INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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Part 70 Operating Permit Renewal
OFFICE OF AIR QUALITY

Starcraft Marine, LLC
201 Starcraft Drive
Topeka, Indiana 46571

(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.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

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.: T087-30912-00012	
Issued by: Tripurari P. Sinha Ph,D., Section Chief Permits Branch Office of Air Quality	Issuance Date: Expiration Date:

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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(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary fiberglass and aluminum boats manufacturing plant.

Source Address:	201 Starcraft Drive, Topeka, Indiana 46571
General Source Phone Number:	(260) 593-2880
SIC Code:	3732
County Location:	LaGrange
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD Rules Major Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(14)]

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

(a) Four (4) paint (primer or enamel) booths and their associated cleanup operations, wash tanks, paint storage and mixing operations, identified as:

(1) B-1 exhausting through stack: SV-83 with a maximum production rate 100 parts per hour;

(2) B-3 exhausting through stacks: SV-84 and SV-85 with a maximum production rate of 100 parts per hour;

(3) B-2 exhausting through stacks: SV-86 and SV-87 with a maximum production rate of 100 parts per hour;

(4) B-6 exhausting through stacks: SV-88 and SV-89 with a maximum production rate of 2 boats per hour or equivalent in parts for 2 boats per hour.

Each booth uses air assisted airless or an equivalent transfer efficient type of spray gun and is equipped with dry filters to control the PM emissions. Booths, identified as B-1, B-2, and B-3 were installed in 1979 while booth B-6 was installed in 1988. Pursuant to NESHAP VVVV, B-1, B-3, B-2 and B-6, are considered existing affected sources.

(b) Three (3) gel coat booths and their associated cleanup operations and wash tanks, identified as:

(1) B-4 exhausting through stacks: SV-90 and SV-91 with a maximum production rate of 30 parts per hour,

(2) B-8 exhausting through stacks: SV-92 and SV-93 with a maximum production rate of 30 parts per hour, and

(3) B-7 exhausting through stacks: SV-94 and SV-95 with a maximum production rate of 30 parts per hour.

Each booth uses air assisted airless or an equivalent transfer efficient type of spray gun and is equipped with a dry filter to control the PM emissions. The gel coat booths B-4 and B-8 were installed in 1979 and modified in 2004 while booth B-7 was installed in 1982. Pursuant to NESHAP VVVV, B-4, B-8, B-7, are considered existing affected sources.

(c) One (1) catalyst/fiber resin chopper and roll-out operation area and its associated cleanup operations and wash tanks, installed in 1979, with a maximum production rate of 30 parts per hour, equipped with dry filter for PM emission control exhausting through seven (7) stacks identified as SV-96A, SV-96B, SV-96C, SV-96D, SV-96E, SV-96F and SV-96G. Pursuant to NESHAP VVVV, the catalyst/fiber resin chopper is considered an existing affected source.

(d) One (1) fiberglass grinding room installed in 1979, exhausting through the stack SV-103 and equipped with a dust collector.

(e) The manual (hand and roller) application of contact adhesives and sealants and the associated cleanup operations with fugitive emissions of volatile organic compounds. Pursuant to NESHAP VVVV, the manual application of contact adhesives is considered an existing affected source.

(f) Mold maintenance and preparation activities using waxes and release agents and the associated cleanup operations with fugitive emissions of volatile organic compounds.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:

(1) Fifty-four (54) natural gas fired space heaters, each with a heat input capacity of 0.1 MMBtu/hr;

(2) Two (2) natural gas fired process heaters, each with a heat input capacity of 0.15 MMBtu/hr;

(3) Five (5) natural gas fired furnaces, with a heat input capacity of 1.0 MMBtu/hr;

(4) Eight (8) natural gas fired infrared tubes, with a total heat input capacity of 1.3 MMBtu/hr;

(5) One (1) natural gas fired unit heater, with a heat input capacity of 0.70 MMBtu/hr.

(b) Paved and unpaved boat storage areas, parking lots, and access drives.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

(a) This permit, T087-30912-00012, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(34), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "responsible official" is defined at 326 IAC 2-7-1(34).

B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance

causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.11 Emergency Provisions [326 IAC 2-7-16]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, or Northern Regional Office within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable

requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

(a) All terms and conditions of permits established prior to T087-30912-00012 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source’s existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the

document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b) or (c). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-7-20(b)(1) and (c)(1).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2.

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-7-6(1)]

C.7 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]

C.9 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

C.10 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]

C.11 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.12 Risk Management Plan [326 IAC 2-7-5(11)] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.13 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.15 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) (“Regulated pollutant, which is used only for purposes of Section 19 of this rule”) from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Quality
100 North Senate Avenue
MC 61-50 IGCN 1003
Indianapolis, Indiana 46204-2251

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2][326 IAC 2-3]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-3]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

(d) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-7-5(14)]:

(a) Four (4) paint (primer or enamel) booths and their associated cleanup operations, wash tanks, paint storage and mixing operations, identified as:

(1) B-1 exhausting through stack: SV-83 with a maximum production rate 100 parts per hour;

(2) B-3 exhausting through stacks: SV-84 and SV-85 with a maximum production rate of 100 parts per hour;

(3) B-2 exhausting through stacks: SV-86 and SV-87 with a maximum production rate of 100 parts per hour;

(4) B-6 exhausting through stacks: SV-88 and SV-89 with a maximum production rate of 2 boats per hour or equivalent in parts for 2 boats per hour.

Each booth uses air assisted airless or an equivalent transfer efficient type of spray gun and is equipped with dry filters to control the PM emissions. Booths, identified as B-1, B-2, and B-3 were installed in 1979 while booth B-6 was installed in 1988.

(b) Three (3) gel coat booths identified as:

(1) B-4 exhausting through stacks: SV-90 and SV-91 with a maximum production rate of 30 parts per hour,

(2) B-8 exhausting through stacks: SV-92 and SV-93 with a maximum production rate of 30 parts per hour, and

(3) B-7 exhausting through stacks: SV-94 and SV-95 with a maximum production rate of 30 parts per hour.

Each booth uses air assisted airless or an equivalent transfer efficient type of spray gun and is equipped with a dry filter to control the PM emissions. The gel coat booths B-4 and B-8 were installed in 1979 and modified in 2004 while booth B-7 was installed in 1982.

(c) One (1) catalyst/fiber resin chopper and roll-out operation area and its associated cleanup operations and wash tanks, installed in 1979, with a maximum production rate of 30 parts per hour, equipped with dry filter for PM emission control exhausting through seven (7) stacks identified as SV-96A, SV-96B, SV-96C, SV-96D, SV-96E, SV-96F and SV-96G.

(d) The manual (hand and roller) application of contact adhesives and sealants and the associated cleanup operations with fugitive emissions of volatile organic compounds.

Under NESHAP VVVV, B-1, B-2, B-3, B-6, B-4, B-8, B-7, the catalyst/fiber resin chopper and roll-out operation area, and the manual application of contact adhesives are considered existing affected sources.

(The information describing the process contained in this emissions unit 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]

The total source potential to emit VOCs shall be less than 249 tons per twelve (12) consecutive months, with compliance determined at the end of each month. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) will not apply. Compliance with this limit shall be determined by use of the following equation:

(VOC usage from paint booths) + (VOC usage from gelcoat * emission factor) + (catalyst/resin usage * emission factor) + (input VOC from solvent usage) + (input VOC from insignificant activities) < 249 tpy

based upon the following criteria:

(1) VOC emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques 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) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA-approved form, emission factors for the gel coat and resin applications shall be taken from the following reference approved by IDEM, OAQ: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, July 23, 2001, or its update. For the purposes of these emission calculations, monomer in resins and gel coats that is not styrene shall be considered as styrene on an equivalent weight basis.

Compliance with this limit renders 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.2 Emission Standards for Hazardous Air Pollutants for Boat Manufacturing [326 IAC 20-48]

(a) Pursuant to 326 IAC 20-48-2, in addition to alternative organic HAP content requirements for open molding resin operations contained in Table 2 to Subpart VVVV, 40 CFR 63, the alternative HAP content requirements for gel coat operations are as follows:

Gel Coat Application		
Operation	**Application Method**	**The weighted average HAP content shall not exceed**
Pigmented gel coat	Atomized (spray)	33%
Clear gel coat operations	Atomized (spray)	48%
Tooling Gel Coat	Atomized (spray)	40%
Pigmented Gel Coat	Nonatomized (nonspray)	40%
Clear Gel Coat	Nonatomized (nonspray)	55%
Tooling Gel Coat	Nonatomized (nonspray)	54%

(b) Pursuant to 326 IAC 20-48-3, the Permittee shall operate the three (3) gel coat booths, the four (4) surface coating booths, and one (1) catalyst/fiber resin chopper and roll-out operation area, and the manual application of contact adhesives in accordance with the following work practice standards:

(1) Nonatomizing spray equipment shall not be operated at pressures that atomize the material during the application process.

(2) Solvents sprayed during cleanup and resin changes shall be directed into solvent collection containers.

(3) For routine flushing of resin and gel coat application equipment, such as spray guns, flowcoaters, brushes, rollers, and squeegees, owners or operators must use a cleaning solvent that contains no hazardous air pollutants (HAP). However, recycled cleaning solvents that contain less than or equal to five (5) percent HAP by weight are considered to contain no HAP for the purposes of this condition. For removing cured resin or gel coat from application equipment, no organic HAP limit applies.

(4) Clean-up rags with solvent shall be stored in closed containers.

(5) Closed containers shall be used for the storage of the following:

(i) All production and tooling resins that contain HAP.

(ii) All production and tooling gel coats that contain HAP.

(iii) Waste resins and gel coats that contain HAP.

(iv) Cleaning materials, including waste cleaning materials.

(v) Other materials that contain HAP.

The covers of the closed containers must have no visible gaps and must be in place at all times, except when equipment is placed in or removed from the container.

(c) Pursuant to 326 IAC 20-48-4 (Operator Training), the Permittee shall comply with following operator training requirements:

(1) Train all new and existing personnel, including contract personnel, who are involved in resin and gel coat spraying and applications that could result in excess emissions if performed improperly according to the following schedule:

(i) All personnel hired shall be trained within fifteen (15) days of hiring.

(ii) To ensure training goals listed is paragraph (b) of this condition are maintained, all personnel shall be given refresher training annually.

(iii) Personnel who have been trained by another owner or operator subject to this rule are exempt from paragraph (a)(1) of this condition if written documentation that the employee's training is current is provided to the new employer.

(2) The lesson plans shall cover, for the initial and refresher training, at a minimum, all of the following topics:

(i) Appropriate application techniques.

(ii) Appropriate equipment cleaning procedures.

(iii) Appropriate equipment setup and adjustment to minimize material usage and overspray.

(3) Maintain the following training records on site and available for inspection and review:

(i) A copy of the current training program.

(ii) A list of all current personnel, by name, that are required to be trained and the dates they were trained and the date of the most recent refresher training.

(4) Records of prior training programs and former personnel are not required to be maintained.

D.1.3 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the from the four (4) paint booths (B-1, B-2, B-3 and B-6) and the three (3) gel coat booths (B-4, B-8 and B-7) shall be controlled by dry particulate filters and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-4] [326 IAC 8-1-2(a)]

Compliance with the VOC content and usage limitations contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.6 Monitoring [40 CFR 64]

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters for paint and fiberglass operations. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (SV-83 through SV-89) and gel coating booth stacks (SV-90 through SV-95) while one or more of the booths are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response steps requried by this condition. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(1) The VOC content of each coating material and solvent used.

(2) The amount of coating material and solvent less water used on monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(3) The total VOC usage for each month; and

(4) The weight of VOCs emitted for each compliance period.

(b) To document the compliance status with Condition D.1.2, the Permittee shall maintain records that are complete and sufficient to establish compliance with the HAP monomer content limits. Records maintained shall be taken monthly. Examples of such records include but are not limited to:

(1) The usage by weight and monomer content of each gel coat used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS), manufacturer's certified product data sheets, and calculations necessary to verify the type, amount used, and HAP content of each gel coat;

(2) Method of application and other emission reduction techniques for each gel coat used;

(3) Monthly calculations demonstrating compliance on an equivalent emissions mass basis if non-compliant gel coats are used during that month.

(c) To document the compliance status with Condition D.1.6 the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections of the filters. The Permittee shall include in its record when an observation or inspection is not taken and the reason for the lack of observation or inspection (e.g. the process did not operate that day, week, or month).

(d) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligation with regard to the records required by this condition.

D.1.8 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.1.1 shall be submitted not later than thirty (30) days after the end of the quarter period being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION E.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

(a) Four (4) paint (primer or enamel) booths and their associated cleanup operations, wash tanks, paint storage and mixing operations, coating aluminum boats, identified as:

(1) B-1 exhausting through stack: SV-83 with a maximum production rate 100 parts per hour;

(2) B-3 exhausting through stacks: SV-84 and SV-85 with a maximum production rate of 100 parts per hour;

(3) B-2 exhausting through stacks: SV-86 and SV-87 with a maximum production rate of 100 parts per hour;

(4) B-6 exhausting through stacks: SV-88 and SV-89 with a maximum production rate of 2 boats per hour or equivalent in parts for 2 boats per hour.

Each booth uses air assisted airless or an equivalent transfer efficient type of spray gun and is equipped with dry filters to control the PM emissions. Booths, identified as B-1, B-2, and B-3 were installed in 1979 while booth B-6 was installed in 1988.

(b) Three (3) gel coat booths identified as:

(1) B-4 exhausting through stacks: SV-90 and SV-91 with a maximum production rate of 30 parts per hour,

(2) B-8 exhausting through stacks: SV-92 and SV-93 with a maximum production rate of 30 parts per hour, and

(3) B-7 exhausting through stacks: SV-94 and SV-95 with a maximum production rate of 30 parts per hour.

Each booth uses air assisted airless or an equivalent transfer efficient type of spray gun and is equipped with a dry filter to control the PM emissions. The gel coat booths B-4 and B-8 were installed in 2004 while booth B-7 was installed in 1982.

(c) One (1) catalyst/fiber resin chopper and roll-out operation area and its associated cleanup operations and wash tanks, installed in 1979, with a maximum production rate of 30 parts per hour, equipped with dry filter for PM emission control exhausting through seven (7) stacks identified as SV-96A, SV-96B, SV-96C, SV-96D, SV-96E, SV-96F and SV-96G.

(d) The manual (hand and roller) application of contact adhesives and sealants and the associated cleanup operations with fugitive emissions of volatile organic compounds.

Under NESHAP VVVV, B-1, B-2, B-3, B-6, B-4, B-8, B-7, the catalyst/fiber resin chopper and roll-out operation area, and the manual application of contact adhesives are considered existing affected sources.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-(1)]

E.1.1 General Provisions Relating to NESHAP VVVV [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.5773, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 8 of 40 CFR Part 63, Subpart VVVV in accordance with schedule in 40 CFR 63, Subpart VVVV.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.1.2 NESHAP for Boat Manufacturing Requirements [40 CFR Part 63, Subpart VVVV] [326 IAC 20-48]

Pursuant to CFR Part 63, Subpart VVVV, the Permittee shall comply with the provisions of the NESHAP for Boat Manufacturing, which are incorporated by reference as 326 IAC 20-48 (included as Attachment A of the permit), for B-1, B-2, B-3, B-6, B-4, B-8, B-7, the catalyst/fiber resin chopper and roll-out operation area, and the manual application of contact adhesives, as specified as follows:

(1) 40 CFR 63.5683
(2) 40 CFR 63.5686
(3) 40 CFR 63.5689
(4) 40 CFR 63.5692
(5) 40 CFR 63.5695
(6) 40 CFR 63.5698(a),
(7) 40 CFR 63.5698(b),
(8) 40 CFR 63.5698(c)
(9) 40 CFR 63.5698(d)
(10) 40 CFR 63.5701(a),
(11) 40 CFR 63.5701(b)
(12) 40 CFR 63.5704(a),
(13) 40 CFR 63.5704(b)
(14) 40 CFR 63.5707
(15) 40 CFR 63.5710
(16) 40 CFR 63.5713
(17) 40 CFR 63.5714
(18) 40 CFR 63.5731
(19) 40 CFR 63.5734
(20) 40 CFR 63.5737
(21) 40 CFR 63.5740
(22) 40 CFR 63.5743
(23) 40 CFR 63.5746
(24) 40 CFR 63.5749
(25) 40 CFR 63.5752
(26) 40 CFR 63.5753
(27) 40 CFR 63.5755
(28) 40 CFR 63.5758
(29) 40 CFR 63.5761
(30) 40 CFR 63.5764(a),
(31) 40 CFR 63.5764(b),

(32) 40 CFR 63.5764(c)
(33) 40 CFR 63.5767(a),
(34) 40 CFR 63.5767(b),
(35) 40 CFR 63.5767(c)
(36) 40 CFR 63.5770
(37) 40 CFR 63.5773
(38) 40 CFR 63.5776
(39) 40 CFR 63.5779
(40) Table 8

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Starcraft Marine, LLC
Source Address: 201 Starcraft Drive, Topeka, Indiana 46571
Part 70 Permit No.: T087-30912-00012

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Starcraft Marine, LLC
Source Address: 201 Starcraft Drive, Topeka, Indiana 46571
Part 70 Permit No.: T087-30912-00012

This form consists of 2 pages **Page 1 of 2**

☐ This is an emergency as defined in 326 IAC 2-7-1(12) • The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and • The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Starcraft Marine, LLC
Source Address: 201 Starcraft Drive, Topeka, Indiana 46571
Part 70 Permit No.: T087-30912-00012
Facility: Entire Source
Parameter: VOC Usage

Limit: The total source potential to emit VOCs is limited to 249 tons per twelve (12) consecutive months, with compliance determined at the end of each month. Compliance with this limit shall be determined by use of the following equation:
(Usage VOC from paint booths) + (Usage from Gel Coat x emission factor) + (Usage Catalyst/Resin x emission factor) + (Input VOC from solvent usage) - (Input VOC from Insignificant activities) < 249.00 tons per year, based upon the following criteria:

(1) VOC emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques 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) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA-approved form, emission factors for the gel coat and resin applications shall be taken from the following reference approved by IDEM, OAQ: "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, July 23, 2001, or its update. For the purposes of these emission calculations, monomer in resins and gel coats that is not styrene shall be considered as styrene on an equivalent weight basis.

QUARTER: YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Starcraft Marine, LLC
Source Address: 201 Starcraft Drive, Topeka, Indiana 46571
Part 70 Permit No.: T087-30912-00012

Months: _____ to _____ Year: _____

Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Page 2 of 2

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

Attachment A

NESHAP - Subpart VVVV

Starcraft Marine, LLC
201 Starcraft Drive
Topeka, Indiana 46571

Part 70 Operating Permit Renewal No.: T087-30912-00012

Subpart VVVV—National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing

Source: 66 FR 44232, Aug. 22, 2001, unless otherwise noted.

§ 63.5680 What is the purpose of this subpart?

(a) This subpart establishes national emission standards for hazardous air pollutants (HAP) for new and existing boat manufacturing facilities with resin and gel coat operations, carpet and fabric adhesive operations, or aluminum recreational boat surface coating operations. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission standards.

§ 63.5683 Does this subpart apply to me?

(a) This subpart applies to you if you meet both of the criteria listed in paragraphs (a)(1) and (2) of this section.

(1) You are the owner or operator of a boat manufacturing facility that builds fiberglass boats or aluminum recreational boats.

(2) Your boat manufacturing facility is a major source of HAP either in and of itself, or because it is collocated with other sources of HAP, such that all sources combined constitute a major source.

(b) A boat manufacturing facility is a facility that manufactures hulls or decks of boats from fiberglass or aluminum, or assembles boats from premanufactured hulls and decks, or builds molds to make fiberglass hulls or decks. A facility that manufactures only parts of boats (such as hatches, seats, or lockers) or boat trailers is not considered a boat manufacturing facility for the purpose of this subpart.

(c) A major source is any stationary source or group of stationary sources located within a contiguous area and under common control that emits or can potentially emit, considering controls, in the aggregate, 9.1 megagrams (10 tons) or more per year of a single HAP or 22.7 megagrams (25 tons) or more per year of a combination of HAP.

(d) This subpart does not apply to aluminum coating operations on aluminum boats intended for commercial or military (nonrecreational) use, antifoulant coatings, assembly adhesives, fiberglass hull and deck coatings, research and development activities, mold sealing and release agents, mold stripping and cleaning solvents, and wood coatings as defined in §63.5779. This subpart does not apply to materials contained in handheld aerosol cans.

§ 63.5686 How do I demonstrate that my facility is not a major source?

You can demonstrate that your facility is not a major source by using the procedures in either paragraph (a) or (b) of this section.

(a) *Emission option.* You must demonstrate that your facility does not emit, and does not have the potential to emit as defined in §63.2, considering federally enforceable permit limits, 9.1 megagrams (10 tons) or more per year of a single HAP or 22.7 megagrams (25 tons) or more per year of a combination of HAP. To calculate your facility's potential to emit, you must include emissions from the boat manufacturing facility and all other sources that are collocated and under common ownership or control with the boat manufacturing facility.

(b) *Material consumption option.* This option can be used if you manufacture either fiberglass boats or aluminum recreational boats at your facility. You must meet the criteria in paragraph (b)(1), (2), or (3) of this section and comply with the requirements in paragraph (c) of this section. If you initially rely on the

limits and criteria specified in paragraph (b)(1), (2), or (3) of this section to become an area source, but then exceed the relevant limit (without first obtaining and complying with other limits that keep your potential to emit HAP below major source levels), your facility will then become a major source, and you must comply with all applicable provisions of this subpart beginning on the compliance date specified in §63.5695. Nothing in this paragraph is intended to preclude you from limiting your facility's potential to emit through other federally enforceable mechanisms available through your permitting authority.

