INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: October 11, 2012

RE: Alloy Custom Products / 157-32288-00461

FROM: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from 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-AM.dot12/3/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Mr. Everett Snoeberger
Alloy Custom Products
9701 State Road 25 N
Lafayette, IN, 47905-9734

October 11, 2012

Re: 157-32288-00461
Second Administrative Amendment to
F157-28184-00461

Dear Mr. Snoeberger:

Alloy Custom Products was issued a Federally Enforceable State Operating Permit (FESOP) No. F157-28184-00461, on December 22, 2009, for a stationary manufacturing and repair of semi tanker trailers source, located at 9701 SR 25 North, Lafayette, Indiana. On September 10, 2012, the Office of Air Quality (OAQ) received an application from the source relating to the construction and operation of new natural gas-fired combustion units for "finish building", a new TIG welding unit for "finish building" and an insignificant parts washer.

(a) Pursuant to 326 IAC 2-8-10(a)(13), this change to the permit is considered an administrative amendment because the permit be amended to add an emissions unit, subject to 326 IAC 2-1.1-3 (Exemptions), at the request of the Permittee.

The following are the emissions units: five (5) natural gas-fired combustion units, one (1) TIG welding unit and one (1) parts washer.

The PTE of the modification is as follows:

Process/ Emission Unit	PTE of Proposed Modification (tons/year)									
	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e	Total HAPs	Worst Single HAP
Welding	0.02	0.02	0.02	3.09E-03	0.00	0.00	0.00	0	2.19E-03	2.19E-03
combustion	0.01	0.04	0.04	0.00	0.52	0.03	0.43	622	0.01	0.01
parts washer	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0	0.00	0.00
Total PTE of Proposed Modification	**0.03**	**0.06**	**0.06**	**3.09E-03**	**0.52**	**0.09**	**0.43**	**622**	**0.01**	**0.01**

(1) No new state rules are applicable to this source due to the addition of the emission units.

(A) Pursuant to 326 IAC 6-3-1(b)(9), the TIG welding unit is exempt from the requirements of 326 IAC 6-3-2 because it consumes less than 625 pounds of rod per day.

(B) Pursuant to 326 IAC 8-1-1(b) the parts washer is exempt from the requirements of 326 IAC 8-3 because the parts washer potential to emit VOC before add-on control is below fifteen (15) pounds per day.

(2) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) or National Emission standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 20 and 40 CFR Part 61, 63) included in this administrative amendment.

The requirements of the National Emission Standards for Halogenated Solvent Cleaning, 40 CFR 63.460, Subpart T (326 IAC 20-6), are not included in the permit, since this source does not use halogenated solvent cleaners.

The table below summarizes the potential to emit of the entire source, prior to the amendment, after consideration of all enforceable limits established in the effective permits:

	Potential To Emit of the Entire Source Prior to Amendment tons/year									
Process/ Emission Unit	PM	PM10*	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e**	Total HAPs	Worst Single HAP
Shot blasting	9.40	16.46	16.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
North Booth	0.03	7.04	7.04	0.00	0.00	<95.00[α]	0.00	0.00	<22.00[β]	<9.00[β]
South Booth	0.03	7.04	7.04	0.00	0.00		0.00	0.00		
Paint Booth 3	0.03	7.04	7.04	0.00	0.00		0.00	0.00		
Welding	17.11	17.11	17.11	0.00	0.00	0.00	0.00	0.00	1.88	1.4 (Manganese)
Natural Gas	0.09	0.35	0.35	0.03	4.22	0.25	3.89	0.00	0.087	0.08 (Hexane)
Total PTE of Entire Source	**26.69**	**55.03**	**55.03**	**0.03**	**4.22**	**<95.25**	**3.89**	**0.00**	**<25**	**<10**
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA

*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

α - VOC emission limits for the North and South Paint Booths, and Paint Booth 3, in order to comply with FESOP limits 326 IAC 2-8-4.
β - Single and combined HAPs emission limits the North and South Paint Booths, and Paint Booth 3, to comply with FESOP limits 326 IAC 2-8-4.

These emissions are based upon Permit No.: 157-31004-00461 issued on December 8, 2011.

PTE of the Entire Source After Issuance of the FESOP Administrative Amendment

The table below summarizes the potential to emit of the entire source reflecting adjustment of existing limits, with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of the FESOP Administrative Amendment (tons/year)									
	PM	PM10*	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e**	Total HAPs	Worst Single HAP
Shot blasting	9.40	16.46	16.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
North Booth	0.03	7.04	7.04	0.00	0.00	<95.00$^{\alpha}$	0.00	0.00	<22.00$^{\beta}$	<9.00$^{\beta}$
South Booth	0.03	7.04	7.04	0.00	0.00		0.00	0.00		
Paint Booth 3	0.03	7.04	7.04	0.00	0.00		0.00	0.00		
Welding	~~17.11~~ **17.14**	~~17.11~~ **17.14**	~~17.11~~ **17.14**	0.00	0.00	0.00	0.00	0.00	1.88	1.44 (manganese)
Natural Gas	~~0.09~~ **0.10**	~~0.35~~ **0.38**	~~0.35~~ **0.38**	0.03	~~4.22~~ **5.06**	~~0.25~~ **0.28**	~~3.89~~ **4.25**	~~0.00~~ **6,106**	~~0.087~~ **0.10**	0.09 (hexane)
Parts Washer	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.06**	**0.00**	**0.00**	**0.00**	**0.00**
Total PTE of Entire Source	~~26.69~~ **26.72**	~~55.03~~ **55.09**	~~55.03~~ **55.09**	0.03	~~4.22~~ **5.06**	~~<95.25~~ **95.38**	~~3.89~~ **4.25**	~~0.00~~ **6,106**	<25	<10
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA

*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

α - VOC emission limits for the North and South Paint Booths, and NEW Paint Booth 3, in order to comply with FESOP limits 326 IAC 2-8-4.
β - Single and combined HAPs emission limits the North and South Paint Booths, and NEW Paint Booth 3, to comply with FESOP limits 326 IAC 2-8-4.

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. (Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted).

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of the FESOP Administrative Amendment (tons/year)									
	PM	PM10*	PM2.5	SO_2	NOx	VOC	CO	GHGs as CO_2e**	Total HAPs	Worst Single HAP
Shot blasting	9.40	16.46	16.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00
North Booth	0.03	7.04	7.04	0.00	0.00	<95.00[α]	0.00	0.00	<22.00[β]	<9.00[β]
South Booth	0.03	7.04	7.04	0.00	0.00		0.00	0.00		
Paint Booth 3	0.03	7.04	7.04	0.00	0.00		0.00	0.00		
Welding	17.14	17.14	17.14	0.00	0.00	0.00	0.00	0.00	1.88	1.44 (manganese)
Natural Gas	0.10	0.38	0.38	0.03	5.06	0.28	4.25	6,106	0.10	0.09 (hexane)
Parts Washer	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00
Total PTE of Entire Source	26.72	55.09	55.09	0.03	5.06	<95.38	4.25	6,106	<25	<10
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA

negl. = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

α - VOC emission limits for the North and South Paint Booths, and NEW Paint Booth 3, in order to comply with FESOP limits 326 IAC 2-8-4.
β - Single and combined HAPs emission limits the North and South Paint Booths, and NEW Paint Booth 3, to comply with FESOP limits 326 IAC 2-8-4.

Pursuant to the provisions of 326 IAC 2-8-10, the permit is hereby administratively amended as follows with the deleted language as ~~strikeouts~~ and new language **bolded**:

1. The Permittee has added an additional building and the new building is identified as "Finish Building" and a parts washer.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

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

(c) Natural Gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour each;

(1) One (1) natural gas-fired Air make-up unit, installed in 1979, rated at 3.4 million British thermal units per hour, exhausting outside.

(2) One (1) natural gas-fired Air Make-up unit north booth, installed in 1968, rated at 1.878 million British thermal units per hour, exhausting outside.

(3) Sixteen (16) natural gas-fired space heaters, installed in 1968 (1), 1970 (3), 1979 (12), rated at 0.25 million British thermal units per hour each, exhausting outside.

(4) Three (3) natural gas-fired space heaters, installed in 1968 (2) and 1979 (1), rated at 0.30 million British thermal units per hour each, exhausting outside.

(5) Two (2) natural gas-fired space heaters, installed in 1979, rated at 0.20 million British thermal units per hour, each, exhausting outside.

(d) Welding Operations, consisting of the following;

(1) Thirty Nine gas metal Arc (39) welding units, installed starting in 1994 and added to incrementally making a total of 39 as of 2009, maximum capacity: sixty metal parts per hour, and combined average process throughput of 1,036 lbs/hr, uncontrolled and exhausting inside the building.

(2) One (1) stick welding unit, installed in 1995, maximum capacity: two (2) metal parts per hour, and combined average process throughput of 90 lbs/hr combined, uncontrolled and exhausting inside the building.

(3) Twenty Five (25) TIG welding units, installed starting in 1994 and added to incrementally making a total of 25 as of 2009, maximum capacity: two (2) metal parts per hour, each, and combined average process throughput of 90 lbs/hr, uncontrolled and exhausting inside the building.

(4) Three (3) plasma cutting units, installed in 1995, 2001, and 2007, maximum capacity: six (6) parts per hour each, uncontrolled and exhausting inside the building.

(e) Degreasing operation, approved for construction in 2012, that do not exceed 18.25 gallons per twelve (12) months.

Finish Building

(f) Natural Gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour each;

(1) Four (4) natural gas-fired hanging furnaces, approved for construction in 2012, each rated at 0.200 million British thermal units per hour, exhausting outside.

(2) One (1) natural gas-fired forced air furnace, approved for construction in 2012, rated at 0.040 million British thermal units per hour, exhausting outside.

(g) Welding Operations, consisting of the following;

One (1) TIG welding unit, approved for construction in 2012, with a maximum capacity of one (1) tungsten rod per hour, uncontrolled and exhausting inside the building.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description IAC 2-8-4 (10): Insignificant Activities

***

(e) Degreasing operation, approved for construction in 2012, that do not exceed 18.25 gallons per twelve (12) months.

Finish Building

(f) Natural Gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour each;

(1) Four (4) natural gas-fired hanging furnaces, approved for construction in 2012, each rated at 0.200 million British thermal units per hour, exhausting outside.

(2) One (1) natural gas-fired forced air furnace, approved for construction in 2012, rated at 0.040 million British thermal units per hour, exhausting outside.

(g) Welding Operations, consisting of the following;

One (1) TIG welding unit, approved for construction in 2012, with a maximum capacity of one (1) tungsten rod per hour, uncontrolled and exhausting inside the building.

Additional Changes

1. *IDEM, OAQ has decided to make additional revisions to the permit as described below in order to update the language to match the most current version of the applicable rule, to eliminate redundancy within the permit, and to provide clarification regarding the requirements of these conditions.*

2. *Condition B.4 has been updated to reflect that permit F157-28184-00461, is issued for a fixed term of five (5) years from the issuance date and not permit administrative amendment F157-31004-00461.*

3. *On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions resulted in changes to the rule sites listed in the permit. These changes are not changes to the underlining provisions. The change is only to site of these rules in Section B - Operational Flexibility. IDEM, OAQ has clarified the rule sites for the Preventive Maintenance Plan.*

4. *IDEM, OAQ has clarified the Permittee's responsibility with regards to record keeping.*

5. *IDEM, OAQ has clarified the interaction of the Quarterly Deviation and Compliance Monitoring Report and the Emergency Provisions.*

B.4 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, ~~F157-31004-00461~~ **F157-28184-00461**, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

B.13 Preventative Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]~~[326 IAC 2-8-5(a)(1)]~~

***

B.20 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) **and (c)** ~~through (d)~~without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15~~(b)(2), (c)(1), and (d)~~ **(b)(1) and (c)**. The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15~~(b)(2), (c)(1), and (d)~~ **(b)(1) and (c).**

(b) Emission Trades [326 IAC 2-8-15 ~~(c)~~ **(b)**]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15 ~~(c)~~ **(b)**.

