INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Mr. John Sobo
AK Industries, Inc.
2055 Pidco Drive
Plymouth, IN 46563

May 12, 2005

Re: 099-20413-00043
First Minor Permit Modification to
Part 70 No.: T 099-7547-00043

Dear Mr. Sobo.:

AK Industries, Inc. was issued a Part 70 operation permit on April 20, 2001 for operation of a stationary fiber reinforced plastic tank and tube manufacturing plant. A letter requesting changes to this permit was received on January 18, 2005. Pursuant to the provisions of 326 IAC 2-7-12 a minor permit modification to this permit is hereby approved as described in the attached Technical Support Document. Also, the revisions from 1st. Amendment 099-11553-00043, 2nd. Amendment 099-12133-00043, and MSM 099-12422-00043, were also incorporated in this minor permit modification.

The changes are shown as strike out for deletion and bold face for additions.

D.1 FIBERGLASS PARTS MANUFACTURING OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.1.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]
D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]
D.1.3 New Source Toxics Control [326 IAC 2-4.1]
D.1.4 Particulate Matter (PM) [326 IAC 6-3-2]
D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

Compliance Determination Requirements
D.1.6 Testing Requirements [326 IAC 3-6]
D.1.7 Volatile Organic Compounds (VOC)
D.1.8 VOC Emissions
D.1.9 Particulate Matter (PM)

Compliance Monitoring Requirements [326 IAC 2-7-6(1)][326 IAC 20705(1)]
D.1.10 Monitoring
~~D.1.11 Parametric Monitoring~~
~~D.1.12 Baghouse Inspections~~
~~D.1.13 Broken or Failed Bag Detection~~

Record Keeping and Reporting Requirements

D.1.14 **1** Record Keeping Requirement
~~D.1.15 Record Keeping Requirements~~
D.1.16 **2** Reporting Requirements

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 permitted emission units and pollution control devices:

(h) ~~Two (2)~~ **One (1)** hand grinding ~~and blasting~~ booth~~s~~, identified as CB1 ~~and CB2~~, with a maximum design capacity of ~~1.04~~ **2.08** tons ~~(parts)~~ /hr ~~each~~, emissions controlled by ~~baghouse P1~~ **dry filter**, and emissions exhausted ~~to stack P1~~ **inside the building**,

(i) One (1) ~~pneumatic shot~~ **sand** blasting booth, identified as CB2, with a maximum design capacity of ~~1000 lb~~ **0.5 tons**/hr, emissions controlled by ~~baghouse P1~~ **a dry filter**, and emissions exhausted ~~to stack P1~~ **inside the building,**

(l) **One (1) Pulverizor identified as RP 3, constructed in 2000, with maximum rate of production of Polyethylene pieces of 949.05 lbs/hour using Cyclone as control, and exhausting to stack RP 3.**

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]: Fiberglass Parts Manufacturing Operation

(f) ~~Two (2)~~ **One (1)** hand grinding ~~and blasting~~ booth~~s~~, identified as CB1 ~~and CB2~~, with a maximum design capacity of ~~1.04~~ **2.08** tons ~~(parts)~~ /hr ~~each~~, emissions controlled by ~~baghouse P1~~ **dry filter**, and emissions exhausted ~~to stack P1~~ **inside the building**,

(g) One (1) ~~pneumatic shot~~ **sand** blasting booth, identified as CB2, with a maximum design capacity of ~~1000 lb~~ **0.5 tons**/hr, emissions controlled by ~~baghouse P1~~ **a dry filter**, and emissions exhausted ~~to stack P1~~ **inside the building,**

(i) **One (1) Pulverizor identified as RP 3, constructed in 2000, with maximum rate of production of Polyethylene pieces of 949.05 lbs/hour using Cyclone as control, and exhausting to stack RP 3.**

D.1.4 Particulate Matter (PM) [326 IAC 6-3-2]

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Operation	Process Rate (ton/hr)	PM Limit (lb/hr)
CP1/HL1	0.24	1.58
CP2	0.24	1.58
CP3	0.24	1.58
FW4	0.05608	0.60

FWSH1-3/CPC4	0.2648	1.68
FWSH4	0.2648	1.68
FWSH5	0.2648	1.68
FWSH6	0.2648	1.68
CB1/CB2	2.08	6.70
CB2	0.5	2.58
G1	0.03155	0.41
FCG1	0.02155	0.31
FCR1	0.2	1.39
RP3	**0.475**	**2.49**

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

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for all of the facility's emissions units and control devices except FW4, HL1, ~~and~~ FT1, **P2, and P3**.

