



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: August 29, 2007
RE: AK Industries, Inc. / 099-21583-00043
FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval – Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204.

For an **initial Title V Operating Permit**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **thirty (30)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(b).

For a **Title V Operating Permit renewal**, a petition for administrative review must be submitted to the Office of Environmental Adjudication within **fifteen (15)** days from the receipt of this notice provided under IC 13-15-5-3, pursuant to IC 13-15-6-1(a).

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

Pursuant to 326 IAC 2-7-18(d), any person may petition the U.S. EPA to object to the issuance of an initial Title V operating permit, permit renewal, or modification within sixty (60) days of the end of the forty-five (45) day EPA review period. Such an objection must be based only on issues that were raised with reasonable specificity during the public comment period, unless the petitioner demonstrates that it was impracticable to raise such issues, or if the grounds for such objection arose after the comment period.

To petition the U.S. EPA to object to the issuance of a Title V operating permit, contact:

U.S. Environmental Protection Agency
401 M Street
Washington, D.C. 20406

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



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PART 70 OPERATING PERMIT RENEWAL OFFICE OF AIR QUALITY

**AK Industries, Inc.
2055 Pidco Drive
Plymouth, Indiana 46563**

(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.: T099-21583-00043	
Original signed by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: August 29, 2007 Expiration Date: August 29, 2012

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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(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary fiberglass parts fabrication facility.

Source Address:	2055 Pidco Drive, Plymouth, Indiana 46563
Mailing Address:	2055 Pidco Drive, Plymouth, Indiana 46563
General Source Phone Number:	(574) 936-6022
SIC Code:	3999
County Location:	Marshall
Source Location Status:	Attainment for all other criteria pollutants
Source Status:	Part 70 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(15)]

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

- (a) One (1) hand layup area, identified as HL1, and three (3) resin flowcoat booths, identified as CP1, CP2, and CP3, respectively. Each flow coat booth has a maximum design rate of one (1) tank/hr, with emissions exhausted to stacks F1, F3, and F4, respectively. Under 40 CFR 63, Subpart WWWW, the one (1) hand layup area and the three (3) resin flowcoat booths are considered an existing open molding reinforced plastic composites production operation. These facilities were constructed in 1999.
- (b) One (1) gelcoat booth, identified as G-1, with a maximum design rate of 5.71 tanks/hr, with emissions controlled by a dry filter system, which exhausts to stack F5. Under 40 CFR 63, Subpart WWWW, the one (1) gelcoat booth is considered an existing open molding reinforced plastic composites production operation. This facility was constructed in 1990.
- (c) One (1) filament winding machine, identified as FW4, with a maximum design rate of 4 basins/hr. Under 40 CFR 63, Subpart WWWW, the filament winding machine is considered an affected filament winding unit. This facility was constructed in 1999.
- (d) Three (3) nonatomized chop-hoop winding applicators, each applying resin to two (2) mandrels for a total of six (6) filament winding mandrels, identified as FWSH1 through FWSH6, each with a maximum design rate of 1 basin/hr, with emissions controlled by dry filters, which exhaust to stacks F6 through F11, respectively. Under 40 CFR 63, Subpart WWWW, the filament winding machine is considered an affected filament winding unit. These facilities were constructed in 1999.
- (e) One (1) portable resin spray applicator, identified as CPC4, with emissions exhausted to stacks F6, F7, F8, F9, F10, or F11. Under 40 CFR 63, Subpart WWWW, the one (1) portable resin spray applicator is considered an existing open molding reinforced plastic composites production operation. This facility was constructed in 1999.

- (f) One (1) tooling repair booth, identified as FCG1, with emissions controlled by a dry filter system, with no external exhaust, and constructed in 1999.
- (g) One (1) resin flowcoat booth, identified as FCR1, with a maximum design rate of 0.125 parts/hr, with emissions exhausted to stack F13. Under 40 CFR 63, Subpart WWWW, the one (1) resin flowcoat booth is considered an existing open molding reinforced plastic composites production operation. This facility was constructed in 1999.
- (h) One (1) pulverizer, identified as RP 3, constructed in 2000, with maximum rate of production of 949 lbs/hour of Polyethylene pieces, using a cyclone as control, which exhausts to stack RP 3. This facility was constructed in 1999.
- (i) Two (2) fiberglass resin storage tanks, identified as T1 and T2, with capacities of 5,000 gallons each. Under 40 CFR 63, Subpart WWWW, the two (2) resin storage tanks are considered existing HAP-containing materials storage units. These storage tanks were constructed in 1999.
- (j) One (1) paint booth, identified as PB1, with a maximum design rate of 6 metal lids/hr, emissions controlled by a dry filter system, which exhausts to stack F2. This facility was constructed in 1999.
- (k) One (1) hand grinding booth, identified as CB1, with a maximum design capacity of 2.08 tons of fiberglass/hr, with emissions controlled by a dry filter, which exhausts inside the building. This facility was constructed in 1999.
- (l) One (1) sand blasting booth, identified as CB2, with a maximum design capacity of 0.5 tons of blasting material/hr, with emissions controlled by a cartridge filter, which exhausts inside the building. This facility was constructed in 1999.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)]
[326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) The following activities with emissions equal to or less than the insignificant thresholds in 326 IAC 2-7-1(21)(A), (B), and (C) [326 IAC 6-3-2]:
 - (1) One (1) hand tooling and finishing area (HT1),
 - (2) Two (2) pulverizer units (PR1 and PR2),
 - (3) One (1) regrind unit (RP2),
 - (4) Two (2) metal inert gas welding units (W1 and W2),
 - (5) Two (2) plasma cutting units (PC-1 and PC-2),
 - (6) One (1) metal cutting unit (MC-1),
 - (7) One (1) metal sanding unit (MS-1),
 - (8) One (1) metal drilling unit (D-1),
 - (9) One (1) fiberglass tube cutter (TC-1), and

- (10) One (1) fitting area (F-1).
- (b) Degreasing operations that do exceed 145 gallons per 12 months and not subject to 40 CFR 63 Subpart T [326 IAC 8-3-2] [326 IAC 8-3-5]. The degreasing unit is used only for maintenance activities.
- (c) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

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, T099-21583-00043, 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]

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. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). 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) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a responsible official of truth, accuracy, and completeness. This certification shall state

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

- (b) One (1) certification shall be included, using the attached Certification Form, 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 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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) 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.
- (b) 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 or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (c) 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, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

IDEM Main Office

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or

Telephone Number: 317-233-0178 (ask for Compliance Section)

Facsimile Number: 317-233-6865

- (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 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 the certification by the "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)(9) 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.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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 T099-21583-00043 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 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. 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.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 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 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 the certification by the "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.17 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 the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, 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 in writing by IDEM, OAQ, any additional information identified as being needed to process the application.

B.18 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- Any such application shall be certified by the “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.19 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 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.20 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), (c), or (e), 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
Permits 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, 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 emissions trades that are subject to 326 IAC 2-7-20(b), (c), or (e). 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), (c)(1), and (e)(2).

- (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 the certification by the "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.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.

B.22 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.23 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require the certification by the "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.24 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.25 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. This condition is not federally enforceable.

C.2 Opacity [326 IAC 5-1]

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 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 or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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).

C.6 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.7 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
Asbestos Section, Office of Air Quality
100 North Senate Avenue
MC 61-52 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 by the "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 Accredited 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 Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

C.8 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, 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 certification by the "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 certification by the "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.9 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.10 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, 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 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 sixty (60) 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 the certification by the "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.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.12 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.13 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 prepared and 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.14 Risk Management Plan [326 IAC 2-7-5(12)] [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.15 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit(s) (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 emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned 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 within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

- (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;
 - (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 maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions taken.

C.16 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 take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) 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 the certification by the "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.17 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]

- (a) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2007 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 the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The emission statement 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.18 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

- (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, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (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. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, 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) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) 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.20 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 the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

- (a) One (1) hand layup area, identified as HL1, and three (3) resin flowcoat booths, identified as CP1, CP2, and CP3, respectively. Each flow coat booth has a maximum design rate of one (1) tank/hr, with emissions exhausted to stacks F1, F3, and F4, respectively. Under 40 CFR 63, Subpart WWWW, the one (1) hand layup area and the three (3) resin flowcoat booths are considered an existing open molding reinforced plastic composites production operation. These facilities were constructed in 1999.
- (b) One (1) gelcoat booth, identified as G1, with a maximum design rate of 5.71 tanks/hr, with emissions controlled by a dry filter system, which exhausts to stack F5. Under 40 CFR 63, Subpart WWWW, the one (1) gelcoat booth is considered an existing open molding reinforced plastic composites production operation. This facility was constructed in 1990.
- (c) One (1) filament winding machine, identified as FW4, with a maximum design rate of 4 basins/hr. Under 40 CFR 63, Subpart WWWW, the filament winding machine is considered an affected filament winding unit. This facility was constructed in 1999.
- (d) Three (3) nonatomized chop-hoop winding applicators, each applying resin to two (2) mandrels for a total of six (6) filament winding mandrels, identified as FWSH1 through FWSH6, each with a maximum design rate of 1 basin/hr, with emissions controlled by dry filters, which exhaust to stacks F6 through F11, respectively. Under 40 CFR 63, Subpart WWWW, the filament winding machine is considered an affected filament winding unit. These facilities were constructed in 1999.
- (e) One (1) portable resin spray applicator, identified as CPC4, with emissions exhausted to stacks F6, F7, F8, F9, F10, or F11. Under 40 CFR 63, Subpart WWWW, the one (1) portable resin spray applicator is considered an existing open molding reinforced plastic composites production operation. This facility was constructed in 1999.
- (f) One (1) tooling repair booth, identified as FCG1, with emissions controlled by a dry filter system, with no external exhaust, and constructed in 1999.
- (g) One (1) resin flowcoat booth, identified as FCR1, with a maximum design rate of 0.125 parts/hr, with emissions exhausted to stack F13. Under 40 CFR 63, Subpart WWWW, the one (1) resin flowcoat booth is considered an existing open molding reinforced plastic composites production operation. This facility was constructed in 1999.
- (i) Two (2) fiberglass resin storage tanks, identified as T1 and T2, with capacities of 5,000 gallons each. Under 40 CFR 63, Subpart WWWW, the two (2) resin storage tanks are considered existing HAP-containing materials storage units. These storage tanks were constructed in 1999.

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

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

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

Pursuant to CP-099-10311-00043, issued on April 15, 1999, the usage of resins, gelcoats, catalysts and solvents at the fiberglass parts manufacturing operation, including units HL1, CP1, CP2, CP3, G1, FW4, FWSH1 through FWSH6, CPC4, CB1, CB2, FCG1, and FCR1, in conjunction with the paint booth, PB1, shall be limited to a combined total of less than two hundred forty seven (247) tons of VOC per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this condition renders the requirements of 326 IAC 2-2 not applicable.

D.1.2 Volatile Organic Compounds [326 IAC 8-1-6]

Pursuant to T099-7547-00043, issued on April 20, 2001 the fiberglass parts manufacturing shall comply with the following Best Available Control Technology (BACT):

- (a) Use of resins and gel coats shall be limited such that the potential to emit (PTE) volatile organic compound from resins and gel coats only shall be less than 100 tons per year, per twelve (12) consecutive month period. Compliance with this limit shall be determined based upon the following criteria:
- (1) Monthly usage by weight, monomer content, method of application, and other emission reduction techniques for each gel coat and resin shall be recorded. Volatile organic compound 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 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 updates (with the exception of the emission factors for controlled spray application), and shall not exceed 32.3% styrene emitted per weight of gel coat applied and 17.7% styrene emitted per weight of resin applied. 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 shall be taken from the following reference approved by IDEM, OAQ: American Composites Manufacturers Association (ACMA) Emission Models for the Reinforced Plastics Industries, Unified Emission Factors dated July 23, 2001, or its updates.
- (b) Resins and gel coats used, including filled resins and tooling resins and gel coats, shall be limited to maximum monomer contents of 35 percent (35%) by weight for resins, 37 percent (37%) by weight for gel coats or their equivalent on an emissions mass basis. Monomer contents shall be calculated on a neat basis, i.e., excluding any filler. Compliance with these monomer content limits shall be demonstrated on a monthly basis.

The use of resins with monomer contents lower than 35%, gel coats with monomer contents lower than 37%, and/or additional emission reduction techniques approved by IDEM, OAQ, may be used to offset the use of resins with monomer contents higher than 35%, and/or gel coats with monomer contents higher than 37%. Examples of other techniques include, but are not limited to, lower monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging, controlled spraying, or installing a control device with an overall reduction efficiency of 95%. This is allowed to meet the monomer content limits for resins and gel coats, and shall be calculated on an equivalent emissions mass basis as shown below:

$(\text{Emissions from } >35\% \text{ resin and } >37\% \text{ gel coat}) - (\text{Emissions from } 35\% \text{ resin and } 37\% \text{ gel coat}) \leq (\text{Emissions from } 35\% \text{ resin and } 37\% \text{ gel coat}) - (\text{Emissions from } <35\% \text{ resin, } <37\% \text{ gel coat, and/or other emission reduction techniques}).$

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

EF, Monomer emission factor = emission factor, expressed as % styrene emitted per weight of resin applied, which is indicated by the monomer content, method of application, and other emission reduction techniques for each gel coat and resin used.

- (c) Flow coaters, a type of non-spray application technology of a design and specifications to be approved by IDEM, OAQ, shall be used in the following manner:
- (1) To apply 50% of all neat resins within 6 months of commencement of operation.
 - (2) To apply 100% of all neat resins used within 1 year of commencement of operation.
- (d) Optimized spray techniques according to a manner approved by IDEM shall be used for gel coats and filled resins (where fillers are required for corrosion or fire retardant purposes) at all times. Optimized spray techniques include, but are not limited to, the use of airless, air-assisted airless, high volume low pressure (HVLP), or other spray applicators demonstrated to the satisfaction of IDEM, OAQ, to be equivalent to the spray applicators listed above.
- HVLP spray is the technology used to apply material to substrate by means of application equipment that operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.
- (e) The Permittee shall comply with the following work practices:
- (1) To the extent possible, a non-VOC solvent shall be used for cleanup.
 - (2) Cleanup solvent containers used to transport solvent from drums to work stations shall be closed containers having soft gasketed spring-loaded closures.
 - (3) Cleanup rags saturated with solvent shall be stored, transported, and disposed of in containers that are closed tightly.
 - (4) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent into the air.
 - (5) All solvent sprayed during cleanup or resin changes shall be directed into containers. Such containers shall be closed as soon as solvent spraying is complete and the waste solvent shall be disposed of in such a manner that evaporation is minimized.
 - (6) Storage containers used to store VOC-containing materials shall be kept covered when not in use.

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

Pursuant to 326 IAC 6-3-2(d) dry filters shall be in operation at all times during the operation of the gelcoat booth (G-1), the tooling repair booth (FCG1) and six filament winding mandrels (FWSH1 through FWSH6). Pursuant to 326 IAC 6-3-2(d)(1), the source shall operate the dry filters in accordance with manufacturer's specifications.

D.1.4 Reinforced Plastics Composites Production [326 IAC 20-56-2]

Pursuant to 326 IAC 20-56-2, the Permittee shall comply with the following requirements.

- (a) Operator Training. Each owner or operator shall train all new and existing personnel, including contract personnel, who are involved in resin and gel coating spraying and applications that could result in excess emissions if performed improperly according to the following schedule:
- (1) All personnel hired shall be trained within (30) days of hiring.

- (2) To ensure training goals listed in subsection (b) are maintained, all personnel shall be given refresher training annually.
 - (3) Personnel who have been trained by another owner or operator subject to this rule are exempt from subdivision (1) if written documentation that the employee's training is current is provided to the new employees.
- (b) The lesson plans shall cover, for the initial and refresher training, at a minimum, all of the following topics:
- (1) Appropriate application techniques.
 - (2) Appropriate equipment cleaning procedures.
 - (3) Appropriate equipment setup and adjustment to minimize material usage and overspray.
- (c) The owner or operator shall maintain the following training records on site and make them available for inspection and review:
- (1) A copy of the current training program.
 - (2) A list of the following:
 - (A) All current personnel, by name, that are required to be trained.
 - (B) The date the person was trained or date of the most recent refresher training, whichever is later.
- (d) Records of prior training programs and former personnel are not required to be maintained.

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.1.6 Volatile Organic Compounds (VOCs)

Compliance with the VOC usage limitations contained in Condition D.1.1 and D.1.2 shall be determined as follows:

- (a) The Permittee shall prepare or obtain from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets or Material Safety Data Sheets (MSDS) for each resin, gelcoat, catalyst, solvent and mold release agent used in the reinforced plastics composites manufacturing operations.
- (b) The VOC emissions for gel coats, resins and catalysts shall be calculated by multiplying the usage of each gel coat, resin and catalyst by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques for each gel coat, resin, and catalyst, using the emission factors approved by IDEM, OAQ in "Unified Emission Factors for Open Molding of Composites", July 23, 2001, or its updates, as follows:
 - (1) Styrene/VOC emissions from resins and gelcoats:
ES = (F1 * R * 1 ton/2,000 lbs), where:
ES = Styrene/VOC emissions (tons)
F1 = Emission factor (lbs emitted per ton of resin used)
R = Total amount of resin used (tons) **

- (2) Methyl Methacrylate (MMA)/catalyst emissions from resins and gelcoats:
EM = $(F2 * R * 1 \text{ ton}/2,000 \text{ lbs})$, where:
EM = Methyl Methacrylate (MMA)/catalyst emissions (tons)
F2 = Emission factor (lbs emitted per ton resin/gelcoat processed) **
R = Total amount of resin/gelcoat used (tons)

** Emission factor shall be specific to material, application method and % styrene content.

- (3) VOC from solvents, mold release agents and other VOC:
EV = $(F3 * V * K * 1 \text{ ton}/2,000 \text{ lbs})$, where:
EV = VOC emissions (tons)
F3 = Emission factor of 1.0 (in absence of other data, assume all VOC is emitted)
V = Percent of VOC content (from applicable MSDS sheet)
K = Total amount of solvents, mold release agents and other VOC (lbs)

- (4) Total VOC emissions in tons = ES + EM + EV

D.1.7 Hazardous Air Pollutants (HAPs)

Compliance with the HAP monomer content limitations in Condition D.1.2 shall be determined by one of the following:

- (a) The manufacturer's certified product data sheet.
- (b) The manufacturer's material safety data sheet.
- (c) Sampling and analysis, using any of the following test methods, as applicable:
- (1) 40 CFR 60, Method 24, Appendix A (July 1, 1998), shall be used to measure the total volatile HAP and volatile organic compound (VOC) content of resins and gel coats. Method 24 may be modified for measuring the volatile HAP content of resins or gel coats to require that the procedure be performed on un-catalyzed resin or gel coat samples.
- (2) 40 CFR 63, Method 311, Appendix A (July 1, 1998), shall be used to measure HAP content in resins and gel coats by direct injection into a gas chromatograph.
- (d) The HAP emissions for gel coats, resins, and catalysts shall be calculated by multiplying the usage of each gel coat, resin, and catalyst by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques for each gel coat, resin, and catalyst, using the emission factors in "Unified Emission Factors for Open Molding of Composites (styrene and methyl methacrylate content in gelcoat)", July 23, 2001, or its updates.
- (e) An alternate method approved by IDEM, OAQ.

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

D.1.8 Monitoring [40 CFR 64]

Pursuant to 40 CFR 64, Compliance Assurance Monitoring (CAM):

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the six filament winding mandrels (FWSH1 through FWSH6) while one or more of these equipment are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take

response steps in accordance with Section C - Response to Excursions or Exceedances, 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 in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (c) The Preventive Maintenance Plan may prescribe additional inspections of the six filament winding mandrels (FWSH1 through FWSH6).

