resin used.

- (c) Non-atomized spray application technology shall be used to apply unfilled production
resins. Non-atomized spray application technology includes flow coaters, flow choppers,
pressure-fed rollers, or other non-spray applications of a design and specifications
approved by IDEM, OAQ.

If it is not possible to apply a portion of unfilled resins with non-atomized spray application
technology, equivalent emissions reductions must be obtained via use of other emission
reduction techniques. Examples of other emission reduction techniques include, but are
not limited to, lower HAP monomer content resins and gel coats, closed molding, vapor
suppression, vacuum bagging/bonding, or installing a control device.

- (d) The listed work practices shall be followed:

- (1) To the extent possible, a non-VOC, non-HAP solvent shall be used for cleanup.
- (2) For VOC- and/or HAP-containing materials:
 - (i) Cleanup solvent containers shall be used to transport solvent from drums
to work.
 - (ii) Cleanup stations shall be closed containers having soft-gasketed, spring-
loaded closures and shall be kept completely closed when not in use.
 - (iii) Cleanup rags saturated with solvent shall be stored, transported, and
disposed of in containers that are closed tightly.
 - (iv) The spray guns used shall be the type that can be cleaned without the
need for spraying the solvent into the air.

- (v) All solvent sprayed during cleanup or resin changes shall be directed into containers. Such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.
- (3) All material storage containers shall be kept covered when not in use.

D.1.4 New Source Toxics Control [326 IAC 2-4.1-1] Tub and Shower Division

Pursuant to the MACT determination under 326 IAC 2-4.1-1, operating conditions for the new fiberglass tub and shower manufacturing facility shall be the following:

- (a) Use of resins and gel coats that contain styrene shall be limited such that the potential to emit (PTE) volatile organic HAP from use of such resins and gel coats only shall be less than 100 tons per twelve (12) consecutive month period. Compliance with this limit shall be determined based upon the following criteria:
 - (1) Monthly usage by weight, content of monomer that is HAP, method of application, and other emission reduction techniques used for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the HAP monomer content, method of application, and other emission reduction techniques used for each gel coat and resin, and summing the emissions for all gel coats and resins. Emission factors shall be obtained from the reference approved by IDEM, OAQ.
 - (2) The emission factors approved for use by IDEM, OAQ shall be taken from the following reference: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, July 23, 2001, with the exception of the emission factors for controlled spray application. This reference is included with this permit. For HAP-emitting operations not addressed by this reference, emission factors shall be taken from U.S. EPA's AP-42 document. For the purposes of these emission calculations, HAP monomer in resins and gel coats that is not styrene or methyl methacrylate shall be considered as styrene on an equivalent weight basis.
- (b) The HAP monomer content of resins and gel coats used shall be limited to the following or their equivalent on an emissions mass basis:

Type of Gel Coat or Resin	HAP Monomer Content, % by weight
Production ¹ Gel Coat	37
Tooling ² Gel Coat	38
Production Resin	35
Tooling Resin	43

¹ Production refers to the manufacture of parts.

² Tooling refers to the manufacture of the molds from which parts are manufactured.

HAP monomer contents shall be calculated on a neat basis, which means excluding any filler. Compliance with these HAP monomer content limits shall be demonstrated on a

monthly basis. coats or resins with HAP monomer contents lower than those specified in the table in this subsection or additional emission reduction techniques approved by IDEM, OAQ may be used to offset the use of gel coats or resins with HAP monomer contents higher than those specified in the table in this subsection. This is allowed to meet the HAP monomer content limits for resins and gel coats and shall be calculated on an equivalent emissions mass basis as shown below:

(Emissions from higher than compliant HAP monomer content resin or gel coat) -

(Emissions from compliant resin or gel coat) # (Emissions from compliant resin or gel coat) - (Emissions from lower than compliant HAP monomer content resin or gel coat and/or using other emission reduction techniques).

Where: Emissions, lb or ton = M (mass of resin or gel coat used, lb or ton) *
EF (HAP monomer emission factor for resin or gel coat used, %);

EF, HAP monomer emission factor = emission factor, expressed as pounds (lbs) HAP emitted per ton of resin/gel coat processed, which is indicated by the HAP monomer content, method of application, and other emission reduction techniques for each gel coat and resin used.

- (c) Non-atomized spray application technology shall be used to apply unfilled production resins. Non-atomized spray application technology includes flow coaters, flow choppers, pressure-fed rollers, or other non-spray applications of a design and specifications approved by IDEM, OAQ.

If it is not possible to apply a portion of unfilled resins with non-atomized spray application technology, equivalent emissions reductions must be obtained via use of other emission reduction techniques. Examples of other emission reduction techniques include, but are not limited to, lower HAP monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging/bonding, or installing a control device.

- (d) The listed work practices shall be followed:

- (1) To the extent possible, a non-VOC, non-HAP solvent shall be used for cleanup.
- (2) For VOC- and/or HAP-containing materials:
 - (i) Cleanup solvent containers shall be used to transport solvent from drums to work.
 - (ii) Cleanup stations shall be closed containers having soft-gasketed, spring-loaded closures and shall be kept completely closed when not in use.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: C & C Fiberglass, Inc.
 Source Address: 3659 Destiny Drive, Bremen, Indiana 46506
 Mailing Address: 3659 Destiny Drive, Bremen, Indiana 46506
 Part 70 Permit No.: T 099-10107-00080
 Facility: Entire Source
 Parameter: Volatile Organic Compound emissions
 Limit: Less than 249 tons per consecutive twelve (12) month period

Monthly usage by weight, percent volatiles, and method of application shall be recorded for each resin and solvent. Volatile organic HAP emissions shall be calculated by multiplying the usage of each resin and solvent by the emission factor that is appropriate for the percent volatiles or monomer content, and the method of application, and summing the emissions for all resins and solvents. Emission factors shall be obtained from a reference approved by IDEM, OAQ.