D.1.9 Particulate Matter (PM)

~~Pursuant to CP 099-10311-00043 issued on April 15, 1999, t~~ **T**he dry filters~~, and baghouses~~ for particulate matter **overspray** control shall be ~~in operation~~ **properly placed and maintained to ensure integrity and particulate loading of the filters** at all times when the ~~associated fiberglass facilities~~ **paint booths** are in operation.

The Cyclone shall be in operation at all times the Pulverizor RP3 is in operation, in order to comply with the limit for RP3 in D.1.4.

~~D.1.11 Parametric Monitoring~~

~~The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the processes (a) through (i) listed in the facility description at the beginning of Section D.1, at least once weekly when the processes are in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. 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.~~

~~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, OAQ, and shall be calibrated at least once every six (6) months.~~

~~D.1.12 Baghouse Inspections~~

~~An inspection shall be performed each calendar quarter of all bags controlling the hand grinding area (CB1), and the shot blast area (CB2) when venting to the atmosphere. A~~

~~baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting indoors. All defective bags shall be replaced.~~

~~D.1.13 Broken or Failed Bag Detection:~~

~~(a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

~~(b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).~~

D.1.~~14~~**11** Record Keeping Requirements

(a) To document compliance with Conditions D.1.1, D.1.3 and D.1.8, the Permittee shall maintain records in accordance with (1) through ~~(4)~~ **(3)** below. Records maintained for (1) through ~~(4)~~ **(3)** shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC volatile organic HAP emission limit established in Conditions D.1.1 and D.1.3, respectively.

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

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

~~(3)~~ Method of application and other emission reduction techniques for each resin and gel coat used;

~~(4)~~ **(3)** The calculated total volatile organic HAP emissions from resin and gel coat use for each month.

(b) To document compliance with Conditions ~~D.1.6 and D.1.9~~ **D.1.3 and D.1.10**, the Permittee shall maintain a copy of the operator - training program, training records, and those additional inspections prescribed by the Preventive Maintenance Plan.

D.2.6 Particulate Matter (PM)

The dry filters for particulate matter overspray control shall be properly placed and maintained to ensure integrity and particulate loading of the filters at all times when paint booth**s** ~~PB1 is~~ **are** in operation.

D.2.8 Record Keeping Requirements

(a) To document compliance with Condition D.2.1 and D.2.3, the Permittee shall maintain records in accordance with (1) through ~~(6)~~ **(5)** below. Records maintained for (1) through ~~(6)~~ **(5)** shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.2.1 and D.2.3.

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

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Dr. Trip Sinha, OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204, or call at (800) 451-6027, press 0 and ask for Dr. Trip Sinha or extension (3-3031), or dial (317) 233-3031.

Sincerely,
Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
TPS
cc: File - Marshall County
U.S. EPA, Region V
Marshall County Health Department
Northern Regional Office
Air Compliance Section Inspector – Rick Reynolds
Compliance Data Section
Administrative and Development

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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

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

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-2 and 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T 099-7547-00043	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: 04-20-2001 Expiration Date: 04-20-2006

1st. Amendment No.: 099-11553-00043	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: 03-20-2000
2nd Amendment No.: 099-12133-00043	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: 05-24-2000
1st. Minor Source Modification No.: MSM 099-12422-00043	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: 09-05-2000.
1st. Minor Permit Modification No.: 099-20413-00043	
Issued by: Original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: May 12, 2005

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C.13 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]
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D.1 FIBERGLASS PARTS MANUFACTURING OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-7-5(1)]
D.1.1 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]
D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]
D.1.3 New Source Toxics Control [326 IAC 2-4.1]
D.1.4 Particulate Matter (PM) [326 IAC 6-3-2]
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D.2.1 Volatile Organic Compounds (VOC) [326 IAC 2-2]

D.2.2 Particulate Matter (PM) Overspray [326 IAC 6-3]

D.2.3 Miscellaneous Metal Coating [326 IAC 8-2-9]

D.2.4 Preventive Maintenance Plan [326 IAC 1-6-3]

Compliance Determination Requirements

D.2.5 Testing Requirements [326 IAC 3-6]