D.1.9 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts F1, F3 through F11, F13 and RP3 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

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

D.1.10 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (8) below. Records maintained for (1) through (8) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAPs emission limit established in Condition D.1.1 and D.1.2.
 - (1) The amount and VOC content of each material and solvent 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 resin or gel coat.
 - (2) The monomer content of each resin and gel coat used.
 - (3) The average styrene concentration in the resin and gel coat used.
 - (4) The amount of resin and gel coat used on monthly basis.
 - (5) Method of application and other emission reduction techniques for each resin and gel coat used;
 - (6) The total calculated HAP emissions for each month.

- (7) The total HAP emissions for each compliance period.
- (8) Monthly calculations demonstrating compliance on an equivalent emissions mass basis if non-compliant resins or gel coats are used during that month.
- (c) To document compliance with Condition D.1.4, the Permittee shall maintain the following training records:
 - (1) A copy of the current training program.
 - (2) 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. Records of prior training programs and former personnel are not required to be maintained.
- (d) To document compliance with Condition D.1.8, the Permittee shall maintain a log of inspections of the dry filters.
- (e) To document compliance with Condition D.1.9, the Permittee shall maintain records of daily visible emission notations of the fiberglass operations' stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (i.e. the process did not operate that day).
- (f) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

National Emissions Standards for Hazardous Air Pollutants (NESHAP) Requirements: Reinforced Plastic Composites Production [326 IAC 2-7-5(1)]

D.1.12 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.5925, 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, for the RV parts manufacturing process, the one (1) vertical resin storage tank, and all activities associated with the production of plastic composites as specified in Table 15 of 40 CFR Part 63, Subpart WWWW in accordance with schedule in 40 CFR 63 Subpart WWWW.

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

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

D.1.13 National Emissions Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production: Requirements [40 CFR Part 63, Subpart WWWW]

Pursuant to 40 CFR Part 63, Subpart WWWW, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart WWWW for the hand layup area (HL1), gelcoat booth (G-1), portable resin spray applicator (CPC4), resin flowcoat booth (FCR1), fiberglass resin storage tanks (T1 and T2)

as specified as follows on and after April 21, 2006.

§ 63.5785 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a reinforced plastic composites production facility that is located at a major source of HAP emissions. Reinforced plastic composites production is limited to operations in which reinforced and/or nonreinforced plastic composites or plastic molding compounds are manufactured using thermoset resins and/or gel coats that contain styrene to produce plastic composites. The resins and gel coats may also contain materials designed to enhance the chemical, physical, and/or thermal properties of the product. Reinforced plastic composites production also includes cleaning, mixing, HAP-containing materials storage, and repair operations associated with the production of plastic composites.

§ 63.5790 What parts of my plant does this subpart cover?

(a) This subpart applies to each new or existing affected source at reinforced plastic composites production facilities.

(b) The affected source consists of all parts of your facility engaged in the following operations: Open molding, closed molding, centrifugal casting, continuous lamination, continuous casting, polymer casting, pultrusion, sheet molding compound (SMC) manufacturing, bulk molding compound (BMC) manufacturing, mixing, cleaning of equipment used in reinforced plastic composites manufacture, HAP-containing materials storage, and repair operations on parts you also manufacture.

(c) The following operations are specifically excluded from any requirements in this subpart: application of mold sealing and release agents; mold stripping and cleaning; repair of parts that you did not manufacture, including non-routine manufacturing of parts; personal activities that are not part of the manufacturing operations (such as hobby shops on military bases); prepreg materials as defined in §63.5935; non-gel coat surface coatings; application of putties, polyputties, and adhesives; repair or production materials that do not contain resin or gel coat; research and development operations as defined in section 112(c)(7) of the CAA; polymer casting; and closed molding operations (except for compression/injection molding). Note that the exclusion of certain operations from any requirements applies only to operations specifically listed in this paragraph. The requirements for any co-located operations still apply.

[68 FR 19402, Apr. 21, 2003, as amended at 70 FR 50124, Aug. 25, 2005]

§ 63.5795 How do I know if my reinforced plastic composites production facility is a new affected source or an existing affected source?

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

[70 FR 50124, Aug. 25, 2005]

Calculating Organic HAP Emissions Factors for Open Molding and Centrifugal Casting

§ 63.5796 What are the organic HAP emissions factor equations in Table 1 to this subpart, and how are they used in this subpart?

Emissions factors are used in this subpart to determine compliance with certain organic HAP emissions limits in Tables 3 and 5 to this subpart. You may use the equations in Table 1 to this subpart to calculate your emissions factors. Equations are available for each open molding operation and centrifugal casting operation and have units of pounds of organic HAP emitted per ton (lb/ton) of resin or gel coat applied. These equations are intended to provide a method for you to demonstrate compliance without the need to conduct for a HAP emissions test. In lieu of these equations, you can elect to use site-specific organic HAP emissions factors to demonstrate compliance provided your site-specific organic HAP emissions factors are incorporated in the facility's air emissions permit and are based on actual facility HAP emissions test data. You may also use the organic HAP emissions factors calculated using the equations

in Table 1 to this subpart, combined with resin and gel coat use data, to calculate your organic HAP emissions.

§ 63.5797 How do I determine the organic HAP content of my resins and gel coats?

In order to determine the organic HAP content of resins and gel coats, you may rely on information provided by the material manufacturer, such as manufacturer's formulation data and material safety data sheets (MSDS), using the procedures specified in paragraphs (a) through (c) of this section, as applicable.

(a) Include in the organic HAP total each organic HAP that is present at 0.1 percent by mass or more for Occupational Safety and Health Administration-defined carcinogens, as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other organic HAP compounds.

(b) If the organic HAP content is provided by the material supplier or manufacturer as a range, you must use the upper limit of the range for determining compliance. If a separate measurement of the total organic HAP content, such as an analysis of the material by EPA Method 311 of appendix A to 40 CFR part 63, 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.

(c) If the organic HAP content is provided as a single value, you may use that value to determine compliance. If a separate measurement of the total organic HAP content is made and is less than 2 percentage points higher than the value for total organic HAP content provided by the material supplier or manufacturer, then you still 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.

[68 FR 19402, Apr. 21, 2003, as amended at 70 FR 50124, Aug. 25, 2005]

Compliance Dates and Standards

§ 63.5800 When do I have to comply with this subpart?

You must comply with the standards in this subpart by the dates specified in Table 2 to this subpart. Facilities meeting an organic HAP emissions standard based on a 12-month rolling average must begin collecting data on the compliance date in order to demonstrate compliance.

§ 63.5805 What standards must I meet to comply with this subpart?

You must meet the requirements of paragraphs (a) through (h) of this section that apply to you. You may elect to comply using any options to meet the standards described in §§63.5810 through 63.5830. Use the procedures in §63.5799 to determine if you meet or exceed the 100 tpy threshold.

(b) All operations at existing facilities not listed in paragraph (a) of this section must meet the organic HAP emissions limits in Table 3 to this subpart and the work practice standards in Table 4 to this subpart that apply, regardless of the quantity of HAP emitted.

[70 FR 50124, Aug. 25, 2005]

Options for Meeting Standards

§ 63.5810 What are my options for meeting the standards for open molding and centrifugal casting operations at new and existing sources?

You must use one of the following methods in paragraphs (a) through (d) of this section to meet the standards for open molding or centrifugal casting operations in Table 3 or 5 to this subpart. You may use any control method that reduces organic HAP emissions, including reducing resin and gel coat organic HAP content, changing to nonatomized mechanical application, using covered curing techniques, and routing part or all of your emissions to an add-on control. You may use different compliance options for the different operations listed in Table 3 or 5 to this subpart. The necessary calculations must be completed

within 30 days after the end of each month. You may switch between the compliance options in paragraphs (a) through (d) of this section. When you change to an option based on a 12-month rolling average, you must base the average on the previous 12 months of data calculated using the compliance option you are changing to, unless you were previously using an option that did not require you to maintain records of resin and gel coat use. In this case, you must immediately begin collecting resin and gel coat use data and demonstrate compliance 12 months after changing options.

(a) *Demonstrate that an individual resin or gel coat, as applied, meets the applicable emission limit in Table 3 or 5 to this subpart.* (1) Calculate your actual organic HAP emissions factor for each different process stream within each operation type. A process stream is defined as each individual combination of resin or gel coat, application technique, and control technique. Process streams within operations types are considered different from each other if any of the following four characteristics vary: the neat resin plus or neat gel coat plus organic HAP content, the gel coat type, the application technique, or the control technique. You must calculate organic HAP emissions factors for each different process stream by using the appropriate equations in Table 1 to this subpart for open molding and for centrifugal casting, or site-specific organic HAP emissions factors discussed in §63.5796. The emission factor calculation should include any and all emission reduction techniques used including any add-on controls. If you are using vapor suppressants to reduce HAP emissions, you must determine the vapor suppressant effectiveness (VSE) by conducting testing according to the procedures specified in appendix A to subpart WWWW of 40 CFR part 63. If you are using an add-on control device to reduce HAP emissions, you must determine the add-on control factor by conducting capture and control efficiency testing using the procedures specified in §63.5850. The organic HAP emissions factor calculated from the equations in Table 1 to this subpart, or a site-specific emissions factor, is multiplied by the add-on control factor to calculate the organic HAP emissions factor after control. Use Equation 1 of this section to calculate the add-on control factor used in the organic HAP emissions factor equations.

(2) If the calculated emission factor is less than or equal to the appropriate emission limit, you have demonstrated that this process stream complies with the emission limit in Table 3 to this subpart. It is not necessary that all your process streams, considered individually, demonstrate compliance to use this option for some process streams. However, for any individual resin or gel coat you use, if any of the process streams that include that resin or gel coat are to be used in any averaging calculations described in paragraphs (b) through (d) of this section, then all process streams using that individual resin or gel coat must be included in the averaging calculations.

(b) *Demonstrate that, on average, you meet the individual organic HAP emissions limits for each combination of operation type and resin application method or gel coat type.* Demonstrate that on average you meet the individual organic HAP emissions limits for each unique combination of operation type and resin application method or gel coat type shown in Table 3 to this subpart that applies to you.

(1)(i) Group the process streams described in paragraph (a) to this section by operation type and resin application method or gel coat type listed in Table 3 to this subpart and then calculate a weighted average emission factor based on the amounts of each individual resin or gel coat used for the last 12 months. To do this, sum the product of each individual organic HAP emissions factor calculated in paragraph (a)(1) of this section and the amount of neat resin plus and neat gel coat plus usage that corresponds to the individual factors and divide the numerator by the total amount of neat resin plus and neat gel coat plus used in that operation type as shown in Equation 2 of this section.

$$\text{Average organic HAP Emissions Factor} = \frac{\sum_{i=1}^n (\text{Actual Process Stream } EF_i * \text{Material}_i)}{\sum_{i=1}^n \text{Material}_i} \quad (\text{Eq. 2})$$

Where:

Actual Process Stream EF_i =actual organic HAP emissions factor for process stream i , lbs/ton;

Material_i=neat resin plus or neat gel coat plus used during the last 12 calendar months for process stream i, tons;

n=number of process streams where you calculated an organic HAP emissions factor.

(ii) You may, but are not required to, include process streams where you have demonstrated compliance as described in paragraph (a) of this section, subject to the limitations described in paragraph (a)(2) of this section, and you are not required to and should not include process streams for which you will demonstrate compliance using the procedures in paragraph (d) of this section.

(2) Compare each organic HAP emissions factor calculated in paragraph (b)(1) of this section with its corresponding organic HAP emissions limit in Table 3 or 5 to this subpart. If all emissions factors are equal to or less than their corresponding emission limits, then you are in compliance.

(c) *Demonstrate compliance with a weighted average emission limit.* Demonstrate each month that you meet each weighted average of the organic HAP emissions limits in Table 3 or 5 to this subpart that apply to you. When using this option, you must demonstrate compliance with the weighted average organic HAP emissions limit for all your open molding operations, and then separately demonstrate compliance with the weighted average organic HAP emissions limit for all your centrifugal casting operations. Open molding operations and centrifugal casting operations may not be averaged with each other.

(1) Each month calculate the weighted average organic HAP emissions limit for all open molding operations and the weighted average organic HAP emissions limit for all centrifugal casting operations for your facility for the last 12-month period to determine the organic HAP emissions limit you must meet. To do this, multiply the individual organic HAP emissions limits in Table 3 or 5 to this subpart for each open molding (centrifugal casting) operation type by the amount of neat resin plus or neat gel coat plus used in the last 12 months for each open molding (centrifugal casting) operation type, sum these results, and then divide this sum by the total amount of neat resin plus and neat gel coat plus used in open molding (centrifugal casting) over the last 12 months as shown in Equation 3 of this section.

$$\text{Weighted Average Emission Limit} = \frac{\sum_{i=1}^n (EL_i * \text{Material}_i)}{\sum_{i=1}^n \text{Material}_i} \quad (\text{Eq. 3})$$

Where:

EL_i=organic HAP emissions limit for operation type i, lbs/ton from Tables 3 or 5 to this subpart;

Material_i=neat resin plus or neat gel coat plus used during the last 12-month period for operation type i, tons;

n=number of operations.

(2) Each month calculate your weighted average organic HAP emissions factor for open molding and centrifugal casting. To do this, multiply your actual open molding (centrifugal casting) operation organic HAP emissions factors calculated in paragraph (b)(1) of this section and the amount of neat resin plus and neat gel coat plus used in each open molding (centrifugal casting) operation type, sum the results, and divide this sum by the total amount of neat resin plus and neat gel coat plus used in open molding (centrifugal casting) operations as shown in Equation 4 of this section.

$$\text{Actual Weighted Average organic HAP Emissions Factor} = \frac{\sum_{i=1}^n (\text{Actual Operation EF}_i * \text{Material}_i)}{\sum_{i=1}^n \text{Material}_i} \quad (\text{Eq. 4})$$

Where:

Actual Individual EF_i = Actual organic HAP emissions factor for operation type i, lbs/ton;

Material_i = neat resin plus or neat gel coat plus used during the last 12 calendar months for operation type i, tons;

n = number of operations.

(3) Compare the values calculated in paragraphs (c)(1) and (2) of this section. If each 12-month rolling average organic HAP emissions factor is less than or equal to the corresponding 12-month rolling average organic HAP emissions limit, then you are in compliance.

(d) *Meet the organic HAP emissions limit for one application method and use the same resin(s) for all application methods of that resin type.* This option is limited to resins of the same type. The resin types for which this option may be used are noncorrosion-resistant, corrosion-resistant and/or high strength, and tooling.

(1) For any combination of manual resin application, mechanical resin application, filament application, or centrifugal casting, you may elect to meet the organic HAP emissions limit for any one of these application methods and use the same resin in all of the resin application methods listed in this paragraph (d)(1). Table 7 to this subpart presents the possible combinations based on a facility selecting the application process that results in the highest allowable organic HAP content resin. If the resin organic HAP content is below the applicable value shown in Table 7 to this subpart, the resin is in compliance.

(2) You may also use a weighted average organic HAP content for each application method described in paragraph (d)(1) of this section. Calculate the weighted average organic HAP content monthly. Use Equation 2 in paragraph (b)(1) of this section except substitute organic HAP content for organic HAP emissions factor. You are in compliance if the weighted average organic HAP content based on the last 12 months of resin use is less than or equal to the applicable organic HAP contents in Table 7 to this subpart.

(3) You may simultaneously use the averaging provisions in paragraph (b) or (c) of this section to demonstrate compliance for any operations and/or resins you do not include in your compliance demonstrations in paragraphs (d)(1) and (2) of this section. However, any resins for which you claim compliance under the option in paragraphs (d)(1) and (2) of this section may not be included in any of the averaging calculations described in paragraph (b) or (c) of this section.

(4) You do not have to keep records of resin use for any of the individual resins where you demonstrate compliance under the option in paragraph (d)(1) of this section unless you elect to include that resin in the averaging calculations described in paragraph (d)(2) of this section.

[70 FR 50124, Aug. 25, 2005]

General Compliance Requirements

§ 63.5835 What are my general requirements for complying with this subpart?

(a) You must be in compliance at all times with the work practice standards in Table 4 to this subpart, as well as the organic HAP emissions limits in Tables 3, or 5, or the organic HAP content limits in Table 7 to this subpart, as applicable, that you are meeting without the use of add-on controls.

(c) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).

Testing and Initial Compliance Requirements

§ 63.5840 By what date must I conduct a performance test or other initial compliance demonstration?

You must conduct performance tests, performance evaluations, design evaluations, capture efficiency testing, and other initial compliance demonstrations by the compliance date specified in Table 2 to this subpart, with three exceptions. Open molding and centrifugal casting operations that elect to meet an organic HAP emissions limit on a 12-month rolling average must initiate collection of the required data on the compliance date, and demonstrate compliance 1 year after the compliance date. New sources that use add-on controls to initially meet compliance must demonstrate compliance within 180 days after their compliance date.

§ 63.5860 How do I demonstrate initial compliance with the standards?

(a) You demonstrate initial compliance with each organic HAP emissions standard in paragraphs (a) through (h) of §63.5805 that applies to you by using the procedures shown in Tables 8 and 9 to this subpart.

Continuous Compliance Requirements

§ 63.5895 How do I monitor and collect data to demonstrate continuous compliance?

(c) You must collect and keep records of resin and gel coat use, organic HAP content, and operation where the resin is used if you are meeting any organic HAP emissions limits based on an organic HAP emissions limit in Tables 3 or 5 to this subpart. You must collect and keep records of resin and gel coat use, organic HAP content, and operation where the resin is used if you are meeting any organic HAP content limits in Table 7 to this subpart if you are averaging organic HAP contents. Resin use records may be based on purchase records if you can reasonably estimate how the resin is applied. The organic HAP content records may be based on MSDS or on resin specifications supplied by the resin supplier.

(d) Resin and gel coat use records are not required for the individual resins and gel coats that are demonstrated, as applied, to meet their applicable emission as defined in §63.5810(a). However, you must retain the records of resin and gel coat organic HAP content, and you must include the list of these resins and gel coats and identify their application methods in your semiannual compliance reports. If after you have initially demonstrated that a specific combination of an individual resin or gel coat, application method, and controls meets its applicable emission limit, and the resin or gel coat changes or the organic HAP content increases, or you change the application method or controls, then you again must demonstrate that the individual resin or gel coat meets its emission limit as specified in paragraph (a) of §63.5810. If any of the previously mentioned changes results in a situation where an individual resin or gel coat now exceeds its applicable emission limit in Table 3 or 5 of this subpart, you must begin collecting resin and gel coat use records and calculate compliance using one of the averaging options on a 12-month rolling average.

§ 63.5900 How do I demonstrate continuous compliance with the standards?

(a) You must demonstrate continuous compliance with each standard in §63.5805 that applies to you according to the methods specified in paragraphs (a)(1) through (3) of this section.

(2) Compliance with organic HAP emissions limits is demonstrated by maintaining an organic HAP emissions factor value less than or equal to the appropriate organic HAP emissions limit listed in Table 3 or 5 to this subpart, on a 12-month rolling average, and/or by including in each compliance report a statement that individual resins and gel coats, as applied, meet the appropriate organic HAP emissions limits, as discussed in §63.5895(d).

(3) Compliance with organic HAP content limits in Table 7 to this subpart is demonstrated by maintaining an average organic HAP content value less than or equal to the appropriate organic HAP contents listed in Table 7 to this subpart, on a 12-month rolling average, and/or by including in each compliance report a

statement that resins and gel coats individually meet the appropriate organic HAP content limits in Table 7 to this subpart, as discussed in §63.5895(d).

(4) Compliance with the work practice standards in Table 4 to this subpart is demonstrated by performing the work practice required for your operation.

(b) You must report each deviation from each standard in §63.5805 that applies to you. The deviations must be reported according to the requirements in §63.5910.

(c) Except as provided in paragraph (d) of this section, during periods of startup, shutdown or malfunction, you must meet the organic HAP emissions limits and work practice standards that apply to you.

Notifications, Reports, and Records

§ 63.5905 What notifications must I submit and when?

