



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant
DATE: July 6, 2005
RE: Valmont Structures, Inc, dba PiRod, Inc / 099-20901-00054
FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER-MOD.dot 1/10/05



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

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July 6, 2005

Mr. Howard Ludwig
Valmont Structures, Inc. d.b.a. PiRod, Inc.
1545 Pidco Drive
Plymouth, Indiana 46563

Re: 099-20901-00054
First Minor Permit Revision to
MSOP 099-13721-00054

Dear Mr. Ludwig:

Valmont Structures, Inc. d.b.a. PiRod, Inc. was issued a Minor Source Operating Permit on November 29, 2001 for a stationary metal tower construction source. A letter requesting a revision to this permit was received on March 3, 2005. Pursuant to the provisions of 326 IAC 2-6.1-6 a Minor Permit Revision to this permit is hereby approved as described in the attached Technical Support Document.

The revision consists of the inclusion of three additional addresses that make up this source, and the addition of some existing unpermitted facilities to the operating permit.

Pursuant to 326 IAC 2-6.1-6, the Minor Source Operating Permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. For your convenience, the entire MSOP, with all revisions made to it, is being provided.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Edward A. Longenberger, c/o OAQ, 100 North Senate Avenue, Indianapolis, Indiana, 46204, at 631-691-3395, ext. 20 or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,
Original signed by

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments

EAL:MES

cc: File - Marshall County
U.S. EPA, Region V
Marshall County Health Department
Air Compliance Section Inspector - Rick Reynolds
Compliance Branch - Lynetta Brown-Glover
Administrative and Development Section
Technical Support and Modeling - Michele Boner



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MINOR SOURCE OPERATING PERMIT OFFICE OF AIR QUALITY

**Valmont Structures, Inc. d.b.a. PiRod, Inc.
1200 N. Oak Road
Plymouth, Indiana 46563**

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

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 099-13721-00054	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: November 28, 2001 Expiration Date: November 28, 2006

First Notice Only Change 099-19214-00054, issued June 16, 2004
Second Notice-Only Change 099-20204-00054, issued November 9, 2004

First Minor Permit Revision No.: MPR 099-20901-00054	Pages Affected: 4-6; 22-25
Issued by: Paul Dubenetzky for Nysa L. James, Permit Review 1 Section Chief Office of Air Quality	Issuance Date: July 6, 2005

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in Conditions A.1 and A.2 are 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 metal tower construction source.

Authorized Individual: Howard Ludwig
Source Address: 1200 N. Oak Road Plymouth, Indiana 46563
905 Markley Drive, Plymouth, Indiana 46563
100 Jim Neu Drive, Plymouth, Indiana 46563
1545 Pidco Drive, Plymouth, Indiana 46563
Mailing Address: 1545 Pidco Drive, Plymouth, Indiana 46563
Phone Number: 574-936-4221
SIC Code: 3441
County Location: Marshall
County Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit
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 operate the following emissions units and pollution control devices:

- (a) One (1) paint booth, known as PB1, installed in 1981, exhausted to stacks S1 - S4, equipped with dry filters for particulate overspray control, capacity: 4.744 linear feet of metal per hour.
- (b) One (1) shotblaster, known as DC1, installed in 1981, exhausted to DC1, equipped with a baghouse, capacity: 2,836 pounds of metal per hour.
- (c) Thirty-three (33) MIG welders, maximum electrode consumption: 6.0 pounds per hour per station.
- (d) Thirty-five (35) MIG welding stations, constructed between 1980 and 1996, capacity: 2.35 pounds of welding wire per hour, per station.
- (e) Three (3) oxyacetylene flame cutting stations, each with four (4) cutting heads, constructed from 1980 to 1994, capacity: 5 inches of 3-inch thick metal per minute, per cutting head.
- (f) One (1) tableblaster, identified as MT 1800, constructed in 2000, exhausted to the interior of the building, equipped with a canister dust collector, capacity: 100 pounds of steel per hour.
- (g) One (1) portable pipe blaster, identified as 1-8-D, constructed in 1995, exhausted to the interior of the building, equipped with a canister dust collector, capacity: 100 pounds of steel per hour.