(c) Alternative Operating Scenarios [326 IAC 2-8-15 ~~(d)~~ **(c)**]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

***

C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. **Support information includes the following:**

(AA) All calibration and maintenance records.

(BB) All original strip chart recordings for continuous monitoring instrumentation.

(CC) Copies of all reports required by the FESOP.

Records of required monitoring information include the following:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.

(BB) The dates analyses were performed.

(CC) The company or entity that performed the analyses.

(DD) The analytical techniques or methods used.

(EE) The results of such analyses.

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

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. **Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph**. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Alloy Custom Products
Source Address: 9701 SR 25 North, Lafayette, Indiana 47905-4394
FESOP Permit No.: F157-28184-00461

Months: _____ **to** _____ **Year:** _____
Page 1 of 2

This report shall be submitted quarterly based on a calendar year. **Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting**. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

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 Bruce Farrar, of my staff, at 317-234-5401 or 1-800-451-6027, and ask for extension 4-5401.

Sincerely,

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Updated Permit

IC/BF

cc: File - Tippecanoe County
Tippecanoe County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing and Training Section

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

New Source Review and Federally Enforceable State Operating Permit OFFICE OF AIR QUALITY

Alloy Custom Products
9701 SR 25 North
Lafayette, Indiana 47905-4394

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-8-11.1, applicable to those conditions.

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation, or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No.: F157-28184-00461	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: December 22, 2009 Expiration Date: December 22, 2014

First Administrative Amendment No.: F157-31004-00461, issued on December 8, 2011.

Second Administrative Amendment No.: F157-32288-00461	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: October 11, 2012 Expiration Date: December 22, 2014

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary manufacturing and repair of semi tanker trailers source.

Source Address:	9701 SR 25 North, Lafayette, Indiana 47905-4394
General Source Phone Number:	765-564-4684
SIC Code:	3443 (Fabricated Plat Work (Boiler Shops)
County Location:	Tippecanoe
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

(a) Shot Blasting unit:

One (1) manually operated shot blaster, consisting of primary and secondary blast tankers, identified as blast booth, installed in 1979, blasting steel and aluminum trailers, and cryogenic bottles, equipped with a baghouse to control particulates, exhaust returning inside the blast booth, maximum capacity: 875 pounds per hour of metal parts and 650 pounds per hour of coal slag abrasive media.

(b) Paint Spray Booths:

(1) One (1) South Paint Booth, identified as South Booth, constructed in 1979, maximum capacity of 0.086 units per hour, equipped with fabric filters for particulate control, exhausting outside through stack B;

(A) Painting steel and aluminum semi tanker trailers, and cryogenic bottles, utilizing two (2) High Volume Low Pressure (HPLV) spray guns.

(B) One (1) paint touch-up, clean-up and repair area, utilizing plastic squeegee spreader, caulking gun, and aerosol spray cans to repair steel and aluminum semi tanker trailers and cryogenic bottles.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipments.

(2) One (1) North Paint Booth, identified as North Booth, constructed in 2006, maximum capacity of 0.086 units per hour, equipped with fabric filters for particulate control, exhausting outside through stack A;

(A) Painting steel and aluminum semi tanker trailers, and cryogenic bottles, utilizing two (2) High Volume Low Pressure (HPLV) spray guns.

(B) One (1) paint touch-up, clean-up and repair area, utilizing plastic squeegee spreader, caulking gun, and aerosol spray cans to repair steel and aluminum semi tanker trailers and cryogenic bottles.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipments.

(3) One (1) Spray Paint Booth, identified as Paint Booth 3, approved for construction in 2011, maximum capacity of 0.086 units per hour, equipped with fabric filters for particulate control, exhausting outside through stack C;

(A) Painting steel and aluminum semi tanker trailers, and cryogenic bottles, utilizing two (2) High Volume Low Pressure (HPLV) spray guns.

(B) One (1) paint touch-up, clean-up and repair area, utilizing plastic squeegee spreader, caulking gun, and aerosol spray cans to repair steel and aluminum semi tanker trailers and cryogenic bottles.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipments.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

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

(c) Natural Gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour each;

(1) One (1) natural gas-fired Air make-up unit, installed in 1979, rated at 3.4 million British thermal units per hour, exhausting outside.

(2) One (1) natural gas-fired Air Make-up unit north booth, installed in 1968, rated at 1.878 million British thermal units per hour, exhausting outside.

(3) Sixteen (16) natural gas-fired space heaters, installed in 1968 (1), 1970 (3), 1979 (12), rated at 0.25 million British thermal units per hour each, exhausting outside.

(4) Three (3) natural gas-fired space heaters, installed in 1968 (2) and 1979 (1), rated at 0.30 million British thermal units per hour each, exhausting outside.

(5) Two (2) natural gas-fired space heaters, installed in 1979, rated at 0.20 million British thermal units per hour, each, exhausting outside.

(d) Welding Operations, consisting of the following;

(1) Thirty Nine gas metal Arc (39) welding units, installed starting in 1994 and added to incrementally making a total of 39 as of 2009, maximum capacity: sixty metal parts per hour, and combined average process throughput of 1,036 lbs/hr, uncontrolled and exhausting inside the building.

(2) One (1) stick welding unit, installed in 1995, maximum capacity: two (2) metal parts per hour, and combined average process throughput of 90 lbs/hr combined, uncontrolled and exhausting inside the building.

(3) Twenty Five (25) TIG welding units, installed starting in 1994 and added to incrementally making a total of 25 as of 2009, maximum capacity: two (2) metal parts per hour, each, and combined average process throughput of 90 lbs/hr, uncontrolled and exhausting inside the building.

(4) Three (3) plasma cutting units, installed in 1995, 2001, and 2007, maximum capacity: six (6) parts per hour each, uncontrolled and exhausting inside the building.

(e) Degreasing operation, approved for construction in 2012, that do not exceed 18.25 gallons per twelve (12) months.

Finish Building

(f) Natural Gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour each;

(1) Four (4) natural gas-fired hanging furnaces, approved for construction in 2012, each rated at 0.200 million British thermal units per hour, exhausting outside.

(2) One (1) natural gas-fired forced air furnace, approved for construction in 2012, rated at 0.040 million British thermal units per hour, exhausting outside.

(g) Welding Operations, consisting of the following;

One (1) TIG welding unit, approved for construction in 2012, with a maximum capacity of one (1) tungsten rod per hour, uncontrolled and exhausting inside the building.

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

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

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4][326 IAC 2-8]

This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 and 326 IAC 2-8 when prior to the start of operation, the following requirements are met:

(a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.

(b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.

(c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

B.4 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F157-28184-00461, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, until the renewal permit has been issued or denied.

B.5 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

B.6 Enforceability [326 IAC 2-8-6] [IC 13-17-12]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.7 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.8 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort or any exclusive privilege.

B.9 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.10 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:

(1) it contains a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1), and

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

(b) The Permittee may use the attached Certification Form, or its equivalent, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

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

(b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) The annual compliance certification report shall include the following:

(1) The appropriate identification of each term or condition of this permit that is the basis of the certification;

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

(5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.12 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

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

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

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

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.14 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.

(b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

(1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

(2) The permitted facility was at the time being properly operated;

(3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865

(5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to F157-28184-00461 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.16 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.17 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.18 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a

certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

(b) A timely renewal application is one that is:

(1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.19 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.20 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) and (c) without a prior permit revision, if each of the following conditions is met:

(1) The changes are not modifications under any provision of Title I of the Clean Air Act;

(2) Any approval required by 326 IAC 2-8-11.1 has been obtained;

(3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(1) and (c).

(b) Emission Trades [326 IAC 2-8-15(b)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(b).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.21 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.22 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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 FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

(d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.23 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

(b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ no later than thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.

(b) Failure to pay may result in administrative enforcement action or revocation of this permit.

(c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.25 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than one hundred (100) pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed five hundred fifty-one thousandths (0.551) pounds per hour.

C.2 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM) and greenhouse gases (GHGs), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(4) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-1 (Applicability) and 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.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4, or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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

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

C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolitions start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Demolition and Renovation
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).

(g) Indiana Licensed Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

Testing Requirements [326 IAC 2-8-4(3)]

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

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.9 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.11 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.12 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

(a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) These ERPs shall be submitted for approval to:

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

no later than 180 days from the date on which this source commences operation.

The ERP does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.

(d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

(e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

(f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.13 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable response steps taken.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

(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 submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline

(c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.16 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(a) Records of all required monitoring data, reports, and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following:

(AA) All calibration and maintenance records.
(BB) All original strip chart recordings for continuous monitoring instrumentation.
(CC) Copies of all reports required by the FESOP.

Records of required monitoring information include the following:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.
(BB) The dates analyses were performed.
(CC) The company or entity that performed the analyses.
(DD) The analytical techniques or methods used.
(EE) The results of such analyses.
(FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of

permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.17 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

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

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

(d) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with applicable standards for recycling and emissions reduction.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Shot Blasting unit:

One (1) manually operated shot blaster, consisting of primary and secondary blast tankers, identified as blast booth, installed in 1979, blasting steel and aluminum trailers, and cryogenic bottles, equipped with a baghouse to control particulates, exhaust returning inside the blast booth, maximum capacity: 875 pounds per hour of metal parts and 650 pounds per hour of coal slag abrasive media.

(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 2-8-4(1)]

D.1.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the shot blasting operation shall not exceed 3.42 pounds per hour when operating at a process weight rate of 1,525 pounds per hour of metal and blasting media combined.

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

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

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

D.1.2 Particulate Matter (PM_{10}), ($PM_{2.5}$) [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4, the PM_{10} and $PM_{2.5}$ emissions from shot blaster shall not exceed the hourly rate of 3.42 lbs/hr.

Compliance with these limits, combined with the potential to emit PM_{10} and $PM_{2.5}$ emissions from other emission units at the source, shall limit the source-wide $PM_{10,}$ and $PM_{2.5}$ emissions to less than 100 tons each per twelve consecutive month period and render 326 IAC 2-7 (Part 70), and 326 IAC 2-2 not applicable.

D.1.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for this facility and its control device. Section B – Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.4 Particulate Control

(a) In order to comply with Conditions D.1.1 and D.1.2 the baghouse for particulate controls shall be in operation and control emissions from the shot blaster at all times that the facility are in operation.

(b) In the event that baghouse failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the

failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

D.1.5 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse used in conjunction with the shot blasting operation, at least once per day when the shot blasting is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 2.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps**.** Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.1.6 Broken or Failed Bag Detection

(a) For a single compartment baghouses controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has 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).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces, or triboflows.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.5, the Permittee shall maintain daily records of the pressure drop. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day).

(b) Section C - General Record Keeping Requirements~~,~~ of this permit contains the Permittee's obligations with regard to the records required by this condition.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(b) Paint Spray Booths:

(1) One (1) South Paint Booth, identified as South Booth, constructed in 1979, maximum capacity of 0.086 units per hour, equipped with fabric filters for particulate control, exhausting outside through stack B;

(A) Painting steel and aluminum semi tanker trailers, and cryogenic bottles, utilizing two (2) High Volume Low Pressure (HPLV) spray guns.

