INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
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(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

To: Interested Parties

Date: June 26, 2024

From: Jenny Acker, Chief
Permits Branch
Office of Air Quality

Source Name: Alloy Custom Products LLC

Permit Level: FESOP Renewal

Permit Number: 157-47177-00461

Source Location: 9701 Old SR 25 N Lafayette, IN 47905

Type of Action Taken: Permit Renewal

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the matter referenced above.

The final decision is available on the IDEM website at: http://www.in.gov/apps/idem/caats/
To view the document, choose Search Option **by Permit Number**, then enter permit 47177. This search will also provide the application received date, **draft permit** public notice start and end date, and **final** permit issuance date.

The final decision is also available via IDEM's Virtual File Cabinet (VFC). Please go to: https://www.IN.gov/idem and enter VFC in the search box. You will then have the option to search for permit documents using a variety of criteria.

(continues on next page)

If you would like to request a paper copy of the permit document, please contact IDEM's Office of Records Management:

IDEM - Office of Records Management
Indiana Government Center North, Room 1207
100 North Senate Avenue
Indianapolis, IN 46204
Phone: (317) 232-8667
Fax: (317) 233-6647
Email: IDEMFILEROOM@idem.in.gov

Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room N103, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

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Commissioner

Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY

Alloy Custom Products, LLC
9701 Old State Rd 25 N
Lafayette, Indiana 47905

(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.

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.: F157-47177-00461 Master Agency Interest ID: 1671	
Issued by: Brian Willams, Section Chief Permits Branch Office of Air Quality	Issuance Date: June 26, 2024 Expiration Date: June 26, 2034

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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 facility that manufactures and repairs tanker trailers and various steel and metal tanks.

Source Address:	9701 Old State Rd 25 N, Lafayette, Indiana 47905
General Source Phone Number:	(765) 564-1226
SIC Code:	3715 (Truck Trailer Manufacturing)
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 units:

(1) One (1) manually operated shot blaster, consisting of primary and secondary blast tankers, identified as blast booth (EU SBU01), installed in 1979, blasting steel and aluminum trailers, cryogenic bottles, and various steel and metal tanks, equipped with a baghouse to control particulates, exhausting outside, 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 and modified in 2017 to use additional coatings and coating application methods, 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, cryogenic bottles, and various steel and metal tanks, utilizing two (2) High Volume Low Pressure (HVLP) spray guns or two (2) portable airless paint sprayers, identified as EU APSU01 and EU APSU02.

(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, cryogenic bottles, and various steel and metal tanks.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipment, with a maximum process weight rate of 0.43 tons per hour.

(2) One (1) North Paint Booth, identified as North Booth, constructed in 2006 and modified in 2017 to use additional coatings and coating application methods, 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, cryogenic bottles, and various steel and metal tanks, utilizing two (2) High Volume Low Pressure (HVLP) spray guns or two (2) portable airless paint sprayers, identified as EU APSU01 and EU APSU02.

(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, cryogenic bottles, and various steel and metal tanks.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipment, with a maximum process weight rate of 0.43 tons per hour.

(3) One (1) Spray Paint Booth, identified as Paint Booth 3, constructed in 2011 and modified in 2017 to use additional coatings and coating application methods, 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, cryogenic bottles, and various steel and metal tanks, utilizing two (2) High Volume Low Pressure (HVLP) spray guns or two (2) portable airless paint sprayers, identified as EU APSU01 and EU APSU02.

(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, cryogenic bottles, and various steel and metal tanks.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipment, with a maximum process weight rate of 0.43 tons per hour.

All activities identified above take place in the respective paint booths.

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):

(a) 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.

(b) Welding and Cutting Operations, consisting of the following:

(1) Thirty-nine (39) Gas Metal Arc (MIG) welding units installed starting in 1994 and added to the source incrementally to make 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, combined average process throughput of 90 lbs/hr combined, and consumes less than 625 pounds of rod or wire per day, uncontrolled and exhausting inside the building.

(3) Twenty-Five (25) Tungsten Inert Gas (TIG) welding units installed starting in 1994 and added to the source incrementally to make 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, each station cuts less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness or less metal, uncontrolled and exhausting inside the building.

(6) One (1) flux core welding station, permitted in 2016, with a maximum electrode consumption of 3 pounds per hour, and exhausting indoors.

(c) Degreasing operation, constructed in 2012 that does not exceed 32 gallons of solvent per twelve (12) months.

Finish Building

(d) 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, constructed in 2012, each rated at 0.200 million British thermal units per hour, exhausting outside.

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

(e) Welding Operations, consisting of the following;

One (1) Tungsten Inert Gas (TIG) welding unit, constructed 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) to renew 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 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F157-47177-00461, is issued for a fixed term of ten (10) 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.3 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.4 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.5 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.6 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.7 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.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(a)(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.9 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. All 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.10 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.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(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.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, 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.

(c) 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).

(d) 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.12 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.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to F157-47177-00461 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.14 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.15 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.16 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(42). 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.17 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.18 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 5
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.19 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.20 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.21 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.22 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 317-233-8590 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.23 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 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 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), 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.

(b) Pursuant to 326 IAC 2-2 (PSD), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) 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 Stack Height [326 IAC 1-7]

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

C.8 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 demolition 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(c).

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

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.9 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.10 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(1)][326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

(a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:
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 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, 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).

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(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. The analog instrument shall be capable of measuring values outside of the normal range.

(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.13 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 maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

(b) 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.14 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.15 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.16 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.17 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, where applicable:

(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, where applicable:

(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.18 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) 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.19 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 units:

(1) One (1) manually operated shot blaster, consisting of primary and secondary blast tankers, identified as blast booth (EU SBU01), installed in 1979, blasting steel and aluminum trailers, cryogenic bottles, and various steel and metal tanks, equipped with a baghouse to control particulates, exhausting outside, 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]

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the shot blasting operation (EU SBU01) shall not exceed 3.42 pounds per hour when operating at a process weight rate of 0.76 tons 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 (PM10 and PM2.5) [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4 and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following:

(a) The PM10 emissions after control from shot blaster (EU SBU01) shall not exceed 3.42 pounds per hour.

(b) The PM2.5 emissions after control from shot blaster (EU SBU01) shall not exceed 3.42 pounds per hour.

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 emissions from all other emission units at the source, shall limit the source-wide total potential to emit PM10 and PM2.5 to less than 100 tons per twelve consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (PSD) not applicable.

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

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

Compliance Determination Requirements [326 IAC 2-8-4(1)]

D.1.4 Particulate Control [326 IAC 6-3-2]

(a) In order to comply with Conditions D.1.1 and D.1.2 the baghouse for particulate control shall be in operation and control emissions from the shot blaster (EU SBU01) at all times that the facility is 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(1)][326 IAC 2-8-5(a)(1)]

D.1.5 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the shot blasting operation (EU SBU01), 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, the Permittee shall take reasonable response. The normal range for this unit is a pressure drop between 2.0 and 6.0 inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. 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 for the baghouse controlling shot blaster (EU SBU01). 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 and modified in 2017 to use additional coatings and coating application methods, 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, cryogenic bottles, and various steel and metal tanks, utilizing two (2) High Volume Low Pressure (HVLP) spray guns or two (2) portable airless paint sprayers, identified as EU APSU01 and EU APSU02.

(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, cryogenic bottles, and various steel and metal tanks.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipment, with a maximum process weight rate of 0.43 tons per hour.

(2) One (1) North Paint Booth, identified as North Booth, constructed in 2006 and modified in 2017 to use additional coatings and coating application methods, 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, cryogenic bottles, and various steel and metal tanks, utilizing two (2) High Volume Low Pressure (HVLP) spray guns or two (2) portable airless paint sprayers, identified as EU APSU01 and EU APSU02.

(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, cryogenic bottles, and various steel and metal tanks.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipment, with a maximum process weight rate of 0.43 tons per hour.

(3) One (1) Spray Paint Booth, identified as Paint Booth 3, constructed in 2011 and modified in 2017 to use additional coatings and coating application methods, 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, cryogenic bottles, and various steel and metal tanks, utilizing two (2) High Volume Low Pressure (HVLP) spray guns or two (2) portable airless paint sprayers, identified as EU APSU01 and EU APSU02.

(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, cryogenic bottles, and various steel and metal tanks.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipment, with a maximum process weight rate of 0.43 tons per hour.

All activities identified above take place in the respective paint booths.

(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 Particulate Matter (PM10 and PM2.5) [326 IAC 2-8-4] [326 IAC 2-2]

Pursuant to 326 IAC 2-8-4 and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable, the Permittee shall comply with the following:

(a) The solids delivered to the HVLP and Airless applicators at the three (3) paint booths, identified as South Booth, North Booth and Paint Booth 3, shall not exceed 454.42 tons per twelve consecutive (12) month period, total, with compliance determined at the end of each month.

(b) The transfer efficiency at the three (3) paint booths, identified as South Booth, North Booth, and Paint Booth 3 shall not be less than 74 percent (74%).

(c) The PM10 and PM2.5 control efficiency of the dry filters on the three (3) paint booths, identified as South Booth, North Booth, and Paint Booth 3 shall not be less than 73 percent (73%).

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM10 and PM2.5 to less than 100 tons per 12 consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (PSD) not applicable.

D.2.2 VOC Limitations [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4, 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 this limit, combined with the potential to emit VOC from all other emission units at this source, shall limit the source-wide total potential to emit of VOC to less than 100 tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable.

D.2.3 Hazardous Air Pollutants (HAPs) [326 IAC 2-8-4][326 IAC 2-4.1]

Pursuant to 326 IAC 2-8-4, the Permittee shall comply with the following:

(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 21.50 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits, combined with the potential to emit any single HAP and total HAPs from all other emission units at this source, shall limit the source-wide total potential to emit of any single HAP to less than ten (10) tons per 12 consecutive month period, total HAPs to less than twenty-five (25) tons per 12 consecutive month period, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP) not applicable.

D.2.4 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-9, the Permittee shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator at the North Paint Booth.

(b) Pursuant to 326 IAC 8-2-9, the Permittee shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator at the Paint Booth 3.

D.2.5 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.2.6 Particulate [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2(d), particulate from the North Paint Booth, South Paint Booth, 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.

(b) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the surface preparation operations (SP in the

North Paint Booth, South Paint Booth, and Paint Booth 3) shall not exceed 2.33 pounds per hour each when operating at a process weight rate of 0.43 tons per hour in each booth.

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 2-8-4(9)]

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

Compliance Determination Requirements [326 IAC 2-8-4(1)]

D.2.8 Particulate Matter Control

In order to comply with Conditions D.2.1and D.2.6, the fabric filters shall be in operation and control emissions from the North Paint Booth, South Paint Booth, and Paint Booth 3, at all times when the North Paint Booth, South Paint Booth, or Paint Booth 3 are in operation.

D.2.9 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAPs) [326 IAC 8-1-2][326 IAC 8-1-4]

Compliance with the VOC and HAPs content and input limitations contained in Conditions D.2.2, D.2.3, and D.2.4 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.2.10 Volatile Organic Compounds (VOC) [326 IAC 8-1-2]

Compliance with the VOC content limits, contained in Conditions D.2.4(a) and (b), shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis 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 for each paint booth 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 booth are in compliance with the VOC content limits contained in Condition D.2.4, then the Permittee shall not be required to perform the daily averaging calculation for that booth on that day.

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

D.2.11 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 Paint Booth (stack A),South Paint Booth (stack B), and 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. 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. 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.2.12 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.1, the Permittee shall maintain records in accordance with (1) through (4) below. Records necessary to demonstrate compliance shall be available no later than 30 days after the end of each compliance period.

(1) The solids content of each coating material and solvent used.

(2) The amount of coating material used on a monthly basis.

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

(3) The total solids usage for each month; and

(4) The weight of solids (PM, PM10, and PM2.5) emitted for each compliance period.

(b) To document the compliance status with Conditions D.2.2 and D.2.3, the Permittee shall maintain records in accordance with (1) through (6) below. Records necessary to demonstrate compliance shall be available no later than 30 days after the end of each compliance period.

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

(2) The amount of coating material and solvent 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.

(c) To document the compliance status with Condition D.2.4, the Permittee shall maintain records in accordance with (1) through (5) below. Records necessary to demonstrate compliance shall be available no later than 30 days after the end of each compliance period.

(1) The VOC content of each coating material and solvent used less water.

(2) The amount of coating material and solvent used on daily 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 solvent.

(3) The volume weighted average VOC content of the coatings used for each day;

(4) The daily cleanup solvent usage; and

(5) The total VOC usage for each day.

(d) To document the compliance status with Condition D.2.11, the Permittee shall maintain a log of weekly overspray observations and daily and monthly inspections.

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

D.2.13 Reporting Requirements

A quarterly summary of the information to document the compliance status with Conditions D.2.1, D.2.2, and D.2.3 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:

(b) Welding Operations, consisting of the following;

(1) Thirty-nine (39) Gas Metal Arc (MIG) welding units installed starting in 1994 and added to the source incrementally to make 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.

(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.3.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the thirty-nine (39) Gas Metal Arc (MIG) welding stations shall not exceed 2.64 pounds per hour when operating at a process weight rate of 0.52 tons per hour.

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

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

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c) Degreasing operation, constructed in 2012 that does not exceed 32 gallons of solvent per twelve (12) months.

(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.4.1 Cold Cleaner Degreaser Control Equipment and Operating Requirements [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), the Permittee shall:

(a) Comply with the following control equipment and operating requirements:

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in a manner that would allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) Comply with the following additional control equipment and operating requirements:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
(B) A water cover when solvent used is insoluble in, and heavier than, water.
(C) A refrigerated chiller.
(D) Carbon adsorption.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray must be:

(A) performed in an enclosed chamber, with or without venting; or

(B) a solid, fluid stream applied at a pressure that does not cause excessive splashing.

D.4.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), the Permittee shall not operate a cold cleaning degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

D.4.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

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

D.4.4 Record Keeping Requirements

(a) To document the compliance status with Condition D.4.1, the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records must be retained on-site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

(1) The name and address of the solvent supplier.

(2) The date of purchase (or invoice/bill dates of contract servicer indicating service date).

(3) The type of solvent purchased.

(4) The total volume of the solvent purchased.

(5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

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

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Alloy Custom Products, LLC
Source Address: 9701 Old State Rd 25 N, Lafayette, Indiana 47905
FESOP Permit No.: F157-47177-00461

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:	
Email Address:	Phone:
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, LLC
Source Address: 9701 Old State Rd 25 N, Lafayette, Indiana 47905
FESOP Permit No.: F157-47177-00461

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 2-8-12

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
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, LLC
Source Address: 9701 Old State Rd 25 N, Lafayette, Indiana 47905
FESOP Permit No.: F157-47177-00461
Facility: Paint Booths - North Paint Booth, South Paint Booth, and Paint Booth 3
Parameter: Solids Usage
Limit: The solids delivered to the HVLP and Airless applicators at the three (3) paint booths, identified as South Booth, North Booth, and Paint Booth 3 shall not exceed 454.42 tons per twelve consecutive (12) month period, total, with compliance determined at the end of each month.