D.2.6 Particulate Matter (PM)

Compliance Monitoring Requirements

D.2.7 Monitoring

Recording Keeping and Reporting Requirements

D.2.8 Record Keeping Requirements

D.2.9 Reporting Requirements

(h) One (1) hand grinding booth, identified as CB1, with a maximum design capacity of 2.08 tons /hr, emissions controlled by dry filter, and emissions exhausted inside the building,

(i) One (1) sand blasting booth, identified as CB2, with a maximum design capacity of 0.5 tons/hr, emissions controlled by a dry filter, and emissions exhausted inside the building**,**

(j) One (1) fitting area, identified as FT1,

(k) One (1) paint booth, identified as PB1, with a maximum design capacity of 6 lids/hr, with emissions sometimes controlled by a dry filter system (which is not required to meet compliance) and exhausted to stack F2.

(l) One (1) pulverizor identified as RP 3, constructed in 2000, with maximum rate of production of Polyethylene pieces of 949.05 lbs/hour using cyclone as control, and exhausting to stack RP 3.

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

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

(a) The following equipment related to t he manufacturing activities not resulting in the emission of HAPs [326 IAC 6-3-2]:

(1) One hand tooling and finishing area,

(2) Two pulverizor units,

(3) One regrind unit,

(4) Two metal inert gas welding units,

(5) One plasma cutting unit,

(6) One metal cutting unit,

(7) One metal sanding unit,

(8) One metal drilling unit, and

(9) One fiberglass tube cutter.

(b) The following equipment related to the manufacturing activities not resulting in the emission of VOCs [326 IAC 8-3].

Degreasing operations that do not exceed 145 gallons per 12 months.

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)]: Fiberglass Parts Manufacturing Operation

(a) One (1) hand layup area, identified as HL1, and three (3) resin flowcoat booths, identified as CP1, CP2, CP3, respectively, each float coat booth with a maximum design rate of 1 unit/hr, with emissions exhausted to stacks F1, F3, and F4, respectively,

(b) One (1) gelcoat booth, identified as G1, with a maximum design rate of 5.71 units/hr, with emissions controlled by a dry filter system, and emissions exhausted to stack F5.

(c) One (1) filament winding machine, identified as FW4, with a maximum design rate of 4 units/hr,

(d) Six (6) filament winding mandrels, identified as FWSH1 through FWSH6, each with a maximum design rate of 1 unit/hr, each with emissions controlled by a dry filter system, with emissions exhausted to stacks F6 through F11, respectively,

(e) One (1) portable resin spray applicator, identified as CPC4, with emissions exhausted to stacks F6, F7, F8, F9, F10, or F11,

(f) One (1) hand grinding booth, identified as CB1, with a maximum design capacity of 2.08 tons/hr, emissions controlled by dry filter, and emissions exhausted inside the building,

(g) One (1) sand blasting booth, identified as CB2, with a maximum design capacity of 0.5 tons/hr, emissions controlled by a dry filter, and emissions exhausted inside the building,

(h) One (1) gelcoat booth, identified as FCG1, with a maximum design capacity of 0.125 parts/hr, with emissions controlled by a dry filter system and exhausted to stack F12,

(i) (i) One (1) resin flowcoat booth, identified as FCR1, with a maximum design rate of 0.125 parts/hr, with emissions exhausted to stack F13.

(j) One (1) pulverizor identified as RP 3, constructed in 2000, with maximum rate of production of Polyethylene pieces of 949.05 lbs/hour using cyclone as control, and exhausting to stack RP 3.

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

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

Pursuant to CP-099-10311-00043, issued on April 15, 1999, the fiberglass parts manufacturing operation, including units HL1, CP1-CP3, G1, FW4, FWSH1-FWSH6, CPC4, CB1, CB2, FCG1, and FCR1, in conjunction with the paint booth, PB1, shall use less than 250 tons of VOC, including coatings, dilution solvents, and cleaning solvents, per 12 consecutive month period. The usage limit for this facility and the paint booth usage limit (Condition D.2.1) are required to limit the potential to emit of VOC to less than 250 tons per 12 consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

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

Pursuant to 326 IAC 8-1-6, the fiberglass parts manufacturing operation is subject to the requirements of 326 IAC 8-1-6, which requires that the Best Available Control Technology (BACT) be used to control VOC emissions. BACT for this new source shall be satisfied by the requirements of 326 IAC 2-4.1 (New Source Toxic Control) specified in Condition D.1.3.

