March 19, 2003

RE: ***HARRIS KAYOT 003-16250-00177***
TO: Interested Parties / Applicant
FROM: *Paul Dubenetzky*
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 according to IC 13-15-6-3, 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 and IC 13-15-6-1 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, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosure

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

(317) 232-8603
(800) 451-6027
www.state.in.us/idem

Mr. James Poiry, President
Harris Kayot, Inc.
2801 West State Street
Ft. Wayne, Indiana 46808

March 19, 2003

Re: 003-16250-00177
Significant Source Modification to:
Part 70 permit No.:T003-7743-00177

Dear Mr. Poiry:

Harris Kayot, Inc., was issued a Part 70 operating permit T003-7743-00177 on September 23, 1998, for a fiberglass boat manufacturing plant. An application to modify the source was received on October 21, 2002. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) Gelcoat and molding application facilities consisting of the following emission units:

(2) One (1) HVLP spray gun (identified as G17) used for gel coat application, installed in 2003, with particulate matter (PM) overspray controlled by dry filters, exhausting through stack E31. The maximum throughput capacity is 0.34 boats per hour.

(4) Three (3) mechanical, non-atomized chop guns (identified as G18, G19, and G20), used to apply resin, installed in 2003, with particulate matter (PM) overspray controlled by dry filters, exhausting to stacks E32, E33, and E34. The maximum throughput capacity is 0.17 boats per gun per hour.

The spray guns installed in 2003 may be used either on the existing gelcoat and molding line or to set up a separate parallel gelcoat and molding line.

(c) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million British thermal units per hour, including four (4) space heaters each with a maximum heat input capacity of 500,000 Btu per hour.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

6. Pursuant to 326 IAC 2-7-10.5(l) the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

This significant source modification authorizes construction of the new emission units. Operating conditions shall be incorporated into the Part 70 operating permit as a significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Amanda Baynham, ERG,1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7910 to speak directly to Ms. Baynham. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, press 0 and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

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

Attachments
- Technical Support Document, Permit

ERG/AAB

cc: File - Allen County
Allen County Health Department
Air Compliance Section Inspector - Jennifer Dorn
Compliance Data Section - Karen Nowak
Administrative and Development -Sara Cloe
Technical Support and Modeling - Michele Boner

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

(317) 232-8603
(800) 451-6027
www.state.in.us/idem

Frank O'Bannon
Governor

Lori F. Kaplan
Commissioner

SIGNIFICANT SOURCE MODIFICATION PERMIT
OFFICE OF AIR QUALITY

Harris Kayot, Inc.
2801 West State Boulevard
Fort Wayne, Indiana 46808

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 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.

First Significant Source Modification No.: 003-16250-00177	Pages Affected: 2, 4-11, 14
Issued by: **Original signed by** Paul Debenetzky, Branch Chief Office of Air Quality	Issuance Date: **March 19, 2003**

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAM). 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)]

The Permittee owns and operates a stationary fiberglass boat fabrication operation.

Responsible Official:	Mr. Baron Biedenweg
Source Address:	2801 West State Boulevard, Fort Wayne, Indiana 46808
Mailing Address:	2801 West State Boulevard, Fort Wayne, Indiana 46808
SIC Code:	3732
County Location:	Allen
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD Rules; Major Source, Section 112 of the Clean Air Act

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

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

(a) Gelcoat and molding application facilities consisting of the following emission units:

(1) One (1) gelcoat application booth consisting of one (1) HVLP gun G1, with particulate matter (PM) overspray controlled by dry filters, exhausting through Stack E14 (formerly E2), with a maximum throughput of 0.34 boats per hour.

(2) One (1) HVLP spray gun (identified as G17), used for gel coat application, installed in 2003, with particulate matter (PM) overspray controlled by dry filters, exhausting through stack E31. The maximum throughput capacity is 0.34 boats per hour.

(3) Two (2) molding operations consisting of three (3) chop guns, identified as G2-G4, and a hand-lay up area exhausting through Stacks E12 and E13 (formerly E4 and E3, respectively), with a maximum throughput of 0.17 boats per gun per year hour. PM overspray is controlled by dry filters.

(4) Three (3) mechanical, non-atomized chop guns (identified as G18, G19, and G20), used to apply resin, installed in 2003, with particulate matter (PM) overspray controlled by dry filters, exhausting to stacks E32, E33, and E34. The maximum throughput capacity is 0.17 boats per gun per hour.

The spray guns installed in 2003 may be used either on the existing gelcoat and molding line or to set up a separate parallel gelcoat and molding line.

(b) One (1) fiberglass grinding and smoothing operation consisting of various grinders, sanders and saws, with PM emissions controlled by a baghouse exhausting through Stack E15 (formerly E5).

(c) Woodworking operations including various saws and routers with PM emissions controlled by a baghouse exhausting through Stack E2 and a movable bag filter.

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) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million British thermal units per hour. (7.0 MM Btu/hr boiler)

(b) Welding operations venting through Stacks E3-E6 and consisting of nine (9) metal inert gas (MIG) stations and four (4) tungsten inert gas (TIG) stations consuming no more than 10.0 pounds of wire per hour, combined. Particulate matter 10 microns (PM-10) emissions less than five (5) pounds per hour and twenty-five (25) pounds per day.

(c) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs. (twelve (12) glue guns, G5-G16, exhausting through Stack GV7)

(d) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.

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).

SECTION D.1 FACILITY OPERATION CONDITIONS

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

(a) Gelcoat and molding application facilities consisting of the following emission units:

(1) One (1) gelcoat application booth consisting of one (1) HVLP gun G1, with particulate matter (PM) overspray controlled by dry filters, exhausting through Stack E14 (formerly E2), with a maximum throughput of 0.34 boats per hour.

(2) One (1) HVLP spray gun (identified as G17), used for gel coat application, installed in 2003, with particulate matter (PM) overspray controlled by dry filters, exhausting through stack E31. The maximum throughput capacity is 0.34 boats per hour.

(3) Two (2) molding operations consisting of three (3) chop guns, identified as G2-G4, and a hand-lay up area exhausting through Stacks E12 and E13 (formerly E4 and E3, respectively), with a maximum throughput of 0.17 boats per gun per hour. PM overspray is controlled by dry filters.

(4) Three (3) mechanical, non-atomized chop guns (identified as G18, G19, and G20), used to apply resin, installed in 2003, with particulate matter (PM) overspray controlled by dry filters, exhausting to stacks E32, E33, and E34. The maximum throughput capacity is 0.17 boats per gun per hour.

The spray guns installed in 2003 may be used either on the existing gelcoat and molding line or to set up a separate parallel gelcoat and molding line.

(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 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

The emissions of volatile organic compounds from the gelcoat and molding operations shall not exceed twenty-five (25) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. VOC emissions from the gelcoats and resins shall be calculated by multiplying the usage of each gelcoat and resin by the emission factor provided by the “Unified Emission Factors For Open Molding of Composites, Composites Fabricators Association, April 1999." Compliance with this limit makes 326 IAC 8-1-6 (New Facilities - General Reduction Requirements) not applicable to these gelcoat and molding operations.