QUARTER:_____ YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	Solids Usage Tons	Solids Usage Tons	Solids Usage Tons
	This Month	Previous 11 Months	12 Month Total

☐ 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

FESOP Quarterly Report

Source Name: Alloy Custom Products, LLC
Source Address: 9701 State Road 25 North, Lafayette, Indiana 47905
FESOP Permit No.: F157-34305-00461
Facility: Paint Booths - North Paint Booth, South Paint Booth, and Paint Booth 3
Parameter: VOC, single and combined HAPs usages
Limit:

(a) 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.

(b) 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.

(c) 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 21.50 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

QUARTER: _____ 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

* 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: _____

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, LLC
Source Address: 9701 Old State Rd 25 N, Lafayette, Indiana 47905
FESOP Permit No.: F157-47177-00461

Months: _____ to _____ Year: _____

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:	

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: _____

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Description and Location

Source Name:	**Alloy Custom Products, LLC**
Source Location:	**9701 Old State Road 25 North Lafayette, Indiana 47905**
County:	**Tippecanoe**
SIC Code:	**3715 (Truck Trailer Manufacturing)**
Permit Renewal No.:	**F 157-47177-00461**
Permit Reviewer:	**Madison Spahn**

On October 30, 2023, Alloy Custom Products, LLC submitted an application to the Office of Air Quality (OAQ) requesting to renew its operating permit. OAQ has reviewed the operating permit renewal application from Alloy Custom Products, LLC relating to the operation of a stationary facility that manufactures and repairs semi tanker trailers and various steel and metal tanks. Alloy Custom Products, LLC was issued its first FESOP Renewal (F 157-34305-00461) on July 31, 2014.

Existing Approvals

The source was issued FESOP Renewal No. F 157-34305-00461 on July 31, 2014. The source has since received the following approval:

FESOP Administrative Amendment No. 157-37281-00461 on August 9, 2016.

FESOP Significant Permit Revision No. 157-37771-00461 on February 6, 2017.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the State Implementation Plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) Shot Blasting units:

(1) One (1) manually operated shot blaster, consisting of primary and secondary blast tankers, identified as blast booth (EU SBU01), installed in 1979, blasting steel and aluminum trailers, cryogenic bottles, and various steel and metal tanks, equipped with a baghouse to control particulates, exhausting outside, 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 and modified in 2017 to use additional coatings and coating application methods, 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, cryogenic bottles, and various steel and metal tanks, utilizing two (2) High Volume Low Pressure (HVLP) spray guns or two (2) portable airless paint sprayers, identified as EU APSU01 and EU APSU02.

(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, cryogenic bottles, and various steel and metal tanks.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipment, with a maximum process weight rate of 0.43 tons per hour.

(2) One (1) North Paint Booth, identified as North Booth, constructed in 2006 and modified in 2017 to use additional coatings and coating application methods, 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, cryogenic bottles, and various steel and metal tanks, utilizing two (2) High Volume Low Pressure (HVLP) spray guns or two (2) portable airless paint sprayers, identified as EU APSU01 and EU APSU02.

(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, cryogenic bottles, and various steel and metal tanks.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipment, with a maximum process weight rate of 0.43 tons per hour.

(3) One (1) Spray Paint Booth, identified as Paint Booth 3, constructed in 2011 and modified in 2017 to use additional coatings and coating application methods, 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, cryogenic bottles, and various steel and metal tanks, utilizing two (2) High Volume Low Pressure (HVLP) spray guns or two (2) portable airless paint sprayers, identified as EU APSU01 and EU APSU02.

(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, cryogenic bottles, and various steel and metal tanks.

(C) One (1) surface preparation operation (SP) area, polishing, buffing, sanding using handheld equipment, with a maximum process weight rate of 0.43 tons per hour.

All activities identified above take place in the respective paint booths.

Emission Units and Pollution Control Equipment Removed From the Source

The source has removed the following emission units:

(1) One (1) shot blasting unit, identified as EU SBU02, approved in 2017 for construction, blasting steel and aluminum trailers, cryogenic bottles, and various steel and metal tanks, with a maximum capacity of 875 pounds per hour of metal parts and 1,047.27 pounds per hour of coal slag abrasive media, equipped with a cartridge dust collector (CE SBU02) to control particulates, and exhausting outside through stack D.

(2) Four (4) submerged arc welding stations, permitted in 2016, each with a maximum electrode consumption of 15 pounds per hour, and exhausting indoors.

(3) Six (6) flux core welding stations, permitted in 2016, each with a maximum electrode consumption of 3 pounds per hour, and exhausting indoors.

(4) Four (4) flux core welding stations, approved in 2017 for construction, each with a maximum electrode consumption of 3 pounds per hour, and exhausting indoors.

(5) Four (4) plasma cutting units, approved in 2017 for construction, identified as EU PCU04-07, maximum capacity: six (6) parts per hour each, each station cuts 110 inches of stock one (1) inch thickness or less metal per minute, uncontrolled and exhausting inside the building.

(6) One (1) plasma cutting table, approved in 2017 for construction, identified as EU PCU08 maximum capacity: six (6) parts per hour, cutting 110 inches of stock one (1) inch thickness or less metal per minute, uncontrolled and exhausting inside the building.

(7) Five (5) electric air arc cutting stations, approved in 2017 for construction, identified as EU AAU01-05, maximum capacity: six (6) parts per hour each, each station cuts 110 inches of stock one (1) inch thickness or less metal per minute, uncontrolled and exhausting inside the building.

Insignificant Activities

The source also consists of the following insignificant activities:

(a) 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.

(b) Welding and Cutting Operations, consisting of the following;

(1) Thirty-nine (39) Gas Metal Arc (MIG) welding units installed starting in 1994 and added to the source incrementally to make 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, combined average process throughput of 90 lbs/hr combined, and consumes less than 625 pounds of rod or wire per day, uncontrolled and exhausting inside the building.

(3) Twenty-Five (25) Tungsten Inert Gas (TIG) welding units installed starting in 1994 and added to the source incrementally to make 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, each station cuts less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness or less metal, uncontrolled and exhausting inside the building.

(6) One (1) flux core welding station, permitted in 2016, with a maximum electrode consumption of 3 pounds per hour, and exhausting indoors.

(c) Degreasing operation, constructed in 2012 that does not exceed 32 gallons of solvent per twelve (12) months.

Finish Building

(d) 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, constructed in 2012, each rated at 0.200 million British thermal units per hour, exhausting outside.

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

(e) Welding Operations, consisting of the following;

One (1) Tungsten Inert Gas (TIG) welding unit, constructed in 2012, with a maximum capacity of one (1) tungsten rod per hour, uncontrolled and exhausting inside the building.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

County Attainment Status

The source is located in Tippecanoe County.

Pursuant to amendments to Indiana Code IC 13-17-3-14, effective July 1, 2023, a federal regulation that classifies or amends a designation of attainment, nonattainment, or unclassifiable for any area in Indiana under the federal Clean Air Act is effective and enforceable in Indiana on the effective date of the federal regulation.

Pollutant	Designation
SO_2	Unclassifiable or attainment effective April 9, 2018, for the 2010 primary 1-hour SO_2 standard. Better than national secondary standards effective March 3, 1978.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective January 16, 2018, for the 2015 8-hour ozone standard.
$PM_{2.5}$	Unclassifiable or attainment effective April 15, 2015, for the 2012 annual $PM_{2.5}$ standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 2006 24-hour $PM_{2.5}$ standard.
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Unclassifiable or attainment effective January 29, 2012, for the 2010 NO_2 standard.
Pb	Unclassifiable or attainment effective December 31, 2011, for the 2008 lead standard.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Tippecanoe County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements of Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) $PM_{2.5}$
Tippecanoe County has been classified as attainment for $PM_{2.5}$. Therefore, direct $PM_{2.5}$, SO_2, and NOx emissions were reviewed pursuant to the requirements of Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants
Tippecanoe County has been classified as attainment or unclassifiable in Indiana for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this type of operation is not one (1) of the twenty-eight (28) listed source categories under 326 IAC 2-2-1(ff)(1), 326 IAC 2-3-2(g), or 326 IAC 2-7-1(22)(B), and there is no applicable New Source Performance Standard or National Emission Standard for Hazardous Air Pollutants that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

The fugitive emissions of hazardous air pollutants (HAP) are counted toward the determination of Part 70 Permit applicability and source status under Section 112 of the Clean Air Act (CAA).

Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for

the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

	Unrestricted Potential Emissions (ton/year)								
	PM[1]	**PM_{10}[1]**	**$PM_{2.5}$[1, 2]**	**SO_2**	**NO_X**	**VOC**	**CO**	**Single HAP[3]**	**Total HAPs**
Total PTE of Entire Source Excluding Fugitive Emissions*	261.76	226.78	226.78	0.03	4.90	161.90	4.12	21.53	62.62
Title V Major Source Thresholds	NA	100	100	100	100	100	100	10	25
PSD Major Source Thresholds	250	250	250	250	250	250	250	--	--
Emission Offset Major Source Thresholds	---	NA	NA	NA	NA	NA	NA	--	--

[1]Under the Part 70 Permit program (40 CFR 70), PM_{10} and $PM_{2.5}$, not particulate matter (PM), are each considered as a "regulated air pollutant."

[2]$PM_{2.5}$ listed is direct $PM_{2.5}$.

[3]Single highest source-wide HAP

*Fugitive HAP emissions are always included in the source-wide emissions.

Appendix A of this TSD reflects the detailed unrestricted potential emissions of the source.

(a) The potential to emit (as defined in 326 IAC 2-7-1(30)) of PM10, PM2.5, and VOC is equal to or greater than 100 tons per year. However, the Permittee has agreed to limit the source's PM10, PM2.5, and VOC emissions to less than Title V major source thresholds. Therefore, the source will be issued a FESOP Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(30)) of any single HAP is equal to or greater than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(30)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. However, the source will be issued FESOP Renewal because the source will limit HAP emissions to less than the Title V major source threshold levels. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) subject to the provisions of 326 IAC 2-7.

Potential to Emit After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any new control equipment is considered federally enforceable only after issuance of this FESOP renewal, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential To Emit of the Entire Source After Issuance of Renewal (tons/year)								
	PM[1]	**PM_{10}[1]**	**$PM_{2.5}$[1, 2]**	**SO_2**	**NO_X**	**VOC**	**CO**	**Single HAP[3]**	**Total HAPs**
Total PTE of Entire Source Excluding Fugitive Emissions*	133.44	60.58	60.58	0.03	4.90	95.38	4.12	9.00	23.60
Title V Major Source Thresholds	NA	100	100	100	100	100	100	10	25
PSD Major Source Thresholds	250	250	250	250	250	250	250	NA	NA
Emission Offset Major Source Thresholds	---	NA	NA	NA	NA	NA	NA	NA	NA

[1]Under the Part 70 Permit program (40 CFR 70), PM_{10} and $PM_{2.5}$, not particulate matter (PM), are each considered as a "regulated air pollutant."

[2]$PM_{2.5}$ listed is direct $PM_{2.5}$.

[3]Single highest source-wide HAP.

*Fugitive HAP emissions are always included in the source-wide emissions.

Appendix A of this TSD reflects the detailed potential to emit of the entire source after issuance.

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no PSD regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This source is not a major source of HAP, as defined in 40 CFR 63.2, because HAP emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

Federal Rule Applicability

Federal rule applicability for this source has been reviewed as follows:

New Source Performance Standards (NSPS):

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

(a) This source is not subject to the requirements 40 CFR 63 Subpart MMMM (National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products) because the source is not a major source of HAPs.

(B) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, 40 CFR 63.11169, Subpart HHHHHH, are not included in this permit because the source does not have

paint stripping operations that involve the use of chemical strippers that contain methylene chloride (MeCl), does not perform autobody refinishing operations that encompass motor vehicle and mobile equipment spray-applied surface coating operations, and does not perform spray application of coatings containing compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), to any part or product made of metal or plastic, or combinations of metal and plastic that are not motor vehicles or mobile equipment.

(C) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPS), 40 CFR Part 63.11514, Subpart XXXXXX (National Emission Standards for Hazardous Air Pollutants Area Source Standards for Nine Metal Fabrication and Finishing Source Categories) are not included in this revision because this source does not have the potential to emit metal fabrication or finishing metal HAP (MFHAP), defined to be the compounds of chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd), in the amounts greater than or equal to 0.1 percent by weight (of the metal), and materials that contain manganese in amounts greater than or equal to 1.0 percent by weight (of the metal).

(c) There are no other National Emission Standards for Hazardous Air Pollutants under 40 CFR 63, 326 IAC 14 and 326 IAC 20 included in the permit.

Compliance Assurance Monitoring (CAM):

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability - Entire Source

State rule applicability for this source has been reviewed as follows:

326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset)
PSD and Emission Offset applicability is discussed under the Potential to Emit After Issuance section of this document.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The provisions of 326 IAC 2-4.1 apply to any owner or operator who constructs or reconstructs a major source of hazardous air pollutants (HAP), as defined in 40 CFR 63.41, after July 27, 1997, unless the major source has been specifically regulated under or exempted from regulation under a NESHAP that was issued pursuant to Section 112(d), 112(h), or 112(j) of the Clean Air Act (CAA) and incorporated under 40 CFR 63. On and after June 29, 1998, 326 IAC 2-4.1 is intended to implement the requirements of Section 112(g)(2)(B) of the Clean Air Act (CAA).

326 IAC 2-6 (Emission Reporting)
This source is not subject to 326 IAC 2-6 (Emission Reporting), because it is not required to have an operating permit pursuant to 326 IAC 2-7 (Part 70), it is not located in Lake or Porter County, and its potential to emit lead is less than 5 tons per year. Therefore, this rule does not apply.

326 IAC 2-8-4 (FESOP) and 326 IAC 20 (Hazardous Air Pollutants)
FESOP applicability is discussed under the Potential to Emit After Issuance section of this document.

FESOP PM10, PM2.5, and VOC Limit(s)

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-7 (Part 70 Permits), not applicable, the Permittee shall comply with the following:

(a) The solids delivered to the HVLP and Airless applicators at the three (3) paint booths, identified as South Booth, North Booth and Paint Booth 3, shall not exceed 454.42 tons per twelve consecutive (12) month period, total, with compliance determined at the end of each month.