(B) One (1) paint touch-up, clean-up and repair area, utilizing plastic squeegee spreader, caulking gun, and aerosol spray cans to repair steel and aluminum semi tanker trailers and cryogenic bottles.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipments.

(2) One (1) North Paint Booth, identified as North Booth, constructed in 1979, maximum capacity of 0.086 units per hour, equipped with fabric filters for particulate control, exhausting outside through stack B;

(A) Painting steel and aluminum semi tanker trailers, and cryogenic bottles, utilizing two (2) High Volume Low Pressure (HPLV) spray guns.

(B) One (1) paint touch-up, clean-up and repair area, utilizing plastic squeegee spreader, caulking gun, and aerosol spray cans to repair steel and aluminum semi tanker trailers and cryogenic bottles.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipments.

(3) One (1) Spray Paint Booth, identified as Paint Booth 3, approved for construction in 2011, maximum capacity of 0.086 units per hour, equipped with fabric filters for particulate control, exhausting outside through stack C;

(A) Painting steel and aluminum semi tanker trailers, and cryogenic bottles, utilizing two (2) High Volume Low Pressure (HPLV) spray guns.

(B) One (1) paint touch-up, clean-up and repair area, utilizing plastic squeegee spreader, caulking gun, and aerosol spray cans to repair steel and aluminum semi tanker trailers and cryogenic bottles.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipments.

(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 2-8-4(1)]

D.2.1 VOC Limitations [326 IAC 2-2] [326 IAC 2-8]

The total VOC input to the North Paint Booth, South Paint Booth, Paint Booth 3, touch-up and repair areas within each booth, dilution solvents and cleaning solvents to the surface coating

operations, and their associated clean-up activities, including but not limited to the usage of sealants, bonding materials, caulks, shall not exceed ninety-nine (95) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the above limits, combined with the potential to emit VOC emissions from the other emission units at the source, shall limit the VOC from the entire source to less than 100 tons per twelve (12) consecutive month period and render the requirements of 326 IAC 2-7 (Part 70), and 326 IAC 2-2 (PSD) not applicable.

D.2.2 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4] [326 IAC 2-4.1]

(a) The total input of any single hazardous air pollutant (HAP) at the North Paint Booth, South Paint Booth, Paint Booth 3, touch-up and repair areas within each booth, dilution solvents and cleaning solvents to the surface coating operations, and their associated clean-up activities, including but not limited to the usage of sealants, bonding materials, caulks, shall not exceed nine (9.0) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) The total input of all hazardous air pollutants (HAPs) at the North Paint Booth, South Paint Booth, Booth 3, touch-up and repair areas within each booth, dilution solvents and cleaning solvents to the surface coating operations, and their associated clean-up activities, including but not limited to the usage of sealants, bonding materials, caulks, shall be limited to less than 22.0 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with the above limits, combined with the potential to emit HAP emissions from the other emission units at the source, shall limit single HAP to less than 10 tons per twelve (12) consecutive month period and total HAPs to less than 25 tons per twelve (12) consecutive month period . Compliance with these limits makes the requirements of 326 IAC 2-7 (Part 70) and 326 IAC 2-4.1(MACT) not applicable.

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

(a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volume weighted average volatile organic compound (VOC) content of coating delivered to the applicator at the North Paint Booth shall be limited to 3.5 pounds of VOCs per gallon of coating less water, as delivered to the applicator for any calendar day, for forced warm air dried coatings.

(b) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volume weighted average volatile organic compound (VOC) content of coating delivered to the applicator at Paint Booth 3 shall be limited to 3.5 pounds of VOCs per gallon of coating less water, as delivered to the applicator for any calendar day, for forced warm air dried coatings.

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

Pursuant to 326 IAC 8-2-9(f), work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not limited to, the following:

(1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.

(2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.

(3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.

(4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.

(5) Minimize VOC emissions from the cleaning application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

D.2.5 Particulate Control

Pursuant to 326 IAC 6-3-2(d), particulate from the North and the South paint booths, and Paint Booth 3, each, including the paint touch-up and repair, cleaning operation shall be controlled by a dry particulate filter, waterwash, or an equivalent control device and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.2.6 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the surface preparation operation (SP in the North and the South paint booths, and Paint Booth 3, each) shall not exceed 2.33 pounds per hour each when operating at a process weight rate of 860 pounds per hour of parts in the South and the North Booth each.

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

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

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

D.2.7 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for this facility and its control device. Section B – Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.2.8 Volatile Organic Compounds (VOC) [326 IAC 8-1-4] [326 IAC 8-1-2(a)]

Compliance with the VOC and HAPs content and input limitations contained in Conditions D.2.1, and D.2.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC and HAPs data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.2.9 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Compliance with the VOC content limits, contained in Conditions D.2.3(a) and (b), shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings only on days when one or more of the coating materials exceed a VOC content of 3.5 pounds of VOC per gallon of coating less water.

This volume weighted average shall be determined by the following equation:

$$A = \frac{\sum_{i=1}^{n}(C_i \times U_i)}{\sum_{i=1}^{n} U_i}$$

where: A is the volume weighted average in pounds VOC per gallon less water and exempt solvents as applied;

C is the VOC content of the coating *i* in pounds VOC per gallon less water and exempt solvents as applied;

U is the usage rate of the coating *i* in gallons per day less water and exempt solvents as applied; and

n is the number of coatings being averaged

If for a given day, all coating materials used in a metal surface coating operation are in compliance with the VOC content limits contained in Condition D.2.3, then the Permittee shall not be required to perform the daily averaging calculation for that operation on that day.

Compliance Monitoring Requirements [**326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

D.2.10 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity, and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the North and South surface coating booths stacks A and B, and from Paint Booth 3 stack C, while the booths are in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks A, B, and C, and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

(c) Monthly inspection shall be performed of the coating emissions by placing monitoring coupons in the air duct leading to the stacks A, B, and C in the winter time if it is not feasible to inspect the rooftops. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.2.11 Record Keeping Requirements

(a) To document the compliance status with Conditions D.2.1 and D.2.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAP usage limits established in Conditions D.2.1 and D.2.2. Records necessary to demonstrate compliance shall be available no later than 30 days of the end of each compliance period.

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

(2) The amount of coating material and solvent less water used on monthly basis.

(A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.

(B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.

(3) The cleanup solvent usage for each month;

(5) The total VOC and total single HAP usage for each month; and

(6) The VOC and total single and combined HAP usage for each compliance period.

(b) To document the compliance status with Condition D.2.8, the Permittee shall maintain a log of weekly overspray observations and daily and monthly inspections.

(c) Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

D.2.12 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.2.1 and D.2.2 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description IAC 2-8-4 (10): Insignificant Activities

(c) Natural Gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour each;

(1) One (1) natural gas-fired Air make-up unit, installed in 1979, rated at 3.4 million British thermal units per hour, exhausting outside.

(2) One (1) natural gas-fired Air Make-up unit north booth, installed in 1968, rated at 1.878 million British thermal units per hour, exhausting outside.

(3) Sixteen (16) natural gas-fired space heaters, installed in 1968 (1), 1970 (3, 1979 (12), rated at 0.25 million British thermal units per hour each, exhausting outside.

(4) Three (3) natural gas-fired space heaters, installed in 1968 (2) and 1979 (1), rated at 0.30 Million British thermal units per hour each, exhausting outside.

(5) Two (2) natural gas-fired space heaters, installed in 1979, rated at 0.20 million British thermal units per hour, each, exhausting outside.

(d) Welding Operations, consisting of the following;

(1) Thirty Nine gas metal Arc (39) welding units, installed starting in 1994 and added to incrementally making a total of 39 as of 2009, maximum capacity: sixty metal parts per hour, and combined average process throughput of 1,036 lbs/hr, uncontrolled and exhausting inside the building.

(2) One (1) stick welding unit, installed in 1995, maximum capacity: two (2) metal parts per hour, and combined average process throughput of 90 lbs/hr combined, uncontrolled and exhausting inside the building.

(3) Twenty Five (25) TIG welding units, installed starting in 1994 and added to incrementally making a total of 25 as of 2009, maximum capacity: two (2) metal parts per hour, each, and combined average process throughput of 90 lbs/hr, uncontrolled and exhausting inside the building.

(4) Three (3) plasma cutting units, installed in 1995, 2001, and 2007, maximum capacity: six (6) parts per hour each, uncontrolled and exhausting inside the building.

(e) Degreasing operation, approved for construction in 2012, that do not exceed 18.25 gallons per twelve (12) months.

Finish Building

(f) Natural Gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour each;

(1) Four (4) natural gas-fired hanging furnaces, approved for construction in 2012, each rated at 0.200 million British thermal units per hour, exhausting outside.

(2) One (1) natural gas-fired forced air furnace, approved for construction in 2012, rated at 0.040 million British thermal units per hour, exhausting outside.

(g) Welding Operations, consisting of the following;

One (1) TIG welding unit, approved for construction in 2012, with a maximum capacity of one (1) tungsten rod per hour, uncontrolled and exhausting inside the building.

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Alloy Custom Products
Source Address: 9701 SR 25 North, Lafayette, Indiana 47905-4394
FESOP Permit No.: F157-28184-00461

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify)_____

☐ Other (specify)_____

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

Signature:

Printed Name:

Title/Position:

Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: Alloy Custom Products
Source Address: 9701 SR 25 North, Lafayette, Indiana 47905-4394
FESOP Permit No.: F157-28184-00461

This form consists of 2 pages **Page 1 of 2**

□ This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (**4**) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FESOP Quarterly Report

Source Name: Alloy Custom Products
Source Address: 9701 SR 25 North, Lafayette, Indiana 47905-4394
FESOP Permit No.: F157-28184-00461
Facility: Paint Booths - North Paint Booth, South Paint Booth, and Paint Booth 3

Parameter: VOC, single and combined HAPs usages

Limit:

(a) total VOC usage at the North Paint Booth, South Paint Booth, Paint Booth 3, the touch-up and repair areas within each booth, dilution solvents and cleaning solvents to the surface coating operations, and their associated clean-up activities, including but not limited to the usage of sealants, bonding materials, caulks, shall be limited to less than 95.0 tons per twelve (12) consecutive month period.

(b) total usage of any single hazardous air pollutant (HAP) at the North paint Booth, South Paint Booth, Paint Booth 3, the touch-up and repair areas within each booth, dilution solvents and cleaning solvents to the surface coating operations, and their associated clean-up activities, including but not limited to the usage of sealants, bonding materials, caulks, shall be limited to less than 9.0 tons per twelve (12) consecutive month period.