D.1.2 Particulate Matter (PM) [40 CFR 52, Subpart P]

Pursuant to 40 CFR 52, Subpart P, the particulate matter (PM) emissions from the gel coat and molding operations shall be limited by the following:

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

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

D.1.3 Emissions Standards for Reinforced Plastics Composites Fabricating [326 IAC 20-25-3]

Pursuant to 326 IAC 20-25-3, the owners or operators of the gelcoat and molding operations shall comply with the following conditions:

(a) The total HAP monomer content of the following materials shall be limited based on the application method used and the products produced as specified in the following table:

Watercraft Products	**HAP Monomer Content (Weight Percent)**
Resin Manual or Mechanical Application	
Production-Specialty Products	48*
Production-Noncorrosion Resistant Unfilled	35*
Production-Noncorrosion Resistant filled (≥35% by weight)	38
Shrinkage Controlled	52
Tooling	43*
Gel Coat Application	
Production - Pigmented and Base Coat Gel Coat	34
Clear Production and Tooling	48

* - Categories that must use mechanical nonatomized application technology or manual application as stated in subsection (c).

Compliance with these HAP monomer content limits shall be demonstrated on a monthly basis. If all of the resins and gel coats used during a month meet the specified HAP monomer content limits, then maintaining records of content and usage as specified under Condition D.1.12 is sufficient for demonstrating compliance with the HAP monomer content limits.

Compliance with the limitations contained in this condition may be demonstrated using monthly emission averaging within each resin or gel coat application category listed in subsection(b) by the use of resins or gel coats with HAP monomer contents lower than the limits specified, and/or additional emission reduction techniques approved by IDEM, OAQ.

Examples of emission reduction techniques include, but are not limited to, using nonatomized application to apply resins or gelcoats within a category that does not require nonatomized application, lower monomer content resins and gel coats, vapor suppression, vacuum bagging, or installing a control device. This is allowed to meet the HAP monomer content limits for resins and gel coats within each category, and shall be calculated on an equivalent emissions mass basis monthly to demonstrate compliance as shown below:

For Averaging within a category:

$\cdot Em_A \leq \cdot (M_R * E_a)$

Where:

M_R = Total monthly mass of material within each category
E_a = Emission factor for each material based on allowable monomer content and allowable application method for each category.
Em_A = Actual monthly emissions from all materials used within a category based on material specific emission factors, emission reduction techniques and emission controls

Units: mass = tons
emission factor = lbs of monomer per ton of resin or gel coat
emissions = lbs of monomer

Note: Fillers may not be included when averaging.

(b) The following categories of materials in subsection (a) shall be applied using mechanical nonatomized application technology or manual application:

(1) Production noncorrosion resistant, unfilled resins from all sources.

(2) Production, specialty product resins from all sources.

(3) Tooling resins used in the manufacture of watercraft.

(4) Production resin used for Class I flame and smoke products.

Nonatomized application equipment means the devices where resin or gel coat material does any of the following:

(5) Flows from the applicator, in a steady state in a observable coherent flow, without droplets, for a minimum distance of three (3) inches from the applicator orifices such as flow coaters, flow choppers, and fluid impingement equipment.

(6) Is mechanically dispensed within or on to a paint roller applicator such as pressure fed rollers.

(7) Is deposited on fiber reinforcement moving through a resin or gel coat bath such as resin impregnators.

Nonatomized spray application technology includes flow coaters, flow choppers, pressure-fed rollers, fluid impingement, or other non-spray applications of a design and specifications approved by IDEM, OAQ.

Filled resins are resins containing greater than or equal to thirty-five percent (35%) by weight inert filler material, such as silica micro-spheres or micro-balloons, added to alter the density or other physical properties of the resin. The term “inert filler” does not include pigments.

(c) Unless specified in subsection (b), gel coat application and mechanical application of resins shall be by any of the following spray technologies:

(1) Nonatomized application technology.

(2) Air-assisted airless.

(3) Airless.

(4) High volume, low pressure (HVLP).

(5) Equivalent emission reduction technologies to subdivisions (2) through (4).

(d) The following cleaning operation standards for resin and gel coat application equipment shall apply:

(1) For routine flushing of resin and gel coat application equipment such as spray guns, flow coaters, brushes, rollers, and squeegees, a cleaning solvent shall contain no HAPs. This emission standard does not apply to solvents used for removing cured resin or gel coat from application equipment.

(2) A source must store HAP containing solvents used for removing cured resin or gel coat in containers with covers. The covers must have no visible gaps and must be in place at all times, except when equipment is placed in or removed from the container.

(3) Recycled cleaning solvents that contain less than or equal to five percent (5%) HAP by weight are considered to contain no HAP for the purposes of this subsection.

D.1.4 Work Practice Standards for Reinforced Plastic Composites Fabrication [326 IAC 20-25-4]

Pursuant to 326 IAC 20-25-4, the following work practice standards shall be implemented:

(a) Non-atomizing spray equipment shall not be operated at pressures that atomize the material during the application process.

(b) Except for mixing containers as described in item (g), HAP containing materials shall be kept in a closed container when not in use.

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

(d) Solvent collection containers shall be kept closed when not in use.

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

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

(1) All production and tooling resins that contain HAPs.

(2) All production and tooling gel coats that contain HAPs.

(3) Waste resins and gel coats that contain HAPs.

(4) Cleaning materials, including waste cleaning materials.

(5) Other materials that contain HAPs.

(g) All resin and gel coat mixing containers with a capacity equal to or greater than fifty-five (55) gallons must have a cover with no visible gaps in place at all times except when material is being added to or removed from a container, or when mixing or pumping equipment is being placed in or removed from a container.

D.1.5 Operator Training for Reinforced Plastic Composites Fabrication [326 IAC 20-25-8]

Pursuant to 326 IAC 20-25-8, all new and existing personnel, including contract personnel, who are involved in resin and gel coat spraying and spray-like applications (for example, those applications that could result in excess emissions if performed improperly) shall be trained according to the following schedule:

(a) All personnel hired after March 7, 2001 shall be trained within fifteen (15) days of hiring.

(b) All personnel hired before March 7, 2001 shall be trained or evaluated by a supervisor within thirty (30) days of the start of operation.

(c) To ensure training goals listed in subsection (b) are maintained, all personnel shall be given refresher training annually.

(d) Personnel who have been trained by another owner or operator subject to 326 IAC 20-25 are exempt from subdivision (a) if written documentation that the employee's training is current is provided to the new employer.

(e) If the result of an evaluation shows that training is needed, such training shall occur within fifteen (15) days of the evaluation.

(f) 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.

(g) The owner or operator shall maintain the following training records on site and available for inspection and review:

(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.1.6 Preventive Maintenance Plan [326 IAC 2-7-4(c)(9)]

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

Compliance Determination Requirements

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Condition D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.8 Hazardous Air Pollutants (HAP) for Reinforced Plastics Composites Fabrication [326 IAC 20-25]

Pursuant to 326 IAC 20-25, compliance with the HAP monomer content limitations in Condition D.1.3 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 coat to require that the procedure be performed on uncatalyzed 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 chromatorgraph.