(b) The transfer efficiency at the three (3) paint booths, identified as South Booth, North Booth, and Paint Booth 3 shall not be less than 74 percent (74%).

(c) The PM10 and PM2.5 control efficiency of the dry filters on the three (3) paint booths, identified as South Booth, North Booth, and Paint Booth 3 shall not be less than 73 percent (73%).

(d) 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.

(e) The PM10 emissions after control from the shot blaster shall not exceed 3.42 pounds per hour.

(f) The PM2.5 emissions after control from the shot blaster shall not exceed 3.42 pounds per hour.

Compliance with these limits, combined with the potential to emit PM10, PM2.5, VOC from all other emission units at this source, shall limit the source-wide total potential to emit of PM10, PM2.5, VOC to less than 100 tons per twelve (12) consecutive month period, each, and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable.

FESOP HAP Limit(s)

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the source an area source of HAP emissions under Section 112 of the Clean Air Act (CAA), and render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable, the Permittee shall comply with the following:

(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 these limits, combined with the potential to emit HAP from all other emission units at the source, shall limit the source-wide potential to emit single HAP to less than 10 tons per twelve (12) consecutive month period and the source-wide potential to emit total HAPs to less than 25 tons per twelve (12) consecutive month period, and shall render the source an area source of HAP emissions under Section 112 of the Clean Air Act (CAA) and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable.

326 IAC 5-1 (Opacity Limitations)

This source is subject to the opacity limitations specified in 326 IAC 5-1-2(1)

326 IAC 6-4 (Fugitive Dust Emissions Limitations)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.

326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
This source is not subject to the requirements of 326 IAC 6-5, because the source has potential fugitive particulate emissions of less than twenty-five (25) tons per year.

326 IAC 6.5 (Particulate Matter Limitations Except Lake County)
Pursuant to 326 IAC 6.5-1-1(a), this source (located in Tippecanoe County) is not subject to the requirements of 326 IAC 6.5 because it is not located in one of the following counties: Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne.

326 IAC 6.8 (Particulate Matter Limitations for Lake County)
Pursuant to 326 IAC 6.8-1-1(a), this source (located in Tippecanoe County) is not subject to the requirements of 326 IAC 6.8 because it is not located in Lake County.

State Rule Applicability – Individual Facilities

State rule applicability has been reviewed as follows:

Shot Blasting
26 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the shot blaster shall not exceed 3.42 pounds per hour when operating at a process weight rate of 0.76 tons per hour. The pound 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

The baghouse shall be in operation at all times the shot blasting unit is in operation, in order to comply with this limit.

Paint Booths
326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(a), the requirements of 326 IAC 6-3-2 are applicable to the three (3) paint booths identified as South Paint Booth, North Paint Booth, and Paint Booth 3, since it is a manufacturing process not exempted from this rule under 326 IAC 6-3-1(b) and is not subject to a particulate matter limitation that is as stringent as or more stringent than the particulate limitation established in this rule as specified in 326 IAC 6-3-1(c).

Particulate from the surface coating shall be controlled by a dry particulate filter waterwash an equivalent control device and the Permittee shall operate the control device in accordance with manufacturer's specifications.

Pursuant to 326 IAC 6-3-1(b)(7) and (12), the paint touch up and repair areas of the three (3) paint booths are not subject to the requirements of 326 IAC 6-3, since they apply coatings using flow coaters and repair minor surface damage and imperfections using aerosol applied coatings.

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from each surface preparation operation in the three (3) paint booths, identified as South Paint Booth, North Paint Booth, and Paint Booth 3, shall not exceed 2.33 pounds per hour when operating at a process weight rate of 0.43 tons per hour.

The pound 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

Based on calculations (See Appendix A), a control device is not needed to comply with these limits.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
The South Paint Booth is not subject to the requirements of 326 IAC 8-1-6 because while it's potential to emit VOC is greater than 25 tons per year, it was constructed before January 1, 1980.

The North Booth and Paint Booth 3 are not subject to the requirements of 326 IAC 8-1-6 because it is regulated by other rules in 326 IAC 8. These units are subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations).

326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations)
Pursuant to 326 IAC 8-2-1(a)(2) the South Paint Booth is not subject to the requirements of 326 IAC 8-2-9 because while it coats metal parts or products under the Standard Industrial Classification Code of major group #34 and has the potential to emit greater than twenty-five (25) tons of VOC per year, it was constructed in 1979.

(a) Pursuant to 326 IAC 8-2-1(a) and 326 IAC 8-2-9(a), the North Paint Booth is subject to the requirements of 326 IAC 8-2-9, since it was constructed in 2006, located in Tippecanoe County, and has the unlimited PTE of VOC equal to or greater than fifteen (15) pounds of VOC per day before add on controls, and this source performs miscellaneous metal surface coating coat metal parts or products under the Standard Industrial Classification Code of major group #34.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the North Paint Booth shall be not exceed 3.5 pounds of VOC per gallon of coating less water.

(b) Pursuant to 326 IAC 8-2-1(a) and 326 IAC 8-2-9(a), the Paint Booth 3 is subject to the requirements of 326 IAC 8-2-9, since it was constructed in 2011, located in Tippecanoe County, and has the unlimited PTE of VOC equal to or greater than fifteen (15) pounds of VOC per day before add on controls, and this source performs miscellaneous metal surface coating coat metal parts or products under the Standard Industrial Classification Code of major group #34.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the North Paint Booth shall be not exceed 3.5 pounds of VOC per gallon of coating less water.

Based on the calculations in Appendix A, the North Booth and Paint Booth 3 use non-complaint coatings. Compliance with the VOC content limits in each booth, shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings only on days when one (1) or more of the coating materials that exceed a VOC content of 3.5 pounds of VOC per gallon of coating less water are used.

Based on the MSDS submitted by the source and calculations made, each booth is in compliance with this requirement. The clean up solvent is not subject to the requirements of this rule because the clean up solvent is not used to coat metal.

When non compliant coatings are used the daily volume weighted average shall be determined using 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

Note: The North Booth and Paint Booth 3 are separate facilities under 326 IAC 8-2. Therefore, the source can only use daily averaging for coatings used within a facility. A source cannot include in a daily average coatings used in another facility.

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:

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

(ii) 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.

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

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

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

Welding

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

(1) Gas Metal Arc (MIG) welding stations

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the thirty-nine (39) Gas Metal Arc (MIG) welding stations shall not exceed 2.64 pounds per hour when operating at a process weight rate of 0.52 tons per hour. The pound 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

Based on calculations (See Appendix A), a control device is not needed to comply with these limits.

(2) Tungsten Inert Gas (TIG) welding stations

Pursuant to 326 IAC 6-3-1(b)(9), the twenty-five (25) Tungsten Inert Gas (TIG) welding stations are exempt from the requirements of 326 IAC 6-3-2 because the stations have the potential to consume less than six hundred twenty-five (625) pounds of rod or wire per day. In addition, pursuant to 326 IAC 6-3-

1(b)(14), the twenty-five (25) Tungsten Inert Gas (TIG) welding stations are exempt from the requirements of 326 IAC 6-3-2 because the combined potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

(3) Stick welding station

Pursuant to 326 IAC 6-3-1(b)(9), the one (1) stick welding station is exempt from the requirements of 326 IAC 6-3-2 because this station has the potential to consume less than six hundred twenty-five (625) pounds of rod or wire per day.

(4) Flux Core Welding Stations

Pursuant to 326 IAC 6-3-1(b)(9), the Flux Core Welding station is exempt from the requirements of 326 IAC 6-3-2 because the total weight of rod or wire consumed is less than six hundred twenty-five (625) pounds per day.

Plasma Cutting

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-1(b)(10), each flame cutting plasma station is exempt from the requirements of 326 IAC 6-3-2 because each station cuts less than three thousand four hundred (3,400) inches per hour of stock one (1) inch thickness or less metal.

Degreasing Operation

326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements)

Pursuant to 326 IAC 8-3-1(c)(2)(A)(ii), the requirements of 326 IAC 8-3-2(a) and 326 IAC 8-3-2(b) apply to the cold cleaning degreaser operation because the cold cleaning degreaser was constructed after July 1, 1990, is located anywhere in the state, is without a remote solvent reservoir, and has potential VOC emissions.

326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreaser)

Pursuant to 326 IAC 8-3-1(c)(3)(A) and (B), the cold cleaning degreaser operation is subject to the material requirements and recordkeeping requirements of 326 IAC 8-3-8.

Natural Gas Combustion

326 IAC 6-2-1 (Particulate Emission Limitations for Sources of Indirect Heating)

The natural gas-fired combustion units are not subject to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), because, pursuant to 326 IAC 1-2-19, these emission units do not meet the definition of an indirect heating unit.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

The natural gas-fired combustion units are exempt from the requirements of 326 IAC 6-3, because, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight.

326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)

This source is not subject to 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations) because the potential to emit sulfur dioxide from each natural gas-fired combustion unit is less than twenty-five (25) tons per year and ten (10) pounds per hour.

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

The natural gas-fired combustion units are not subject to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), because each unit has the potential to emit VOC of less than twenty-five (25)

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to assure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous

demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

(a) The Compliance Determination Requirements applicable to this source are as follows:

(1) There are no testing requirements applicable to the three (3) paint booths (South, North, and Paint Booth 3). The source will demonstrate compliance with the solids, VOC, and HAP usage limits by keeping records of their total coating material and solvent usage and the solids, VOC, and HAP contents of each coating material and solvent.

(2) There are no testing requirements applicable to the shot blasting unit since the baghouse does not need to achieve a high control efficiency to demonstrate compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-8 (FESOP). Compliance will be determined by operating the baghouse at all times when the shot blasting unit is in operation.

The compliance monitoring requirements applicable to this source are as follows:

Emission Unit/Control	Operating Parameters	Frequency
Paint Booths (South, North, and Paint Booth 3)/Dry Filters[(a)]	Filter Check	Once per day
	Overspray Observations	Once per week
	Stack Exhaust Observations	Once per month
Shot Blasting Unit /Baghouse[(b)]	Pressure Drop	Once per day

(b) These monitoring conditions are necessary for the paint booths because the dry filters must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-8 (FESOP).

(c) These monitoring conditions are necessary for the shot blasting unit because the baghouse must operate properly to ensure compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-8 (FESOP).

Proposed Changes

As part of this permit approval, the permit may contain new or different permit conditions and some conditions from previously issued permits/approvals may have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes.

The following changes were made to conditions contained previously issued permits/approvals (these changes may include Title I changes):

(1) After the removal of the shot blasting unit identified as EU SBU02, the PSD minor limits on PM are no longer needed and have been removed from the permit.

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on October 30, 2023.

The operation of this stationary facility that manufactures and repairs semi tanker trailers and various steel and metal tanks shall be subject to the conditions of the attached proposed FESOP Renewal No. 157-47177-00461.

The staff recommends to the Commissioner that the FESOP Renewal be approved.

IDEM Contact

(a) If you have any questions regarding this permit, please contact Madison Spahn, Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251, or by telephone at (317) 233-3031 or (800) 451-6027, and ask for Madison Spahn or (317) 233-3031.

(b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Air Permits page on the Internet at: https://www.in.gov/idem/airpermit/public-participation/; and the Citizens' Guide to IDEM on the Internet at: https://www.in.gov/idem/resources/citizens-guide-to-idem/.

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

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
Reviewer: Madison Spahn

Uncontrolled Potential Emissions for Permit Level Determination (tons/year)										
Process/Emission Unit	**PM**	**PM10**	**PM2.5**	**SO2**	**NOx**	**VOC**	**CO**	**Total HAPs**	**Single HAP**	
Shot blasting (EU SBU01)	117.54	82.28	82.28	0	0	0	0	0	0	
North Paint Booth[1,2]	45.75	45.75	45.75	0	0	53.84	0	20.18	7.18	Xylene
South Booth Booth[1,2]	45.75	45.75	45.75	0	0	53.84	0	20.18	7.18	Xylene
Paint Booth 3[2]	43.57	43.57	43.57	0	0	53.84	0	20.18	7.18	Xylene
Parts Washer	0	0	0	0	0	0.11	0	0	0	
Welding and Cutting Operations	9.05	9.05	9.05	0	0	0	0	2.01	1.55	Manganese
Natural Gas Combustion	0.09	0.37	0.37	0.03	4.90	0.27	4.12	0.09	0.09	Hexane
Total:	**261.76**	**226.78**	**226.78**	**0.03**	**4.90**	**161.90**	**4.12**	**62.62**	**21.53**	Xylene

NOTES:
[1] The North and the South booth each includes one half of emissions from paint touch up, repair and surface preparation areas.
[2] The addition of the two (2) airless paint sprayers will not increase the unlimited potential to emit for these booths.

Surface Coating Particulate Matter Emission Limit Evaluation (tons/year)			
Process/Emission Unit	**PM**	**PM10**	**PM2.5**
Shot blasting (EU SBU01)[2]	117.54	82.28	82.28
*North Paint Booth[1]	2.29	12.21	12.21
*South Booth Booth[1]	2.29	12.21	12.21
Paint Booth 3[1]	2.18	11.75	11.75
Parts Washer[2]	0	0	0
Welding and Cutting Operations[2]	9.05	9.05	9.05
Natural Gas Combustion[2]	0.09	0.37	0.37
Total:	**133.44**	**127.89**	**127.89**

NOTES:
* The North and the South booth each includes one half of emissions from paint touch up, repair and surface preparation areas.
[1] PM, PM10 and PM2.5 PTE = PTE after control from surface coating, touch up, and repair + PTE before control from surface preparation
[2] Uncontrolled PTE

Based on the table above the source must limit the PM, PM10, and PM2.5 emissions from the HVLP and Airless applicators in the North Paint Booth, South Paint Booth, and Paint Booth 3 in order to render the requirements of 326 IAC 2-7 (Part 70 Permits) not applicable because the controlled emissions from the surface coating operations plus the uncontrolled PTE from all other emission units is greater than 100 tons per year for PM10 and PM2.5 (Title V Major Source Thresholds).

Limited Potential Emissions After Issuance of Permit (tons/year)										
Process/Emission Unit	**PM**	**PM10**	**PM2.5**	**SO2**	**NOx**	**VOC**	**CO**	**Total HAPs**	**Single HAP**	
Shot blasting (EU SBU01)	117.54	14.98	14.98	0	0	0	0	0	0	-
*North Paint Booth [1,2,3]	2.29	36.18	36.18	0	0	95.00	0	21.50	9.00	Xylenes, Toulene, or MIBK
*South Booth Booth [1,2,3]	2.29			0	0		0			
Paint Booth 3 [1,2,3]	2.18			0	0		0			
Parts Washer	0	0	0	0	0	0.11	0	0	0	-
Welding and Cutting Operations	9.05	9.05	9.05	0	0	0	0	2.01	1.55	Manganese
Natural Gas Combustion	0.09	0.37	0.37	0.03	4.90	0.27	4.12	0.09	0.09	Hexane
Total:	**133.44**	**60.58**	**60.58**	**0.03**	**4.90**	**95.38**	**4.12**	**23.60**	**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.
[1] PM10 and PM2.5 limited to render 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (PSD) not applicable.
[2] VOC limited to render 326 IAC 2-7 (Part 70 Permits) not applicable.
[3] Single and combined HAPs limited to render 326 IAC 2-7 (Part 70 Permits) not applicable.