(1) If your facility is primarily a fiberglass boat manufacturing facility, you must demonstrate that you consume less than 45.4 megagrams per rolling 12-month period of all combined polyester-and vinylester-based resins and gel coats (including tooling and production resins and gel coats, and clear gel coats), and you must demonstrate that at least 90 percent of total annual HAP emissions at the facility (including emissions from aluminum recreational boat manufacturing or other source categories) originate from the fiberglass boat manufacturing materials.

(2) If your facility is primarily an aluminum recreational boat manufacturing facility, you must demonstrate that it consumes less than 18.2 megagrams per rolling 12-month period of all combined surface coatings, aluminum wipedown solvents, application gun cleaning solvents, and carpet and fabric adhesives; and you must demonstrate that at least 90 percent of total annual HAP emissions at the facility (including emissions from fiberglass boat manufacturing or other source categories) originate from the aluminum recreational boat manufacturing materials.

(3) If your facility is a fiberglass boat or an aluminum recreational boat manufacturing facility, you must demonstrate that the boat manufacturing materials consumed per rolling 12-month period contain a total of less than 4.6 megagrams of any single HAP and less than 11.4 megagrams of all combined HAP, and you must demonstrate that at least 90 percent of total annual HAP emissions at the facility (including emissions from other source categories) originate from these boat manufacturing materials.

(c) If you use the material consumption option described in paragraph (b) of this section to demonstrate that you are not a major source, you must comply with the requirements of paragraphs (c)(1) through (3) of this section.

(1) If your facility has HAP emissions that do not originate from boat manufacturing operations or materials described in paragraph (b), then you must keep any records necessary to demonstrate that the 90 percent criterion is met.

(2) A rolling 12-month period includes the previous 12 months of operation. You must maintain records of the total amount of materials described in paragraph (b) of this section used each month, and, if necessary, the HAP content of each material and the calculation of the total HAP consumed each month. Because records are needed for a 12-month period, you must keep records beginning no later than 12 months before the compliance date specified in §63.5695. Records must be kept for 5 years after they are created.

(3) In determining whether the 90 percent criterion included in paragraph (b) of this section is met, you do not need to include materials used in routine janitorial, building, or facility grounds maintenance; personal uses by employees or other persons; or products used for maintaining motor vehicles operated by the facility.

§ 63.5689 What parts of my facility are covered by this subpart?

The affected source (the portion of your boat manufacturing facility covered by this subpart) is the combination of all of the boat manufacturing operations listed in paragraphs (a) through (f) of this section.

(a) Open molding resin and gel coat operations (including pigmented gel coat, clear gel coat, production resin, tooling gel coat, and tooling resin).

(b) Closed molding resin operations.

(c) Resin and gel coat mixing operations.

(d) Resin and gel coat application equipment cleaning operations.

(e) Carpet and fabric adhesive operations.

(f) Aluminum hull and deck coating operations, including solvent wipedown operations and paint spray gun cleaning operations, on aluminum recreational boats.

§ 63.5692 How do I know if my boat manufacturing facility is a new source or an existing source?

(a) A boat manufacturing facility is a new source if it meets the criteria in paragraphs (a)(1) through (3) of this section.

(1) You commence construction of the affected source after July 14, 2000.

(2) It is a major source.

(3) It is a completely new boat manufacturing affected source where no other boat manufacturing affected source existed prior to the construction of the new source.

(b) For the purposes of this subpart, an existing source is any source that is not a new source.

§ 63.5695 When must I comply with this subpart?

You must comply with the standards in this subpart by the compliance dates specified in Table 1 to this subpart.

Standards for Open Molding Resin and Gel Coat Operations

§ 63.5698 What emission limit must I meet for open molding resin and gel coat operations?

(a) You must limit organic HAP emissions from the five open molding operations listed in paragraphs (a)(1) through (5) of this section to the emission limit specified in paragraph (b) of this section. Operations listed in paragraph (d) are exempt from this limit.

(1) Production resin.

(2) Pigmented gel coat.

(3) Clear gel coat.

(4) Tooling resin.

(5) Tooling gel coat.

(b) You must limit organic HAP emissions from open molding operations to the limit specified by equation 1 of this section, based on a 12-month rolling average.

$$HAP\ Limit = \left[46(M_R) + 159(M_{PG}) + 291(M_{CG}) + 54(M_{TR}) + 214(M_{TG})\right] \qquad (Eq.\ 1)$$

Where:

HAP Limit= total allowable organic HAP that can be emitted from the open molding operations, kilograms.

M_R= mass of production resin used in the past 12 months, excluding any materials exempt under paragraph (d) of this section, megagrams.

M_{PG}= mass of pigmented gel coat used in the past 12 months, excluding any materials exempt under paragraph (d) of this section, megagrams.

M_{CG}= mass of clear gel coat used in the past 12 months, excluding any materials exempt under paragraph (d) of this section, megagrams.

M_{TR}= mass of tooling resin used in the past 12 months, excluding any materials exempt under paragraph (d) of this section, megagrams.

M_{TG}= mass of tooling gel coat used in the past 12 months, excluding any materials exempt under paragraph (d) of this section, megagrams.

(c) The open molding emission limit is the same for both new and existing sources.

(d) The materials specified in paragraphs (d)(1) through (3) of this section are exempt from the open molding emission limit specified in paragraph (b) of this section.

(1) Production resins (including skin coat resins) that must meet specifications for use in military vessels or must be approved by the U.S. Coast Guard for use in the construction of lifeboats, rescue boats, and other life-saving appliances approved under 46 CFR subchapter Q or the construction of small passenger vessels regulated by 46 CFR subchapter T. Production resins for which this exemption is used must be applied with nonatomizing (non-spray) resin application equipment. You must keep a record of the resins for which you are using this exemption.

(2) Pigmented, clear, and tooling gel coat used for part or mold repair and touch up. The total gel coat materials included in this exemption must not exceed 1 percent by weight of all gel coat used at your facility on a 12-month rolling-average basis. You must keep a record of the amount of gel coats used per month for which you are using this exemption and copies of calculations showing that the exempt amount does not exceed 1 percent of all gel coat used.

(3) Pure, 100 percent vinylester resin used for skin coats. This exemption does not apply to blends of vinylester and polyester resins used for skin coats. The total resin materials included in the exemption cannot exceed 5 percent by weight of all resin used at your facility on a 12-month rolling-average basis. You must keep a record of the amount of 100 percent vinylester skin coat resin used per month that is eligible for this exemption and copies of calculations showing that the exempt amount does not exceed 5 percent of all resin used.

§ 63.5701 What are my options for complying with the open molding emission limit?

You must use one or more of the options listed in paragraphs (a) through (c) of this section to meet the emission limit in §63.5698 for the resins and gel coats used in open molding operations at your facility.

(a) *Maximum achievable control technology (MACT) model point value averaging (emissions averaging) option.* (1) Demonstrate that emissions from the open molding resin and gel coat operations that you average meet the emission limit in §63.5698 using the procedures described in §63.5710. Compliance with this option is based on a 12-month rolling average.

(2) Those operations and materials not included in the emissions average must comply with either paragraph (b) or (c) of this section.

(b) *Compliant materials option.* Demonstrate compliance by using resins and gel coats that meet the organic HAP content requirements in Table 2 to this subpart. Compliance with this option is based on a 12-month rolling average.

(c) *Add-on control option.* Use an enclosure and add-on control device, and demonstrate that the resulting emissions meet the emission limit in §63.5698. Compliance with this option is based on control device performance testing and control device monitoring.

§ 63.5704 What are the general requirements for complying with the open molding emission limit?

(a) *Emissions averaging option.* For those open molding operations and materials complying using the emissions averaging option, you must demonstrate compliance by performing the steps in paragraphs (a)(1) through (5) of this section.

(1) Use the methods specified in §63.5758 to determine the organic HAP content of resins and gel coats.

(2) Complete the calculations described in §63.5710 to show that the organic HAP emissions do not exceed the limit specified in §63.5698.

(3) Keep records as specified in paragraphs (a)(3)(i) through (iv) of this section for each resin and gel coat.

(i) Hazardous air pollutant content.

(ii) Amount of material used per month.

(iii) Application method used for production resin and tooling resin. This record is not required if all production resins and tooling resins are applied with nonatomized technology.

(iv) Calculations performed to demonstrate compliance based on MACT model point values, as described in §63.5710.

(4) Prepare and submit the implementation plan described in §63.5707 to the Administrator and keep it up to date.

(5) Submit semiannual compliance reports to the Administrator as specified in §63.5764.

(b) *Compliant materials option.* For each open molding operation complying using the compliant materials option, you must demonstrate compliance by performing the steps in paragraphs (b)(1) through (4) of this section.

(1) Use the methods specified in §63.5758 to determine the organic HAP content of resins and gel coats.

(2) Complete the calculations described in §63.5713 to show that the weighted-average organic HAP content does not exceed the limit specified in Table 2 to this subpart.

(3) Keep records as specified in paragraphs (b)(3)(i) through (iv) of this section for each resin and gel coat.

(i) Hazardous air pollutant content.

(ii) Application method for production resin and tooling resin. This record is not required if all production resins and tooling resins are applied with nonatomized technology.

(iii) Amount of material used per month. This record is not required for an operation if all materials used for that operation comply with the organic HAP content requirements.

(iv) Calculations performed, if required, to demonstrate compliance based on weighted-average organic HAP content as described in §63.5713.

(4) Submit semiannual compliance reports to the Administrator as specified in §63.5764.

(c) *Add-on control option.* If you are using an add-on control device, you must demonstrate compliance by performing the steps in paragraphs (c)(1) through (5) of this section.

(1) Conduct a performance test of the control device as specified in §§63.5719 and 63.5722 to demonstrate initial compliance.

(2) Use the performance test results to determine control device parameters to monitor after the performance test as specified in §63.5725.

(3) Comply with the operating limits specified in §63.5715 and the control device and emission capture system monitoring requirements specified in §63.5725 to demonstrate continuous compliance.

(4) Keep the records specified in §63.5767.

(5) Submit to the Administrator the notifications and reports specified in §§63.5761 and 63.5764.

§ 63.5707 What is an implementation plan for open molding operations and when do I need to prepare one?

(a) You must prepare an implementation plan for all open molding operations for which you comply by using the emissions averaging option described in §63.5704(a).

(b) The implementation plan must describe the steps you will take to bring the open molding operations covered by this subpart into compliance. For each operation included in the emissions average, your implementation plan must include the elements listed in paragraphs (b)(1) through (3) of this section.

(1) A description of each operation included in the average.

(2) The maximum organic HAP content of the materials used, the application method used (if any atomized resin application methods are used in the average), and any other methods used to control emissions.

(3) Calculations showing that the operations covered by the plan will comply with the open molding emission limit specified in §63.5698.

(c) You must submit the implementation plan to the Administrator with the notification of compliance status specified in §63.5761.

(d) You must keep the implementation plan on site and provide it to the Administrator when asked.

(e) If you revise the implementation plan, you must submit the revised plan with your next semiannual compliance report specified in §63.5764.

§ 63.5710 How do I demonstrate compliance using emissions averaging?

(a) Compliance using the emissions averaging option is demonstrated on a 12-month rolling-average basis and is determined at the end of every month (12 times per year). The first 12-month rolling-average period begins on the compliance date specified in §63.5695.

(b) At the end of the twelfth month after your compliance date and at the end of every subsequent month, use equation 1 of this section to demonstrate that the organic HAP emissions from those operations included in the average do not exceed the emission limit in §63.5698 calculated for the same 12-month period. (Include terms in equation 1 of §63.5698 and equation 1 of this section for only those operations and materials included in the average.)

$$HAP\ \text{emissions} = \left[(PV_R)(M_R) + (PV_{PG})(M_{PG}) + (PV_{CG})(M_{CG}) + (PV_{TR})(M_{TR}) + (PV_{TG})(M_{TG})\right] \qquad (Eq.\ 1)$$

Where:

HAP emissions= Organic HAP emissions calculated using MACT model point values for each operation included in the average, kilograms.

PV_R= Weighted-average MACT model point value for production resin used in the past 12 months, kilograms per megagram.

M_R= Mass of production resin used in the past 12 months, megagrams.

PV_{PG}= Weighted-average MACT model point value for pigmented gel coat used in the past 12 months, kilograms per megagram.

M_{PG}= Mass of pigmented gel coat used in the past 12 months, megagrams.

PV_{CG}= Weighted-average MACT model point value for clear gel coat used in the past 12 months, kilograms per megagram.

M_{CG}= Mass of clear gel coat used in the past 12 months, megagrams.

PV_{TR}= Weighted-average MACT model point value for tooling resin used in the past 12 months, kilograms per megagram.

M_{TR}= Mass of tooling resin used in the past 12 months, megagrams.

PV_{TG}= Weighted-average MACT model point value for tooling gel coat used in the past 12 months, kilograms per megagram.

M_{TG}= Mass of tooling gel coat used in the past 12 months, megagrams.

(c) At the end of every month, use equation 2 of this section to compute the weighted-average MACT model point value for each open molding resin and gel coat operation included in the average.

$$PV_{OP} = \frac{\sum_{i=1}^{n}(M_i \, PV_i)}{\sum_{i=1}^{n}(M_i)} \qquad (Eq.\ 2)$$

Where:

PV_{OP}=weighted-average MACT model point value for each open molding operation (PV_R, PV_{PG}, PV_{CG}, PV_{TR}, and PV_{TG}) included in the average, kilograms of HAP per megagram of material applied.

M_i=mass of resin or gel coat i used within an operation in the past 12 months, megagrams.

n=number of different open molding resins and gel coats used within an operation in the past 12 months.

PV_i=the MACT model point value for resin or gel coat i used within an operation in the past 12 months, kilograms of HAP per megagram of material applied.

(d) You must use the equations in Table 3 to this subpart to calculate the MACT model point value (PV_i) for each resin and gel coat used in each operation in the past 12 months.

(e) If the organic HAP emissions, as calculated in paragraph (b) of this section, are less than the organic HAP limit calculated in §63.5698(b) for the same 12-month period, then you are in compliance with the emission limit in §63.5698 for those operations and materials included in the average.

[66 FR 44232, Aug. 22, 2001; 66 FR 50504, Oct. 3, 2001]

§ 63.5713 How do I demonstrate compliance using compliant materials?

(a) Compliance using the organic HAP content requirements listed in Table 2 to this subpart is based on a 12-month rolling average that is calculated at the end of every month. The first 12-month rolling-average period begins on the compliance date specified in §63.5695. If you are using filled material (production resin or tooling resin), you must comply according to the procedure described in §63.5714.

(b) At the end of the twelfth month after your compliance date and at the end of every subsequent month, review the organic HAP contents of the resins and gel coats used in the past 12 months in each operation. If all resins and gel coats used in an operation have organic HAP contents no greater than the applicable organic HAP content limits in Table 2 to this subpart, then you are in compliance with the emission limit specified in §63.5698 for that 12-month period for that operation. In addition, you do not need to complete the weighted-average organic HAP content calculation contained in paragraph (c) of this section for that operation.

(c) At the end of every month, you must use equation 1 of this section to calculate the weighted-average organic HAP content for all resins and gel coats used in each operation in the past 12 months.

$$Weighted\text{-}Average\ \text{HAP Content}\ (\%) = \frac{\sum_{i=1}^{n}(M_i\ \text{HAP}_i)}{\sum_{i=1}^{n}(M_i)} \qquad (Eq.\ 1)$$

Where:

M_i= mass of open molding resin or gel coat i used in the past 12 months in an operation, megagrams.

HAP_i= Organic HAP content, by weight percent, of open molding resin or gel coat i used in the past 12 months in an operation. Use the methods in §63.5758 to determine organic HAP content.

n = number of different open molding resins or gel coats used in the past 12 months in an operation.

(d) If the weighted-average organic HAP content does not exceed the applicable organic HAP content limit specified in Table 2 to this subpart, then you are in compliance with the emission limit specified in §63.5698.

§ 63.5714 How do I demonstrate compliance if I use filled resins?

(a) If you are using a filled production resin or filled tooling resin, you must demonstrate compliance for the filled material on an as-applied basis using equation 1 of this section.

$$PV_F = PV_u \times \frac{(100 - \%\ \text{Filler})}{100} \qquad (Eq.\ 1)$$

Where:

PV_F= The as-applied MACT model point value for a filled production resin or tooling resin, kilograms organic HAP per megagram of filled material.

PV_u= The MACT model point value for the neat (unfilled) resin, before filler is added, as calculated using the formulas in Table 3 to this subpart.

% Filler =The weight-percent of filler in the as-applied filled resin system.

(b) If the filled resin is used as a production resin and the value of PV_Fcalculated by equation 1 of this section does not exceed 46 kilograms of organic HAP per megagram of filled resin applied, then the filled resin is in compliance.

(c) If the filled resin is used as a tooling resin and the value of PV_Fcalculated by equation 1 of this section does not exceed 54 kilograms of organic HAP per megagram of filled resin applied, then the filled resin is in compliance.

(d) If you are including a filled resin in the emissions averaging procedure described in §63.5710, then use the value of PV_Fcalculated using equation 1 of this section for the value of PV i in equation 2 of §63.5710.

Demonstrating Compliance for Open Molding Operations Controlled by Add-On Control Devices

§ 63.5715 What operating limits must I meet?

(a) For open molding operations on which you use a thermal oxidizer as an add-on control device, you must meet the operating limits specified in Table 4 to this subpart that apply to the emission capture system and thermal oxidizer. You must establish the operating limits during the performance test according to the procedures in §63.5725. You must meet the operating limits at all times after you establish them.

(b) If you use an add-on control device other than a thermal oxidizer, or wish to monitor an alternative parameter and comply with a different operating limit, you must apply to the Administrator for approval of alternative monitoring under §63.8(f).

§ 63.5716 When must I conduct a performance test?

(a) If your source is an existing source, you must complete the add-on control device performance test no later than the compliance date specified in §63.5695.

(b) If your source is a new source, you must complete the add-on control device performance test no later than 180 days after the compliance date specified in §63.5695.

(c) You must conduct a performance test every 5 years as part of renewing your 40 CFR part 70 or 71 operating permit.

§ 63.5719 How do I conduct a performance test?

(a) You must capture the emissions using a permanent enclosure (such as a spray booth or similar containment device) and direct the captured emissions to the add-on control device.

(b) You must measure emissions as specified in paragraph (b)(1) or (2) of this section.

(1) If the enclosure vented to the control device is a permanent total enclosure as defined in Method 204 of appendix M to 40 CFR part 51, then you may measure emissions only at the outlet of the control device.

(2) If the permanent enclosure vented to the control device is not a total enclosure, you must build a temporary total enclosure, as defined in Method 204 of appendix M to 40 CFR part 51, around the permanent enclosure. You must then simultaneously measure emissions from the control device outlet and the emissions from the temporary total enclosure outlet. You determine compliance from the combined emissions from the control device outlet and the temporary total enclosure outlet.

(c) You must conduct the control device performance test using the emission measurement methods specified in paragraphs (c)(1) through (4) of this section.

(1) Use either Method 1 or 1A of appendix A to 40 CFR part 60, as appropriate, to select the sampling sites.

(2) Use Method 2, 2A, 2C, 2D, 2F or 2G of appendix A to 40 CFR part 60, as appropriate, to measure gas volumetric flow rate.

(3) Use Method 18 of appendix A to 40 CFR part 60 to measure organic HAP emissions or use Method 25A of appendix A to 40 CFR part 60 to measure total gaseous organic emissions as a surrogate for total organic HAP emissions. If you use Method 25A, you must assume that all gaseous organic emissions measured as carbon are organic HAP emissions. If you use Method 18 and the number of organic HAP in

the exhaust stream exceeds five, you must take into account the use of multiple chromatographic columns and analytical techniques to get an accurate measure of at least 90 percent of the total organic HAP mass emissions. Do not use Method 18 to measure organic HAP emissions from a combustion device; use instead Method 25A and assume that all gaseous organic mass emissions measured as carbon are organic HAP emissions.

(4) You may use American Society for Testing and Materials (ASTM) D6420–99 (available for purchase from at least one of the following addresses: 100 Barr Harbor Drive, West Conshohocken, PA 19428–2959; or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.) in lieu of Method 18 of 40 CFR part 60, appendix A, under the conditions specified in paragraphs (c)(4)(i) through (iii) of this section.

(i) If the target compound(s) is listed in Section 1.1 of ASTM D6420–99 and the target concentration is between 150 parts per billion by volume and 100 parts per million by volume.

(ii) If the target compound(s) is not listed in Section 1.1 of ASTM D6420–99, but is potentially detected by mass spectrometry, an additional system continuing calibration check after each run, as detailed in Section 10.5.3 of ASTM D6420–99, must be followed, met, documented, and submitted with the performance test report even if you do not use a moisture condenser or the compound is not considered soluble.

(iii) If a minimum of one sample/analysis cycle is completed at least every 15 minutes.

(d) The control device performance test must consist of three runs and each run must last at least 1 hour. The production conditions during the test runs must represent normal production conditions with respect to the types of parts being made and material application methods. The production conditions during the test must also represent maximum potential emissions with respect to the organic HAP content of the materials being applied and the material application rates.

(e) During the test, you must also monitor and record separately the amounts of production resin, tooling resin, pigmented gel coat, clear gel coat, and tooling gel coat applied inside the enclosure that is vented to the control device.

§ 63.5722 How do I use the performance test data to demonstrate initial compliance?

Demonstrate initial compliance with the open molding emission limit as described in paragraphs (a) through (c) of this section:

(a) Calculate the organic HAP limit you must achieve using equation 1 of §63.5698. For determining initial compliance, the organic HAP limit is based on the amount of material used during the performance test, in megagrams, rather than during the past 12 months. Calculate the limit using the megagrams of resin and gel coat applied inside the enclosure during the three runs of the performance test and equation 1 of §63.5698.

(b) Add the total measured emissions, in kilograms, from all three of the 1-hour runs of the performance test.

(c) If the total emissions from the three 1-hour runs of the performance test are less than the organic HAP limit calculated in paragraph (a) of this section, then you have demonstrated initial compliance with the emission limit in §63.5698 for those operations performed in the enclosure and controlled by the add-on control device.

§ 63.5725 What are the requirements for monitoring and demonstrating continuous compliance?