(d) An alternative method that has been approved by IDEM, OAQ.

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

D.1.9 Particulate [326 IAC 6-3-2(d)]

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

D.1.10 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, daily observations shall be made of the overspray from the stacks (EU12, EU13, EU14, E31, E32, E33, and E34) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

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

D.1.11 Record Keeping Requirements

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC allowable usage level established in Condition D.1.1.

(1) The amount and VOC content of each gelcoat and resin used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used;

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

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

(b) To document compliance with Condition D.1.10, the Permittee shall maintain a log of daily overspray observations, daily and weekly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

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

D.1.12 Record Keeping Requirements for Reinforced Plastics Composites Fabrication [326 IAC 20-25]

(a) To document compliance with Condition D.1.3, the Permittee shall maintain records that are complete and sufficient to establish compliance with the HAP monomer content limits. Records maintained shall be taken monthly. Examples of such records include by are not limited to:

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

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

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

(b) To document compliance with Condition D.1.5, the Permittee shall maintain the following 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 the most recent refresher training. Records of prior training programs and former personnel are not required to be maintained.

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

D.1.13 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions 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 being reported.

D.1.14 Reporting Requirements for Reinforced Plastics Composites Fabrication [326 IAC 20-25]

If monthly emissions averaging pursuant to 326 IAC 20-25-3(h)(2) and Condition D.1.3 are used, the Permittee shall submit a quarterly summary report and supporting calculations pursuant to 326 IAC 20-25-7(c).

SECTION D.2 FACILITY OPERATION CONDITIONS

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

(b) One (1) fiberglass grinding and smoothing operation consisting of various grinders, sanders and saws, with PM emissions controlled by a baghouse exhausting through Stack E15 (formerly E5).

(c) Woodworking operations including various saws and routers with PM emissions controlled by a baghouse exhausting through Stack E2 and a movable bag filter.

(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 Particulate [40 CFR 52, Subpart P]

Pursuant to 40 CFR 52, Subpart P, the allowable particulate emission rate from the grinding and smoothing facilities shall not exceed 2.70 pounds per hour when operating at a process weight rate of 1,075 pounds per hour.

The pounds per hour limitation was calculated with 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 per hour

D.2.2 Particulate [40 CFR 52, Subpart P]

Pursuant to 40 CFR 52, Subpart P, the allowable PM emission rate from the woodworking facilities shall not exceed 1.57 pounds per hour when operating at a process weight rate of 480.0 pounds per hour.

The pounds per hour limitation was calculated with 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 per hour

D.2.3 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.2.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Conditions D.2.1 and D.2.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

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

D.2.5 Visible Emissions Notations

(a) Daily visible emission notations of the grinding and smoothing operation stack exhaust and the woodworking baghouse exhausting at Stack E2 shall be performed once per day during normal daylight operations when exhausting to the atmosphere. 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) The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

D.2.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the fiberglass grinding and smoothing operation, at least once daily when the grinding and smoothing facilities are in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 2 to 7 inches of water or a range established during the latest stack test. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

D.2.7 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the woodworking operations. All defective bags shall be replaced.

D.2.8 Broken Bag or Failure Detection

In the event that bag failure has been observed:

(a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced.

(b) Based upon the findings of the inspection, any additional corrective actions will be devised within eight (8) hours of discovery and will include a timetable for completion.

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

D.2.9 Record Keeping Requirements

(a) To document compliance with Condition D.2.5, the Permittee shall maintain records of daily visible emission notations of the fiberglass grinding and smoothing operation stack exhaust and the woodworking baghouse exhausting at Stack E2.

(b) To document compliance with Condition D.2.6, the Permittee shall maintain the following:

(1) Daily records of the following operational parameters during normal operation:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle: frequency and differential pressure immediately following the cleaning cycle.

(2) Documentation of all corrective actions implemented, per event.

(3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.

(4) Quality Assurance/Quality Control (QA/QC) procedures.

(5) Operator standard operating procedures (SOP).

(6) Manufacturer's specifications or its equivalent.

(7) Equipment "troubleshooting" contingency plan.

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

Part 70 Quarterly Report

Source Name: Harris Kayot, Inc.
Source Address: 2801 West State Boulevard, Fort Wayne, Indiana 46808
Mailing Address: 2801 West State Boulevard, Fort Wayne, Indiana 46808
Part 70 Permit No.: T003-7743-00177
Facility: Gelcoat and molding operations
Parameter: Volatile Organic Compounds (VOC) Emissions
Limit: Twenty-five (25) 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 Months Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

March 19, 2003

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and Part 70 Significant Permit Modification

Source Background and Description

Source Name:	Harris Kayot, Inc.
Source Location:	2801 West State Street, Ft. Wayne, Indiana 46808
County:	Allen
SIC Code:	3732
Operation Permit No.:	T003-7743-00177
Operation Permit Issuance Date:	September 23, 1998
Significant Source Modification No.:	003-16250-00177
Significant Permit Modification No.:	003-17105-00177
Permit Reviewer:	ERG/AAB

The Office of Air Quality (OAQ) has reviewed a modification application from Harris Kayot, Inc. relating to the construction of the following emission units and pollution control devices:

(a) Gelcoat and molding application facilities consisting of the following emission units:

(2) One (1) HVLP spray gun (identified as G17), used for gel coat application, installed in 2003, with particulate matter (PM) overspray controlled by dry filters, exhausting through stack E31. The maximum throughput capacity is 0.34 boats per hour.

(4) Three (3) mechanical, non-atomized chop guns (identified as G18, G19, and G20), used to apply resin, installed in 2003, with particulate matter (PM) overspray controlled by dry filters, exhausting to stacks E32, E33, and E34. The maximum throughput capacity is 0.17 boats per gun per hour.

The spray guns installed in 2003 may be used either on the existing gelcoat and molding line or to set up a separate parallel gelcoat and molding line.

The source also proposes to install four natural gas-fired space heaters, each with a maximum heat input capacity of 500,000 Btu per hour. Since these are insignificant emission units for which there are no specific requirements, they have not been listed in Condition A.3 of the permit.

In addition to the new gelcoat and molding guns, the source has requested the pound per hour process weight rate and the particulate emission rate for the existing fiberglass grinding and smoothing operation) (Condition D.2.1) be corrected. The current permit states that the process weight rate is 104.7 pound per hour. The source has indicated that the correct process weight is 1,075 pounds per hour. Note that no additional equipment has been added to this facility.