(a) You must submit all of the notifications in Table 13 to this subpart that apply to you by the dates specified in Table 13 to this subpart. The notifications are described more fully in 40 CFR part 63, subpart A, referenced in Table 13 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.

§ 63.5910 What reports must I submit and when?

(a) You must submit each report in Table 14 to this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date specified in Table 14 to this subpart and according to paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.5800 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 §63.5800.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.5800.

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

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting requirements pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A) or §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 contain the information in paragraphs (c)(1) through (6) of this section:

(1) Company name and address.

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

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

(5) If there are no deviations from any organic HAP emissions limitations (emissions limit and operating limit) that apply to you, and there are no deviations from the requirements for work practice standards in Table 4 to this subpart, a statement that there were no deviations from the organic HAP emissions limitations or work practice standards during the reporting period.

(d) For each deviation from an organic HAP emissions limitation (*i.e.*, emissions limit and operating limit) and for each deviation from the requirements for work practice standards that occurs at an affected source where you are not using a CMS to comply with the organic HAP emissions limitations or work practice standards in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (4) of this section and in paragraphs (d)(1) and (2) of this section. This includes periods of startup, shutdown, and malfunction.

(1) The total operating time of each affected source during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(g) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by §70.6(a)(3)(iii)(A) or §71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 14 to this subpart along with, or as part of, the semiannual monitoring report required by §70.6(a)(3)(iii)(A) or §71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any organic HAP emissions limitation (including any operating limit) or work practice requirement in this subpart, submission of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permitting authority.

(h) Submit compliance reports and startup, shutdown, and malfunction reports based on the requirements in Table 14 to this subpart, and not based on the requirements in §63.999.

(i) Where multiple compliance options are available, you must state in your next compliance report if you have changed compliance options since your last compliance report.

[68 FR 19402, Apr. 21, 2003, as amended at 70 FR 50124, Aug. 25, 2005]

§ 63.5915 What records must I keep?

(a) You must keep the records listed in paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(2)(xiv).

(c) You must keep all data, assumptions, and calculations used to determine organic HAP emissions factors or average organic HAP contents for operations listed in Tables 3, 5, and 7 to this subpart.

(d) You must keep a certified statement that you are in compliance with the work practice requirements in Table 4 to this subpart, as applicable.

§ 63.5920 In what form and how long must I keep my records?

(a) You must maintain all applicable records in such a manner that they can be readily accessed and are suitable for inspection according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years.

(d) You may keep records in hard copy or computer readable form including, but not limited to, paper, microfilm, computer floppy disk, magnetic tape, or microfiche.

§ 63.5930 Who implements and enforces this subpart?

(a) This subpart can be administered by us, the EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency has the authority to administer and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are not delegated.

(c) The authorities that will not be delegated to State, local, or tribal agencies are listed in paragraphs (c)(1) through (4) of this section:

(1) Approval of alternatives to the organic HAP emissions standards in §63.5805 under §63.6(g).

(2) Approval of major changes to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.

(3) Approval of major changes to monitoring under §63.8(f) and as defined in §63.90.

(4) Approval of major changes to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

§ 63.5935 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in 40 CFR 63.2, and in this section as follows:

Atomized mechanical application means application of resin or gel coat with spray equipment that separates the liquid into a fine mist. This fine mist may be created by forcing the liquid under high pressure through an elliptical orifice, bombarding a liquid stream with directed air jets, or a combination of these techniques.

Bulk molding compound (BMC) means a putty-like molding compound containing resin(s) in a form that is ready to mold. In addition to resins, BMC may contain catalysts, fillers, and reinforcements. Bulk molding compound can be used in compression molding and injection molding operations to manufacture reinforced plastic composites products.

BMC manufacturing means a process that involves the preparation of BMC.

Centrifugal casting means a process for fabricating cylindrical composites, such as pipes, in which composite materials are positioned inside a rotating hollow mandrel and held in place by centrifugal forces until the part is sufficiently cured to maintain its physical shape.

Charge means the amount of SMC or BMC that is placed into a compression or injection mold necessary to complete one mold cycle.

Cleaning means removal of composite materials, such as cured and uncured resin from equipment, finished surfaces, floors, hands of employees, or any other surfaces.

Clear production gel coat means an unpigmented, quick-setting resin used to improve the surface appearance and/or performance of composites. It can be used to form the surface layer of any composites other than those used for molds in tooling operations.

Closed molding means a grouping of processes for fabricating composites in a way that HAP-containing materials are not exposed to the atmosphere except during the material loading stage (e.g., compression molding, injection molding, and resin transfer molding). Processes where the mold is covered with plastic (or equivalent material) prior to resin application, and the resin is injected into the covered mold are also considered closed molding.

Composite means a shaped and cured part produced by using composite materials.

Composite materials means the raw materials used to make composites. The raw materials include styrene containing resins. They may also include gel coat, monomer, catalyst, pigment, filler, and reinforcement.

Compression molding means a closed molding process for fabricating composites in which composite materials are placed inside matched dies that are used to cure the materials under heat and pressure without exposure to the atmosphere. The addition of mold paste or in-mold coating is considered part of the closed molding process. The composite materials used in this process are generally SMC or BMC.

Compression/injection molding means a grouping of processes that involves the use of compression molding and/or injection molding.

Continuous casting means a continuous process for fabricating composites in which composite materials are placed on an in-line conveyor belt to produce cast sheets that are cured in an oven.

Continuous lamination means a continuous process for fabricating composites in which composite materials are typically sandwiched between plastic films, pulled through compaction rollers, and cured in an oven. This process is generally used to produce flat or corrugated products on an in-line conveyor.

Continuous lamination/casting means a grouping of processes that involves the use of continuous lamination and/or continuous casting.

Controlled emissions means those organic HAP emissions that are vented from a control device to the atmosphere.

Corrosion-resistant gel coat means a gel coat used on a product made with a corrosion-resistant resin that has a corrosion-resistant end-use application.

Corrosion-resistant end-use applications means applications where the product is manufactured specifically for an application that requires a level of chemical inertness or resistance to chemical attack above that required for typical reinforced plastic composites products. These applications include, but are not limited to, chemical processing and storage; pulp and paper production; sewer and wastewater treatment; power generation; potable water transfer and storage; food and drug processing; pollution or odor control; metals production and plating; semiconductor manufacturing; petroleum production, refining, and storage; mining; textile production; nuclear materials storage; swimming pools; and cosmetic production, as well as end-use applications that require high strength resins.

Corrosion-resistant industry standard includes the following standards: ASME RTP-1 or Sect. X; ASTM D5364, D3299, D4097, D2996, D2997, D3262, D3517, D3754, D3840, D4024, D4160, D4161, D4162, D4184, D3982, or D3839; ANSI/AWWA C950; UL 215, 1316 or 1746, IAPMO PS-199, or written customer requirements for resistance to specified chemical environments.

Corrosion-resistant product means a product made with a corrosion-resistant resin and is manufactured to a corrosion-resistant industry standard, or a food contact industry standard, or is manufactured for corrosion-resistant end-use applications involving continuous or temporary chemical exposures.

Corrosion-resistant resin means a resin that either:

(1) Displays substantial retention of mechanical properties when undergoing ASTM C-581 coupon testing, where the resin is exposed for 6 months or more to one of the following materials: Material with a pH \geq 12.0 or \leq 3.0, oxidizing or reducing agents, organic solvents, or fuels or additives as defined in 40 CFR

79.2. In the coupon testing, the exposed resin needs to demonstrate a minimum of 50 percent retention of the relevant mechanical property compared to the same resin in unexposed condition. In addition, the exposed resin needs to demonstrate an increased retention of the relevant mechanical property of at least 20 percentage points when compared to a similarly exposed general-purpose resin. For example, if the general-purpose resin retains 45 percent of the relevant property when tested as specified above, then a corrosion-resistant resin needs to retain at least 65 percent (45 percent plus 20 percent) of its property. The general-purpose resin used in the test needs to have an average molecular weight of greater than 1,000, be formulated with a 1:2 ratio of maleic anhydride to phthalic anhydride and 100 percent diethylene glycol, and a styrene content between 43 to 48 percent; or

(2) Complies with industry standards that require specific exposure testing to corrosive media, such as UL 1316, UL 1746, or ASTM F-1216.

Doctor box means the box or trough on an SMC machine into which the liquid resin paste is delivered before it is metered onto the carrier film.

Filament application means an open molding process for fabricating composites in which reinforcements are fed through a resin bath and wound onto a rotating mandrel. The materials on the mandrel may be rolled out or worked by using nonmechanical tools prior to curing. Resin application to the reinforcement on the mandrel by means other than the resin bath, such as spray guns, pressure-fed rollers, flow coaters, or brushes is not considered filament application.

Filled Resin means that fillers have been added to a resin such that the amount of inert substances is at least 10 percent by weight of the total resin plus filler mixture. Filler putty made from a resin is considered a filled resin.

Fillers means inert substances dispersed throughout a resin, such as calcium carbonate, alumina trihydrate, hydrous aluminum silicate, mica, feldspar, wollastonite, silica, and talc. Materials that are not considered to be fillers are glass fibers or any type of reinforcement and microspheres.

Fire retardant gel coat means a gel coat used for products for which low-flame spread/low-smoke resin is used.

Fluid impingement technology means a spray gun that produces an expanding non-misting curtain of liquid by the impingement of low-pressure uninterrupted liquid streams.

Food contact industry standard means a standard related to food contact application contained in Food and Drug Administration's regulations at 21 CFR 177.2420.

Gel Coat means a quick-setting resin used to improve surface appearance and/or performance of composites. It can be used to form the surface layer of any composites other than those used for molds in tooling operations.

Gel coat application means a process where clear production, pigmented production, white/off-white or tooling gel coat is applied.

HAP-containing materials storage means an ancillary process which involves keeping HAP-containing materials, such as resins, gel coats, catalysts, monomers, and cleaners, in containers or bulk storage tanks for any length of time. Containers may include small tanks, totes, vessels, and buckets.

High Performance gel coat means a gel coat used on products for which National Sanitation Foundation, United States Department of Agriculture, ASTM, durability, or other property testing is required.

High strength gel coat means a gel coat applied to a product that requires high strength resin.

High strength resins means polyester resins which have a casting tensile strength of 10,000 pounds per square inch or more and which are used for manufacturing products that have high strength requirements such as structural members and utility poles.

Injection molding means a closed molding process for fabricating composites in which composite materials are injected under pressure into a heated mold cavity that represents the exact shape of the product. The composite materials are cured in the heated mold cavity.

Low Flame Spread/Low Smoke Products means products that meet the following requirements. The products must meet both the applicable flame spread requirements and the applicable smoke requirements. Interior or exterior building application products must meet an ASTM E-84 Flame Spread Index of less than or equal to 25, and Smoke Developed Index of less than or equal to 450, or pass National Fire Protection Association 286 Room Corner Burn Test with no flash over and total smoke released not exceeding 1000 meters square. Mass transit application products must meet an ASTM E-162 Flame Spread Index of less than or equal to 35 and ASTM E662 Smoke Density Ds @ 1.5 minutes less than or equal to 100 and Ds @ 4 minutes less than to equal to 200. Duct application products must meet ASTM E084 Flame Spread Index less than or equal to 25 and Smoke Developed Index less than or equal to 50 on the interior and/or exterior of the duct.

Manual resin application means an open molding process for fabricating composites in which composite materials are applied to the mold by pouring or by using hands and nonmechanical tools, such as brushes and rollers. Materials are rolled out or worked by using nonmechanical tools prior to curing. The use of pressure-fed rollers and flow coaters to apply resin is not considered manual resin application.

Mechanical resin application means an open molding process for fabricating composites in which composite materials (except gel coat) are applied to the mold by using mechanical tools such as spray guns, pressure-fed rollers, and flow coaters. Materials are rolled out or worked by using nonmechanical tools prior to curing.

Mixing means the blending or agitation of any HAP-containing materials in vessels that are 5.00 gallons (18.9 liters) or larger, and includes the mixing of putties or polyputties. Mixing may involve the blending of resin, gel coat, filler, reinforcement, pigments, catalysts, monomers, and any other additives.

Mold means a cavity or matrix into or onto which the composite materials are placed and from which the product takes its form.

Neat gel coat means the resin as purchased for the supplier, but not including any inert fillers.

Neat gel coat plus means neat gel coat plus any organic HAP-containing materials that are added to the gel coat by the supplier or the facility, excluding catalysts and promoters. Neat gel coat plus does include any additions of styrene or methyl methacrylate monomer in any form, including in catalysts and promoters.

Neat resin means the resin as purchased from the supplier, but not including any inert fillers.

Neat resin plus means neat resin plus any organic HAP-containing materials that are added to the resin by the supplier or the facility. Neat resin plus does not include any added filler, reinforcements, catalysts, or promoters. Neat resin plus does include any additions of styrene or methyl methacrylate monomer in any form, including in catalysts and promoters.

Nonatomized mechanical application means the use of application tools other than brushes to apply resin and gel coat where the application tool has documentation provided by its manufacturer or user that this design of the application tool has been organic HAP emissions tested, and the test results showed that use of this application tool results in organic HAP emissions that are no greater than the organic HAP emissions predicted by the applicable nonatomized application equation(s) in Table 1 to this subpart. In addition, the device must be operated according to the manufacturer's directions, including instructions to prevent the operation of the device at excessive spray pressures. Examples of nonatomized application include flow coaters, pressure fed rollers, and fluid impingement spray guns.

Noncorrosion-resistant resin means any resin other than a corrosion-resistant resin or a tooling resin.

Noncorrosion-resistant product means any product other than a corrosion-resistant product or a mold.

Non-routine manufacture means that you manufacture parts to replace worn or damaged parts of a reinforced plastic composites product, or a product containing reinforced plastic composite parts, that was originally manufactured in another facility. For a part to qualify as non-routine manufacture, it must be used for repair or replacement, and the manufacturing schedule must be based on the current or anticipated repair needs of the reinforced plastic composites product, or a product containing reinforced plastic composite parts.

Operation means a specific process typically found at a reinforced plastic composites facility. Examples of operations are noncorrosion-resistant manual resin application, corrosion-resistant mechanical resin application, pigmented gel coat application, mixing and HAP-containing materials storage.

Operation group means a grouping of individual operations based primarily on mold type. Examples are open molding, closed molding, and centrifugal casting.

Open molding means a process for fabricating composites in a way that HAP-containing materials are exposed to the atmosphere. Open molding includes processes such as manual resin application, mechanical resin application, filament application, and gel coat application. Open molding also includes application of resins and gel coats to parts that have been removed from the open mold.

Pigmented gel coat means a gel coat that has a color, but does not contain 10 percent or more titanium dioxide by weight. It can be used to form the surface layer of any composites other than those used for molds in tooling operations.

Polymer casting means a process for fabricating composites in which composite materials are ejected from a casting machine or poured into an open, partially open, or closed mold and cured. After the composite materials are poured into the mold, they are not rolled out or worked while the mold is open, except for smoothing the material and/or vibrating the mold to remove bubbles. The composite materials may or may not include reinforcements. Products produced by the polymer casting process include cultured marble products and polymer concrete.

Preform Injection means a form of pultrusion where liquid resin is injected to saturate reinforcements in an enclosed system containing one or more chambers with openings only large enough to admit reinforcements. Resin, which drips out of the chamber(s) during the process, is collected in closed piping or covered troughs and then into a covered reservoir for recycle. Resin storage vessels, reservoirs, transfer systems, and collection systems are covered or shielded from the ambient air. Preform injection differs from direct die injection in that the injection chambers are not directly attached to the die.

Prepreg materials means reinforcing fabric received precoated with resin which is usually cured through the addition of heat.

Pultrusion means a continuous process for manufacturing composites that have a uniform cross-sectional shape. The process consists of pulling a fiber-reinforcing material through a resin impregnation chamber or bath and through a shaping die, where the resin is subsequently cured. There are several types of pultrusion equipment, such as open bath, resin injection, and direct die injection equipment.

Repair means application of resin or gel coat to a part to correct a defect, where the resin or gel coat application occurs after the part has gone through all the steps of its typical production process, or the application occurs outside the normal production area. For purposes of this subpart, rerouting a part back through the normal production line, or part of the normal production line, is not considered repair.

Resin transfer molding means a process for manufacturing composites whereby catalyzed resin is transferred or injected into a closed mold in which fiberglass reinforcement has been placed.

Sheet molding compound (SMC) means a ready-to-mold putty-like molding compound that contains resin(s) processed into sheet form. The molding compound is sandwiched between a top and a bottom film. In addition to resin(s), it may also contain catalysts, fillers, chemical thickeners, mold release agents, reinforcements, and other ingredients. Sheet molding compound can be used in compression molding to manufacture reinforced plastic composites products.

Shrinkage controlled resin means a resin that when promoted, catalyzed, and filled according to the resin manufacturer's recommendations demonstrates less than 0.3 percent linear shrinkage when tested according to ASTM D2566.

SMC manufacturing means a process which involves the preparation of SMC.

Tooling gel coat means a gel coat that is used to form the surface layer of molds. Tooling gel coats generally have high heat distortion temperatures, low shrinkage, high barcol hardness, and high dimensional stability.

Tooling resin means a resin that is used to produce molds. Tooling resins generally have high heat distortion temperatures, low shrinkage, high barcol hardness, and high dimensional stability.

Uncontrolled oven organic HAP emissions means those organic HAP emissions emitted from the oven through closed vent systems to the atmosphere and not to a control device. These organic HAP emissions do not include organic HAP emissions that may escape into the workplace through the opening of panels or doors on the ovens or other similar fugitive organic HAP emissions in the workplace.

Uncontrolled wet-out area organic HAP emissions means any or all of the following: Organic HAP emissions from wet-out areas that do not have any capture and control, organic HAP emissions that escape from wet-out area enclosures, and organic HAP emissions from wet-out areas that are captured by an enclosure but are vented to the atmosphere and not to an add-on control device.

Unfilled means that there has been no addition of fillers to a resin or that less than 10 percent of fillers by weight of the total resin plus filler mixture has been added.

Vapor suppressant means an additive, typically a wax, that migrates to the surface of the resin during curing and forms a barrier to seal in the styrene and reduce styrene emissions.

Vapor-suppressed resin means a resin containing a vapor suppressant added for the purpose of reducing styrene emissions during curing.

White and off-white gel coat means a gel coat that contains 10 percent of more titanium dioxide by weight.