The emission factors approved for use by IDEM, OAQ for resin and gelcoat operations shall be taken from the following reference: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, July 23, 2001, with the exception of the emission factors for controlled spray application. This reference is included with this permit. The emission factors for all other VOC emitting compounds shall be 100% of the input volatile organic compounds.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on:

Submitted by:
 Title / Position:
 Signature:
 Date:
 Phone:

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: C & C Fiberglass, Inc.
 Source Address: 3659 Destiny Drive, Bremen, Indiana 46506
 Mailing Address: 3659 Destiny Drive, Bremen, Indiana 46506
 Part 70 Permit No.: T 099-10107-00080
 Facility: Transportation Division
 Parameter: Volatile Organic HAP emissions
 Limit: Less than 136 tons per consecutive twelve (12) month period

Monthly usage by weight, percent volatiles, and method of application shall be recorded for each resin and solvent. Volatile organic HAP emissions shall be calculated by multiplying the usage of each resin and solvent by the emission factor that is appropriate for the percent volatiles or monomer content, and the method of application, and summing the emissions for all resins and solvents. Emission factors shall be obtained from a reference approved by IDEM, OAQ.

The emission factors approved for use by IDEM, OAQ for resin and gelcoat operations shall be taken from the following reference: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, July 23, 2001, with the exception of the emission factors for controlled spray application. This reference is included with this permit. The emission factors for all other VOC emitting compounds shall be 100% of the input volatile organic compounds.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on:

Submitted by:
 Title / Position:
 Signature:
 Date:
 Phone:

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION**

Part 70 Quarterly Report

Source Name: C & C Fiberglass, Inc.
 Source Address: 3649 Destiny Drive, Bremen, Indiana 46506
 Mailing Address: 3659 Destiny Drive, Bremen, Indiana 46506
 Part 70 Permit No.: T 099-10107-00080
 Facility: Tub and Shower Division
 Parameter: Volatile Organic HAP emissions
 Limit: Less than 100 tons per consecutive twelve (12) month period

Monthly usage by weight, percent volatiles, and method of application shall be recorded for each resin and solvent. Volatile organic HAP emissions shall be calculated by multiplying the usage of each resin and solvent by the emission factor that is appropriate for the percent volatiles or monomer content, and the method of application, and summing the emissions for all resins and solvents. Emission factors shall be obtained from a reference approved by IDEM, OAQ.

The emission factors approved for use by IDEM, OAQ for resin and gelcoat operations shall be taken from the following reference: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, July 23, 2001, with the exception of the emission factors for controlled spray application. This reference is included with this permit. The emission factors for all other VOC emitting compounds shall be 100% of the input volatile organic compounds.

YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on:

Submitted by:
 Title / Position:
 Signature:
 Date:
 Phone:

Attach a signed certification to complete this report.

Appendix A Summary of Applicant Supplied Emissions Calculations

The following table is a summary of emissions calculations supplied by the applicant, and verified by the Office of Air Management. The actual calculations submitted by the applicant follow on pages 2 through 15 of 15.

Transportation Division

Process	Uncontrolled PM (TPY)		Controlled PM (TPY)		VOC (TPY)		HAPS (TPY)	
	Expected Actual	PTE	Expected Actual	PTE	Expected Actual	PTE	Expected Actual	PTE
Gel Coat Booths	6.33	27.18	0.38	1.63	9.10 13.49	39.08 57.96	10.4 15.36	44.5 65.95
Lamination Booths	29.03	124.66	1.74	7.48	22.31	95.79	21.66	92.99
Final Finish	<.01	<.04	<.01	<.04	0.31	1.35	0.09	0.38
Grinding	6.83	29.68	0.007	0.029				
Total	42.20	181.56	2.14	9.18	31.72 36.14	136.22 155.10	37.11	159.32

Note: HAPs for Transportation Div. Has been prorated based on the new VOC emissions level.

Tub and Shower Division

Process	Uncontrolled PM (TPY)		Controlled PM (TPY)		VOC (TPY)		HAPS (TPY)	
	Expected Actual	PTE	Expected Actual	PTE	Expected Actual	PTE	Expected Actual	PTE
Gel Coat Booths	16.97	72.88	1.02	4.37	23.65 32.39	101.55 139.08	23.65 32.40	101.55 139.15
Lamination Booths	53.24	288.62	3.19	13.70	28.57	122.69	27.92	119.89
Final Finish	< .01	< .04	< .01	< .04	0.24	1.02	.05	0.23
Grinding	6.91	29.69	.007	.029				
Total	77.13	391.23	4.23	18.14	52.46 61.20	225.26 262.79	60.37	259.27

Total Emissions From Source

Total Source	Uncontrolled PM (TPY)		Controlled PM (TPY)		VOC (TPY)		HAPS (TPY)	
	Expected Actual	PTE	Expected Actual	PTE	Expected Actual	PTE	Expected Actual	PTE
Total Source	119.33	572.79	6.37	27.32	84.18 97.34	361.48 417.89	97.48	418.59

Expected actual emissions are based upon full production of 21.9 tub/showers per hour, 2,040 hours per year (255 working days at 8 hours per day). Potential emissions were calculated by extrapolating the expected actual emission rates to 8,760 hours per year.^{9*}