History

On October 21, 2002, Harris Kayot, Inc., submitted an application to the OAQ requesting to add additional gelcoat and chop spray guns to their existing plant. The new guns will be used on the existing gelcoat and molding line to make it easier to switch between different colors. The source may also use the new guns to set up another, parallel gelcoat and molding line. Harris Kayot, Inc., was issued a Part 70 permit on September 23, 1998.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
E31	Gelcoat	21	3	8,000	Ambient
E32	Molding	21	3	8,000	Ambient
E33	Molding	21	3	8,000	Ambient
E34	Molding	21	3	8,000	Ambient

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification and Significant Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on October 21, 2002. Additional information was received on November 14, 2002, December 16, 2002, and December 31, 2002.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document (Appendix A, pages 1 through 5).

Potential To Emit of Modification

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.”

This table reflects the PTE before controls and waste disposal. Control equipment and solvent recovery is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.07
PM-10	0.07
SO_2	0.005
VOC	114.0
CO	0.74
NO_x	0.90

HAP's	Potential To Emit (tons/year)
Styrene	75.6
Methyl methacrylate	12.7
Methyl Ethyl Ketone	0.52
TOTAL	88.8

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification and Significant Permit Modification. This source modification is being performed pursuant to 326 IAC 2-7-10.5(f)(6), because the proposed modification has a potential to emit styrene that is greater than 10 tons per year. The permit modification is being performed pursuant to 326 IAC 2-7-12(d)(1).

County Attainment Status

The source is located in Allen County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_x	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Allen County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

Source Status

Existing Source PSD Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	106
PM-10	106
SO_2	0.02
VOC	less than 25
CO	0.7
NOx	3.3

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more, and it is not one (1) of the twenty-eight (28) listed source categories.

(b) These emissions are based upon the information provided in the technical support document for the source's current Part 70 Permit (T003-7743-00177, issued September 23, 1998).

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Process/facility	Potential to Emit (tons/year)						
	PM	PM-10	SO_2	VOC	CO	NO_X	HAP
Expanded gelcoat and molding operation	0	0	0	25	0	0	177.6*
New space heaters	0.07	0.07	0.005	0.05	0.74	0.9	Negligible
Existing woodworking, welding, grinding operations, and space heaters	212	106.0	0.02	0.2	0.7	3.3	Negligible
TOTAL	212.1	106.1	0.025	25.25	1.44	4.2	177.6*

*The potential to emit hazardous air pollutants (HAPs) from the gelcoat and molding activities is 185.4 tons per year for total combined HAPs. Since the VOC emissions from these units are limited to 25 tons per year, the HAP emissions will be significantly less than the potential to emit stated in this table.

This modification to an existing minor stationary source is not major because the increase is less than PSD major source levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

(a) This significant modification does not involve a pollutant-specific emissions unit:

(1) with the potential to emit before controls equal to or greater than one hundred (100) tons per year, and

(2) that is subject to an emission limit and has a control device that is necessary to meet that limit.

Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable.

(b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

(c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this proposed modification.

(d) As an existing major source of hazardous air pollutants (HAPs), this fiberglass boat building plant is subject to the requirements of 40 CFR 63, Subpart VVVV - National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing. This NESHAP is applicable to all major sources of HAP that were in existence on August 22, 2001. This source is required to comply with this subpart by August 23, 2004.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source was constructed in 1992, is not in one of the twenty-eight listed source categories, and was considered a minor source under 326 IAC 2-2 (PSD) and 40 CFR 52.21. The potential to emit for the entire source after this modification will be less than the 250 tons per year PSD thresholds. Since the source will remain a minor source under PSD after this modification, it is not subject to the provisions of 326 IAC 2-2 and 40 CFR 52.21.

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

A source that constructs or reconstructs a major source of hazardous air pollutants (HAPs) after July 27, 1997 is subject to the requirements of 326 IAC 2-4.1. Currently, Harris Kayot, Inc. manufactures fiberglass boats using existing emission units constructed prior to July 27, 1997. The process includes gel coat application, resin application, grinding and welding operations, woodworking, degreasing, and adhesive application. Although the potential HAP emissions are greater than the major thresholds (i.e., greater than 10 tons per year for a single HAP and greater than 25 tons per year for a combination of HAPs), the proposed modification does not trigger 326 IAC 2-4.1 because the source is already subject to the requirements of 40 CFR 63, Subpart VVVV - National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing, which was promulgated on August 22, 2001. This NESHAP applies to all sources that are involved in the manufacture fiberglass boats and were existing major sources of HAPs as of August 22, 2000.

State Rule Applicability - New Gelcoat and Molding Operations

326 IAC 6-3-2 (Particulate Emission Limitation)

On June 12, 2002, revisions to the 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) became effective; this rule was previously referred to as 326 IAC 6-3 (Process Operations). As of the date this permit is being issued these revisions have not been approved by EPA into the Indiana State Implementation Plan (SIP); therefore, the following requirements from the previous version of 326 IAC 6-3 (Process Operations), which has been approved into the SIP will remain applicable requirements until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action.

Pursuant to 40 CFR 52 Subpart P, the particulate emissions from the gelcoat and molding operations shall not exceed the pound per hour emission rate established as E in the following formula:

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

Under the rule revision, particulate from the surface coating operations shall be controlled by dry particulate filter or an equivalent control device, and the Permittee shall operate the control device in accordance with the manufacturer's specifications.

326 IAC 8-1-6 (New Facilities - General Reduction Requirements)

Since the new gelcoat and resin guns will be used in the existing gelcoat and molding line, the gelcoat and molding operation is considered as one facility under 326 IAC 8-1-6. The gelcoat and molding facility would be subject to 326 IAC 8-1-6 because the units are constructed after the applicability date of January 1, 1980 and have potential emissions of volatile organic compounds (VOC) that are greater than twenty-five (25) tons per year. However, Harris Kayot, Inc. has agreed to limit the combined VOC emissions from these facilities to less than twenty-five (25) tons per twelve (12) consecutive month period. The following limitation has been included in the proposed permit:

The emissions of volatile organic compounds from the gelcoat and molding operations shall not exceed twenty-five (25) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. VOC emissions from the gelcoats and resins shall be calculated by multiplying the usage of each gelcoat and resin by the emission factor provided by the "Unified Emission Factors for Open Molding of Composites," Composites Fabricators Association, April 1999. Compliance with this limit makes 326 IAC 8-1-6 (New Facilities - General Reduction Requirements) not applicable.

326 IAC 20-25 (Emissions from Reinforced Plastics Composites Fabricating Emission Units)

The new and existing gelcoat and molding facilities are subject to 326 IAC 20-25 because:

1. They have a potential to emit 10 tons per year of any hazardous air pollutant (HAP) or 25 tons per year of any combination of HAPs and that manufacture;

2. They manufacture fiberglass boats; and

3. They have actual emissions of styrene equal to or greater than 3 tons per year.

The following conditions have been included in the proposed permit:

Pursuant to 326 IAC 20-25-3, the gelcoat and molding facilities shall comply with the following conditions:

(a) The total HAP monomer content of the following materials shall be limited based on the application method used and the products produced as specified in the following table:

Watercraft Products	**HAP Monomer Content (Weight Percent)**
Resin Manual or Mechanical Application	
Production-Specialty Products	48*
Production-Noncorrosion Resistant Unfilled	35*
Production-Noncorrosion Resistant Filled ($35% by weight)	38
Shrinkage Controlled	52

Watercraft Products	HAP Monomer Content (Weight Percent)
Resin Manual or Mechanical Application	
Tooling	43*
Gel Coat Application	
Production - Pigmented and Base Coat Gel Coat	34
Clear Production and Tooling	48

* - Categories that must use mechanical nonatomized application technology or manual application as stated in subsection (c).