- (h) One (1) cold cleaner degreaser, identified as Plant #1 degreaser, constructed in 1999, capacity: 1.28 gallons of solvent per day.
- (i) One (1) cold cleaner degreaser, identified as Plant #3 degreaser, constructed in 1998, capacity: 0.41 gallons of solvent per day.
- (j) One (1) natural gas-fired furnace, located in Plant #1, identified as H1, constructed in 1979, rated at 0.06 million British thermal units per hour.
- (k) Five (5) natural gas-fired furnaces, located in Plant #1, identified as H2-H6, constructed in 1976, rated at 0.10 million British thermal units per hour, each.
- (l) One (1) natural gas-fired furnace, located in Plant #1, identified as H7, constructed in 1973, rated at 0.16 million British thermal units per hour.
- (m) One (1) natural gas-fired furnace, located in Plant #1, identified as H8, constructed in 1973, rated at 0.175 million British thermal units per hour.
- (n) Five (5) natural gas-fired furnaces, located in Plant #1, identified as H9-13, constructed in 1996, rated at 0.30 million British thermal units per hour, each.
- (o) One (1) natural gas-fired furnace, located in Plant #1, identified as H14, constructed in 1985, rated at 0.40 million British thermal units per hour.
- (p) Two (2) natural gas-fired furnaces, located in Plant #1, identified as H15 and H16, constructed in 1979, rated at 1.20 million British thermal units per hour, each.
- (q) One (1) natural gas-fired furnace, located in Plant #2, identified as H17, constructed in 1995, rated at 0.05 million British thermal units per hour.
- (r) Eight (8) natural gas-fired furnaces, located in Plant #2, identified as H18-H25, constructed in 1995, rated at 0.14 million British thermal units per hour, each.
- (s) Two (2) natural gas-fired furnaces, located in Plant #2, identified as H26 and H27, constructed in 1995, rated at 0.40 million British thermal units per hour, each.
- (t) One (1) natural gas-fired furnace, located in Plant #3, identified as H28, constructed in 1980, rated at 0.075 million British thermal units per hour.
- (u) One (1) natural gas-fired furnace, located in Plant #3, identified as H29, constructed in 1980, rated at 0.175 million British thermal units per hour.
- (v) One (1) natural gas-fired furnace, located in Plant #3, identified as H30, constructed in 1980, rated at 0.30 million British thermal units per hour.
- (w) Two (2) natural gas-fired furnaces, located in Plant #3, identified as H31 and H32, constructed from 1980 to 1988, rated at 0.40 million British thermal units per hour, each.
- (x) One (1) natural gas-fired furnace, located in Plant #4, identified as H33, constructed in 1996, rated at 0.045 million British thermal units per hour.
- (y) One (1) natural gas-fired furnace, located in Plant #4, identified as H34, constructed in 1999, rated at 0.120 million British thermal units per hour.

- (z) Three (3) natural gas-fired furnaces, located in Plant #4, identified as H35-H37, constructed in 1996, rated at 0.40 million British thermal units per hour, each.
- (aa) Two (2) natural gas-fired furnaces, located in Plant #4, identified as H38 and H39, constructed in 1999, rated at 0.58 million British thermal units per hour, each.
- (bb) Two (2) natural gas-fired furnaces, located in Plant #5, identified as H40 and H41, constructed in 1978, rated at 0.090 million British thermal units per hour, each.
- (cc) One (1) natural gas-fired furnace, located in Plant #6, identified as H42, constructed in 1998, rated at 0.075 million British thermal units per hour.
- (dd) One (1) natural gas-fired furnace, located in Plant #6, identified as H43, constructed in 1998, rated at 0.40 million British thermal units per hour.

SECTION B

GENERAL 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 operate 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 Modification to Permit [326 IAC 2]

All requirements and conditions of this operating permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of operating permits pursuant to 326 IAC 2 (Permit Review Rules).

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

- (a) The total source potential to emit of PM₁₀, SO₂, VOC, NO_x or CO is less than two hundred fifty (250) tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.
- (b) Any change or modification which may increase potential to emit PM₁₀, SO₂, VOC, NO_x or CO to 100 tons per year from this source, shall cause this source to be considered a major source under 326 IAC 2-7, and shall require approval from IDEM, OAQ prior to making the change.

C.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-7]

Any change or modification which may increase potential to emit to ten (10) tons per year of any single hazardous air pollutant, twenty-five (25) tons per year of any combination of hazardous air pollutants from this source, shall cause this source to be considered a major source under Part 70 Permit Program, 326 IAC 2-7, and shall require approval from IDEM, OAQ prior to making the change.

C.3 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, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

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 Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

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 OAQ 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, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a 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 the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (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, OAQ, 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 a notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).
- (c) IDEM, OAQ, 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 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 Opacity [326 IAC 5-1]

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.9 Fugitive Dust Emissions [326 IAC 6-4]

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

C.10 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using good engineering practices (GEP) pursuant to 326 IAC 1-7-3.

Testing Requirements

C.11 Performance Testing [326 IAC 3-6] [326 IAC 2-1.1-11]

- (a) Compliance testing on new emissions units shall be conducted within sixty (60) days after achieving maximum production rate, but no later than one hundred eighty (180) 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, OAQ.

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

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, OAQ, within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, 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.12 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.13 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.14 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.15 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, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. 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.16 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, OAQ, 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, OAQ 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, OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ 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,

OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ 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.17 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 Quality (OAQ) 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 OAQ, 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.18 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.19 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, OAQ, 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.20 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

- (a) The reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
Indianapolis, Indiana 46204

- (b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) 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).
- (d) 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.
- (e) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (f) 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.21 Annual Notification [326 IAC 2-6.1-5(a)(5)]

- (a) Annual notification shall be submitted to the Office of Air Quality 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 Quality
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, Indianapolis 46204

- (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, OAQ, on or before the date it is due.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (a) One (1) paint booth, known as PB1, installed in 1981, exhausted to stacks S1 - S4, equipped with dry filters for particulate overspray control, capacity: 4.744 linear feet of metal per hour.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

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

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

D.1.2 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The PM from PB-1 shall not exceed the pound per hour emission rate established as E in the following formula:

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

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

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

D.1.4 Volatile Organic Compounds (VOC)

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

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

D.1.5 Record Keeping Requirements

- (a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1

- (1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records

shall differentiate between those added to coatings and those used as cleanup solvents;

- (2) A log of the dates of use;
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC usage for each month; and
 - (5) The weight of VOCs emitted for each compliance period.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (b) One (1) shotblaster, known as DC1, installed in 1981, exhausted to DC1, equipped with a baghouse, capacity: 2,836 pounds of metal per hour.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

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

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from DC1 shall be limited to 5.18 pounds per hour when operating at a process weight rate of 2,836 pounds per hour based on the following:

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

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

D.2.2 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 its control device.

