MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR MANAGEMENT

Madison Precision Products, Inc.
94 East 400 North
Madison, Indiana 47250

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

Operation Permit No.: MSOP 077-11368-00019	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (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 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary source for aluminum part manufacturing for the automotive industry.

Authorized Individual:	Mr. Louis Alexander
Source Address:	94 East 400 North, Madison, Indiana 47250
Mailing Address:	Route 1, Box 29, 400 North and Michigan Road, Madison, Indiana 47250
Phone Number:	812-273-4702
SIC Code:	3363
County Location:	Jefferson
County Status:	Attainment for all criteria pollutants, except SO2 Unclassifiable for SO2
Source Status:	Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

(1) One (1) mechanical shotblasting unit, identified as B1, operation began in May 1989, with a maximum blast rate of 230 pounds per hour, blasting #50 steel grit, and controlled by a cartridge filter.

(2) One (1) mechanical shotblasting unit, identified as B2, operation began in July 1993, with a maximum blast rate of 320 pounds per hour, blasting aluminum, and controlled by a cartridge filter.

(3) One (1) mechanical shotblasting unit, identified as B4, operation began in July 1994, with a maximum blast rate of 140 pounds per hour, blasting #40 chronital stainless steel, and controlled by a baghouse.

(4) One (1) pneumatic shotblasting unit, identified as B5, operation began in February 1994, with a maximum blast rate of 100 pounds per hour, blasting glass beads, and controlled by a baghouse.

(5) One (1) mechanical shotblasting unit, identified as B6, operation began in 1996, with a maximum blast rate of 320 pounds per hour, blasting sand, and controlled by cartridge filters.

(6) One (1) mechanical shotblasting unit, identified as B7, with a maximum blast rate of 405 lbs/hr using a cartridge filter dust collector with no outside stack.

(7) One (1) mechanical shot blasting unit, identified as B-8, with a maximum blast rate of 1,375 pounds of steel per hour, controlled by a wet venturi scrubber.

(8) Seven (7) melt furnaces, identified as P1 - P7, with maximum heat input capacities of 2.53, 2.53, 3.0, 2.53, 0.68, 0.68, and 2.8 million British Thermal Units per hour (mmBtu/hr), and maximum aluminum melting capacities of 1500, 1500, 1500, 1500, 450, 450, and 1300 pounds per hour, respectively.

(9) Two (2) melt furnaces, identified as P8 and P9, fueled by natural gas only, combined heat capacity is 7.6 mmBtu/hr, and with a maximum throughput of aluminum ingots of 3300 pounds per hour.

(10) One (1) melt furnace, identified as P10, melting only ingots, with a maximum heat input

capacity of 2.3 mmBtu/hr and a maximum melt capacity of 1500 pounds of aluminum per hour, using a maximum of 0.32 pounds of flux per hour, with emissions uncontrolled and exhausting to stack P-10.

(11) Twenty-six (26) natural gas-fired heaters, identified as H1 - H26, with a total maximum capacity of 40.78 mmBtu/hr.

(12) One (1) stick welding station, with a maximum electrode usage of 200 pounds per year.

(13) One (1) TIG welding station, with a maximum metal consumption of 20 pounds per year.

(14) One (1) oxyacetylene flame cutting operation, with a maximum of 36" of metal cut per week.

SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit 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.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit 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.

B.5 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled “Minor Source Operating Permit”, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section.

(1) If the Affidavit of Construction verifies that the facilities covered in this Construction Permit were constructed as proposed in the application, then the facilities may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

(2) If the Affidavit of Construction does not verify that the facilities covered in this Construction Permit were constructed as proposed in the application, then the Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section prior to beginning operation of the facilities.

(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(c) Upon receipt of the Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section, the Permittee shall attach it to this document.

(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees)**.**

(e) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 Emission Limitations

Any change or modification which may increase the potential to emit of particulate matter less than ten (10) microns (PM10), sulfur dioxide (SO2), volatile organic compounds (VOCs), nitrogen oxides (NOx) and carbon monoxide (CO) to 100 tons per year or more or any single HAP to 10 tons per year or more and of any combination of HAPs to 25 tons per year or more, must be approved by the Office of Air Management before any such change may occur.

C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:

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

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

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

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Opacity [326 IAC 5-1]

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

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

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

C.4 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

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

submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAM within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.5 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

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

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

(b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

(c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

C.6 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch, within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAM, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.7 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.8 Fugitive Dust Emissions [326 IAC 6-4]

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

Testing Requirements

C.9 Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.10 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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

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

C.11 Maintenance of Monitoring Equipment [IC 13-14-1-13]

(a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.12 Monitoring Methods [326 IAC 3]

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

C.13 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

C.14 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of :

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall

submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

Record Keeping and Reporting Requirements

C.16 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.17 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record

keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.18 General Record Keeping Requirements [326 IAC 2-6.1-2]

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

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented when operation begins.

C.19 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-Annual Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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

(d) Unless otherwise specified in this permit, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) A malfunction as described in 326 IAC 1-6-2; or

(3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.