(c) combined usage of all hazardous air pollutants (HAPs) at the North paint Booth, South Paint Booth, Paint Booth 3, the touch-up and repair areas within each booth, dilution solvents and cleaning solvents to the surface coating operations, and their associated clean-up activities, including but not limited to the usage of sealants, bonding materials, caulks shall be limited to less than 22.0 tons per twelve (12) consecutive month period

YEAR:_____

	Total Input Usage This Month (tons)			Total Input Usage Previous 11 Months (tons)			Total 12-Month Input Usage (tons)		
Month	VOC	Single* HAP	Combined HAPs	VOC	Single* HAP	Combined HAPs	VOC	Single* HAP	Combined HAPs
Month 1									
Month 2									
Month 3									

* List the single HAP with the greatest emission rate

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Alloy Custom Products
Source Address: 9701 SR 25 North, Lafayette, Indiana 47905-4394
FESOP Permit No.: F157-28184-00461

Months: _____ **to** _____ **Year:** _____
Page 1 of 2

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

□ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Page 2 of 2

Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

Mail to: Permit Administration & Support Section
Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Alloy Custom Products
9701 SR 25 North,
Lafayette, Indiana 47905

Affidavit of Construction

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

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

2. I hold the position of _____ for _____.
(Title) (Company Name)

3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of _____.
(Company Name)

4. I hereby certify that Alloy Custom Products, Lafayette, Indiana 47905, completed construction of the manufacturing plant for production and repair of semi tanker trailer industry on _____in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on June 30, 2009 and as permitted pursuant to New Source Construction Permit and Federally Enforceable State Operating Permit No. F157-28184-00461, Plant ID No. 157-00461 issued on _____.

5. **Permittee, please cross out the following statement if it does not apply:** Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

Further Affiant said not.

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

Signature_____
Date_____

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of Indiana

on this _____ day of _____, 20 _____. My Commission expires: _____.

Signature_____
Name_____ (typed or printed)

Appendix A: Emission Calculations
Potential To Emit of the Entire Source After Issuance of Amendment

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

Uncontrolled Potential Emissions (tons/year)
Criteria Pollutants

	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	total HAPs	Single HAP	
Shot blasting	117.54	82.28	82.28	0.00	0.00	0.00	0.00	0	0.00	0.00	
*North Paint Booth	26.24	26.24	26.24	0.00	0.00	52.87	0.00	0	18.28	5.83	xylene
*South Booth Booth	26.24	26.24	26.24	0.00	0.00	52.87	0.00	0	18.29	5.83	xylene
Paint Booth 3	26.24	26.24	26.24	0.00	0.00	52.87	0.00	0	18.28	5.83	xylene
Parts Washer	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0	0.00	0.00	
Welding Operations	17.14	17.14	17.14	0.00	0.00	0.00	0.00	0	1.88	1.44	Manganese
Natural Gas combustion	0.10	0.38	0.38	0.03	5.06	0.28	4.25	6,106	0.10	0.09	hexane
Total:	**213.50**	**178.52**	**178.52**	**0.03**	**5.06**	**158.95**	**4.25**	**6,106**	**56.82**	**17.49**	xylene

Controlled/Limited Potential Emissions (tons/year)
Criteria Pollutants

	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	total HAPs	Single HAP	
Shot blasting	9.40	16.46	16.46	0.00	0.00	0.00	0.00	0	0.00	0.00	
*North Paint Booth	0.03	7.04	7.04	0.00	0.00	<95.00 **	0.00	0	<22.00 ***	<9.00 ***	xylene
*South Booth Booth	0.03	7.04	7.04	0.00	0.00		0.00	0			toulene
Paint Booth 3	0.03	7.04	7.04	0.00	0.00		0.00	0			MIBK
Parts Washer	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0	0.00	0.00	
Welding Operations	17.14	17.14	17.14	0.00	0.00	0.00	0.00	0	1.88	1.44	manganese
Natural Gas combustion	0.10	0.38	0.38	0.03	5.06	0.28	4.25	6,106	0.10	0.09	hexane
Total:	**26.72**	**55.09**	**55.09**	**0.03**	**5.06**	**<95.34**	**4.25**	**6,106**	**<25**	**<9.00**	

NOTES:

Total emissions based on rated capacity at 8,760 hours/year, after enforceable control and limits.

* The North and the South booth each includes one half of emissions from paint touch up, repair and surface preparation areas.

** VOC emission limits for the North and South Paint Booths, and Paint Booth 3, in order to comply with FESOP limits 326 IAC 2-8-4.

*** Single and combined HAPs emission limits the North and South Paint Booths, and Paint Booth 3, to comply with FESOP limits 326 IAC 2-8-4.

Appendix A: Emission Calculations
Potential To Emit of the Administrative Amendment

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

	Uncontrolled Potential Emissions (tons/year)										
	Criteria Pollutants										
	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs as CO2e	total HAPs	Single HAP	HAP
Parts Washer	0.0	0.0	0.0	0.0	0.0	0.06	0.0	0	0.0	0.0	
Welding Operations	0.02	0.02	0.02	0.00	0.00	0.00	0.00	0	2.19E-03	2.19E-03	Manganese
Natural Gas combustion	0.01	0.04	0.04	3.09E-03	0.52	0.03	0.43	622	0.01	0.01	Hexane
Total:	**0.03**	**0.06**	**0.06**	**3.09E-03**	**0.52**	**0.09**	**0.43**	**622**	**0.01**	**<10**	

Appendix A: Emission Calculations
Abrasive Blasting - Confined

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

Table 1 - Emission Factors for Abrasives

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

Table 2 - Density of Abrasives (lb/ft3)

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

Cells highlighted in yellow indicates data selected or provided by Alloy Custom Products

Sand appears to be data that's properties closest resemble the properties of Black Beauty Blast Media

Table 3 - Sand Flow Rate (FR1) Through Nozzle (lb/hr)
Flow rate (FR1) of sand through a blasting nozzle as a function of nozzle pressure and internal diameter (ID1)

		Nozzle Pressure (psig)							
Nozzle Type (diameter)	Internal diameter, in.	30	40	50	60	70	80	90	100
No. 2 (1/8 inch)	0.125	28	35	42	49	55	63	70	77
No. 3 (3/16 inch)	0.1875	65	80	94	107	122	135	149	165
No. 4 (1/4 inch)	0.25	109	138	168	195	221	255	280	309
No. 5 (5/16 inch)	0.3125	205	247	292	354	377	420	462	507
No. 6 (3/8 inch)	0.375	285	355	417	477	540	600	657	720
No. 7 (7/16 inch)	0.4375	385	472	560	645	755	820	905	940
No. 8 (1/2 inch)	0.5	503	615	725	835	945	1050	1160	1265
No. 10 (5/8 inch)	0.625	820	990	1170	1336	1510	1680	1850	2030
No. 12 (3/4 inch)	0.75	1140	1420	1670	1915	2160	2400	2630	2880
No. 16 (1 inch)	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) of abrasive at nozzle pressure and internal nozzle diameter (ID)

D1 = Density of sand from Table 2 =	99	lb/ft3
ID1 = Internal diameter of nozzle for sand blasting from Table 3 =	0.375	inch
FR1 = Sand flow rate at nozzle pressure and internal diameter (ID1) from Table 3 =	720	lb/hr
D = Density of actual abrasive =	90	lb/ft3
ID = internal diameter of actual nozzle =	0.375	inch
FR = Flow rate of actual abrasive (lb/hr) =	654.5	lb/hr (per nozzle)

Potential to Emit Before Control

FR = Flow rate of actual abrasive (lb/hr) =	654.5		lb/hr (per nozzle)
w = fraction of time of wet blasting =	0		%
N = number of nozzles =	1		
EF = PM emission factor for actual abrasive from Table 1 =	0.041		lb PM/ lb abrasive
PM10 emission factor ratio for actual abrasive from Table 1 =	0.70		lb PM10 / lb PM
	PM	**PM10**	
Potential to Emit (before control) =	26.84	18.79	**lb/hr**
=	644.07	450.85	**lb/day**
=	**117.54**	**82.28**	**ton/yr**

Potential to Emit After Control

	PM	**PM10**	
Emission Control Device Efficiency =	92.0%	80.0%	
Potential to Emit (after control) =	2.15	3.76	**lb/hr**
=	51.53	90.17	**lb/day**
=	**9.40**	**16.46**	**ton/yr**

METHODOLOGY
Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Flow rate of actual abrasive (FR) (lb/hr) = FR1 x (ID/ID1)^2 x (D/D1)
Potential to Emit (before control) = EF x FR x (1 - w/200) x N (where w should be entered in as a whole number (if w is 50%, enter 50))
Potential to Emit (after control) = [Potential to Emit (before control)] * [1 - control efficiency]
Potential to Emit (tons/year) = [Potential to Emit (lbs/hour)] x [8760 hours/year] x [ton/2000 lbs]

Appendix A: Emissions Calculations
Particulate (PM/PM10/PM2.5), Volitile Organic Compound (VOC), and Hazardous Air Pollutant (HAP) Emissions
From Surface Coating Operations (North Paint Booth)

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

North Paint Booth - PM and VOC

Material JONES-BLAIR PAINT SYSTEM		Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Maximum usage (gal/hr)	VOC (lbs/gal) of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)*	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE PM/PM10 before control (ton/yr)	PTE PM/PM10 after control (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Jones-Blair:JB33304/01	PRIMER	12.1	25.20%	0.0%	25.2%	0.0%	74.80%	7.50	0.086	0.648	3.06	1.98	10.89	47.54	8.68	6.70	0.01	4.09	74%
Jones-Blair:JB99953/04	PRIMER CATALYST	12.7	29.10%	0.0%	29.1%	0.0%	70.90%	7.50	0.086	0.648	3.70	2.40	13.20	57.61	10.51	6.66	0.01	5.22	74%
Jones-Blair:JB45070/01	COLOR COAT	10.5	34.80%	0.0%	34.8%	0.0%	65.20%	7.50	0.086	0.648	3.66	2.37	13.05	56.94	10.39	5.06	0.01	5.61	74%
Jones-Blair:JB99951/04	CATALYST	9.5	10.00%	0.0%	10.0%	0.0%	90.00%	2.50	0.086	0.216	0.95	0.21	1.13	4.92	0.90	2.10	0.00	1.06	74%
Jones-Blair:JB45072/01	CLEAR COAT	8.3	47.60%	0.0%	47.6%	0.0%	53.90%	3.40	0.086	0.294	3.95	1.16	6.38	27.85	5.08	1.45	0.00	7.33	74%
Jones-Blair:JB99951/04	CATAYLST	9.5	10.00%	0.0%	10.0%	0.0%	90.00%	1.13	0.086	0.097	0.95	0.09	0.51	2.22	0.40	0.95	0.00	1.06	74%
Jone Blair 21092	Thinner	7.2	100.00%	0.0%	100.0%	0.0%	0.00%	1.70	0.086	0.147	7.21	1.06	5.82	25.42	4.64	0.00	0.00	0.00	74%
												9.27	**50.99**	**222.50**	**40.61**	**22.92**	**0.023**	24.37	

North Paint Booth - HAPS

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Ethyl Benzene	Weight % MIBK	Xylene Emissions (ton/yr)	Ethyle Benzene (ton/yr)	MIBK (ton/yr)	Total HAP Emissions (ton/yr)
Jones-Blair:JB33304/01	12.1	7.50	0.086	6.73%	1.00%	5.80%	2.32	0.34	2.00	4.66
Jones-Blair:JB99953/04	12.7	7.50	0.086	5.00%	1.00%	0.00%	1.807	0.361	0.00	2.168
Jones-Blair:JB45070/01	10.5	7.50	0.086	0.00%	1.00%	0.00%	0.000	0.299	0.00	0.299
Jones-Blair:JB99951/04	9.5	2.50	0.086	0.00%	1.50%	0.00%	0.000	0.135	0.00	0.135
Jones-Blair:JB45072/01	8.3	3.40	0.086	5.00%	1.00%	0.00%	0.534	0.107	0.00	0.641
Jones-Blair:JB99951/04	9.5	1.13	0.086	0.00%	1.50%	0.00%	0.000	0.061	0.00	0.061
Jone Blair 21092	7.2	1.70	0.086	24.48%	3.80%	25.58%	1.134	0.18	1.18	2.495
				Total HAPs			**5.79**	**1.48**	**3.18**	**10.46**

Dry filter control efficiency- PM	**99.9%**	**0.023**
Dry filter control efficiency-PM10, PM2.5	**73.0%**	**6.19**

METHODOLOGY

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

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

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

NOTES

1. Weight % Exempt is weight % of exempt non-photochemical reactive organic compounds.
2. Maximum Capacities as reported by source, based on historical production and actual coating materials used per unit.
3. Paint guns are Kremlin HVLP M22 rated at 74% transfer efficiency at 30 - 45 psi air pressure & 12" spray pattern
4. Fabric filter media captures 73% of all particles 5-6 microns in size and 100 % of all particles 15 microns and larger - manufacturers rated efficiency.
5. Maximum units per hour is determined based on:

   Average time to paint repair trailer: 92.86 man hours -- two men per trailer

   Time in booth: Hours dry time between primer and color 5 hrs; Dry time between color and primer 8 hrs; Dry time prior to removal 8 hrs;

   Total booth time 69.43 hrs for jones blair paint for three coats, where each paint component of the paint takes 1/6 of the total time.