Compliance Determination Requirements [326 IAC 2-1.1-11]

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

During the period between 30 and 36 months after issuance of this permit, in order to demonstrate compliance with Condition D.2.1, the Permittee shall perform PM testing utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

D.2.4 Particulate Matter (PM)

The baghouse for PM control shall be in operation at all times when DC1 is in operation.

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

D.2.5 Visible Emissions Notations

- (a) Visible emission notations of the DC1 stack exhaust shall be performed during normal daylight operations once per shift 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.2.6 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the shotblaster DC1, at least once weekly when DC1 is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 4.0 and 5.0 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, OAQ, and shall be calibrated at least once every six (6) months.

D.2.7 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.2.8 Record Keeping Requirements

- (a) To document compliance with Condition D.2.5, the Permittee shall maintain records of visible emission notations, once per shift, of the DC1 stack exhaust.
- (b) To document compliance with Condition D.2.6, the Permittee shall maintain the following:
 - (1) Weekly 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.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.3

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (c) Thirty-three (33) MIG welders, maximum electrode consumption: 6.0 pounds per hour per station.
- (d) Thirty-five (35) MIG welding stations, constructed between 1980 and 1996, capacity: 2.35 pounds of welding wire per hour, per station.
- (e) Three (3) oxyacetylene flame cutting stations, each with four (4) cutting heads, constructed from 1980 to 1994, capacity: 5 inches of 3-inch thick metal per minute, per cutting head.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]**D.3.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]**

The PM from the welding and flame cutting operations shall not exceed the pound per hour emission rate established as E in the following formula:

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

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

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (f) One (1) tableblaster, identified as MT 1800, constructed in 2000, exhausted to the interior of the building, equipped with a canister dust collector, capacity: 100 pounds of steel per hour.
- (g) One (1) portable pipe blaster, identified as 1-8-D, constructed in 1995, exhausted to the interior of the building, equipped with a canister dust collector, capacity: 100 pounds of steel per hour.
- (h) One (1) cold cleaner degreaser, identified as Plant #1 degreaser, constructed in 1999, capacity: 1.28 gallons of solvent per day.
- (i) One (1) cold cleaner degreaser, identified as Plant #3 degreaser, constructed in 1998, capacity: 0.41 gallons of solvent per day.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

D.4.1 Particulate [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the one (1) tableblaster, identified as MT 1800, shall not exceed 0.551 pounds per hour when operating at a process weight rate of 100 pounds per hour (0.05 tons per hour).

- (b) The pound per hour limitation was calculated using the following equation:

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

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

D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

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

D.4.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.

- (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Compliance Determination Requirements

D.4.4 Particulate Control

In order to comply with Condition D.4.1, the dust collector for particulate control shall be in operation and control emissions from the one (1) tableblaster at all times that the one (1) tableblaster is in operation.

MALFUNCTION REPORT

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
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 ?_____, 100 TONS/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: (Plymouth, Marshall County) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: ____/____/20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE ____/____/20____ _____ 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: _____

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:

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

**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:	Valmont Structures, Inc. d.b.a. PiRod, Inc.
Address:	1200 N. Oak Road
City:	Plymouth, Indiana 46563
Phone #:	574-936-4221
MSOP #:	099-13721-00054

I hereby certify that Valmont Structures, Inc. d.b.a. PiRod, Inc. is still in operation.
no longer in operation.

I hereby certify that Valmont Structures, Inc. d.b.a. PiRod, Inc. is
in compliance with the requirements of MSOP 099-13721-00054.
not in compliance with the requirements of MSOP 099-13721-00054.

Authorized Individual (typed):	Ronald Hanson
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:

Indiana Department of Environmental Management Office of Air Quality

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

Source Background and Description

Source Name:	Valmont Structures, Inc. d.b.a. PiRod, Inc.
Source Location:	1200 N. Oak Road, Plymouth, Indiana 46563 905 Markley Drive, Plymouth, Indiana 46563 100 Jim Neu Drive, Plymouth, Indiana 46563 1545 Pidco Drive, Plymouth, Indiana 46563
County:	Marshall
SIC Code:	3441
Operation Permit No.:	MSOP 099-13721-00054
Operation Permit Issuance Date:	November 29, 2001
Minor Permit Revision No.:	MPR 099-20901-00054
Permit Reviewer:	Edward A. Longenberger

The Office of Air Quality (OAQ) has reviewed a revision application from Valmont Structures, Inc. d.b.a. PiRod, Inc. relating to the construction and operation of the following emission units and pollution control devices:

- (a) Thirty-five (35) MIG welding stations, constructed between 1980 and 1996, capacity: 2.35 pounds of welding wire per hour, per station.
- (b) Three (3) oxyacetylene flame cutting stations, each with four (4) cutting heads, constructed from 1980 to 1994, capacity: 5 inches of 3-inch thick metal per minute, per cutting head.
- (c) One (1) tableblaster, identified as MT 1800, constructed in 2000, exhausted to the interior of the building, equipped with a canister dust collector, capacity: 100 pounds of steel per hour.
- (d) One (1) portable pipe blaster, identified as 1-8-D, constructed in 1995, exhausted to the interior of the building, equipped with a canister dust collector, capacity: 100 pounds of steel per hour.
- (e) One (1) cold cleaner degreaser, identified as Plant #1 degreaser, constructed in 1999, capacity: 1.28 gallons of solvent per day.
- (f) One (1) cold cleaner degreaser, identified as Plant #3 degreaser, constructed in 1998, capacity: 0.41 gallons of solvent per day.
- (g) One (1) natural gas-fired furnace, located in Plant #1, identified as H1, constructed in 1979, rated at 0.06 million British thermal units per hour.
- (h) Five (5) natural gas-fired furnaces, located in Plant #1, identified as H2-H6, constructed in 1976, rated at 0.10 million British thermal units per hour, each.
- (i) One (1) natural gas-fired furnace, located in Plant #1, identified as H7, constructed in 1973, rated at 0.16 million British thermal units per hour.

- (j) One (1) natural gas-fired furnace, located in Plant #1, identified as H8, constructed in 1973, rated at 0.175 million British thermal units per hour.
- (k) Five (5) natural gas-fired furnaces, located in Plant #1, identified as H9-13, constructed in 1996, rated at 0.30 million British thermal units per hour, each.
- (l) One (1) natural gas-fired furnace, located in Plant #1, identified as H14, constructed in 1985, rated at 0.40 million British thermal units per hour.
- (m) Two (2) natural gas-fired furnaces, located in Plant #1, identified as H15 and H16, constructed in 1979, rated at 1.20 million British thermal units per hour, each.
- (n) One (1) natural gas-fired furnace, located in Plant #2, identified as H17, constructed in 1995, rated at 0.05 million British thermal units per hour.
- (o) Eight (8) natural gas-fired furnaces, located in Plant #2, identified as H18-H25, constructed in 1995, rated at 0.14 million British thermal units per hour, each.
- (p) Two (2) natural gas-fired furnaces, located in Plant #2, identified as H26 and H27, constructed in 1995, rated at 0.40 million British thermal units per hour, each.
- (q) One (1) natural gas-fired furnace, located in Plant #3, identified as H28, constructed in 1980, rated at 0.075 million British thermal units per hour.
- (r) One (1) natural gas-fired furnace, located in Plant #3, identified as H29, constructed in 1980, rated at 0.175 million British thermal units per hour.
- (s) One (1) natural gas-fired furnace, located in Plant #3, identified as H30, constructed in 1980, rated at 0.30 million British thermal units per hour.
- (t) Two (2) natural gas-fired furnaces, located in Plant #3, identified as H31 and H32, constructed from 1980 to 1988, rated at 0.40 million British thermal units per hour, each.
- (u) One (1) natural gas-fired furnace, located in Plant #4, identified as H33, constructed in 1996, rated at 0.045 million British thermal units per hour.
- (v) One (1) natural gas-fired furnace, located in Plant #4, identified as H34, constructed in 1999, rated at 0.120 million British thermal units per hour.
- (w) Three (3) natural gas-fired furnaces, located in Plant #4, identified as H35-H37, constructed in 1996, rated at 0.40 million British thermal units per hour, each.
- (x) Two (2) natural gas-fired furnaces, located in Plant #4, identified as H38 and H39, constructed in 1999, rated at 0.58 million British thermal units per hour, each.
- (y) Two (2) natural gas-fired furnaces, located in Plant #5, identified as H40 and H41, constructed in 1978, rated at 0.090 million British thermal units per hour, each.
- (z) One (1) natural gas-fired furnace, located in Plant #6, identified as H42, constructed in 1998, rated at 0.075 million British thermal units per hour.
- (aa) One (1) natural gas-fired furnace, located in Plant #6, identified as H43, constructed in 1998, rated at 0.40 million British thermal units per hour.

History

Valmont Structures, Inc. d.b.a. PiRod, Inc. was issued a Minor Source Operating Permit (MSOP) on November 29, 2001. On March 3, 2005, Valmont Structures, Inc. d.b.a. PiRod, Inc. submitted an application to the OAQ to modify their permit to include the aforementioned existing emission units. The applicant also has requested to modify the source definition to include all addresses for the plants that comprise this source. These buildings have always been part of this source, however, prior permit documents never specifically listed them.