[68 FR 19402, Apr. 21, 2003, as amended at 70 FR 50129, Aug. 25, 2005]

Table 1 to Subpart WWW of Part 63--Equations to Calculate Organic HAP Emissions Factors for Specific Open Molding and Centrifugal Casting Process Streams

[As required in Sec. Sec. 63.5796, 63.5799(a)(1) and (b), and 63.5810(a)(1), to calculate organic HAP emissions factors for specific open molding and centrifugal casting process streams you must use the equations in the following table:]

			Use this organic HAP Emissions Factor (EF) Equation for materials with less than 33 percent organic HAP (19 percent organic HAP for nonatomized gel coat) 1 2 3 . . .	Use this organic HAP Emissions Factor (EF) Equation for materials with 33 percent or more organic HAP (19 percent for nonatomized gel coat) 1 2 3 . . .
If your operation type is a new or existing . . .	And you use . . .	With . . .		
1. Open molding operation.....	a. Manual resin application.	i. Nonvapor-suppressed resin.	EF = 0.126 x % HAP x 2000.	EF = ((0.286 x %HAP)-0.0529) x 2000
		ii. Vapor-	EF = 0.126 x % HAP	EF = ((0.286 x

	suppressed resin.	$x 2000 x (1 - (0.5 \times VSE \text{ factor}))$.	$\%HAP) - 0.0529) x 2000 x (1 - (0.5 \times VSE \text{ factor}))$
	iii. Vacuum bagging/closed-mold curing with roll out.	$EF = 0.126 x \% HAP x 2000 x 0.8$.	$EF = ((0.286 x \%HAP) - 0.0529) x 2000 x 0.8$
	iv. Vacuum bagging/closed-mold curing without roll-out.	$EF = (0.126 x \% HAP x 2000 x 0.5$.	$EF = ((0.286 x \%HAP) - 0.0529) x 2000 x 0.5$
b. Atomized mechanical resin application.	i. Nonvapor-suppressed resin.	$EF = 0.169 x \%HAP x 2000$.	$EF = ((0.714 x \%HAP) - 0.18) x 2000$
	ii. Vapor-suppressed resin.	$EF = 0.169 x \%HAP x 2000 x (1 - (0.45 \times VSE \text{ factor}))$.	$EF = ((0.714 x \%HAP) - 0.18) x 2000 x (1 - (0.45 \times VSE \text{ factor}))$
	iii. Vacuum bagging/closed-mold curing with roll-out.	$EF = 0.169 x \%HAP x 2000 x 0.85$.	$EF = ((0.714 x \%HAP) - 0.18) x 2000 x 0.85$
	iv. Vacuum bagging/closed-mold curing without roll-out.	$EF = 0.169 x \%HAP x 2000 x 0.55$.	$EF = ((0.714 x \%HAP) - 0.18) x 2000 x 0.55$
c. Nonatomized mechanical resin application.	v. Nonvapor-suppressed resin.	$EF = 0.107 x \%HAP x 2000$.	$EF = ((0.157 x \%HAP) - 0.0165) x 2000$
	vi. Vapor-suppressed resin.	$EF = 0.107 x \%HAP x 2000 x (1 - (0.45 \times VSE \text{ factor}))$.	$EF = ((0.157 x \%HAP) - 0.0165) x 2000 x (1 - (0.45 \times VSE \text{ factor}))$
	vii. Closed-mold curing with roll-out.	$EF = 0.107 x \%HAP x 2000 x 0.85$.	$EF = ((0.157 x \%HAP) - 0.0165) x 2000 x 0.85$
	viii. Vacuum bagging/closed-mold curing without roll-out.	$EF = 0.107 x \%HAP x 2000 x 0.55$.	$EF = ((0.157 x \%HAP) - 0.0165) x 2000 x 0.55$
d. Atomized mechanical resin application with robotic or automated spray control \4\.	Nonvapor-suppressed resin.	$EF = 0.169 x \%HAP x 2000 x 0.77$.	$EF = 0.77 x ((0.714 x \%HAP) - 0.18) x 2000$
e. Filament application \5\.	i. Nonvapor-suppressed resin.	$EF = 0.184 x \%HAP x 2000$.	$EF = ((0.2746 x \%HAP) - 0.0298) x 2000$
	ii. Vapor-suppressed resin.	$EF = 0.12 x \%HAP x 2000$.	$EF = ((0.2746 x \%HAP) - 0.0298) x 2000 x 0.65$
f. Atomized spray gel coat application.	Nonvapor-suppressed gel coat.	$EF = 0.445 x \%HAP x 2000$.	$EF = ((1.03646 x \%HAP) - 0.195) x 2000$.
g. Nonatomized spray gel coat application.	Nonvapor-suppressed gel coat.	$EF = 0.185 x \%HAP x 2000$.	$EF = ((0.4506 x \%HAP) - 0.0505) x 2000$.
h. atomized spray	Nonvapor-	$EF = 0.445 x \% HAP$	$EF = (1.03646 x$

	application.	
	c. manual resin application.	

3. open molding_tooling.....	a. mechanical resin application.	254 lb/ton. 157 lb/ton.
	b. manual resin application.	

4. open molding_low-flame spread/ low-smoke products.	a. mechanical resin application.	497 lb/ton. 270 lb/ton.
	b. filament application.	238 lb/ton.
	c. manual resin application.	

5. open molding_shrinkage controlled resins \2\.	a. mechanical resin application.	354 lb/ton. 215 lb/ton.
	b. filament application.	180 lb/ton.
	c. manual resin application.	

6. open molding_gel coat \3\....	a. tooling gel coating.	440 lb/ton. 267 lb/ton.
	b. white/off white pigmented gel coating.	377 lb/ton. 605 lb/ton. 854 lb/ton.
	c. all other pigmented gel coating.	522 lb/ton.
	d. CR/HS or high performance gel coat.	
	e. fire retardant gel coat.	
	f. clear production gel coat.	

- \1\ Organic HAP emissions limits for open molding and centrifugal casting are expressed as lb/ton. You must be at or below these values based on a 12-month rolling average.
- \2\ This emission limit applies regardless of whether the shrinkage controlled resin is used as a production resin or a tooling resin.
- \3\ If you only apply gel coat with manual application, for compliance purposes treat the gel coat as if it were applied using atomized spray guns to determine both emission limits and emission factors. If you use multiple application methods and any portion of a specific gel coat is applied using nonatomized spray, you may use the nonatomized spray gel coat equation to calculate an emission factor for the manually applied portion of that gel coat. Otherwise, use the atomized spray gel coat application equation to calculate emission factors.

[68 FR 19402, Apr. 21, 2003, as amended at 70 FR 50131, Aug. 25, 2005]

Table 4 to Subpart WWW of Part 63-Work Practice Standards

As specified in §63.5805, you must meet the work practice standards in the following table that apply to you:

Table 4 to Subpart WWW of Part 63._Work Practice Standards	
For . . .	You must . . .
1. a new or existing closed molding operation using compression/injection molding.	uncover, unwrap or expose only one charge per mold cycle per compression/injection molding machine. For machines with multiple molds, one charge means sufficient material to fill all molds for one

cycle. For machines with robotic loaders, no more than one charge may be exposed prior to the loader. For machines fed by hoppers, sufficient material may be uncovered to fill the hopper. Hoppers must be closed when not adding materials. Materials may be uncovered to feed to slitting machines. Materials must be recovered after slitting.

 2. a new or existing cleaning operation. not use cleaning solvents that contain HAP, except that styrene may be used as a cleaner in closed systems, and organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin.

3. a new or existing materials HAP-containing materials storage operation. keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.

\1\ Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process (i.e., they are actively being used to apply resin). For polymer casting mixing operations, containers with a surface area of 500 square inches or less may be open while active mixing is taking place.

Table 7 to Subpart WWW of Part 63-Options Allowing Use of the Same Resin Across Different Operations That Use the Same Resin Type

As specified in §63.5810(d), when electing to use the same resin(s) for multiple resin application methods, you may use any resin(s) with an organic HAP content less than or equal to the values shown in the following table, or any combination of resins whose weighted average organic HAP content based on a 12-month rolling average is less than or equal to the values shown the following table:

Table 7_to Subpart WWW of Part 63._Options Allowing Use of the Same Resin Across Different Operations That Use the Same Resin Type

If your facility has the following resin type and application method . . .	The highest resin weight is* * * percent organic HAP content, or weighted average weight percent organic HAP content, you can use for . . .	is . . .
1. CR/HS resins, centrifugal casting 1 2.	a. CR/HS mechanical.	\3\ 48.0
	b. CR/HS filament application.	48.0
	c. CR/HS manual.....	48.0
2. CR/HS resins, nonatomized mechanical.	a. CR/HS filament application.	46.4
	b. CR/HS manual.....	46.4
3. CR/HS resins, filament application.	CR/HS manual.....	42.0
4. non-CR/HS resins, filament application.	a. non-CR/HS mechanical.	\3\ 45.0

	b. non-CR/HS manual.	45.0
	c. non-CR/HS centrifugal casting 1 2.	45.0

5. non-CR/HS resins, nonatomized mechanical.	a. non-CR/HS manual.	38.5
	b. non-CR/HS centrifugal casting 1 2.	38.5
6. non-CR/HS resins, centrifugal casting 1 2.	non-CR/HS manual....	37.5
7. tooling resins, nonatomized mechanical.	tooling manual.....	91.4
8. tooling resins, manual.....	tooling atomized mechanical.	45.9

- \1\ If the centrifugal casting operation blows heated air through the molds, then 95 percent capture and control must be used if the facility wishes to use this compliance option.
\2\ If the centrifugal casting molds are not vented, the facility may treat the centrifugal casting operations as if they were vented if they wish to use this compliance option.
\3\ Nonatomized mechanical application must be used.

[68 FR 19402, Apr. 21, 2003, as amended at 70 FR 50133, Aug. 25, 2005]

Table 8 to Subpart WWW of Part 63--Initial Compliance With Organic HAP Emissions Limits

As specified in §63.5860(a), you must demonstrate initial compliance with organic HAP emissions limits as specified in the following table:

Table 8 to Subpart WWW of Part 63. Initial Compliance With Organic HAP Emissions Limits

For . . .	That must meet the following organic HAP emissions limit . . .	You have demonstrated initial compliance if . . .
1. open molding and centrifugal casting operations.	a. an organic HAP emissions limit shown in Tables 3 or 5 to this subpart, or an organic HAP content limit shown in Table 7 to this subpart.	i. you have met the appropriate organic HAP emissions limits for these operations as calculated using the procedures in § 63.5810 on a 12-month rolling average 1 year after the appropriate compliance date, and/or ii. you demonstrate that any individual resins or gel coats not included in (i) above, as applied, meet their applicable emission limits, or iii. you demonstrate using the appropriate values in Table 7

to this subpart that the weighted average of all resins and gel coats for each resin type and application method meet the appropriate organic HAP contents.

2. open molding centrifugal casting, continuous lamination/casting, SMC and BMC manufacturing, and mixing operations.	a. reduce total organic HAP emissions by at least 95 percent by weight.	total organic HAP emissions, based on the results of the capture efficiency and destruction efficiency testing specified in Table 6 to this subpart, are reduced by at least 95 percent by weight.
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[68 FR 19402, Apr. 21, 2003, as amended at 70 FR 50134, Aug. 25, 2005]

Table 9 to Subpart WWWW of Part 63--Initial Compliance With Work Practice Standards

As specified in §63.5860(a), you must demonstrate initial compliance with work practice standards as specified in the following table:

Table 9 To Subpart WWWW of Part 63. Initial Compliance With Work Practice Standards

For . . .	That must meet the following standards . . .	You have demonstrated initial compliance if . . .
1. a new or existing closed molding operation using compression/injection molding.	uncover, unwrap or expose only one charge per mold cycle per compression/injection molding machine. For machines with multiple molds, one charge means sufficient material to fill all molds for one cycle. For machines with robotic loaders, no more than one charge may be exposed prior to the loader. For machines fed by hoppers, sufficient material may be uncovered to fill the hopper. Hoppers must be closed when not adding materials.	the owner or operator submits a certified statement in the notice of compliance status that only one charge is uncovered, unwrapped, or exposed per mold cycle per compression/injection molding machine, or prior to the loader, hoppers are closed except when adding materials, and materials are recovered after slitting.

Materials may be uncovered to feed to slitting machines. Materials must be recovered after slitting.

2. a new or existing cleaning operation.

not use cleaning solvents that contain HAP, except that styrene may be used in closed systems, and organic HAP containing materials may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin between storage and applying resin to the mold or reinforcement.

the owner or operator submits a certified statement in the notice of compliance status that all cleaning materials, except styrene contained in closed systems, or materials used to clean cured resin from application equipment, contain no HAP.

3. a new or existing materials HAP-containing materials storage operation.

keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing materials storage tanks may be vented as necessary for safety.

the owner or operator submits a certified statement in the notice of compliance status that all HAP-containing storage containers are kept closed or covered except when adding or removing materials, and that any bulk storage tanks are vented only as necessary for safety.

Table 13 to Subpart WWW of Part 63--Applicability and Timing of Notifications

As required in §63.5905(a), you must determine the applicable notifications and submit them by the dates shown in 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	No later than the dates specified in § 63.9(b)(2).

3. Qualifies for a compliance extension as specified in § 63.9(c).	§ 63.9(b)(2). 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 emissions limit averaging provisions.	A Notification of Compliance Status as specified in § 63.9(h).	No later than 1 year plus 30 days after your facility's compliance date.
5. Is complying with organic HAP content limits, application equipment requirements, or organic HAP emissions limit other than organic HAP emissions limit averaging.	A Notification of Compliance Status as specified in § 63.9(h).	No later than 30 calendar days after your facility's compliance date.

Table 14 to Subpart WWWW of Part 63--Requirements for Reports

As required in §63.5910(a), (b), (g), and (h), you must submit reports on the schedule shown in the following table:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report.....	<p>a. A statement that there were no deviations during that reporting period if there were no deviations from any emission limitations (emission limit, operating limit, opacity limit, and visible emission limit) that apply to you and there were no deviations from the requirements for work practice standards in Table 4 to this subpart that apply to you. If there were no periods during which the CMS, including CEMS, and operating parameter monitoring systems, was out of control as specified in § 63.8(c)(7), the report must also contain a statement that there were no periods during which the CMS was out of control during the reporting period.</p>	<p>Semiannually according to the requirements in § 63.5910(b).</p>
	<p>b. The information in § 63.5910(d) if you have a deviation from any emission limitation (emission limit, operating limit, or work practice standard)</p>	<p>Semiannually according to the requirements in § 63.5910(b).</p>

during the reporting period. If there were periods during which the CMS, including CEMS, and operating parameter monitoring systems, was out of control, as specified in § 63.8(c)(7), the report must contain the information in § 63.5910(e).

c. The information in § 63.10(d)(5)(i) if you had a startup, shutdown or malfunction during the reporting period, and you took actions consistent with your startup, shutdown, and malfunction plan. Semiannually according to the requirements in § 63.5910(b).

Options for Meeting Standards

§ 63.5810 What are my options for meeting the standards for open molding and centrifugal casting operations at new and existing source

You must use one of the following methods in paragraphs (a) through (d) of this section to meet the standards in 63.5805. When you are complying with an emission limit in Table 3 to this subpart, you may use any control method that reduces organic HAP emissions, including reducing resin and gel coat organic HAP content, changing to non-atomized mechanical application, and covered curing techniques. The necessary calculations must be completed within 30 days after the end of each month. You may switch between the compliance options in paragraphs (a) through (d) of this section. When you change to an option based on a 12-month rolling average, you must base the average on the previous 12 months of data calculated using the compliance option you are currently using unless you were using the compliant materials option in paragraph (d) of this section. In this case, you must immediately begin collecting resin and gel coat use data and demonstrate compliance 12 months after changing option.

(a) *Meet the individual organic HAP emissions limits for each operation.* Demonstrate that you meet the individual organic HAP emissions limits for each open molding operation and for each centrifugal casting operation type in Tables 3, or 5 to this subpart that apply to you. This is done in two steps. First, determine an organic HAP factor for each individual resin and gel coat, application method, and control method you use in a particular operation. Second, calculate, for each particular operation type, a weighted average of those organic HAP emissions factors based on resin and gel coat use. Your calculated organic HAP emissions factor must either be at or below the applicable organic HAP emissions limit in Tables 3 or 5 to this subpart based on a 12-month rolling average. Use the procedures described in paragraphs (a)(1) through (3) of this section to calculate average organic HAP emissions factors for each of your operations.

(1) Calculate your actual organic HAP emissions factor for each different process stream within each operation type. A process stream is defined as each individual combination of resin or gel coat, application technique, and control technique. Process streams within operations types are considered different from each other if any of the following characteristics vary: the neat resin plus or neat gel coat plus organic HAP content, the application technique, or the control technique. You must calculate organic HAP emissions factors for each different process stream by using the appropriate equations in Table 1 to this subpart for open molding and for centrifugal casting, or site-specific organic HAP emissions factors discussed in 40 CFR 63.5796. If you are using vapor suppressants to reduce HAP emissions, you must determine the vapor suppressant effectiveness by conducting testing according to the procedures specified of Appendix A to 40 CFR 63, Subpart WWWW.

(2) Calculate your actual operation organic HAP emissions factor for the last 12 months for each open molding operation type and for each centrifugal casting operation type by calculating the weighted average of the individual process stream organic HAP emissions factors within each respective operation. To do

this, sum the product of each individual organic HAP emissions factor calculated in 40 CFR 63.5810(a)(1) and the amount of neat resin plus and neat gel coat plus usage that correspond to the individual factors and divide the numerator by the total amount of neat resin plus and neat gel coat plus used in that operation type. Use the following equation to calculate your actual organic HAP emissions factor for each open molding operation type and each centrifugal casting operation type.

$$\text{Actual Operation Organic HAP Emissions Factor} = \frac{\sum_{i=1}^n (\text{Actual Process Stream } EF_i * \text{Material}_i)}{\sum_{i=1}^n \text{Material}_i} \quad (2)$$

Where:

Actual Process Stream EF_i = actual organic HAP emissions factor for process stream i , lbs/ton
 Material $_i$ = neat resin plus or neat gel coat plus used during the last 12 calendar months for process stream i , tons
 n = number of process streams where you calculated an organic HAP emissions factor

(3) Compare each organic HAP emissions factor calculated in paragraph (b)(2) of this section with its corresponding organic HAP emissions limit in Tables 3 or 5 to this subpart. If all emissions factors are equal to or less than their corresponding emission limits, then you are in compliance.

(b) *HAP Emission Factor averaging option.* Demonstrate each month that you meet each weighted average of the organic HAP emissions limits in Tables 3 or 5 to 40 CFR 63, Subpart WWWW that apply to you. When using this option, you must demonstrate compliance with the weighted average organic HAP emissions limit for all your open molding operations. The Permittee shall demonstrate compliance using the procedures specified in paragraphs (b)(1) – (3) of this section:

(1) Each month, calculate the weighted average organic HAP emissions limit for all open molding operations for your facility for the last 12-month period to determine the organic HAP emissions limit you must meet. To do this, multiply the individual organic HAP emissions limits in Tables 3 or 5 to this subpart for each open molding operation type by the amount of neat resin plus or neat gel coat plus used in the last 12 months for each open molding operation type, sum these results, and then divide this sum by the total amount of neat resin plus and neat gel coat plus used in open molding over the last 12 months. Use the following equation to calculate the weighted average organic HAP emissions limit for all open molding operations.

$$\text{Weighted Average Emissions Limit} = \frac{\sum_{i=1}^n (EL_i * \text{Material}_i)}{\sum_{i=1}^n \text{Material}_i} \quad (3)$$

Where:

EL_i = organic HAP emissions limit for operation type i , lbs/ ton from Tables 3, 5 or 7 to this subpart
 Material $_i$ = neat resin plus or neat gel coat plus used during the last 12-month period for operation type i , tons
 n = number of operations

(2) Each month, calculate your actual weighted average organic HAP emissions factor for open molding. To do this, multiply your actual open molding operation organic HAP emissions factors and the amount of neat resin plus and neat gel coat plus used in each open molding operation type, sum the results, and divide this sum by the total amount of neat resin plus and neat gel coat plus used in open molding operations. You must calculate your actual individual HAP emissions factors for each operation type as described in 40 CFR 63.5810(a)(1) and (2). Use the following equation to calculate your actual weighted average organic HAP emissions factor.

$$\text{Actual Weighted Average Organic HAP Emissions Factor} = \frac{\sum_{i=1}^n (\text{Actual Operation } EF_i * \text{Material}_i)}{\sum_{i=1}^n \text{Material}_i} \quad (4)$$

Where:

Actual Individual EF_i = Actual organic HAP emissions factor for operation type i , lbs/ton

Material_i = neat resin plus or neat gel coat plus used during the last 12 calendar months for operation type i , tons

n = number of operations

(3) Compare the values calculated in 40 CFR 63.5810(b)(1) and (2). If each 12-month rolling average organic HAP emissions factor is less than or equal to the corresponding 12-month rolling average organic HAP emissions limit, then you are in compliance.

(c) If you have multiple operation types, meet the organic HAP emission limits for one operation type, and use the same resin(s) for all operations of that resin type. If you have more than one operation type, you may meet the emission limit for one of those operations, and use the same resin(s) in all other open molding and centrifugal casting operations.