(a) You must establish control device parameters that indicate proper operation of the control device.

(b) You must install, operate, and maintain a continuous parameter monitoring system as specified in paragraphs (b)(1) through (8) of this section.

(1) The continuous parameter monitoring system must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.

(2) You must have valid data from at least 90 percent of the hours during which the process operated.

(3) You must determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.

(4) You must maintain the continuous parameter monitoring system at all times and have available necessary parts for routine repairs of the monitoring equipment.

(5) You must operate the continuous parameter monitoring system and collect emission capture system and add-on control device parameter data at all times that a controlled open molding operation is being performed, except during monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, if applicable, calibration checks and required zero and span adjustments).

(6) You must not use emission capture system or add-on control device parameter data recorded during monitoring malfunctions, associated repairs, out-of-control periods, or required quality assurance or control activities when calculating data averages. You must use all the data collected during all other periods in calculating the data averages for determining compliance with the emission capture system and add-on control device operating limits.

(7) You must record the results of each inspection, calibration, and validation check.

(8) Any period for which the monitoring system is out-of-control, as defined in §63.7(d)(7), or malfunctioning, and data are not available for required calculations is a deviation from the monitoring requirements. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the continuous parameter monitoring system to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(c) *Enclosure bypass line.* You must meet the requirements of paragraphs (c)(1) and (2) of this section for each emission capture system enclosure that contains bypass lines that could divert emissions away from the add-on control device to the atmosphere.

(1) You must monitor or secure the valve or closure mechanism controlling the bypass line in a nondiverting position in such a way that the valve or closure mechanism cannot be opened without creating a record that the valve was opened. The method used to monitor or secure the valve or closure mechanism must meet one of the requirements specified in paragraphs (c)(1)(i) through (iv) of this section.

(i) *Flow control position indicator.* Install, calibrate, maintain, and operate according to the manufacturer's specifications a flow control position indicator that takes a reading at least once every 15 minutes and provides a record indicating whether the emissions are directed to the add-on control device or diverted from the add-on control device. The time of occurrence and flow control position must be recorded, as well as every time the flow direction is changed. The flow control position indicator must be installed at

the entrance to any bypass line that could divert the emissions away from the add-on control device to the atmosphere.

(ii) *Car-seal or lock-and-key valve closures.* Secure any bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. You must visually inspect the seal or closure mechanism at least once every month to ensure that the valve is maintained in the closed position, and the emissions are not diverted away from the add-on control device to the atmosphere.

(iii) *Valve closure continuous monitoring.* Ensure that any bypass line valve is in the closed (non-diverting) position through monitoring of valve position at least once every 15 minutes. You must inspect the monitoring system at least once every month to verify that the monitor will indicate valve position.

(iv) *Automatic shutdown system.* Use an automatic shutdown system in which the open molding operation is stopped when flow is diverted by the bypass line away from the add-on control device to the atmosphere when the open molding operation is running. You must inspect the automatic shutdown system at least once every month to verify that it will detect diversions of flow and shut down the open molding operation.

(2) If any bypass line is opened, you must include a description of why the bypass line was opened and the length of time it remained open in the semiannual compliance reports required in §63.5764(d).

(d) *Thermal oxidizers.* If you are using a thermal oxidizer or incinerator as an add-on control device, you must comply with the requirements in paragraphs (d)(1) through (6) of this section.

(1) You must install a combustion temperature monitoring device in the firebox of the thermal oxidizer or incinerator, or in the duct immediately downstream of the firebox before any substantial heat exchange occurs. You must meet the requirements in paragraphs (b) and (d)(1)(i) through (vii) of this section for each temperature monitoring device.

(i) Locate the temperature sensor in a position that provides a representative temperature.

(ii) Use a temperature sensor with a minimum tolerance of 2.2 °C or 0.75 percent of the temperature value, whichever is larger.

(iii) Shield the temperature sensor system from electromagnetic interference and chemical contaminants.

(iv) If a chart recorder is used, it must have a sensitivity in the minor division of at least 10 °C.

(v) Perform an electronic calibration at least semiannually according to the procedures in the manufacturer's owners manual. Following the electronic calibration, you must conduct a temperature sensor validation check in which a second or redundant temperature sensor placed nearby the process temperature sensor must yield a reading within 16.7 °C of the process temperature sensor's reading.

(vi) Conduct calibration and validation checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.

(vii) At least monthly, inspect all components for integrity and all electrical connections for continuity, oxidation, and galvanic corrosion.

(2) Before or during the performance test, you must conduct a performance evaluation of the combustion temperature monitoring system according to §63.8(e). Section 63.8(e) specifies the general requirements for continuous monitoring systems and requirements for notifications, the site-specific performance evaluation plan, conduct of the performance evaluation, and reporting of performance evaluation results.

(3) During the performance test required by §63.5716, you must monitor and record the combustion temperature and determine the average combustion temperature for the three 1-hour test runs. This average temperature is the minimum operating limit for the thermal oxidizer.

(4) Following the performance test, you must continuously monitor the combustion temperature and record the average combustion temperature no less frequently than every 15 minutes.

(5) You must operate the incinerator or thermal oxidizer so that the average combustion temperature in any 3-hour period does not fall below the average combustion temperature recorded during the performance test.

(6) If the average combustion temperature in any 3-hour period falls below the average combustion temperature recorded during the performance test, or if you fail to collect the minimum data specified in paragraph (d)(4) of this section, it is a deviation for the operating limit in §63.5715.

(e) *Other control devices.* If you are using a control device other a thermal oxidizer, then you must comply with alternative monitoring requirements and operating limits approved by the Administrator under §63.8(f).

(f) *Emission capture system.* For each enclosure in the emission capture system, you must comply with the requirements in paragraphs (f)(1) through (5) of this section.

(1) You must install a device to measure and record either the flow rate or the static pressure in the duct from each enclosure to the add-on control device.

(2) You must install a device to measure and record the pressure drop across at least one opening in each enclosure.

(3) Each flow measurement device must meet the requirements in paragraphs (b) and (f)(3)(i) through (iv) of this section.

(i) Locate the flow sensor in a position that provides a representative flow measurement in the duct between each enclosure in the emission capture system and the add-on control device.

(ii) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(iii) Conduct a flow sensor calibration check at least semiannually.

(iv) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(4) For each pressure measurement device, you must comply with the requirements in paragraphs (a) and (f)(4)(i) through (vii) of this section.

(i) Locate each pressure drop sensor in or as close to a position that provides a representative measurement of the pressure drop across each enclosure opening you are monitoring.

(ii) Locate each duct static pressure sensor in a position that provides a representative measurement of the static pressure in the duct between the enclosure and control device.

(iii) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iv) Check the pressure tap for plugging daily.

(v) Use an inclined manometer with a measurement sensitivity of 0.0004 millimeters mercury (mmHg) to check gauge calibration quarterly and transducer calibration monthly.

(vi) Conduct calibration checks any time the sensor exceeds the manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(vii) At least monthly, inspect all components for integrity, all electrical connections for continuity, and all mechanical connections for leakage.

(5) For each capture device that is not part of a permanent total enclosure as defined in Method 204 in appendix M to 40 CFR part 51, you must establish an operating limit for either the gas volumetric flow rate or duct static pressure, as specified in paragraphs (f)(5)(i) and (ii) of this section. You must also establish an operating limit for pressure drop across at least one opening in each enclosure according to paragraphs (f)(5)(iii) and (iv) of this section. The operating limits for a permanent total enclosure are specified in Table 4 to this subpart.

(i) During the emission test required by §63.5716 and described in §63.5719, you must monitor and record either the gas volumetric flow rate or the duct static pressure for each separate enclosure in your emission capture system at least once every 15 minutes during each of the three test runs at a point in the duct between the enclosure and the add-on control device inlet.

(ii) Following the emission test, calculate and record the average gas volumetric flow rate or duct static pressure for the three test runs for each enclosure. This average gas volumetric flow rate or duct static pressure is the minimum operating limit for that specific enclosure.

(iii) During the emission test required by §63.5716 and described in §63.5719, you must monitor and record the pressure drop across the opening of each enclosure in your emission capture system at least once every 15 minutes during each of the three test runs.

(iv) Following the emission test, calculate and record the average pressure drop for the three test runs for each enclosure. This average pressure drop is the minimum operating limit for that specific enclosure.

Standards for Closed Molding Resin Operations

§ 63.5728 What standards must I meet for closed molding resin operations?

(a) If a resin application operation meets the definition of closed molding specified in §63.5779, there is no requirement to reduce emissions from that operation.

(b) If the resin application operation does not meet the definition of closed molding, then you must comply with the limit for open molding resin operations specified in §63.5698.

(c) Open molding resin operations that precede a closed molding operation must comply with the limit for open molding resin and gel coat operations specified in §63.5698. Examples of these operations include gel coat or skin coat layers that are applied before lamination is performed by closed molding.

Standards for Resin and Gel Coat Mixing Operations

§ 63.5731 What standards must I meet for resin and gel coat mixing operations?

(a) All resin and gel coat mixing containers with a capacity equal to or greater than 208 liters, including those used for on-site mixing of putties and polyputties, must have a cover with no visible gaps in place at all times.

(b) The work practice standard in paragraph (a) of this section does not apply when material is being manually added to or removed from a container, or when mixing or pumping equipment is being placed in or removed from a container.

(c) To demonstrate compliance with the work practice standard in paragraph (a) of this section, you must visually inspect all mixing containers subject to this standard at least once per month. The inspection should ensure that all containers have covers with no visible gaps between the cover and the container, or between the cover and equipment passing through the cover.

(d) You must keep records of which mixing containers are subject to this standard and the results of the inspections, including a description of any repairs or corrective actions taken.

Standards for Resin and Gel Coat Application Equipment Cleaning Operations

§ 63.5734 What standards must I meet for resin and gel coat application equipment cleaning operations?

(a) For routine flushing of resin and gel coat application equipment (e.g., spray guns, flowcoaters, brushes, rollers, and squeegees), you must use a cleaning solvent that contains no more than 5 percent organic HAP by weight. For removing cured resin or gel coat from application equipment, no organic HAP content limit applies.

(b) You must store organic HAP-containing solvents used for removing cured resin or gel coat in containers with covers. The covers must have no visible gaps and must be in place at all times, except when equipment to be cleaned is placed in or removed from the container. On containers with a capacity greater than 7.6 liters, the distance from the top of the container to the solvent surface must be no less than 0.75 times the diameter of the container. Containers that store organic HAP-containing solvents used for removing cured resin or gel coat are exempt from the requirements of 40 CFR part 63, subpart T. Cured resin or gel coat means resin or gel coat that has changed from a liquid to a solid.

§ 63.5737 How do I demonstrate compliance with the resin and gel coat application equipment cleaning standards?

(a) Determine and record the organic HAP content of the cleaning solvents subject to the standards specified in §63.5734 using the methods specified in §63.5758.

(b) If you recycle cleaning solvents on site, you may use documentation from the solvent manufacturer or supplier or a measurement of the organic HAP content of the cleaning solvent as originally obtained from the solvent supplier for demonstrating compliance, subject to the conditions in §63.5758 for demonstrating compliance with organic HAP content limits.

(c) At least once per month, you must visually inspect any containers holding organic HAP-containing solvents used for removing cured resin and gel coat to ensure that the containers have covers with no visible gaps. Keep records of the monthly inspections and any repairs made to the covers.

Standards for Carpet and Fabric Adhesive Operations

§ 63.5740 What emission limit must I meet for carpet and fabric adhesive operations?

(a) You must use carpet and fabric adhesives that contain no more than 5 percent organic HAP by weight.

(b) To demonstrate compliance with the emission limit in paragraph (a) of this section, you must determine and record the organic HAP content of the carpet and fabric adhesives using the methods in §63.5758.

Standards for Aluminum Recreational Boat Surface Coating Operations

§ 63.5743 What standards must I meet for aluminum recreational boat surface coating operations?

(a) For aluminum wipedown solvent operations and aluminum surface coating operations, you must comply with either the separate emission limits in paragraphs (a)(1) and (2) of this section, or the combined emission limit in paragraph (a)(3) of this section. Compliance with these limitations is based on a 12-month rolling average that is calculated at the end of every month.

(1) You must limit emissions from aluminum wipedown solvents to no more than 0.33 kilograms of organic HAP per liter of total coating solids applied from aluminum primers, clear coats, and top coats combined. No limit applies when cleaning surfaces are receiving decals or adhesive graphics.

(2) You must limit emissions from aluminum recreational boat surface coatings (including thinners, activators, primers, topcoats, and clear coats) to no more than 1.22 kilograms of organic HAP per liter of total coating solids applied from aluminum primers, clear coats, and top coats combined.

(3) You must limit emissions from the combined aluminum surface coatings and aluminum wipedown solvents to no more than 1.55 kilograms of organic HAP per liter of total coating solids applied from aluminum primers, clear coats, and top coats combined.

(b) You must comply with the work practice standard in paragraph (b)(1), (2), (3), or (4) of this section when cleaning aluminum coating spray guns with solvents containing more than 5 percent organic HAP by weight.

(1) Clean spray guns in an enclosed device. Keep the device closed except when you place spray guns in or remove them from the device.

(2) Disassemble the spray gun and manually clean the components in a vat. Keep the vat closed when you are not using it.

(3) Clean spray guns by placing solvent in the pressure pot and forcing the solvent through the gun. Do not use atomizing air during this procedure. Direct the used cleaning solvent from the spray gun into a container that you keep closed when you are not using it.

(4) An alternative gun cleaning process or technology approved by the Administrator according to the procedures in §63.6(g).

§ 63.5746 How do I demonstrate compliance with the emission limits for aluminum wipedown solvents and aluminum coatings?

To demonstrate compliance with the emission limits for aluminum wipedown solvents and aluminum coatings specified in §63.5743(a), you must meet the requirements of paragraphs (a) through (f) of this section.

(a) Determine and record the organic HAP content (kilograms of organic HAP per kilogram of material, or weight fraction) of each aluminum wipedown solvent and aluminum coating (including primers, topcoats, clear coats, thinners, and activators). Use the methods in §63.5758 to determine organic HAP content.

(b) Use the methods in §63.5758(b) to determine the solids content (liters of solids per liter of coating, or volume fraction) of each aluminum surface coating, including primers, topcoats, and clear coats. Keep records of the solids content.

(c) Use the methods in §63.5758(c) to determine the density of each aluminum surface coating and wipedown solvent.

(d) Compliance is based on a 12-month rolling average calculated at the end of every month. The first 12-month rolling-average period begins on the compliance date specified in §63.5695.

(e) At the end of the twelfth month after your compliance date and at the end of every subsequent month, use the procedures in §63.5749 to calculate the organic HAP from aluminum wipedown solvents per liter of coating solids, and use the procedures in §63.5752 to calculate the kilograms of organic HAP from aluminum coatings per liter of coating solids.

(f) Keep records of the calculations used to determine compliance.

(g) *Approval of alternative means of demonstrating compliance.* You may apply to the Administrator for permission to use an alternative means (such as an add-on control system) of limiting emissions from aluminum wipedown solvent and coating operations and demonstrating compliance with the emission limits in §63.5743(a).

(1) The application must include the information listed in paragraphs (g)(1)(i) through (iii) of this section.

(i) An engineering evaluation that compares the emissions using the alternative means to the emissions that would result from using the strategy specified in paragraphs (a) through (e) of this section. The engineering evaluation may include the results from an emission test that accurately measures the capture efficiency and control device efficiency achieved by the control system and the composition of the associated coatings so that the emissions comparison can be made.

(ii) A proposed monitoring protocol that includes operating parameter values to be monitored for compliance and an explanation of how the operating parameter values will be established through a performance test.

(iii) Details of appropriate recordkeeping and reporting procedures.

(2) The Administrator will approve the alternative means of limiting emissions if the Administrator determines that HAP emissions will be no greater than if the source uses the procedures described in paragraphs (a) through (e) of this section to demonstrate compliance.

(3) The Administrator's approval may specify operation, maintenance, and monitoring requirements to ensure that emissions from the regulated operations are no greater than those that would otherwise result from regulated operations in compliance with this subpart.

§ 63.5749 How do I calculate the organic HAP content of aluminum wipedown solvents?

(a) Use equation 1 of this section to calculate the weighted-average organic HAP content of aluminum wipedown solvents used in the past 12 months.

$$HAP_{WD} = \frac{\sum_{j=1}^{n}(Vol_j)(D_j)(W_j)}{\sum_{i=1}^{m}(Vol_i)(Solids_i)} \qquad (Eq.\ 1)$$

Where:

HAP_{WD}= weighted-average organic HAP content of aluminum wipedown solvents, kilograms of HAP per liter of total coating solids from aluminum primers, top coats, and clear coats.

n = number of different wipedown solvents used in the past 12 months.

Vol_j= volume of aluminum wipedown solvent j used in the past 12 months, liters.

D_j= density of aluminum wipedown solvent j, kilograms per liter.

W_j= mass fraction of organic HAP in aluminum wipedown solvent j.

m = number of different aluminum surface coatings (primers, top coats, and clear coats) used in the past 12 months.

Vol_i= volume of aluminum primer, top coat, or clear coat i used in the past 12 months, liters.

$Solids_i$= solids content aluminum primer, top coat, or clear coat i, liter solids per liter of coating.

(b) Compliance is based on a 12-month rolling average. If the weighted-average organic HAP content does not exceed 0.33 kilograms of organic HAP per liter of total coating solids, then you are in compliance with the emission limit specified in §63.5743(a)(1).

§ 63.5752 How do I calculate the organic HAP content of aluminum recreational boat surface coatings?

(a) Use equation 1 of this section to calculate the weighted-average HAP content for all aluminum surface coatings used in the past 12 months.

$$HAP_{SC} = \frac{\sum_{i=1}^{m}(Vol_i)(D_i)(W_i) + \sum_{k=1}^{D}(Vol_k)(D_k)(W_k)}{\sum_{i=1}^{m}(Vol_i)(Solids_i)} \qquad (Eq.\ 1)$$

Where:

HAP_{SC}= weighted-average organic HAP content for all aluminum coating materials, kilograms of organic HAP per liter of coating solids.

m = number of different aluminum primers, top coats, and clear coats used in the past 12 months.

Vol_i= volume of aluminum primer, top coat, or clear coat i used in the past 12 months, liters.

D_i= density of coating i, kilograms per liter.

W_i= mass fraction of organic HAP in coating i, kilograms of organic HAP per kilogram of coating.

p = number of different thinners, activators, and other coating additives used in the past 12 months.

Vol_k= total volume of thinner, activator, or additive k used in the past 12 months, liters.

D_k= density of thinner, activator, or additive k, kilograms per liter.

W_k= mass fraction of organic HAP in thinner, activator, or additive k, kilograms of organic HAP per kilogram of thinner or activator.

$Solids_i$= solids content of aluminum primer, top coat, or clear coat i, liter solids per liter of coating.

(b) Compliance is based on a 12-month rolling average. If the weighted-average organic HAP content does not exceed 1.22 kilograms of organic HAP per liter of coating solids, then you are in compliance with the emission limit specified in §63.5743(a)(2).

§ 63.5753 How do I calculate the combined organic HAP content of aluminum wipedown solvents and aluminum recreational boat surface coatings?

(a) Use equation 1 of this section to calculate the combined weighted-average organic HAP content of aluminum wipedown solvents and aluminum recreational boat surface coatings.

$$HAP_{Combined} = HAP_{WD} + HAP_{SC} \qquad (Eq.\ 1)$$

Where:

HAP_{WD}= the weighted-average organic HAP content of aluminum wipedown solvents used in the past 12 months, calculated using equation 1 of §63.5749.

HAP_{SC}= the weighted average organic HAP content of aluminum recreational boat surface coatings used in the past 12 months, calculated using equation 1 of §63.5752.

(b) Compliance is based on a 12-month rolling average. If the combined organic HAP content does not exceed 1.55 kilograms of organic HAP per liter of total coating solids, then you are in compliance with the emission limit specified in §63.5743(a)(3).

§ 63.5755 How do I demonstrate compliance with the aluminum recreational boat surface coating spray gun cleaning work practice standards?

You must demonstrate compliance with the aluminum coating spray gun cleaning work practice standards by meeting the requirements of paragraph (a) or (b) of this section.

(a) Demonstrate that solvents used to clean the aluminum coating spray guns contain no more than 5 percent organic HAP by weight by determining organic HAP content with the methods in §63.5758. Keep records of the organic HAP content determination.

(b) For solvents containing more than 5 percent organic HAP by weight, comply with the requirements in paragraph (b)(1) or (b)(2), and paragraph (b)(3) of this section.

(1) If you are using an enclosed spray gun cleaner, visually inspect it at least once per month to ensure that covers are in place and the covers have no visible gaps when the cleaner is not in use, and that there are no leaks from hoses or fittings.

(2) If you are manually cleaning the gun or spraying solvent into a container that can be closed, visually inspect all solvent containers at least once per month to ensure that the containers have covers and the covers fit with no visible gaps.

(3) Keep records of the monthly inspections and any repairs that are made to the enclosed gun cleaners or the covers.

Methods for Determining Hazardous Air Pollutant Content

§ 63.5758 How do I determine the organic HAP content of materials?

(a) *Determine the organic HAP content for each material used.* To determine the organic HAP content for each material used in your open molding resin and gel coat operations, carpet and fabric adhesive operations, or aluminum recreational boat surface coating operations, you must use one of the options in paragraphs (a)(1) through (6) of this section.

(1) *Method 311 (appendix A to 40 CFR part 63).* You may use Method 311 for determining the mass fraction of organic HAP. Use the procedures specified in paragraphs (a)(1)(i) and (ii) of this section when determining organic HAP content by Method 311.

(i) Include in the organic HAP total each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, you do not need to include it in the organic HAP total. Express the mass fraction of each organic HAP you measure as a value truncated to four places after the decimal point (for example, 0.1234).

(ii) Calculate the total organic HAP content in the test material by adding up the individual organic HAP contents and truncating the result to three places after the decimal point (for example, 0.123).