Operation	Process Rate (ton/hr)	PM Limit (lb/hr)
CP1/HL1	0.24	1.58
CP2	0.24	1.58
CP3	0.24	1.58
FW4	0.05608	0.60
FWSH1-3/CPC4	0.2648	1.68
FWSH4	0.2648	1.68
FWSH5	0.2648	1.68
FWSH6	0.2648	1.68
CB1/CB2	2.08	6.70
CB2	0.5	2.58
G1	0.03155	0.41
FCG1	0.02155	0.31
FCR1	0.2	1.39
RP3	0.475	2.49

D.1.5 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for all of the facility's emission units and control devices except FW4, HL1, FT1, HT1, P2, and P3.

Compliance Determination Requirements

D.1.6 Testing Requirements [326 IAC 3-6]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if these facilities are in compliance. If testing is required by IDEM, compliance with the volatile organic compound limit specified in Conditions D.1.1 and D.1.2 shall be determined by a performance test conducted in accordance with Section C -Performance Testing.

D.1.7 Volatile Organic Compounds (VOC)

Compliance with the VOC and monomer content and usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the manufacturer.

D.1.8 VOC Emissions

Compliance with Condition D.1.1 and D.1.3(a) shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound and volatile organic HAP usage for the twelve (12) month period.

D.1.9 Particulate Matter (PM)

The dry filters for particulate matter overspray control shall be properly placed and maintained to ensure integrity and particulate loading of the filters at all times when the paint booths are in operation.

The Cyclone shall be in operation at all times the Pulverizor RP3 is in operation, in order to comply with the limit for RP3 in D.1.4.

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

D.1.10 Monitoring

(a) The Permittee shall implement an operator-training program.

(1) All operators that perform gel coat spray operations, resin spray operations, paint spray operations, chopping operations or booth maintenance shall be trained in the proper set-up and operation of the particulate control system. All existing operators shall be trained within 60 days of the date of permit reissuance. All new operators shall be trained upon hiring or transfer.

(2) Training shall include proper filter alignment, filter inspection and maintenance, and trouble shooting practices. The training program shall be written and retained on site. The training program shall include a description of the methods to be used at the completion of initial and refresher training to demonstrate and document successful completion. Copies of the training program, the list of trained operators and training records shall be maintained on site or available within 1 hour for inspection by IDEM.

(3) All operators shall be given refresher training annually.

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

Record Keeping and Reporting Requirements

D.1.11 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1, D.1.3 and D.1.8, 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 volatile organic HAP emission limit established in Conditions D.1.1 and D.1.3, respectively.

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

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

(3) The calculated total volatile organic HAP emissions from resin and gel coat use for each month.

(b) To document compliance with Conditions D.1.6 and D.1.10, the Permittee shall maintain a copy of the operator - training program, training records, 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 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 and D.1.3 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2 PAINT BOOTH OPERATION CONDITIONS

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

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

(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 Volatile Organic Compounds (VOC) PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

Pursuant to CP 099-10311-00043, the input volatile organic compounds (VOC) including clean up solvent, minus the VOC solvent shipped out, delivered to the applicators of Paint Booth PB1 shall be limited to 147 tons per twelve (12) consecutive month period. This usage limit and the usage limit for the fiberglass parts manufacturing process (Condition D.1.1) are required to emit the potential to emit of VOC to less than 250 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration and 40 CFR 52.21 not applicable.

D.2.2 Particulate Matter (PM) Overspray [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2, the allowable particulate matter (PM) emissions from the Paint Booth PB1 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 lb/hr, and
P = process weight rate in ton/hr

D.2.3 Miscellaneous Metal Coating [326 IAC 8-2-9]

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booth shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for extreme performance coatings. Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.2.4 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.2.5 Testing Requirements [326 IAC 3-6]

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 volatile organic compound limit specified in Conditions D.2.1 and D.2.3 shall be determined by a performance test conducted in accordance with Section C -Performance Testing.

D.2.6 Particulate Matter (PM)

The dry filters for particulate matter overspray control shall be properly placed and maintained to ensure integrity and particulate loading of the filters at all times when paint booths are in operation.