(1) This option is limited to resins of the same type. The resin types for which this option may be used are noncorrosion-resistant, corrosion-resistant and/or high strength, and tooling.

(2) For any combination of manual resin application, mechanical resin application, filament application, or centrifugal casting, you may elect to meet the organic HAP emissions limit for any one of these operations and use that operation's same resin in all of the resin operations listed in this paragraph. Table 7 to this subpart presents the possible combinations based on a facility selecting the application process that results in the highest allowable organic HAP content resin. If your resin organic HAP content is below the applicable values shown in Table 7 to this subpart, you are in compliance.

(3) You may also use a weighted average organic HAP content for each operation described in paragraph (c)(2) of this section to this subpart. Use equation 2 in 63.5810(a)(2) except substitute organic HAP content for organic HAP emission factors.

You are in compliance if the weighted average organic HAP content based on the last 12 months of resin use is less than or equal to the applicable organic HAP contents in Table 7 to this subpart.

(4) You may simultaneously use the averaging provisions in paragraph (b) to demonstrate compliance for any operations and/or resins you do not include in your compliance demonstrations under paragraphs (c)(2) and (3) of this section. However, any resins for which you claim compliance under the option in (c)(2) and (3) of this section may not be included in any of the averaging calculations described in paragraphs (a) or (b) of this section used for resins for which you are not claiming compliance under this option.

(d) Use resins and gel coats that do not exceed the maximum organic HAP contents shown in Table 3 to this subpart.

Continuous Compliance Requirements

§63.5895 How do I monitor and collect data to demonstrate continuous compliance?

(c) You must collect and keep records of resin and gel coat use, organic HAP content, and operation where the resin is used if you are meeting any organic HAP emissions limits based on an organic HAP emissions limit in Tables 3 or 5 to this subpart. You must collect and keep records of resin and gel coat use, organic HAP content, and operation where the resin is used if you are meeting any organic HAP content limits in Table 7 to this subpart if you are averaging organic HAP contents. Resin use records may be based on purchase records if you can reasonably estimate how the resin is applied. The organic HAP content records may be based on MSDS or on resin specifications supplied by the resin supplier.

(d) If you initially demonstrate that all resins and gel coats individually meet the applicable organic HAP emissions limits, or organic HAP content limits, then resin and gel coat use records are not required. However, you must include a statement in each compliance report that all resins and gel coats still meet the organic HAP limits for compliant resins and gel coats shown in Tables 3 or 7 of this subpart. If after this initial demonstration, you change to a higher organic HAP resin or gel coat, or increase the resin or gel coat organic HAP content, or change to a higher-emitting resin or gel coat application method, then you must either again demonstrate that all resins and gel coats still meet the applicable organic HAP emissions limits, or begin collecting resin and gel coat use records and calculate compliance on a 12-month rolling average.

Table 1 to Subpart WWWW of Part 63--Equations to Calculate Organic HAP Emissions Factors for Specific Open Molding and Centrifugal Casting Process Streams As required in Sec. 63.5796, 63.5799(a)(1) and (b), and 63.5810(a)(1), to calculate organic HAP emissions factors for specific open molding and centrifugal casting process streams you must use the equations in the following table:]

If your operation type is a new or existing ...	And you use...	With...	Use this organic HAP Emissions Factor (EF) Equation for materials with less than 33 percent organic HAP (19 percent organic HAP for nonatomized gel coat) ^{1 2 3 ...}	Use this organic HAP Emissions Factor (EF) Equation for materials with 33 percent or more organic HAP (19 percent organic HAP for nonatomized gel coat) ^{1 2 3 ...}
1. Open molding operation...	Atomized spray gel coat application	Nonvapor-suppressed gel coat	$EF = 0.446 \times \% \text{ HAP} \times 2000.$	$EF = ((1.03646 \times \% \text{HAP}) - 0.195) \times 2000$

¹Percent HAP means total weight percent of organic HAP (styrene, methyl methacrylate, and any other organic HAP) in the resin or gel coat prior to the addition of fillers, catalyst, and promoters. Input the percent HAP as a decimal, i.e. 33 percent HAP should be input as 0.33, not 33.

Table 3 to Subpart WWWW of Part 63.--Organic HAP Emissions Limits for Existing Open Molding Sources, New Open Molding Sources Emitting Less Than 100 TPY of HAP, and New and Existing Centrifugal Casting and Continuous Lamination/Casting Sources that Emit Less Than 100 TPY of HAP As required in Sec. Sec. 63.5796, 63.5805 (a) through (c) and (g), 63.5810(a), (b), and (d), 63.5820(c), 63.5830, 63.5835(a), 63.5895(c) and (d), 63.5900(a)(2), and 63.5915(c), you must meet the appropriate organic HAP emissions limits in the following table:]

If your operation type is...	And you use...	Your organic HAP emissions limit is ^{1...}	And the highest organic HAP content for a compliant resin or gel coat is ^{2..}
1. Open molding – corrosion-resistant and/or high strength (CR/HS)	a. Mechanical resin application	112 lb/ton	46.2 with nonatomized resin application
2. Open molding – non-CR/HS	a. Mechanical resin application	87 lb/ton	38.4 with nonatomized resin application
6. Open molding – gel coat ³	a. Tooling gel coating	437 lb/ton	40.0

¹ Organic HAP emissions limits for open molding and centrifugal casting are expressed as lb/ton. You must be at or below these values based on a 12-month rolling average.

² A compliant resin or gel coat means that if its organic HAP content is used to calculate an organic HAP emissions factor, the factor calculated does not exceed the appropriate organic HAP emissions limit shown in the table.

³ These limits are for spray application of gel coat. Manual gel coat application must be included as part of spray gel coat application for compliance purposes using the same organic HAP emissions factor equation and organic HAP emissions limit. If you only apply gel coat with manual application, treat the manually applied gel coat as if it were applied with atomized spray for compliance determinations.

Table 7 to Subpart WWWW of Part 63.--Options Allowing Use of the Same Resin Across Different Operations That Use the Same Resin Type [As required in Sec. Sec. 63.5810(a) through (d), 63.5835(a), 63.5895(c), and 63.5900(a)(2), when electing to use the same resin(s) for multiple resin application methods you may use any resin(s) with an organic HAP contents less than or equal to the values shown in the following table, or any combination of resins whose weighted average organic HAP content based on a 12-month rolling average is less than or equal to the values shown the following table:]

If your facility has the following resin type and application method...	The highest resin weight percent organic HAP content, or weighted average weight percent organic HAP content, you can use for...	Is...
2. CR/HS resins, nonatomized mechanical.	a. CR/HS filament application	46.2
5. Non-CR/HS resins, nonatomized mechanical.	b. CR/HS manual	46.2
	a. Non-CR/HS manual	38.4
	b. Non-CR/HS centrifugal casting	38.4

The requirements of 326 IAC 20-56 listed in this condition are not federally enforceable.

D.1.14 One Time Deadlines Relating to National Emissions Standards for Hazardous Air Pollutants (NESHAP): Reinforced Plastic Composites Production

Pursuant to 40 CFR 63.5800, the Permittee shall demonstrate compliance with the standards in 40 CFR 63, Subpart WWWW by April 21, 2006.

The Permittee shall submit a Notification of Compliance Status as specified in 40 CFR 63.9(h) no later than May 21, 2007.

The Permittee shall submit the first compliance report required by 40CFR 63.5910(a) no later than January 31, 2007.

SECTION D.2

FACILITY OPERATION CONDITIONS

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

- (j) One (1) paint booth, identified as PB1, with a maximum design rate of 6 metal lids/hr, emissions controlled by a dry filter system, and emissions exhausted to stack F2. Constructed in 1999.

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

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

D.2.1 PSD Minor Limit [326 IAC 2-2]

Pursuant to CP-099-10311-00043, issued on April 15, 1999, the usage of resins, gelcoats, catalysts and solvents at the fiberglass parts manufacturing operation, including units HL1, CP1, CP2, CP3, G1, FW4, FWSH1 through FWSH6, CPC4, CB1, CB2, FCG1, and FCR1, in conjunction with the paint booth, PB1, shall be limited to a combined total of less than two hundred forty-seven (247) tons of VOC per twelve (12) consecutive month period with compliance determined at the end of each month. Source-wide combined emissions, including insignificant natural gas combustion and degreasing shall therefore be less than two hundred fifty (250) tons of VOC per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this condition renders the requirements of 326 IAC 2-2 not applicable.

D.2.2 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate emissions from the paint booth PB1, shall be controlled by dry particulate filter, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.2.3 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9, the owner or operator shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths 3.5 pounds of VOC per gallon of coating, excluding water, as delivered to the applicator for extreme performance coatings.

D.2.4 Volatile Organic Compound (VOC) Limitations, Clean-up Requirements [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of paint booth PB1 during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

D.2.5 National Emissions Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production: Requirements [40 CFR 63.3881(b)]

In order to render the requirements of 40 CFR Part 63, Subpart WWWW not applicable to the paint booth, identified as PB1, the input of coatings applied to miscellaneous metal parts or products shall be less than 946 liters (250 gallons) of coatings that contain hazardous air pollutants (HAP) per twelve (12) consecutive month period with compliance determined at the end of each month, excluding coatings that meet the definition of a non-HAP containing coating in 40 CFR 63.3981.

D.2.6 Preventive Maintenance Plan

A Preventive Maintenance Plan, in accordance with Section B- Preventive Maintenance Plan, of this permit is required for this facility and control device.

Compliance Determination Requirements

D.2.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

- (a) Compliance with the VOC usage limitation contained in Conditions D.2.1, and D.2.3 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.

- (b) The Permittee shall determine the VOC content of the combined coating material and cleanup shipped off-site pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by EPA Reference Method 24 and the sampling procedures in 326 IAC 8-1-4 or other methods as approved by the Commissioner. If a shipment consists of separate containers, the Permittee shall sample each container. The testing shall be conducted in accordance with Section C - Performance Testing, except for notifying IDEM of the test in paragraph (a), all of paragraph (b), and all of paragraph (c).
- (c) Compliance with the VOC usage limitation contained in condition D.1.1 shall be demonstrated within 30 days of the end of each month. This shall be based on the total VOC used for the previous month, minus the VOC shipped off-site, and adding it to the previous 11 months total VOC usage, minus the VOC shipped off-site, so as to arrive at VOC emissions for the most recent twelve (12) consecutive month period. Analysis shall include weight of coating material and solvent in each container shipped off-site and VOC content test results, as necessary to verify the type and amount recycled.

- (1) The VOC emissions for each month shall be calculated using the following equation:

$$\text{VOC emitted} = \text{VOC}_U - \text{VOC}_R$$

Where

VOC_U = The total amount of VOC, in tons, delivered to the coating applicators, including coatings, dilution solvents, and cleaning solvents; and

VOC_R = The total amount of VOC, in tons, shipped off-site, including coatings, dilution solvents, and cleaning solvents.

Compliance Monitoring Requirements

D.2.8 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the paint booth identified as PB1 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 in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, 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 in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

D.2.9 Record Keeping Requirements

- (a) To document compliance with Conditions D.2.1 and D.2.3, the Permittee shall maintain records of the VOC content of the materials delivered to the operators at the paint booth, identified as PB1, in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish

compliance with the VOC usage limits established in Conditions D.2.1 and D.2.3. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

- (1) The amount and VOC content of each coating material, adhesive, caulking compound, dilution solvent and cleanup solvent used on a monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (2) The amount and VOC content of each coating material and solvent shipped off-site each month. Records shall include weight of coating material and solvent in each container shipped off-site and VOC content test results, as necessary to verify the type and amount recycled.
 - (3) The total VOC usage for each month.
 - (4) The weight of VOC usage, minus the VOC shipped off-site, for each compliance period.
 - (5) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Condition D.2.5, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.2.5. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
- (1) The HAP content of each coating material and solvent used.
 - (2) The amount of coatings that contain HAP used on monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
- (c) To document compliance with Condition D.2.8, the Permittee shall maintain a log of inspections of the dry filters.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.10 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.1, D.2.3, and D.2.5 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Hand Grinding and Sand Blasting Conditions

- (k) One (1) hand grinding booth, identified as CB1, with a maximum design capacity of 2.08 tons of fiberglass/hr, with emissions controlled by a dry filter, which exhausts inside the building. This facility was constructed in 1999.
- (l) One (1) sand blasting booth, identified as CB2, with a maximum design capacity of 0.5 tons of blasting material/hr, with emissions controlled by a cartridge filter, which exhausts inside the building. This facility was constructed in 1999.
- (h) One (1) pulverizer, identified as RP 3, constructed in 2000, with maximum rate of production of 949 lbs/hour of Polyethylene pieces, using a cyclone as control, which exhausts to stack RP 3. This facility was constructed in 1999.

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

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

D.3.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the Permittee shall comply with the following:

- (a) The particulate emissions from the hand grinding (CB1) shall not exceed 6.70 pounds per hour each when operating at a process weight rate of 4,160 pounds per hour.
- (b) The particulate emissions from the sand blasting (CB2) facilities shall not exceed 2.58 pounds per hour each when operating at a process weight rate of 1,000 pounds per hour.
- (c) The particulate emissions from the pulverizer (RP3) shall not exceed 2.49 pounds per hour when operating at a process weight rate of 0.475 tons per hour.

The pounds per hour limitations were calculated using the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour;} \\ \text{and } P = \text{process weight rate in tons}$$

D.3.2 PSD Minor Source Limit [326 IAC 2-2]

The PM and PM10 emission rate from the blasting booth (CB2) shall be limited to less than 0.83 lbs/hr. Compliance with this condition renders the requirements of 326 IAC 2-2 not applicable.

D.3.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

Compliance Determination Requirements

D.3.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

During the period between 30 and 36 months after issuance of this Part 70 permit, in order to demonstrate compliance with Condition D.3.2, the Permittee shall perform PM and PM-10 testing for the blasting booth (CB2) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.3.5 Particulate Control

In order to comply with Condition D.3.1, the cartridge, cyclone, and dry filters used for particulate control shall be in operation and control emissions from the grinding, pulverizer, and blasting facilities at all times that these facilities are in operation.

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

D.3.6 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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

D.3.7 Record Keeping Requirements

- (a) To document compliance with Condition D.3.6, the Permittee shall maintain records of the results of the inspections required under Condition D.3.6.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.4

FACILITY OPERATION CONDITIONS

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

Insignificant Activities

- (b) Degreasing operations that do exceed 145 gallons per 12 months and not subject to 40 CFR 63 Subpart T [326 IAC 8-3-2] [326 IAC 8-3-5]. The degreasing unit is used only for maintenance activities.

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

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

D.4.1 Cold Cleaner (Degreaser) Operations [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for the degreasing operations, the Permittee shall ensure that the following control equipment requirements are met:
- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) the solvent is agitated; or
 - (C) the solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.

- (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
 - (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.4.2 Cold Cleaner (Degreaser) Operations [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the Permittee shall:

- (a) equip the cleaner with a cover;
- (b) equip the cleaner with a facility for draining cleaned parts;
- (c) close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) provide a permanent, conspicuous label summarizing the operation requirements;
- (f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

SECTION D.5

FACILITY OPERATION CONDITIONS

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

Insignificant Activities

- (a) The following activities with emissions equal to or less than the insignificant thresholds in 326 IAC 2-7-1(21)(A), (B), and (C) [326 IAC 6-3-2]:
- (1) One (1) hand tooling and finishing area,
 - (2) Two (2) pulverizer units,
 - (3) One (1) regrind unit,
 - (4) Two (2) metal inert gas welding units,
 - (5) Two (2) plasma cutting units,
 - (6) One (1) metal cutting unit,
 - (7) One (1) metal sanding unit,
 - (8) One (1) metal drilling unit,
 - (9) One (1) fiberglass tube cutter, and
 - (10) One (1) fitting area.

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

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

D.5.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the hand tooling and finishing area, two pulverizer units, regrind unit, metal inert gas welding units, plasma cutting units, metal cutting unit, metal sanding unit, metal drilling unit, fitting area and fiberglass tube cutter shall not exceed the particulate emission rate based on the following equation:

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: AK Industries, Inc.
Source Address: 2055 Pidco Drive, Plymouth, Indiana 46563
Mailing Address: 2055 Pidco Drive, Plymouth, Indiana 46563
Part 70 Permit No.: T099-21583-00043

**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 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: AK Industries, Inc.
Source Address: 2055 Pidco Drive, Plymouth, Indiana 46563
Mailing Address: 2055 Pidco Drive, Plymouth, Indiana 46563
Part 70 Permit No.: T099-21583-00043

This form consists of 2 pages

Page 1 of 2

- | |
|--|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) |
| X 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 |
| X 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: _____

A certification is not required for this report.

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

Part 70 Quarterly Report

Source Name: AK Industries, Inc.
Source Address: 2055 Pidco Drive, Plymouth, Indiana 46563
Mailing Address: 2055 Pidco Drive, Plymouth, Indiana 46563
Part 70 Permit No.: T099-21583-00043
Facility: The fiberglass parts manufacturing operation, including units HL1, CP1, CP2, CP3, G1, FW4, FWSH1 through FWSH6, CPC4, CB1, CB2, FCG1, and FCR1, in conjunction with the paint booth, PB1
Parameter: Usage of all gelcoats, resins, and adhesives from the fiberglass layup operation
Limit: Less than 247 tons of VOC per twelve (12) consecutive month period with compliance determined at the end of each month.

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: _____

Attach a signed certification to complete this report.

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

Part 70 Quarterly Report

Source Name: AK Industries, Inc.
 Source Address: 2055 Pidco Drive, Plymouth, Indiana 46563
 Mailing Address: 2055 Pidco Drive, Plymouth, Indiana 46563
 Part 70 Permit No.: T099-21583-00043
 Facility: Paint booth, identified as PB1
 Parameter: Coatings applied to miscellaneous metal parts or products
 Limit: Less than 946 liters (250 gallons) of coatings that contain hazardous air pollutants (HAP) per twelve (12) consecutive month period with compliance determined at the end of each month.

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: _____

Attach a signed certification to complete this report.

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

**PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: AK Industries, Inc.
Source Address: 2055 Pidco Drive, Plymouth, Indiana 46563
Mailing Address: 2055 Pidco Drive, Plymouth, Indiana 46563
Part 70 Permit No.: T099-21583-00043

Months: _____ **to** _____ **Year:** _____

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, 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".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> 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:	

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: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Part 70 Operating Permit Renewal

Source Background and Description

Source Name: AK Industries, Inc.
Source Location: 2055 Pidco Drive, Plymouth, Indiana 46563
County: Marshall
SIC Code: 3999
Operation Permit No.: T099-21583-00043
Permit Reviewer: ERG/BL

On June 2, 2007, the Office of Air Quality (OAQ) had a notice published in the Plymouth Pilot News, Plymouth, Indiana, stating that AK Industries, Inc. had applied for a Part 70 Operating Permit Renewal to continue to operate a fiberglass parts fabrication facility. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review IDEM has decided to make the following revisions to the permit. New language is in **bold** while deleted language is in ~~strikeout~~. The Table of Contents has been updated as necessary.

1. The July 1, 2006 version of the Code of Federal Regulations was incorporated by reference into 326 IAC 1-1-3 and became effective on May 27, 2007. Since the July 1, 2006 version of 40 CFR Part 63, Subpart Mmmm, has now been incorporated into 326 IAC 20-8, permit condition D.1.17 has been deleted from the permit.

~~D.1.17 State Only Reinforced Plastic Composites National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production (NESHAP) Requirements [326 IAC 20-56]~~

~~Pursuant to 326 IAC 20-56, the Permittee shall comply with the previous version of 40 CFR 63, Subpart WWWW, published in 68 FR 19402, April 21, 2003, for the fiberglass parts manufacturing operations and all activities associated with the production of plastic composites, with a compliance date of April 21, 2006. Compliance with the requirements specified in condition D.1.16 shall satisfy the requirements of 326 IAC 20-56, with the exception of the requirements listed under 40 CFR 63.5810, 40 CFR 63.5895(d) and Tables 1, 3 and 7 in that condition. In place of those requirements, to satisfy 326 IAC 20-56 only, the Permittee shall comply with the following:~~

2. To clarify the applicability of the National Emissions Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, 40 CFR 63.5780, Subpart WWWW, the following changes were made to emission unit descriptions. IDEM has also

relocated all applicable requirements for the pulverizer, identified as RP 3, to permit section D.3. The pulverizer is not subject to 40 CFR 63.5780, Subpart WWWW.