(2) *Method 24 (appendix A to 40 CFR part 60).* You may use Method 24 to determine the mass fraction of non-aqueous volatile matter of aluminum coatings and use that value as a substitute for mass fraction of organic HAP.

(3) *ASTM D1259–85 (Standard Test Method for Nonvolatile Content of Resins).* You may use ASTM D1259–85 (available for purchase from ASTM) to measure the mass fraction of volatile matter of resins and gel coats for open molding operations and use that value as a substitute for mass fraction of organic HAP.

(4) *Alternative method.* You may use an alternative test method for determining mass fraction of organic HAP if you obtain prior approval by the Administrator. You must follow the procedure in §63.7(f) to submit an alternative test method for approval.

(5) *Information from the supplier or manufacturer of the material.* You may rely on information other than that generated by the test methods specified in paragraphs (a)(1) through (4) of this section, such as manufacturer's formulation data, according to paragraphs (a)(5)(i) through (iii) of this section.

(i) Include in the organic HAP total each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, you do not have to include it in the organic HAP total.

(ii) If the organic HAP content is provided by the material supplier or manufacturer as a range, then you must use the upper limit of the range for determining compliance. If a separate measurement of the total organic HAP content using the methods specified in paragraphs (a)(1) through (4) of this section exceeds the upper limit of the range of the total organic HAP content provided by the material supplier or manufacturer, then you must use the measured organic HAP content to determine compliance.

(iii) If the organic HAP content is provided as a single value, you may assume the value is a manufacturing target value and actual organic HAP content may vary from the target value. If a separate measurement of the total organic HAP content using the methods specified in paragraphs (a)(1) through (4) of this section is less than 2 percentage points higher than the value for total organic HAP content provided by the material supplier or manufacturer, then you may use the provided value to demonstrate compliance. If the measured total organic HAP content exceeds the provided value by 2 percentage points or more, then you must use the measured organic HAP content to determine compliance.

(6) *Solvent blends.* Solvent blends may be listed as single components for some regulated materials in certifications provided by manufacturers or suppliers. Solvent blends may contain organic HAP which must be counted toward the total organic HAP content of the materials. When detailed organic HAP content data for solvent blends are not available, you may use the values for organic HAP content that are listed in Table 5 or 6 to this subpart. You may use Table 6 to this subpart only if the solvent blends in the materials you use do not match any of the solvent blends in Table 5 to this subpart and you know only whether the blend is either aliphatic or aromatic. However, if test results indicate higher values than those listed in Table 5 or 6 to this subpart, then the test results must be used for determining compliance.

(b) *Determine the volume fraction solids in aluminum recreational boat surface coatings.* To determine the volume fraction of coating solids (liters of coating solids per liter of coating) for each aluminum recreational boat surface coating, you must use one of the methods specified in paragraphs (b)(1) through (3) of this section. If the results obtained with paragraphs (b)(2) or (3) of this section do not to agree with those obtained according to paragraph (b)(1) of this section, you must use the results obtained with paragraph (b)(1) of this section to determine compliance.

(1) *ASTM Method D2697–86(1998) or D6093–97.* You may use ASTM Method D2697–86(1998) or D6093–97 (available for purchase from ASTM) to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids.

(2) *Information from the supplier or manufacturer of the material.* You may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.

(3) *Calculation of volume fraction of coating solids.* You may determine it using equation 1 of this section:

$$\text{Solids} = 1 - \frac{m_{volatiles}}{D_{avg}} \qquad (Eq.\ 1)$$

Where:

Solids=volume fraction of coating solids, liters coating solids per liter coating.

^{m} volatiles=Total volatile matter content of the coating, including organic HAP, volatile organic compounds, water, and exempt compounds, determined according to Method 24 in appendix A of 40 CFR part 60, grams volatile matter per liter coating.

D_{avg}=average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475–90 (available for purchase from ASTM), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475–90 test results and other information sources, the test results will take precedence.

(c) *Determine the density of each aluminum recreational boat wipedown solvent and surface coating.* Determine the density of all aluminum recreational boat wipedown solvents, surface coatings, thinners, and other additives from test results using ASTM Method D1475–90, information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475–90 test results and other information sources, you must use the test results to demonstrate compliance.

Notifications, Reports, and Records

§ 63.5761 What notifications must I submit and when?

(a) You must submit all of the notifications in Table 7 to this subpart that apply to you by the dates in the table. The notifications are described more fully in 40 CFR part 63, subpart A, General Provisions, referenced in Table 8 to this subpart.

(b) If you change any information submitted in any notification, you must submit the changes in writing to the Administrator within 15 calendar days after the change.

§ 63.5764 What reports must I submit and when?

(a) You must submit the applicable reports specified in paragraphs (b) through (e) of this section. To the extent possible, you must organize each report according to the operations covered by this subpart and the compliance procedure followed for that operation.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the dates in paragraphs (b)(1) through (5) of this section.

(1) If your source is not controlled by an add-on control device (i.e., you are complying with organic HAP content limits, application equipment requirements, or MACT model point value averaging provisions), the first compliance report must cover the period beginning 12 months after the compliance date specified for your source in §63.5695 and ending on June 30 or December 31, whichever date is the first date following the end of the first 12-month period after the compliance date that is specified for your source in §63.5695. If your source is controlled by an add-on control device, the first compliance report must cover the period beginning on the compliance date specified for your source in §63.5695 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.5695.

(2) The first compliance report must be postmarked or delivered no later than 60 calendar days after the end of the compliance reporting period specified in paragraph (b)(1) of this section.

(3) Each subsequent compliance report must cover the applicable semiannual reporting period from January 1 through June 30 or from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than 60 calendar days after the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must include the information specified in paragraphs (c)(1) through (7) of this section.

(1) Company name and address.

(2) A statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the report.

(3) The date of the report and the beginning and ending dates of the reporting period.

(4) A description of any changes in the manufacturing process since the last compliance report.

(5) A statement or table showing, for each regulated operation, the applicable organic HAP content limit, application equipment requirement, or MACT model point value averaging provision with which you are complying. The statement or table must also show the actual weighted-average organic HAP content or weighted-average MACT model point value (if applicable) for each operation during each of the rolling 12-month averaging periods that end during the reporting period.

(6) If you were in compliance with the emission limits and work practice standards during the reporting period, you must include a statement to that effect.

(7) If you deviated from an emission limit or work practice standard during the reporting period, you must also include the information listed in paragraphs (c)(7)(i) through (iv) of this section in the semiannual compliance report.

(i) A description of the operation involved in the deviation.

(ii) The quantity, organic HAP content, and application method (if relevant) of the materials involved in the deviation.

(iii) A description of any corrective action you took to minimize the deviation and actions you have taken to prevent it from happening again.

(iv) A statement of whether or not your facility was in compliance for the 12-month averaging period that ended at the end of the reporting period.

(d) If your facility has an add-on control device, you must submit semiannual compliance reports and quarterly excess emission reports as specified in §63.10(e). The contents of the reports are specified in §63.10(e).

(e) If your facility has an add-on control device, you must complete a startup, shutdown, and malfunction plan as specified in §63.6(e), and you must submit the startup, shutdown, and malfunction reports specified in §63.10(e)(5).

§ 63.5767 What records must I keep?

You must keep the records specified in paragraphs (a) through (d) of this section in addition to records specified in individual sections of this subpart.

(a) You must keep a copy of each notification and report that you submitted to comply with this subpart.

(b) You must keep all documentation supporting any notification or report that you submitted.

(c) If your facility is not controlled by an add-on control device (i.e., you are complying with organic HAP content limits, application equipment requirements, or MACT model point value averaging provisions), you must keep the records specified in paragraphs (c)(1) through (3) of this section.

(1) The total amounts of open molding production resin, pigmented gel coat, clear gel coat, tooling resin, and tooling gel coat used per month and the weighted-average organic HAP contents for each operation, expressed as weight-percent. For open molding production resin and tooling resin, you must also record the amounts of each applied by atomized and nonatomized methods.

(2) The total amount of each aluminum coating used per month (including primers, top coats, clear coats, thinners, and activators) and the weighted-average organic HAP content as determined in §63.5752.

(3) The total amount of each aluminum wipedown solvent used per month and the weighted-average organic HAP content as determined in §63.5749.

(d) If your facility has an add-on control device, you must keep the records specified in §63.10(b) relative to control device startup, shut down, and malfunction events; control device performance tests; and continuous monitoring system performance evaluations.

§ 63.5770 In what form and for how long must I keep my records?

(a) Your records must be readily available and in a form so they can be easily inspected and reviewed.

(b) You must keep each record for 5 years following the date that each record is generated.

(c) You must keep each record on site for at least 2 years after the date that each record is generated. You can keep the records offsite for the remaining 3 years.

(d) You can keep the records on paper or an alternative media, such as microfilm, computer, computer disks, magnetic tapes, or on microfiche.

Other Information You Need To Know

§ 63.5773 What parts of the General Provisions apply to me?

You must comply with the requirements of the General Provisions in 40 CFR part 63, subpart A, as specified in Table 8 to this subpart.

§ 63.5776 Who implements and enforces this subpart?

(a) If the Administrator has delegated authority to your State or local agency, the State or local agency has the authority to implement and enforce this subpart.

(b) In delegating implementation and enforcement authority of this subpart to a State or local agency under 40 CFR part 63, subpart E, the authorities that are retained by the Administrator of the U.S. EPA and are not transferred to the State or local agency are listed in paragraphs (b)(1) through (4) of this section.

(1) Under §63.6(g), the authority to approve alternatives to the standards listed in paragraphs (b)(1)(i) through (vii) of this section is not delegated.

(i) §63.5698—Emission limit for open molding resin and gel coat operations.

(ii) §63.5728—Standards for closed molding resin operations.

(iii) §63.5731(a)—Standards for resin and gel coat mixing operations.

(iv) §63.5734—Standards for resin and gel coat application equipment cleaning operations.

(v) §63.5740(a)—Emission limit for carpet and fabric adhesive operations.

(vi) §63.5743—Standards for aluminum recreational boat surface coating operations.

(vii) §63.5746(g)—Approval of alternative means of demonstrating compliance with the emission limits for aluminum recreational boat surface coating operations.

(2) Under §63.7(e)(2)(ii) and (f), the authority to approve alternatives to the test methods listed in paragraphs (b)(2)(i) through (iv) of this section is not delegated.

(i) §63.5719(b)—Method for determining whether an enclosure is a total enclosure.

(ii) §63.5719(c)—Methods for measuring emissions from a control device.

(iii) §63.5725(d)(1)—Performance specifications for thermal oxidizer combustion temperature monitors.

(iv) §63.5758—Method for determining hazardous air pollutant content of regulated materials.

(3) Under §63.8(f), the authority to approve major alternatives to the monitoring requirements listed in §63.5725 is not delegated. A “major alternative” is defined in §63.90.

(4) Under §63.10(f), the authority to approve major alternatives to the reporting and recordkeeping requirements listed in §§63.5764, 63.5767, and 63.5770 is not delegated. A “major alternative” is defined in §63.90.

Definitions

§ 63.5779 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act, in §63.2, and in this section as follows:

Add-on control means an air pollution control device, such as a thermal oxidizer, that reduces pollution in an air stream by destruction or removal before discharge to the atmosphere.

Administrator means the Administrator of the United States Environmental Protection Agency (U.S. EPA) or an authorized representative (for example, a State delegated the authority to carry out the provisions of this subpart).

Aluminum recreational boat means any marine or freshwater recreational boat that has a hull or deck constructed primarily of aluminum. A recreational boat is a vessel which by design and construction is intended by the manufacturer to be operated primarily for pleasure, or to be leased, rented or chartered to another for the latter's pleasure (rather than for commercial or military purposes); and whose major structural components are fabricated and assembled in an indoor, production-line manufacturing plant or similar land-side operation and not in a dry dock, graving dock, or marine railway on the navigable waters of the United States.

Aluminum recreational boat surface coating operation means the application of primers or top coats to aluminum recreational boats. It also includes the application of clear coats over top coats. Aluminum recreational boat surface coating operations do not include the application of wood coatings or antifoulant coatings to aluminum recreational boats.

Aluminum coating spray gun cleaning means the process of flushing or removing paints or coatings from the interior or exterior of a spray gun used to apply aluminum primers, clear coats, or top coats to aluminum recreational boats.

Aluminum wipedown solvents means solvents used to remove oil, grease, welding smoke, or other contaminants from the aluminum surfaces of a boat before priming or painting. Aluminum wipedown solvents contain no coating solids; aluminum surface preparation materials that contain coating solids are considered coatings for the purpose of this subpart and are not wipedown solvents.

Antifoulant coating means any coating that is applied to the underwater portion of a boat specifically to prevent or reduce the attachment of biological organisms and that is registered with EPA as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. section 136, *et seq.*). For the purpose of this subpart, primers used with antifoulant coatings to prepare the surface to accept the antifoulant coating are considered antifoulant coatings.

Assembly adhesive means any chemical material used in the joining of one fiberglass, metal, foam, or wood parts to another to form a temporary or permanently bonded assembly. Assembly adhesives include, but are not limited to, methacrylate adhesives and putties made from polyester or vinylester resin mixed with inert fillers or fibers.

Atomized resin application means a resin application technology in which the resin leaves the application equipment and breaks into droplets or an aerosol as it travels from the application equipment to the surface of the part. Atomized resin application includes, but is not limited to, resin spray guns and resin chopper spray guns.

Boat means any type of vessel, other than a seaplane, that can be used for transportation on the water.

Boat manufacturing facility means a facility that manufactures the hulls or decks of boats from fiberglass or aluminum or assembles boats from premanufactured hulls and decks, or builds molds to make fiberglass hulls or decks. A facility that manufactures only parts of boats (such as hatches, seats, or lockers) or boat trailers, but no boat hulls or decks or molds for fiberglass boat hulls or decks, is not considered a boat manufacturing facility for the purpose of this subpart.

Carpet and fabric adhesive means any chemical material that permanently attaches carpet, fabric, or upholstery to any surface of a boat.

Clear gel coat means gel coats that are clear or translucent so that underlying colors are visible. Clear gel coats are used to manufacture parts for sale. Clear gel coats do not include tooling gel coats used to build or repair molds.

Closed molding means any molding process in which pressure is used to distribute the resin through the reinforcing fabric placed between two mold surfaces to either saturate the fabric or fill the mold cavity. The pressure may be clamping pressure, fluid pressure, atmospheric pressure, or vacuum pressure used either alone or in combination. The mold surfaces may be rigid or flexible. Closed molding includes, but is not limited to, compression molding with sheet molding compound, infusion molding, resin injection molding (RIM), vacuum-assisted resin transfer molding (VARTM), resin transfer molding (RTM), and vacuum-assisted compression molding. Processes in which a closed mold is used only to compact saturated fabric or remove air or excess resin from the fabric (such as in vacuum bagging), are not considered closed molding. Open molding steps, such as application of a gel coat or skin coat layer by conventional open molding prior to a closed molding process, are not closed molding.

Cured resin and gel coat means resin or gel coat that has been polymerized and changed from a liquid to a solid.

Deviation means any instance in which an affected source subject to this subpart or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including, but not limited to, any emission limit, operating limit, or work practice requirement;

(2) Fails to meet any term or condition which is adopted to implement an applicable requirement in this subpart and which is included in the operating permit for any affected source required to obtain such permit; or

(3) Fails to meet any emission limit, operating limit, or work practice requirement in this subpart during any startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Enclosure means a structure, such as a spray booth, that surrounds a source of emissions and captures and directs the emissions to an add-on control device.

Fiberglass boat means a vessel in which either the hull or deck is built from a composite material consisting of a thermosetting resin matrix reinforced with fibers of glass, carbon, aramid, or other material.

Fiberglass hull and deck coatings means coatings applied to the exterior or interior surface of fiberglass boat hulls and decks on the completed boat. Polyester and vinylester resins and gel coats used in building fiberglass parts are not fiberglass hull and deck coatings for the purpose of this subpart.

Filled resin means a resin to which an inert material has been added to change viscosity, density, shrinkage, or other physical properties.

Gel coat means a thermosetting resin surface coating containing styrene (Chemical Abstract Service or CAS No. 100–42–5) or methyl methacrylate (CAS No. 80–62–6), either pigmented or clear, that provides a cosmetic enhancement or improves resistance to degradation from exposure to the elements. Gel coat layers do not contain any reinforcing fibers and gel coats are applied directly to mold surfaces or to a finished laminate.

Hazardous air pollutant or HAP means any air pollutant listed in, or pursuant to section 112(b) of the Clean Air Act.

Hazardous air pollutant content or HAP content means the amount of HAP contained in a regulated material at the time it is applied to the part being manufactured. If no HAP is added to a material as a thinner or diluent, then the HAP content is the same as the HAP content of the material as purchased from the supplier. For resin and gel coat, HAP content does not include any HAP contained in the catalyst added to the resin or gel coat during application to initiate curing.

Hazardous air pollutant data sheet (HDS) means documentation furnished by a material supplier or an outside laboratory to provide the organic HAP content of the material by weight, measured using an EPA Method, manufacturer's formulation data, or an equivalent method. For aluminum coatings, the HDS also documents the solids content by volume, determined from the manufacturer's formulation data. The purpose of the HDS is to help the affected source in showing compliance with the organic HAP content limits contained in this subpart. The HDS must state the maximum total organic HAP concentration, by weight, of the material. It must include any organic HAP concentrations equal to or greater than 0.1 percent by weight for individual organic HAP that are carcinogens, as defined by the Occupational Safety and Health Administration Hazard Communication Standard (29 CFR part 1910), and 1.0 percent by weight for all other individual organic HAP, as formulated. The HDS must also include test conditions if EPA Method 311 is used for determining organic HAP content.

Maximum achievable control technology (MACT) model point value means a number calculated for open molding operations that is a surrogate for emissions and is used to determine if your open molding operations are in compliance with the provisions of this subpart. The units for MACT model point values are kilograms of organic HAP per megagram of resin or gel coat applied.

Manufacturer's certification means documentation furnished by a material supplier that shows the organic HAP content of a material and includes a HDS.

Mold means the cavity or surface into or on which gel coat, resin, and fibers are placed and from which finished fiberglass parts take their form.

Mold sealing and release agents means materials applied to a mold to seal, polish, and lubricate the mold to prevent parts from sticking to the mold. Mold sealers, waxes, and glazing and buffing compounds are considered mold sealing and release agents for the purposes of this subpart.

Mold stripping and cleaning solvents means materials used to remove mold sealing and release agents from a mold before the mold surface is repaired, polished, or lubricated during normal mold maintenance.

Month means a calendar month.

Neat resin means a resin to which no filler has been added.

Nonatomized resin application means any application technology in which the resin is not broken into droplets or an aerosol as it travels from the application equipment to the surface of the part. Nonatomized resin application technology includes, but is not limited to, flowcoaters, chopper flowcoaters, pressure fed resin rollers, resin impregnators, and hand application (for example, paint brush or paint roller).

Open molding resin and gel coat operation means any process in which the reinforcing fibers and resin are placed in the mold and are open to the surrounding air while the reinforcing fibers are saturated with resin. For the purposes of this subpart, open molding includes operations in which a vacuum bag or similar cover is used to compress an uncured laminate to remove air bubbles or excess resin, or to achieve a bond between a core material and a laminate.

Pigmented gel coat means opaque gel coats used to manufacture parts for sale. Pigmented gel coats do not include tooling gel coats used to build or repair molds.

Production resin means any resin used to manufacture parts for sale. Production resins do not include tooling resins used to build or repair molds, or assembly adhesives as defined in this section.

Recycled resin and gel coat application equipment cleaning solvent means cleaning solvents recycled on-site or returned to the supplier or another party to remove resin or gel coat residues so that the solvent can be reused.

Research and development activities means:

(1) Activities conducted at a laboratory to analyze air, soil, water, waste, or product samples for contaminants, environmental impact, or quality control;

(2) Activities conducted to test more efficient production processes or methods for preventing or reducing adverse environmental impacts, provided that the activities do not include the production of an intermediate or final product for sale or exchange for commercial profit, except in a *de minimis* manner; and

(3) Activities conducted at a research or laboratory facility that is operated under the close supervision of technically trained personnel, the primary purpose of which is to conduct research and development into new processes and products and that is not engaged in the manufacture of products for sale or exchange for commercial profit, except in a *de minimis* manner.

Resin means any thermosetting resin with or without pigment containing styrene (CAS No. 100–42–5) or methyl methacrylate (CAS No. 80–62–6) and used to encapsulate and bind together reinforcement fibers in the construction of fiberglass parts.

Resin and gel coat application equipment cleaning means the process of flushing or removing resins and gel coats from the interior or exterior of equipment that is used to apply resin or gel coat in the manufacture of fiberglass parts.

Resin and gel coat mixing operation means any operation in which resin or gel coat, including the mixing of putties or polyputties, is combined with additives that include, but are not limited to, fillers, promoters, or catalysts.

Roll-out means the process of using rollers, squeegees, or similar tools to compact reinforcing materials saturated with resin to remove trapped air or excess resin.

Skin coat is a layer of resin and fibers applied over the gel coat to protect the gel coat from being deformed by the next laminate layers.

Tooling resin means the resin used to build or repair molds (also known as tools) or prototypes (also known as plugs) from which molds will be made.

Tooling gel coat means the gel coat used to build or repair molds (also known as tools) or prototypes (also known as plugs) from which molds will be made.

Vacuum bagging means any molding technique in which the reinforcing fabric is saturated with resin and then covered with a flexible sheet that is sealed to the edge of the mold and where a vacuum is applied under the sheet to compress the laminate, remove excess resin, or remove trapped air from the laminate during curing. Vacuum bagging does not include processes that meet the definition of closed molding.

Vinylester resin means a thermosetting resin containing esters of acrylic or methacrylic acids and having double-bond and ester linkage sites only at the ends of the resin molecules.

Volume fraction of coating solids means the ratio of the volume of coating solids (also known as volume of nonvolatiles) to the volume of coating; liters of coating solids per liter of coating.