(4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.20 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Management stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Data Section, Office of Air Management
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

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

(1) One (1) mechanical shotblasting unit, identified as B1, operation began in May 1989, with a maximum blast rate of 230 pounds per hour, blasting #50 steel grit, and controlled by a cartridge filter.
(2) One (1) mechanical shotblasting unit, identified as B2, operation began in July 1993, with a maximum blast rate of 320 pounds per hour, blasting aluminum, and controlled by a cartridge filter.
(3) One (1) mechanical shotblasting unit, identified as B4, operation began in July 1994, with a maximum blast rate of 140 pounds per hour, blasting #40 chronital stainless steel, and controlled by a baghouse.
(4) One (1) pneumatic shotblasting unit, identified as B5, operation began in February 1994, with a maximum blast rate of 100 pounds per hour, blasting glass beads, and controlled by a baghouse.
(5) One (1) mechanical shotblasting unit, identified as B6, operation began in 1996, with a maximum blast rate of 320 pounds per hour, blasting sand, and controlled by cartridge filters.
(6) One (1) mechanical shotblasting unit, identified as B7, with a maximum blast rate of 405 lbs/hr using a cartridge filter dust collector with no outside stack.
(7) One (1) mechanical shot blasting unit, identified as B-8, with a maximum blast rate of 1,375 pounds of steel per hour, controlled by a wet venturi scrubber.

Emission Limitations and Standards

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to CP077-5045 and 326 IAC 6-3-2, the particulate matter (PM) from shotblasting units:

(1) B1 shall not exceed 0.82 pounds per hour when operating at a process weight rate of 0.115 tons per hour.
(2) B2 shall not exceed 1.2 pounds per hour when operating at a process weight rate of 0.16 tons per hour.
(3) B4 shall not exceed 0.59 pounds per hour when operating at a process weight rate of 0.07 tons per hour.
(4) B5 shall not exceed 0.47 pounds per hour when operating at a process weight rate of 0.05 tons per hour.
(5) B6 shall not exceed 1.2 pounds per hour when operating at a process weight rate of 0.16 tons per hour.
(6) B7 shall not exceed 1.4 pounds per hour when operating at a process weight rate of 0.201 tons per hour.
(7) B8 shall not exceed 3.19 pounds per hour when operating at a process weight rate of 0.688 tons per hour.

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

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

D.1.2 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for this emissions unit and any control devices.

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Particulate Matter (PM)

The appropriate baghouse or cartridge filters for PM control shall be in operation at all times when the shotblasting units are in operation.

D.1.5 Visible Emissions Notations

(a) Daily visible emission notations of the shotblasting stack exhausts shall be performed 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 Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the shotblasting units, at least once weekly when the shotblasting units are in operation. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 1.0 to 3.0 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.

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.1.7 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the shotblasting units. 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 to the

indoors. All defective bags shall be replaced.

D.1.8 Broken or Failed Bag 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. 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).

Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.9 Record Keeping Requirements

(a) To document compliance with Condition D.1.5, the Permittee shall maintain records of daily visible emission notations of the shotblasting stack exhausts.

(b) To document compliance with Condition D.1.6, the Permittee shall maintain the following:

(1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:

(A) Inlet and outlet differential static pressure; and

(B) Cleaning cycle: frequency and differential pressure

(2) Documentation of all response steps 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.

(8) Documentation of the dates vents are redirected.

(b) To document compliance with Condition D.1.7, the Permittee shall maintain records of the results of the inspections required under Condition D.1.7 and the dates the vents are

redirected.

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

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

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

(1) Seven (7) melt furnaces, identified as P1 - P7, with maximum heat input capacities of 2.53, 2.53, 3.0, 2.53, 0.68, 0.68, and 2.8 million British Thermal Units per hour (mmBtu/hr), and maximum aluminum melting capacities of 1500, 1500, 1500, 1500, 450, 450, and 1300 pounds per hour, respectively.

(2) Two (2) melt furnaces, identified as P8 and P9, fueled by natural gas only, combined heat capacity is 7.6 mmBtu/hr, and with a maximum throughput of aluminum ingots of 3300 pounds per hour.

(3) One (1) melt furnace, identified as P10, melting only ingots, with a maximum heat input capacity of 2.3 mmBtu/hr and a maximum melt capacity of 1500 pounds of aluminum per hour, using a maximum of 0.32 pounds of flux per hour, with emissions uncontrolled and exhausting to stack P-10.

Emission Limitations and Standards

D.2.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to CP077-5045, CP077-10083 and 326 IAC 6-3-2, the particulate matter (PM) from melting furnaces:

(a) P1 shall not exceed 2.89 pounds per hour when operating at a process weight rate of 0.75 tons per hour.
(b) P2 shall not exceed 2.89 pounds per hour when operating at a process weight rate of 0.75 tons per hour.
(c) P3 shall not exceed 2.89 pounds per hour when operating at a process weight rate of 0.75 tons per hour.
(d) P4 shall not exceed 2.89 pounds per hour when operating at a process weight rate of 0.75 tons per hour.
(e) P5 shall not exceed 0.004 pounds per hour when operating at a process weight rate of 3.0×10^{-5} tons per hour.
(f) P6 shall not exceed 0.004 pounds per hour when operating at a process weight rate of 3.0×10^{-5} tons per hour.
(g) P7 shall not exceed 2.63 pounds per hour when operating at a process weight rate of 0.65 tons per hour.
(h) P8 shall not exceed one (1) pound per hour when operating at a process weight rate of 1.65 tons per hour.
(i) P9 shall not exceed one (1) pound per hour when operating at a process weight rate of 1.65 tons per hour.
(j) P10 shall not exceed 3.38 pounds per hour when operating at a process weight rate of 0.75 tons per hour

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

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

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

Pursuant to 326 IAC 6-3 (Particulate Matter Emissions Limitations), the PM from melting furnaces:

(a) P5 shall not exceed 0.004 pounds per hour when operating at a process weight rate of 3.0×10^{-5} tons per hour.