**NOTE 2A: 1999 RAW MATERIAL USAGE RATES
 C&C Fiberglass, Inc., Transportation Division**

RAW MATERIAL	1999 TOTAL USAGE (lb/yr)*	1999 AVERAGE USAGE (lb/hr)**
GELCOAT AREA		
Gel Coats:		
⇒ Tangerine Tooling Gel	540.00	0.3
⇒ Fourseal Primer (5782-E-90001)	186.16	< 0.1
⇒ 132-72400 Grey Primer	29,623.00	14.5
⇒ 101-62485 NM White Gel Coat	87,013.00	42.6
⇒ 101-7200 Black Gel Coat	9,967.00	4.9
⇒ 707-060 Gel Coat	20.00	< 0.1
⇒ 101-72477 NM Grey Gel Coat	1,212.00	0.6
⇒ 132-6200 Gel Coat	47,453.00	23.3
⇒ 5776-E-90094 Gel Coat	520.00	0.3
⇒ 101-72547 Gel Coat	9,018.00	4.4
⇒ 5776-B-90014 Gel Coat	40.00	< 0.1
⇒ W-419-LUU Gel Coat	150.00	< 0.1
⇒ Methyl Methacrylate (MMA)	2.00	< 0.1
LAMINATION AREA		
Resins:		
⇒ 732-1134 Resin	2,300.00	1.1
⇒ COR61-AC-190 Resin	935,579.00	458.6
⇒ COR54-AA-526 Resin	500.00	0.2
⇒ 732-7216 Resin	3,000.00	1.5
⇒ 33-350 Tooling Resin	2,720.00	1.3
⇒ 745-4615 Tooling Resin	1,380.00	0.7
⇒ 33-540 Tooling Resin	6,900.00	3.4
⇒ CT-60010 Pigment	60.06	< 0.1
⇒ CT-80000 Pigment	80.00	< 0.1
Catalysts:		
⇒ CADOX D-50 Clear MEKP	3,360.00	1.6
⇒ CADOX D-50 Red MEKP	7,908.00	3.9
⇒ 104-311 Hi Point 90 MEKP	48.00	< 0.1
⇒ 46-747 MEKP	64.00	< 0.1
⇒ 46-750 Cumene HPO	216.00	0.1
⇒ 46-757 Cumene HPO	48.00	< 0.1
Glass:		
⇒ Woven Roving	324,630.60	159.1
⇒ Fiberglass Mat	17,189.00	8.4
Solvent:		
⇒ Acetone	83,178.00	40.8
⇒ Methyl Ethyl Ketone (MEK)	66.00	< 0.1
Fillers:		
⇒ Fumed Silica (HDK-N20-WCKR)	200.00	< 0.1
⇒ 7323 Milled Fiber	650.00	0.3
⇒ Klean Klay	290.00	0.1
⇒ A208 Hydrated Aluminum	4950.00	2.4
⇒ Prupro 8 CaCO ₃	600.00	0.3
⇒ Foamboard	?	?
⇒ Wood Products	?	?
Wax/Release:		
⇒ W-5 Paste Wax	210.00	0.1
⇒ B-005 Super Cut	291.90	0.1
⇒ BSP 400 Flange Wax	1,300.00	0.6
⇒ TR 210 Self Strip	374.40	0.2
⇒ 4005 Econo EdgeWax	32.85	< 0.1

**NOTE 2A, CONTINUED: 1999 RAW MATERIAL USAGE RATES
 C&C Fiberglass, Transportation Division**

RAW MATERIAL	1999 TOTAL USAGE (lb/yr)*	1999 AVERAGE USAGE (lb/hr)**
GRINDING		
⇒	-0-	-0-
FINAL FINISH		
Paint Materials:		
⇒ Dupont 8034S	12.88	< 0.1
⇒ Dupont 7500S	23.91	< 0.1
⇒ Dupont 7575S	2.06	< 0.1
⇒ Dupont 7160S	19.83	< 0.1
⇒ Dupont 131S	8.34	< 0.1
⇒ GAL 12500 Primer	230.34	0.1
Fillers:		
⇒ 70015 Body Filler	4,710.80	2.3
⇒ 5788-C-90008 Patch Booster	33.28	< 0.1
⇒ ADT#17 Body Filler	81.70	< 0.1
⇒ #7 AKP Body Filler	14.76	< 0.1
Catalysts:		
⇒ 50% BPO Cream Hardener	96.25	< 0.1
⇒ 35% BPO Black Cream Hardener	0.50	< 0.1
⇒ 46-559 Promotor	42.68	< 0.1
Finish Compounds:		
⇒ USC 712 Finish Rub	800.00	0.4
⇒ TR 308 Fine Finish	126.00	< 0.1
Miscellaneous:		
⇒ Sikaflex	59.92	< 0.1
⇒ Throat Seal Oil-12800	67.97	< 0.1
⇒ Pump Motor Oil-3200	22.26	< 0.1
⇒ 38-32R Red Buff	39.00	< 0.1
⇒ Dykem Blue	35.05	< 0.1
⇒ Black Magnum	100.00	< 0.1

* 1999 Raw Material Purchasing Records
 ** Based On A Production Year Of 2,040 Hr (255 Working Days @ 8 Hr/Day)