Appendix A: Emission Calculations
Abrasive Blasting - Confined
Shot Blasting Unit SBU01

Company Name: **Alloy Custom Products, LLC**
Address City IN Zip: **9701 Old SR 25 North, Lafayette, Indiana 47905**
FESOP No.: **F157-47177-00461**
Reviewer: **Madison Spahn**

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	PM2.5	
Potential to Emit (before control) =	26.84	18.79	18.79	**lb/hr**
=	644.07	450.85	450.85	**lb/day**
=	**117.54**	**82.28**	**82.28**	**ton/yr**

Potential to Emit After Control

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

Limited Potential to Emit

	PM10	PM2.5	
Potential to Emit (limited) =	3.42	3.42	**lb/hr**
=	**14.98**	**14.98**	**ton/yr**

METHODOLOGY
Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Assumed PM2.5 = PM10
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
Coating Data

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
Reviewer: Madison Spahn

General Coating Information

Coating ID	Coating Type	Coating Manufacturer	Polymeric Coating (Y/N)	Multipart			Thinned or Diluted	
				Multipart Coating (Y/N)	What are the Parts?	Part Ratio	Thinned	Dilution Ratio or %
Jones-Blair (JB33304/01 & JB99953/04)	Primer	Jones Blair	No	Yes	JB33304/01 & JB99953/04	1:1		
Jones-Blair (JB45070/01 & JB99951/04)	Top Coat	Jones Blair	No	Yes	(JB45070/01 & JB99951/04)	3:1		
Jones-Blair (JB45072/01 & JB99951/04)	Clear Coat	Jones Blair	No	Yes	(JB45072/01 & JB99951/04)	3:1		
Acrylithane 2.8 Frost Metallic (4760-004)	Coating	Jones Blair	No	No	N/A	N/A		
Carbothane (8845 & 8843- White 1864)	Top Coat	Carboline	No	Yes	8845 & 8843	4:1	Yes	6 oz per gal
Recoatable Epoxy Primer (B67W45 & B67V45)	Primer	Sherwin-Williams	No	Yes	B67W45 & B67V45	1:1		
Epoxy Primer (E2W932/V6V943/VS100)	Primer	Sherwin-Williams	No	Yes	E2W93 & V6V943	4:1	Yes	5%
Epoxy Primer (E2W932P & V6V943)	Primer	Sherwin-Williams	No	Yes	E2W932P & V6V943	4:1		

Pre Mix Composition (materials with mixed composition data sheet were available are not included below)

Coating ID (Part A)	Mixed With	Parts Part A	Parts Part B	Material Density	Weight % Total Volatiles	Weight % Exempts	Weight % Solids	Weight % VOC	Volume % Total Volatiles	Volume % Exempts	Volume % Solids	Volume % VOC	VOC Density	HAP Density	HAP Solids	Solids
				(lb/gal)	(W_v)	(W_{ex})	(W_s)	(W_{vo})	(V_v)	(V_{ex})	(V_s)	(V_{vo})	(lb/gal)	(lb/gal)	(lb/gal s)	(lb/gal)
Jones-Blair (JB33304/01 & JB99953/04)	N/A	N/A	N/A	12.43	27.19	0	72.81	27.19	27.1	0	72.9	27.1	3.38			9.05
Jones-Blair (JB45070/01 & JB99951/04)	N/A	N/A	N/A	10.27	28.6	0	71.40	28.60	28.6	0	71.4	28.6	2.98			
Jones-Blair (JB45072/01 & JB99951/04)	N/A	N/A	N/A	8.60	38.2	0	61.80	37.21	37.1	0	62.9	37.1	3.2			
Acrylithane 2.8 Frost Metallic (4760-004)	99955	3	1	8.63	52.3	24.81	47.70	26.55	58.1		41.9		3.09	0.56	1.34	4.12
4760-001 (643JB19990)	99955	3	1	8.62	40.1	13.6327	59.90	32.60	47.2		52.75		2.81	0.23	0.44231	5.16
Acrylithane 2.8 Black Cherry Metallic (4700-010) - 643JB7L000	99955	3	1	8.84	45.3	21.9212	54.70	32.01					2.83	0.13		4.84
Acrylithane Medium Reducer (21092) - (083200000)	N/A	N/A	N/A	7.24	100	0	0	100.00	0	0	0	100	7.21	3.92	N/A	0
Ureprime 2.8 Primer, White (33028)	99955	3	1	11.82	35.4	16.2163	64.60	25.21	50.7		49.34		2.98	0.33	0.67	7.64
Chem-O-Z HS2 Organic Zn Rich Primer (33910)	99951	3	1	22.29	10.7	5.00E-04	89.30	10.90	34.5		65.53		2.43	0.69	1.051	19.90
Acrylithane 2.8 Enamel A.P. White (4400-003) - (843JB1L060)	99955	3	1	10.70	34.9	12.46	65.10	26.45	46.7		53.32		2.83	0.73	1.38	6.97
Acrylithane 2.8 A.P. Green (4440-004)	99955	3	1	9.23	42.1	14.39	57.90	26.85	50.95		49.05		2.92	0.38	0.77	5.34
Acrylithane 2.8 Clear Gloss (4700-001)	99955	3	1	8.55	45.3	20.5102	54.70	33.10	51.4		48.61		2.83	0.33	0.676	4.68
Acrylithane 2.8 White Tint Base (4700-003)	99955	3	1	11.18	33.38	8.29	66.62	22.76	47.5		52.5		2.95	1.01	1.91	7.45
Acrylithane 2.8 HI Hide White Base (4700-008) - 643JB00011	99955	3	1	10.99	28.5	6.0217	71.50	25.11	43.2		56.84		2.76	0.77	1.36	7.86
Acrylithane 2.8 Enamel Prometheus Energy Blue (JB4700-008PEB01)	99955	3	1	11.64	29.66	6.62	70.34	24.18	45.38		54.62		2.89	1.27	2.33	8.19
Acrylithane HS2 Enamel Catalyst (99951)	N/A	N/A	N/A	9.40	10	0	90.00	10.15	12.9	0	87.1	12.9	0.94	0.04	0.04	8.46
Acrylithane HS Catalyst (99955)	N/A	N/A	N/A	8.86	25.37	0	74.63	25.21	31.4	0	68.6	31.4	2.25	1.00E-02	1.00E-02	6.61
Chem-O-Pon QD Catalyst (99971)	N/A	N/A	N/A	11.11	40.66	0	59.34	14.97	59.17	0	40.83	59.17	2.57	0.70	1.71	6.59
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	99955	3	1	8.78	53.95	27.43	46.05	25.61	57.54		42.46		3.05	0.33	0.79	4.04
Acrylithane 2.8 Clean Energy Blue (HHN-850112)	99955	3	1	8.55	51.04	26.22	48.96	26.36	56.54		43.46		3.09	0.59	1.35	4.19
Acrylithane 2.8 Clean Energy Green (HHN-D40269)	99955	3	1	8.47	53.65	26.21	46.35	26.35	58.04		41.96		3.05	0.58	1.39	3.93
Chem-o-Gard I Black (3360-001)	9000-003	1	1	10.79	11.92	0	88.08	11.91	18.14	0	81.86	18.14	1.29	0.35	0.42	9.50
Chem-o-Gard DTS Hardener (99987)	N/A	N/A	N/A	12.91	17.3	0	82.70	17.30	31.32	0	68.68	31.32	2.23	0.65	0.95	10.68
Acrylithane HS Catalyst (99955B)	N/A	N/A	N/A	8.86	25.18	0	74.82	25.89	30.85	0	69.15	30.85	2.23	0.63	0.91	6.63
Acrylithane 2.8 Air Liquide Blue (4700-022 tinted to HHN-C51329)	99955	3	1	11.81	29.54	4.99	70.46	24.66	45.03		54.97		2.9	0.91	1.66	8.32
Acrylithane 2.8 Clean Energy Green (4700-022 tinted to HHN-D40269)	99955	3	1	11.33	30.9	5.01	69.10	25.52	45.55		54.45		2.93	0.88	0.61	7.83
Acrylithane New A.P. Green (4740-004)	99955	3	1	10.77	33.6	5.82	66.40	26.36	46.34		53.66		2.94	0.97	1.8	7.15

Appendix A: Emissions Calculations
Coating Data

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
Reviewer: Madison Spahn

Pre Mix Composition (materials with mixed composition data sheet were available are not included below)

Coating ID (Part A)	Mixed With	Parts Part A	Parts Part B	Material Density	HAP Content Weight (%)												HAP Content Weight (lb/gal)											
				(lb/gal)	Xylene	Ethyl Benzene	MIBK	Methanol	Cumene	Toluene	Benzene	Glycol Ethers	Naphthalene	Ethyl Acrylate	Formaldehyde	1,4-dioxane	Epichlorohydrin	Xylene	Ethyl Benzene	MIBK	Methanol	Cumene	Toluene	Benzene	Glycol Ethers	Naphthalene	Ethyl Acrylate	Formaldehyde	1,4-dioxane	Epichlorohydrin
Chem-O-Pon QD Catalyst (99971)	N/A	N/A	N/A	12.43																									
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	N/A	N/A	N/A	10.27																									
Acrylithane 2.8 Clean Energy Blue (HHN-B50112)	N/A	N/A	N/A	8.60																									
Acrylithane 2.8 Frost Metallic (4760-004)	99955	3	1	8.63	3.09	0.53		0.09		0.03	2.80E-04	2.78						0.27	0.05		7.65E-03		2.36E-03	2.42E-05	0.24					
4760-001 (643JB19990)	99955	3	1	8.62	0.95	0.16		2.79E-03	0.11	0.06	1.00E-04	1.31	0.01					0.08	0.01		2.41E-04	9.54E-03	5.03E-03	8.62E-06	0.11	9.25E-04				
Acrylithane 2.8 Black Cherry Metallic (4700-010) - 643JB7L000	99955	3	1	8.84	1.01	0.15		0.02	0.11	0.06	1.13E-04	6.04E-03	0.01					0.09	0.01		2.14E-03		5.71E-03	1.00E-05	5.33E-04					
Acrylithane Medium Reducer (21092) - (083200000)	N/A	N/A	N/A	7.24	23.25	5.02	25.58		0.30									1.68	0.36	1.85										
Ureprime 2.8 Primer, White (33028)	99955	3	1	11.82	2.13	0.46			0.06	6.40E-03		4.85E-03	6.16E-03	1.00E-04	1.24E-03	1.00E-04	8.14E-04	0.25	0.05				7.57E-04		5.73E-04					
Chem-O-Z HS2 Organic Zn Rich Primer (33910)	99951	3	1	22.29	1.59	0.35		4.94E-04				1.10	0.01				4.89E-04	0.36	0.08		1.10E-04				0.25					
Acrylithane 2.8 Enamel A.P. White (4400-003) - (643JB1L060)	99955	3	1	10.70	1.55	0.29		0.04		0.06	1.00E-04	4.78	8.88E-03	1.00E-04	1.09E-04	1.00E-04		0.17	0.03		4.40E-03		6.10E-03	1.07E-05	0.51		1.07E-05	1.17E-05	1.07E-05	
Acrylithane 2.8 A.P. Green (4440-004)	99955	3	1	9.23	1.97	0.35		0.07		0.01	2.80E-04	1.70						0.18	0.03		6.37E-03		1.38E-03	2.58E-05	0.16					
Acrylithane 2.8 Clear Gloss (4700-001)	99955	3	1	8.55	1.68	0.29		0.07	0.11	0.09	1.20E-04	1.52	0.01					0.14	0.02		5.63E-03		8.03E-03	1.03E-05	0.13					
Acrylithane 2.8 White Tint Base (4700-003)	99955	3	1	11.18	4.30	0.72		0.05		0.04	4.50E-04	3.87						0.48	0.08		6.10E-03		5.00E-03	5.03E-05	0.43					
Acrylithane 2.8 HI Hide White Base (4700-008) - 643JB00011	99955	3	1	10.99	2.33	0.39		0.04	0.09	0.13	2.22E-04	4.02	8.65E-03					0.26	0.04		4.76E-03		0.01	2.44E-05	0.44	9.50E-04				
Acrylithane 2.8 Enamel Prometheus Enerov Blue (JB4700-008PEB/01)	99955	3	1	11.64	5.00	0.77		0.05		0.05	4.80E-04	5.05	3.10E-04					0.58	0.09		6.14E-03		5.52E-03	5.59E-05	0.59	3.61E-05				
Acrylithane HS2 Enamel Catalyst (99951)	N/A	N/A	N/A	9.40	0.25													0.02												
Acrylithane HS Catalyst (99955)	N/A	N/A	N/A	8.86	0.10						2.08E-03							9.01E-03						1.84E-04						
Chem-O-Pon QD Catalyst (99971)	N/A	N/A	N/A	11.11	6.28						1.42E-03							0.70						1.58E-04						
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	99955	3	1	8.78	2.35	0.39		0.03		0.03	2.80E-04	1.01	4.70E-04					0.21	0.03		2.87E-03		2.41E-03	2.46E-05	0.09	4.13E-05				
Acrylithane 2.8 Clean Energy Blue (HHN-B50112)	99955	3	1	8.55	3.26	0.56		0.09		0.03	2.90E-04	2.93						0.28	0.05		8.00E-03		2.47E-03	2.48E-05	0.25					
Acrylithane 2.8 Clean Energy Green (HHN-D40269)	99955	3	1	8.47	3.26	0.57		0.09		0.03	2.90E-04	2.93	5.00E-04					0.28	0.05		7.92E-03		2.44E-03	2.46E-05	0.25	4.24E-05				
Chem-o-Gard I Black (3360-001)	9000-003	1	1	10.79	0.43		2.67		0.09		9.25E-04						9.25E-04	0.05		0.29		9.50E-03		9.99E-05						9.99E-05
Chem-o-Gard DTS Hardener (99987)	N/A	N/A	N/A	12.91	4.14	0.65			0.07	0.04	7.11E-03		0.15					0.53	0.08				8.61E-03	5.62E-03	9.18E-04		0.02				
Acrylithane HS Catalyst (99955B)	N/A	N/A	N/A	8.86	5.55	0.75			0.21									0.49	0.07				0.02								
Acrylithane 2.8 Air Liquide Blue (4700-022 tinted to HHN-C51329)	99955	3	1	11.81	4.31	0.72		0.03		0.05	4.70E-04	2.59						0.51	0.09		4.09E-03		5.49E-03	5.55E-05	0.31					
Acrylithane 2.8 Clean Energy Green (4700-022 tinted to HHN-D40269)	99955	3	1	11.33	4.34	0.74		0.04		0.05	4.70E-04	2.60						0.49	0.08		4.23E-03		5.30E-03	5.33E-05	0.29					
Acrylithane New A.P. Green (4740-004)	99955	3	1	10.77	5.03	0.84		0.04		0.05	5.48E-04	3.02						0.54	0.09		4.35E-03		5.84E-03	5.90E-05	0.32					