(b) P6 shall not exceed 0.004 pounds per hour when operating at a process weight rate of 3.0×10^{-5} tons per hour.

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

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

Compliance Determination Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.3 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM 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 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.4 Visible Emissions Notations

(a) ~~Daily visible emission notations of the melting furnace stack exhausts shall be~~ performed 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 Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirement [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.5 Record Keeping Requirements

(a) To document compliance with Condition D.2.4, the Permittee shall maintain records of daily visible emission notations of the baghouse stack exhaust.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

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

Insignificant welding operations:

(1) One (1) stick welding station, with a maximum electrode usage of 200 pounds per year.
(2) One (1) TIG welding station, with a maximum metal consumption of 20 pounds per year.
(3) One (1) oxyacetylene flame cutting operation, with a maximum of 36" of metal cut per week.

Emission Limitations and Standards

D.3.1 Particulate Matter Limitation (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the stick welding, TIG welding and oxyacetylene flame cutting operations shall be limited by the following:

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

Compliance Determination Requirements

D.3.2 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.3.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( ) _____
LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND
REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 19____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION:

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 19____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____
_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____
_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____
(SIGNATURE IF FAXED)
MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for

the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	**Madison Precision Products, Inc.**
Address:	**94 East 400 North**
City:	**Madison, Indiana**
Phone #:	**812-273-4702**
MSOP #:	**077-11368-00019**

I hereby certify that Madison Precision Products, Inc. is
9 still in operation.
9 no longer in operation.

I hereby certify that Madison Precision Products, Inc. is
9 in compliance with the requirements of MSOP 077-11368-00019.
9 not in compliance with the requirements of MSOP 077-11368-00019.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Madison Precision Products Inc.
Route 1, Box 29, 400 North and Michigan Road
Madison, Indiana 47250

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of _____ for Madison Precision Products Inc.
(Title)

3. By virtue of my position with Madison Precision Products Inc.,I have personal knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of Madison Precision Products Inc.

4. I hereby certify that Madison Precision Products Inc., 94 East 400 North, Madison, Indiana 47250, has constructed the one (1) mechanical shot blasting unit, identified as B-8, in conformity with the requirements and intent of the construction permit application received by the Office of Air Management on September 22, 1999 and as permitted pursuant to **Permit No. 077-11368, Plant ID No. 077-00019** issued on _____.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

_____
Signature

_____
Date

STATE OF INDIANA( )SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana on this _____ day of _____, 19 _____ .

My Commission expires: _____

_____
Signature

_____
Name (typed or printed)

Indiana Department of Environmental Management
Office of Air Management

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

Source Name: Madison Precision Products, Inc.
Source Location: 94 East 400 North, Madison, Indiana 47250
County: Jefferson
SIC Code: 3363
Operation Permit No.: 077-11368-00019
Permit Reviewer: Kimberly Titzer

On November 16, 1999, the Office of Air Management (OAM) had a notice published in the *Madison Courier*, Madison, Indiana, stating that Madison Precision Products, Inc. had applied for a Part 70 Operating Permit to operate an aluminum part manufacturing for the automotive industry. The notice also stated that OAM proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On December 17, 1999, Madison Precision Products, Inc. submitted comments on the proposed Part 70 permit. The summary of the comments is as follows (bolded language has been added, the language with a line through it has been deleted, the Table of Contents and all other numbering has been updated due to changes resulting from the following comments):

Comment 1: *Emissions Units Summary [A.2(2), D.1, TSD pg. 1, calcs.]*
Shotblaster B2 now uses # 50 steel as the blasting media (not aluminum). Please modify the draft MSOP and associated calculation of potential emissions from shotblasting to reflect this change.

Response 1: Calculations were done to calculate the new PM and PM10 emissions from using #50 steel as the blasting media for B-2. See Appendix A. When using #50 steel as blasting media: The potential to emit particulate matter from B-2 is now 5.61 tons per year. The potential to emit particulate matter less than ten (10) microns is 4.77 tons per year. The potential to emit from the entire source is still less than 100 tons per year of particulate matter less than ten (10) microns (PM10).

Comment 2: *Emissions Units Summary [A.2(6), D.1, TSD pg. 1, calcs.]*
Shotblaster B7 now uses #50 steel as the blasting media. Please modify the draft MSOP and associated calculation of potential emissions from shotblasting to reflect this change.

Response 2: Calculations were done to calculate the new PM and PM10 emissions from using #50 steel as the blasting media for B-7. See Appendix A. When using #50 steel as blasting media: The potential to emit particulate matter from B-7 is now 7.10 tons per year. The potential to emit particulate matter less than ten (10) microns is 6.03 tons per year. The potential to emit from the entire source is still less than 100 tons per year of particulate matter less than ten (10) microns (PM10).

Comment 3: *Emissions Units Summary [A.2(8), D.2, TSD pg. 1, calcs.]*
Furnace P5 is rated at 0.68 mmBtu/hr (not 6.8 mmBtu/hr). Please revise the draft MSOP and update the calculation of potential emissions from combustion to reflect this change.

Response 3: The following changes have been made to the permit to correct the rating of P5. The particulate matter emissions limitation calculations for P5 have been recalculated using the correct rating.