Compliance with these HAP monomer content limits shall be demonstrated on a monthly basis. If all of the resins and gel coats used during a month meet the specified HAP monomer content limits, then maintaining records of content is sufficient for demonstrating compliance with the HAP monomer content limits.

Compliance with the limitations contained in this condition may be demonstrated using monthly emission averaging within each resin or gel coat application category listed in subsection (b) by the use of resins or gel coats with HAP monomer contents lower than the limits specified, and/or additional emission reduction techniques approved by IDEM, OAQ.

Examples of emission reduction techniques include, but are not limited to, using nonatomized application to apply resins or gel coats within a category that does not require nonatomized application, lower monomer content resins and gel coats, vapor suppression, vacuum bagging, or installing a control device. This is allowed to meet the HAP monomer content limits for resin and gel coats within each category, and shall be calculated on an equivalent emissions mass basis monthly to demonstrate compliance as shown below:

For Averaging within a category:

$$\sum Em_A \leq \sum (M_R * E_a)$$

Where:

M_R = Total monthly mass of material within each category
E_a = Emission factor for each material based on allowable monomer content and allowable application method for each category.
Em_A = Actual monthly emissions from all materials used within a category based on material specific emission factors, emission reduction techniques and emission controls
Units: mass = tons
emission factor = lbs of monomer per ton of resin or gel coat
emissions = lbs of monomer

Note: Fillers may not be included when averaging.

Where:

M_R = Total monthly mass of material within each category (tons).
E_a = Emission factor for each material based on allowable monomer content and allowable application method for each category (lbs of monomer per ton of resin or gel coat applied).

Em_A = Actual monthly emissions from all materials used within a category based on material specific emission factors, emission reduction techniques and emission controls (lbs of monomer).

(b) The following categories of materials in subsection (a) shall be applied using mechanical nonatomized application technology or manual application:

(1) Production noncorrosion resistant, unfilled resins from all sources.

(2) Production, speciality product resins from all sources.

(3) Tooling resins used in the manufacture of watercraft.

(4) Production resin used for Class I flame and smoke products.

Nonatomized application equipment means the devices where resin or gel coat material does any of the following:

(1) Flows from the applicator, in a steady state in a observable coherent flow, without droplets, for a minimum distance of three (3) inches from the applicator orifices such as flow coaters, flow choppers, and fluid impingement equipment.

(2) Is mechanically dispensed within or on to a paint roller applicator such as pressure fed rollers.

(3) Is deposited on fiber reinforcement moving through a resin or gel coat bath such as resin impregnators.

Nonatomized spray application technology includes flow coaters, flow choppers, pressure-fed rollers, fluid impingement, or other non-spray applications of a design and specifications approved by IDEM, OAQ.

Filled resins are resins containing greater than or equal to thirty-five percent (35%) by weight inert filler material, such as silica micro-spheres or micro-balloons, added to alter the density or other physical properties of the resin. The term “inert filler” does not include pigments.

(c) Unless specified in subsection (b), gel coat application and mechanical application of resins shall be by any of the following spray technologies:

(1) Nonatomized application technology.

(2) Air-assisted airless.

(3) Airless.

(4) High volume, low pressure (HVLP).

(5) Equivalent emission reduction technologies to subdivisions (2) throgh (4).

(d) The following cleaning operation standards for resin and gel coat application equipment shall apply:

(1) For routine flushing of resin and gel coat application equipment such as spray guns, flow coaters, brushes, rollers, and squeegees, a cleaning solvent shall contain no HAPs. This emission standard does no apply to solvents used for removing cured resin or gel coat from application equipment.

(2) A source must store HAP containing solvents used for removing cured resin or gel coat in containers with covers. The covers must have no visible gaps and must be in place at all times, except when equipment is placed in or removed from the container.

(3) Recycled cleaning solvents that contain less than or equal to five percent (5%) HAP by weight are considered to contain no HAP for the purposes of this subsection.

Pursuant to 326 IAC 20-25-4, the following work practice standards shall be implemented:

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

(2) Except for mixing containers as described in (g), HAP containing materials shall be kept in a closed container when not in use.

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

(4) Solvent collection containers shall be kept closed when not in use.

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

(6) Closed containers shall be used for the storage of the followings:

(A) All production and tooling resins that contain HAPs.

(B) All production and tooling gel coats that contain HAPs.

(C) Waste resins and gel coats that contain HAPs.

(D) Cleaning materials, including waste cleaning materials.

(E) Other materials that contain HAPs.

(7) All resins and gel coat mixing containers with a capacity equal to or greater than fifty-five (55) gallons must have a cover with no visible gaps in place at all times except when material is being added to or removed from a container, or when mixing or pumping equipment is being placed in or removed from a container.

Pursuant to 326 IAC 20-25-8, all new and existing personnel, including contract personnel, who are involved in resin and gel coat spraying and spray-like applications (for example those applications that could result in excess emissions if performed improperly) shall be trained according to the following schedule:

(a) All new personnel shall be trained within fifteen (15) days of hiring.

(b) All personnel hired before March 7, 2001 shall be trained or evaluated by a supervisor within thirty (30) days of the start of operation.

(c) To ensure training goals listed in subsection (b) are maintained, all personnel shall be given refresher training annually.

(d) Personnel who have been trained by another owner or operator subject to 326 IAC 20-25 are exempt from subdivision (a) if written documentation that the employee's training is current is provided by the new employer.

(e) If the result of an evaluation show that training is needed, such training shall occur within fifteen (15) days of the evaluation.

(f) 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.

(g) The Permittee shall maintain the following training records on site and available for inspection and review:

(1) A copy of the current training program.

(2) A list al 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.

State Rule Applicability - Space Heaters

There are no State or Federal rules specifically applicable to these units.

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 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 modification are as follows:

The gelcoat and molding operations have applicable compliance monitoring conditions as specified below:

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step.

(b) Monthly inspections shall be performed of the particulate emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step.

These monitoring conditions are necessary because the dry filters used to control particulate emissions from these emission units because they must operate properly to ensure compliance with 40 CFR 52, Subpart P and 326 IAC 2-7 (Part 70).

Proposed Changes

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) Gelcoat and molding application facilities consisting of the following emission units:

(1) One (1) gelcoat application booth consisting of one (1) HVLP gun G1, with particulate matter (PM) overspray controlled by dry filters, exhausting through Stack E14 (formerly E2), with a maximum throughput of 0.34 boats per hour.