Appendix A: Emissions Calculations
Coating Data

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
Reviewer: Madison Spahn

As Applied (Mixed)

Coating ID	Material Density	VOC Density	HAP Density	HAP Solids	Solids	HAP Content Weight (lb/gal)													Weight % Total Volatiles	Weight % Exempts	Weight % Solids	Weight % VOC	Volume % Total Volatiles	Volume % Exempts	Volume % Solids	Volume % VOC
	(lb/gal)	(lb/gal)	(lb/gal)	(lb/gal s)	(lb/gal)	Xylene	Ethyl Benzene	MIBK	Methanol	Cumene	Toluene	Benzene	Glycol Ethers	Naphthalene	Ethyl Acrylate	Formaldehyde	1,4-dioxane	Epichlorohydrin	(W_v)	(W_{ex})	(W_s)	(W_{co})	(V_v)	(V_{ex})	(V_s)	(V_{co})
Jones-Blair (JB3330401 & JB99953/04)	12.43	3.38			9.05	0.73	0.12												27.19	0	72.81	27.19	27.10		72.90	27.1
Jones-Blair (JB450701/01 & JB99951/04)	10.27	2.98			7.33		0.13												28.60	0	71.40	28.60	28.60		71.40	28.6
Jones-Blair (JB450720/01 & JB99951/04)	8.60	3.20			5.31	0.22	0.11												38.20	0	61.80	37.21	37.10		62.90	37.1
Acrylithane 2.8 Frost Metallic (4760-004)	8.82	2.55	0.43	1.02	5.20	0.21	0.03	0	5.73E-03	0	1.77E-03	1.81E-05	0.18	0	0	0	0	0	41.73	18.61	58.28	22.45	46.80		53.20	
4760-001 (643JB19990)	8.82	2.34	0.18	0.34	5.99	0.07	0.01	0	1.81E-04	7.15E-03	3.77E-03	6.47E-06	0.08	6.94E-04	0	0	0	0	32.58	10.22	67.43	26.99	38.63		61.34	
Acrylithane 2.8 Black Cherry Metallic (4700-010)	8.98	2.36	0.11	1.00E-02	5.74	0.07	0.01	0	1.60E-03	0	4.28E-03	7.51E-06	4.00E-04	0	0	0	0	0	36.48	16.44	63.53	26.55	3.23		21.78	
Ureprime 2.8 Primer, White (33028)	11.08	2.80	0.25	0.50	7.38	0.19	0.04	0	0	0	5.68E-04	4.61E-05	4.30E-04	0	0	0	0	0	32.89	12.16	67.11	25.21	45.88		54.16	
Chem-O-Z HS2 Organic Zn Rich Primer (33910)	19.07	2.06	0.53	0.80	17.04	0.27	0.06	0	8.25E-05	0	0	0	0.18	0	0	0	0	0	10.53	3.75E-04	89.48	10.71	29.10		70.92	
Acrylithane 2.8 Enamel A.P. White (4400-003)	10.24	2.69	0.55	1.04	6.88	0.13	0.02	0	3.30E-03	0	4.57E-03	5.41E-05	0.38	0	8.03E-06	8.74E-06	8.03E-06	0	32.52	9.35	67.48	26.14	42.88		57.14	
Acrylithane 2.8 A.P. Green (4440-004)	9.14	2.75	0.29	0.58	5.66	0.14	0.02	0	4.78E-03	0	1.03E-03	6.55E-05	0.12	0	0	0	0	0	37.92	10.79	62.08	26.44	46.06		53.94	
Acrylithane 2.8 Clear Gloss (4700-001)	8.63	2.69	0.25	0.51	5.16	0.11	0.02	0	4.22E-03	0	6.02E-03	5.38E-05	0.10	0	0	0	0	0	40.32	15.38	59.68	31.13	46.40		53.61	
Acrylithane 2.8 White Tint Base (4700-003)	10.60	2.78	0.76	1.44	7.24	0.36	0.06	0	4.58E-03	0	3.75E-03	8.38E-05	0.32	0	0	0	0	0	31.38	6.22	68.62	23.37	43.48		56.53	
Acrylithane 2.8 HI Hide White Base (4700-008)	10.46	2.63	0.58	1.02	7.55	0.19	0.03	0	3.57E-03	0	0.01	6.44E-05	0.33	7.13E-04	0	0	0	0	27.72	4.52	72.28	25.14	40.25		59.78	
Acrylithane 2.8 Enamel Prometheus Energy Blue (JB4700-008PEB01)	10.95	2.73	0.96	1.75	7.79	0.44	0.07	0	4.61E-03	0	4.14E-03	8.80E-05	0.44	2.71E-05	0	0	0	0	28.59	4.97	71.41	24.44	41.89		58.12	
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	8.80	2.85	0.25	0.60	4.69	0.16	0.03	0	2.15E-03	0	1.80E-03	6.45E-05	0.07	3.09E-05	0	0	0	0	46.81	20.57	53.20	25.51	51.01		49.00	
Acrylithane 2.8 Clean Energy Blue (HHN-B50112)	8.63	2.88	0.45	1.02	4.79	0.21	0.04	0	6.00E-03	0	1.85E-03	6.47E-05	0.19	0	0	0	0	0	44.62	19.67	55.38	26.07	50.26		49.75	
Acrylithane 2.8 Clean Energy Green (HHN-D40269)	8.57	2.85	0.44	1.05	4.60	0.21	0.04	0	5.94E-03	0	1.83E-03	6.45E-05	0.19	3.18E-05	0	0	0	0	46.58	19.66	53.42	26.07	51.38		48.62	
Chem-o-Gard I Black (3360-001)	11.85	1.76	0.50	0.69	10.09	0.29	0.04	0.14	0	9.06E-03	2.81E-03	5.09E-04	0	9.93E-03	0	0	0	4.99E-05	14.61	0	85.39	14.61	24.73	0	75.27	24.73
Acrylithane 2.8 Air Liquide Blue (4700-022 tinted to HHN-C51329)	11.07	2.74	0.69	1.25	7.89	0.38	0.06	0	3.06E-03	0	4.12E-03	8.77E-05	0.23	0	0	0	0	0	28.50	3.74	71.50	24.80	41.62		58.38	
Acrylithane 2.8 Clean Energy Green (4700-022 tinted to HHN-D40269)	10.71	2.76	0.66	0.46	7.52	0.37	0.06	0	3.17E-03	0	3.97E-03	8.60E-05	0.22	0	0	0	0	0	29.52	3.76	70.48	25.44	42.01		57.99	
Acrylithane New A.P. Green (4740-004)	10.29	2.77	0.73	1.35	7.02	0.41	0.07	0	3.26E-03	0	4.38E-03	9.03E-05	0.24	0	0	0	0	0	31.54	4.37	68.46	26.07	42.61		57.40	
Carbothane (8845 & 8843- White 1864)	11.56	2.10			9.54	0.08	0.04		1.00E-02	1.00E-02									17.50	0	82.50	18.17	31.00		73.00	31
Recoatable Epoxy Primer (B67W45 & B67V45)	14.56	0.49			11.11	0.44	0.06												23.70	0	76.30	3.37	34.10		65.90	7.0
Epoxy Primer (E2W932/V6V943/VS100)	10.98	3.12			7.22	0.05		0.22			0.02								34.20	0	65.80	28.42	53.30		46.70	
Epoxy Primer (E2W932P & V6V943)	11.20	3.12			7.59			0.22											32.20	0	67.80	23.93	50.90		49.10	36.9

Appendix A: Emissions Calculations
Solvent Data

Company Name: **Alloy Custom Products, LLC**
Address City IN Zip: **9701 Old SR 25 North, Lafayette, Indiana 47905**
FESOP No.: **F157-47177-00461**
Reviewer: **Madison Spahn**

General Coating Information

Solvent ID	Solvent Manufacturer	Material Density	Weight % Total Volatiles	Weight % Water	Weight % Solids	Weight % VOC	Volume % Total Volatiles	Volume % Water	Volume % Solids	Volume % VOC	VOC Density
21092	Jones-Blair	7.24	100	0	0	100	100	0	0	100	7.24
214	Carboline	6.8	100	0	0	100	100	0	0	100	6.8
R7K111	Sherwin-Williams	8.74	100	0	0	0	100	0	0	0	8.74
R7K54	Sherwin-Williams	6.75	100	0	0	100	100	0	0	100	6.75
		Worst-Case	100.00	0.00	0.00	100.00	100.00	0.00	0.00	100.00	8.74

HAP Content

Solvent ID	VOC	HAP Content Weight (lb/gal)		
	(lb/gal)	Xylene	Ethyl Benzene	MIBK
21092	7.24	1.68	0.36	1.85
214	6.8			
R7K111	8.74			
R7K54	6.75	1.49	0.27	3.44
Worst-Case	8.74	1.68	0.36	3.44

Appendix A: Emissions Calculations
Particulate (PM/PM10/PM2.5) and Volitile Organic Compound (VOC) Emissions
From Surface Coating Operations
Two (2) Portable Airless Paint Sprayers (EU APSU01 and EU APSU02)

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
Reviewer: Madison Spahn

Two (2) portable airless paint sprayers (EU APSU01 and EU APSU02) - PM and VOC*

Material		Gal of Mat. (gal/unit)	Maximum (unit/hour)	Maximum usage (gal/hr)	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE PM/PM10 before control (ton/yr)	Transfer Efficiency
Jones-Blair (JB33304/01 & JB99953/04)	Primer	15.00	0.086	1.296	**4.38**	**105.13**	**19.19**	13.36	74%
Recoatable Epoxy Primer (B67W45 & B67V45)	Primer	15.00	0.086	1.296	0.64	15.24	2.78	16.40	74%
Epoxy Primer (E2W932/V6V943/VS100)	Primer	15.00	0.086	1.296	4.04	97.04	17.71	10.66	74%
Epoxy Primer (E2W932P & V6V943)	Primer	15.00	0.086	1.296	4.04	97.04	17.71	11.21	74%
Ureprime 2.8 Primer, White (33028)	Primer	15.00	0.086	1.296	3.63	87.01	15.88	10.97	74%
Chem-O-Z HS2 Organic Zn Rich Primer (33910)	Primer	15.00	0.086	1.296	2.67	64.00	11.68	**25.18**	74%
Worst Case Emissions					**4.38**	**105.13**	**19.19**	**25.18**	
Jones-Blair (JB45070/01 & JB99951/04)	Top Coat	10.00	0.086	0.864	**2.57**	**61.79**	**11.28**	7.21	74%
Acrylithane 2.8 Frost Metallic (4760-004)	Top Coat	10.00	0.086	0.864	2.21	52.93	9.66	5.06	74%
4760-001 (643JB19990)	Top Coat	10.00	0.086	0.864	2.02	48.57	8.86	5.85	74%
Acrylithane 2.8 Black Cherry Metallic (4700-010)	Top Coat	10.00	0.086	0.864	2.04	48.89	8.92	5.61	74%
Acrylithane 2.8 Enamel A.P. White (4400-003)	Top Coat	10.00	0.086	0.864	2.32	55.68	10.16	6.80	74%
Acrylithane 2.8 A.P. Green (4440-004)	Top Coat	10.00	0.086	0.864	2.38	57.08	10.42	5.58	74%
Acrylithane 2.8 Clear Gloss (4700-001)	Top Coat	10.00	0.086	0.864	2.32	55.68	10.16	5.07	74%
Acrylithane 2.8 White Tint Base (4700-003)	Top Coat	10.00	0.086	0.864	2.40	57.54	10.50	7.16	74%
Acrylithane 2.8 HI Hide White Base (4700-008)	Top Coat	10.00	0.086	0.864	2.27	54.59	9.96	7.44	74%
Acrylithane 2.8 Enamel Prometheus Energy Blue (JB4700-008PEB/01)	Top Coat	10.00	0.086	0.864	2.36	56.61	10.33	7.69	74%
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	Top Coat	10.00	0.086	0.864	2.46	59.10	10.79	4.61	74%
Acrylithane 2.8 Clean Energy Blue (HHN-B50112)	Top Coat	10.00	0.086	0.864	2.49	59.72	10.90	4.70	74%
Acrylithane 2.8 Clean Energy Green (HHN-D40269)	Top Coat	10.00	0.086	0.864	2.46	59.10	10.79	4.50	74%
Chem-o-Gard I Black (3360-001)	Top Coat	10.00	0.086	0.864	1.52	36.50	6.66	**9.96**	74%
Acrylithane 2.8 Air Liquide Blue (4700-022 tinted to HHN-C51329)	Top Coat	10.00	0.086	0.864	2.37	56.76	10.36	7.79	74%
Acrylithane 2.8 Clean Energy Green (4700-022 tinted to HHN-D40269)	Top Coat	10.00	0.086	0.864	2.38	57.23	10.44	7.43	74%
Acrylithane New A.P. Green (4740-004)	Top Coat	10.00	0.086	0.864	2.39	57.39	10.47	6.93	74%
Carbothane (8845 & 8843- White 1864)	Top Coat	10.00	0.086	0.864	1.81	43.55	7.95	9.38	74%
Worst Case Emissions					**2.57**	**61.79**	**11.28**	**9.96**	
Jones-Blair (JB45072/01 & JB99951/04)	Clear Coat	4.53	0.086	0.391	**1.25**	**30.06**	**5.49**	**4.25**	74%
Sherwin Williams (R7K111)	Thinner (Solver	1.70	0.086	0.147	**1.28**	**30.81**	**5.62**	**0.00**	74%
			Total Worst Case Emissions		**9.49**	**227.79**	**41.57**	**39.39**	

Dry filter control efficiency- PM	**95.0%**	**1.97**
Dry filter control efficiency- PM10 and PM2.5	**73.0%**	**10.63**

METHODOLOGY

See pages 5 and 6 for detailed coating and solvent data

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Maximum Usage (gal/hr)

Potential VOC Pounds per Day = PTE of VOC (lb/hr) * 24 (hr/day)

Potential VOC Tons per Year = PTE of VOC (lb/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)

Total = Worst Case Primer + Worst Case Top Coat + Worst Case Clear Coat + Worst Case Thinner

NOTES

* The calculations in these tables are only for permit level determination for the purposes of FESOP SPR No. 157-37771-00461. These paint sprayers will be used in the North Paint Booth, South Paint Booth, and/or Paint Booth 3 in lieu of the HVLP applicators in these booths. Therefore, the overall source unlimited and limited PTE will not inrease due to the addition of these applicators.