   69.43 / 6 = 11.57 hrs per component or 1/ 11.57 = .0864 units per hour.
6. Process throughput is identical through South and North paint booths except North paint booth was built in 2006, whereas South Booth was built in 1979 .
7. There are no PM10 or PM2.5 Emission Factors in AP-42; therefore, it is assumed that PM10 and PM2.5 emissions, each = PM emissions

Appendix A: Emissions Calculations
Particulate (PM/PM10/PM2.5), Volitile Organic Compound (VOC), and Hazardous Air Pollutant (HAP) Emission
From Surface Coating Operations (South Paint Booth)

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

South Paint Booth - PM and VOC

Material JONES-BLAIR PAINT SYSTEM		Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Maximum usage (gal/hr)	VOC (lbs/gal) of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)*	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE PM/PM10 before control(ton/yr)	PTE PM/PM10 after control (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Jones-Blair:JB33304/01	PRIMER	12.1	25.20%	0.0%	25.2%	0.0%	74.80%	7.50	0.086	0.648	3.06	1.98	10.89	47.54	8.68	6.70	0.01	4.09	74%
Jones-Blair:JB99953/04	PRIMER CATALYST	12.7	29.10%	0.0%	29.1%	0.0%	70.90%	7.50	0.086	0.648	3.70	2.40	13.20	57.61	10.51	6.66	0.01	5.22	74%
Jones-Blair:JB45070/01	COLOR COAT	10.5	34.80%	0.0%	34.8%	0.0%	65.20%	7.50	0.086	0.648	3.66	2.37	13.05	56.94	10.39	5.06	0.01	5.61	74%
Jones-Blair:JB99951/04	CATALYST	9.5	10.00%	0.0%	10.0%	0.0%	90.00%	2.50	0.086	0.216	0.95	0.21	1.13	4.92	0.90	2.10	0.00	1.06	74%
Jones-Blair:JB45072/01	CLEAR COAT	8.3	47.60%	0.0%	47.6%	0.0%	53.90%	3.40	0.086	0.294	3.95	1.16	6.38	27.85	5.08	1.45	0.00	7.33	74%
Jones-Blair:JB99951/04	CATAYLST	9.5	10.00%	0.0%	10.0%	0.0%	90.00%	1.13	0.086	0.097	0.95	0.09	0.51	2.22	0.40	0.95	0.00	1.06	74%
Jone Blair 21092	Thinner	7.2	100.00%	0.0%	100.0%	0.0%	0.00%	1.70	0.086	0.147	7.20	1.06	5.82	25.38	4.63	0.00	0.00	0.00	74%
											Totals	**9.27**	**50.98**	**222.46**	**40.60**	**22.92**	**0.02**	24.37	

South Paint Booth - HAPS

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Ethyl Benzene	Weight % MIBK	Xylene Emissions (ton/yr)	Ethyle Benzene (ton/yr)	MIBK (ton/yr)	Total HAP Emissions (ton/yr)
Jones-Blair:JB33304/01	12.1	7.50	0.086	6.73%	1.00%	5.80%	2.32	0.34	2.00	4.66
Jones-Blair:JB99953/04	12.7	7.50	0.086	5.00%	1.00%	0.00%	1.807	0.361	0.00	2.168
Jones-Blair:JB45070/01	10.5	7.50	0.086	0.00%	1.00%	0.00%	0.000	0.299	0.00	0.299
Jones-Blair:JB99951/04	9.5	2.50	0.086	0.00%	1.50%	0.00%	0.000	0.135	0.00	0.135
Jones-Blair:JB45072/01	8.3	3.40	0.086	5.00%	1.00%	0.00%	0.534	0.107	0.00	0.641
Jones-Blair:JB99951/04	9.5	1.13	0.086	0.00%	1.50%	0.00%	0.000	0.061	0.00	0.061
Jones-Blair:21092	7.2	1.70	0.086	24.48%	3.80%	25.80%	1.134	0.18	1.20	2.505
						Total HAPs	**5.79**	**1.48**	**3.19**	**10.47**

Dry filter control efficiency- PM	**99.9%**	**0.02**
Dry filter control efficiency-PM10, PM2.5	**73.0%**	**6.19**

METHODOLOGY

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

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

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

NOTES

1. Weight % Exempt is weight % of exempt non-photochemical reactive organic compounds.
2. Maximum Capacities as reported by source, based on historical production and actual coating materials used per unit.
3. Paint guns are Kremlin HVLP M22 rated at 74% transfer efficiency at 30 - 45 psi air pressure & 12" spray pattern
4. Fabric filter media captures 73% of all particles 5-6 microns in size and 100 % of all particles 15 microns and larger - manufacturers rated efficiency.
5. Maximum units per hour is determined based on:

   Average time to paint repair trailer: 92.86 man hours -- two men per trailer

   Time in booth: Hours dry time between primer and color 5 hrs; Dry time between color and primer 8 hrs; Dry time prior to removal 8 hrs;

   Total booth time 69.43 hrs for jones blair paint for three coats, where each paint component of the paint takes 1/6 of the total time.

   69.43 / 6 = 11.57 hrs per component or 1/ 11.57 = .0864 units per hour.
6. Process throughput is identical through South and North paint booths except North paint booth was built in 2006, whereas South Booth was built in 1979 .
7. There are no PM10 or PM2.5 Emission Factors in AP-42; therefore, it is assumed that PM10 and PM2.5 emissions, each = PM emissions
8. The 326 IAC 8-2-9 is not applicable to South Booth because it was built prior to 1980.

Appendix A: Emission Calculations
Particulate (PM/PM10/PM2.5), Volitile Organic Compound (VOC), and Hazardous Air Pollutant (HAP) Emissions
From the touch up and repair area - North and South Paint Booths combined

Company Name: Alloy Custom Products, Inc.
Address: 9701 SR 25 North, lafayette, Indiana 47905
Permit No.: F157-28184-00461
Revision No.: 157-32288-00461
Reviewer: Bruce Farrar
Date Received: September 10, 2012

Clean up, touch-up and spot treating- metal parts

ID Number	Coating Name	Ave. Gallons Used Per Vehicle	Density (lbs/gal)	% VOC by WT.	% Solids by WT.	%Solids by Vol.	VOC (lbs/gal)	Solids (lbs/gal)	Toluene % by Wt.	Methanol % by Wt.	MIBK % by Wt.	Xylenes % by Wt.	Ethyl Benzene % by Wt.	Methyl ethyl Ketones % by Wt.	Styrene % by Wt.
Touch up/repair operation															
PPG:Q1390-9053	Air Products Green Aerosal Can[1]	0.219	6.30	83.60%	16.50%	0.00%	5.27	1.04	0.00%	0.00%	0.00%	16.00%	5.00%	0.00%	0.00%
SEM39683	SEM Self Etching Gray Primer (8 oz) Aerosol[1]	0.219	6.49	59.00%	41.00%	0.00%	3.83	2.66	10.00%	0.00%	0.00%	2.50%	0.00%	10.00%	0.00%
SUNDRIES:	Transtar 1K Self-Etching Primer (8 oz) Aerosol[1]	0.083	6.99	78.00%	21.90%	0.00%	5.45	1.53	5.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%
Clean up operation															
Jones-Blair:JB21092/01	JB Universal Thinner - 1-Gallon[1]	0.680	7.21	100.00%	0.00%	0.00%	7.21	0.00	0.00%	0.00%	25.80%	24.48%	3.89%	0.00%	0.00%
MOR10005/05	Advantage Virgin Lacquer Thinner[2]	1.870	6.90	100.00%	0.00%	0.00%	6.90	0.00	70.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MOR15015/55	General Purpose Clean-Up Thinner[2]	12.030	7.11	100.00%	0.00%	0.00%	7.11	0.00	30.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PAS71611	GAL Denatured Alcohol[2]	0.083	6.76	100.00%	0.00%	0.00%	6.76	0.00	0.00%	5.00%	5.00%	0.00%	0.00%	0.00%	0.00%
Body Fillers and Misc Products															
1414	Top Gun 200 Sil Acrylic Caulk - White[3] (12 oz tube)	0.166	13.69	32.0%	68.0%	0.32	4.38	9.31	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
USC21330	Feather Rite Body Filler[5] (1 Gallon Can)	0.417	8.82	20.0%	80.0%	-	1.76	7.06	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%
USC26006	Icing Putty - 24 oz. Tube[5]	0.058	9.16	30.0%	70.0%	0.022	2.75	6.41	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%
USC32035	Red Glazing Spot Putty - 1 LB Tube[5]	0.115	13.07	29.0%	71.0%	-	3.79	9.28	15.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%
SC0269 124	Alumi Elastic Sealing Compound[4]	0.073	13.4	0.0%	96.0%	-	0.00	12.86	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

ID Number	Coating Name	Gallons/ Hour	Transfer Efficiency	Application Method
Touch up/repair operation				
PPG:Q1390-9053	Air Products Green Aerosal Can[1,repair]	0.011	50%	Aerosol Spray Can
SEM39683	SEM Self Etching Gray Primer (8 oz) Aerosol[1]	0.015	50%	Aerosol Spray Can
SUNDRIES:	Transtar 1K Self-Etching Primer (8 oz) Aerosol[1]	0.002	50%	Aerosol Spray Can
Clean up operation				
Jones-Blair:JB21092/01	JB Universal Thinner - 1-Gallon[1]	0.036	100%	Paint gun & hose cleanup rinse
MOR10005/05	Advantage Virgin Lacquer Thinner[2]	0.097	100%	Paint gun & hose cleanup rinse
MOR15015/55	General Purpose Clean-Up Thinner[2]	0.621	100%	Paint gun & hose cleanup rinse
PAS71611	GAL Denatured Alcohol[2]	0.004	100%	Wiping
Body Fillers and Misc Products				
1414	Top Gun 200 Sil Acrylic Caulk - White[3] (12 oz tube)	0.009	100%	caulking gun
USC21330	Feather Rite Body Filler[5] (1 Gallon Can)	0.022	100%	Hand Squeege
USC26006	Icing Putty - 24 oz. Tube[5]	0.003	100%	Hand Squeege
USC32035	Red Glazing Spot Putty - 1 LB Tube[5]	0.006	100%	Hand Squeege
SC0269 124	Alumi Elastic Sealing Compound[4]	0.004	100%	caulking gun