(2) One (1) HVLP spray gun (identified as G17), used for gel coat application, installed in 2003, with particulate matter (PM) overspray controlled by dry filters, exhausting through stack E31. The maximum throughput capacity is 0.34 boats per hour.

(~~2~~**3**) Two (2) molding operations consisting of three (3) chop guns, identified as G2-G4, and a hand-lay up area exhausting through Stacks E12 and E13 (formerly E4 and E3, respectively), with a maximum throughput of 0.17 boats **per gun** per hour. PM overspray is controlled by dry filters.

(4) Three (3) mechanical, non-atomized chop guns (identified as G18, G19, and G20) used to apply resin, installed in 2003, with particulate matter (PM) overspray controlled by dry filters, exhausting to stacks E32, E33, and E34. The maximum throughput capacity is 0.17 boats per gun per hour.

The spray guns installed in 2003 may be used either on the existing gelcoat and molding line or to set up a separate parallel gelcoat and molding line.

(~~3~~**b**) One (1) fiberglass grinding and smoothing operation consisting of various grinders, sanders and saws, with PM emissions controlled by a baghouse exhausting through Stack E15 (formerly E5).

(~~4~~**c**) Woodworking operations including various saws and routers with PM emissions controlled by a baghouse exhausting through Stack E2 and a movable bag filter.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

(a) Gelcoat and molding application facilities consisting of the following emission units:

(1) One (1) gelcoat application booth consisting of one (1) HVLP gun G1, with particulate matter (PM) overspray controlled by dry filters, exhausting through Stack E14 (formerly E2), with a maximum throughput of 0.34 boats per hour.

(2) **One (1) HVLP spray gun (identified as G17), used for gel coat application, installed in 2003, with particulate matter (PM) overspray controlled by dry filters, exhausting through stack E31. The maximum throughput capacity is 0.34 boats per hour.**

(~~2~~**3**) Two (2) molding operations consisting of three (3) chop guns, identified as G2-G4, and a hand-lay up area exhausting through Stacks E12 and E13 (formerly E4 and E3, respectively), with a maximum throughput of 0.17 boats **per gun** per hour. PM overspray is controlled by dry filters.

(4) Three (3) mechanical, non-atomized chop guns (identified as G18, G19, and G20) used to apply resin, installed in 2003, with particulate matter (PM) overspray controlled by dry filters, exhausting to stacks E32, E33, and E34. The maximum throughput capacity is 0.17 boats per gun per hour.

The spray guns installed in 2003 may be used either on the existing gelcoat and molding line or to set up a separate parallel gelcoat and molding line.

(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 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

~~Pursuant to 326 IAC 8-1-6 (General reduction requirements for new facilities), any change or modification which may increase the potential VOC emissions to 25 tons per year or more from the gelcoat application booth and molding operations must be approved by the Office of Air Quality (OAM) before such change may occur.~~

The emissions of volatile organic compounds from the gelcoat and molding operations shall not exceed twenty-five (25) tons per twelve (12) consecutive month period, with compliance determined at the end of each month. VOC emissions from the gelcoats and resins shall be calculated by multiplying the usage of each gelcoat and resin by the emission factor provided by the "Unified Emission Factors For Open Molding of Composites, Composites Fabricators Association, April 1999." Compliance with this limit makes 326 IAC 8-1-6 (New Facilities - General Reduction Requirements) not applicable to these gelcoat and molding operations.

D.1.2 Particulate Matter (PM) ~~[326 IAC 6-3-2(c)]~~ **[40 CFR 52, Subpart P]**

~~The PM from the application of gelcoat and the molding operations shall not exceed the pound per hour emission rate established as E in the following formula:~~

~~Interpolation and extrapolation 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~~

Pursuant to 40 CFR 52, Subpart P, the particulate matter (PM) emissions from the gel coat and molding operations shall be limited by the following:

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

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

D.1.3 Emissions Standards for Reinforced Plastics Composites Fabricating [326 IAC 20-25-3]

Pursuant to 326 IAC 20-25-3, the owners or operators of the gelcoat and molding operations shall comply with the following conditions:

(a) The total HAP monomer content of the following materials shall be limited based on the application method used and the products produced as specified in the following table:

Watercraft Products	HAP Monomer Content (Weight Percent)
Resin Manual or Mechanical Application	
Production-Specialty Products	48*
Production-Noncorrosion Resistant Unfilled	35*
Production-Noncorrosion Resistant Filled (≥35% by weight)	38
Shrinkage Controlled	52
Tooling	43*
Gel Coat Application	
Production - Pigmented and Base Coat Gel Coat	34
Clear Production and Tooling	48

*** - Categories that must use mechanical nonatomized application technology or manual application as stated in subsection (c).**

Compliance with these HAP monomer content limits shall be demonstrated on a monthly basis. If all of the resins and gel coats used during a month meet the specified HAP monomer content limits, then maintaining records of content and usage as specified under Condition D.1.12 is sufficient for demonstrating compliance with the HAP monomer content limits.

Compliance with the limitations contained in this condition may be demonstrated using monthly emission averaging within each resin or gel coat application

category listed in subsection(b) by the use of resins or gel coats with HAP monomer contents lower than the limits specified, and/or additional emission reduction techniques approved by IDEM, OAQ.

Examples of emission reduction techniques include, but are not limited to, using nonatomized application to apply resins or gelcoats within a category that does not require nonatomized application, lower monomer content resins and gel coats, vapor suppression, vacuum bagging, or installing a control device. This is allowed to meet the HAP monomer content limits for resins and gel coats within each category, and shall be calculated on an equivalent emissions mass basis monthly to demonstrate compliance as shown below:

For Averaging within a category:

$$\sum Em_A \leq \sum (M_R * E_a)$$

Where:

M_R = Total monthly mass of material within each category
E_a = Emission factor for each material based on allowable monomer content and allowable application method for each category.
Em_A = Actual monthly emissions from all materials used within a category based on material specific emission factors, emission reduction techniques and emission controls

Units: mass = tons
emission factor = lbs of monomer per ton of resin or gel coat
emissions = lbs of monomer

Note: Fillers may not be included when averaging.

(b) The following categories of materials in subsection (a) shall be applied using mechanical nonatomized application technology or manual application:

(1) Production noncorrosion resistant, unfilled resins from all sources.

(2) Production, specialty product resins from all sources.

(3) Tooling resins used in the manufacture of watercraft.

(4) Production resin used for Class I flame and smoke products.

Nonatomized application equipment means the devices where resin or gel coat material does any of the following:

(5) Flows from the applicator, in a steady state in a observable coherent flow, without droplets, for a minimum distance of three (3) inches from the applicator orifices such as flow coaters, flow choppers, and fluid impingement equipment.

(6) Is mechanically dispensed within or on to a paint roller applicator such as pressure fed rollers.

(7) Is deposited on fiber reinforcement moving through a resin or gel coat bath such as resin impregnators.

Nonatomized spray application technology includes flow coaters, flow choppers, pressure-fed rollers, fluid impingement, or other non-spray applications of a design and specifications approved by IDEM, OAQ.