1. Maximum Capacities as reported by source, based on historical production and actual coating materials used per unit.

2. Paint guns are two (2) Graco XP50 airless paint sprayers (high efficiency coating application).

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. IDEM has conservatively assumed the fabric filter only captures 95% of all particles 15 microns and larger.

4. 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.

5. 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
Hazardous Air Pollutant (HAP) Emissions
From Surface Coating Operations
Two (2) Portable Airless Paint Sprayers (EU APSU01 and EU APSU02)

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
#REF! #REF!
Reviewer: Madison Spahn

Two (2) portable airless paint sprayers (EU APSU01 and EU APSU02) - HAPS*

Material	Maximum Usage (gal/hr)	Xylene (ton/yr)	Ethyl Benzene (ton/yr)	MIBK (ton/yr)	Methanol (ton/yr)	Cumene (ton/yr)	Toluene (ton/yr)	Benzene (ton/yr)	Glycol Ethers (ton/yr)	Naphthalene (ton/yr)	Ethyl Acrylate (ton/yr)	Formaldehyde (ton/yr)	1,4-dioxane (ton/yr)	Epichlorohydrin (ton/yr)	Total HAPs (ton/yr)
Jones-Blair (JB33304/01 & JB99953/04)	1.296	4.14	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.83
Recoatable Epoxy Primer (B67W45 & B67V45)	1.296	2.48	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.81
Epoxy Primer (E2W932/V6V943/VS100)	1.296	0.28	0.00	1.26	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66
Epoxy Primer (E2W932P & V6V943)	1.296	0.00	0.00	1.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27
Ureprime 2.8 Primer, White (33028)	1.296	1.08	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32
Chem-O-Z HS2 Organic Zn Rich Primer (33910)	1.296	1.55	0.33	0.00	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	0.00	2.93
Worst Case Emissions		**4.14**	**0.68**	**1.27**	**0.00**	**0.00**	**0.13**	**0.00**	**1.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.83**
Jones-Blair (JB45070/01 & JB99951/04)	0.864	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49
Acrylithane 2.8 Frost Metallic (4760-004)	0.864	0.78	0.13	0.00	0.02	0.00	0.01	0.00	0.68	0.00	0.00	0.00	0.00	0.00	1.62
4760-001 (643JB19990)	0.864	0.25	0.04	0.00	0.00	0.03	0.01	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.66
Acrylithane 2.8 Black Cherry Metallic (4700-010)	0.864	0.27	0.04	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Acrylithane 2.8 Enamel A.P. White (4400-003)	0.864	0.48	0.09	0.00	0.01	0.00	0.02	0.00	1.45	0.00	0.00	0.00	0.00	0.00	2.05
Acrylithane 2.8 A.P. Green (4440-004)	0.864	0.52	0.09	0.00	0.02	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	1.08
Acrylithane 2.8 Clear Gloss (4700-001)	0.864	0.42	0.07	0.00	0.02	0.00	0.02	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.89
Acrylithane 2.8 White Tint Base (4700-003)	0.864	1.37	0.23	0.00	0.02	0.00	0.01	0.00	1.23	0.00	0.00	0.00	0.00	0.00	2.86
Acrylithane 2.8 HI Hide White Base (4700-008)	0.864	0.73	0.12	0.00	0.01	0.00	0.04	0.00	1.25	0.00	0.00	0.00	0.00	0.00	2.17
Acrylithane 2.8 Enamel Prometheus Energy Blue (JB4700-008PEB/01)	0.864	1.66	0.25	0.00	0.02	0.00	0.02	0.00	1.67	0.00	0.00	0.00	0.00	0.00	3.62
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	0.864	0.59	0.10	0.00	0.01	0.00	0.01	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.96
Acrylithane 2.8 Clean Energy Blue (HHN-B50112)	0.864	0.80	0.14	0.00	0.02	0.00	0.01	0.00	0.71	0.00	0.00	0.00	0.00	0.00	1.68
Acrylithane 2.8 Clean Energy Green (HHN-D40269)	0.864	0.79	0.14	0.00	0.02	0.00	0.01	0.00	0.71	0.00	0.00	0.00	0.00	0.00	1.66
Chem-o-Gard I Black (3360-001)	0.864	1.10	0.16	0.55	0.00	0.03	0.01	0.00	0.00	0.04	0.00	0.00	0.00	0.00	1.89
Acrylithane 2.8 Air Liquide Blue (4700-022 tinted to HHN-C51329)	0.864	1.45	0.24	0.00	0.01	0.00	0.02	0.00	0.87	0.00	0.00	0.00	0.00	0.00	2.59
Acrylithane 2.8 Clean Energy Green (4700-022 tinted to HHN-D40269)	0.864	1.40	0.24	0.00	0.01	0.00	0.02	0.00	0.84	0.00	0.00	0.00	0.00	0.00	2.51
Acrylithane New A.P. Green (4740-004)	0.864	1.55	0.26	0.00	0.01	0.00	0.02	0.00	0.92	0.00	0.00	0.00	0.00	0.00	2.76
Carbothane (8845 & 8843- White 1864)	0.864	0.30	0.15	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53
Worst Case Emissions		**1.66**	**0.49**	**0.55**	**0.04**	**0.04**	**0.04**	**0.00**	**1.67**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**3.62**
Jones-Blair (JB45072/01 & JB99951/04)	0.391	0.38	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57
Sherwin Williams (R7K54)	0.147	0.96	0.17	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.35
		7.14	**1.54**	**4.03**	**0.04**	**0.04**	**0.17**	**0.00**	**2.72**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**12.35**

METHODOLOGY
PTE HAPs = Maximum Usage (gal/hr) * HAP Content (lb/gal) * 8,760 (hr/yr) * 1/2,000 (ton/lb)
Total = Worst Case Primer + Worst Case Top Coat + Worst Case Clear Coat + Worst Case Thinner
See pages 5 and 6 for detailed coating and solvent data
See previous page for additional notes.

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

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
Reviewer: Madison Spahn

North Paint Booth - PM and VOC

Material		Gal of Mat. (gal/unit)	Maximum (unit/hour)	Maximum usage (gal/hr)	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE PM/PM10 before control (ton/yr)	Transfer Efficiency
Jones-Blair (JB33304/01 & JB99953/04)	Primer	15.00	0.086	1.296	**4.38**	**105.13**	**19.19**	13.36	74%
Recoatable Epoxy Primer (B67W45 & B67V45)	Primer	15.00	0.086	1.296	0.64	15.24	2.78	16.40	74%
Epoxy Primer (E2W932/V6V943/VS100)	Primer	15.00	0.086	1.296	4.04	97.04	17.71	10.66	74%
Epoxy Primer (E2W932P & V6V943)	Primer	15.00	0.086	1.296	4.04	97.04	17.71	11.21	74%
Ureprime 2.8 Primer, White (33028)	Primer	15.00	0.086	1.296	3.63	87.01	15.88	10.97	74%
Chem-O-Z HS2 Organic Zn Rich Primer (33910)	Primer	15.00	0.086	1.296	2.67	64.00	11.68	**25.18**	74%
Worst Case Emissions					**4.38**	**105.13**	**19.19**	**25.18**	
Jones-Blair (JB45070/01 & JB99951/04)	Top Coat	10.00	0.086	0.864	**2.57**	**61.79**	**11.28**	7.21	74%
Acrylithane 2.8 Frost Metallic (4760-004)	Top Coat	10.00	0.086	0.864	2.21	52.93	9.66	5.06	74%
4760-001 (643JB19990)	Top Coat	10.00	0.086	0.864	2.02	48.57	8.86	5.85	74%
Acrylithane 2.8 Black Cherry Metallic (4700-010)	Top Coat	10.00	0.086	0.864	2.04	48.89	8.92	5.61	74%
Acrylithane 2.8 Enamel A.P. White (4400-003)	Top Coat	10.00	0.086	0.864	2.32	55.68	10.16	6.80	74%
Acrylithane 2.8 A.P. Green (4440-004)	Top Coat	10.00	0.086	0.864	2.38	57.08	10.42	5.58	74%
Acrylithane 2.8 Clear Gloss (4700-001)	Top Coat	10.00	0.086	0.864	2.32	55.68	10.16	5.07	74%
Acrylithane 2.8 White Tint Base (4700-003)	Top Coat	10.00	0.086	0.864	2.40	57.54	10.50	7.16	74%
Acrylithane 2.8 HI Hide White Base (4700-008)	Top Coat	10.00	0.086	0.864	2.27	54.59	9.96	7.44	74%
Acrylithane 2.8 Enamel Prometheus Energy Blue (JB4700-008PEB/01)	Top Coat	10.00	0.086	0.864	2.36	56.61	10.33	7.69	74%
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	Top Coat	10.00	0.086	0.864	2.46	59.10	10.79	4.61	74%
Acrylithane 2.8 Clean Energy Blue (HHN-B50112)	Top Coat	10.00	0.086	0.864	2.49	59.72	10.90	4.70	74%
Acrylithane 2.8 Clean Energy Green (HHN-D40269)	Top Coat	10.00	0.086	0.864	2.46	59.10	10.79	4.50	74%
Chem-o-Gard I Black (3360-001)	Top Coat	10.00	0.086	0.864	1.52	36.50	6.66	**9.96**	74%
Acrylithane 2.8 Air Liquide Blue (4700-022 tinted to HHN-C51329)	Top Coat	10.00	0.086	0.864	2.37	56.76	10.36	7.79	74%
Acrylithane 2.8 Clean Energy Green (4700-022 tinted to HHN-D40269)	Top Coat	10.00	0.086	0.864	2.38	57.23	10.44	7.43	74%
Acrylithane New A.P. Green (4740-004)	Top Coat	10.00	0.086	0.864	2.39	57.39	10.47	6.93	74%
Carbothane (8845 & 8843- White 1864)	Top Coat	10.00	0.086	0.864	1.81	43.55	7.95	9.38	74%
Worst Case Emissions					**2.57**	**61.79**	**11.28**	**9.96**	
Jones-Blair (JB45072/01 & JB99951/04)	Clear Coat	4.53	0.086	0.391	**1.25**	**30.06**	**5.49**	**4.25**	74%
Sherwin Williams (R7K111)	Thinner (Solver	1.70	0.086	0.147	**1.28**	**30.81**	**5.62**	**0.00**	74%
			Total Worst Case Emissions		**9.49**	**227.79**	**41.57**	**39.39**	

Dry filter control efficiency- PM	**95.0%**	**1.97**
Dry filter control efficiency- PM10 and PM2.5	**73.0%**	**10.63**

METHODOLOGY

See pages 5 and 6 for detailed coating and solvent data

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Maximum Usage (gal/hr)

Potential VOC Pounds per Day = PTE of VOC (lb/hr) * 24 (hr/day)

Potential VOC Tons per Year = PTE of VOC (lb/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)

Total = Worst Case Primer + Worst Case Top Coat + Worst Case Clear Coat + Worst Case Thinner

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. IDEM has conservatively assumed the fabric filter only captures 95% of all particles 15 microns and larger.

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
Hazardous Air Pollutant (HAP) Emissions
From Surface Coating Operations
North Paint Booth

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
#REF! #REF!
Reviewer: Madison Spahn

North Paint Booth - HAPS

Material	Maximum Usage	Xylene	Ethyl Benzene	MIBK	Methanol	Cumene	Toluene	Benzene	Glycol Ethers	Naphthalene	Ethyl Acrylate	Formaldehyde	1,4-dioxane	Epichlorohydrin	Total HAPs
	(gal/hr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
Jones-Blair (JB33304/01 & JB99953/04)	1.296	4.14	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.83
Recoatable Epoxy Primer (B67W45 & B67V45)	1.296	2.48	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.81
Epoxy Primer (E2W932/V6V943/VS100)	1.296	0.28	0.00	1.26	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66
Epoxy Primer (E2W932P & V6V943)	1.296	0.00	0.00	1.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27
Ureprime 2.8 Primer, White (33028)	1.296	1.08	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32
Chem-O-Z HS2 Organic Zn Rich Primer (33910)	1.296	1.55	0.33	0.00	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	0.00	2.93
Worst Case Emissions		**4.14**	**0.68**	**1.27**	**0.00**	**0.00**	**0.13**	**0.00**	**1.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.83**
Jones-Blair (JB45070/01 & JB99951/04)	0.864	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49
Acrylithane 2.8 Frost Metallic (4760-004)	0.864	0.78	0.13	0.00	0.02	0.00	0.01	0.00	0.68	0.00	0.00	0.00	0.00	0.00	1.62
4760-001 (643JB19990)	0.864	0.25	0.04	0.00	0.00	0.03	0.01	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.66
Acrylithane 2.8 Black Cherry Metallic (4700-010)	0.864	0.27	0.04	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Acrylithane 2.8 Enamel A.P. White (4400-003)	0.864	0.48	0.09	0.00	0.01	0.00	0.02	0.00	1.45	0.00	0.00	0.00	0.00	0.00	2.05
Acrylithane 2.8 A.P. Green (4440-004)	0.864	0.52	0.09	0.00	0.02	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	1.08
Acrylithane 2.8 Clear Gloss (4700-001)	0.864	0.42	0.07	0.00	0.02	0.00	0.02	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.89
Acrylithane 2.8 White Tint Base (4700-003)	0.864	1.37	0.23	0.00	0.02	0.00	0.01	0.00	1.23	0.00	0.00	0.00	0.00	0.00	2.86
Acrylithane 2.8 HI Hide White Base (4700-008)	0.864	0.73	0.12	0.00	0.01	0.00	0.04	0.00	1.25	0.00	0.00	0.00	0.00	0.00	2.17
Acrylithane 2.8 Enamel Prometheus Energy Blue (JB4700-008PEB/01)	0.864	1.66	0.25	0.00	0.02	0.00	0.02	0.00	1.67	0.00	0.00	0.00	0.00	0.00	3.62
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	0.864	0.59	0.10	0.00	0.01	0.00	0.01	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.96
Acrylithane 2.8 Clean Energy Blue (HHN-B50112)	0.864	0.80	0.14	0.00	0.02	0.00	0.01	0.00	0.71	0.00	0.00	0.00	0.00	0.00	1.68
Acrylithane 2.8 Clean Energy Green (HHN-D40269)	0.864	0.79	0.14	0.00	0.02	0.00	0.01	0.00	0.71	0.00	0.00	0.00	0.00	0.00	1.66
Chem-o-Gard I Black (3360-001)	0.864	1.10	0.16	0.55	0.00	0.03	0.01	0.00	0.00	0.04	0.00	0.00	0.00	0.00	1.89
Acrylithane 2.8 Air Liquide Blue (4700-022 tinted to HHN-C51329)	0.864	1.45	0.24	0.00	0.01	0.00	0.02	0.00	0.87	0.00	0.00	0.00	0.00	0.00	2.59
Acrylithane 2.8 Clean Energy Green (4700-022 tinted to HHN-D40269)	0.864	1.40	0.24	0.00	0.01	0.00	0.02	0.00	0.84	0.00	0.00	0.00	0.00	0.00	2.51
Acrylithane New A.P. Green (4740-004)	0.864	1.55	0.26	0.00	0.01	0.00	0.02	0.00	0.92	0.00	0.00	0.00	0.00	0.00	2.76
Carbothane (8845 & 8843- White 1864)	0.864	0.30	0.15	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53
Worst Case Emissions		**1.66**	**0.49**	**0.55**	**0.04**	**0.04**	**0.04**	**0.00**	**1.67**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**3.62**
Jones-Blair (JB45072/01 & JB99951/04)	0.391	0.38	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57
Sherwin Williams (R7K54)	0.147	0.96	0.17	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.35
		7.14	**1.54**	**4.03**	**0.04**	**0.04**	**0.17**	**0.00**	**2.72**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**12.35**