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

~~(6)~~ **(8)** Seven (7) melt furnaces, identified as P1 - P7, with maximum heat input capacities of 2.53, 2.53, 3.0, 2.53, **0.68** ~~6.8~~, 6.8, and 2.8 million British Thermal Units per hour (mmBtu/hr), and maximum aluminum melting capacities of 1500, 1500, 1500, 1500, 450, 450, and 1300 pounds per hour, respectively.

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

(1) Seven (7) melt furnaces, identified as P1 - P7, with maximum heat input capacities of 2.53, 2.53, 3.0, 2.53, **0.68** ~~6.8~~, 6.8, and 2.8 million British Thermal Units per hour (mmBtu/hr), and maximum aluminum melting capacities of 1500, 1500, 1500, 1500, 450, 450, and 1300 pounds per hour, respectively.

D.2.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to CP077-5045, CP077-10083 and 326 IAC 6-3-2, the particulate matter (PM) from melting furnaces:

(5) P5 shall not exceed 1.29 pounds per hour when operating at a process weight rate of 0.225 tons per hour.

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

Pursuant to 326 IAC 6-3 (Particulate Matter Emissions Limitations), the PM from melting furnaces:

(5)1 P5 shall not exceed 0.004 pounds per hour when operating at a process weight rate of 3.0×10^{-5} tons per hour.

Comment 4: *Emissions Units Summary [A.2(9), D.2, TSD pg. 1, calcs.]*
Furnace P6 is rated at 0.68 mmBtu/hr (not 6.8 mmBtu/hr). Please revise the draft MSOP and update the calculation of potential emissions from combustion to reflect this change.

Response 4: The following changes have been made to the permit to correct the rating of P6. The particulate matter emissions limitation calculations for P6 have been recalculated using the correct rating.

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

~~(6)~~ **(8)** Seven (7) melt furnaces, identified as P1 - P7, with maximum heat input capacities of 2.53, 2.53, 3.0, 2.53, **0.68** ~~6.8~~, **0.68** ~~6.8~~, and 2.8 million British Thermal Units per hour (mmBtu/hr), and maximum aluminum melting capacities of 1500, 1500, 1500, 1500, 450, 450, and 1300 pounds per hour, respectively.

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

(1) Seven (7) melt furnaces, identified as P1 - P7, with maximum heat input capacities of 2.53, 2.53, 3.0, 2.53, **0.68** ~~6.8~~, **0.68** ~~6.8~~, and 2.8 million British Thermal Units per hour (mmBtu/hr), and maximum aluminum melting capacities of 1500, 1500, 1500, 1500, 450, 450, and 1300 pounds per hour, respectively.

D.2.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to CP077-5045, CP077-10083 and 326 IAC 6-3-2, the particulate matter (PM) from melting furnaces:

(6) P6 shall not exceed 1.29 pounds per hour when operating at a process weight rate of 0.225 tons per hour.

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

Pursuant to 326 IAC 6-3 (Particulate Matter Emissions Limitations), the PM from melting furnaces:

(6)1 P5 shall not exceed 0.004 pounds per hour when operating at a process weight rate of 3.0×10^{-5} tons per hour.

(6)2 P6 shall not exceed 0.004 pounds per hour when operating at a process weight rate of 3.0×10^{-5} tons per hour.

D.2.3 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test this emissions unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition**s** D.2.1 **and D.2.2** shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Comment 5: *Emissions Units Summary [A.2(11), TSD pg. 2, calcs.]*
Please remove the evaporators (P-11, P-12, P-13) from the draft permit. These units are not present at the plant. Please revise the draft MSOP and update the calculation of potential emissions from combustion to reflect this change.

Response 5: Since the evaporators (P-11, P-12, P-13) have been removed from the source, the following change shall be made to the permit:

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

~~(12)~~ **(11)** ~~One (1) evaporator, identified as P11, with a maximum heat input capacity of 4.7 mmBtu/hr.~~

The calculations attached to the permit as Appendix A do not include these evaporators in the calculation of Total Potential to Emit from this source. Therefore, no changes can be made to the calculations.

No changes have been made as a result of this comment.

Comment 6: *Emissions Unit Summary [A.2(12), TSD pg. 2, calcs.]*
There are 26 natural gas fired space heaters (not 25). Please revise the draft MSOP and update the calculation of potential emissions from combustion to reflect this change.

Response 6: The following change has been made to the permit to correct the number of space heaters present at the source:

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

(11) **Twenty-six (26)** ~~Twenty-five (25)~~ natural gas-fired heaters, identified as H1 - **H26** ~~H25~~, with a total maximum capacity of **42.41** ~~40.78~~ mmBtu/hr.

The calculations attached to the permit as Appendix A do not include these space heaters in the calculation of Total Potential to Emit from this source. However, CP077-5045 summed the maximum capacities for 25 heaters. Therefore, the maximum capacity has been changed to reflect 26 heaters.

Comment 7: *Minor Source Operating Permit [B.6(a)]*
The Affidavit of Construction form is not attached to the draft permit. Please provide this form.

Response 7: The Affidavit of Construction form shall be attached to the final permit.

Comment 8: *Opacity [C.3]*
Please clarify whether MPP is required to measure opacity in accordance with 40 CFR, Appendix A, Method 9 in order to document compliance with the opacity limitations provided in Section C.3 of the draft permit.

Response 8: Condition C.3 limits opacity within specific averaging periods. To determine compliance with these limits, Method 9 is used. However, MPP is not obligated to have a trained Method 9 reader on staff to perform these readings.