**NOTE 2B: PROJECTED RAW MATERIAL USAGE RATES
 C&C Fiberglass, Tub & Shower Division**

RAW MATERIAL	ESTIMATED USAGE (lb/yr)*	ESTIMATED USAGE (lb/hr)**
GELCOAT AREA		
⇒ Tangerine Tooling Gel Coat	540.00	0.3
⇒ W-419-LUUJ Gel Coat	484460.00	237.4
LAMINATION AREA		
Resins:		
⇒ COR-54-AA-526 Resin	1,592,905.00 ***	780.8
⇒ 33-350 Tooling Resin	2720.00	1.3
⇒ 33-540 Tooling Resin	6900.00	3.4
Catalysts:		
⇒ CADOX D-50 Clear	3,360.00	1.6
⇒ CADOX D-50 Red	7,908.00	3.9
⇒ 104-311 Hi Point 90 MEKP	48.00	< 0.1
⇒ 46-747 MEKP	64.00	< 0.1
⇒ 46-750 Cumene HPO	216.00	0.1
⇒ 46-757 Cumene HPO	48.00	< 0.1
Glass:		
⇒ Woven Roving	324,630.60	159.1
⇒ Fiberglass Mat	17,189.00	8.4
Solvent:		
⇒ Acetone	83,178.00	40.8
Fillers:		
⇒ Fumed Silica (HDK-N20-WCKR)	200.00	< 0.1
⇒ 7323 Milled Fiber	650.00	0.3
⇒ Klean Klay	290.00	0.1
⇒ A208 Hydrated Aluminum	4950.00	2.4
⇒ Prupro 8 CaCO ₃	600.00	0.3
⇒ Foamboard	?	?
⇒ Wood Products	?	?
Wax/Release:		
⇒ W-5 Paste Wax	210.00	0.1
⇒ B-005 Super Cut	291.90	0.1
⇒ BSP 400 Flange Wax	1,300.00	0.6
⇒ TR 210 Self Strip	374.40	0.2
⇒ 4005 Econo EdgeWax	32.85	< 0.1
GRINDING		
⇒	0.00	0.0
FINAL FINISH		
Fillers:		
⇒ 70015 Body Filler	4,710.80	2.3
⇒ 5788-C-90008 Booster	33.28	< 0.1
⇒ ADT#17 Body Filler	81.70	< 0.1
⇒ #7 AKP Filler	14.76	< 0.1
Catalyst:		
⇒ 50% BPO Cream Hardener	96.25	< 0.1
⇒ 35% BPO Cream Hardener	0.50	< 0.1
⇒ 46-559 Promotor	42.68	< 0.1
Finishing compounds:		
⇒ USC 712 Finish Rub	800.00	0.4
⇒ TR-308 Fine Finish	126.00	< 0.1
Miscellaneous:		
⇒ Sikaflex	59.92	< 0.1
⇒ TSL-12800	67.97	< 0.1
⇒ PMO-3200	22.26	< 0.1
⇒ 38-32R Red Buff	39.00	< 0.1
⇒ Dykem Blue	35.05	< 0.1
⇒ Black Magnum	100.00	< 0.1

* Based on data from an equivalent facility (C & C Fiberglass, Transportation Division 1999 raw material purchasing records)

** Based on a projected production year of 2,040 hr (255 working days @ 8 hr/day)

*** Estimate based on projected production and material usage rates.

NOTE 9A: PM EMISSIONS
C&C Fiberglass, Inc., Transportation Division

VOC CONTAINING COMPOUND	QUANTITY PURCHASED (lb)	NON-VOLATILE CONTENT (1 - % VOC)	APPLICABLE EMISSION FACTOR (1 - TRANSFER EFFICIENCY)	PM EMISSIONS (lb/yr)
GELCOAT AREA				
Gel Coat				
⇒ Tangerine Tooling Gel	540.00	0.63	0.10	34.02
⇒ Fourseal Primer (5782-E-90001)	186.16	0.74	0.10	13.77
⇒ 132-72400 Grey Primer	29623.00	0.65	0.10	1925.49
⇒ 101-62485 NM White Gel Coat	87013.00	0.69	0.10	6003.89
⇒ 101-7200 Black Gel Coat	9967.00	0.62	0.10	617.95
⇒ 707-060 Gel Coat	20.00	0.83	0.10	1.66
⇒ 101-72477 NM Grey Gel Coat	1212.00	0.76	0.10	92.11
⇒ 132-6200 Gel Coat	47453.00	0.70	0.10	3321.71
⇒ 5776-E-90094 Gel Coat	520.00	0.65	0.10	33.80
⇒ 101-72547 Gel Coat	9018.00	0.67	0.10	604.21
⇒ 5776-B-90014 Gel Coat	40.00	0.63	0.10	2.52
⇒ W419-LUU Gel Coat	150.00	0.70	0.10	10.50
⇒ Methyl Methacrylate (MMA)	2.00	< 0.01	0.10	< 0.01
Gel Coat PM Emissions (lb/yr)				12661.64
LAMINATION AREA				
Resin:				
⇒ 732-1134 Resin	2300.00	0.62	0.10	142.60
⇒ COR61-AC-190 Resin	935579.00	0.61	0.10	57070.32
⇒ COR54-AA-526 Resin	500.00	0.68	0.10	34.00
⇒ 732-7216 Resin	3000.00	0.62	0.10	186.00
⇒ 33-350 Tooling Resin	2720.00	0.52	0.10	141.44
⇒ 745-4615 Tooling Resin	1380.00	0.50	0.10	69.00
⇒ 33-540 Tooling Resin	6900.00	0.54	0.10	372.60
⇒ CT-60010 Pigment	60.06	0.62	0.10	3.72
⇒ CT-80000 Pigment	80.00	0.00	0.10	0.00
Catalyst:				
⇒ CADOX D-50 Clear MEKP	3360.00	0.00	0.10	0.00
⇒ CADOX D-50 Red MEKP	7908.00	0.00	0.10	0.00
⇒ 104-311 Hi Point 90 MEKP	48.00	1.00	0.10	4.80
⇒ 46-747 MEKP	64.00	1.00	0.10	6.40
⇒ 46-750 Cumene HPO	216.00	1.00	0.10	21.60
⇒ 46-757 Cumene HPO	48.00	1.00	0.10	4.80
Glass:				
⇒ Woven Roving	324630.60	**	0.00	0.00
⇒ Fiberglass Mat	17189.00	**	0.00	0.00
Solvent:				
⇒ Acetone	83178.00	**	0.00	0.00
⇒ Methyl Ethyl Ketone (MEK)	66.00	**	0.00	0.00
Fillers:				
⇒ Fumed Silica (HDK-N20-WCKR)	200.00	**	0.00	0.00
⇒ 7323 Milled Fiber	650.00	**	0.00	0.00
⇒ Klean Klay	290.00	**	0.00	0.00
⇒ A208 Hydrated Aluminum	4950.00	**	0.00	0.00
⇒ Prupro 8 CaCO ₃	600.00	**	0.00	0.00
⇒ Foamboard	?	**	0.00	0.00
⇒ Wood Products	?	**	0.00	0.00
Wax/Release:				
⇒ W-5 Paste Wax	210.00	**	0.00	0.00
⇒ B-005 Super Cut	291.90	**	0.00	0.00
⇒ BSP 400 Flange Wax	1300.00	**	0.00	0.00
⇒ TR-210 Self Strip	374.40	**	0.00	0.00
⇒ 4005 Econo Edge	32.85	**	0.00	0.00
Lamination PM Emissions (lb/yr)				58057.28
GRINDING				
Grinding PM Emissions (lb/yr)				0.00
FINAL FINISH				