Wood coatings means coatings applied to wooden parts and surfaces of boats, such as paneling, cabinets, railings, and trim. Wood coatings include, but are not limited to, primers, stains, sealers, varnishes, and enamels. Polyester and vinylester resins or gel coats applied to wooden parts to encapsulate them or bond them to other parts are not wood coatings.

Table 1 to Subpart VVVV of Part 63—Compliance Dates for New and Existing Boat Manufacturing Facilities

As specified in §63.5695, you must comply by the dates in the following table:

If your facility is—	And—	Then you must comply by this date—
1. An existing source	Is a major source on or before August 22, 2001[1]	August 23, 2004.
2. An existng or new area source	Becomes a major source after August 22, 2001[1]	1 year after becoming a major source or August 22, 2002, whichever is later.
3. A new source	Is a major source at startup[1]	Upon startup or August 22, 2001, whichever is later.

[1]Your facility is a major source if it is a stationary source or group of stationary sources located within a contiguous area and under common control that emits or can potentially emit, considering controls, in the aggregate, 9.1 megagrams or more per year of a single hazardous air pollutant or 22.7 megagrams or more per year of a combination of hazardous air pollutants.

Table 2 to Subpart VVVV of Part 63—Alternative Organic HAP Content Requirements for Open Molding Resin and Gel Coat Operations

As specified in §§63.5701(b), 63.5704(b)(2), and 63.5713(a), (b), and (d), you must comply with the requirements in the following table:

For this operation—	And this application method—	You must not exceed this weighted-average organic HAP content (weight percent) requirement—
1. Production resin operations	Atomized (spray)	28 percent.
2. Production resin operations	Nonatomized (nonspray)	35 percent.
3. Pigmented gel coat operations	Any method	33 percent.
4. Clear gel coat operations	Any method	48 percent
5. Tooling resin operations	Atomized (spray)	30 percent.
6. Tooling resin operations	Nonatomized (nonspray)	39 percent.
7. Tooling gel coat operations	Any method	40 percent.

Table 3 to Subpart VVVV of Part 63—MACT Model Point Value Formulas for Open Molding Operations[1]

As specified in §§63.5710(d) and 63.5714(a), you must calculate point values using the formulas in the following table:

For this operation—	And this application method—	Use this formula to calculate the MACT model plant value for each resin and gel coat—
1. Production resin, tooling resin	a. Atomized	$0.014 \times (\text{Resin HAP\%})^{2.425}$
	b. Atomized, plus vacuum bagging with roll-out	$0.01185 \times (\text{Resin HAP\%})^{2.425}$
	c. Atomized, plus vacuum bagging without roll-out	$0.00945 \times (\text{Resin HAP\%})^{2.425}$
	d. Nonatomized	$0.014 \times (\text{Resin HAP\%})^{2.275}$
	e. Nonatomized, plus vaccum bagging with roll-out	$0.0110 \times (\text{Resin HAP\%})^{2.275}$
	f. Nonatomized, plus vacuum bagging without roll-out	$0.0076 \times (\text{Resin HAP\%})^{2.275}$
2. Pigmented gel coat, clear gel coat, tooling gel coat	All methods	$0.445 \times (\text{Gel coat HAP\%})^{1.675}$

[1]Equations calculate MACT model point value in kilograms of organic HAP per megagrams of resin or gel coat applied. The equations for vacuum bagging with roll-out are applicable when a facility rolls out the applied resin and fabric prior to applying the vacuum bagging materials. The equations for vacuum bagging without roll-out are applicable when a facility applies the vacuum bagging materials immediately after resin application without rolling out the resin and fabric. HAP% = organic HAP content as supplied, expressed as a weight-percent value between 0 and 100 percent.

[66 FR 44232, Aug. 22, 2001; 66 FR 50504, Oct. 3, 2001]

Table 4 to Subpart VVVV of Part 63—Operating Limits if Using an Add-on Control Device for Open Molding Operations

As specified in §§63.5715(a) and 63.5725(f)(5), you must meet the operating limits in the following table:

For the following device—	You must meet the following operating limit—	And you must demonstrate continuous compliance with the operating limit by—
1. Thermal oxidizer	The average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.5725(d)	a. Collecting the combustion temperature data according to §63.5725(d); b. reducing the data to 3-hour block averages; and c. maintaining the 3-hour average combustion temperature at or above the temperature limit.
2. Other control devices	An operating limit approved by the Administrator according to §63.8(f)	a. Collecting parameter monitoring as approved by the Administrator according to §63.8(f); and b. maintaining the parameters

For the following device—	You must meet the following operating limit—	And you must demonstrate continuous compliance with the operating limit by—
		within the operating limits approved according to §63.8(f).
3. Emission capture system that is a PTE according to §63.5719(b)	a. The direction of the air flow at all times must be into the enclosure; and b. in any 3-hour period, either the average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute; or c. the pressure drop across the enclosure must be at least 0.007 inch H_2O, as established in Method 204 of appendix M to 40 CFR part 51	i. Collecting the direction of air flow, and either the facial velocity of air through all natural draft openings according to §63.5725(f)(3) or the pressure drop across the enclosure according to §63.5725(f)(4); and ii. reducing the data for facial velocity or pressure drop to 3-hour block averages; and iii. maintaining the 3-hour average facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.
4. Emission capture system that is not a PTE according to §63.5719(b)	a. The average gas volumetric flow rate or duct static pressure in each duct between a capture device and add-on control device inlet in any 3-hour period must not fall below the average volumetric flow rate or duct static pressure limit established for that capture device according to §63.5725(f)(5); and b. the average pressure drop across an opening in each enclosure in any 3-hour period must not fall below the average pressure drop limit established for that capture device according to §63.5725(f)(5)	i. Collecting the gas volumetric flow rate or duct static pressure for each capture device according to §63.5725(f)(1) and (3); ii. reducing the data to 3-hour block averages; iii. maintaining the 3-hour average gas volumetric flow rate or duct static pressure for each capture device at or above the gas volumetric flow rate or duct static pressure limit; iv. collecting data for the pressure drop across an opening in each enclosure according to §63.5725(f)(2) and (4); v. reducing the data to 3-hour block averages; and vi. maintaining the 3-hour average pressure drop across the opening for each enclosure at or above the gas volumetric flow rate or duct static pressure limit.

Table 5 to Subpart VVVV of Part 63—Default Organic HAP Contents of Solvents and Solvent Blends

As specified in §63.5758(a)(6), when detailed organic HAP content data for solvent blends are not available, you may use the values in the following table:

Solvent/solvent blend	CAS No.	Average organic HAP content, percent by mass	Typical organic HAP, percent by mass
1. Toluene	108–88–3	100	Toluene.
2. Xylene(s)	1330–20–7	100	Xylenes, ethylbenzene.
3. Hexane	110–54–3	50	n-hexane.
4. n-hexane	110–54–3	100	n-hexane.
5. Ethylbenzene	100–41–4	100	Ethylbenzene.
6. Aliphatic 140		0	None.

Solvent/solvent blend	CAS No.	Average organic HAP content, percent by mass	Typical organic HAP, percent by mass
7. Aromatic 100		2	1% xylene, 1% cumene.
8. Aromatic 150		9	Naphthalene.
9. Aromatic naptha	64742–95–6	2	1% xylene, 1% cumene.
10. Aromatic solvent	64742–94–5	10	Naphthalene.
11. Exempt mineral spirits	8032–32–4	0	None.
12. Ligroines (VM & P)	8032–32–4	0	None.
13. Lactol spirits	64742–89–6	15	Toluene.
14. Low aromatic white spirit	64742–82–1	0	None.
15. Mineral spirits	64742–88–7	1	Xylenes.
16. Hydrotreated naphtha	64742–48–9	0	None.
17. Hydrotreated light distillate	64742–47–8	0.1	Toluene.
18. Stoddard solvent	8052–41–3	1	Xylenes.
19. Super high-flash naphtha	64742–95–6	5	Xylenes.
20. Varol®solvent	8052–49–3	1	0.5% xylenes, 0.5% ethyl benzene.
21. VM & P naphtha	64742–89–8	6	3% toluene, 3% xylene.
22. Petroleum distillate mixture	68477–31–6	8	4% naphthalene, 4% biphenyl.

Table 6 to Subpart VVVV of Part 63—Default Organic HAP Contents of Petroleum Solvent Groups

As specified in §63.5758(a)(6), when detailed organic HAP content data for solvent blends are not available, you may use the values in the following table:

Solvent type	Average organic HAP content, percent by mass	Typical organic HAP, percent by mass
Aliphatic (Mineral Spirits 135, Mineral Spirits 150 EC, Naphtha, Mixed Hydrocarbon, Aliphatic Hydrocarbon, Aliphatic Naptha, Naphthol Spirits, Petroleum Spirits, Petroleum Oil, Petroleum Naphtha, Solvent Naphtha, Solvent Blend.)	3	1% Xylene, 1% Toluene, and 1% Ethylbenzene.
Aromatic (Medium-flash Naphtha, High-flash Naphtha, Aromatic Naphtha, Light Aromatic Naphtha, Light Aromatic Hydrocarbons, Aromatic Hydrocarbons, Light Aromatic Solvent.)	6	4% Xylene, 1% Toluene, and 1% Ethylbenzene.

Table 7 to Subpart VVVV of Part 63—Applicability and Timing of Notifications

As specified in §63.5761(a), you must submit notifications according to the following table:

If your facility—	You must submit—	By this date—
1. Is an existing source subject to this subpart	An initial notification containing the information specified in §63.9(b)(2)	No later than the dates specified in §63.9(b)(2).
2. Is a new source subject to this subpart	The notifications specified in §63.9(b) (3) to (5)	No later than the dates specified §63.9(b)(4) and (5).
3. Qualifies for a compliance extension as specified in §63.9(c)	A request for a compliance extension as specified in §63.9(c)	No later than the dates specified in §63.6(i).
4. Is complying with organic HAP content limits, application equipment requirements; or MACT model point value averaging provisions	A notification of compliance status as specified in §63.9(h)	No later than 30 calendar days after the end of the first 12-month averaging period after your facility's compliance date.
5. Is complying by using an add-on control device	a. notification of intent to conduct a performance test as specified in §63.9(e)	No later than the date specified in §63.9(e).
	b. A notification of the date for the continuous monitoring system performance evaluation as specified in §63.9(g)	With the notification of intent to conduct a performance test.
	c. A notification of compliance status as specified in §63.9(h)	No later than 60 calendar days after the completion of the add-on control device performance test and continuous monitoring system performance evaluation.

Table 8 to Subpart VVVV of Part 63—Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart VVVV

As specified in §63.5773, you must comply with the applicable requirements of the General Provisions according to the following table:

Citation	Requirement	Applies to subpart VVVV	Explanation
§63.1(a)	General Applicability	Yes.	
§63.1(b)	Initial Applicability Determination	Yes.	
§63.1(c)(1)	Applicability After Standard Established	Yes.	
§63.1(c)(2)		Yes	Area sources are not regulated by subpart VVVV.
§63.1(c)(3)		No	[Reserved]

Citation	Requirement	Applies to subpart VVVV	Explanation
§63.1(c)(4)–(5)		Yes.	
§63.1(d)		No	[Reserved]
§63.1(e)	Applicability of Permit Program	Yes.	
§63.2	Definitions	Yes	Additional definitions are found in §63.5779.
§63.3	Units and Abbreviations	Yes.	
§63.4(a)	Prohibited Activities	Yes.	
§63.4(b)–(c)	Circumvention/Severability	Yes.	
§63.5(a)	Construction/Reconstruction	Yes.	
§63.5(b)	Requirements for Existing, Newly Constructed, and Reconstructed Sources	Yes.	
§63.5(c)		No	[Reserved]
§63.5(d)	Application for Approval of Construction/Reconstruction	Yes.	
§63.5(e)	Approval of Construction/Reconstruction	Yes.	
§63.5(f)	Approval of Construction/Reconstruction Based on prior State Review	Yes.	
§63.6(a)	Compliance with Standards and Maintenance Requirements—Applicability	Yes.	
§63.6(b)	Compliance Dates for New and Reconstructed Sources	Yes	§63.695 specifies compliance dates, including the compliance date for new area sources that become major sources after the effective date of the rule.
§63.6(c)	Compliance Dates for Existing Sources	Yes	§63.5695 specifies compliance dates, including the compliance date for existing area sources that become major sources after the effective date of the rule.
§63.6(d)		No	[Reserved]
§63.6(e)(1)–(2)	Operation and Maintenance Requirements	No	Operating requirements for open molding operations with add-on controls are specified in §63.5725.
§63.6(e)(3)	Startup, Shut Down, and Malfunction Plans	Yes	Only sources with add-on controls must complete startup, shutdown, and malfunction plans.

Citation	Requirement	Applies to subpart VVVV	Explanation
§63.6(f)	Compliance with Nonopacity Emission Standards	Yes.	
§63.6(g)	Use of an Alternative Nonopacity Emission Standard	Yes.	
§63.6(h)	Compliance with Opacity/Visible Emissions Standards	No	Subpart VVVV does not specify opacity or visible emission standards.
§63.6(i)	Extension of Compliance with Emission Standards	Yes.	
§63.6(j)	Exemption from Compliance with Emission Standards	Yes.	
§63.7(a)(1)	Performance Test Requirements	Yes.	
§63.7(a)(2)	Dates for performance tests	No	§63.5716 specifies performance test dates.
§63.7(a)(3)	Performance testing at other times	Yes.	
§63.7(b)–(h)	Other performance testing requirements	Yes.	
§63.8(a)(1)–(2)	Monitoring Requirements—Applicability	Yes	All of §63.8 applies only to sources with add-on controls. Additional monitoring requirements for sources with add-on controls are found in §63.5725.
§63.8(a)(3)		No	[Reserved]
§63.8(a)(4)		No	Subpart VVVV does not refer directly or indirectly to §63.11.
§63.8(b)(1)	Conduct of Monitoring	Yes.	
§63.8(b)(2)–(3)	Multiple Effluents and Multiple Continuous Monitoring Systems (CMS)	Yes	Applies to sources that use a CMS on the control device stack.
§63.8(c)(1)–(4)	Continuous Monitoring System Operation and Maintenance	Yes.	
§63.8(c)(5)	Continuous Opacity Monitoring Systems (COMS)	No	Subpart VVVV does not have opacity or visible emission standards.
§63.8(c)(6)–(8)	Continuous Monitoring System Calibration Checks and Out-of-Control Periods	Yes.	
§63.8(d)	Quality Control Program	Yes.	
§63.8(e)	CMS Performance Evaluation	Yes.	
§63.8(f)(1)–(5)	Use of an Alternative Monitoring Method	Yes.	

Citation	Requirement	Applies to subpart VVVV	Explanation
§63.8(f)(6)	Alternative to Relative Accuracy Test	Yes	Applies only to sources that use continuous emission monitoring systems (CEMS).
§63.8(g)	Data Reduction	Yes	
§63.9(a)	Notification Requirements—Applicability	Yes.	
§63.9(b)	Initial Notifications	Yes	
§63.9(c)	Request for Compliance Extension	Yes.	
§63.9(d)	Notification That a New Source Is Subject to Special Compliance Requirements	Yes.	
§63.9(e)	Notification of Performance Test	Yes	Applies only to sources with add-on controls.
§63.9(f)	Notification of Visible Emissions/Opacity Test	No	Subpart VVVV does not have opacity or visible emission standards.
§63.9(g)(1)	Additional CMS Notifications—Date of CMS Performance Evaluation	Yes	Applies only to sources with add-on controls.
§63.9(g)(2)	Use of COMS Data	No	Subpart VVVV does not require the use of COMS.
§63.9(g)(3)	Alternative to Relative Accuracy Testing	Yes	Applies only to sources with CEMS.
§63.9(h)	Notification of Compliance Status	Yes.	
§63.9(i)	Adjustment of Deadlines	Yes.	
§63.9(j)	Change in Previous Information	Yes.	
§63.10(a)	Recordkeeping/Reporting—Applicability	Yes.	
§63.10(b)(1)	General Recordkeeping Requirements	Yes	§§63.567 and 63.5770 specify additional recordkeeping requirements.
§63.10(b)(2)(i)–(xi)	Recordkeeping Relevant to Startup, Shutdown, and Malfunction Periods and CMS	Yes	Applies only to sources with add-on controls.
§63.10(b)(2)(xii)–(xiv)	General Recordkeeping Requirements	Yes.	
§63.10(b)(3)	Recordkeeping Requirements for Applicability Determinations	Yes	§63.5686 specifies applicability determinations for non-major sources.
§63.10(c)	Additional Recordkeeping for Sources with CMS	Yes	Applies only to sources with add-on controls.

Citation	Requirement	Applies to subpart VVVV	Explanation
§63.10(d)(1)	General Reporting Requirements	Yes	§63.5764 specifies additional reporting requirements.
§63.10(d)(2)	Performance Test Results	Yes	§63.5764 specifies additional requirements for reporting performance test results.
§63.10(d)(3)	Opacity or Visible Emissions Observations	No	Subpart VVVV does not specify opacity or visible emission standards.
§63.10(d)(4)	Progress Reports for Sources with Compliance Extensions	Yes.	
§63.10(d)(5)	Startup, Shutdown, and Malfunction Reports	Yes	Applies only to sources with add-on controls.
§63.10(e)(1)	Additional CMS Reports—General	Yes	Applies only to sources with add-on controls.
§63.10(e)(2)	Reporting Results of CMS Performance Evaluations	Yes	Applies only to sources with add-on controls.
§63.10(e)(3)	Excess Emissions/CMS Performance Reports	Yes	Applies only to sources with add-on controls.
§63.10(e)(4)	COMS Data Reports	No	Subpart VVVV does not specify opacity or visible emission standards.
§63.10(f)	Recordkeeping/Reporting Waiver	Yes.	
§63.11	Control Device Requirements—Applicability	No	Facilities subject to subpart VVVV do not use flares as control devices.
§63.12	State Authority and Delegations	Yes	§63.5776 lists those sections of subpart A that are not delegated.
§63.13	Addresses	Yes.	
§63.14	Incorporation by Reference	Yes.	
§63.15	Availability of Information/Confidentiality	Yes.	

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Starcraft Marine, LLC
Source Location:	201 Starcraft Drive, Topeka, Indiana 46571
County:	LaGrange
SIC Code:	3732
Permit Renewal No.:	T087-30912-00012
Permit Reviewer:	Teresa Freeman

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Starcraft Marine, LCC relating to the operation of a stationary fiberglass and aluminum boats manufacturing plant. On September 12, 2011, Starcraft Marine, LCC submitted an application to the OAQ requesting to renew its operating permit. Starcraft Marine, LCC was issued its first Part 70 Operating Permit Renewal T087-18090-00012 on July 20, 2007.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) Four (4) paint (primer or enamel) booths and their associated cleanup operations, wash tanks, paint storage and mixing operations, identified as:

(1) B-1 exhausting through stack: SV-83 with a maximum production rate 100 parts per hour;

(2) B-3 exhausting through stacks: SV-84 and SV-85 with a maximum production rate of 100 parts per hour;

(3) B-2 exhausting through stacks: SV-86 and SV-87 with a maximum production rate of 100 parts per hour;

(4) B-6 exhausting through stacks: SV-88 and SV-89 with a maximum production rate of 2 boats per hour or equivalent in parts for 2 boats per hour.

Each booth uses air assisted airless or an equivalent transfer efficient type of spray gun and is equipped with dry filters to control the PM emissions. Booths, identified as B-1, B-2, and B-3 were installed in 1979 while booth B-6 was installed in 1988. Pursuant to NESHAP VVVV, B-1, B-3, B-2 and B-6, are considered existing affected sources.

(b) Three (3) gel coat booths and their associated cleanup operations and wash tanks, identified as:

(1) B-4 exhausting through stacks: SV-90 and SV-91 with a maximum production rate of 30 parts per hour,

(2) B-8 exhausting through stacks: SV-92 and SV-93 with a maximum production rate of 30 parts per hour, and

(3) B-7 exhausting through stacks: SV-94 and SV-95 with a maximum production rate of 30 parts per hour.

Each booth uses air assisted airless or an equivalent transfer efficient type of spray gun and is equipped with a dry filter to control the PM emissions. The gel coat booths B-4 and B-8 were installed in 1979 and modified in 2004 while booth B-7 was installed in 1982. Pursuant to NESHAP VVVV, B-4, B-8, B-7, are considered existing affected sources.

(c) One (1) catalyst/fiber resin chopper and roll-out operation area and its associated cleanup operations and wash tanks, installed in 1979, with a maximum production rate of 30 parts per hour, equipped with dry filter for PM emission control exhausting through seven (7) stacks identified as SV-96A, SV-96B, SV-96C, SV-96D, SV-96E, SV-96F and SV-96G. Pursuant to NESHAP VVVV, the catalyst/fiber resin chopper is considered an existing affected source.

(d) One (1) fiberglass grinding room installed in 1979, exhausting through the stack SV-103 and equipped with a dust collector.

(e) The manual (hand and roller) application of contact adhesives and sealants and the associated cleanup operations with fugitive emissions of volatile organic compounds. Pursuant to NESHAP VVVV, the manual application of contact adhesives is considered an existing affected source.

(f) Mold maintenance and preparation activities using waxes and release agents and the associated cleanup operations with fugitive emissions of volatile organic compounds.

Insignificant Activities

The source also consists of the following insignificant activities:

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:

(1) Fifty-four (54) natural gas fired space heaters, each with a heat input capacity of 0.1 MMBtu/hr;

(2) Two (2) natural gas fired process heaters, each with a heat input capacity of 0.15 MMBtu/hr;

(3) Five (5) natural gas fired furnaces, with a heat input capacity of 1.0 MMBtu/hr;

(4) Eight (8) natural gas fired infrared tubes, with a total heat input capacity of 1.3 MMBtu/hr;

(5) One (1) natural gas fired unit heater, with a heat input capacity of 0.70 MMBtu/hr.

(b) The following equipment related to manufacturing activities: brazing equipment, cutting torches, soldering equipment, welding equipment, including forty-five (45) welding machines and three (3) plasma cutters exhausting though the stacks as well as fugitive throughout the facility. Welding operations have PM-10 emission less than twenty-five (25) pounds per day [326 IAC 6-3-2].