No changes were made as a result of this comment.

Comment 9: *Transfer of Ownership or Operation [C.6(c)]*
Please correct a typographical error in this section. There is a back slash (A/@) before the word shall that should be deleted.

Response 9: The following change has been made to the permit to correct an error as follows:

C.6 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

(c) IDEM, OAM, ~~I~~shall issue a revised permit.

Comment 10: *Maintenance of Monitoring Equipment [C.11(a)]*
There is a word missing from this section: " . . . monitoring of the parameter should be implemented at intervals no less than one (1) _____ until such time . . .". Please clarify.

Response 10: The following change has been made to the permit to correct an error as follows:

C.11 Maintenance of Monitoring Equipment [IC 13-14-1-13]

(a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) **hour** until such time as the continuous monitor is back in operation.

Comment 11: *General Reporting Requirements [C.18(a)]*
MPP requests that the compliance reporting period be changed from quarterly to semi-annual. MPP has never been cited for exceeding an opacity or particulate emission limit. Therefore, we believe that semi-annual reporting is sufficient.

Response 11: Since MPP is not required by any D-Section conditions to quarterly report, the General Reporting Requirements have been changed to allow MPP to report semi-annually as follows:

C.19 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a **Semi-Annual** ~~Quarterly~~ Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Unless otherwise specified in this permit, any **semi-annual** ~~quarterly~~ report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Comment 12: *Particulate Matter Emission Limitations [D.1.1, D.2.1, D.3.1, TSD pg. 6]*
There appears to be an equation missing from the following sentence: "The pounds per hour limitations were calculated using the following equation:" Please clarify.

Response 12: The equation used is the listed equation, which is already listed in all three conditions as follows:

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

No changes were made as a result of this comment.

Comment 13: *Preventive Maintenance Plan [D.1.2]*
Please clarify which unit is referenced as requiring a preventive maintenance plan.

Response 13: The requirement to maintain a Preventive Maintenance Plan is applicable to any facility that is required by 326 IAC 2-1-2 (Registration) and 326 IAC 2-1-4 (Operating Permits), to obtain a permit. Any preventive maintenance that could effect emissions from the facilities in question should be listed in the Preventive Maintenance Plan. This would include both the emission units, as well as the pollution control device. Therefore, all units listed in the Facility Description subsections (1) through (7).

No changes were made as a result of this comment.

Comment 14: *Visible Emissions Notations [D.1.5]*
Please clarify whether daily visible emissions notations are required for shot blasters that vent indoors. We believe this is not necessary.
In addition, MPP intends to document compliance with this condition by using the equation provided in the permit. No stack testing will be performed to measure particulate emissions. Please confirm this understanding.

Response 14: Visible emissions notations are not required for any units that vent indoors. Only when exhausting to the "outside" atmosphere must visible emissions notations be taken.

No changes were made to the permit as a result of this comment.

Comment 15: *Parametric Monitoring [D.1.6]*
Section D.1.6 of the draft MSOP references "Section C B Pressure Gauge Specification." However, this section is not contained in the draft permit. Please clarify.

Response 15: The condition "Pressure Gauge Specification" should be included in the C-Section as the Parametric Monitoring condition is listed in D.1.6. The following change has been made to the permit to incorporate the condition as follows:

C.13 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ("2%) of full scale reading.

Comment 16: *Record Keeping Requirements [D.1.9(b)(1)(B)]*
Please define the terms "cleaning cycle" and "redirected" in this section.

Response 16: Cleaning cycle: When the baghouse is cleaned of dust particles. The method of cleaning varies by type of baghouse, e.g.: shaking, pulsing, etc.

Redirected: in relation to vents, redirection is when vents that vent indoors are reversed to vent to the outside atmosphere.

No changes were made to the permit as a result of this comment.

Comment 17: *Emissions Calculations [TSD pg. 3]*
Detailed emissions calculations for shotblaster B8 are shown on page 8 of the TSD (not page 7).

Response 17: The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

The TSD should have read:

Emission Calculations

See Appendix A of this document for detailed emissions calculations for B8 (page **8** ~~7~~). All other calculations from previously permitted units have been attached.

Comment 18: *Potential to Emit [TSD pg. 3]*
In the summary table in the potential to emit section on page 3 of the TSD, PM emissions are shown as 'greater than 100,' but in the text following the table on page 3 of the TSD, "the potential to emit of particulate matter . . . (is) less than 100 tons per year." Please provide a table summarizing plant-wide emissions to clarify which statement is correct.

Response 18: The OAM prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

The TSD should have read:

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of particulate matter (PM) **is greater than one hundred (100) tons per year**, particulate matter **is** less than ten (10) microns (PM10), and nitrogen oxides (NOx) are greater than 25 tons per year, but **both PM10 and NOx are** less than 100 tons per year. **PM is not a criteria pollutant and all other criteria pollutants are less than major levels,** therefore, the source is a Minor Source, as defined in 326 IAC 2-5.1-3.

Comment 19: *Calculations*
Please make the following revisions to the calculations attached to the draft MSOP:

a. The Guyson shotblaster is no longer operated at the plant (A 077-10118). Please remove the "Guyson" calculation spreadsheet from the draft MSOP.

b. Please remove the heading "Secondary Metal Production" from the calculation spreadsheets. This terminology is discussed in the Potential to Emit section of the TSD on pages 3 and 4.

c. We believe that there is an error in the calculation of PM and PM 10 emissions from

fluxing. The emission factors are 1,000 and 532 lbs/ton of chlorine, but the calculation uses 1,000 and 532 lbs/ton of flux. Please revise the calculation spreadsheet accordingly.

d. Please remove the two blank pages from the calculations section of the draft MSOP.