Compliance Monitoring Requirements

D.2.7 Monitoring

(a) The Permittee shall implement an operator-training program.

(1) All operators that perform gel coat spray operations, resin spray operations, paint spray operations, chopping operations or booth maintenance shall be trained in the proper set-up and operation of the particulate control system. All existing operators shall be trained within 60 days of the date of permit reissuance. All new operators shall be trained upon hiring or transfer.

(2) Training shall include proper filter alignment, filter inspection and maintenance, and trouble shooting practices. The training program shall be written and retained on site. The training program shall include a description of the methods to be used at the completion of initial and refresher training to demonstrate and document successful completion. Copies of the training program, the list of trained operators and training records shall be maintained on site or available within 1 hour for inspection by IDEM.

(3) All operators shall be given refresher training annually.

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

Record Keeping and Reporting Requirements

D.2.8 Record Keeping Requirements

(a) To document compliance with Condition D.2.1 and D.2.3, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.2.1 and D.2.3.

(1) The amount and VOC content of each 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) The volume weighted VOC content of the coatings used for each month;

(3) The cleanup solvent usage for each month;

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

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

(b) To document compliance with Condition D.2.2 and D.2.7, the Permittee shall maintain a copy of the operator training program, training records, 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.

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Minor Permit Modification.

Source Background and Description

Source Name:	AK Industries, Inc.
Source Location:	2050 Pidco Drive, Plymouth, Indiana 46563
County:	Marshall
SIC Code:	3999
Operation Permit No.:	T099-7547-00043
Operation Permit Issuance Date:	4-19-2001
Minor Permit Modification No.:	099-20413-00043
Permit Reviewer:	Dr. Trip Sinha

The Office of Air Quality (OAQ) has reviewed an application from AK Industries, Inc. relating to combining the three resin flowcoat booths and one layup operation into one lamination area, elimination of blasting operation from the booth CB1, changing the blasting media from shot to sand used in blasting unit CB2, and installation of new high efficiency filter media replacing the old baghouse P1. The pollution control device is described as following:

(a) One (1) high efficiency dual dry filter system, which controls cutting and grinding booth CB1, and sand blasting booth with a maximum air flow of 38,100 cubic feet per minute and, exhausting inside the building.

History

AK Industries, Inc. was issued a Part 70 permit on April 4, 2001.

Existing Approvals

The source was issued a Part 70 Operating Permit T099-7547-00043 on April 4, 2001. The source has not received any approval after the issuance of Part 70 permit.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the Part 70 Minor 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 January 18, 2005.

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 (page 1 and 2).

Increase in PM and PM10 emissions = (Emissions after new control) – (emissions after existing control)

= (2.8+0.6) – (29.3+11.3) tons/yr
= (3.4) – (40.6)
= -37.2 tons/yr – Decrease in emissions

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. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	0.0
PM-10	0.0
SO_2	0.0
VOC	0.0
CO	0.0
NO_x	0.0

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

Justification for Modification

Pursuant to 326 IAC 2-1.1-1(6)(A), and (B), this modification is a Minor Physical Change at an existing source.

Pursuant to 326 IAC 2-1.1-3(h), the Minor Physical Change at an existing source is exempt from modification approval requirements in 326 IAC 2-7-10.5.

The Part 70 Operating permit is being modified through a Part 70 Minor Permit Modification. This modification is being performed pursuant to 326 IAC 2-7-12(b)(A) as it does not violate any applicable requirement.

County Attainment Status

The source is located in Marshall County.

Pollutant	Status
PM-10	**attainment**
SO_2	**attainment**
NO_2	**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. Marshall County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions are reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Marshall County has been classified as attainment or unclassifiable for all other pollutants.

Therefore, these emissions are reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Source Status

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

Pollutant	Emissions (tons/year)
PM	139.3
PM-10	139.3
SO_2	neg.
VOC	<249
CO	15
NOx	17.9

(a) This existing source is not a major stationary source because no criteria regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(b) The particulate matter (PM) emissions are 139.3 tons/yr (135.1 tons/yr from T7547 and 4.2 tons/yr from MSM 12422), therefore the PSD requirements under 326 IAC 2-2 do not apply.

(c) These emissions are based upon Technical Support Document for the MSM 099-12422-00043 issued on September 5, 2000.