NOTES
1. Thinner, Reducers , Activators , and Accelerators added in small amounts to paint mix according to temperature and humidity
2. Thinner used for clean up of paint equipment
3. Caulk used to caulk weep holes in doubler pads - only applied to painted bottles and trailers
4. Anti Dielectric Corrosion agent for Aluminum to Steel Joints
5. Body filler products to improve aesthetic appearances -- used only as required.
6. Used to clean surface oil prior to paint -- Spot use only
7. Touch up paint used to repair scratches in paint

PM, VOC, and HAPs Emissions

Primary Type of Surface Coated	Coating Name	Gallons/ Hour	Uncontrolled PM lbs/hr	Uncontrolled PM tons/yr	Uncontrolled PM-10 tons/yr	Controlled PM/PM10 tons/yr	VOC lbs/hr	VOC lbs/day	VOC tons/yr	Toluene tons/yr	Methanol tons/yr	MIBK tons/yr	Xylenes tons/yr	Ethyl Benzene tons/yr	Total HAPs
Touch up/repair operation															
PPG:Q1390-9053	Air Products Green Aerosal Can[1]	0.011	0.006	0.025	0.025	0.000	0.058	1.390	0.254	0.000	0.000	0.000	0.049	0.015	0.064
SEM39683	SEM Self Etching Gray Primer (8 oz) Aerosol[1]	0.015	0.000	0.084	0.084	0.000	0.056	1.333	0.243	0.041	0.000	0.000	0.010	0.000	0.052
SUNDRIES:	Transtar 1K Self-Etching Primer (8 oz) Aerosol[1]	0.002	0.000	0.005	0.005	0.002	0.008	0.196	0.036	0.002	0.000	0.000	0.000	0.000	0.002
Clean up operation															
Jones-Blair:JB21092/01	JB Universal Thinner - 1-Gallon[1]	0.036	0.000	0.000	0.000	0.000	0.26	6.23	1.14	0.000	0.000	0.000	0.000	0.000	0.000
MOR10005/05	Advantage Virgin Lacquer Thinner[2]	0.097	0.000	0.000	0.000	0.001	0.67	16.03	2.93	2.048	0.878	0.000	0.000	0.000	2.925
MOR15015/55	General Purpose Clean-Up Thinner[2]	0.621	0.000	0.000	0.000	0.000	4.42	106.02	19.35	5.805	5.805	0.920	0.000	0.000	12.529
PAS71611	GAL Denatured Alcohol[2]	0.004	0.000	0.000	0.000	0.000	0.03	0.70	0.13	0.000	0.006	0.000	0.000	0.000	0.006
Body Fillers and Misc Products															
1414	Top Gun 200 Sil Acrylic Caulk - White[3] (12 oz tube)	0.009	0.000	0.000	0.000	0.000	0.038	0.904	0.165	0.000	0.000	0.000	0.000	0.000	0.000
USC21330	Feather Rite Body Filler[5] (1 Gallon Can)	0.022	0.000	0.000	0.000	0.000	0.038	0.910	0.166	0.000	0.000	0.000	0.000	0.000	0.000
USC26006	Icing Putty - 24 oz. Tube[5]	0.003	0.000	0.000	0.000	0.000	0.008	0.198	0.036	0.000	0.000	0.000	0.000	0.000	0.000
USC32035	Red Glazing Spot Putty - 1 LB Tube[5]	0.006	0.000	0.000	0.000	0.000	0.022	0.537	0.098	0.051	0.000	0.000	0.017	0.000	0.068
SC0269 124	Alumi Elastic Sealing Compound[4]	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total	**PTE PM, VOC and HAPs**		0.006	**0.11**	**0.11**	**0.002**	5.60	134.44	**24.54**	**7.95**	**6.69**	**0.92**	**0.08**	**0.02**	**15.646**

METHODOLOGY
Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
HAP lbs/hr = (gallons/hr) x (lbs/gal) x (% HAP/100%)

NOTES
The touch-up, clean-up and repair emissions in the North and the South paint booths (VOC and Particulate Emissions are for both booths) are combined. The emissions are divided into half to apply towards each booth.
1. Emissions are based upon a maximum of 0.089 vehicles per hour.
2. Fabric filter media captures 73% of all particles 5-6 microns in size and 100 % of all particles 15 microns and larger - manufacturers rated efficiency
3. There are no PM10 or PM2.5 Emission Factors in AP-42; therefore, it is assumed that PM10 and PM2.5 emissions, each = PM emissions.

Appendix A: Emissions Calculations
Particulate (PM/PM10/PM2.5) Emissions from the
North and South paint Booths Surface Prep Operation (SP)

Company Name: Alloy Custom Products, Inc.
Address: 9701 SR 25 North, lafayette, Indiana 47905
Permit No.: F157-28184-00461
Revision No.: 157-32288-00461
Reviewer: Bruce Farrar
Date Received: September 10, 2012

Paint Booths, Surface Preperation (SP)*

Product Id	Product Name	Gallons/ Hour	Transfer Efficiency	Density (lbs/gal)	Weight % Solids	Solids (lbs/gal)	10 % Solids (lbs/gal)
381761	Jones-Blair:JB33304/01	0.6480	74%	12.1	74.8%	9.07	0.91
381762	Jones-Blair:JB99953/04	0.6480	74%	12.7	70.9%	9.03	0.90
399093	Jones-Blair:JB45070/01	0.6480	74%	10.5	65.2%	6.86	0.69
390836	Jones-Blair:JB99951/04	0.2160	74%	9.5	90.0%	8.55	0.86
390837	Jones-Blair:JB45072/01	0.2938	74%	8.3	52.4%	4.35	0.43
390838	Jones-Blair:JB99951/04	0.0972	74%	9.5	90.0%	8.55	0.86

		Uncontrolled PTE				Controlled PTE			
Emission Unit	Product Name	PM lb/hr	PM-10 lb/hr	PM ton/year	PM-10 ton/year	PM lb/hr	PM-10 lb/hr	PM ton/year	PM-10 ton/year
PB1 & P4	Jones-Blair:JB33304/01	0.435	0.435	1.906	1.906	0.0004	0.1131	0.002	0.495
PB1 & P4	Jones-Blair:JB99953/04	0.433	0.433	1.896	1.896	0.0004	0.1125	0.002	0.493
PB1 & P4	Jones-Blair:JB45070/01	0.329	0.329	1.441	1.441	0.0003	0.0855	0.001	0.375
PB1 & P4	Jones-Blair:JB99951/04	0.137	0.137	0.599	0.599	0.0001	0.0355	0.001	0.156
PB1 & P4	Jones-Blair:JB45072/01	0.095	0.095	0.414	0.414	0.0001	0.0246	0.0004	0.108
PB1 & P4	Jones-Blair:JB99951/04	0.061	0.061	0.269	0.269	0.0001	0.0160	0.0003	0.070
	Totals	1.49	1.49	**6.52**	**6.52**	0.001	0.387	**0.007**	**1.70**

METHODOLOGY
PM = PM10 lbs/hr = (gals/hr) x (lbs solids/gal) x (%Transfer Effeciency/100%)
PM = PM10 (after controls) tons/yr = [(lbs/hr) x ((100-%filter efficiency)/100)* [(8760 hrs/yr)/[2000lbs/ton]]

NOTES
Surface preparation operations are performed in the North and the South paint booths (particulate Emissions are for both booths combined and are divided into half to apply towards each booth.)

1. *Emissions are conservatively estimated by assuming the maximum amount of material removed from the vehicles is equal to 10% of the amount of solids in surface coatings that are applied to the painted exterior surfaces of the vehicles.
2. Emissions are based upon a maximum of 0.086 vehicles per hour for both booths. At a process rate of 0.086 vehicles per hour the material process rate for surface preparation averages 1720 lbs/hour.
3. Fabric filter media captures 73% of all particles 5-6 microns in size and 100 % of all particles 15 microns and larger - manufacturers rated efficiency. Based on this the filter efficiency for PM10 and PM2.5 is assumed to be 73% and PM is 99.9%
4. There are no PM10 or PM2.5 Emission Factors in AP-42; therefore, it is assumed that PM10 and PM2.5 emissions, each = PM emissions.

Appendix A: Emissions Calculations
Particulate (PM/PM10/PM2.5), Volitile Organic Compound (VOC), and Hazardous Air Pollutant (HAP) Emissions
From Surface Coating Operations (Paint Booth 3)

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

Paint Booth 3 - PM and VOC

Material JONES-BLAIR PAINT SYSTEM		Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Maximum usage (gal/hr)	VOC (lbs/gal) of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)*	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE PM/PM10 before control(ton/yr)	PTE PM/PM10 after control (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Jones-Blair:JB33304/01	PRIMER	12.1	25.20%	0.0%	25.2%	0.0%	74.80%	7.50	0.086	0.648	3.06	1.98	10.89	47.54	8.68	6.70	0.01	4.09	74%
Jones-Blair:JB99953/04	PRIMER CATALYST	12.7	29.10%	0.0%	29.1%	0.0%	70.90%	7.50	0.086	0.648	3.70	2.40	13.20	57.61	10.51	6.66	0.01	5.22	74%
Jones-Blair:JB45070/01	COLOR COAT	10.5	34.80%	0.0%	34.8%	0.0%	65.20%	7.50	0.086	0.648	3.66	2.37	13.05	56.94	10.39	5.06	0.01	5.61	74%
Jones-Blair:JB99951/04	CATALYST	9.5	10.00%	0.0%	10.0%	0.0%	90.00%	2.50	0.086	0.216	0.95	0.21	1.13	4.92	0.90	2.10	0.00	1.06	74%
Jones-Blair:JB45072/01	CLEAR COAT	8.3	47.60%	0.0%	47.6%	0.0%	53.90%	3.40	0.086	0.294	3.95	1.16	6.38	27.85	5.08	1.45	0.00	7.33	74%
Jones-Blair:JB99951/04	CATAYLST	9.5	10.00%	0.0%	10.0%	0.0%	90.00%	1.13	0.086	0.097	0.95	0.09	0.51	2.22	0.40	0.95	0.00	1.06	74%
Jone Blair 21092	Thinner	7.2	100.00%	0.0%	100.0%	0.0%	0.00%	1.70	0.086	0.147	7.21	1.06	5.82	25.42	4.64	0.00	0.00	0.00	74%
												9.27	**50.99**	**222.50**	**40.61**	**22.92**	**0.023**	24.37	

Paint Booth 3 - HAPS

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Ethyl Benzene	Weight % MIBK	Xylene Emissions (ton/yr)	Ethyle Benzene (ton/yr)	MIBK (ton/yr)	Total HAP Emissions (ton/yr)
Jones-Blair:JB33304/01	12.1	7.50	0.086	6.73%	1.00%	5.80%	2.32	0.34	2.00	4.66
Jones-Blair:JB99953/04	12.7	7.50	0.086	5.00%	1.00%	0.00%	1.807	0.361	0.00	2.168
Jones-Blair:JB45070/01	10.5	7.50	0.086	0.00%	1.00%	0.00%	0.000	0.299	0.00	0.299
Jones-Blair:JB99951/04	9.5	2.50	0.086	0.00%	1.50%	0.00%	0.000	0.135	0.00	0.135
Jones-Blair:JB45072/01	8.3	3.40	0.086	5.00%	1.00%	0.00%	0.534	0.107	0.00	0.641
Jones-Blair:JB99951/04	9.5	1.13	0.086	0.00%	1.50%	0.00%	0.000	0.061	0.00	0.061
Jone Blair 21092	7.2	1.70	0.086	24.48%	3.80%	25.58%	1.134	0.18	1.18	2.495
				Total HAPs			**5.79**	**1.48**	**3.18**	**10.46**

Dry filter control efficiency- PM	**99.9%**	**0.023**
Dry filter control efficiency-PM10, PM2.5	**73.0%**	**6.19**

METHODOLOGY

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

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

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

NOTES

1. Weight % Exempt is weight % of exempt non-photochemical reactive organic compounds.
2. Maximum Capacities as reported by source, based on historical production and actual coating materials used per unit.
3. Paint guns are Kremlin HVLP M22 rated at 74% transfer efficiency at 30 - 45 psi air pressure & 12" spray pattern
4. Fabric filter media captures 73% of all particles 5-6 microns in size and 100 % of all particles 15 microns and larger - manufacturers rated efficiency.
5. Maximum units per hour is determined based on:

   Average time to paint repair trailer: 92.86 man hours -- two men per trailer

   Time in booth: Hours dry time between primer and color 5 hrs; Dry time between color and primer 8 hrs; Dry time prior to removal 8 hrs;

   Total booth time 69.43 hrs for jones blair paint for three coats, where each paint component of the paint takes 1/6 of the total time.