Source Definition

This metal tower construction source consists of six (6) plants:

- (a) The source location is identified as 1200 N. Oak Road, Plymouth, Indiana 46563
- (b) Plant 3 is located at 905 Markley Drive, Plymouth, Indiana 46563
- (c) Plants 4 and 6 are located at 100 Jim Neu Drive, Plymouth, Indiana 46563
- (d) Plants 1, 2 and 5 are located at 1545 Pidco Drive, Plymouth, Indiana 46563

Since the six (6) plants are located on contiguous properties, have the same SIC codes and are owned by one (1) company, they will be considered one (1) source.

Enforcement Issue

- (a) IDEM is aware that the above equipment has been constructed and operated prior to receipt of the proper permit.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit rules.

Recommendation

The staff recommends to the Commissioner that the MSOP Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on March 3, 2005. Additional information was received on June 8, 2005.

Emission Calculations

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

Potential To Emit of Revision

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

This table reflects the PTE before controls for this revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	19.08
PM ₁₀	19.00
SO ₂	0.031
VOC	2.34
CO	4.30
NO _x	5.12

HAPs	Potential To Emit (tons/year)
Total HAPs	Negligible

Justification for Revision

The MSOP is being revised through a MSOP Minor Permit Revision. This revision is being performed pursuant to 326 IAC 2-6.1-6(g), because the potential to emit of PM and PM₁₀ are each greater than five (5) tons per year but less than twenty-five (25) tons per year.

County Attainment Status

The source is located in Marshall County.

Pollutant	Status
PM ₁₀	Attainment
PM _{2.5}	Attainment or Unclassifiable
SO ₂	Attainment
NO ₂	Attainment
1-Hour Ozone	Attainment
8-Hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NO_x are considered when evaluating the rule applicability relating to ozone. Marshall County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NO_x

were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

- (b) Marshall County has been classified as attainment or unclassifiable for PM_{2.5}. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM_{2.5} emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM_{2.5} emissions, it has directed states to regulate PM₁₀ emissions as surrogate for PM_{2.5} emissions. See the State Rule Applicability – Entire Source section.
- (c) Marshall County has been classified as attainment or unclassifiable in Indiana for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

Source Status

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

Pollutant	Emissions (tons/year)
PM	54.3
PM ₁₀	54.4
SO ₂	0.018
VOC	5.36
CO	2.57
NO _x	3.06

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of two-hundred fifty (250) tons per year or more, and it is not one of the twenty-eight (28) listed source categories.
- (b) These emissions are based upon the Technical Support Document for MSOP 099-13721-00054.

Potential to Emit of Source After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units.

	Potential to Emit (tons/year)						
	PM	PM₁₀	SO₂	VOC	CO	NO_x	HAPs
Proposed Revision	19.08	19.00	0.031	2.34	4.30	5.12	neg.
Existing PB-1	9.29	9.29	-	5.19	-	-	4.94
Existing DC1	22.7	22.7	-	-	-	-	-

Process/facility	Potential to Emit (tons/year)						
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Existing Welding	20.9	20.9	-	-	-	-	0.038
Entire Source Total	72.0	71.9	0.031	7.53	4.30	5.12	4.98
MSOP Threshold Level	100	100	100	100	100	100	10/25

This revision to the existing MSOP will **not** change the status of the stationary source because the potential emissions from the entire source will still be less than the Part 70 major source thresholds.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this proposed revision.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) included in this proposed revision.
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), Subpart T (40 CFR 63.460-469) are not included in this permit because no halogenated HAP solvents are used in the cold cleaner degreasers.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

- (a) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the thirty-five (35) MIG welding stations and the three (3) oxyacetylene flame cutting stations shall be limited by the following:

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

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

- (b) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the one (1) tableblaster, identified as MT 1800, shall be limited to 0.551 pounds per hour when operating at a process weight rate of 100 pounds per hour. This limitation was based on the following equation:

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

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

As shown on page 1 of Appendix A, the particulate emissions after control are 0.006 pounds per hour. Therefore, the one (1) tableblaster is in compliance with this rule, with the use of the control device.

- (c) Pursuant to 326 IAC 6-3-1(14), the one (1) portable pipe blaster, identified as 1-8-D, is exempt from the requirements of 326 IAC 6-3-2 because the potential emissions are less than 0.551 pounds per hour.

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

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

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

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), for cold cleaning facility construction of which commenced after July 1, 1990, the Permittee shall ensure that the following operating requirements are met:
 - (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Proposed Changes

The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language appears in bold):

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 metal tower construction source.

Authorized Individual: **Howard Ludwig** ~~Ronald Hanson~~
Source Address: 1200 N. Oak Road Plymouth, Indiana 46563
905 Markley Drive, Plymouth, Indiana 46563
100 Jim Neu Drive, Plymouth, Indiana 46563
1545 Pidco Drive, Plymouth, Indiana 46563
Mailing Address: 1545 Pidco Drive, Plymouth, Indiana 46563
Phone Number: 574-936-4221
SIC Code: 3441
County Location: Marshall
County Status: Attainment for all criteria pollutants
Source Status: Minor Source Operating Permit
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 operate the following emissions units and pollution control devices:

- (a) One (1) paint booth, known as PB1, installed in 1981, exhausted to stacks S1 - S4, equipped with dry filters for particulate overspray control, capacity: 4.744 linear feet of metal per hour.
- (b) One (1) shotblaster, known as DC1, installed in 1981, exhausted to DC1, equipped with a baghouse, capacity: 2,836 pounds of metal per hour.
- (c) Thirty-three (33) MIG welders, maximum electrode consumption: 6.0 pounds per hour per station.
- (d) Thirty-five (35) MIG welding stations, constructed between 1980 and 1996, capacity: 2.35 pounds of welding wire per hour, per station.**
- (e) Three (3) oxyacetylene flame cutting stations, each with four (4) cutting heads, constructed from 1980 to 1994, capacity: 5 inches of 3-inch thick metal per minute, per cutting head.**
- (f) One (1) tableblaster, identified as MT 1800, constructed in 2000, exhausted to the interior of the building, equipped with a canister dust collector, capacity: 100 pounds of steel per hour.**
- (g) One (1) portable pipe blaster, identified as 1-8-D, constructed in 1995, exhausted to the interior of the building, equipped with a canister dust collector, capacity: 100 pounds of steel per hour.**
- (h) One (1) cold cleaner degreaser, identified as Plant #1 degreaser, constructed in 1999, capacity: 1.28 gallons of solvent per day.**
- (i) One (1) cold cleaner degreaser, identified as Plant #3 degreaser, constructed in 1998, capacity: 0.41 gallons of solvent per day.**
- (j) One (1) natural gas-fired furnace, located in Plant #1, identified as H1, constructed in 1979, rated at 0.06 million British thermal units per hour.**
- (k) Five (5) natural gas-fired furnaces, located in Plant #1, identified as H2-H6, constructed in 1976, rated at 0.10 million British thermal units per hour, each.**
- (l) One (1) natural gas-fired furnace, located in Plant #1, identified as H7, constructed in 1973, rated at 0.16 million British thermal units per hour.**
- (m) One (1) natural gas-fired furnace, located in Plant #1, identified as H8, constructed in 1973, rated at 0.175 million British thermal units per hour.**
- (n) Five (5) natural gas-fired furnaces, located in Plant #1, identified as H9-13, constructed in 1996, rated at 0.30 million British thermal units per hour, each.**
- (o) One (1) natural gas-fired furnace, located in Plant #1, identified as H14, constructed in 1985, rated at 0.40 million British thermal units per hour.**
- (p) Two (2) natural gas-fired furnaces, located in Plant #1, identified as H15 and H16, constructed in 1979, rated at 1.20 million British thermal units per hour, each.**
- (q) One (1) natural gas-fired furnace, located in Plant #2, identified as H17, constructed in 1995, rated at 0.05 million British thermal units per hour.**

- (r) **Eight (8) natural gas-fired furnaces, located in Plant #2, identified as H18-H25, constructed in 1995, rated at 0.14 million British thermal units per hour, each.**
- (s) **Two (2) natural gas-fired furnaces, located in Plant #2, identified as H26 and H27, constructed in 1995, rated at 0.40 million British thermal units per hour, each.**
- (t) **One (1) natural gas-fired furnace, located in Plant #3, identified as H28, constructed in 1980, rated at 0.075 million British thermal units per hour.**
- (u) **One (1) natural gas-fired furnace, located in Plant #3, identified as H29, constructed in 1980, rated at 0.175 million British thermal units per hour.**
- (v) **One (1) natural gas-fired furnace, located in Plant #3, identified as H30, constructed in 1980, rated at 0.30 million British thermal units per hour.**
- (w) **Two (2) natural gas-fired furnaces, located in Plant #3, identified as H31 and H32, constructed from 1980 to 1988, rated at 0.40 million British thermal units per hour, each.**
- (x) **One (1) natural gas-fired furnace, located in Plant #4, identified as H33, constructed in 1996, rated at 0.045 million British thermal units per hour.**
- (y) **One (1) natural gas-fired furnace, located in Plant #4, identified as H34, constructed in 1999, rated at 0.120 million British thermal units per hour.**
- (z) **Three (3) natural gas-fired furnaces, located in Plant #4, identified as H35-H37, constructed in 1996, rated at 0.40 million British thermal units per hour, each.**
- (aa) **Two (2) natural gas-fired furnaces, located in Plant #4, identified as H38 and H39, constructed in 1999, rated at 0.58 million British thermal units per hour, each.**
- (bb) **Two (2) natural gas-fired furnaces, located in Plant #5, identified as H40 and H41, constructed in 1978, rated at 0.090 million British thermal units per hour, each.**
- (cc) **One (1) natural gas-fired furnace, located in Plant #6, identified as H42, constructed in 1998, rated at 0.075 million British thermal units per hour.**
- (dd) **One (1) natural gas-fired furnace, located in Plant #6, identified as H43, constructed in 1998, rated at 0.40 million British thermal units per hour.**

These natural gas-fired heaters and furnaces have been replaced and are deleted from the operating permit:

- ~~(d) Five (5) natural gas-fired radiant heaters, known as RH1 - RH5, rated at 0.4 million British thermal units per hour, each.~~
- ~~(e) One (1) natural gas-fired radiant heater, known as RH6, rated at 0.175 million British thermal units per hour.~~
- ~~(f) Four (4) natural gas-fired furnaces, known as H1 - H4, rated at 0.4 million British thermal units per hour, each.~~