Response 19: (a) Calculations from CP077-5045 were included in the TSD Appendix A as a reference for the Potential to Emit table of the TSD. The Guyson shotblaster emissions were not included in the Total Potential to Emit. Since the calculations were included as an Appendix to the TSD and the TSD is a reflection of what materials were placed on Public Notice, no changes will be made to remove the calculations.

(b) See (a) - The Secondary Metal Production header is a header from calculations done for CP077-8408. No changes were made to the spreadsheet.

(c) The calculation was calculated using SCC# 3-04-001-04 for fluxing:chlorination, which calculates the pollutant emissions based on the amount of chlorine used in fluxing. The throughput submitted by the source was for fluxing only. After the source provided the amount of chlorine used in fluxing, the calculation was recalculated as follows. The TSD should have read:

Throughput of flux = 0.119 lbs/hr
Amount of chlorine in flux = 62.3%
(0.119lbs/hr)(.623) = 0.074 lbs/hr = Throughput of chlorine

Throughput of flux = 1.92 lbs/hr
Amount of chlorine in flux = 62.3%
(1.92lbs/hr)(.623) = 1.20 lbs/hr = Throughput of chlorine

There were no changes made to the permit as a result of this comment. However, the TSD Appendix A should have read:

Throughput(lbs/hr) = 0.074: PM = 0.037: PM10 = 0.02:
Potential Emissions (PM) = 0.162 tons per year
Potential Emissions (PM10) = 0.088 tons per year

Throughput(lbs/hr) = 1.20: PM = 0.96: PM10 = 0.51
Potential Emissions (PM) = 4.2 tons per year
Potential Emissions (PM10) = 2.24 tons per year

(d) In the copying process done for the public notice, blank pages were mistakenly included in the TSD on Public Notice. No blank pages should be included in the Final copy of the permit and TSD.

Appendix A: Emission Calculations
Abrasive Blasting

Company Name:	**Madison Precision Products, Inc.**
Address City IN Zip:	**94 E. 400 N., Madison, IN 47250**
CP:	**077-11368**
Plt ID:	**077-00019**
Reviewer:	**Kimberly Titzer**
Date:	**December 1999**

Table 1 - Emission Factors for Abrasives

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

Table 2 - Density of Abrasives (lb/ft3)

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

Calculations for B-2

Uncontrolled PM Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =	0.004	
FR = Flow Rate (lb/hr) =	320.000	
w = fraction of time of wet blasting =	0	%
N = number of nozzles =	1	

Uncontrolled Emissions =	**1.28**	**lb/hr**
	5.61	**ton/yr**

Uncontrolled PM10 Emissions (E, lb/hr)

EF = emission factor (lb PM10/ lb PM)(lb PM/lb abrasive) From Table 1 =	0.003	
FR = Flow Rate (lb/hr) =	320.000	
w = fraction of time of wet blasting =	0	
N = number of nozzles =	1	

Uncontrolled Emissions =	**1.09**	**lb/hr**
	4.77	**ton/yr**

METHODOLOGY

Emission Factors from Stappa Alapco, Section 3 "Abrasive Blasting"
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs
Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)
E = EF x FR x (1-w/200) x N
w should be entered in as a whole number (if w is 50%, enter 50)

Appendix A: Emission Calculations
Abrasive Blasting

Company Name:	**Madison Precision Products, Inc.**
Address City IN Zip:	**94 E. 400 N., Madison, IN 47250**
CP:	**077-11368**
Plt ID:	**077-00019**
Reviewer:	**Kimberly Titzer**
Date:	**December 1999**

Table 1 - Emission Factors for Abrasives

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

Table 2 - Density of Abrasives (lb/ft3)

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

Calculations for B-7

Uncontrolled PM Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =	0.004	
FR = Flow Rate (lb/hr) =	405.000	
w = fraction of time of wet blasting =	0	%
N = number of nozzles =	1	

Uncontrolled Emissions =	**1.62**	**lb/hr**
	7.10	**ton/yr**

Uncontrolled PM10 Emissions (E, lb/hr)

EF = emission factor (lb PM10/ lb PM)(lb PM/lb abrasive) From Table 1 =	0.003	
FR = Flow Rate (lb/hr) =	405.000	
w = fraction of time of wet blasting =	0	
N = number of nozzles =	1	

Uncontrolled Emissions =	**1.38**	**lb/hr**
	6.03	**ton/yr**

METHODOLOGY

Emission Factors from Stappa Alapco, Section 3 "Abrasive Blasting"
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs
Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)
E = EF x FR x (1-w/200) x N
w should be entered in as a whole number (if w is 50%, enter 50)

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a Minor Source Operating Permit

Source Background and Description

Source Name: Madison Precision Products, Inc.
Source Location: 94 East 400 North, Madison, Indiana 47250
County: Jefferson
SIC Code: 3363
Operation Permit No.: 077-11368-00019
Permit Reviewer: Kimberly Titzer

The Office of Air Management (OAM) has reviewed an application from Madison Precision Products, Inc. relating to the construction and operation of an aluminum part manufacturing for the automotive industry.