   69.43 / 6 = 11.57 hrs per component or 1/ 11.57 = .0864 units per hour.
6. Process throughput is identical through South and North paint booths except North paint booth was built in 2006, whereas South Booth was built in 1979 .
7. There are no PM10 or PM2.5 Emission Factors in AP-42; therefore, it is assumed that PM10 and PM2.5 emissions, each = PM emissions

Appendix A: Emission Calculations
Particulate (PM/PM10/PM2.5), Volitile Organic Compound (VOC), and Hazardous Air Pollutant (HAP) Emissions
From the touch up and repair area for Paint Booths

Company Name: Alloy Custom Products, Inc.
Address: 9701 SR 25 North, lafayette, Indiana 47905
Permit No.: F157-28184-00461
Revision No.: 157-32288-00461
Reviewer: Bruce Farrar
Date Received: September 10, 2012

Clean up, touch-up and spot treating- metal parts

ID Number	Coating Name	Ave. Gallons Used Per Vehicle	Density (lbs/gal)	% VOC by WT.	% Solids by WT.	%Solids by Vol.	VOC (lbs/gal)	Solids (lbs/gal)	Toluene % by Wt.	Methanol % by Wt.	MIBK % by Wt.	Xylenes % by Wt.	Ethyl Benzene % by Wt.	Methyl ethyl Ketones % by Wt.	Styrene % by Wt.
Touch up/repair operation															
PPG:Q1390-9053	Air Products Green Aerosal Can[7]	0.219	6.30	83.60%	16.50%	0.00%	5.27	1.04	0.00%	0.00%	0.00%	16.00%	5.00%	0.00%	0.00%
SEM39683	SEM Self Etching Gray Primer (8 oz) Aerosol[7]	0.219	6.49	59.00%	41.00%	0.00%	3.83	2.66	10.00%	0.00%	0.00%	2.50%	0.00%	10.00%	0.00%
SUNDRIES:	Transtar 1K Self-Etching Primer (8 oz) Aerosol[7]	0.083	6.99	78.00%	21.90%	0.00%	5.45	1.53	5.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%
Clean up operation															
Jones-Blair:JB21092/01	JB Universal Thinner - 1-Gallon[1]	0.680	7.21	100.00%	0.00%	0.00%	7.21	0.00	0.00%	0.00%	25.80%	24.48%	3.89%	0.00%	0.00%
MOR10005/05	Advantage Virgin Lacquer Thinner[2]	1.870	6.90	100.00%	0.00%	0.00%	6.90	0.00	70.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MOR15015/55	General Purpose Clean-Up Thinner[2]	12.030	7.11	100.00%	0.00%	0.00%	7.11	0.00	30.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PAS71611	GAL Denatured Alcohol[2]	0.083	6.76	100.00%	0.00%	0.00%	6.76	0.00	0.00%	5.00%	5.00%	0.00%	0.00%	0.00%	0.00%
Body Fillers and Misc Products															
1414	Top Gun 200 Sil Acrylic Caulk - White[3] (12 oz tube)	0.166	13.69	32.0%	68.0%	0.32	4.38	9.31	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
USC21330	Feather Rite Body Filler[5] (1 Gallon Can)	0.417	8.82	20.0%	80.0%	-	1.76	7.06	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	20.00%
USC26006	Icing Putty - 24 oz. Tube[5]	0.058	9.16	30.0%	70.0%	0.022	2.75	6.41	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	30.00%
USC32035	Red Glazing Spot Putty - 1 LB Tube[5]	0.115	13.07	29.0%	71.0%	-	3.79	9.28	15.00%	0.00%	0.00%	5.00%	0.00%	0.00%	0.00%
SC0269 124	Alumi Elastic Sealing Compound[4]	0.073	13.4	0.0%	96.0%	-	0.00	12.86	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

ID Number	Coating Name	Gallons/ Hour	Transfer Efficiency	Application Method
Touch up/repair operation				
PPG:Q1390-9053	Air Products Green Aerosal Can[7]-repair	0.006	50%	Aerosol Spray Can
SEM39683	SEM Self Etching Gray Primer (8 oz) Aerosol[7]	0.007	50%	Aerosol Spray Can
SUNDRIES:	Transtar 1K Self-Etching Primer (8 oz) Aerosol[7]	0.001	50%	Aerosol Spray Can
Clean up operation				
Jones-Blair:JB21092/01	JB Universal Thinner - 1-Gallon[1]	0.018	100%	Paint gun & hose cleanup rinse
MOR10005/05	Advantage Virgin Lacquer Thinner[2]	0.048	100%	Paint gun & hose cleanup rinse
MOR15015/55	General Purpose Clean-Up Thinner[2]	0.311	100%	Paint gun & hose cleanup rinse
PAS71611	GAL Denatured Alcohol[2]	0.002	100%	Wiping
Body Fillers and Misc Products				
1414	Top Gun 200 Sil Acrylic Caulk - White[3] (12 oz tube)	0.004	100%	caulking gun
USC21330	Feather Rite Body Filler[5] (1 Gallon Can)	0.011	100%	Hand Squeege
USC26006	Icing Putty - 24 oz. Tube[5]	0.002	100%	Hand Squeege
USC32035	Red Glazing Spot Putty - 1 LB Tube[5]	0.003	100%	Hand Squeege
SC0269 124	Alumi Elastic Sealing Compound[4]	0.002	100%	caulking gun

NOTES
1. Thinner, Reducers , Activators , and Accelerators added in small amounts to paint mix according to temperature and humidity
2. Thinner used for clean up of paint equipment
3. Caulk used to caulk weep holes in doubler pads - only applied to painted bottles and trailers
4. Anti Dielectric Corrosion agent for Aluminum to Steel Joints
5. Body filler products to improve aesthetic appearances -- used only as required.
6. Used to clean surface oil prior to paint -- Spot use only
7. Touch up paint used to repair scratches in paint

			PM, VOC, and HAPs Emissions												
			Uncontrolled			Controlled									
Primary Type of Surface Coated	Coating Name	Gallons/ Hour	PM lbs/hr	PM tons/yr	PM-10 tons/yr	PM/PM10 tons/yr	VOC lbs/hr	VOC lbs/day	VOC tons/yr	Toluene tons/yr	Methanol tons/yr	MIBK tons/yr	Xylenes tons/yr	Ethyl Benzene tons/yr	Total HAPs
Touch up/repair operation															
PPG:Q1390-9053	Air Products Green Aerosal Can[7]	0.006	0.003	0.013	0.013	0	0.029	0.695	0.127	0	0	0	0.024	7.59E-03	0.032
SEM39683	SEM Self Etching Gray Primer (8 oz) Aerosol[7]	0.007	0	0.042	0.042	0	0.028	0.666	0.122	0.021	0	0	5.15E-03	0	0.026
SUNDRIES:	Transtar 1K Self-Etching Primer (8 oz) Aerosol[7]	0.001	0	0.003	0.003	8.45E-04	0.004	0.098	0.018	1.15E-03	0	0	0	0	1.15E-03
Clean up operation															
Jones-Blair:JB21092/01	JB Universal Thinner - 1-Gallon[1]	0.018	0	0	0	0	0.13	3.11	0.57	0	0	0	0	0	0
MOR10005/05	Advantage Virgin Lacquer Thinner[2]	0.048	0	0	0	2.50E-04	0.33	8.02	1.46	1.024	0.439	0	0	0	1.463
MOR15015/55	General Purpose Clean-Up Thinner[2]	0.311	0	0	0	0	2.21	53.01	9.67	2.902	2.902	0.460	0	0	6.264
PAS71611	GAL Denatured Alcohol[2]	0.002	0	0	0	0	0.01	0.35	0.06	0	3.18E-03	0	0	0	3.18E-03
Body Fillers and Misc Products															
1414	Top Gun 200 Sil Acrylic Caulk - White[3] (12 oz tube)	0.004	0	0	0	0	0.019	0.452	0.083	0	0	0	0	0	0
USC21330	Feather Rite Body Filler[5] (1 Gallon Can)	0.011	0	0	0	0	0.019	0.455	0.083	0	0	0	0	0	0
USC26006	Icing Putty - 24 oz. Tube[5]	0.002	0	0	0	0	0.004	0.099	0.018	0	0	0	0	0	0
USC32035	Red Glazing Spot Putty - 1 LB Tube[5]	0.003	0	0	0	0	0.011	0.268	0.049	0.025	0	0	8.44E-03	0	0.034
SC0269 124	Alumi Elastic Sealing Compound[4]	0.002	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**PTE PM, VOC and HAPs**		2.86E-03	**0.06**	**0.06**	**1.10E-03**	2.80	67.22	**12.27**	**3.97**	**3.34**	**0.46**	**0.04**	**7.59E-03**	**7.823**

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
HAP lbs/hr = (gallons/hr) x (lbs/gal) x (% HAP/100%)

NOTES

The touch-up, clean-up and repair emissions in the North and the South paint booths (VOC and Particulate Emissions are for both booths) are combined. The emissions are divided into half to apply towards each booth.
1. Emissions are based upon a maximum of 0.089 vehicles per hour.
2. Fabric filter media captures 73% of all particles 5-6 microns in size and 100 % of all particles 15 microns and larger - manufacturers rated efficiency
3. There are no PM10 or PM2.5 Emission Factors in AP-42; therefore, it is assumed that PM10 and PM2.5 emissions, each = PM emissions.