Filled resins are resins containing greater than or equal to thirty-five percent (35%) by weight inert filler material, such as silica micro-spheres or micro-balloons, added to alter the density or other physical properties of the resin. The term "inert filler" does not include pigments.

(c) Unless specified in subsection (b), gel coat application and mechanical application of resins shall be by any of the following spray technologies:

(1) Nonatomized application technology.

(2) Air-assisted airless.

(3) Airless.

(4) High volume, low pressure (HVLP).

(5) Equivalent emission reduction technologies to subdivisions (2) through (4).

(d) The following cleaning operation standards for resin and gel coat application equipment shall apply:

(1) For routine flushing of resin and gel coat application equipment such as spray guns, flow coaters, brushes, rollers, and squeegees, a cleaning solvent shall contain no HAPs. This emission standard does not apply to solvents used for removing cured resin or gel coat from application equipment.

(2) A source must store HAP containing solvents used for removing cured resin or gel coat in containers with covers. The covers must have no visible gaps and must be in place at all times, except when equipment is placed in or removed from the container.

(3) Recycled cleaning solvents that contain less than or equal to five percent (5%) HAP by weight are considered to contain no HAP for the purposes of this subsection.

D.1.4 Work Practice Standards for Reinforced Plastic Composites Fabrication [326 IAC 20-25-4]

Pursuant to 326 IAC 20-25-4, the following work practice standards shall be implemented:

(a) Non-atomizing spray equipment shall not be operated at pressures that atomize the material during the application process.

(b) Except for mixing containers as described in item (g), HAP containing materials shall be kept in a closed container when not in use.

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

(d) Solvent collection containers shall be kept closed when not in use.

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

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

(1) All production and tooling resins that contain HAPs.

(2) All production and tooling gel coats that contain HAPs.

(3) Waste resins and gel coats that contain HAPs.

(4) Cleaning materials, including waste cleaning materials.

(5) Other materials that contain HAPs.

(g) All resin and gel coat mixing containers with a capacity equal to or greater than fifty-five (55) gallons must have a cover with no visible gaps in place at all times except when material is being added to or removed from a container, or when mixing or pumping equipment is being placed in or removed from a container.

D.1.5 Operator Training for Reinforced Plastic Composites Fabrication [326 IAC 20-25-8]

Pursuant to 326 IAC 20-25-8, all new and existing personnel, including contract personnel, who are involved in resin and gel coat spraying and spray-like applications (for example, those applications that could result in excess emissions if performed improperly) shall be trained according to the following schedule:

(a) All personnel hired after March 7, 2001 shall be trained within fifteen (15) days of hiring.

(b) All personnel hired before March 7, 2001 shall be trained or evaluated by a supervisor within thirty (30) days of the start of operation.

(c) To ensure training goals listed in subsection (b) are maintained, all personnel shall be given refresher training annually.

(d) Personnel who have been trained by another owner or operator subject to 326 IAC 20-25 are exempt from subdivision (a) if written documentation that the employee's training is current is provided to the new employer.

(e) If the result of an evaluation shows that training is needed, such training shall occur within fifteen (15) days of the evaluation.

(f) 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.

(g) The owner or operator shall maintain the following training records on site and available for inspection and review:

(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.1.~~3~~**6** Preventive Maintenance Plan [326 IAC 2-7-4(c)(9)]

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

Compliance Determination Requirements

D.1.~~4~~**7** Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Condition D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.8 Hazardous Air Pollutants (HAP) for Reinforced Plastics Composites Fabrication [326 IAC 20-25]

Pursuant to 326 IAC 20-25, compliance with the HAP monomer content limitations in Condition D.1.3 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 coat to require that the procedure be performed on uncatalyzed 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 chromatorgraph.

(d) An alternative method that has been approved by IDEM, OAQ.

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

~~D.1.5 Particulate Matter (PM)~~

~~The dry filters for PM control shall be in operation at all times when the gelcoat application and spray lay-up applications are in operation.~~

D.1.9 Particulate [326 IAC 6-3-2(d)]

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

D.1.6**10** 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, daily observations shall be made of the overspray from the stacks (EU12, EU13, ~~and~~ EU14**, E31, E32, E33, and E34**) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

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

D.1.7**11** Record Keeping Requirements

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (~~5~~**3**) below. Records maintained for (1) through (~~5~~**3**) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC allowable usage level established in Condition D.1.1.

(1) The amount and VOC content of each **gelcoat and resin** ~~coating material and solvent~~ used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. ~~Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;~~

~~(2) A log of the month of use;~~

~~(3) The cleanup solvent usage for each month;~~

(~~4~~**2**) The total VOC usage for each month~~. (VOC usage for the gelcoats shall be determined by multiplying the gelcoat usage times the VOC content (percent by weight) and times a 30.5 percent flash off factor, and VOC usage for the resins shall be determined by multiplying the resin usage times the VOC content (percent by weight) and times a 11.0 percent flash off factor.)~~; and

(~~5~~**3**) The weight of VOCs emitted for each compliance period.

(b) To document compliance with Condition D.1.~~6~~**10**, the Permittee shall maintain a log of daily overspray observations, daily and weekly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

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

D.1.12 Record Keeping Requirements for Reinforced Plastics Composites Fabrication [326 IAC 20-25]

(a) To document compliance with Condition D.1.3, the Permittee shall maintain records that are complete and sufficient to establish compliance with the HAP monomer content limits. Records maintained shall be taken monthly. Examples of such records include by are not limited to:

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

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

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

(b) To document compliance with Condition D.1.5, the Permittee shall maintain the following 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 the most recent refresher training. Records of prior training programs and former personnel are not required to be maintained.

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

D.1.13 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions 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 being reported.

D.1.14 Reporting Requirements for Reinforced Plastics Composites Fabrication [326 IAC 20-25]

If monthly emissions averaging pursuant to 326 IAC 20-25-3(h)(2) and Condition D.1.3 are used, the Permittee shall submit a quarterly summary report and supporting calculations pursuant to 326 IAC 20-25-7(c).

SECTION D.2 FACILITY OPERATION CONDITIONS

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

(~~3~~**b**) One (1) fiberglass grinding and smoothing operation consisting of various grinders, sanders and saws, with PM emissions controlled by a baghouse exhausting through Stack E15 (formerly E5).

(~~4~~**c**) Woodworking operations including various saws and routers with PM emissions controlled by a baghouse exhausting through Stack E2 and a movable bag filter.

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

D.2.1 Particulate ~~Matter (PM) [326 IAC 6-3]~~ **[40 CFR 52, Subpart P]**

Pursuant to ~~326 IAC 6-3 (Process Operations)~~ **40 CFR 52, Subpart P**, the allowable ~~PM~~ **particulate** emission rate from the grinding and smoothing facilities shall not exceed ~~0.57~~ **2.70** pounds per hour when operating at a process weight rate of ~~104.7~~ **1,075** pounds per hour.