Permitted Emission Units and Pollution Control Equipment

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

(1) One (1) mechanical shotblasting unit, identified as B1, operation began in May 1989, with a maximum blast rate of 230 pounds per hour, blasting #50 steel grit, and controlled by a cartridge filter.
(2) One (1) mechanical shotblasting unit, identified as B2, operation began in July 1993, with a maximum blast rate of 320 pounds per hour, blasting aluminum, and controlled by a cartridge filter.
(3) One (1) mechanical shotblasting unit, identified as B4, operation began in July 1994, with a maximum blast rate of 140 pounds per hour, blasting #40 chronital stainless steel, and controlled by a baghouse.
(4) One (1) pneumatic shotblasting unit, identified as B5, operation began in February 1994, with a maximum blast rate of 100 pounds per hour, blasting glass beads, and controlled by a baghouse.
(5) One (1) mechanical shotblasting unit, identified as B6, operation began in 1996, with a maximum blast rate of 320 pounds per hour, blasting sand, and controlled by cartridge filters.
(6) One (1) mechanical shotblasting unit, identified as B7, with a maximum blast rate of 405 lbs/hr using a cartridge filter dust collector with no outside stack.
(7) Seven (7) melt furnaces, identified as P1 - P7, with maximum heat input capacities of 2.53, 2.53, 3.0, 2.53, 6.8, 6.8, and 2.8 million British Thermal Units per hour (mmBtu/hr), and maximum aluminum melting capacities of 1500, 1500, 1500, 1500, 450, 450, and 1300 pounds per hour, respectively.
(8) Two (2) melt furnaces, identified as P8 and P9, fueled by natural gas only, combined heat capacity is 7.6 mmBtu/hr, and with a maximum throughput of aluminum ingots of 3300 pounds per hour.
(9) One (1) melt furnace, identified as P10, melting only ingots, with a maximum heat input capacity of 2.3 mmBtu/hr and a maximum melt capacity of 1500 pounds of aluminum per hour, using a maximum of 0.32 pounds of flux per hour, with emissions uncontrolled and exhausting to stack P-10.
(10) One (1) evaporator, identified as P11, with a maximum heat input capacity of 4.7 mmBtu/hr.

(11) Twenty-five (25) natural gas-fired heaters, identified as H1 - H25, with a total maximum capacity of 40.78 mmBtu/hr.
(12) One (1) stick welding station, with a maximum electrode usage of 200 pounds per year.
(13) One (1) TIG welding station, with a maximum metal consumption of 20 pounds per year.
(14) One (1) oxyacetylene flame cutting operation, with a maximum of 36" of metal cut per week.

Unpermitted Emission Units and Pollution Control Equipment

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

New Emission Units and Pollution Control Equipment Receiving Prior Approval

The application includes information relating to the prior approval for the construction and operation of the following equipment:

(a) One (1) mechanical shot blasting unit, identified as B-8, with a maximum blast rate of 1,375 pounds of steel per hour, controlled by a wet venturi scrubber.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) CP 077-5045, issued on April 26, 1996; and
(b) Registration 077-6271, issued on August 13, 1996; and
(c) Registration 077-8072, issued on April 3, 1997; and
(d) Registration 077-8408, issued on May 13, 1997; and
(e) Exemption 077-10083, issued on September 18, 1998; and
(f) Amendment 077-10118, issued on October 1, 1998; and
(g) Amendment 077-10771, issued on April 26, 1999.

All conditions from previous approvals were incorporated into this permit.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
P1	melt furnace	34	2.5	125	280
P2	melt furnace	34	2.5	125	280
P3	melt furnace	33.5	1.25	130	192
P4	melt furnace	33.5	1.25	125	192
P7	melt furnace	40	2.75	11,000	300
P11	evaporator	24	2	1,050	193
P12	evaporator	24	0.5	800	174
P13	evaporator	24	0.75	2,000	174
B1	blast unit	28	0.5	1,500	70
B2	shotblaster	no stacks for these units			
B3	shotblaster				
B4	shotblaster				
B5	shotblaster				
B6	shotblaster				
P8	melt furnace	36	1.64 x 2.17	11,000	300
P9	melt furnace	36	2.42 x 3.21	16,500	300

P10	furnace	36	1.64 x 2.17	11,000	300

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation 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.

A complete application for the purposes of this review was received on September 22, 1999.

Emission Calculations

See Appendix A of this document for detailed emissions calculations for B8 (page 7). All other calculations from previously permitted units have been attached.

Potential To Emit

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

Pollutant	Potential To Emit (tons/year)
PM	greater than 100
PM-10	greater than 25, but less than 100
SO_2	less than 25
VOC	less than 25
CO	less than 25
NO_x	greater than 25, but less than 100

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of particulate matter (PM), particulate matter less than ten (10) microns (PM10), and nitrogen oxides (NOx) are greater than 25 tons per year, but less than 100 tons per year. Therefore, the source is a Minor Source, as defined in 326 IAC 2-5.1-3.

(b) Pursuant to an April 6, 1998 guidance memo drafted by the U.S.EPA concerning the differentiation between secondary metal production sources and die cast sources, Madison Precision Products is not a secondary metal production source. Madison Precision Products receives pre-alloyed aluminum, melts the aluminum and casts into part for the automobile industry. Since Madison Precision Products does not burn off organic or other volatile residues, smelt, flux -or degas and filter, the process would not be considered a secondary metal production facility.