Appendix A: Emissions Calculations
Particulate (PM/PM10/PM2.5) Emissions from the
Surface Prep Operation (SP) for Paint Booth 3

Company Name: Alloy Custom Products, Inc.
Address: 9701 SR 25 North, lafayette, Indiana 47905
Permit No.: F157-28184-00461
Revision No.: 157-32288-00461
Reviewer: Bruce Farrar
Date Received: September 10, 2012

Paint Booths, Surface Preperation (SP)*

Product Id	Product Name	Gallons/ Hour	Transfer Efficiency	Density (lbs/gal)	Weight % Solids	Solids (lbs/gal)	10 % Solids (lbs/gal)
381761	Jones-Blair:JB33304/01	0.3240	74%	12.1	74.8%	9.07	0.91
381762	Jones-Blair:JB99953/04	0.3240	74%	12.7	70.9%	9.03	0.90
399093	Jones-Blair:JB45070/01	0.3240	74%	10.5	65.2%	6.86	0.69
390836	Jones-Blair:JB99951/04	0.1080	74%	9.5	90.0%	8.55	0.86
390837	Jones-Blair:JB45072/01	0.1469	74%	8.3	52.4%	4.35	0.43
390838	Jones-Blair:JB99951/04	0.0486	74%	9.5	90.0%	8.55	0.86

		Uncontrolled PTE				Controlled PTE			
Emission Unit	Product Name	PM lb/hr	PM-10 lb/hr	PM ton/year	PM-10 ton/year	PM lb/hr	PM-10 lb/hr	PM ton/year	PM-10 ton/year
Booth 3	Jones-Blair:JB33304/01	0.218	0.218	0.953	0.953	0.0002	0.0566	0.001	0.248
Booth 3	Jones-Blair:JB99953/04	0.216	0.216	0.948	0.948	0.0002	0.0563	0.001	0.246
Booth 3	Jones-Blair:JB45070/01	0.164	0.164	0.720	0.720	0.0002	0.0428	0.001	0.187
Booth 3	Jones-Blair:JB99951/04	0.068	0.068	0.299	0.299	0.0001	0.0178	0.000	0.078
Booth 3	Jones-Blair:JB45072/01	0.047	0.047	0.207	0.207	0.0000	0.0123	0.0002	0.054
Booth 3	Jones-Blair:JB99951/04	0.031	0.031	0.135	0.135	0.0000	0.0080	0.0001	0.035
	Totals	0.74	0.74	**3.26**	**3.26**	0.001	0.194	**0.003**	**0.85**

METHODOLOGY
PM = PM10 lbs/hr = (gals/hr) x (lbs solids/gal) x (%Transfer Effeciency/100%)
PM = PM10 (after controls) tons/yr = [(lbs/hr) x ((100-%filter efficiency)/100)* [(8760 hrs/yr)/[2000lbs/ton]]

NOTES
Surface preparation operations are also performed in the North and the South paint booths (particulate emissions are based on both booths combined and were divided into half to apply towards the paint booth 3.)

1. *Emissions are conservatively estimated by assuming the maximum amount of material removed from the vehicles is equal to 10% of the amount of solids in surface coatings that are applied to the painted exterior surfaces of the vehicles.
2. As with the North and South paint booths, emissions are based upon a maximum of 0.043 vehicles per hour. At a process rate of 0.043 vehicles per hour the material process rate for surface preparation averages 860 lbs/hour.
3. Fabric filter media captures 73% of all particles 5-6 microns in size and 100 % of all particles 15 microns and larger - manufacturers rated efficiency. Based on this the filter efficiency for PM10 and PM2.5 is assumed to be 73% and PM is 99.9%
4. There are no PM10 or PM2.5 Emission Factors in AP-42; therefore, it is assumed that PM10 and PM2.5 emissions, each = PM emissions.

Appendix A: Emissions Calculations
Particulate (PM/PM10/PM2.5) and Hazardous Air Pollutant (HAP) Emissions
From Welding and Thermal Cutting

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	total elctrode consumption (lbs/hr)	EMISSION FACTORS * (lb pollutant / lb electrode) PM = PM10	Mn	Ni	CO	Cr	EMISSIONS (lb/hr) PM = PM10	Mn	Ni	CO	Cr	TOTAL HAPS (lb/hr)
WELDING														
Gas Metal Arc (MIG)(ER70S)	10	8	80	5.20E-03	3.18E-03	1.00E-05	1.00E-05	1.00E-05	0.416	2.54E-01	8.00E-04	8.00E-04	8.00E-04	0.256
Gas Metal Arc (MIG)(ER5154)	13	2.5	32.5	2.41E-02	3.40E-05	0.00E+00	0.00E+00	1.00E-05	0.783	1.11E-03	0.00E+00	0.00E+00	3.25E-04	0.001
Gas Metal Arc (MIG)(E308L)	16	8	128	5.40E-03	3.46E-04	4.30E-05	1.00E-05	3.93E-04	0.691	4.43E-02	5.50E-03	1.28E-03	5.03E-02	0.100
									1.890					
Stick (E7024 electrode)	1	0.25	0.25	9.20E-03	6.29E-04	0.00E+00	0.00E+00	1.00E-06	0.002	1.57E-04	0.00E+00	0.00E+00	2.50E-07	0.000
Tungsten Inert Gas (TIG)(carbon steel)	4	0.5	2	5.40E-03	3.18E-03	1.00E-05	1.00E-05	1.00E-05	0.011	6.36E-03	2.00E-05	2.00E-05	2.00E-05	0.006
Tungsten Inert Gas (TIG)(Aluminum)	9	0.2	1.8	2.41E-02	3.40E-04	0.00E+00	0.00E+00	1.00E-04	0.043	6.12E-04	0.00E+00	0.00E+00	1.80E-04	0.001
Tungsten Inert Gas (TIG)(Stainless)	12	0.5	6	5.20E-03	3.46E-03	1.84E-03	1.00E-05	5.24E-03	0.031	2.08E-02	1.10E-02	6.00E-05	3.14E-02	0.063
														0.000

	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick) PM = PM10	Mn	Ni	CO	Cr	EMISSIONS (lbs/hr) PM = PM10	Mn	Ni	CO	Cr	TOTAL HAPS (lb/hr)
FLAME CUTTING														
Plasma (Cut 304 SS)	1	0.625	70	0.0039	0	0	0	0	1.02E-02	0	0	0	0	0
Plasma (Cut Carbon Steel)	1	0.625	110	0.0039	0	0	0	0	1.61E-02	0	0	0	0	0
Plasma (Cut 5083 Aluminum)	1	0.5	100	0.0039	0	0	0	0	1.17E-02	0	0	0	0	0

EMISSION TOTALS	**PM = PM10**	**Mn**	**Ni**	**CO**	**Cr**	**Total HAPs**
Potential Emissions lbs/hr	3.91	0.33	0.02	2.16E-03	0.08	0.43
Potential Emissions lbs/day	93.76	7.86	0.42	0.05	1.99	10.27
Potential Emissions tons/year	**17.11**	**1.44**	**0.08**	**9.46E-03**	**0.36**	**1.88**

METHODOLGY

*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column. Consult AP-42 or other reference for different electrode types.
Welding PTE (lb/hr) = (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
PTE (before controls) tons /yr = [Welding PTE (lb/hr)] *[(8760 hr/yr)/(2000 lbs/ton)]
PTE (after controls) tons/yr = [PTE before controls tons/yr] x [[1-(% capture efficiency)/100%] + [(% capture efficiency)/100%] x [1-(% control efficiency)/100%]]

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)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994).
See AP-42, Chapter 12.19 for additional emission factors for welding.
There are no PM10 or PM2.5 Emission Factors in AP-42; therefore, it is assumed that PM10 and PM2.5 emissions, each = PM emissions.

326 IAC 6-3-2(e) Allowable Rate of Emissions

Unit ID	Process Weight Rate (materials throughput) (lbs/hr)	Process Weight Rate (tons/hr)	Allowable PM Emissions (lbs/hr)	Allowable PM Emissions (tons/yr)
Welding	1,216.00	0.608	2.938	12.867

METHODOLGY

Allowable Emissions (E) (lb/hr) = 4.10(Process Weight Rate)^0.67
Allowable Emissions (tons/yr) = (Allowable Emissions (lb/hr)*8760)/2000

Appendix A: Emissions Calculations
New Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr	
3.4			1 Air Make-up Unit - South Booth @ 3.4 MMBtu/hr
1.878			1 Air Make-up Heater - North booth @ 1.878 MMBtu/hr
4			16 Space Heaters Various Locations @ 0.25 MMBtu/hr, each
0.9			Three Space Heater Various Locations @ 0.30 MMBtu/hr, each
0.4			Two Spcat Heater Office @ 0.20 MMBtu/hr, each
10.6	1020	90.8	

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.09	0.35	0.35	0.03	4.54	0.25	3.82

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 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
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 13 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	9.539E-05	5.451E-05	3.407E-03	8.176E-02	1.544E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.271E-05	4.997E-05	6.359E-05	1.726E-05	9.539E-05

Methodology is the same as page 12.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.
See Page 14 for Greenhouse Gas calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Greenhouse Gas Emissions

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	5,451	0.1	0.1
Summed Potential Emissions in tons/yr	5,451		
CO2e Total in tons/yr	5,484		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Emissions Calculations
VOC and Particulate
Parts Washer

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

Material	Density (Lb/Gal)	Gal of Mat. (gal/year)	Pounds VOC per gallon of coating	Potential VOC tons per year
Safety-Kleen Premium Solvent	6.68	18.25	6.68	0.06

State Potential Emissions **0.06**

METHODOLOGY

MSDS 100% weight VOC
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/year) * (1 ton/2000 lbs)

Appendix A: Emissions Calculations
Welding From Finishing Building

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

PROCESS WELDING	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	
Tungsten Inert Gas (TIG)(carbon steel)	1	1		0.0055	0.0005			0.006	0.001	0.000	0	0.001
EMISSION TOTALS												
Potential Emissions lbs/hr								0.01				0.00
Potential Emissions lbs/day								0.13				0.01
Potential Emissions tons/year								0.02				2.19E-03

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 calculting 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: Emissions Calculations
New Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

Heat Input Capacity MMBtu/hr	HHV mmBtu / mmscf	Potential Throughput MMCF/yr	
0.8			Four Forced-air NG Furnaces @ 0.20 MMBtu/hr, each
0.4			One Forced-air NG furnace @ 0.40 MMBtu/hr, each
1.2	1020	10.3	

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.01	0.04	0.04	3.09E-03	0.52	0.03	0.43

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 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
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 18 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.082E-05	6.184E-06	3.865E-04	9.275E-03	1.752E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.576E-06	5.668E-06	7.214E-06	1.958E-06	1.082E-05

Methodology is the same as page 17.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.
See Page 19 for Greenhouse Gas calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Greenhouse Gas Emissions

Company Name: Alloy Custom Products, Inc.
Address City IN Zip: 9701 SR 25 North, Lafayette, Indiana 47905
Permit Number: 157-32288-00461
Plt ID: 157-00461
Reviewer: Bruce Farrar
Date: September 10, 2012

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	618	0.0	0.0
Summed Potential Emissions in tons/yr	618		
CO2e Total in tons/yr	622		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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TO: Everett Snoeberger
Alloy Custom Products
9701 SR 25 N
Lafayette, IN 47905-4394

DATE: October 11, 2012

FROM: Matt Stuckey, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
FESOP
157-32288-00107

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

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2		Ted Boatman President & GM Alloy Custom Products 9701 SR 25 N Lafayette IN 47905-4394 *(RO CAATS)*									
3		Tippecanoe County Commissioners 20 N 3rd St, County Office Building Lafayette IN 47901 *(Local Official)*									
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5		Lafayette City Council and Mayors Office 20 North 6th Street Lafayette IN 47901-1411 *(Local Official)*									
6		Ms. Dorothy Whicker 2700 Bonny Lane Lafayette IN 47904 *(Affected Party)*									
7		Ms. Geneva Werner 3212 Longlois Drive Lafayette IN 47904-1718 *(Affected Party)*									
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9		Mr. Jerry White 1901 King Eider Ct West Lafayette IN 47906 *(Affected Party)*									
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13		West Lafayette City Council and Mayors Office 609 W. Navajo West Lafayette IN 47906 (Local Official)									
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