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

Interpolation ~~and extrapolation~~ 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 per hour

D.2.2 Particulate ~~Matter (PM) [326 IAC 6-3]~~ **[40 CFR 52, Subpart P]**

Pursuant to ~~326 IAC 6-3 (Process Operations)~~ **40 CFR 52, Subpart P**, the allowable PM emission rate from the woodworking facilities shall not exceed 1.57 pounds per hour when operating at a process weight rate of 480.0 pounds per hour.

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

Interpolation ~~and extrapolation~~ 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 per hour

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

Part 70 Quarterly Report

Source Name: Harris Kayot, Inc.
Source Address: 2801 West State Boulevard, Fort Wayne, Indiana 46808
Mailing Address: 2801 West State Boulevard, Fort Wayne, Indiana 46808
Part 70 Permit No.: T003-7743-00177
Facility: Gelcoat and molding operations
Parameter: Volatile Organic Compounds (VOC) Emissions
Limit: Twenty-five (25) 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 Months Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

Conclusion

The operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 003-16250-00177 and Significant Permit Modification No. 003-17105-00177.

Appendix A: Emissions Calculations
Styrene and Methyl Methacrylate Emissions from
Gel Coat and Molding Operations
(Emission units G17, G18, G19, and G20)

Company Name: Harris Kayot, Inc.
Address City IN Zip: 2801 West State Street, Ft. Wayne, Indiana 46808
SSM: 003-16250
Plt ID: 003-00177
Reviewer: ERG/AAB
Date: 1/10/03

Material	Annual Purchases* (lbs/yr)	Max. Annual Usage** (tons/yr)	HAP wt. %	Emission Factor***	Styrene Tons/yr	Methyl Methacrylate Tons/yr
Poly-Bond B 39 R, S or W, pumpable putty	53500	114.9	24.400%	52.20	3.00	
STYPOL LSPC-3200 Production Resin	534000	1146.5	33.507%	72.50	41.56	
SprayCore 2000-OS 2nd Skin Cote	58300	125.2	40.000%	93.00	5.82	
STYPOL 073-5620 SkinCoat, VE-1 Cook	36200	77.7	34.873%	76.70	2.98	
Polar White, 963WH206 (Gelcote)	83900	180.1	19.362%	172.70	15.55	
	83900	180.1	8.497%	127.50		11.5
Navy, 954LH220 (Gelcote)	5200	11.2	36.474%	366.50	2.05	
	5200	11.2	4.476%	67.50		0.38
Green, 954GH161 (Gelcote)	5300	11.4	36.115%	358.10	2.04	
	5300	11.4	4.435%	67.50		0.38
Yellow, 954YH224 (Gelcote)	1100	2.4	35.292%	342.00	0.40	
	1100	2.4	4.191%	63.00		0.07
Flame Red, 954RH126 (Gelcote)	1200	2.6	36.246%	360.20	0.46	
	1200	2.6	4.325%	64.50		0.08
Pitch, 954BA025LG (Gelcote)	250	0.5	38.181%	402.00	0.11	
	250	0.5	4.822%	72.00		0.019
Pebble (Taupe), 954NA846 (Gelcote)	1200	2.6	36.434%	364.40	0.47	
	1200	2.6	4.548%	67.50		0.09
Orange, 954YH220 (Gelcote)	1200	2.6	35.752%	352.00	0.45	
	1200	2.6	4.378%	66.00		0.09
Cabernet, 954MH030 (Gelcote)	1500	3.2	36.119%	358.10	0.58	
	1500	3.2	4.435%	66.00		0.11
71000, body filler, for lamination	2000	4.3	27.000%	57.80	0.12	

Potential to Emit (tons/year)		75.60	12.7
Total PTE for HAPs (tons/year)	88.3		

Note: Styrene and methyl mathacrylate are also VOCs

* - Annual Usage based on 2001 usage records and 2040 hours of operation.

** - Maximum annual usage is based on 8760 hours of operation per year.

*** Emission Factors (in lbs/ton) for resin and gelcoat operations taken from the CFA Unified Emission Factors (July 23, 2001)

Methodology:

PTE (tons/yr) for gelcoats and resins = Max. Usage (tons/yr) * Emission Factor

Appendix A: Emissions Calculations
VOC and HAP Emissions from the New
Gel Coat and Molding Operations
(Emission units G17, G18, G19, and G20)

Company Name: Harris Kayot, Inc.
Address City IN Zip: 2801 West State Street, Ft. Wayne, Indiana 46808
SSM: 003-16250
Plt ID: 003-00177
Reviewer: ERG/AAB
Date: 1/10/03

Material	Annual Purchases* (lbs/yr)	Max. Annual Usage** (tons/yr)	VOC wt. %	Max. VOC (tons/yr)	MEK (wt %)	MEK (tons/year)
LUPEROX DHD-9, Clear Catalyst	3300	7.1	98.00%	6.9	2.00%	0.14
LUPEROX DHD-9 Red, Catalyst	8900	19.1	98.00%	18.7	2.00%	0.38
PTE VOC (tons/year)				25.7		
Total HAPs (tons/year)						0.52

* - Annual Usage based on 2001 usage records and 2040 hours of operation.

** - Maximum annual usage is based on 8760 hours of operation per year.

*** - Styrene and Methyl Methacrylate are also VOCs.

Methodology:

PTE (tons/yr) = Max. Usage (tons/yr) * % weight

Appendix A: Emission Calculations
Natural Gas Combustion in Four
0.5 MMBtu per hour Space Heaters

Company Name: **Harris Kayot, Inc.**
Address City IN Zip: **2801 West State Street, Ft. Wayne, Indiana 46808**
CP: **003-16250**
Plt ID: **003-00177**
Reviewer: **ERG/AAB**
Date: **12/09/02**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.0	17.5

(includes four 0.5 MMBtu per hour space heaters).

	Pollutant					
	PM*	PM10*	SO2	NO_x	VOC	CO
Emission Factor in lb/MMCF	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.07	0.07	0.005	0.9	0.05	0.74

*PM and PM10 emission factors are for filterable and condensible PM/PM10 combined.

**Emission Factors for NO_x: Uncontrolled = 100, Low NO_x Burner = 50, Low NO_x Burners/Flue gas recirculation = 32

Methodology

All Emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF - 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (AP-42 Supplement D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See next page for HAPs emissions calculations.

Appendix A: Emission Calculations
Natural Gas Combustion in Four
0.5 MMBtu per hour Space Heaters

Company Name: **Harris Kayot, Inc.**
Address City IN Zip: **2801 West State Street, Ft. Wayne, Indiana 46808**
CP: **003-16250**
Plt ID: **003-00177**
Reviewer: **ERG/AAB**
Date: **12/09/02**

HAPs - Organics

	Benzene	Dichlorobenzen	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMCF	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.840E-05	1.051E-05	6.570E-04	1.577E-02	2.978E-05

HAPs - Metals

	Lead	Cadmuim	Chromium	Manganese	Nickel
Emission Factor in lb/MMCF	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	4.380E-06	9.636E-06	1.226E-05	3.329E-06	1.840E-05

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.