(c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations. The main woodworking operation, equipped with a large cyclone dust collector system identified as SV-102 [326 IAC 6-3-2].

(d) Paved and unpaved boat storage areas, parking lots, and access drives.

(e) Other activities or categories not previously identified:

(1) The installation of urethane foam use for flotation in watercraft;

(2) The incidental scuff sanding of fiberglass boat hulls with hand held equipment for repair;

(3) Three (3) resin tanks exhausting through stacks: SV-99, SV-100, and SV-101;

(4) Wash tanks located at: 1-Primer Booth with VOC emissions of 5 gal per month, 4-B-4 and B-5 with VOC emissions of 20 gal per month, 2FG area with VOC emissions of 10 gal per month, 2-B-7 with VOC emissions of 10 gal per month, and Wash tanks for facility wide use that will not use more than 20 gallons per month each.

(5) Final finish operations using waxes and cleaners;

(6) Blowdown from compressors;

(7) Application of oils, greases, lubricants, and other nonvolatile materials applied as protective coatings;

(8) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment;

(9) A laboratory as defined in 326 IAC 2-7-1(21)(D).

Existing Approvals

Since the issuance of the Part 70 Operating Permit T087-18090-00012 on July 20, 2007, the source has not had any additional approvals:

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in LaGrange County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.
Unclassifiable or attainment effective April 5, 2005, for $PM_{2.5}$.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. LaGrange County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM2.5
LaGrange County has been classified as attainment for $PM_{2.5}$. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective, June 28, 2011.. Therefore, direct $PM_{2.5}$ and SO_2 emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability – Entire Source section.

(c) Other Criteria Pollutants
LaGrange County has been classified as attainment or unclassifiable in Indiana for all other regulated air pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Unrestricted Potential Emissions	
Pollutant	Tons/year
PM	Greater than 250
PM_{10}	Greater than 250
$PM_{2.5}$	Greater than 250
SO_2	Less than 25
VOC	Greater than 250
CO	Less than 10
NO_x	Less than 10
GHGs as CO_2e	Less than 100,000
Single HAP	Greater than 10
Total HAP	Greater than 25

Appendix A of this TSD reflects the unrestricted potential emissions of the source.

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM10, PM2.5, and VOC is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

(a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 permits.

(b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any new control equipment is considered federally enforceable only after issuance of this Part 70 permit renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP
Four (4) Paint Booths	1.69	1.69	1.69	-	-	<249	-	-	18.41	7.45 (Glycol Ethers)
Three (3) Gel Coat Booths	17.41	17.41	17.41	-	-		-	-	268.94	204.22 (Styrene)
One (1) Catalyst/fiber Resin chopper	0.00	0.00	0.00	-	-		-	-	412.35	249 (Styrene)
Adhesive/ Final Finish Assembly	0.00	0.00	0.00	-	-		-	-	15.48	9.52 (Toluene)
Foam Flotation	0.00	0.00	0.00	-	-		-	-	0.00	0.00
Mold Maintenance	0.00	0.00	0.00	-	-		-	-	0.08	0.08 (Methylene Chloride)
Resin Storage	0.00	0.00	0.00	-	-		-	-	0.44	0.44 (styrene)
One (1) Fiberglass Grinding Room	6.63	6.63	6.63	-	-	-	-	-	-	-
Natural Gas Combustion Facilities	0.18	0.71	0.71	0.06	9.36	0.51	7.86	11528	0.18	0.17 (Hexane)
Welding and Thermal Cutting	2.54	2.54	2.54	-	-	-	-	-	0.01	0.01 (Manganese)
Woodworking	0.47	0.47	0.47	-	-	-	-	-	-	-
Fugitive Emissions	0.05	0.01	0.01	-	-	-	-	-	-	-
Total PTE of Entire Source	**28.97**	**29.46**	**29.46**	**0.06**	**9.36**	**< 249.51**	**7.86**	**11528**	**715.89**	**249 (styrene)**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO_2e	25	10
PSD Major Source Thresholds	250	250	250	250	250	250	250	100,000 CO_2e	NA	NA

negl. = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.

(a) This existing stationary source is not major for PSD because the emissions of each regulated pollutant, excluding GHGs, are less than two hundred fifty (<250) tons per year, emissions of GHGs are less than one hundred thousand (<100,000) tons of CO_2 equivalent emissions (CO_2e) per year, and it is not in one of the twenty-eight (28) listed source categories.

Federal Rule Applicability

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:

(1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

Emission Unit / Pollutant	Control Device Used	Emission Limitation or Standard (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Gelcoat Booth B-4 - PM10	Dry filter	N	174.08	3.48	100	N	N
Gelcoat Booth B-8 - PM2.5	Dry filter	N	174.08	3.48	100	N	N
Gelcoat Booth B-7 - PM	Dry filter	Y	174.08	3.48	100	Y	N
Gelcoat Booth B-4 - PM10	Dry filter	N	174.08	3.48	100	N	N
Gelcoat Booth B-8 - PM2.5	Dry filter	N	174.08	3.48	100	N	N
Gelcoat Booth B-7 - PM	Dry filter	Y	174.08	3.48	100	Y	N
Gelcoat Booth B-4 - PM10	Dry filter	N	174.08	3.48	100	N	N
Gelcoat Booth B-8 - PM2.5	Dry filter	N	174.08	3.48	100	N	N
Gelcoat Booth B-7 - PM	Dry filter	Y	174.08	3.48	100	Y	N

Based on this evauluation, the requirements of 40 CFR Part 64, CAM are applicable to the three (3) Gel Coat Spray Booths for PM. CAM requirements were included in the first Part 70 Operating Permit renewal and the Compliance Determination and Monitoring Requirements section includes a detailed description of the CAM requirements.

This source contains emission units subject to emission limitions and/or standards for VOC and HAP, however does not use control devices as defined in 40 CFR 64.1 to comply with those limitations or standards. Therefore, the requirements of 40 CFR 64 CAM do not apply for VOC or HAPs.

(c) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit.

(d) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for (Surface Coating of Plastic Parts and Products) (40 CFR 63.4480 - 63.4581, Subpart PPPP) are still not included in the permit for the source because pursuant to 40 CFR 63.4481(c)(15), the requirements of Subpart PPPP do not apply to the surface coating of fiberglass boats or parts of fiberglass boats where the facility meets the applicability criteria for boat manufacturing (Subpart VVVV). Therefore, these requirements are not included in this permit.

(e) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Shipbuilding and Ship Repair (40 CFR 63.780 - 63.788, Subpart II) are still not included in the permit for the source since the rule does apply to the manufacturing of pleasure craft. Therefore, these requirements are not included in this permit.

(f) The requirements of the National Emission Standards for Hazardous Air Pollutants: Reinforced Plastics Composites Production (40 CFR 63, Subpart WWWW and 326 IAC 20-56) are not included in this permit. Pursuant to 40 CFR 63.5787(b), sources that are subject to 40 CFR 63, Subpart VVVV and use all of the reinforced plastics composites manufactured onsite in manufacturing of fiberglass boats, are not subject to the requirements of 40 CFR 63, Subpart WWWW.

(g) The requirements of the the National Emission Standards for Hazardous Air Pollutants, 40 CFR 63.3880, Subpart MMMM are not included in the permit for the source because pursuant to 40 CFR 63.3881(c)(15), the requirements of Subpart MMMM do not apply to the surface coating of metal boats or parts of metal boats where the facility meets the applicability criteria for boat manufacturing (Subpart VVVV). Therefore, these requirements are not included in this permit.

(h) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Marine Tank Vessel Loading Operations (40 CFR 63.560 - 63.567, Subpart Y) are still not included in the permit for the source because it does not apply to the manufacturing of pleasure craft. Therefore, these requirements are not included in this permit.

(i) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Halogenated Solvent Cleaning (40 CFR 63.460, Subpart T) are still not included in the permit for the source because the degreasing operation at the source does not use any halogenated solvent cleaners. Therefore, these requirements are not included in this permit.

(j) This source still is subject to the National Emission Standards for Hazardous Air Pollutants for National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing (40 CFR Part 63.5680 through 63.5770, Subpart VVVV), which is incorporated by reference as 326 IAC 20-48. The processes currently existing at this source subject to the rule include the following: open molding resin and gel coat operations, closed molding resin operations, resin and gel coat mixing operations, resin and gel coat application equipment cleaning operations, carpet and fabric adhesive operations, and aluminum hull and deck coating operations, including solvent wipe down operations and paint spray gun cleaning operations, on aluminum recreational boats.

The specific facilities include:

(A) Four (4) paint (primer or enamel) booths, and their associated cleanup operations, wash tanks, paint storage and mixing operations, coating aluminum boats, and identified as:

(1) B-1 exhausting through stack: SV-83 with a maximum production rate 100 parts per hour;
(2) B-3 exhausting through stacks: SV-84 and SV-85 with a maximum production rate of 100 parts per hour;
(3) B-2 exhausting through stacks: SV-86 and SV-87 with a maximum production rate of 100 parts per hour;
(4) B-6 exhausting through stacks: SV-88 and SV-89 with a maximum production rate of 2 boats per hour or equivalent in parts for 2 boats per hour.

Each booth uses air assisted airless or an equivalent transfer efficient type of spray gun and is equipped with dry filters to control the PM emissions. Booths, identified as B-1, B-2, and B-3 were installed in 1979 while booth B-6 was installed in 1988.

(B) Three (3) gel coat booths and their associated cleanup operations and wash tanks, identified as:

(1) B-4 exhausting through stack: SV-90 and SV-91 with a maximum production rate of 30 parts per hour,
(2) B-8 exhausting through stack: SV-92 and SV-93 with a maximum production rate of 30 parts per hour, and
(3) B-7 exhausting through stack: SV-94 and SV-95 with a maximum production rate of 30 parts per hour.

Each booth uses air assisted airless or an equivalent transfer efficient type of spray gun and is equipped with a dry filter to control the PM emissions. The gel coat booths, B-4 and B-8, were installed in 1979 and modified in 2004 while booth B-7 was installed in 1982.

(C) One (1) catalyst/fiber resin chopper and roll-out operation area and its associated cleanup operations and wash tanks, installed in 1979, with a maximum production rate of 30 parts per hour, equipped with dry filter for PM emission control exhausting through seven (7) stacks identified as SV-96A, SV-96B, SV-96C, SV-96D, SV-96E, SV-96F and SV-96G.

(D) The manual (hand and roller) application of contact adhesives and sealants and the associated cleanup operations with fugitive emissions of volatile organic compounds.

The entire rule has been included as Attachment A of the permit. This source is subject to the following portions of Subpart VVVV.

(1) 40 CFR 63.5683
(2) 40 CFR 63.5686
(3) 40 CFR 63.5689
(4) 40 CFR 63.5692
(5) 40 CFR 63.5695
(6) 40 CFR 63.5698(a),
(7) 40 CFR 63.5698(b),
(8) 40 CFR 63.5698(c)
(9) 40 CFR 63.5698(d)
(10) 40 CFR 63.5701(a),
(11) 40 CFR 63.5701(b)
(12) 40 CFR 63.5704(a),
(13) 40 CFR 63.5704(b)
(14) 40 CFR 63.5707
(15) 40 CFR 63.5710
(16) 40 CFR 63.5713
(17) 40 CFR 63.5714
(18) 40 CFR 63.5731
(19) 40 CFR 63.5734
(20) 40 CFR 63.5737
(21) 40 CFR 63.5740
(22) 40 CFR 63.5743
(23) 40 CFR 63.5746
(24) 40 CFR 63.5749
(25) 40 CFR 63.5752
(26) 40 CFR 63.5753
(27) 40 CFR 63.5755
(28) 40 CFR 63.5758
(29) 40 CFR 63.5761
(30) 40 CFR 63.5764(a),
(31) 40 CFR 63.5764(b),

(32) 40 CFR 63.5764(c)
(33) 40 CFR 63.5767(a),
(34) 40 CFR 63.5767(b),
(35) 40 CFR 63.5767(c)
(36) 40 CFR 63.5770
(37) 40 CFR 63.5773
(38) 40 CFR 63.5776
(39) 40 CFR 63.5779
(40) Table 8

The provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 63 Subpart VVVV.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD) Requirements)

All the facilities at this source were constructed in May, 1979 except gel coat booth (B7) and surface coating booth (B6) that were installed in 1982 and after 1987, respectively, and gel coat booths (B4 and B5) which were replaced in 2004 and renamed gel coat booths (B4 and B8). This source is not one of the twenty-eight (28) listed sources. There have been no additional modifications to the source since 2004. The total source potential to emit of VOCs has always been limited to less than 250 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

In order to render 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable, the following applies:

The total source potential to emit VOCs shall be less than 249 tons per twelve (12) consecutive months, with compliance determined at the end of each month. Compliance with this limit shall be determined by use of the following equation:

(VOC usage from paint booths) + (VOC usage from gelcoat * emission factor) + (catalyst/resin usage * emission factor) + (input VOC from solvent usage) + (input VOC from insignificant activities)

based upon the following criteria:

(1) VOC emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques 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) Until such time that new emissions information is made available by U.S. EPA in its AP-42 document or other U.S. EPA-approved form, emission factors for the gel coat and resin applications shall be taken from the following reference approved by IDEM, OAQ: “Unified Emission Factors for Open Molding of Composites,” Composites Fabricators Association, July 23, 2001, or its update. For the purposes of these emission calculations, monomer in resins and gel coats that is not styrene shall be considered as styrene on an equivalent weight basis.

326 IAC 1-5-2 (Emergency Reduction Plans)

The source is subject to 326 IAC 1-5-2

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of fiberglass and aluminum boats manufacturing plant constructed in May 1979 with the addition of the gelcoat booth (B7) in 1982, the surface coating booth (B6) in 1988 and gel coat booths (B4 and B8) in 2004, will emit greater than ten (10) tons per year of a single HAP and 25 tons per year of a combination of HAPs. However, rule 326 IAC 2-4.1 does not apply because the NESHAP (40 CFR 63, Subpart VVVV, Boat Manufacturing) applies.

326 IAC 2-6 (Emission Reporting)

This source, not located in Lake, Porter, or LaPorte County, is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7 (Part 70). The potential to emit of VOC and PM10 is less than 250 tons per year; and the potential to emit of CO, NOx, and SO2 is less than 2,500 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(2), triennial reporting is required. An emission statement shall be submitted in accordance with the compliance schedule in 326 IAC 2-6-3 by July 1, 2004 and every 3 years after. Therefore, the next emission statement for this source must be submitted by July 1, 2013. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 20-48 (Emission Standards for Hazardous Air Pollutants for Boat Manufacturing)

Pursuant to 326 20-48-1, emission units identified as B-1, B-2, B-3, B-6, B-4, B-8, B-7, the catalyst/fiber resin chopper and roll-out operation area, and the manual application of contact adhesives are subject to the requirements of 326 IAC 20-48 because these units are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Boat Manufacturing as provided in 40 CFR 63.5683.

The source being subject to this rule is exempted from 326 IAC 20-25 (Emissions from Reinforced Plastic Composites Fabricating Emission Units) after the compliance date to Subpart VVVV of August 23, 2004 for an existing source that is a major source on or before August 22, 2001.

State Rule Applicability – Individual Facilities

326 IAC 8-1-6 (Volatile Organic Compounds (VOC/BACT))

This rule applies to facilities located anywhere in the state that were constructed on or after January 1, 1980, which have potential volatile organic compound (VOC) emissions of 25 tons per year or more, and which are not otherwise regulated by another provision of Article 8, 326 IAC 20-48 or 326 IAC 20-56.

(a) Spray booths B-1, B-2, and B-3, gel coat booths B-4 and B-8, the catalyst/fiber resin chopper and roll-out operation area, and the manual application of contact adhesives and sealants were installed before January 1, 1980. Therefore, they are not subject to the provisions of 326 IAC 8-1-6.

(b) Spray booth B-6 and gel coat booth B-7 were previously limited such that VOC emissions were limited to less than twenty-five (25) tons per twelve (12) consecutive month period each to render 326 IAC 8-1-6 not applicable. These booths are subject to the provisions of 326 IAC 20-48. In 2006, amendments to 326 IAC 8 exempted units from 326 IAC 8-1-6 if they were subject to 326 IAC 20-48 or 20-56 and had not previously triggered 326 IAC 8-1-6. Since 326 IAC 8-1-6 was not previously triggered, the booths are not subject to the provisions of 326 IAC 8-1-6.

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)

Pursuant to 326 IAC 8-2-9(b)(5), surface coating of the exterior of marine vessels is not subject to the requirements of 326 IAC 8-2-9. Therefore, the coating operations at Starcraft Marine, LLC are not subject to the provisions of 326 IAC 8-2-9.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

(a) Pursuant to 326 IAC 6-3-2(d) the dry filters for particulate control shall be in operation in accordance with manufacturer's specifications and control emissions from the coating booths (B1 - B4 and B6 - B8) at all times when the coating booths (B1 - B4 and B6 - B8) are in operation.

(b) The particulate from the main woodworking operation and fiberglass grinding room activities shall be limited according to the following:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

Woodworking operations:
$E = 4.10\ (0.51)^{0.67} = 2.61$ pounds per hour (for Process Weight Rate of 0.51 tons/hr)

Fiberglass grinding room:
$E = 4.10\ (0.50)^{0.67} = 2.58$ pounds per hour (for Process Weight Rate of 0.50 tons/hr)

The cyclone dust collector system, identified as SV-102, shall be in operation at all times the woodworking facilities are in operation, in order to comply with this limit.

(c) Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour. Therefore, the grinding and machining operations, deburring; buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations, each with a process weight rate of less than one hundred (100) pounds per hour, shall not exceed 0.551 pounds per hour.

(d) The forty-five (45) welding machines and three (3) plasma cutters are exempt from 326 IAC 6-3-2(e)(2) pursuant to 326 IAC 6-3-1(b)(9) and (10) because for the welders, less than 625 pounds of wire or rod is consumed per day and for the plasma cutters, less than 3,400 inches per hour of stock one (1) inch thickness or less is cut.

(e) The catalyst/fiber resin chopper and roll-out operation area uses flowcoating methods for application. Flowcoating is a method that under normal operations, produces no airborne particulate and minimal overspray. Therefore, the requirements of 326 IAC 6-3-2 do not apply.

326 IAC 8-3-2 (Cold Cleaner Operations)

The cold cleaning operations are not subject to 326 IAC 8-3-2 (Cold Cleaner Operations). This rule applies to cold cleaner type degreasing facilities constructed after January 1, 1980 and before July 1, 1990. The cold cleaning operations at this source were constructed prior to 1980, therefore, 326 IAC 8-3-2 does not apply.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The cold cleaning operations are not subject to 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control). This rule applies to cold cleaner type degreasing facilities constructed after July 1, 1990. The cold cleaning operations at this source were constructed prior to 1990, therefore, 326 IAC 8-3-5 does not apply.

326 IAC 8-6 (Organic Solvent Emission Limitations)

The rule applies to existing sources (as of January 1, 1980), located in Lake and Marion Counties, with potential emissions of 100 tons or greater per year of VOC, not limited by other rules in Article 326 IAC 8 or sources commencing operation after October 7, 1974, and prior to January 1, 1980, located anywhere in the state, with potential emissions of 100 tons or greater per year of VOC, not limited by other rules in Article 326 IAC 8.

The coating booths B1, B2 and B3, and their associated cleanup operations, wash tanks, paint storage and mixing operations, all constructed in 1979, have the combined potential to emit VOC less than 100 tons per year. Therefore, rule 326 IAC 8-6 (Organic Solvenet Emission Limitations) does not apply to the organic solvent usage at this source.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

(a) The four (4) paint (primer or enamel) booths (B-1, B-2, B-3, and B-6), the three (3) gel coat booths (B-4, B-8 and B-7), and the one (1) catalyst/fiber resin chopper operation area have applicable compliance monitoring conditions as specified below:.

The compliance monitoring requirements applicable to this source are as follows:

Control	Parameter	Frequency	Excursions and Exceedances
Dry filters	Visible Emissions	Daily inspection / Weekly performance	Response Steps

These monitoring conditions are necessary because the dry filters for the four (4) paint booths and three (3) gel coat booths must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing. These monitoring requirements shall also satisfy compliance with 40 CFR 64, Compliance Assurance Monitoring (CAM) for the three (3) gel coat booths.

Recommendation

The staff recommends to the Commissioner that the FESOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 7, 2011.

Conclusion

The operation of this fiberglass and aluminum boats manufacturing plant shall be subject to the conditions of the attached Part 70 Renewal No. T087-30912-00012.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Teresa Freeman at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-1243 or toll free at 1-800-451-6027 extension 4-1243.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emissions Calculations
Summary of Emissions Calculations
Company Name: Starcraft Marine, L.L.C
Address City IN Zip: 201 Starcraft Drive, Topeka, Indiana 46571
Permit No.: T087-30912-00012
Reviewer: Teresa Freeman
Date: 12/1/2011

Uncontrolled Potential Emissions (tons/year)
Emissions Generating Activity

Pollutant	Aluminum Boat Surface Coating	Gelcoat	Resin Chopper Operation (Lamination) Area	Adhesive/Final Finish Assembly	Foam Flotation Installation	Fiberglass Grinding	Natural Gas Combustion	Welding and Cutting	Woodworking	Mold Maintenance	Resin Storage	Unpaved Roads	TOTAL
PM	16.93	522.24	0.00	0.00	0.00	6.63	0.18	2.54	23.59	0.00	0.00	0.05	**572.16**
PM_{10}	16.93	522.24	0.00	0.00	0.00	6.63	0.71	2.54	23.59	0.00	0.00	0.01	**572.65**
$PM_{2.5}$	16.93	522.24	0.00	0.00	0.00	6.63	0.71	2.54	23.59	0.00	0.00	0.01	**572.65**
SO_2	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	**0.06**
NO_X	0.00	0.00	0.00	0.00	0.00	0.00	9.36	0.00	0.00	0.00	0.00	0.00	**9.36**
VOC	66.99	274.94	414.35	16.00	0.01	0.00	0.51	0.00	0.00	8.97	0.44	0.00	**782.21**
CO	0.00	0.00	0.00	0.00	0.00	0.00	7.86	0.00	0.00	0.00	0.00	0.00	**7.86**
Total Combined HAPs	18.41	268.94	412.35	15.48	0.01	0.00	0.18	0.76	0.00	0.08	0.44	0.00	**716.64**
Worst Case Single HAP	7.45 glycol ether	204.22 styrene	410.56 styrene	9.52 toulene	0.01 isocyanate	0.00 -	0.17 hexane	0.00 -	0.00 -	0.00 -	0.44 styrene	0.00 -	**410.56 styrene**
GHGs	0.00	0.00	0.00	0.00	0.00	0.00	11301.78	0.00	0.00	0.00	0.00	0.00	**11,301.78**

Total emissions based on rated capacity at 8,760 hours/year.