- ~~(g) Two (2) natural gas-fired furnaces, known as H5 and H6, rated at 0.9 million British thermal units per hour, each.~~
- ~~(h) Two (2) natural gas-fired furnaces, known as H7 and H8, rated at 0.3 million British thermal units per hour, each.~~
- ~~(i) Two (2) natural gas-fired furnaces, known as H9 and H10, rated at 0.4 million British thermal units per hour, each.~~

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (c) Thirty-three (33) MIG welders, maximum electrode consumption: 6.0 pounds per hour per station.
- (d) Thirty-five (35) MIG welding stations, constructed between 1980 and 1996, capacity: 2.35 pounds of welding wire per hour, per station.**
- (e) Three (3) oxyacetylene flame cutting stations, each with four (4) cutting heads, constructed from 1980 to 1994, capacity: 5 inches of 3-inch thick metal per minute, per cutting head.**

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

Emission Limitations and Standards [326 IAC 2-6.1-5(1)]

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

The PM from the welding **and flame cutting** operations shall not exceed the pound per hour emission rate established as E in the following formula:

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

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

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:	
(f)	One (1) tableblaster, identified as MT 1800, constructed in 2000, exhausted to the interior of the building, equipped with a canister dust collector, capacity: 100 pounds of steel per hour.
(g)	One (1) portable pipe blaster, identified as 1-8-D, constructed in 1995, exhausted to the interior of the building, equipped with a canister dust collector, capacity: 100 pounds of steel per hour.
(h)	One (1) cold cleaner degreaser, identified as Plant #1 degreaser, constructed in 1999, capacity: 1.28 gallons of solvent per day.
(i)	One (1) cold cleaner degreaser, identified as Plant #3 degreaser, constructed in 1998, capacity: 0.41 gallons of solvent per day.
(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)	

Emission Limitations and Standards

D.4.1 Particulate [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the one (1) tableblaster, identified as MT 1800, shall not exceed 0.551 pounds per hour when operating at a process weight rate of 100 pounds per hour (0.05 tons per hour).
- (b) The pound per hour limitation was calculated using the following equation:
- Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:
- $$E = 4.10 P^{0.67}$$
- where E = rate of emission in pounds per hour;
and P = process weight rate in tons per hour

D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

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

D.4.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed

after July 1, 1990, the Permittee shall ensure that the following operating requirements are met:

- (1) Close the cover whenever articles are not being handled in the degreaser.**
- (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.**
- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.**

Compliance Determination Requirements

D.4.4 Particulate Control

In order to comply with Condition D.4.1, the dust collector for particulate control shall be in operation and control emissions from the one (1) tableblaster at all times that the one (1) tableblaster is in operation.

Compliance Requirements

Permits issued under 326 IAC 2-6.1 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-6.1. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no compliance monitoring requirements applicable to this revision.

Conclusion

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed MSOP Minor Permit Revision No. 099-20901-00054.

Appendix A: Emission Calculations
Abrasive Blasting - Confined - MT 1800

Company Name: Valmont Structures, Inc. d.b.a. PiRod, Inc.
Address City IN Zip: 1200 N. Oak Road, Plymouth, Indiana 46563
Permit Number: 099-20901
Plt ID: 099-00054
Reviewer: Edward A. Longenberger
Application Date: March 3, 2005

Table 1 - Emission Factors for Abrasives

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

Table 2 - Density of Abrasives (lb/ft3)

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

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

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

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

Calculations

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)
 FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =
 D = Density of abrasive (lb/ft3) From Table 2 =
 D1 = Density of sand (lb/ft3) =
 ID = Actual nozzle internal diameter (in) =
 ID1 = Nozzle internal diameter (in) from Table 3 =

99

Flow Rate (FR) (lb/hr) = 150 per nozzle

Uncontrolled Emissions (E, lb/hr)

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

0.004
150
0
1

	PM	PM-10
Uncontrolled Emissions =	0.600 lb/hr	0.516 lb/hr
	2.63 ton/yr	2.26 ton/yr
	(99% control)	(99% control)
Controlled Emissions =	0.0060 lb/hr	0.0052 lb/hr
	0.0263 ton/yr	0.0226 ton/yr

METHODOLOGY

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

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

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

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

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

Appendix A: Emission Calculations
Abrasive Blasting - Confined - 1-8-D

Company Name: Valmont Structures, Inc. d.b.a. PiRod, Inc.
Address City IN Zip: 1200 N. Oak Road, Plymouth, Indiana 46563
Permit Number: 099-20901
Plt ID: 099-00054
Reviewer: Edward A. Longenberger
Application Date: March 3, 2005

Table 1 - Emission Factors for Abrasives

Abrasive	Emission Factor	
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Other	0.010	

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

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

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

Calculations

Adjusting Flow Rates for Different Abrasives and Nozzle Diameters

Flow Rate (FR) = Abrasive flow rate (lb/hr) with internal nozzle diameter (ID)
 FR1 = Sand flow rate (lb/hr) with internal nozzle diameter (ID1) From Table 3 =
 D = Density of abrasive (lb/ft3) From Table 2 =
 D1 = Density of sand (lb/ft3) =
 ID = Actual nozzle internal diameter (in) =
 ID1 = Nozzle internal diameter (in) from Table 3 =