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

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

- ...
- (c) One (1) filament winding machine, identified as FW4, with a maximum design rate of 4 basins/hr. **Under 40 CFR 63, Subpart WWWW, the filament winding machine is considered an affected filament winding unit.** This facility was constructed in 1999.
- (d) **Three (3) nonatomized chop-hoop winding applicators, each applying resin to two (2) mandrels for a total of six (6) filament winding mandrels,** identified as FWSH1 through FWSH6, each with a maximum design rate of 1 basin/hr, with emissions controlled by dry filters, which exhaust to stacks F6 through F11, respectively. **Under 40 CFR 63, Subpart WWWW, the filament winding machine is considered an affected filament winding unit.** These facilities were constructed in 1999.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

- ...
- (c) One (1) filament winding machine, identified as FW4, with a maximum design rate of 4 basins/hr. **Under 40 CFR 63, Subpart WWWW, the filament winding machine is considered an affected filament winding unit.** This facility was constructed in 1999.
- (d) **Three (3) nonatomized chop-hoop winding applicators, each applying resin to two (2) mandrels for a total of six (6) filament winding mandrels,** identified as FWSH1 through FWSH6, each with a maximum design rate of 1 basin/hr, with emissions controlled by dry filters, which exhaust to stacks F6 through F11, respectively. **Under 40 CFR 63, Subpart WWWW, the filament winding machine is considered an affected filament winding unit.** These facilities were constructed in 1999.
- ...
- (h) ~~One (1) pulverizer, identified as RP 3, constructed in 2000, with maximum rate of production of 949 lbs/hour of Polyethylene pieces, using a cyclone as control, which exhausts to stack RP 3. This facility was constructed in 1999.~~

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

~~D.1.3 Particulate Emissions [326 IAC 6-3-2]~~

~~Pursuant to 326 IAC 6-3-2, particulate emissions from the pulverizer (RP3) shall not exceed 2.49 pounds per hour when operating at a process weight rate of 0.475 tons per hour.~~

The pounds per hour limitation was calculated with the following equation:

~~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~~

~~D.1.4D.1.3 Particulate [326 IAC 6-3-2(d)]~~

~~...~~

~~D.1.5D.1.4 Reinforced Plastics Composites Production [326 IAC 20-56-2]~~

~~...~~

~~D.1.6D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]~~

~~...~~

~~D.1.7 Compliance Determination~~

~~In order to comply with Condition D.1.3 particulate emissions from the pulverizer identified as RP-3, shall be controlled by a cyclone, and the Permittee shall operate the control device in accordance with manufacturer's specifications.~~

~~D.1.8D.1.6 Volatile Organic Compounds (VOCs)~~

~~...~~

~~D.1.9D.1.7 Hazardous Air Pollutants (HAPs)~~

~~...~~

~~D.1.10D.1.8 Monitoring [40 CFR 64]~~

~~...~~

~~D.1.11D.1.9 Visible Emissions Notations~~

~~...~~

~~D.1.12 Cyclone Failure Detection~~

~~In the event that cyclone failure has been observed:~~

~~Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

~~D.1.13D.1.10 Record Keeping Requirements~~

~~...~~

~~(c) To document compliance with Condition D.1.5D.1.4, the Permittee shall maintain the following training records:~~

- ~~(1) A copy of the current training program.~~
- ~~(2) 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. Records of prior training programs and former personnel are not required to be maintained.~~

- (d) To document compliance with Condition ~~D.1.14~~**D.1.8**, the Permittee shall maintain a log of inspections of the dry filters.
- (e) To document compliance with Condition ~~D.1.12~~**D.1.9**, the Permittee shall maintain records of daily visible emission notations of the fiberglass operations' stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (i.e. the process did not operate that day).

...

~~D.1.14~~**D.1.11** Reporting Requirements

...

~~D.1.15~~**D.1.12** General Provisions Relating to National Emissions Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

...

~~D.1.16~~**D.1.13** National Emissions Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production: Requirements [40 CFR Part 63, Subpart WWWW]

...

~~D.1.18~~**D.1.14** One Time Deadlines Relating to National Emissions Standards for Hazardous Air Pollutants (NESHAP): Reinforced Plastic Composites Production

...

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Hand Grinding and Sand Blasting Conditions

- (k) One (1) hand grinding booth, identified as CB1, with a maximum design capacity of 2.08 tons of fiberglass/hr, with emissions controlled by a dry filter, which exhausts inside the building. This facility was constructed in 1999.
- (l) One (1) sand blasting booth, identified as CB2, with a maximum design capacity of 0.5 tons of blasting material/hr, with emissions controlled by a cartridge filter, which exhausts inside the building. This facility was constructed in 1999.
- (h) **One (1) pulverizer, identified as RP 3, constructed in 2000, with maximum rate of production of 949 lbs/hour of Polyethylene pieces, using a cyclone as control, which exhausts to stack RP 3. This facility was constructed in 1999.**

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

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

D.3.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the Permittee shall comply with the following:

- (a) The particulate emissions from the hand grinding (CB1) shall not exceed 6.70 pounds per hour each when operating at a process weight rate of 4,160 pounds per hour.

- (b) **The particulate emissions from the sand blasting (CB2) facilities shall not exceed 2.58 pounds per hour each when operating at a process weight rate of 1,000 pounds per hour.**
- (c) **The particulate emissions from the pulverizer (RP3) shall not exceed 2.49 pounds per hour when operating at a process weight rate of 0.475 tons per hour.**

...

D.3.5 Particulate Control

In order to comply with condition D.3.1, the cartridge, **cyclone**, and dry filters used for particulate control shall be in operation and control emissions from the grinding, **pulverizer**, and blasting facilities at all times that these facilities are in operation.

...

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

D.3.6 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

...

~~D.3.6~~ **D.3.7 Record Keeping Requirements**

- (a) To document compliance with Condition D.3.6, the Permittee shall maintain records of the results of the inspections required under Condition D.3.6.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

- 3. Since the first Semiannual Compliance Report has already been submitted by the Permittee, IDEM has deleted a portion of Condition D.1.18 as shown:

~~D.1.18~~ **D.1.14 One Time Deadlines Relating to National Emissions Standards for Hazardous Air Pollutants (NESHAP): Reinforced Plastic Composites Production**

Pursuant to 40 CFR 63.5800, the Permittee shall demonstrate compliance with the standards in 40 CFR 63, Subpart WWWW by April 21, 2006.

The Permittee shall submit a Notification of Compliance Status as specified in 40 CFR 63.9(h) no later than May 21, ~~2006~~ **2007**.

The Permittee shall submit the first compliance report required by 40CFR 63.5910(a) no later than ~~July 31, 2006~~ **January 31, 2007**.

- 4. The potential paint usage of HAP-containing coating applied to metal surfaces is greater than 250 gallons per year. Therefore, the permit must contain conditions that limit the surface coatings applied to metal parts. Compliance with this limit will limit paint usage and will make to the requirements of Subpart MMMM not applicable.

D.2.5 National Emissions Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production: Requirements [40 CFR 63.3881(b)]

In order to render the requirements of 40 CFR Part 63, Subpart WWWW not applicable to the paint booth, identified as PB1, the input of coatings applied to miscellaneous metal parts or products shall be less than 946 liters (250 gallons) of coatings that contain hazardous air pollutants (HAP) per twelve (12) consecutive month period with compliance determined at the end of each month, excluding coatings that meet the definition of a non-HAP containing coating in 40 CFR 63.3981.

...

~~D.2.5~~D.2.6 Preventive Maintenance Plan

A Preventive Maintenance Plan, in accordance with Section B- Preventive Maintenance Plan, of this permit is required for this facility and control device.

...

~~D.2.6~~D.2.7 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

...

~~D.2.7~~D.2.8 Monitoring

...

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

~~D.2.8~~D.2.9 Record Keeping Requirements

(a) To document compliance with Conditions D.2.1 and D.2.3, the Permittee shall maintain records of the VOC content of the materials delivered to the operators at the paint booth, identified as PB1, in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits established in Conditions D.2.1 and D.2.3. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(a) — (1) The amount and VOC content of each coating material, adhesive, caulking compound, dilution solvent and cleanup solvent used on a monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

...

(b) To document compliance with Condition D.2.5, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the HAP usage limits established in Condition D.2.5. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

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

(2) The amount of coatings that contain HAP used on monthly basis. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

~~(b)~~(c) To document compliance with Condition ~~D.2.7~~**D.2.8**, the Permittee shall maintain a log of inspections of the dry filters.

(d) **All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.**

~~D.2.9~~**D.2.10** Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.1 and D.2.3, and **D.2.5** shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

...

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

Part 70 Quarterly Report

Source Name: AK Industries, Inc.
Source Address: 2055 Pidco Drive, Plymouth, Indiana 46563
Mailing Address: 2055 Pidco Drive, Plymouth, Indiana 46563
Part 70 Permit No.: T099-21583-00043
Facility: Paint booth, identified as PB1
Parameter: Coatings applied to miscellaneous metal parts or products
Limit: Less than 946 liters (250 gallons) of coatings that contain hazardous air pollutants (HAP) per twelve (12) consecutive month period with compliance determined at the end of each month.

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: _____

Attach a signed certification to complete this report.

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:	AK Industries, Inc.
Source Location:	2055 Pidco Drive, Plymouth, Indiana 46563
County:	Marshall
SIC Code:	3999
Operation Permit No.:	T099-7547-00043
Operation Permit Issuance Date:	April 20, 2001
Permit Renewal No.:	T099-21583-00043
Permit Reviewer:	ERG/BL

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit Renewal application from AK Industries, Inc. relating to the operation of a fiberglass parts fabrication facility.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) hand layup area, identified as HL1, and three (3) resin flowcoat booths, identified as CP1, CP2, and CP3, respectively. Each flow coat booth has a maximum design rate of one (1) tank/hr, with emissions exhausted to stacks F1, F3, and F4, respectively. Under 40 CFR 63, Subpart WWWW, the one (1) hand layup area and the three (3) resin flowcoat booths are considered an existing open molding reinforced plastic composites production operation. These facilities were constructed in 1999.
- (b) One (1) gelcoat booth, identified as G - 1, with a maximum design rate of 5.71 tanks/hr, with emissions controlled by a dry filter system, which exhausts to stack F5. Under 40 CFR 63, Subpart WWWW, the one (1) gelcoat booth is considered an existing open molding reinforced plastic composites production operation. This facility was constructed in 1990.
- (c) One (1) filament winding machine, identified as FW4, with a maximum design rate of 4 basins/hr. This facility was constructed in 1999.
- (d) Six (6) filament winding mandrels, identified as FWSH1 through FWSH6, each with a maximum design rate of 1 basin/hr, with emissions controlled by dry filters, which exhaust to stacks F6 through F11, respectively. These facilities were constructed in 1999.
- (e) One (1) portable resin spray applicator, identified as CPC4, with emissions exhausted to stacks F6, F7, F8, F9, F10, or F11. Under 40 CFR 63, Subpart WWWW, the one (1) portable resin spray applicator is considered an existing open molding reinforced plastic composites production operation. This facility was constructed in 1999.
- (f) One (1) tooling repair booth, identified as FCG1, with emissions controlled by a dry filter system, with no external exhaust, and constructed in 1999.
- (g) One (1) resin flowcoat booth, identified as FCR1, with a maximum design rate of 0.125 parts/hr, with emissions exhausted to stack F13. Under 40 CFR 63, Subpart WWWW, the one (1) resin flowcoat booth is considered an existing open molding reinforced plastic composites production operation. This facility was constructed in 1999.

- (h) One (1) pulverizer, identified as RP 3, constructed in 2000, with maximum rate of production of 949 lbs/hour of Polyethylene pieces, using a cyclone as control, which exhausts to stack RP 3. This facility was constructed in 1999.
- (i) Two (2) fiberglass resin storage tanks, identified as T1 and T2, with capacities of 5,000 gallons each. Under 40 CFR 63, Subpart WWWW, the two (2) resin storage tanks are considered existing HAP-containing materials storage units. These storage tanks were constructed in 1999.
- (j) One (1) paint booth, identified as PB1, with a maximum design rate of 6 metal lids/hr, emissions controlled by a dry filter system, which exhausts to stack F2. This facility was constructed in 1999.
- (k) One (1) hand grinding booth, identified as CB1, with a maximum design capacity of 2.08 tons of fiberglass/hr, with emissions controlled by a dry filter, which exhausts inside the building. This facility was constructed in 1999.
- (l) One (1) sand blasting booth, identified as CB2, with a maximum design capacity of 0.5 tons of blasting material/hr, with emissions controlled by a cartridge filter, which exhausts inside the building. This facility was constructed in 1999.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

Insignificant Activities

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

- (a) The following activities with emissions equal to or less than the insignificant thresholds in 326 IAC 2-7-1(21)(A), (B), and (C) [326 IAC 6-3-2]:
 - (1) One (1) hand tooling and finishing area (HT1),
 - (2) Two (2) pulverizer units (PR1 and PR2),
 - (3) One (1) regrind unit (RP2),
 - (4) Two (2) metal inert gas welding units (W1 and W2),
 - (5) Two (2) plasma cutting units (PC-1 and PC-2),
 - (6) One (1) metal cutting unit (MC-1),
 - (7) One (1) metal sanding unit (MS-1),
 - (8) One (1) metal drilling unit (D-1),
 - (9) One (1) fiberglass tube cutter (TC-1), and
 - (10) One (1) fitting area (F-1).
- (b) Degreasing operations that do exceed 145 gallons per 12 months and not subject to 40 CFR 63 Subpart T [326 IAC 8-3-2] [326 IAC 8-3-5]. The degreasing unit is used only for maintenance activities.
- (c) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

- (d) Two (2) natural gas-fired air make-up units, identified as AW1 and AW2, with heat capacities of 2.0 and 3.0 MMBtu/hr, respectively. AW1 and AW2 were constructed in 2005 and 1985, respectively.
- (e) Four (4) natural gas-fired office furnaces, identified as H1, H2, RH1, and RH2, with heat capacities of 0.15, 0.15, 0.15, and 0.25 MMBtu/hr, respectively.
- (f) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (g) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (h) On-site fire and emergency response training approved by the department.

Existing Approvals

The source has been operating under Part 70 operating permit No. T099-7547-00043, issued on April 20, 2001, and the following approvals:

- (a) Minor Permit Modification No. 099-20413-00043, issued May 12, 2005;
- (b) Minor Source Modification No. 099-12422-00043, issued September 5, 2000;
- (c) AA No. 099-12133-00043, issued May 24, 2000; and
- (d) AA No. 099-11553-00043, issued March 20, 2000.

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 permits are superseded by this permit.

The following terms and conditions from previous approvals have been determined no longer applicable; therefore, were not incorporated into this Part 70 permit:

- (a) All construction conditions from all previously issued permits.

Reason not incorporated: All facilities previously permitted have already been constructed; therefore, the construction conditions are no longer necessary as part of the operating permit. Any facilities that were previously permitted but have not yet been constructed would need new pre-construction approval before beginning construction.

- (b) The descriptive language covering booth FCG1 has been modified.

Reason for modification: The gelcoat booth, identified as FCG1, has been converted to a tooling repair booth. The repaired parts, the metal tooling (mandrels and molds) are manufactured offsite. Pursuant to 40 CFR 63.5790(c), the repair of parts that the source did not manufacture are not subject to 40 CFR 63 Subpart WWWW. The new tooling gelcoat and tooling repair booth use small amounts of resin on the radius and seams, and to repair cracks in the tooling. Approximately two repairs are made each week and annual gelcoat usage is less than 50 gallons. This revision to the emission unit descriptive language did not trigger any new applicable requirements, violate a permit term, or increase the potential to emit of the unit.

- (c) Condition D.1.3 from CP 099-10311-00043, issued on April 15, 1999, has been removed from this permit and replaced it with a condition limiting particulate emissions from FWSH1 through FWSH6, gelcoat booth (G1), and portable resin spray unit (CPC4) pursuant to 326 IAC 6-3-2(d).

Reason not incorporated: The emission units FWSH1 through FWSH6, gelcoat booth (G1), and portable resin spray unit (CPC4) are fiberglass parts manufacturing operations or surface coating operations. These emission units are subject to the requirements of 326 IAC 6-3-2(d) and not 326 IAC 6-3-2(c) or (e). See the State Rule Applicability – Fiberglass Part Manufacturing Operation section of this TSD for the revised particulate limitation requirements for emission units FWSH1 through 6, gelcoat booth (G1), portable resin spray unit (CPC4), and gelcoat booth (FCG1).

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 permit 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 administratively complete Part 70 permit renewal application for the purposes of this review was received on July 22, 2005.

There was no notice of completeness letter mailed to the Permittee.

Emission Calculations

See Appendix A of this document for detailed emission calculations, pages 1 through 7.

Unrestricted Potential to Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	987
PM-10	987
SO ₂	-
VOC	494
CO	-
NO _x	-

HAPs	Potential to Emit (tons/yr)
Styrene	479
Total	482

“-“ negligible.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM10, and VOC are greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is greater than ten (10) tons per year and the potential to emit of a combination of HAPs is greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Potential to Emit of the Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

The source was issued a Part 70 Operating Permit on April 20, 2001. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the original Part 70 operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Potential to Emit (tons per year)							
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Hand Layup Area (CP1, CP2, CP3/HL1)	0 ⁽¹⁾	0 ⁽¹⁾	-	<247 ⁽²⁾	-	-	<247 ⁽²⁾
Filament Winding Machine (FW4)	0 ⁽¹⁾	0 ⁽¹⁾	-		-	-	
Filament Winding Mandrels (FWSH1-3)	36.4	36.4	-		-	-	
Filament Winding Mandrels (FWSH4-6)	36.4	36.4	-		-	-	
Tooling Repair Booth (FCG1)	0	0	-		-	-	
Resin Flowcoat Booth (FCR1)	0 ⁽¹⁾	0 ⁽¹⁾	-		-	-	
Paint Booth (PB1)	0.67	0.67	-		-	-	
Gelcoat Booth (G1)	3.49	3.49	-		-	-	
Portable Resin Spray Applicator (CPC4)	121	121	-		-	-	
Pulverizer (RP 3)	10.9 ⁽³⁾	10.9 ⁽³⁾	-		-	-	
Hand Grinding Booth (CB1)	29.3 ⁽³⁾	29.3 ⁽³⁾	-	-	-	-	
Blasting Booth (CB2)	3.65 ⁽⁴⁾	3.65 ⁽⁴⁾	-	-	-	-	
Insignificant Activities	<1.00	<1.00	-	<1.00	-	-	-
Total Emissions	<243	<243	-	<250 ⁽⁵⁾	-	-	<250 ⁽⁵⁾

- = negligible

(1) Flowcoating operations have 100% transfer efficiency and are not subject to the requirements of 326 IAC 6-3-2(d).

(2) Pursuant to 326 IAC 2-2 and CP099-10311-00043, issued April 14, 1999, usage of resins, gelcoats, catalysts and solvents at the fiberglass parts manufacturing operation in conjunction with the paint booth, PB1, shall be limited to a combined total of less than 247 tons of volatile organic HAP per year.

(3) Subject to 326 IAC 6-3-2.

(4) Subject to 326 IAC 2-2 minor limits.

(5) Pursuant to 326 IAC 2-2, the VOC emissions from the source are limited to less than 250 tons per year.