Limited Emissions (tons/year)
Emissions Generating Activity

Pollutant	Aluminum Boat Surface Coating	Gelcoat	Resin Chopper Operation (Lamination) Area	Adhesive/Final Finish Assembly	Foam Flotation Installation	Mold Maintenance	Resin Storage	TOTAL
PM	1.69	17.41	0.00	0.00	0.00	0.00	0.00	**19.10**
PM_{10}	1.69	17.41	0.00	0.00	0.00	0.00	0.00	**19.10**
$PM_{2.5}$	1.69	17.41	0.00	0.00	0.00	0.00	0.00	**19.10**
SO_2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
NO_X	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
VOC	249.00							**249.00**
CO	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Total Combined HAPs	18.41	268.94	412.35	15.48	0.01	0.08	0.44	**715.19**
Worst Case Single HAP	7.45 glycol ether	204.22 styrene	410.56 styrene	9.52 toulene	0.01 isocyanate	0.00 -	0.44 styrene	**410.56 styrene**
GHGs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**

Total emissions based on rated capacity at 8,760 hours/year.

Controlled Potential Emissions (tons/year)
Emissions Generating Activity

Pollutant	Fiberglass Grinding	Natural Gas Combustion	Welding and Cutting	Woodworking	Unpaved Roads	TOTAL
PM	6.63	0.18	2.54	0.47	0.05	**9.87**
PM_{10}	6.63	0.71	2.54	0.47	0.01	**10.36**
$PM_{2.5}$	6.63	0.71	2.54	0.47	0.01	**10.36**
SO_2	0.00	0.06	0.00	0.00	0.00	**0.06**
NO_X	0.00	9.36	0.00	0.00	0.00	**9.36**
VOC	0.00	0.51	0.00	0.00	0.00	**0.51**
CO	0.00	7.86	0.00	0.00	0.00	**7.86**
Total Combined HAPs	0.00	0.18	0.01	0.00	0.00	**0.19**
Worst Case Single HAP	0.00 -	0.17 hexane	0.01 manganese	0.00 -	0.00 -	**0.75 Manganese**
GHGs	0.00	11301.78	0.00	0.00	0.00	**11,301.78**

Total emissions based on rated capacity at 8,760 hours/year, after control.

Appendix A: Emissions Calculations
VOC and Particulate Emissions
Surface Coating Operations (Booths 1, 2, 3 & 6)
Aluminum Boat Surface Coating

Company Name: Starcraft Marine, L.L.C
Address City IN Zip: 201 Starcraft Drive, Topeka, Indiana 46571
Permit No.: T087-30912-00012
Reviewer: Teresa Freeman
Date: 12/1/2011

Booth 1 : Air Assisted Airless Application

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency*
Acid Wash Primer	7.82	81.07%	18.25%	62.8%	21.40%	9.90%	0.00826	100.000	6.25	4.91	4.06	97.39	17.77	2.68	49.62	50%
Acid Wash Thinner	7.10	95.92%	0.00%	95.9%	0.00%	1.80%	0.00826	100.000	6.81	6.81	5.63	135.01	24.64	0.52	378.35	50%
Potential Emissions			**Add worst case coating to all solvents**					**0.029**			**9.68**	**232.39**	**42.41**	**3.20**		

Booth 2 : Air Assisted Airless Application

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency*
NS Grey	9.72	46.90%	0.0%	46.9%	0.0%	33.56%	0.00064	100.000	4.56	4.56	0.29	7.02	1.28	0.73	13.58	50%
Gloss Grey	8.17	45.00%	0.0%	45.0%	0.0%	33.26%	0.00118	100.000	3.68	3.68	0.43	10.40	1.90	1.16	11.05	50%
Hardener GG	8.13	57.30%	0.0%	57.3%	0.0%	37.31%	0.00009	100.000	4.66	4.66	0.04	1.03	0.19	0.07	12.49	50%
Thinner 98 (cleanup)	6.80	100.00%	0.0%	100.0%	0.0%	0.00%	0.00008	100.000	6.80	6.80	0.06	1.33	0.24	0.00		100%
Enamel 4993E	8.36	61.05%	0.0%	61.1%	0.0%	32.09%	0.00054	100.000	5.10	5.10	0.28	6.68	1.22	0.39	15.90	50%
Enamel 4711EC	10.11	46.48%	0.0%	46.5%	0.0%	37.61%	0.00386	100.000	4.70	4.70	1.82	43.56	7.95	4.58	12.49	50%
Enamel 4629E	8.40	58.21%	0.0%	58.2%	0.0%	41.79%	0.00181	100.000	4.89	4.89	0.88	21.23	3.87	1.39	11.70	50%
											3.80	**91.25**	**16.65**	**8.31**		
Potential Emissions			**Add worst case coating to all solvents**								**1.87**	**44.90**	**8.19**	**4.58**		

Booth 3 : Air Assisted Airless Application

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency*
NS Grey	9.72	46.90%	0.0%	46.9%	0.0%	33.56%	0.00064	100.000	4.56	4.56	0.29	7.02	1.28	0.73	13.58	50%
Gloss Grey	8.17	45.00%	0.0%	45.0%	0.0%	33.26%	0.00118	100.000	3.68	3.68	0.43	10.40	1.90	1.16	11.05	50%
Hardener GG	8.13	57.30%	0.0%	57.3%	0.0%	37.31%	0.00009	100.000	4.66	4.66	0.04	1.03	0.19	0.07	12.49	50%
Thinner 98 (cleanup)	6.80	100.00%	0.0%	100.0%	0.0%	0.00%	0.00008	100.000	6.80	6.80	0.06	1.33	0.24	0.00		100%
Enamel 4993E	8.36	61.05%	0.0%	61.1%	0.0%	32.09%	0.00054	100.000	5.10	5.10	0.28	6.68	1.22	0.39	15.90	50%
Enamel 4711EC	10.11	46.48%	0.0%	46.5%	0.0%	37.61%	0.00386	100.000	4.70	4.70	1.82	43.56	7.95	4.58	12.49	50%
Enamel 4629E	8.40	58.21%	0.0%	58.2%	0.0%	41.79%	0.00181	100.000	4.89	4.89	0.88	21.23	3.87	1.39	11.70	50%
											3.80	**91.25**	**16.65**	**8.31**		
Potential Emissions			**Add worst case coating to all solvents**								**1.87**	**44.90**	**8.19**	**4.58**		

Booth 6 : Air Assisted Airless Application

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency*
NS Grey	9.72	46.90%	0.0%	46.9%	0.0%	33.56%	0.03209	2.000	4.56	4.56	0.29	7.02	1.28	0.73	13.58	50%
Gloss Grey	8.17	45.00%	0.0%	45.0%	0.0%	33.26%	0.05893	2.000	3.68	3.68	0.43	10.40	1.90	1.16	11.05	50%
Hardener GG	8.13	57.30%	0.0%	57.3%	0.0%	37.31%	0.00461	2.000	4.66	4.66	0.04	1.03	0.19	0.07	12.49	50%
Thinner 98 (cleanup)	6.80	100.00%	0.0%	100.0%	0.0%	0.00%	0.00408	2.000	6.80	6.80	0.06	1.33	0.24	0.00		100%
Enamel 4993E	8.36	61.05%	0.0%	61.1%	0.0%	32.09%	0.02725	2.000	5.10	5.10	0.28	6.68	1.22	0.39	15.90	50%
Enamel 4711EC	10.11	46.48%	0.0%	46.5%	0.0%	37.61%	0.19314	2.000	4.70	4.70	1.82	43.56	7.95	4.58	12.49	50%
Enamel 4629E	8.40	58.21%	0.0%	58.2%	0.0%	41.79%	0.09044	2.000	4.89	4.89	0.88	21.23	3.87	1.39	11.70	50%
											3.80	**91.25**	**16.65**	**8.31**		
Potential Emissions			**Add worst case coating to all solvents**								**1.87**	**44.90**	**8.19**	**4.58**		

Total Uncontrolled Emissions	**15.295**	**367.085**	**66.993**	**16.934**
Controlled Emissions:	**15.295**	**367.085**	**66.993**	**1.69**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations
HAP Emissions - Surface Coatings

Company Name: Starcraft Marine, L.L.C
Address City IN Zip: 201 Starcraft Drive, Topeka, Indiana 46571
Permit No.: T087-30912-00012
Reviewer: Teresa Freeman
Date: 12/1/2011

Booth 1

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Benzene	Weight % Ethyl Benzene	Weight % Glycol Ethers	Weight % MIBK	Weight % Napthalene	Weight % Toluene	Weight % Xylene	Benzene Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	MIBK Emissions (ton/yr)	Napthalene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Acid Wash Primer	7.82	0.00826	100.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Acid Wash Thinner	7.10	0.00826	100.000	0.00%	0.00%	29.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	7.45	0.00	0.00	0.00	0.00	7.45
Uncontrolled Potential Emissions											**0.00**	**0.00**	**7.45**	**0.00**	**0.00**	**0.00**	**0.00**	**7.45**

Booth 2

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Benzene	Weight % Ethyl Benzene	Weight % Isocyanates	Weight % MIBK	Weight % Napthalene	Weight % Toluene	Weight % Xylene	Benzene Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Isocyanate Emissions (ton/yr)	MIBK Emissions (ton/yr)	Napthalene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
NS Grey	9.72	0.00064	100.000	0.50%	5.00%	0.00%	0.00%	0.00%	15.00%	5.00%	0.01	0.14	0.00	0.00	0.00	0.41	0.14	0.69
Gloss Grey	8.17	0.00118	100.000	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	5.00%	0.00	0.00	0.00	0.00	0.00	0.84	0.21	1.06
Hardener GG	8.13	0.00009	100.000	0.00%	0.00%	40.00%	0.00%	0.00%	0.00%	40.00%	0.00	0.00	0.13	0.00	0.00	0.00	0.13	0.26
Thinner 98 (cleanup)	6.80	0.00008	100.000	0.00%	0.00%	0.00%	10.00%	0.00%	30.00%	0.00%	0.00	0.00	0.00	0.02	0.00	0.07	0.00	0.10
Enamel 4993E	8.36	0.00054	100.000	0.00%	5.00%	0.00%	0.00%	0.00%	10.00%	5.00%	0.00	0.10	0.00	0.00	0.00	0.20	0.10	0.40
Enamel 4711EC	10.11	0.00386	100.000	0.00%	5.00%	0.00%	0.00%	5.00%	5.00%	5.00%	0.00	0.85	0.00	0.00	0.85	0.85	0.85	3.42
Enamel 4629E	8.40	0.00181	100.000	0.00%	0.00%	0.00%	0.00%	5.00%	10.00%	5.00%	0.00	0.00	0.00	0.00	0.33	0.67	0.33	1.33
Uncontrolled Potential Emissions											**0.01**	**1.09**	**0.13**	**0.02**	**1.19**	**3.04**	**1.76**	**7.25**
Uncontrolled Potential Emissions			**Add worst case coating to all solvents**								**0.01**	**0.85**	**0.13**	**0.02**	**0.85**	**0.93**	**0.85**	**3.65**

Booth 3

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Benzene	Weight % Ethyl Benzene	Weight % Isocyanates	Weight % MIBK	Weight % Napthalene	Weight % Toluene	Weight % Xylene	Benzene Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Isocyanate Emissions (ton/yr)	MIBK Emissions (ton/yr)	Napthalene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
NS Grey	9.72	0.00064	100.000	0.50%	5.00%	0.00%	0.00%	0.00%	15.00%	5.00%	0.01	0.14	0.00	0.00	0.00	0.41	0.14	0.69
Gloss Grey	8.17	0.00118	100.000	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	5.00%	0.00	0.00	0.00	0.00	0.00	0.84	0.21	1.06
Hardener GG	8.13	0.00009	100.000	0.00%	0.00%	40.00%	0.00%	0.00%	0.00%	40.00%	0.00	0.00	0.13	0.00	0.00	0.00	0.13	0.26
Thinner 98 (cleanup)	6.80	0.00008	100.000	0.00%	0.00%	0.00%	10.00%	0.00%	30.00%	0.00%	0.00	0.00	0.00	0.02	0.00	0.07	0.00	0.10
Enamel 4993E	8.36	0.00054	100.000	0.00%	5.00%	0.00%	0.00%	0.00%	10.00%	5.00%	0.00	0.10	0.00	0.00	0.00	0.20	0.10	0.40
Enamel 4711EC	10.11	0.00386	100.000	0.00%	5.00%	0.00%	0.00%	5.00%	5.00%	5.00%	0.00	0.85	0.00	0.00	0.85	0.85	0.85	3.42
Enamel 4629E	8.40	0.00181	100.000	0.00%	0.00%	0.00%	0.00%	5.00%	10.00%	5.00%	0.00	0.00	0.00	0.00	0.33	0.67	0.33	1.33
Uncontrolled Potential Emissions											**0.01**	**1.09**	**0.13**	**0.02**	**1.19**	**3.04**	**1.76**	**7.25**
Uncontrolled Potential Emissions			**Add worst case coating to all solvents**								**0.01**	**0.85**	**0.13**	**0.02**	**0.85**	**0.93**	**0.85**	**3.65**

Booth 6

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Benzene	Weight % Ethyl Benzene	Weight % Isocyanates	Weight % MIBK	Weight % Napthalene	Weight % Toluene	Weight % Xylene	Benzene Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Isocyanate Emissions (ton/yr)	MIBK Emissions (ton/yr)	Napthalene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
NS Grey	9.72	0.00064	100.000	0.50%	5.00%	0.00%	0.00%	0.00%	15.00%	5.00%	0.01	0.14	0.00	0.00	0.00	0.41	0.14	0.69
Gloss Grey	8.17	0.00118	100.000	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%	5.00%	0.00	0.00	0.00	0.00	0.00	0.84	0.21	1.06
Hardener GG	8.13	0.00009	100.000	0.00%	0.00%	40.00%	0.00%	0.00%	0.00%	40.00%	0.00	0.00	0.13	0.00	0.00	0.00	0.13	0.26
Thinner 98 (cleanup)	6.80	0.00008	100.000	0.00%	0.00%	0.00%	10.00%	0.00%	30.00%	0.00%	0.00	0.00	0.00	0.02	0.00	0.07	0.00	0.10
Enamel 4993E	8.36	0.00054	100.000	0.00%	5.00%	0.00%	0.00%	0.00%	10.00%	5.00%	0.00	0.10	0.00	0.00	0.00	0.20	0.10	0.40
Enamel 4711EC	10.11	0.00386	100.000	0.00%	5.00%	0.00%	0.00%	5.00%	5.00%	5.00%	0.00	0.85	0.00	0.00	0.85	0.85	0.85	3.42
Enamel 4629E	8.40	0.00181	100.000	0.00%	0.00%	0.00%	0.00%	5.00%	10.00%	5.00%	0.00	0.00	0.00	0.00	0.33	0.67	0.33	1.33
Uncontrolled Potential Emissions											**0.01**	**1.09**	**0.13**	**0.02**	**1.19**	**3.04**	**1.76**	**7.25**
Uncontrolled Potential Emissions			**Add worst case coating to all solvents**								**0.01**	**0.85**	**0.13**	**0.02**	**0.85**	**0.93**	**0.85**	**3.65**
Total Uncontrolled Potential Emissions											**0.03**	**2.56**	**0.39**	**0.07**	**2.56**	**2.78**	**2.56**	**18.41**

Glycol Ether = 7.45 tpy

Methodology:

HAPs emission rate (tons/yr) = density (lb/gal) * (gal/unit) * (units/hour) * weight % HAP * (8,760 hrs/yr) * (1 ton/2,000 lb)

Appendix A: Emissions Calculations
VOC and Particulate
From Gel Coating Operations
'ced Plastics and Composites Fiberglass Pro

Company Name: Starcraft Marine, L.L.C
Address City IN Zip: 201 Starcraft Drive, Topeka, Indiana 46571
Permit No.: T087-30912-00012
Reviewer: Teresa Freeman
Date: 12/1/2011

Gel Coat Spray Booth B4/B8/B7

Material	Density (Lb/Gal)	Weight % Total Monomer or VOC*	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Ton Processed per hour	CFA Unified Emission Factor (lb/ton)	Potential VOC pounds per hour	Potential Pounds of VOC per day	Potential VOC tons per year	Particulate Potential (ton/yr)	Transfer Efficiency**	Weight % Glycol Ethers	Weight % Methyl Methacrylate	Weight % Styrene	Glycol Ether Emissions TPY (1)	Methyl Methacrylate Emissions TPY (2)	Styrene Emissions TPY (3)	Total HAPs TPY
Production Gelcoat	10.50	34.00%	1.147	30.000	0.18065	333.10	60.18	481.40	263.57	522.23	50%	0.00%	5.00%	29.00%	-	59.34	204.22	263.57
Clear Gelcoat	9.50	48.00%	0.287	30.000	0.04086	576.00	23.54	188.29	103.09	93.07	50%	0.00%	5.00%	43.00%	-	13.42	89.67	103.09
Tooling Gelcoat	9.06	48.00%	1.147	3.000	0.01559	576.00	8.98	71.83	39.33	35.50	50%	0.00%	5.00%	43.00%	-	5.12	34.21	39.33
MEKP - Catalyst	9.04	3.00%	0.168	30.000	0.02280	60.00	1.37	10.95	5.99	0.00	100%	0.00%	0.00%	0.00%	-	-	-	-
Gun Cleaner	7.54	100.00%	0.0054	30.000	0.00061	2000.00	1.23	9.82	5.37	0.00	100%	100.00%	0.00%	0.00%	5.37	-	-	5.37
Potential Emissions			**Add worst case gel coat to all solvents and MEKP**				**62.77**	**502.17**	**274.94**	**522.23**					**5.37**	**59.34**	**204.22**	**268.94**
Potential Emissions per Booth							**20.92**	**167.39**	**91.65**	**174.08**					**1.79**	**19.78**	**68.07**	**89.65**
Controlled Emissions per Booth										**17.41**								

*Monomer Contents Based Upon Highest Allowable Average Limit

**Air Assisted Airless Application

METHODOLOGY

Tons Processed (tons/hr) = (Density (lb/gal) x Gallons/Unit x Units/Hour) / 2,000 Lb/Ton

Potential VOC Emissions (lb/hr) = Tons Process (ton/hr) x CFA Emission Factor (lb/ton)

Potential VOC Emissions (lb/day) = Potential VOC Emissions (lb/hr) x 24 (hr/day)

Potential VOC Emissions (tons/yr) = (Potential VOC Emissions (lb/hr) x 8,760 (hr/yr)) / 2,000 (lb/ton)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

(1) - Glycol Ether Emissions (tons/yr) = 100% of Gun Cleaner Potenital to Emit

(2) - Methyl Methacrylate Emissions (tons/yr) = [Tons Processed (ton/hr) x CFA Emission Factor (75 Lb/ton @ 5% MMA) x 8,760 (hr/yr)] / 2,000 (lb/ton)

(3) - Styrene Emissions (tons/yr) = Total Monomer Emissions - Methyl Methacrylate Emissions

NOTES

Emission factors are based on Composite Fabricators Association (CFA) Unified Emission Factors.

Coating operations are mutually exclusive, therefore worst case emissions are to determine the total potential emission rates.

Appendix A: Emissions Calculations
VOC and Particulate
From Resin Coating Operations
Reinforced Plastics and Composites Fiber

Company Name: Starcraft Marine, L.L.C
Address City IN Zip: 201 Starcraft Drive, Topeka, Indiana 46571
Permit No.: T087-30912-00012
Reviewer: Teresa Freeman
Date: 12/1/2011

Resin Chopper Operation (Lamination) Area

Material	Density (Lb/Gal)	Weight % Total Monomer or VOC*	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Ton Processed per hour	CFA Unified Emission Factor (lb/ton)	Potential VOC pounds per hour	Potential Pounds of VOC per day	Potential VOC tons per year	Particulate Potential (ton/yr)	Transfer Efficiency**	Weight % Glycol Ethers	Weight % Methyl Methacrylate	Weight % Styrene	Glycol Ether Emissions TPY (1)	Styrene Emissions TPY (2)	Total HAPs TPY
Production Resin	9.09	35.00%	86.400	3.100	1.21733	77.00	93.73	749.88	410.56	0.00	100%	0.00%	5.00%	35.00%	-	410.56	410.56
Tooling Resin	9.15	43.00%	86.400	0.310	0.12254	102.00	12.50	99.99	54.74	0.00	100%	0.00%	5.00%	43.00%	-	54.74	54.74
MEKP - Catalyst	9.04	3.00%	0.543	3.100	0.00760	60.00	0.46	3.65	2.00	0.00	100%	0.00%	0.00%	0.00%	-	-	-
Gun Cleaner	7.54	100.00%	0.0175	3.100	0.00020	2000.00	0.41	3.27	1.79	0.00	100%	100.00%	0.00%	0.00%	1.79	-	1.79
State Potential Emissions			**Add worst case gel coat to all solvents and MEKP**				**94.60**	**756.80**	**414.35**	**-**					**1.79**	**410.56**	**412.35**

*Monomer Contents Based Upon Highest Allowable Average Limit

**Non-Atomized Flow Coat Application

METHODOLOGY

Tons Processed (tons/hr) = (Density (lb/gal) x Gallons/Unit x Units/Hour) / 2,000 Lb/Ton

Potential VOC Emissions (lb/hr) = Tons Process (ton/hr) x CFA Emission Factor (lb/ton)

Potential VOC Emissions (lb/day) = Potential VOC Emissions (lb/hr) x 24 (hr/day)

Potential VOC Emissions (tons/yr) = (Potential VOC Emissions (lb/hr) x 8,760 (hr/yr)) / 2,000 (lb/ton)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 tor

(1) - Glycol Ether Emissions (tons/yr) = 100% of Gun Cleaner Potenital to Emit

(2) - Styrene Emissions (tons/yr) = Total Monomer Emissions

NOTES

Emission factors are based on Composite Fabricators Association (CFA) Unified Emission Factors.