99

Flow Rate (FR) (lb/hr) = 0.25 per nozzle

Uncontrolled Emissions (E, lb/hr)

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

0.004
0.25
0 %
1

	PM	PM-10
Uncontrolled Emissions =	0.001 lb/hr	0.001 lb/hr
	0.00 ton/yr	0.00 ton/yr
	(99% control)	(99% control)
Controlled Emissions =	0.0000 lb/hr	0.0000 lb/hr
	0.0000 ton/yr	0.0000 ton/yr

METHODOLOGY

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

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

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

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

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

**Appendix A: Emissions Calculations
Welding and Thermal Cutting**

**Company Name: Valmont Structures, Inc. d.b.a. PiRod, Inc.
Address City IN Zip: 1200 N. Oak Road, Plymouth, Indiana 46563
Permit Number: 099-20901
Pit ID: 099-00054
Reviewer: Edward A. Longenberger
Application Date: March 3, 2005**

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)	
			PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr		
WELDING												
Submerged Arc	0	0	0.036	0.011			0.000	0.000	0.000	0	0.000	
Metal Inert Gas (MIG)(carbon steel)	35	2.35	0.0241	0.000034		0.00001	1.982	0.003	0.000	0.0008225	0.004	
Stick (E7018 electrode)	0	0	0.0211	0.0009			0.000	0.000	0.000	0	0.000	
Tungsten Inert Gas (TIG)(carbon steel)	0	0	0.0055	0.0005			0.000	0.000	0.000	0	0.000	
Oxyacetylene(carbon steel)	0	0	0.0055	0.0005			0.000	0.000	0.000	0	0.000	
FLAME CUTTING												
PROCESS	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene	12	3	5	0.1622	0.0005	0.0001	0.0003	1.752	0.000	0.000	0.000	0.000
Oxymethane	0	0	0	0.0815	0.0002		0.0002	0.000	0.000	0.000	0.000	0.000
Plasma**	0	0	0	0.0039				0.000	0.000	0.000	0.000	0.000
EMISSION TOTALS												
Potential Emissions lbs/hr								3.73	0.00	0.00	0.00	0.00
Potential Emissions lbs/day								89.62	0.07	0.00	0.02	0.09
Potential Emissions tons/year								16.35	0.01	0.00	0.00	0.02

METHODOLOGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

**Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick

Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)

Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)

Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs

**Appendix A: State Potential Emissions Calculations
Degreasing**

Company Name: Valmont Structures, Inc. d.b.a. PiRod, Inc.
Address City IN Zip: 1200 N. Oak Road, Plymouth, Indiana 46563
Permit Number: 099-20901
Pit ID: 099-00054
Reviewer: Edward A. Longenberger
Application Date: March 3, 2005

Unit ID	Material	Density (lb/gal)	Weight % Volatile (H ₂ O and organics)	Weight % Water	Weight % Organics	Gal of Mat (gal/day)	Potential VOC Emissions (lb/day)	Potential VOC Emissions (ton/yr)
Plant #1	Safety Kleen 105	6.67	100.00%	0.0%	100.0%	1.28	8.54	1.56
Plant #2	Safety Kleen 105	6.67	100.00%	0.0%	100.0%	0.41	2.73	0.499
State Potential Emissions							11.3	2.06

METHODOLOGY

Potential VOC Pounds per Day = Solvent Density (lbs/gallon) * weight % volatiles * solvent consumption (gallons/day)

Potential VOC Tons per Year = Potential VOC Pounds per Day * (365 days/yr) * (1 ton/2000 lbs)

**Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Sourcewide natural gas furnaces**

Company Name: Valmont Structures, Inc. d.b.a. PiRod, Inc.
Address City IN Zip: 1200 N. Oak Road, Plymouth, Indiana 46563
Permit Number: 099-20901
Pit ID: 099-00054
Reviewer: Edward A. Longenberger
Application Date: March 3, 2005

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

11.70

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Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100	5.50	84.0
				**see below		
Potential Emission in tons/yr	0.097	0.389	0.031	5.122	0.282	4.303

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 6 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 Sourcewide natural gas furnaces
 HAPs Emissions**

Company Name: Valmont Structures, Inc. d.b.a. PiRod, Inc.
Address City IN Zip: 1200 N. Oak Road, Plymouth, Indiana 46563
Permit Number: 099-20901
Pit ID: 099-00054
Reviewer: Edward A. Longenberger
Application Date: March 3, 2005

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 0.00210	Dichlorobenzene 0.00120	Formaldehyde 0.07500	Hexane 1.80000	Toluene 0.00340
Potential Emission in tons/yr	0.000108	0.000061	0.003842	0.092203	0.000174

HAPs - Metals						
Emission Factor in lb/MMcf	Lead 0.0005	Cadmium 0.0011	Chromium 0.0014	Manganese 0.0004	Nickel 0.0021	Total
Potential Emission in tons/yr	0.00003	0.00006	0.00007	0.00002	0.00011	0.097

Methodology is the same as page 5.

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