Paint Materials:				
⇒ Dupont 8034S	12.88	0.00	0.10	0.00
⇒ Dupont 7500S	23.91	0.323	0.10	0.77
⇒ Dupont 7575S	2.06	0.4832	0.10	0.09
⇒ Dupont 7160S	19.83	0.17	0.10	0.34
⇒ Dupont 131S	8.34	0.6094	0.10	0.51
⇒ GAL 12500 Primer	230.34	0.36	0.10	8.29
Fillers:				
⇒ 70015 Body Filler	4710.80	**	0.00	0.00
⇒ 5788-C-90008 Patch Booster	33.28	**	0.00	0.00
⇒ ADT#17 Body Filler	81.70	**	0.00	0.00
⇒ #7 AKP Body Filler	14.76	**	0.00	0.00
Catalysts:				
⇒ 50% BPO Cream Hardener	96.25	**	0.00	0.00
⇒ 35% BPO Black Cream Hardener	0.50	**	0.00	0.00
⇒ 46-559 Promotor	42.68	**	0.00	0.00
Finish Compounds:				
⇒ USC 712 Finish Rub	800.00	**	0.00	0.00
⇒ TR-308 Fine Finish	126.00	**	0.00	0.00

VOC CONTAINING COMPOUND	QUANTITY PURCHASED (lb)	NON-VOLATILE CONTENT (1 - % VOC)	APPLICABLE EMISSION FACTOR (1 - TRANSFER EFFICIENCY)	PM EMISSIONS (lb/yr)
Miscellaneous:				
⇒ Sika Flex	59.92	**	0.00	0.00
⇒ Throat Seal Oil 12800	67.97	**	0.00	0.00
⇒ Pump Motor Oil 3200	22.26	**	0.00	0.00
⇒ 38-32R Buff Bar	39.00	**	0.00	0.00
⇒ Dykem Blue	35.05	**	0.00	0.00
⇒ Black Magnum	100.00	**	0.00	0.00
Final Finish PM Emissions (lb/yr)				10.00
TOTAL FACILITY PM EMISSIONS (lb/yr)				70728.92

* PM emissions based on 1999 raw material usage and MSDS information, including VOC content (less water and exempt solvents), and percent non-volatile content, as available.
 ** Non-spray operation.

NOTE 9A continued: PM EMISSIONS
C&C Fiberglass, Inc., Transportation Division

GELCOAT PM EMISSIONS

	lb/hr	TPY
Actual Emission	6.21	6.33
Potential to Emit***	26.65	27.18

*** PTE = Actual (8760 hr/yr/2040 hr/yr)

LAMINATION PM EMISSIONS

	lb/hr	TPY
Actual Emission	28.46	29.03
Potential to Emit***	122.21	124.66

*** PTE = Actual (8760 hr/yr/2040 hr/yr)

FINAL FINISH PM EMISSIONS

	lb/hr	TPY
Actual Emission	< 0.01	< 0.01
Potential to Emit***	< 0.04	< 0.04

*** PTE = Actual (8760 hr/yr/2040 hr/yr)

NOTE 9B: PM EMISSIONS
C&C Fiberglass, Inc., Tub and Shower Division

VOC CONTAINING COMPOUND	QUANTITY PURCHASED (LB)	NON-VOLATILE CONTENT (1 - % VOC)	APPLICABLE EMISSION FACTOR (1 - TRANSFER EFFICIENCY)	PM EMISSIONS (lb/yr)
GELCOAT AREA				
Gel Coat:				
→ Tangerine Tooling Gel Coat	540.00	0.63	0.10	34.02
→ W419-LUUJ Gel Coat	484460.00	0.70	0.10	33912.20
Gel Coat PM Emissions (lb/yr)				33946.22
LAMINATION AREA				
Resin:				
→ COR54-AA-526 Resin	1592905.00	0.665	0.10	105928.20
→ 33-350 Tooling Resin	2720.00	0.52	0.10	141.44
→ 33-540 Tooling Resin	6900.00	0.54	0.10	372.60
Catalyst:				
→ CADOX D-50 Clear	3360.00	0.00	0.10	0.00
→ CADOX D-50 Red	7908.00	0.00	0.10	0.00
→ 104-311 Hi Point 90 MEKP	48.00	1.00	0.10	4.80
→ 46-747 MEKP	64.00	1.00	0.10	6.40
→ 46-750 Cumene HPO	216.00	1.00	0.10	21.60
→ 46-757 Cumene HPO	48.00	1.00	0.10	4.80
Glass:				
→ Woven Roving	324630.00	**	0.00	0.00
→ Fiberglass Mat	17189.00	**	0.00	0.00
Solvents:				
→ Acetone*	83178.00	**	0.00	0.00
Fillers:				
→ Fumed Silica (HDK-N20-WCKR)	200.00	**	0.00	0.00
→ 7323 Milled Fiber	650.00	**	0.00	0.00
→ Klean Klav	290.00	**	0.00	0.00
→ A208 Hydrated Aluminum	4950.00	**	0.00	0.00
→ Prupro 8 CaCO ₃	600.00	**	0.00	0.00
→ Foam Board	?	**	0.00	0.00
→ Wood Products	?	**	0.00	0.00
Wax/Release:				
→ W-5 Paste Wax	210.00	**	0.00	0.00
→ B-005 Super Cut	291.90	**	0.00	0.00
→ BSP 400 Flange Wax	1300.00	**	0.00	0.00
→ TR-210 Self Strip	374.40	**	0.00	0.00
→ 4005 Econo Edge Wax	32.85	**	0.00	0.00
Lamination PM Emissions (lb/hr)				106479.84
Grinding PM Emissions (lb/hr)				0.00
FINAL FINISH				
Fillers:				
→ 70015 Body Filler	4710.80	**	0.10	0.00
→ 5788-C-90008 Patch Booster	33.28	0.35	0.10	1.16
→ ADT #17 Body Filler	81.70	**	0.10	0.00
→ #7 AKP Body Filler	14.76	**	0.10	0.00
Catalyst:				
→ 50% BPO Cream Hardener	96.25	**	0.00	0.00
→ 35% BPO Cream Hardener	0.50	**	0.00	0.00
→ 46-559 Promotor	42.68	1.00	0.10	4.27
Finishing Compounds:				
→ USC 712 Finish Rub	800.00	**	0.00	0.00
→ TR-308 Fine Finish	126.00	**	0.00	0.00
Miscellaneous:				
→ Sika Flex	59.92	**	0.00	0.00
→ Throat Seal Oil 12800	67.97	**	0.00	0.00
→ Pump Motor Oil 3200	22.26	**	0.00	0.00
→ 38-32R Buff Bar	39.00	**	0.00	0.00
→ Dykem Blue	35.05	**	0.00	0.00
→ Black Magnum	100.00	**	0.00	0.00
Final Finish PM Emissions (lb/yr)				5.43
TOTAL FACILITY PM EMISSIONS (lb/yr)				140431.49