This existing source is not a major PSD source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2003 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	0.00
PM10	0.00
SO ₂	not reported

VOC	19.0
CO	not reported
NO _x	not reported
HAP	not reported

County Attainment Status

The source is located in Marshall County.

Pollutant	Status
PM10	Attainment
PM 2.5	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Marshall County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions. See the State Rule Applicability – Entire Source section.
- (b) Volatile organic compounds (VOC) emissions 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. Marshall 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. See the State Rule Applicability – Entire Source section.
- (c) Marshall County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these 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.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet 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 assure that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

- (a) This source is subject to the provisions of 40 CFR Part 64, Compliance Assurance Monitoring (CAM). In order for this rule to apply, a pollutant-specific-emissions-unit at a

source that requires a Part 70 or Part 71 permit must meet three criteria for a given pollutant: 1) the unit is subject to an applicable emission limitation or standard for the applicable regulated air pollutant, 2) the unit uses a control device to achieve compliance with any such emission limitation or standard, and 3) the unit has the potential to emit, of the applicable regulated air pollutant, equal or greater than 100 percent of the amount required for a source to be classified as a major source. The following facilities have the potential to emit PM10 greater than 100 tons, and use a control device to comply with an emission limitation for that specific pollutant: the six filament winding mandrels, identified as FWSH1 through FWSH6.

The CAM requirements for these units include daily inspections to verify the placement, integrity, and particle loading of the filters, monthly inspections of the particulate emissions from the stack and the presence of overspray on the roof tops and the nearby ground, and visible emission notations.

- (b) Although constructed after July 23, 1984, the requirements of the New Source Performance Standard 40 CFR Part 60, Subpart Kb (New Source Performance Standards (NSPS) for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984)) (326 IAC 12) are not included in this Permit for the fiberglass resin storage tanks T1 and T2, because the tanks each have a capacity less than 75 m³ (19,813 gallons).
- (c) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit.
- (d) This source is subject to the National Emissions Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, 40 CFR 63.5780, Subpart WWWW. The source performs reinforced plastic composites production and was a major source of Hazardous Air Pollutants (HAPs) on and after the compliance date of this NESHAP (April 21, 2006). Amendments to this subpart were final on August 25, 2005, and effective on October 24, 2005. However, 326 IAC 20-56 still references the previous version of the rule, from 68 FR 19402, April 21, 2003. Therefore, pursuant to 326 IAC 20-56, the Permittee must comply with the previous version of the rule, and pursuant to 40 CFR 63, Subpart WWWW, the Permittee must comply with the current version of the rule. The specific requirements of the previous version of the rule which were changed in these amendments are specified under "326 IAC 20-56" in the "State Rule Applicability" section of this document. All other requirements of 326 IAC 20-56 are the same as those still specified in the federal rule. When the revised rule is incorporated into the SIP, the Permittee may apply for a revision to the permit to remove any requirements from the previous version of the rule that are not present in the updated version of the rule.

Pursuant to 40 CFR 63.5785 and 40 CFR 63.5790, the affected source that is subject to the requirements of 40 CFR 63, Subpart WWWW consists of all facilities located at the source engaged in the following operations: open molding operations in which reinforced and/or nonreinforced plastic composites or plastic molding compounds are manufactured using thermoset resins and/or gel coats that contain styrene to produce plastic composites (hand layup area (HL1), gelcoat booth (G-1), portable resin spray applicator (CPC4), resin flowcoat booth (FCR1)), mixing, cleaning of equipment used in reinforced plastic composites manufacture, HAP-containing materials storage (fiberglass resin storage tanks (T1 and T2)), and repair operations associated with the production of plastic composites.

Pursuant to 40 CFR 63.5795(b), the fiberglass parts manufacturing operations and all activities associated with the production of plastic composites are an existing affected source because a reinforced plastic composites production affected source existed at this site prior to August 2, 2001.

Pursuant to 40 CFR 63.5800, the Permittee shall comply with the requirements of 40 CFR 63, Subpart WWWW on and after April 21, 2006.

Pursuant to 40 CFR 63.5810, the Permittee has chosen to comply with the requirements of 40 CFR 63, Subpart WWWW by:

- (a) Meeting the individual organic HAP emission limits for each operation; or
- (b) Using the HAP Emission Factor; or
- (c) Using the Compliant Materials Averaging Option; or
- (d) Using any combination of the above.

The source will not install an add-on control device. The source wants the flexibility to use all of the averaging and compliant materials options within the MACT. The MACT allows the source to switch between compliance options.

The existing affected source associated with the production of plastic composites is subject to the following sections of 40 CFR 63, Subpart WWWW. The requirements of the 40 CFR 63, Subpart WWWW are included in the permit for the hand layup area (HL1), gelcoat booth (G-1), portable resin spray applicator (CPC4), resin flowcoat booth (FCR1), and fiberglass resin storage tanks (T1 and T2). Non-applicable sections of the NESHAP will not be included in the permit.

- (1) 40 CFR 63.5785(a)
- (2) 40 CFR 63.5790(a)-(c)
- (3) 40 CFR 63.5795(b)
- (4) 40 CFR 63.5796
- (5) 40 CFR 63.5797
- (6) 40 CFR 63.5800
- (7) 40 CFR 63.5805(b)
- (8) 40 CFR 63.5810(a)-(d)
- (9) 40 CFR 63.5835(a)
- (10) 40 CFR 63.5835(c)
- (11) 40 CFR 63.5840
- (12) 40 CFR 63.5860(a)
- (13) 40 CFR 63.5895(c) and (d)
- (14) 40 CFR 63.5900(a)(2) – (4)
- (15) 40 CFR 63.5900(b)
- (16) 40 CFR 63.5900(c)
- (17) 40 CFR 63.5905
- (18) 40 CFR 63.5910(a)
- (19) 40 CFR 63.5910(b)
- (20) 40 CFR 63.5910(c)(1) – (3), (5)
- (21) 40 CFR 63.5910(d)
- (22) 40 CFR 63.5910(g)
- (23) 40 CFR 63.5910(h)
- (24) 40 CFR 63.5910(i)
- (25) 40 CFR 63.5915(a)(1)
- (26) 40 CFR 63.5915(c)
- (27) 40 CFR 63.5915(d)
- (28) 40 CFR 63.5920
- (29) 40 CFR 63.5930
- (30) 40 CFR 63.5935
- (31) Table 1 to 40 CFR 63 Subpart WWWW (the applicable portions)
- (32) Table 3 to 40 CFR 63 Subpart WWWW (the applicable portions)
- (33) Table 4 to 40 CFR 63 Subpart WWWW (the applicable portions)
- (34) Table 7 to 40 CFR 63 Subpart WWWW (the applicable portions)
- (35) Table 8 to 40 CFR 63 Subpart WWWW (the applicable portions)
- (36) Table 9 to 40 CFR 63 Subpart WWWW (the applicable portions)

- (37) Table 13 to 40 CFR 63 Subpart WWWW (the applicable portions)
- (38) Table 14 to 40 CFR 63 Subpart WWWW (the applicable portions)

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facilities described in this section, except when otherwise specified in 40 CFR 63, Subpart WWWW.

- (e) The requirements of 40 CFR 63, Subpart PPPP - National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Surface Coating of Plastic Parts and Products are not included in this permit. The paint booth (PB1) is not used to paint plastic parts. According to 40 CFR 63.4481(c)(6), Subpart PPPP does not apply to gel coating operations used in the manufacture of reinforced plastic composites parts that meet the applicability criteria for reinforced plastic composites production (Subpart WWWW). The gel coating operations at this source meet the applicability requirements in 40 CFR 63, Subpart WWWW.
- (f) The requirements of 40 CFR 63, Subpart VVVV - National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Boat Manufacturing are not included in this permit for this source because this source does not manufacture fiberglass boats or aluminum recreational boats.
- (g) The degreasing operations are not subject to the requirements of 326 IAC 20-6 and 40 CFR Part 63, Subpart T (National Emission Standards for Halogenated Solvent Cleaning) because the degreasing operations do not use halogenated solvents.
- (h) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, and 326 IAC 20), (40 CFR Part 61 and 40 CFR Part 63) included in this permit.
- (i) The requirements of 40 CFR 63, Subpart MMMM-National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products are not included in this permit for the surface coating booth (PB1) applying organic coatings containing HAPs. Section 63.3881(c)(5) indicates that this subpart does not apply to coatings used in volumes less than 189 liters (50 gallons) per year, provided that the total volume of coatings exempt under 63.3881(c)(5) does not exceed 946 liters (250 gallons) per year at the facility. Based on information supplied by this source, IDEM, OAQ has determined that the metal coating operation (PB1) does not belong to the affected source category because the volume of coatings containing greater than 1% HAP is less than 50 gallons per year.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

The source has the unrestricted potential to emit PM/PM10 and VOC emissions greater than 250 tons per year but has accepted the following limitations on to ensure PM/PM10 and VOC emissions are less than 250 tons per year:

- (a) Pursuant to CP-099-10311-00043, issued on April 15, 1999, the usage of resins, gelcoats, catalysts and solvents at the fiberglass parts manufacturing operation, including units HL1, CP1, CP2, CP3, G1, FW4, FWSH1 through FWSH6, CPC4, CB1, CB2, FCG1, and FCR1, in conjunction with the paint booth, PB1, shall be limited to a combined total of less than two hundred forty-seven (247) tons of VOC per twelve (12) consecutive month period with compliance determined at the end of each month. Source-wide combined emissions, including insignificant natural gas combustion and degreasing shall therefore be less than two hundred fifty (250) tons of VOC per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this condition renders the requirements of 326 IAC 2-2 not applicable.

The Permittee shall prepare or obtain from the manufacturer the copies of the "as supplied" and "as applied" VOC data sheets or Material Safety Data Sheets (MSDS) for each resin, gelcoat, catalyst, solvent and mold release agent used in the reinforced plastics composites manufacturing operations.

The VOC emissions for gel coats, resins and catalysts shall be calculated by multiplying the usage of each gel coat, resin and catalyst by the emission factor that is appropriate for the monomer content, method of application, and other emission reduction techniques for each gel coat, resin, and catalyst, using the emission factors approved by IDEM, OAQ in "Unified Emission Factors for Open Molding of Composites", July 23, 2001, or its updates, as follows:

- (1) Styrene/VOC emissions from resins and gelcoats:
ES = (F1 * R * 1 ton/2,000 lbs), where:
ES = Styrene/VOC emissions (tons)
F1 = Emission factor (lbs emitted per ton of resin used)
R = Total amount of resin used (tons) **

- (2) Methyl Methacrylate (MMA)/catalyst emissions from resins and gelcoats:
EM = (F2 * R * 1 ton/2,000 lbs), where:
EM = Methyl Methacrylate (MMA)/catalyst emissions (tons)
F2 = Emission factor (lbs emitted per ton resin/gelcoat processed) **
R = Total amount of resin/gelcoat used (tons)

** Emission factor shall be specific to material, application method and % styrene content.

- (3) VOC from solvents, mold release agents and other VOC:
EV = (F3 * V * K * 1 ton/2,000 lbs), where:
EV = VOC emissions (tons)
F3 = Emission factor of 1.0
V = Percent of VOC content (from applicable MSDS sheet)
K = Total amount of solvents, mold release agents and other VOC (lbs)

- (4) Total VOC emissions in tons = ES + EM + EV

Compliance with the paint booth VOC usage limitations 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 and HAP 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.

- (b) The source has an unrestricted potential to emit greater than 250 tons per year of PM and PM10 but has accepted the following limitation on PM/PM10 to ensure PM/PM10 emissions are less than 250 tons per year:
 - (1) PM and PM10 emission rate from the blasting booth (CB2) shall be limited to 0.83 lbs/hr.

The allowable emission rate for this unit was calculated using uncontrolled emission factors, from STAPPA/ALAPCO Vol. I, Section 3 "Abrasive Blasting" (1991 edition), and a 90% dry filter control efficiency.

 - (2) On September 5, 2000, MSM 099-12422-00043 was issued to permit the installation of a new pulverizer. The potential to emit of this modification was less than the 250 ton per year PSD threshold. Therefore, the requirements 326 IAC 2-2 did not apply to this modification.

- (3) On May 12, 2005, Minor Permit Modification 099-20413-00043 was issued to combine emission units CP1, CP2, CP3, and HL1 into one lamination area, eliminate the blasting operation from booth CB1, change the blasting media from shot to sand used in blasting unit CB2, and to install a new high efficiency filter media replacing the old baghouse P1. The potential to emit of this modification was less than the 250 ton per year PSD threshold. Therefore, the requirements of 326 IAC 2-2 did not apply to this modification.

This source remains a minor source under 326 IAC 2-2.

326 IAC 2-6 (Emission Reporting)

Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). The source also has potential to emit greater than or equal to 250 tons per year of VOC; therefore, an emission statement covering the previous calendar year must be submitted by July 1 annually. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

Pursuant to 326 IAC 2-4.1(b), this source is subject to the requirements of 40 CFR 63, Subpart WWWW - National Emission Standards for Hazardous Air Pollutants for Reinforced Plastics Composites Production.

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 6-4 (Fugitive Dust Emissions Limitations)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

The source is not subject to the requirements of 326 IAC 6-5 because it does not contain any facilities with the potential to emit fugitive PM.

326 IAC 20-25 (Emission Standards for Reinforced Plastics Composites Fabricating)

After April 21, 2006, the fiberglass open molding operation (hand layup area (HL1), gelcoat booth (G-1), portable resin spray applicator (CPC4), resin flowcoat booth (FCR1), fiberglass resin storage tanks (T1 and T2)) is no longer subject to 326 IAC 20-25 because it is subject to 326 IAC 20-56 and 40 CFR 63, Subpart WWWW.

326 IAC 20-56 (Reinforced Plastics Composites Production)

The source is subject to 326 IAC 20-56 because it is subject to 40 CFR 63, Subpart WWWW, National Emission Standards for Hazardous Air Pollutants for Reinforced Plastic Composites Production. The source must comply with 326 IAC 20-56 by April 21, 2006, the compliance date for NESHAP WWWW.

Pursuant to 326 IAC 20-56-2 (Operator training), the Permittee shall comply with the following requirements on and after April 21, 2006:

- (a) The Permittee shall 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:
 - (1) All personnel hired shall be trained within thirty (30) days of hiring.
 - (2) To ensure training goals listed in paragraph (b) are maintained, all personnel shall be given refresher training annually.
 - (3) Personnel who have been trained by another owner or operator subject to this rule are exempt from paragraph (a)(1) if written documentation that the employee's training is current is provided to the new employer.
- (b) The lesson plans shall cover, for the initial and refresher training, at a minimum, all of the following topics:
 - (1) Appropriate application techniques.
 - (2) Appropriate equipment cleaning procedures.
 - (3) Appropriate equipment setup and adjustment to minimize material usage and overspray.
- (c) The Permittee shall maintain the following training records on site and make them available for inspection and review:
 - (1) A copy of the current training program.
 - (2) A list of the following:
 - (A) All current personnel, by name, that are required to be trained.
 - (B) The date the person was trained or date of most recent refresher training, whichever is later.

326 IAC 20-56 (State-Only Reinforced Plastic Composites Production)

The source is subject to 326 IAC 20-56 because it is subject to 40 CFR 63, Subpart WWWW, National Emission Standards for Hazardous Pollutants for Reinforced Plastic Composites Production. This rule incorporates by reference the previous version of 40 CFR 63, Subpart WWWW, from 68 FR 19402, April 21, 2003. The requirements of this rule are the same for this source as the requirements of the current version of the rule, applicable pursuant to 40 CFR 63.5780, except for the following:

- (a) 40 CFR 63.5810;
- (b) 40 CFR 63.5895(c)(d) and;
- (c) Tables 1, 3, and 7.

See the Federal Rule Applicability section of this document for information regarding 40 CFR Part 63, Subpart WWWW.

State Rule Applicability – Fiberglass Parts Manufacturing Operation

326 IAC 6-3-2 (Particulate)

- (a) Pursuant to 326 IAC 6-3-2, particulate emissions from the pulverizer (RP3) shall not exceed 2.49 pounds per hour when operating at a process weight rate of 0.475 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour is calculated using the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The cyclone shall be in operation at all times during the operation of the pulverizer (RP3) in order to comply with this 326 IAC 6-3-2 limit.

- (b) Pursuant to 326 IAC 6-3-2(d) dry filters shall be in operation at all times during the operation of the gelcoat booth (G-1), the tooling repair booth (FCG1) and six filament winding mandrels (FWSH1 through FWSH6). Pursuant to 326 IAC 6-3-2(d)(1), the source shall operate the dry filters in accordance with manufacturer's specifications.
- (c) The one (1) hand layup area, identified as HL1, the three (3) resin flowcoat booths (CP1, CP2, CP3), the one (1) filament winding machine (FW4), the one (1) resin flowcoat booth, (FCR1), and the portable resin spray applicator (CPC4), are not sources of particulate emissions and therefore are exempt from the requirements of 326 IAC 6-3-2. Hand layup (HL1) is the manual application of resin saturated fiberglass fabric to open molds. A resin-coated sheet is manually applied to the open mold and smoothed out by hand. No particulate matter is generated in this process. There is also no overspray from the filament winder (FW4) because the fiberglass strands are dipped in resin bath and mold release is hand brushed onto the surface. Any particulate emissions generated from the portable applicator (CPC4) will not be aerodynamic and will settle out of the air rapidly.

326 IAC 8-1-6 (Volatile Organic Compounds)

The following emission units are subject to 326 IAC 8-1-6 because they were constructed after January 1, 1980 and have potential VOC emissions greater than 25 tons per year: HL1, CP1, CP2, CP3, G1, FW4, FWSH1 through FWSH6, CPC4, CB1, CB2, FCG1, and FCR1.

Pursuant to CP 099-7547-00043, issued April 20, 2001, and 326 IAC 8-1-6, compliance with the requirements of 326 IAC 2-4.1 has been determined to satisfy the requirements of BACT for the fiberglass parts manufacturing operation. Therefore, the Permittee will continue to comply with the following conditions to satisfy 326 IAC 8-1-6 after the transition from 326 IAC 2-4.1 to 40 CFR 63, Subpart WWWW on April 21, 2006.

- (a) Use of resins and gel coats shall be limited such that the potential to emit (PTE) volatile organic HAP from resins and gel coats only shall be less than 100 tons per twelve (12) consecutive months. Compliance with this limit shall be determined based upon the following criteria:
 - (1) Monthly usage by weight, monomer content, method of application, and other emission reduction techniques for each gel coat and resin shall be recorded. Volatile organic HAP emissions shall be calculated by multiplying the usage of each gel coat and resin by the emission factor that is appropriate for the 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 shall be taken from the following reference approved by IDEM, OAQ: "Unified Emission Factors for Open Molding of Composites Fabricators Association, July 23, 2001", and shall not exceed 32.3% styrene emitted per weight of gel coat applied and 17.7% styrene emitted per weight of resin applied. 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. October 1, 2003 the

Composites Fabricators Association officially became American Composites
Manufactures Association.

- (b) Resins and gel coats used, including filled resins and tooling resins and gel coats, shall be limited to maximum monomer contents of 35 percent (35%) by weight for resins, 37 percent (37%) by weight for gel coats or their equivalent on an emissions mass basis. Monomer contents shall be calculated on a neat basis, i.e., excluding any filler. Compliance with these monomer content limits shall be demonstrated on a monthly basis.

The use of resins with monomer contents lower than 35%, gel coats with monomer contents lower than 37%, and/or additional emission reduction techniques approved by IDEM, OAQ, may be used to offset the use of resins with monomer contents higher than 35%, and/or gel coats with monomer contents higher than 37%. Examples of other techniques include, but are not limited to, lower monomer content resins and gel coats, closed molding, vapor suppression, vacuum bagging, controlled spraying, or installing a control device with an overall reduction efficiency of 95%. This is allowed to meet the monomer content limits for resins and gel coats, and shall be calculated on an equivalent emissions mass basis as shown below:

$$\frac{(\text{Emissions from } >35\% \text{ resin and } >37\% \text{ gel coat}) - (\text{Emissions from } 35\% \text{ resin and } 37\% \text{ gel coat})}{\text{Emissions from } <35\% \text{ resin, } <37\% \text{ gel coat, and/or other emission reduction techniques}}$$

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

EF, Monomer emission factor = emission factor, expressed as % styrene emitted per weight of resin applied, which is indicated by the monomer content, method of application, and other emission reduction techniques for each gel coat and resin used.