METHODOLOGY
PTE HAPs = Maximum Usage (gal/hr) * HAP Content (lb/gal) * 8,760 (hr/yr) * 1/2,000 (ton/lb)
Total = Worst Case Primer + Worst Case Top Coat + Worst Case Clear Coat + Worst Case Thinner
See pages 5 and 6 for detailed coating and solvent data

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

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
Reviewer: Madison Spahn

South Paint Booth - PM and VOC

Material		Gal of Mat. (gal/unit)	Maximum (unit/hour)	Maximum usage (gal/hr)	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE PM/PM10 before control (ton/yr)	Transfer Efficiency
Jones-Blair (JB33304/01 & JB99953/04)	Primer	15.00	0.086	1.296	**4.38**	**105.13**	**19.19**	13.36	74%
Recoatable Epoxy Primer (B67W45 & B67V45)	Primer	15.00	0.086	1.296	0.64	15.24	2.78	16.40	74%
Epoxy Primer (E2W932/V6V943/VS100)	Primer	15.00	0.086	1.296	4.04	97.04	17.71	10.66	74%
Epoxy Primer (E2W932P & V6V943)	Primer	15.00	0.086	1.296	4.04	97.04	17.71	11.21	74%
Ureprime 2.8 Primer, White (33028)	Primer	15.00	0.086	1.296	3.63	87.01	15.88	10.97	74%
Chem-O-Z HS2 Organic Zn Rich Primer (33910)	Primer	15.00	0.086	1.296	2.67	64.00	11.68	**25.18**	74%
Worst Case Emissions					**4.38**	**105.13**	**19.19**	**25.18**	
Jones-Blair (JB45070/01 & JB99951/04)	Top Coat	10.00	0.086	0.864	**2.57**	**61.79**	**11.28**	7.21	74%
Acrylithane 2.8 Frost Metallic (4760-004)	Top Coat	10.00	0.086	0.864	2.21	52.93	9.66	5.06	74%
4760-001 (643JB19990)	Top Coat	10.00	0.086	0.864	2.02	48.57	8.86	5.85	74%
Acrylithane 2.8 Black Cherry Metallic (4700-010)	Top Coat	10.00	0.086	0.864	2.04	48.89	8.92	5.61	74%
Acrylithane 2.8 Enamel A.P. White (4400-003)	Top Coat	10.00	0.086	0.864	2.32	55.68	10.16	6.80	74%
Acrylithane 2.8 A.P. Green (4440-004)	Top Coat	10.00	0.086	0.864	2.38	57.08	10.42	5.58	74%
Acrylithane 2.8 Clear Gloss (4700-001)	Top Coat	10.00	0.086	0.864	2.32	55.68	10.16	5.07	74%
Acrylithane 2.8 White Tint Base (4700-003)	Top Coat	10.00	0.086	0.864	2.40	57.54	10.50	7.16	74%
Acrylithane 2.8 HI Hide White Base (4700-008)	Top Coat	10.00	0.086	0.864	2.27	54.59	9.96	7.44	74%
Acrylithane 2.8 Enamel Prometheus Energy Blue (JB4700-008PEB/01)	Top Coat	10.00	0.086	0.864	2.36	56.61	10.33	7.69	74%
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	Top Coat	10.00	0.086	0.864	2.46	59.10	10.79	4.61	74%
Acrylithane 2.8 Clean Energy Blue (HHN-B50112)	Top Coat	10.00	0.086	0.864	2.49	59.72	10.90	4.70	74%
Acrylithane 2.8 Clean Energy Green (HHN-D40269)	Top Coat	10.00	0.086	0.864	2.46	59.10	10.79	4.50	74%
Chem-o-Gard I Black (3360-001)	Top Coat	10.00	0.086	0.864	1.52	36.50	6.66	**9.96**	74%
Acrylithane 2.8 Air Liquide Blue (4700-022 tinted to HHN-C51329)	Top Coat	10.00	0.086	0.864	2.37	56.76	10.36	7.79	74%
Acrylithane 2.8 Clean Energy Green (4700-022 tinted to HHN-D40269)	Top Coat	10.00	0.086	0.864	2.38	57.23	10.44	7.43	74%
Acrylithane New A.P. Green (4740-004)	Top Coat	10.00	0.086	0.864	2.39	57.39	10.47	6.93	74%
Carbothane (8845 & 8843- White 1864)	Top Coat	10.00	0.086	0.864	1.81	43.55	7.95	9.38	74%
Worst Case Emissions					**2.57**	**61.79**	**11.28**	**9.96**	
Jones-Blair (JB45072/01 & JB99951/04)	Clear Coat	4.53	0.086	0.391	**1.25**	**30.06**	**5.49**	**4.25**	74%
Sherwin Williams (R7K111)	Thinner (Solver	1.70	0.086	0.147	**1.28**	**30.81**	**5.62**	**0.00**	74%
			Total Worst Case Emissions		**9.49**	**227.79**	**41.57**	**39.39**	

Dry filter control efficiency- PM	**95.0%**	**1.97**
Dry filter control efficiency- PM10 and PM2.5	**73.0%**	**10.63**

METHODOLOGY

See pages 5 and 6 for detailed coating and solvent data

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Maximum Usage (gal/hr)

Potential VOC Pounds per Day = PTE of VOC (lb/hr) * 24 (hr/day)

Potential VOC Tons per Year = PTE of VOC (lb/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)

Total = Worst Case Primer + Worst Case Top Coat + Worst Case Clear Coat + Worst Case Thinner

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. IDEM has conservatively assumed the fabric filter only captures 95% of all particles 15 microns and larger.

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
Hazardous Air Pollutant (HAP) Emissions
From Surface Coating Operations
South Paint Booth

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
#REF! #REF!
Reviewer: Madison Spahn

South Paint Booth - HAPS

Material	Maximum Usage	Xylene	Ethyl Benzene	MIBK	Methanol	Cumene	Toluene	Benzene	Glycol Ethers	Naphthalene	Ethyl Acrylate	Formaldehyde	1,4-dioxane	Epichlorohydrin	Total HAPs
	(gal/hr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
Jones-Blair (JB33304/01 & JB99953/04)	1.296	4.14	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.83
Recoatable Epoxy Primer (B67W45 & B67V45)	1.296	2.48	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.81
Epoxy Primer (E2W932/V6V943/VS100)	1.296	0.28	0.00	1.26	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66
Epoxy Primer (E2W932P & V6V943)	1.296	0.00	0.00	1.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27
Ureprime 2.8 Primer, White (33028)	1.296	1.08	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32
Chem-O-Z HS2 Organic Zn Rich Primer (33910)	1.296	1.55	0.33	0.00	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	0.00	2.93
Worst Case Emissions		**4.14**	**0.68**	**1.27**	**0.00**	**0.00**	**0.13**	**0.00**	**1.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.83**
Jones-Blair (JB45070/01 & JB99951/04)	0.864	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49
Acrylithane 2.8 Frost Metallic (4760-004)	0.864	0.78	0.13	0.00	0.02	0.00	0.01	0.00	0.68	0.00	0.00	0.00	0.00	0.00	1.62
4760-001 (643JB19990)	0.864	0.25	0.04	0.00	0.00	0.03	0.01	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.66
Acrylithane 2.8 Black Cherry Metallic (4700-010)	0.864	0.27	0.04	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Acrylithane 2.8 Enamel A.P. White (4400-003)	0.864	0.48	0.09	0.00	0.01	0.00	0.02	0.00	1.45	0.00	0.00	0.00	0.00	0.00	2.05
Acrylithane 2.8 A.P. Green (4440-004)	0.864	0.52	0.09	0.00	0.02	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	1.08
Acrylithane 2.8 Clear Gloss (4700-001)	0.864	0.42	0.07	0.00	0.02	0.00	0.02	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.89
Acrylithane 2.8 White Tint Base (4700-003)	0.864	1.37	0.23	0.00	0.02	0.00	0.01	0.00	1.23	0.00	0.00	0.00	0.00	0.00	2.86
Acrylithane 2.8 HI Hide White Base (4700-008)	0.864	0.73	0.12	0.00	0.01	0.00	0.04	0.00	1.25	0.00	0.00	0.00	0.00	0.00	2.17
Acrylithane 2.8 Enamel Prometheus Energy Blue (JB4700-008PEB/01)	0.864	1.66	0.25	0.00	0.02	0.00	0.02	0.00	1.67	0.00	0.00	0.00	0.00	0.00	3.62
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	0.864	0.59	0.10	0.00	0.01	0.00	0.01	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.96
Acrylithane 2.8 Clean Energy Blue (HHN-B50112)	0.864	0.80	0.14	0.00	0.02	0.00	0.01	0.00	0.71	0.00	0.00	0.00	0.00	0.00	1.68
Acrylithane 2.8 Clean Energy Green (HHN-D40269)	0.864	0.79	0.14	0.00	0.02	0.00	0.01	0.00	0.71	0.00	0.00	0.00	0.00	0.00	1.66
Chem-o-Gard I Black (3360-001)	0.864	1.10	0.16	0.55	0.00	0.03	0.01	0.00	0.00	0.04	0.00	0.00	0.00	0.00	1.89
Acrylithane 2.8 Air Liquide Blue (4700-022 tinted to HHN-C51329)	0.864	1.45	0.24	0.00	0.01	0.00	0.02	0.00	0.87	0.00	0.00	0.00	0.00	0.00	2.59
Acrylithane 2.8 Clean Energy Green (4700-022 tinted to HHN-D40269)	0.864	1.40	0.24	0.00	0.01	0.00	0.02	0.00	0.84	0.00	0.00	0.00	0.00	0.00	2.51
Acrylithane New A.P. Green (4740-004)	0.864	1.55	0.26	0.00	0.01	0.00	0.02	0.00	0.92	0.00	0.00	0.00	0.00	0.00	2.76
Carbothane (8845 & 8843- White 1864)	0.864	0.30	0.15	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53
Worst Case Emissions		**1.66**	**0.49**	**0.55**	**0.04**	**0.04**	**0.04**	**0.00**	**1.67**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**3.62**
Jones-Blair (JB45072/01 & JB99951/04)	0.391	0.38	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57
Sherwin Williams (R7K54)	0.147	0.96	0.17	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.35
		7.14	**1.54**	**4.03**	**0.04**	**0.04**	**0.17**	**0.00**	**2.72**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**12.35**

METHODOLOGY
PTE HAPs = Maximum Usage (gal/hr) * HAP Content (lb/gal) * 8,760 (hr/yr) * 1/2,000 (ton/lb)
Total = Worst Case Primer + Worst Case Top Coat + Worst Case Clear Coat + Worst Case Thinner
See pages 5 and 6 for detailed coating and solvent data

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, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
Reviewer: Madison Spahn

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[8]	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[8]	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]	0.011	50%	Aerosol Spray Can
SEM39683	SEM Self Etching Gray Primer (8 oz) Aerosol[8]	0.015	50%	Aerosol Spray Can
SUNDRIES:	Transtar 1K Self-Etching Primer (8 oz) Aerosol[8]	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
8. Used to spot treat aluminum parts

			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]	0.011	0.006	0.025	0.025	0.001	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[8]	0.015	0.000	0.084	0.084	0.004	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[8]	0.002	0.000	0.005	0.005	0.0003	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	0.000	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**	**0.006**	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. IDEM has conservatively assumed the fabric filter only captures 95% of all particles 15 microns and larger.
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
North and South paint Booths Surface Prep Operation (SP)