(c) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (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 particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Potential To Emit

The potential to emit from the new shotblasting unit, B-8 is as follows:

Pollutant	Potential To Emit (tons/year)
PM	24.09
PM-10	20.48
SO_2	0
VOC	0
CO	0
NO_x	0

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of particulate matter (PM), and particulate matter less than ten (10) microns (PM10), is greater than five (5) tons per year, but less than twenty-five (25) tons per year. Therefore, with the addition of the new shotblasting unit, the source shall maintain MSOP status.

County Attainment Status

The source is located in Jefferson County.

Pollutant	Status
PM-10	attainment
SO_2	unclassifiable
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

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

(b) Jefferson 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, 40 CFR 52.21, or 326 IAC 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Federal Rule Applicability

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

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

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Jefferson county and the potential to emit any criteria pollutant is less than one hundred (100) tons per year. The source is not one of the twenty-eight (28) listed sources, therefore, 326 IAC 2-6 does not apply.

The source will be required to annually submit a statement of the actual emissions of all federally regulated pollutants from the source, for the purpose of fee assessment.

326 IAC 5-1 (Opacity)

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

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

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

State Rule Applicability - Blasting Units

326 IAC 6-3-2 (Process Operations)

Pursuant to CP077-5045 and 326 IAC 6-3-2, the particulate matter (PM) from shotblasting units:

(a) B1 shall not exceed 0.82 pounds per hour when operating at a process weight rate of 0.115 tons per hour.
(b) B2 shall not exceed 1.2 pounds per hour when operating at a process weight rate of 0.16 tons per hour.
(c) B4 shall not exceed 0.59 pounds per hour when operating at a process weight rate of 0.07 tons per hour.
(d) B5 shall not exceed 0.47 pounds per hour when operating at a process weight rate of 0.05 tons per hour.
(e) B6 shall not exceed 1.2 pounds per hour when operating at a process weight rate of 0.16 tons per hour.
(f) B7 shall not exceed 1.4 pounds per hour when operating at a process weight rate of 0.201 tons per hour.
(g) B8 shall not exceed 3.19 pounds per hour when operating at a process weight rate of 0.688 tons per hour.

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

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

The appropriate baghouse or cartridge filters shall be in operation at all times the shotblasting units are in operation, in order to comply with this limit.

State Rule Applicability - Melting Furnaces

326 IAC 6-3-2 (Particulate Emissions Limitations)

Pursuant to CP077-5045, CP077-10083 and 326 IAC 6-3-2, the particulate matter (PM) from

melting furnaces:

(a) P1 shall not exceed 2.89 pounds per hour when operating at a process weight rate of 0.75 tons per hour.
(b) P2 shall not exceed 2.89 pounds per hour when operating at a process weight rate of 0.75 tons per hour.
(c) P3 shall not exceed 2.89 pounds per hour when operating at a process weight rate of 0.75 tons per hour.
(d) P4 shall not exceed 2.89 pounds per hour when operating at a process weight rate of 0.75 tons per hour.
(e) P5 shall not exceed 1.29 pounds per hour when operating at a process weight rate of 0.225 tons per hour.
(f) P6 shall not exceed 1.29 pounds per hour when operating at a process weight rate of 0.225 tons per hour.
(g) P7 shall not exceed 2.63 pounds per hour when operating at a process weight rate of 0.65 tons per hour.
(h) P8 shall not exceed one (1) pound per hour when operating at a process weight rate of 1.65 tons per hour.
(i) P9 shall not exceed one (1) pound per hour when operating at a process weight rate of 1.65 tons per hour.
(j) P10 shall not exceed 3.38 pounds per hour when operating at a process weight rate of 0.75 tons per hour

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

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

State Rule Applicability - welding units

326 IAC 6-3-2 (Particulate Emissions Limitations)

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the stick welding, TIG welding and oxyacetylene flame cutting operations shall be limited by the following:

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

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

(a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.

Conclusion

The construction and operation of this aluminum part manufacturing source shall be subject to the conditions of the attached proposed Minor Source Operating Permit 077-11368-00019.

Appendix A: Emission Calculations
Abrasive Blasting

Company Name:	**Madison Precision Products, Inc.**
Address City IN Zip:	**94 E. 400 N., Madison, IN 47250**
CP:	**077-11368**
Plt ID:	**077-00019**
Reviewer:	**Kimberly Titzer**
Date:	**October 6, 1999**

Table 1 - Emission Factors for Abrasives

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

Table 2 - Density of Abrasives (lb/ft3)

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

Calculations

Uncontrolled PM Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) From Table 1 =	0.004	
FR = Flow Rate (lb/hr) =	1375.000	
w = fraction of time of wet blasting =	0	%
N = number of nozzles =	1	
Uncontrolled Emissions =	**5.50**	**lb/hr**
	24.09	**ton/yr**

Uncontrolled PM10 Emissions (E, lb/hr)

EF = emission factor (lb PM10/ lb PM)(lb PM/lb abrasive) From Table 1 =	0.003	
FR = Flow Rate (lb/hr) =	1375.000	
w = fraction of time of wet blasting =	0	
N = number of nozzles =	1	
Uncontrolled Emissions =	**4.68**	**lb/hr**
	20.48	**ton/yr**

METHODOLOGY

Emission Factors from Stappa Alapco, Section 3 "Abrasive Blasting"
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs
Flow Rate (FR) (lb/hr) = FR1 x (ID/ID1)2 x (D/D1)
E = EF x FR x (1-w/200) x N
w should be entered in as a whole number (if w is 50%, enter 50)