- (c) Flow coaters, a type of non-spray application technology of a design and specifications to be approved by IDEM, OAQ, shall be used in the following manner:

(1) To apply 100% of all neat resins used.

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

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

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

- (1) To the extent possible, a non-VOC, non-HAP solvent shall be used for cleanup.
- (2) Cleanup solvent containers used to transport solvent from drums to work stations shall be closed containers having soft gasketed spring-loaded closures.
- (3) Cleanup rags saturated with solvent shall be stored, transported, and disposed of in containers that are closed tightly.

- (4) The spray guns used shall be the type that can be cleaned without the need for spraying the solvent into the air.
- (5) All solvent sprayed during cleanup or resin changes shall be directed into containers. Such containers shall be closed as soon as solvent spraying is complete. The waste solvent shall be handled in such a manner that evaporation is minimized, and managed in accordance with applicable solid or hazardous waste requirements.
- (6) Storage containers used to store VOC- and/or HAP- containing materials shall be kept covered when not in use.

State Rule Applicability – Paint Booth (PB1)

326 IAC 6-3-2 (Particulate)

Pursuant to 326 IAC 6-3-2(d), the dry filters shall be in operation at all times paint booth PB1 is in operation. The Permittee shall operate the control device in accordance with the manufacturer's specifications.

326 IAC 8-1-6 (Volatile Organic Compound)

The paint booth PB1 is not subject to 326 IAC 8-1-6, because it is subject to 326 IAC 8-2-9.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of the coating delivered to the applicator at the paint booth PB1 shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the paint booth is in compliance with this requirement.

State Rule Applicability – Hand Grinding and Sand Shot Blasting

326 IAC 6-3-2 (Particulate)

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the hand grinding (CB1) shall not exceed 6.70 pounds per hour each when operating at a process weight rate of 4,160 pounds per hour. Sand blasting (CB2) facilities shall not exceed 2.58 pounds per hour each when operating at a process weight rate of 1,000 pounds per hour.

The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate up to 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

The dry filters shall be in operation at all times the grinding and the sand blasting is in operation, in order to comply with this limit.

State Rule Applicability – Insignificant Degreasing Operations

326 IAC 8-3-2 (Cold Cleaner Operation)

Pursuant to 326 IAC 8-3-1(a)(2), the insignificant degreasing operations are subject to the requirements of 326 IAC 8-3-2 because they were constructed after January 1, 1980 and perform cold cleaning degreasing with organic solvents.

Pursuant to 326 IAC 8-3-2, the Permittee shall do the following with respect to the degreasing operations:

- (a) equip the cleaner with a cover;
- (b) equip the cleaner with a facility for draining cleaned parts;
- (c) close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) provide a permanent, conspicuous label summarizing the operating requirements;
- (f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate to the atmosphere.

326 IAC 8-3-5 (Cold Cleaner (Degreaser) Operations)

The insignificant degreasing operations are subject to the requirements of 326 IAC 8-3-5 because they were constructed after January 1, 1980, and perform Cold Cleaner (Degreaser) Operations, and do not have a remote reservoir.

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for the degreasing operations, the Permittee shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) the solvent is agitated; or
 - (C) the solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
- (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

State Rule Applicability – Miscellaneous Insignificant Activities

326 IAC 6-3-2 (Particulate)

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emissions from the hand tooling and finishing area (HT1), two pulverizer units (PR1 and PR2), regrind unit (RP2), metal inert gas welding units (W1 and W2), plasma cutting units (PC-1 and PC-2), metal cutting unit (MC-1), metal sanding unit (MS-1), metal drilling unit (D-1), fitting area (F-1), and fiberglass tube cutter (TC-1) shall not exceed the particulate emission rate based on the following equation.

Interpolation of the data for the process weight rate up to 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

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

The natural gas-fired air make-up units and the natural gas-fired office furnaces do not produce usable heat that is transferred through a heat conducting materials barrier or by a heat storage medium to a material to be heated. As a result, these units are not indirect heating units. Therefore, 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating) does not apply.

Testing Requirements

- (a) No stack test is required in this Part 70 Permit because compliance with the VOC and HAP limits shall be determined using Material Data Safety Sheets (MSDS) and records of the amount of material applied.

- (b) In order to demonstrate compliance with the 326 IAC 2-2 limits, within one hundred and eighty (180) days after the issuance of this permit, the Permittee shall perform PM and PM10 testing on the blasting booth (CB2) using methods approved by the Commissioner. Testing shall be conducted once every five (5) years from the date of this valid compliance demonstration.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less 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 requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions 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:

1. The hand layup area (HL1), gelcoat booth (G-1), filament winding mandrels (FWSH1 through FWSH6), portable resin spray applicator (CPC4), the tooling repair booth (FCG1), resin flowcoat booth (FCR1), and pulverizer (RP 3) have applicable compliance monitoring conditions as specified below:
 - (a) Pursuant to 40 CFR Part 64, Compliance Assurance Monitoring (CAM), daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the six filament winding mandrels (FWSH1 through FWSH6) while one or more of these equipment are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
 - (b) Pursuant to 40 CFR Part 64, Compliance Assurance Monitoring (CAM), 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 in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
 - (c) Visible emission notations of the stack exhausts F1, F3 through F11, F13, and RP3 shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
 - (d) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

- (e) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (f) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (g) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

These monitoring conditions are necessary because the dry filter system for the gelcoat booth (G-1), the dry filters for the filament winding mandrels (FWSH1 through FWSH6), the dry filter system for the tooling repair booth (FCG1), and the cyclone for the pulverizer (RP 3) must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate emission limitations), 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), and 40 CFR 64 (CAM).

2. The paint booth PB1 has applicable compliance monitoring conditions as specified below:

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the paint booth (PB1) 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 in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, 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 in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (c) Visible emission notations of the stack exhausts shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (d) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (e) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (f) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (g) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C -

Response to Excursions or Exceedances shall be considered a deviation from this permit.

These monitoring conditions are necessary because the dry filter system for the paint booth (PB1) must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate emission limitations) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).

3. These are not applicable compliance monitoring conditions for the hand grinding (CB1) and sand blasting (CB2) operations because these units vent inside the building.

Conclusion

The operation of this fiberglass parts manufacturing plant shall be subject to the conditions of this Part 70 permit renewal T099-21583-00043.

**Appendix A: Emissions Calculations
Styrene emission (VOC and HAP)
From Fiberglass Manufacturing Operations**

**Company Name: AK Industries, Inc.
Address City IN Zip: 2055 Pidco Drive, Plymouth, IN 46563
Part 70 permit Renewal No: 099-21583-00043
Reviewer: ERG/BL
Date: 01/08/07**

Uncontrolled Potential HAP (Styrene) Emissions

Unit(s) ID	Resin Use Rate (lb/hr)	%wt monomer (% Styrene)	Emission Factor *	Potential to Emit Styrene (lb/hr)	Potential to Emit Styrene (tons/yr)
Hand Layup Area (CP1 - CP3/HL1)**	720	35.0%	3.60%	25.9	114
Filament Winding Machine (FW4)	111	34.5%	6.60%	7.35	32.2
Filament Winding Mandrels (FWSH1-3) and Portable Resin Spray Applicator (CPC4)	213	35.0%	7.00%	14.9	65.2
Filament Winding Mandrels (FWSH4-6)	638	35.0%	6.60%	42.1	185
Gelcoat Booth (G1)	63.1	36.8%	18.8%	11.9	52.0
Tooling Repair Booth (FCG1)	43.1	32.7%	14.7%	6.34	27.8
Resin Flowcoat Booth (FCR1)	25.0	35.0%	3.60%	0.90	3.94
Total				109	479

* Emission factor taken from CFA Emission Model

*** HL1 is used with CP1, CP2, and CP3; 3 identical guns with individual resin use rates of 240 lb/hr

METHODOLOGY

Potential to Emit HAP (lbs/hr) = Resin use rate (lb/hr) * Emission factor (%)

Potential to Emit HAP (tons/yr) = Potential to Emit HAP (lbs/hr) * 8760 hr/yr * 1 ton / 2000 lbs

**Appendix A: Emissions Calculations
VOC (non HAP)
From Fiberglass Manufacturing operations**

Company Name: AK Industries, Inc.
Address City IN Zip: 2055 Pidco Drive, Plymouth, IN 46563
Part 70 permit Renewal No: 099-21583-00043
Reviewer: ERG/BL
Date: 01/08/07

Unit(s) ID	Agent Use Rate (lb/hr)	Cleaner Use Rate * (lb/hr)	Agent VOC Wt % (%)	Cleaner VOC Wt %* (%)	Potential to Emit VOC (lb/hr)	Potential to Emit VOC (tons/yr)
Hand Layup Area (CP1 - CP3/HL1)	0.36	0	99.0%	0.0%	0.36	1.56
Filament Winding Machine (FW4)	0.84	0	99.0%	0.0%	0.83	3.64
Tooling Repair Booth (FCG1)	0.03	0	99.0%	0.0%	0.03	0.14

* Acetone is used as the cleaner

METHODOLOGY

Potential to Emit VOC (tons/year) = Agent Use Rate (lb/hr) * Agent VOC % * 8760 operating hours/year * 2000 lb/ton

**Appendix A: Emissions Calculations
Particulate
From Fiberglass Manufacturing Operations**

Company Name: AK Industries, Inc.
Address City IN Zip: 2055 Pidco Drive, Plymouth, IN 46563
Part 70 permit Renewal No: 099-21583-00043
Reviewer: ERG/BL
Date: 01/08/07

Unit(s) ID	Resin Use Rate (lb/hr)	Solids (%)	Transfer Efficiency* (%)	Potential to Emit PM Before Controls (lb/hr)	Potential to Emit PM Before Controls (ton/yr)	Potential to Emit PM After Controls (ton/yr)
Hand Layup Area (CP1 - CP3/HL1)	720	65.0%	100%	0	0	0
Filament Winding Machine (FW4)	111	-	100%	0	0	0
Filament Winding Mandrels (FWSH1-3)	638	65.0%	80.0%	83.0	364	36.4
Filament Winding Mandrels (FWSH4-6)	638	65.0%	80.0%	83.0	364	36.4
Portable Resin Spray Applicator (CPC4)	213	65.0%	80.0%	27.7	121	121
Gelcoat Booth (G1)	63.1	63.2%	80.0%	7.98	34.9	3.49
Tooling Repair Booth (FCG1)	43.1	67.3%	100%	0	0	0
Resin Flowcoat Booth (FCR1)	25.0	65.0%	100%	0	0	0
Total					883	197

*The transfer efficiency was arrived at considering the type of coating used, gun type, spray direction, engineering judgment, and baseline transfer efficiency chart of spray coating methods. Eighty percent (80%) was selected for operations using Air-Assisted Airless guns, and one hundred percent (100%) for flowcoating operations. Repair booth gelcoat is manually and transfer efficiency is 100% percent.

These emission units are subject to the requirements of 326 IAC 6-3-2(d) and not 326 IAC 6-3-2(c) or (e). The source shall operate the control device in accordance with manufacturer's specifications. All equipment in the table above, except for the tooling repair booth FCG1 and the portable applicator (CPC4), are equipped with dry particulate filter. Dry particulate filter filter control efficiency is 90%.

METHODOLOGY

Potential to Emit PM (tons/yr)= Resin Use Rate (lb/hr) * Solids (%) * (1-Transfer Efficiency) (%) * 8760 hrs/yr * 1/2000 tons/lb

In the case of the hand grinding operations (CB1/CB2) where an emission factor was provided resulting from mass balance studies:

Potential to Emit PM (tons/yr)= Resin Use Rate (lb/hr) * Emission Factor (lb PM/lb) * 8760 hrs/yr * 1/2000 tons/lb

In the case of the pulverizer (RP3) where an emission factor was provided in AP-42:

Potential to Emit PM (tons/yr)= Material Processed (lb/hr) * 1/2000 tons/lb * Emission Factor (lb emissions/ton material processed) * 8760 hrs/year * 1/2000 tons/lb

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating and Other Solvent Operations**

Company Name: AK Industries, Inc.
Address City IN Zip: 2055 Pidco Drive, Plymouth, IN 46563
Part 70 permit Renewal No: 099-21583-00043
Reviewer: ERG/BL
Date: 01/08/07

Material	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Non-Volatiles (solids)	Material Usage (gal/unit)	Maximum Production (units/hr)	Pounds VOC per gallon of coating	Potential to Emit VOC (lbs/hr)	Potential to Emit VOC (tons/yr)	Transfer Efficiency (%)	Potential to Emit PM/PM10 Before Controls (tons/yr)	Potential to Emit PM/PM10 After Controls (tons/yr)
PB1 (paint booth)													
Black enamel	7.67	45.2%	0.0%	45.2%	50.5%	0.11	6.00	3.47	2.29	10.0	45%	6.68	0.67
FT1 (pipe fittings and touch up)													
Oatey Primer**	6.58	88.0%	0.0%	88.0%	0.0%	0.01	2.35	5.79	0.14	0.60	100%	0.00	0.00
Oatey Medium Cement**	7.83	85.0%	0.0%	85.0%	0.0%	0.02	2.35	6.66	0.31	1.37	100%	0.00	0.00
Oatey Heavy Duty Cement**	7.82	73.0%	0.0%	73.0%	0.0%	4.00E-03	2.35	5.71	0.05	0.24	100%	0.00	0.00
Total									2.29	12.2		6.68	0.67

* Black enamel use will account for green enamel use since the two types of paint are very similar and the black has a higher content of VOCs and HAPs

** Primer and Adhesive applications are conducted with a bucket and brush so PM emissions are zero.

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)

Potential to Emit VOC (tons/yr) = Pounds of VOC per Gallon coating (lbs/gal) * Material Usage (gals/unit) * Maximum Production (units/hr) * 8760 hr/yr * 1 ton/2000 lbs

Potential to Emit Particulate (tons/yr) = Maximum Production (units/hr) * Material Usage (gals/unit) * Density (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) * 8760 hr/yr * 1 ton/2000 lbs

Total Potential to Emit VOC (tons/yr) = Worst Coating PTE + Sum of all solvents used PTE

**Appendix A: Emissions Calculations
HAP Calculations
From Surface Coating Operations**

**Company Name: AK Industries, Inc.
Address City IN Zip: 2055 Pidco Drive, Plymouth, IN 46563
Part 70 permit Renewal No: 099-21583-00043
Reviewer: ERG/BL
Date: 01/08/07**

Material	Density (lbs/gal)	Gallons of Material (gal/unit)	Maximum (units/hr)	Weight % Xylene	Weight % Ethylbenzene	Potential to Emit Xylene (ton/yr)	Potential to Emit Ethylbenzene (ton/yr)
PB1 (paint booth)							
Black enamel	7.67	0.11	6.00	11.0%	2.00%	2.44	0.44
FT1 (pipe fit and touch up)							
Oatey Primer	6.58	0.01	2.35	0.00%	0.00%	0.00	0.00
Oatey Medium Cement	7.83	0.02	2.35	0.00%	0.00%	0.00	0.00
Oatey Heavy Duty Cement	7.82	4.00E-03	2.35	0.00%	0.00%	0.00	0.00
Total						2.44	0.44

METHODOLOGY

Potential to Emit HAP (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emission Calculations
Abrasive Blasting - Confined

Company Name: **AK Industries, Inc.**
 Address City IN Zip: **2055 Pidco Drive, Plymouth, IN 46563**
 Part 70 permit Renewal No: **099-21583-00043**
 Reviewer: **ERG/BL**
 Date: **01/08/07**

Unit CB2

Table 1 - Emission Factors for Abrasives *

Abrasive	Emission Factor	
	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Table 2 - Density of Abrasives (lb/ft3)

Abrasive	Density (lb/ft3)
Al oxides	160
Sand	99
Steel	487

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)

Flow rate of Sand Through a Blasting Nozzle as a Function of Nozzle pressure and Internal Diameter

Internal diameter, in	Nozzle Pressure (psig)							
	30	40	50	60	70	80	90	100
1/8	28	35	42	49	55	63	70	77
3/16	65	80	94	107	122	135	149	165
1/4	109	138	168	195	221	255	280	309
5/16	205	247	292	354	377	420	462	507
3/8	285	355	417	477	540	600	657	720
7/16	385	472	560	645	755	820	905	940
1/2	503	615	725	835	945	1050	1160	1265
5/8	820	990	1170	1336	1510	1680	1850	2030
3/4	1140	1420	1670	1915	2160	2400	2630	2880
1	2030	2460	2900	3340	3780	4200	4640	5060

Calculations

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)

FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =

D = Density of abrasive (lb/ft3) From Source =

D1 = Density of sand (lb/ft3) =

ID = Actual nozzle internal diameter (in) =

ID1 = Nozzle internal diameter (in) from Table 3 =

77
168
99
0.156
0.125

Flow Rate (FR) (lb/hr) = 204 per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =

FR = Flow Rate (lb/hr) =

w = fraction of time of wet blasting =

N = number of nozzles =

0.041
204
0 %
1

Before Controls Potential to Emit =	8.34 lb/hr
	36.5 ton/yr
After Controls Potential to Emit =	0.83 lb/hr
	3.65 ton/yr

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)

Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs

Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)² x (D/D1)

E = EF x FR x (1-w/200) x N

"w" should be entered in as a whole number (if w is 50%, enter 50)

**Appendix A: Emissions Calculations
Particulate
From Fiberglass Manufacturing Operations**

Company Name: AK Industries, Inc.
Address City IN Zip: 2055 Pidco Drive, Plymouth, IN 46563
Part 70 permit Renewal No: 099-21583-00043
Reviewer: ERG/BL
Date: 01/08/07

Unit(s) ID	Production Rate (lb/hr)	Emission Factor (lb PM/lb)	Control Device(s)	Potential to Emit PM Before Controls (lb/hr)	Potential to Emit PM Before Controls (ton/yr)	Potential to Emit PM After Controls (ton/yr)	326 IAC 6-3-2 Allowable PM Emissions (lbs/hr)	Limited Potential to Emit PM (ton/yr)
Hand Grinding Booth (CB1)	4,160	3.00E-03	cartridge filter	12.5	54.7	5.47	6.70	29.3
pulverizer (RP3)	950	3.00	cyclone	1.43	6.24	0.62	2.49	10.9
Total					60.9	0.62		10.9

The emission factor used for the hand grinding booth (CB1/CB2) was provided by the facility based on mass balances. The factors were originally included in permit 099-7547-00043 issued April 20, 2001. The emission factor used for the pulverizer (RP3) was taken from AP-42 Chapter 11.15 Glass Manufacturing, Table 11.13-2 (SCC 3-05-012-21) [10/1986]. Control efficiency for the cyclone and cartridge filter is 90%.

METHODOLOGY

Potential to Emit PM (tons/yr)= Resin Use Rate (lb/hr) * Solids (%) * (1-Transfer Efficiency) (%) * 8760 hrs/yr * 1/2000 tons/lb

In the case of the hand grinding operations (CB1/CB2) where an emission factor was provided resulting from mass balance studies:

Potential to Emit PM (tons/yr)= Resin Use Rate (lb/hr) * Emission Factor (lb PM/lb) * 8760 hrs/yr * 1/2000 tons/lb

In the case of the pulverizer (RP3) where an emission factor was provided in AP-42:

Potential to Emit PM (tons/yr)= Material Processed (lb/hr) * 1/2000 tons/lb * Emission Factor (lb emissions/ton material processed) * 8760 hrs/year * 1/2000 tons/lb