Potential to Emit of Modification after Issuance

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

	Potential to Emit (tons/year)	
Process/facility	PM	PM-10
Emissions before modification	139.3	139.3
Emissions after modification	102.1	102.1
PSD Threshold	250	250

This modification to an existing minor stationary source is not major because the total emission is less than the PSD Threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability

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

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

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the grinding and sand blasting shall be limited by the following equation:

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

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

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

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.

There are no compliance monitoring required for the filters as they discharge inside the building.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Permit Modification No. 099-20413-00043.

Appendix A: Process Particulate Emissions

Sanding & Grinding Operations

Company Name: **AK Industries, Inc.**
Address City IN Zip: **2055 Pidco Drive, Plymouth, IN 46563**
Reviewer: **D&B Environmental Services, Inc.**
Date: **6/28/2004**

Process Throughput Weight:*	2.080	tons/hr
Design Maximum Air Flow Rate:	38,100	acf/m
Overall Controll Efficiency Rating:	95.00%	Percent
Design Outlet Grain Loading:	0.00196	grains/acf

*Net Process Weight from Fiberglass Operations (Throughput Ton/Hr - Emissions Ton/Hr)

AFTER CONTROL EMISSIONS RATE:

Hourly Emission Rate =	**grains/acf**		**X**	**acf/m**	**X**	**60 min/hr**		**X**	**1/7,000 grains/lb**	**=**	**lb/hr**	
Hourly Emission Rate =		0.0020	**X**	38,100	**X**		60	**X**	0.00014	**=**	0.640	**lb/hr**
Annual Emission Rate =	**lb/hr**		**X**	**8,760 hr/year**	**X**	**1/2,000 lb/ton**		**=**	**tons/year**			
Annual Emission Rate =		0.640	**X**	8,760	**X**		0.0005	**=**	2.80	**tons/year**		

BEFORE CONTROL EMISSION RATE:

Potential Emissions =	**After Control Rate (tons/year)**				**/**	**[1 - Control Efficiency]**	**=**		**tons/year**
Potential Emissions =		2.80	/	0.0500			=	56.07	**tons/year**

ALLOWABLE PROCESS EMISSION RATE:

Allowable Emission Rate (E) < 30 ton/hr =	**Process Rate tons/hr ^ 0.67**				**X**	**4.1**	**=**	**lb/hr**
Allowable Emission Rate (E) < 30 ton/hr =		1.63	X	4.1	=		6.70	**lb/hr**

Particulate Emissions

Abrasive Blasting Machine

Company Name: **AK Industries, Inc.**
Address City IN Zip: **2055 Pidco Drive, Plymouth, IN 46563**
Reviewer: **D&B Environmental Services, Inc.**
Date: **10/28/2004**

Process Throughput Weight:*	0.500	tons/hr
Design Maximum Air Flow Rate:	400	acf/m
Overall Controll Efficiency Rating:	95.00%	Percent
Design Outlet Grain Loading:	0.04	grains/acf

*Net Process Weight from Fiberglass Operations (Throughput Ton/Hr - Emissions Ton/Hr) - Emissions Lost to Grinding (Emissions Ton/Hr)

AFTER CONTROL EMISSIONS RATE:

Hourly Emission Rate =	**grains/acf**		**X**	**acf/m**	**X**	**60 min/hr**	**X**	**1/7,000 grains/lb**	**=**	**lb/hr**	
Hourly Emission Rate =	0.0400		**X**	400	**X**	60	**X**	0.00014	**=**	0.137	**lb/hr**
Annual Emission Rate =	**lb/hr**		**X**	**8,760 hr/year**	**X**	**1/2,000 lb/ton**	**=**	**tons/year**			
Annual Emission Rate =	0.14		**X**	8,760	**X**	0.0005	**=**	0.60	**tons/year**		

BEFORE CONTROL EMISSION RATE:

Potential Emissions =	**After Control Rate (tons/year)**			**/**	**[1 - Control Efficiency]**	**=**		**tons/year**
Potential Emissions =	0.60	/	0.0500			=	12.01	**tons/year**

ALLOWABLE PROCESS EMISSION RATE:

Allowable Emission Rate (E) < 30 ton/hr =	**Process Rate tons/hr ^ 0.67**			**X**	**4.1**	**=**	**lb/hr**	
Allowable Emission Rate (E) < 30 ton/hr =	0.63	X	4.1	=	2.58		**lb/hr**	