Coating operations are mutually exclusive, therefore worst case emissions are to determine the total potential emission rates

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations - Wood/Plastic Coating
Carpet & Trim Installation/Final Finish/Assembly

Company Name: Starcraft Marine, L.L.C
Address City IN Zip: 201 Starcraft Drive, Topeka, Indiana 46571
Permit No.: T087-30912-00012
Reviewer: Teresa Freeman
Date: 12/1/2011

VOCs and Particulate Emissions

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & Exempt	Weight % Organics	Volume % Water & Exempt	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency*
Aqueous Contact Adhesive	9.17	50.00%	44.5%	5.5%	49.0%	44.33%	0.77954	6.600	0.99	0.50	2.60	62.30	11.37	0.00	1.14	100%
Adhesive Activator	9.67	80.00%	80.0%	0.0%	92.8%	7.20%	0.10455	6.600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
Sealant M6324	9.20	49.50%	0.0%	49.5%	0.0%	50.00%	0.01520	6.600	4.55	4.55	0.46	10.96	2.00	0.00	9.11	100%
Pure Lacquer Thinner	7.00	100.00%	0.0%	100.0%	0.0%	0.00%	0.01300	6.600	7.00	7.00	0.60	14.41	2.63	0.00		100%
Uncontrolled Potential Emissions											**3.65**	**87.68**	**16.00**	**-**		

***Roller Application of Adhesive and Sealants and Hand Application of Solvent**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

HAPs Emissions

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Benzene	Weight % Ethyl Benzene	Weight % Formalde-Hyde	Weight % Isocyanates	Weight % Methanol		Weight % MIBK	Weight % Napthalene	Weight % Styrene	Weight % Toluene	Weight % Xylene	Benzene Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Formald. Emissions (ton/yr)	Isocyanate Emissions (ton/yr)	Methanol Emissions (ton/yr)	MIBK Emissions (ton/yr)	Napthalene Emisisons (ton/yr)	Styrene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Aqueous Contact Adhesive	9.17	0.77954	6.600	0.00%	0.00%	0.00%	0.00%	2.50%		0.00%	0.00%	0.00%	3.00%	0.00%	0.00	0.00	0.00	0.00	5.17	0.00	0.00	0.00	6.20	0.00	11.37
Adhesive Activator	9.67	0.10455	6.600	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sealant M6324	9.20	0.01520	6.600	0.00%	0.00%	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	49.50%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00	2.00
Pure Lacquer Thinner	7.00	0.01300	6.600	0.00%	0.00%	0.00%	0.00%	10.00%		10.00%	0.00%	0.00%	50.00%	0.00%	0.00	0.00	0.00	0.00	0.26	0.26	0.00	0.00	1.32	0.00	2.10
Uncontrolled Potential Emissions															**-**	**-**	**-**	**-**	**5.43**	**0.26**	**-**	**-**	**9.52**	**-**	**15.48**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: VOC & Isocyanate Foam Emissions

Foam Floatation Installation

Company Name: Starcraft Marine, L.L.C
Address City IN Zip: 201 Starcraft Drive, Topeka, Indiana 46571
Permit No.: T087-30912-00012
Reviewer: Teresa Freeman
Date: 12/1/2011

Formula

$$W = 25.4 \frac{(Pt' \, Mt)}{T} u^{0.78} A$$

Units of Measure	Liquid Vapor Pressure Pt'	Molecular Weight Mt	Temperature T	Air Flow Rate u	Area A
mm Hg	0.00075				
Atmospheres	9.87E-07				
gram Molecular Weight		250.26			
Fahrenheit			80.00		
Celsius			26.67		
Kelvin			299.67		
Feet/Minute				10	
m/s				0.0508	
Units per Hour					6.60
Square Feet per Unit					120.00
Square Feet Coated per Hour					792.00
Square Meters					73.61

Input Data
Units of Calculation

Emissions Estimate

W =	1.51E-04	grams/second
	5.43E-01	grams/hour
	1.20E-03	pounds/hour
Operating Hours per Year	8,760.00	hours/year
	10.48	pounds/year
	0.0052	tons/year MDI

Emission Factor

Pounds Material per Unit	23.23	pounds/unit
Pounds Material per Year	1,343,065.68	pounds/year
Emission Factor	0.00078%	percent
	0.000008	decimal

Reference

Alliance for the Polyurethanes Industry, MDI/Polymeric MDI Emissions Reporting Guidelines for Section 313 and State Reporting

Assuming Worst Case that Surface Area is Exposed

Appendix A: Process Particulate Emissions
Fiberglass Grinding Booth
Company Name: Starcraft Marine, L.L.C
Address City IN Zip: 201 Starcraft Drive, Topeka, Indiana 46571
Permit No.: T087-30912-00012
Reviewer: Teresa Freeman
Date: 12/1/2011

Process Throughput Weight:*	**2.09**	**tons/hr**
Design Maximum Air Flow Rate:	**2,650**	**acf/m**
Overall Controll Efficiency Rating:	**97.00%**	**Percent**
Design Outlet Grain Loading:	**0.002**	**grains/acf**

***Net Weight Gelcoat + Net Weight Resin + Net Weight Fiberglass + Net Weight Wood**

AFTER CONTROL EMISSIONS RATE:

Hourly Emission Rate =	**grains/acf**	**X**	**acf/m**	**X**	**60 min/hr**	**X**	**'7,000 grains/**	**=**	**lb/hr**		
Hourly Emission Rate =	0.0020	**X**	2,650	**X**	60	**X**	0.00014	**=**	0.045	**lb/hr**	
Annual Emission Rate =	**lb/hr**	**X**	**8,760 hr/year**	**X**	**1/2,000 lb/ton**	**=**	**tons/year**				
Annual Emission Rate =	0.05	**X**	8,760	**X**	0.0005	**=**	0.20	**tons/year**			

BEFORE CONTROL EMISSION RATE:

Potential Emissions =	**After Control Rate (tons/year)**			**/**	**[1 - Control Efficiency]**	**=**		**tons/year**
Potential Emissions =	0.20	/	0.0300			=	6.63	**tons/year**

ALLOWABLE PROCESS EMISSION RATE:

Allowable Emission Rate (E) < 30 ton/hr =	**Process Rate tons/hr ^ 0.67**			**X**	**4.1**	**=**	**lb/hr**
Allowable Emission Rate (E) < 30 ton/hr =	1.64	X	4.1	=	6.73		**lb/hr**

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Starcraft Marine, L.L.C
Address City IN Zip: 201 Starcraft Drive, Topeka, Indiana 46571
Permit No.: T087-30912-00012
Reviewer: Teresa Freeman
Date: 12/1/2011

Natural Gas-fired combustion sources	Heat Input Capacity (MMBtu/hr)	Number of Units	Total Heat Input Capacity***
Space heaters	0.10	54	5.4
Process heaters	0.15	2	0.3
Furnaces	1.00	5	5.0
Infrared tubes	1.30	8	10.4
Unit heater	0.70	1	0.7
TOTAL			**21.8**

Methodology
Total Heat Input Capacity = Heat Input Capacity * Number of Source Units

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr
21.8	1020	187.2

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.18	0.71	0.71	0.06	9.36	0.51	7.86

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

HAPs Emissions	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.966E-04	1.123E-04	7.021E-03	1.685E-01	3.183E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	4.681E-05	1.030E-04	1.311E-04	3.557E-05	1.966E-04

Methodology is the same as page 1.

TOTAL (tons/year): 0.18

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.
See Page 3 for Greenhouse Gas calculations.

Greenhouse Gas Emissions	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	11,233	0.2	0.2
Summed Potential Emissions in tons/yr	11,234		
CO2e Total in tons/yr	**11,302**		

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations
Welding and Thermal Cutting

Company Name: Starcraft Marine, L.L.C
Address City IN Zip: 201 Starcraft Drive, Topeka, Indiana 46571
Permit No.: T087-30912-00012
Reviewer: Teresa Freeman
Date: 12/1/2011

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
WELDING				$PM = PM_{10} = PM_{2.5}$	Mn	Ni	Cr	$PM = PM_{10} = PM_{2.5}$	Mn	Ni	Cr	
Metal Inert Gas (MIG)(E4043)	27	1.25		0.01070	-	-	-	0.36113	-	-	-	-
Stick (E5154 electrode)	1	0.06		0.02410	0.00034	-	0.00010	0.00151	0.00002	-	0.00001	0.00003
Tungsten Inert Gas (TIG) (E4043)	17	1.20		0.01070	-	-	-	0.21828	-	-	-	-
	Number of Stations	**Max. Metal Thickness Cut (in.)**	**Max. Metal Cutting Rate (in./minute)**	**EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)****				**EMISSIONS (lbs/hr)**				**HAPS (lbs/hr)**
FLAME CUTTING				$PM = PM_{10} = PM_{2.5}$	Mn	Ni	Cr	$PM = PM_{10} = PM_{2.5}$	Mn	Ni	Cr	
Plasma (IIW Document 1E174-93)	3	0.187	12	1.72E-07	7.59E-09	1.78E-08	3.48E-08	6.96E-08	1.76E-16	1.67E-23	4.85E-32	1.76E-16
EMISSION TOTALS												
Potential Emissions lbs/hr								0.58	0.000	0.000	0.000	0.000
Potential Emissions lbs/day								13.94	0.001	0.000	0.000	0.001
Potential Emissions tons/year								2.54	0.000	0.000	0.000	0.000

METHODOLOGY

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Appendix A: Process Particulate Emissions
Woodworking Activities

Company Name: Starcraft Marine, L.L.C
Address City IN Zip: 201 Starcraft Drive, Topeka, Indiana 46571
Permit No.: T087-30912-00012
Reviewer: Teresa Freeman
Date: 12/1/2011

Process Throughput Weight:	0.51	tons/hr
Design Maximum Air Flow Rate:	6,284	acf/m
Overall Controll Efficiency Rating:	98.00%	Percent
Design Outlet Grain Loading:	0.002	grains/acf

AFTER CONTROL EMISSIONS RATE:

Hourly Emission Rate =	**grains/acf**	**X**	**acf/m**	**X**	**60 min/hr**	**X**	**1/7,000 grains/lb**	**=**	**lb/hr**	
Hourly Emission Rate =	0.0020	**X**	6,284	**X**	60	**X**	0.00014	**=**	0.107726	**lb/hr**
Annual Emission Rate =	**lb/hr**	**X**	**8,760 hr/year**	**X**	**1/2,000 lb/ton**	**=**	**tons/year**			
Annual Emission Rate =	0.11	**X**	8,760	**X**	0.0005	**=**	0.47	**tons/year**		

BEFORE CONTROL EMISSION RATE:

Potential Emissions =	**After Control Rate (tons/year)**			**/**	**[1 - Control Efficiency]**	**=**	**tons/year**
Potential Emissions =	0.47	/	0.0200		=	23.59	**tons/year**

ALLOWABLE PROCESS EMISSION RATE:

Allowable Emission Rate (E) < 30 ton/hr =	**Process Rate tons/hr ^ 0.67**			**X**	**4.1**	**=**	**lb/hr**
Allowable Emission Rate (E) < 30 ton/hr =	0.63	X	4.1	=	2.60		**lb/hr**

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations - FRP Mold Maintenance
Fiberglass Boat Mold Surface Coating

Company Name: Starcraft Marine, L.L.C
Address City IN Zip: 201 Starcraft Drive, Topeka, Indiana 46571
Permit No.: T087-30912-00012
Reviewer: Teresa Freeman
Date: 12/1/2011

VOC and Particulate Emissions

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & Exempt	Weight % Organics	Volume % Water & Exempt	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency*
Wax 68	6.64	66.00%	0.0%	66.0%	0.0%	25.60%	0.06000	3.100	4.38	4.38	0.82	19.56	3.57	0.00	17.12	100%
Wax 104	7.26	70.00%	0.0%	70.0%	0.0%	29.00%	0.13000	3.100	5.08	5.08	2.05	49.15	8.97	0.00	17.52	100%
Methylene Chloride**	11.15	100.00%	100.0%	0.0%	100.0%	0.00%	0.00050	3.100	0.00	0.00	0.00	0.00	0.00	0.00		100%
											2.86	**68.72**	**12.54**	**-**		
Potential Emissions			**Add worst case coating to all solvents**								**2.05**	**49.15**	**8.97**	**-**		

***Hand Application of Products to Fiberglass Molds**
****Cured Material Cleanup Only**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

HAP Emissions

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Benzene	Weight % Ethyl Benzene	Weight % Formalde-Hyde	Weight % Isocyanates	Weight % Methylene Chloride	Weight % MEK	Weight % MIBK	Weight % Napthalene	Weight % Styrene	Weight % Toluene	Weight % Xylene	Benzene Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Formald. Emissions (ton/yr)	Isocyanate Emissions (ton/yr)	Methylene Chloride Emissions (ton/yr)	MEK Emissions (ton/yr)	MIBK Emissions (ton/yr)	Napthalene Emisisons (ton/yr)	Styrene Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Wax 68	6.64	0.06000	3.100	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wax 104	7.26	0.13000	3.100	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Methylene Chloride**	11.15	0.00050	3.100	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.08
Uncontrolled Potential Emissions															-	-	-	-	**0.08**	-	-	-	-	-	-	**0.08**
Uncontrolled Potential Emissions			**Add worst case coating to all solvents**												**-**	**-**	**-**	**-**	**0.08**	**-**	**-**	**-**	**-**	**-**	**-**	**0.08**

****Cured Material Cleanup Only**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Losses From Three (3) Resin Tanks
Company Name: Starcraft Marine, L.L.C
Address City IN Zip: 201 Starcraft Drive, Topeka, Indiana 46571
Permit No.: T087-30912-00012
Reviewer: Teresa Freeman
Date: 12/1/2011

EMISSION UNIT 91 - STACK VENT 99

TANK BREATHING LOSSES

LB = 2.26x10-2 Mv [P/Pa-P]ex0.68 Dex1.73 Hex0.51 dTex0.50 Fp C Kc %VOC

Constant	Mv	[P/Pa-P]ex0.68	Dex1.73	Hex0.51	dTex0.50	Fp	C	Kc	Percent VOC*	Result Lb/Yr	Result Lb/Hr	Result Lb/Day	Result TPY
0.0226	104.14	3.06	36.50	2.89	3.16	1.00	0.2500	1.0000	35.00%	209.94	0.0240	0.5752	0.1050

WORKING LOSS

LW = 2.4ex-5 Mv P V N Kn Kc %VOC

Constant	Mv	P	V	N**	Kn	Kc	Percent VOC*		Result Lb/Yr	Result Lb/Hr	Result Lb/Day	Result TPY
0.0000	104.14	0.05	3000	260.70	1.00	1.00	0.35		36.47	0.0042	0.0999	0.0182
Total This Facility									**246.41**	**0.0281**	**0.6751**	**0.1232**

* Percent VOC = Maximum Allowable Concentration of Styrene
** N = [(3.1 units/hr x 86.4 gal/unit x 8,760 hours) / 3 tanks] / 3,000 gallons 260.70

EMISSION UNIT 92 - STACK VENT 100

TANK BREATHING LOSSES

LB = 2.26x10-2 Mv [P/Pa-P]ex0.68 Dex1.73 Hex0.51 dTex0.50 Fp C Kc %VOC

Constant	Mv	[P/Pa-P]ex0.68	Dex1.73	Hex0.51	dTex0.50	Fp	C	Kc	Percent VOC*	Result Lb/Yr	Result Lb/Hr	Result Lb/Day	Result TPY
0.0226	104.14	3.06	36.50	2.89	3.16	1.00	0.2500	1.0000	35.00%	209.94	0.0240	0.5752	0.1050

WORKING LOSS

LW = 2.4ex-5 Mv P V N Kn Kc %VOC

Constant	Mv	P	V	N**	Kn	Kc	Percent VOC*		Result Lb/Yr	Result Lb/Hr	Result Lb/Day	Result TPY
0.0000	104.14	0.05	3000	260.70	1.00	1.00	0.35		36.47	0.0042	0.0999	0.0182
Total This Facility									**246.41**	**0.0281**	**0.6751**	**0.1232**

* Percent VOC = Maximum Allowable Concentration of Styrene
** N = [(3.1 units/hr x 86.4 gal/unit x 8,760 hours) / 3 tanks] / 3,000 gallons 260.70

EMISSION UNIT 93 - STACK VENT 101

TANK BREATHING LOSSES

LB = 2.26x10-2 Mv [P/Pa-P]ex0.68 Dex1.73 Hex0.51 dTex0.50 Fp C Kc %VOC

Constant	Mv	[P/Pa-P]ex0.68	Dex1.73	Hex0.51	dTex0.50	Fp	C	Kc	Percent VOC*	Result Lb/Yr	Result Lb/Hr	Result Lb/Day	Result TPY
0.0226	104.14	3.06	53.70	3.24	3.16	1.00	0.2500	1.0000	35.00%	346.08	0.0395	0.9482	0.1730

WORKING LOSS

LW = 2.4ex-5 Mv P V N Kn Kc %VOC

Constant	Mv	P	V	N**	Kn	Kc	Percent VOC*		Result Lb/Yr	Result Lb/Hr	Result Lb/Day	Result TPY
0.0000	104.14	0.05	5000	156.42	1.00	1.00	0.35		36.47	0.0042	0.0999	0.0182
Total This Facility									**382.55**	**0.0437**	**1.0481**	**0.1913**

* Percent VOC = Maximum Allowable Concentration of Styrene
** N = [(3.1 units/hr x 86.4 gal/unit x 8,760 hours) / 3 tanks] / 5,000 gallons 156.42

Total Emissions Losses as Styrene (100-42-5)

Result Lb/Yr	Result Lb/Hr	Result Lb/Day	Result TPY
875.36	**0.10**	**2.40**	**0.44**

Appendix A: Emission Calculations
Fugitive Dust Emissions - Unpaved Roads

Company Name: **Starcraft Marine, L.L.C**
Address City IN Zip: **201 Starcraft Drive, Topeka, Indiana 46571**
Permit No.: **T087-30912-00012**
Reviewer: **Teresa Freeman**
Date: **12/1/2011**

Unpaved Roads at Industrial Site
The following calculations determine the amount of emissions created by unpaved roads, based on 8,760 hours of use and AP-42, Ch 13.2.2 (11/2006).

Vehicle Information (provided by source)

Type	Maximum number of vehicles	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle (entering plant) (one-way trip)	1.0	1.0	1.0	4.0	4.0	250	0.047	0.0	17.3
Vehicle (leaving plant) (one-way trip)	1.0	1.0	1.0	4.0	4.0	250	0.047	0.0	17.3
		Total	**2.0**		**8.0**			**0.1**	**34.6**

Average Vehicle Weight Per Trip = 4.0 tons/trip
Average Miles Per Trip = 0.05 miles/trip

Unmitigated Emission Factor, Ef = k*[(s/12)^a]*[(W/3)^b] (Equation 1a from AP-42 13.2.2)

	PM	PM10	PM2.5	
where k =	4.9	1.5	1.5	lb/mi = particle size multiplier (AP-42 Table 13.2.2-2 for Industrial Roads)
s =	4.8	4.8	4.8	% = mean % silt content of unpaved roads (AP-42 Table 13.2.2-1 Sand/Gravel Processing Plant)
a =	0.7	0.9	0.9	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)
W =	4.0	4.0	4.0	tons = average vehicle weight (provided by source)
b =	0.45	0.45	0.45	= constant (AP-42 Table 13.2.2-2 for Industrial Roads)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = E * [(365 - P)/365] (Equation 2 from AP-42 13.2.2)
Mitigated Emission Factor, Eext = E * [(365 - P)/365]
where P = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.2-1)

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	2.94	0.75	0.75	lb/mile
Mitigated Emission Factor, Eext =	1.93	0.49	0.49	lb/mile
Dust Control Efficiency =	50%	50%	50%	(pursuant to control measures outlined in fugitive dust control plan)

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)	Controlled PTE of PM (tons/yr)	Controlled PTE of PM10 (tons/yr)	Controlled PTE of PM2.5 (tons/yr)
Vehicle (entering plant) (one-way trip)	0.03	0.01	0.01	0.02	0.00	0.00	0.01	0.00	0.00
Vehicle (leaving plant) (one-way trip)	0.03	0.01	0.01	0.02	0.00	0.00	0.01	0.00	0.00
	0.05	**0.01**	**0.01**	**0.03**	**0.01**	**0.01**	**0.02**	**0.00**	**0.00**

Methodology

Total Weight driven per day (ton/day)	= [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
Maximum one-way distance (mi/trip)	= [Maximum one-way distance (feet/trip) / [5280 ft/mile]
Maximum one-way miles (miles/day)	= [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip)	= SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
Average Miles Per Trip (miles/trip)	= SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
Unmitigated PTE (tons/yr)	= (Maximum one-way miles (miles/yr)) * (Unmitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Mitigated PTE (tons/yr)	= (Maximum one-way miles (miles/yr)) * (Mitigated Emission Factor (lb/mile)) * (ton/2000 lbs)
Controlled PTE (tons/yr)	= (Mitigated PTE (tons/yr)) * (1 - Dust Control Efficiency)

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
PM2.5 = Particulate Matter (<2.5 um)
PTE = Potential to Emit