* PM emissions based on 1999 raw material usage and MSDS information, including VOC content (less water and exempt solvents), and percent non-volatile content, as available.
 ** Non-spray operation.

NOTE 9B, continued: PM EMISSIONS
C&C Fiberglass, Inc., Tub and Shower Division

GELCOAT PM EMISSIONS

	lb/hr	TPY
Actual Emission	16.64	16.97
Potential to Emit***	71.46	72.88

*** PTE = Actual (8760 hr/yr/2040 hr/yr)

LAMINATION PM EMISSIONS

	lb/hr	TPY
Actual Emission	52.19	53.24
Potential to Emit***	224.14	228.62

*** PTE = Actual (8760 hr/yr/2040 hr/yr)

FINAL FINISH PM EMISSIONS

	lb/hr	TPY
Actual Emission	< 0.01	< 0.01
Potential to Emit***	< 0.04	< 0.04

*** PTE = Actual (8760 hr/yr/2040 hr/yr)

NOTE 10A: VOC EMISSIONS*
C&C Fiberglass, Inc., Transportation Division

VOC CONTAINING COMPOUND	QUANTITY PURCHASED (lb)	MONOMER OR VOLATILE CONTENT (.df or lb/gal)***	APPLICABLE EMISSION FACTOR*	VOC EMISSIONS (lb/yr)
GELCOAT AREA				
Gelcoat Materials:				
⇒ Tangerine Tooling Gel	540.00	0.37	232 lb/ton 377 lb/lb monomer	62.64 404.79
⇒ Fourseal Primer (5782-E-90001)	186.16	0.26	133.3 lb/ton 234.4 lb/lb monomer	12.41 24.54
⇒ 132-72400 Grey Primer Gel Coat	29623.00	0.35	214 lb/ton 336 lb/lb monomer	3170 4976.66
⇒ 101-62485 NM White Gel Coat	87013.00	0.31	178.37 lb/ton 275.9 lb/lb monomer	7760 42093.44
⇒ 101-7200 Black Gel Coat	9967.00	0.38	241 lb/ton 398 lb/lb monomer	1201 1983.43
⇒ 707-060 Gel Coat	20.00	0.17	62.9 lb/ton 454.3 lb/lb monomer	0.629 4.54
⇒ 101-72477 NM Grey Gel Coat	1212.00	0.24	115.29 lb/ton 243.6 lb/lb monomer	69.86 429.44
⇒ 132-6200 Gel Coat	47453.00	0.30	169.36 lb/ton 267 lb/lb monomer	4018 6334.97
⇒ 5776-E-90094 Gel Coat	520.00	0.35	214 lb/ton 336 lb/lb monomer	55.64 87.36
⇒ 101-72547 Gel Coat	9018.00	0.33	196 lb/ton 294 lb/lb monomer	884 4325.65
⇒ 5776-B-90014 Gel Coat	40.00	0.37	232 lb/ton 377 lb/lb monomer	4.64 7.54
⇒ W-419-LUU Gel Coat	150.00	0.30	169.36 lb/ton 267 lb/lb monomer	12.70 20.09
⇒ Methyl Methacrylate (MMA)	2.00	0.99	1.00	1.98
Total Gel Coat VOC Emissions (lb/yr)				18210.5 26995.34
LAMINATION AREA				
Resin:				
⇒ 732-1134 Resin	2300.00	0.38	86 lb/lb monomer	98.90
⇒ COR61-AC-190 Resin	935579.00	0.39	89 lb/lb monomer	41633.26
⇒ COR54-AA-526 Resin	500.00	0.32	68.5 lb/lb monomer	17.13
⇒ 732-7216 Resin	3000.00	0.38	86 lb/lb monomer	129.00
⇒ 33-350 Tooling Resin	2720.00	0.48	118 lb/lb monomer	160.48
⇒ 745-4615 Tooling Resin	1380.00	0.49	124 lb/lb monomer	85.56
⇒ 33-540 Tooling Resin	6900.00	0.46	111 lb/lb monomer	382.95
⇒ CT 60010 Pigment	60.06	0.38	86 lb/lb monomer	2.58
⇒ CT-80000 Pigment	80.00	0.00	0.00	0.00
Catalyst:				
⇒ CADOX D-50 Clear MEKP	3360.00	0.00	1.00	0.00
⇒ CADOX D-50 Red MEKP	7908.00	0.00	1.00	0.00
⇒ 104-311 Hi Point 90 MEKP	48.00	< 0.03	1.00	1.44
⇒ 46-747 MEKP	64.00	0.00	1.00	0.00
⇒ 46-750 Cumene HPO	216.00	0.00	1.00	0.00
⇒ 46-757 Cumene HPO	48.00	0.00	1.00	0.00
Glass:				
⇒ Woven Roving	324630.60	0.00	1.00	0.00
⇒ Fiberglass Mat	17189.00	0.00	1.00	0.00
Solvents:				
⇒ [Acetone] **	83178.00	0.00	1.00	0.00
⇒ Methyl Ethyl Ketone (MEK)	66.00	1.00	1.00	66.00
Fillers:				
⇒ Fumed Silica (HDK-N20-WCKR)	200.00	0.00	1.00	0.00
⇒ 7323 Milled Fiber	650.00	0.00	1.00	0.00
⇒ Klean Klay	290.00	0.3944	1.00	114.38
⇒ A208 Hydrated Aluminum	4950.00	0.00	1.00	0.00
⇒ Prupro 8 CaCO ₃	600.00	0.00	1.00	0.00
⇒ Foamboard	?	0.00	1.00	0.00
⇒ Wood Products	?	0.00	1.00	0.00
Wax/Release:				
⇒ W-5 Paste Wax	210.00	0.90	1.00	189.00
⇒ B-005 Super Cut	291.90	2.13 lb/gal	1.00	74.55
⇒ BSP 400 Flange Wax	1300.00	1.00	1.00	1300.00

⇒ TR-210 Self Strip	374.40	6.9 lb/gal	1.00	358.80
⇒ 4005 Econo Edge Wax	32.85	0.123	1.00	4.04
Total Lamination VOC Emissions (lb/yr)				44618.07
GRINDING				
Total Grinding VOC Emissions (Lb/Yr)				0.00
FINAL FINISH				
Paint Materials:				
⇒ Dupont 8034S	12.88	6.4 lb/gal	1.00	12.80
⇒ Dupont 7500S	23.91	5.3 lb/gal	1.00	15.90
⇒ Dupont 7575S	2.06	4.2 lb/gal	1.00	1.05
⇒ Dupont 7160S	19.83	6.5 lb/gal	1.00	19.50
⇒ Dupont 131S	8.34	4.5 lb/gal	1.00	4.50
⇒ GAL 12500 Primer	230.34	4.59 lb/gal	1.00	100.98
Fillers:				
⇒ 70015 Body Filler	4710.80	0.18	38.5 lb/lb monomer	90.68
⇒ 5788-C-90008 Patch Booster	33.28	0.65	171.1 lb/lb monomer	2.85
⇒ ADT #17 Body Filler	81.70	< 0.20	1.00	16.34
⇒ #7 AKP Body Filler	14.76	2.24 lb/gal	1.00	2.32
Catalysts:				
⇒ 50% BPO Cream Hardener	96.25	0.20	1.00	19.25
⇒ 35% BPO Black Cream Hardener	0.50	0.20	1.00	0.10
⇒ 46-559 Promotor	42.68	0.75	1.00	32.01
Finishing Compounds:				
⇒ USC 712 Finish Rub	800.00	0.33	1.00	264.00
⇒ TR-308 Fine Finish	126.00	0.8 lb/gal	1.00	11.20

Miscellaneous:				
⇒ Sika Flex	59.92	< 0.06	1.00	3.59
⇒ Throat Seal Oil 12800	67.97	0.00	1.00	0.00
⇒ Pump Motor Oil 3200	22.26	0.00	1.00	0.00
⇒ 38-32R Buff Bar	39.00	0.00	1.00	0.00
⇒ Dykem Blue	35.05	6.27 lb/gal	1.00	31.35
⇒ Black Magnum	100.00	0.00	1.00	0.00
Final Finish VOC Emissions (lb/yr)				628.42
TOTAL VOC EMISSIONS (lb/yr)				63456.95 72241.83

* VOC emissions based on 1999 raw material usage and MSDS information, including VOC content (less water and exempt solvents), or percent volatile content, as available.

** Acetone has recently been listed as a nonphotochemically reactive compound and is therefore exempted from VOC definition.

*** .df = decimal fraction.

NOTE 10A continued: VOC EMISSIONS*
 C&C Fiberglass, Inc., Transportation Division

GELCOAT-PM VOC EMISSIONS

	lb/hr	TPY
Actual Emission	13.23	13.49 9.10
Potential to Emit***	56.82	57.96 39.08

*** PTE = Actual (8760 hr/yr/2040 hr/yr)

LAMINATION PM VOC EMISSIONS

	lb/hr	TPY
Actual Emission	21.87	22.31
Potential to Emit***	93.92	95.79

*** PTE = Actual (8760 hr/yr/2040 hr/yr)

FINAL FINISH-PM VOC EMISSIONS

	lb/hr	TPY
Actual Emission	0.31	0.31
Potential to Emit***	1.32	1.35

*** PTE = Actual (8760 hr/yr/2040 hr/yr)

NOTE 10B: VOC EMISSIONS*
C&C Fiberglass, Inc., Tub and Shower Division

VOC CONTAINING COMPOUND	QUANTITY PURCHASED (lb)	MONOMER OR VOLATILE CONTENT (.df or lb/gal) ****	APPLICABLE EMISSION FACTOR*	VOC EMISSIONS (lb/yr)
GELCOAT AREA				
Gelcoat Materials:				
⇒ Tangerine Tooling Gel Coat	540.00	0.37	232 lb/ton 377 lb/lb	62.64 401.79
⇒ W-419-LUU Gel Coat	484460.00 ***	0.30	195 lb/ton 267 lb/lb	47234.85 64675.41
Gel Coat VOC Emissions (lb/yr)				47, 297.5 64777.20
LAMINATION AREA				
Resin:				
⇒ COR54-AA-526 Resin	1592905.00 ***	0.32	68.5 lb/lb monomer	54556.99
⇒ 33-350 Tooling Resin	2720.00	0.48	118 lb/lb monomer	160.48
⇒ 33-540 Tooling Resin	6900.00	0.46	111 lb/lb monomer	382.95
Catalyst:				
⇒ CADOX D-50 Clear	3360.00	0.00	1.00	0.00
⇒ CADOX D-50 Red	7908.00	0.00	1.00	0.00
⇒ 104-311 Hi Point MEKP	48.00	< 0.03	1.00	1.44
⇒ 46-747 MEKP	64.00	0.00	1.00	0.00
⇒ 46-750 Cumene HPO	216.00	0.00	1.00	0.00
⇒ 46-757 Cumene HPO	48.00	0.00	1.00	0.00
Glass:				
⇒ Woven Roving	324630.6	0.00	1.00	0.00
⇒ Fiberglass Mat	17189.00	0.00	1.00	0.00
Solvents:				
⇒ [Acetone] **	83178.00	0.00	1.00	0.00
Fillers:				
⇒ Fumed Silica (HDK N20 WCKR)	200.00	0.00	1.00	0.00
⇒ 7323 Milled Fiber	650.00	0.00	1.00	0.00
⇒ Klean Klay	290.00	0.3944	1.00	114.38
⇒ A208 Hydrated Aluminum	4950.00	0.00	1.00	0.00
⇒ Prupro 8 CaCO ₃	600.00	0.00	1.00	0.00
⇒ Foam board	?	0.00	1.00	0.00
⇒ Wood Products	?	0.00	1.00	0.00
Wax/Release:				
⇒ W-5 Paste Wax	210.00	0.90	1.00	189.00
⇒ B-005 Super Cut	291.90	2.13 lb/gal	1.00	74.55
⇒ BSP 400 Flange Wax	1300.00	1.00	1.00	1300.00
⇒ TR-210 Self Strip	374.40	6.9 lb/gal	1.00	358.80
⇒ 4005 Econo Edge Wax	32.85	0.123	1.00	4.04
Lamination VOC Emissions (lb/hr)				57142.63
GRINDING				
Grinding VOC Emissions (lb/yr)				0.00
FINAL FINISH				
Fillers:				
⇒ 70015 Body Filler	4710.80	0.18	38.5 lb/lb monomer	90.68
⇒ 5788-C-90008 Patch Booster	33.28	0.65	171.1 lb/lb monomer	2.85
⇒ ADT #17 Body Filler	81.70	< 0.20	1.00	16.34
⇒ #7 AKP Body Filler	14.76	2.24 lb/gal	1.00	2.32
Catalyst:				
⇒ 50% BPO Cream Hardener	96.25	0.20	1.00	19.25
⇒ 35% BPO Cream Hardener	0.50	0.20	1.00	0.10
⇒ 46-559 Promotor	42.68	0.75	1.00	32.01
Finishing Compounds:				
⇒ USC 712 Finish Rub	800.00	0.33	1.00	264.00
⇒ TR-308 Fine Finish	126.00	0.8 lb/gal	1.00	11.20
Miscellaneous:				
⇒ Sika Flex	59.92	< 0.06	1.00	3.59
⇒ Throat Seal Oil 12800	67.97	0.00	1.00	0.00
⇒ Pump Motor Oil 3200	22.26	0.00	1.00	0.00
⇒ 38-32R Buff Bar	39.00	0.00	1.00	0.00
⇒ Dykem Blue	35.05	6.27 lb/gal	1.00	31.35
⇒ Black Magnum	100.00	0.00	1.00	0.00
Total Final Finish VOC's (lb/yr)				473.69
TOTAL FACILITY VOC EMISSIONS (lb/yr)				104913.8 421720.77

* VOC emissions based on 1999 raw material usage and MSDS information, including VOC content (less water and exempt solvents), or percent volatile content, as available.
 ** Acetone has recently been listed as a nonphotochemically reactive compound and is therefore exempted from VOC definition.
 *** Estimated based on projected production and materials usage rates.
 **** .df = decimal fraction.

NOTE 10B, Continued: VOC EMISSIONS*
C&C Fiberglass, Inc., Tub and Shower Division

GELCOAT VOC EMISSIONS

	lb/hr	TPY
Actual Emission	31.75	23.65 32.39
Potential to Emit***	136.35	101.55 139.08

*** PTE = Actual (8760 hr/yr/2040 hr/yr)

LAMINATION VOC EMISSIONS

	lb/hr	TPY
Actual Emission	28.01	28.57
Potential to Emit***	120.03	122.69

*** PTE = Actual (8760 hr/yr/2040 hr/yr)

FINAL FINISH VOC EMISSIONS

	lb/hr	TPY
Actual Emission	0.23	0.24
Potential to Emit***	0.99	1.02

*** PTE = Actual (8760 hr/yr/2040 hr/yr)

NOTE 12A: PM EMISSIONS FROM THE GRINDING AREA
C&C Fiberglass, Inc., Transportation Division

Torit-Donaldson ECB dust collection drawer tared and weighted after use:

Net Weight of 1 drawer: 15.25-lb dust collected in 9 hours

PM Emissions: (15.2-lb PM) / (drawer) (9-hr) X (4-drawers) = 6.78 lb/hr

GRINDING PM EMISSIONS *

	lb/hr	TPY
Actual Emission	6.78	6.83
Potential to Emit***	29.46	29.68

*** PTE = Actual (8,760 hr/yr/2,040 hr/yr)

**NOTE 12B: PM EMISSIONS FROM THE GRINDING AREA
C&C Fiberglass, Inc., Tub and Shower Division**

Torit-Donaldson ECB dust collection drawer tared and weighted after use:

Net Weight of 1 drawer: 15.25-lb dust collected in 9 hours

PM Emissions: $(15.2\text{-lb PM}) / (\text{drawer}) (9\text{-hr}) \times (4\text{-drawers}) = 6.78 \text{ lb/hr}$

GRINDING PM EMISSIONS *

	lb/hr	TPY
Actual Emission	6.78	6.91
Potential to Emit***	29.11	29.69

*** PTE = Actual (8,760 hr/yr/2,040 hr/yr)

* Based on the operation of a similar facility (C & C Fiberglass, Inc., Transportation Division).