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
Reviewer: Madison Spahn

Paint Booths, Surface Preperation (SP)*

Material		Gal of Mat. (gal/unit)	Maximum (unit/hour)	Maximum usage (gal/hr)	Transfer Efficiency	Density (lb/gal)	Weight % Solids	Solids (lb/gal)	10 % Solids (lb/gal)	Uncontrolled PM Emissions (ton/yr)	Controlled PM Emissions (ton/yr)	Controlled PM10 and PM2.5 Emissions (ton/yr)
Jones-Blair (JB33304/01 & JB99953/04)	Primer	15.00	0.086	1.296	74%	12.43	72.81	9.05	0.91	3.80	0.19	1.03
Recoatable Epoxy Primer (B67W45 & B67V45)	Primer	15.00	0.086	1.296	74%	14.56	76.30	11.11	1.11	4.67	0.23	1.26
Epoxy Primer (E2W932/V6V943/VS100)	Primer	15.00	0.086	1.296	74%	10.98	65.80	7.22	0.72	3.03	0.15	0.82
Epoxy Primer (E2W932P & V6V943)	Primer	15.00	0.086	1.296	74%	11.20	67.80	7.59	0.76	3.19	0.16	0.86
Ureprime 2.8 Primer, White (33028)	Primer	15.00	0.086	1.296	74%	11.08	67.11	7.44	0.74	3.12	0.16	0.84
Chem-O-Z HS2 Organic Zn Rich Primer (33910)	Primer	15.00	0.086	1.296	74%	19.07	89.48	17.06	1.71	7.17	0.36	1.93
Worst Case Emissions										**7.17**	**0.36**	**1.93**
Jones-Blair (JB45070/01 & JB99951/04)	Top Coat	10.00	0.086	0.864	74%	10.27	71.40	7.33	0.73	2.05	0.10	0.55
Acrylithane 2.8 Frost Metallic (4760-004)	Top Coat	10.00	0.086	0.864	74%	8.82	58.28	5.14	0.51	1.44	0.07	0.39
4760-001 (643JB19990)	Top Coat	10.00	0.086	0.864	74%	8.82	67.43	5.94	0.59	1.66	0.08	0.45
Acrylithane 2.8 Black Cherry Metallic (4700-010)	Top Coat	10.00	0.086	0.864	74%	8.98	63.53	5.70	0.57	1.60	0.08	0.43
Acrylithane 2.8 Enamel A.P. White (4400-003)	Top Coat	10.00	0.086	0.864	74%	11.08	67.11	7.44	0.74	2.08	0.10	0.56
Acrylithane 2.8 A.P. Green (4440-004)	Top Coat	10.00	0.086	0.864	74%	19.07	89.48	17.06	1.71	4.78	0.24	1.29
Acrylithane 2.8 Clear Gloss (4700-001)	Top Coat	10.00	0.086	0.864	74%	10.24	67.48	6.91	0.69	1.94	0.10	0.52
Acrylithane 2.8 White Tint Base (4700-003)	Top Coat	10.00	0.086	0.864	74%	9.14	62.08	5.67	0.57	1.59	0.08	0.43
Acrylithane 2.8 HI Hide White Base (4700-008)	Top Coat	10.00	0.086	0.864	74%	8.63	59.68	5.15	0.51	1.44	0.07	0.39
Acrylithane 2.8 Enamel Prometheus Energy Blue (JB4700-008PEB/01)	Top Coat	10.00	0.086	0.864	74%	10.60	68.62	7.27	0.73	2.04	0.10	0.55
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	Top Coat	10.00	0.086	0.864	74%	10.46	72.28	7.56	0.76	2.12	0.11	0.57
Acrylithane 2.8 Clean Energy Blue (HHN-B50112)	Top Coat	10.00	0.086	0.864	74%	10.95	71.41	7.82	0.78	2.19	0.11	0.59
Acrylithane 2.8 Clean Energy Green (HHN-D40269)	Top Coat	10.00	0.086	0.864	74%	8.80	53.20	4.68	0.47	1.31	0.07	0.35
Chem-o-Gard I Black (3360-001)	Top Coat	10.00	0.086	0.864	74%	8.63	55.38	4.78	0.48	1.34	0.07	0.36
Acrylithane 2.8 Air Liquide Blue (4700-022 tinted to HHN-C51329)	Top Coat	10.00	0.086	0.864	74%	8.57	53.42	4.58	0.46	1.28	0.06	0.35
Acrylithane 2.8 Clean Energy Green (4700-022 tinted to HHN-D40269)	Top Coat	10.00	0.086	0.864	74%	11.85	85.39	10.12	1.01	2.83	0.14	0.77
Acrylithane New A.P. Green (4740-004)	Top Coat	10.00	0.086	0.864	74%	11.07	71.50	7.92	0.79	2.22	0.11	0.60
Carbothane (8845 & 8843- White 1864)	Top Coat	10.00	0.086	0.864	74%	11.56	82.50	9.54	0.95	2.67	0.13	0.72
Worst Case Emissions										**4.78**	**0.24**	**1.29**
Jones-Blair (JB45072/01 & JB99951/04)	Clear Coat	4.53	0.086	0.391	74%	8.60	61.80	5.31	0.53	0.67	0.03	0.18
				Total Worst Case Emissions						**12.62**	**0.63**	**3.15**

METHODOLOGY

10.2054

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%. IDEM has conservatively assumed the fabric filter only captures 95% of all particles 15 microns and larger.

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 Volitile Organic Compound (VOC) Emissions
From Surface Coating Operations
Paint Booth 3

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
#REF! #REF!
Reviewer: Madison Spahn

Paint Booth 3 - PM and VOC

Material		Gal of Mat. (gal/unit)	Maximum (unit/hour)	Maximum usage (gal/hr)	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE PM/PM10 before control (ton/yr)	Transfer Efficiency
Jones-Blair (JB33304/01 & JB99953/04)	Primer	15.00	0.086	1.296	**4.38**	**105.13**	**19.19**	13.36	74%
Recoatable Epoxy Primer (B67W45 & B67V45)	Primer	15.00	0.086	1.296	0.64	15.24	2.78	16.40	74%
Epoxy Primer (E2W932/V8V943/VS100)	Primer	15.00	0.086	1.296	4.04	97.04	17.71	10.66	74%
Epoxy Primer (E2W932P & V8V943)	Primer	15.00	0.086	1.296	4.04	97.04	17.71	11.21	74%
Ureprime 2.8 Primer, White (33028)	Primer	15.00	0.086	1.296	3.63	87.01	15.88	10.97	74%
Chem-O-Z HS2 Organic Zn Rich Primer (33910)	Primer	15.00	0.086	1.296	2.67	64.00	11.68	**25.18**	74%
Worst Case Emissions					**4.38**	**105.13**	**19.19**	**25.18**	
Jones-Blair (JB45070/01 & JB99951/04)	Top Coat	10.00	0.086	0.864	**2.57**	**61.79**	**11.28**	7.21	74%
Acrylithane 2.8 Frost Metallic (4760-004)	Top Coat	10.00	0.086	0.864	2.21	52.93	9.66	5.06	74%
4760-001 (643JB19990)	Top Coat	10.00	0.086	0.864	2.02	48.57	8.86	5.85	74%
Acrylithane 2.8 Black Cherry Metallic (4700-010)	Top Coat	10.00	0.086	0.864	2.04	48.89	8.92	5.61	74%
Acrylithane 2.8 Enamel A.P. White (4400-003)	Top Coat	10.00	0.086	0.864	2.32	55.68	10.16	6.80	74%
Acrylithane 2.8 A.P. Green (4440-004)	Top Coat	10.00	0.086	0.864	2.38	57.08	10.42	5.58	74%
Acrylithane 2.8 Clear Gloss (4700-001)	Top Coat	10.00	0.086	0.864	2.32	55.68	10.16	5.07	74%
Acrylithane 2.8 White Tint Base (4700-003)	Top Coat	10.00	0.086	0.864	2.40	57.54	10.50	7.16	74%
Acrylithane 2.8 HI Hide White Base (4700-008)	Top Coat	10.00	0.086	0.864	2.27	54.59	9.96	7.44	74%
Acrylithane 2.8 Enamel Prometheus Energy Blue (JB4700-008PEB/01)	Top Coat	10.00	0.086	0.864	2.36	56.61	10.33	7.69	74%
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	Top Coat	10.00	0.086	0.864	2.46	59.10	10.79	4.61	74%
Acrylithane 2.8 Clean Energy Blue (HHN-B50112)	Top Coat	10.00	0.086	0.864	2.49	59.72	10.90	4.70	74%
Acrylithane 2.8 Clean Energy Green (HHN-D40269)	Top Coat	10.00	0.086	0.864	2.46	59.10	10.79	4.50	74%
Chem-o-Gard I Black (3360-001)	Top Coat	10.00	0.086	0.864	1.52	36.50	6.66	**9.96**	74%
Acrylithane 2.8 Air Liquide Blue (4700-022 tinted to HHN-C51329)	Top Coat	10.00	0.086	0.864	2.37	56.76	10.36	7.79	74%
Acrylithane 2.8 Clean Energy Green (4700-022 tinted to HHN-D40269)	Top Coat	10.00	0.086	0.864	2.38	57.23	10.44	7.43	74%
Acrylithane New A.P. Green (4740-004)	Top Coat	10.00	0.086	0.864	2.39	57.39	10.47	6.93	74%
Carbothane (8845 & 8843- White 1864)	Top Coat	10.00	0.086	0.864	1.81	43.55	7.95	9.38	74%
Worst Case Emissions					**2.57**	**61.79**	**11.28**	**9.96**	
Jones-Blair (JB45072/01 & JB99951/04)	Clear Coat	4.53	0.086	0.391	**1.25**	**30.06**	**5.49**	**4.25**	74%
Sherwin Williams (R7K111)	Thinner (Solver	1.70	0.086	0.147	**1.28**	**30.81**	**5.62**	**0.00**	74%
			Total Worst Case Emissions		**9.49**	**227.79**	**41.57**	**39.39**	

Dry filter control efficiency- PM	**95.0%**	**1.97**
Dry filter control efficiency- PM10 and PM2.5	**73.0%**	**10.63**

METHODOLOGY

See pages 5 and 6 for detailed coating and solvent data

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Maximum Usage (gal/hr)

Potential VOC Pounds per Day = PTE of VOC (lb/hr) * 24 (hr/day)

Potential VOC Tons per Year = PTE of VOC (lb/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)

Total = Worst Case Primer + Worst Case Top Coat + Worst Case Clear Coat + Worst Case Thinner

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. IDEM has conservatively assumed the fabric filter only captures 95% of all particles 15 microns and larger.

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
Hazardous Air Pollutant (HAP) Emissions
From Surface Coating Operations
Paint Booth 3

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
Reviewer: Madison Spahn

Paint Booth 3 - HAPS

Material	Maximum Usage	Xylene	Ethyl Benzene	MIBK	Methanol	Cumene	Toluene	Benzene	Glycol Ethers	Naphthalene	Ethyl Acrylate	Formaldehyde	1,4-dioxane	Epichlorohydrin	Total HAPs
	(gal/hr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
Jones-Blair (JB33304/01 & JB99953/04)	1.296	4.14	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.83
Recoatable Epoxy Primer (B67W45 & B67V45)	1.296	2.48	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.81
Epoxy Primer (E2W932/V8V943/VS100)	1.296	0.28	0.00	1.26	0.00	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.66
Epoxy Primer (E2W932P & V8V943)	1.296	0.00	0.00	1.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.27
Ureprime 2.8 Primer, White (33028)	1.296	1.08	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.32
Chem-O-Z HS2 Organic Zn Rich Primer (33910)	1.296	1.55	0.33	0.00	0.00	0.00	0.00	0.00	1.05	0.00	0.00	0.00	0.00	0.00	2.93
Worst Case Emissions		**4.14**	**0.68**	**1.27**	**0.00**	**0.00**	**0.13**	**0.00**	**1.05**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.83**
Jones-Blair (JB45070/01 & JB99951/04)	0.864	0.00	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.49
Acrylithane 2.8 Frost Metallic (4760-004)	0.864	0.78	0.13	0.00	0.02	0.00	0.01	0.00	0.68	0.00	0.00	0.00	0.00	0.00	1.62
4760-001 (643JB19990)	0.864	0.25	0.04	0.00	0.00	0.03	0.01	0.00	0.32	0.00	0.00	0.00	0.00	0.00	0.66
Acrylithane 2.8 Black Cherry Metallic (4700-010)	0.864	0.27	0.04	0.00	0.01	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.34
Acrylithane 2.8 Enamel A.P. White (4400-003)	0.864	0.48	0.09	0.00	0.01	0.00	0.02	0.00	1.45	0.00	0.00	0.00	0.00	0.00	2.05
Acrylithane 2.8 A.P. Green (4440-004)	0.864	0.52	0.09	0.00	0.02	0.00	0.00	0.00	0.44	0.00	0.00	0.00	0.00	0.00	1.08
Acrylithane 2.8 Clear Gloss (4700-001)	0.864	0.42	0.07	0.00	0.02	0.00	0.02	0.00	0.37	0.00	0.00	0.00	0.00	0.00	0.89
Acrylithane 2.8 White Tint Base (4700-003)	0.864	1.37	0.23	0.00	0.02	0.00	0.01	0.00	1.23	0.00	0.00	0.00	0.00	0.00	2.86
Acrylithane 2.8 HI Hide White Base (4700-008)	0.864	0.73	0.12	0.00	0.01	0.00	0.04	0.00	1.25	0.00	0.00	0.00	0.00	0.00	2.17
Acrylithane 2.8 Enamel Prometheus Energy Blue (JB4700 008PEB/01)	0.864	1.66	0.25	0.00	0.02	0.00	0.02	0.00	1.67	0.00	0.00	0.00	0.00	0.00	3.62
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	0.864	0.59	0.10	0.00	0.01	0.00	0.01	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.96
Acrylithane 2.8 Clean Energy Blue (HHN-B50112)	0.864	0.80	0.14	0.00	0.02	0.00	0.01	0.00	0.71	0.00	0.00	0.00	0.00	0.00	1.68
Acrylithane 2.8 Clean Energy Green (HHN-D40269)	0.864	0.79	0.14	0.00	0.02	0.00	0.01	0.00	0.71	0.00	0.00	0.00	0.00	0.00	1.66
Chem-o-Gard I Black (3360-001)	0.864	1.10	0.16	0.55	0.00	0.03	0.01	0.00	0.00	0.04	0.00	0.00	0.00	0.00	1.89
Acrylithane 2.8 Air Liquide Blue (4700-022 tinted to HHN-C51329)	0.864	1.45	0.24	0.00	0.01	0.00	0.02	0.00	0.87	0.00	0.00	0.00	0.00	0.00	2.59
Acrylithane 2.8 Clean Energy Green (4700-022 tinted to HHN-D40269)	0.864	1.40	0.24	0.00	0.01	0.00	0.02	0.00	0.84	0.00	0.00	0.00	0.00	0.00	2.51
Acrylithane New A.P. Green (4740-004)	0.864	1.55	0.26	0.00	0.01	0.00	0.02	0.00	0.92	0.00	0.00	0.00	0.00	0.00	2.76
Carbothane (8845 & 8843- White 1864)	0.864	0.30	0.15	0.00	0.04	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53
Worst Case Emissions		**1.66**	**0.49**	**0.55**	**0.04**	**0.04**	**0.04**	**0.00**	**1.67**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**3.62**
Jones-Blair (JB45072/01 & JB99951/04)	0.391	0.38	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57
Sherwin Williams (R7K54)	0.147	0.96	0.17	2.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.35
		7.14	**1.54**	**4.03**	**0.04**	**0.04**	**0.17**	**0.00**	**2.72**	**0.04**	**0.00**	**0.00**	**0.00**	**0.00**	**12.35**

METHODOLOGY
PTE HAPs = Maximum Usage (gal/hr) * HAP Content (lb/gal) * 8,760 (hr/yr) * 1/2,000 (ton/lb)
Total = Worst Case Primer + Worst Case Top Coat + Worst Case Clear Coat + Worst Case Thinner
See pages 5 and 6 for detailed coating and solvent data

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, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
Reviewer: Madison Spahn

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[8]	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[8]	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[8]	0.007	50%	Aerosol Spray Can
SUNDRIES:	Transtar 1K Self-Etching Primer (8 oz) Aerosol[8]	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
8. Used to spot treat aluminum parts

			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	0.001	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[8]	0.007	0	0.042	0.042	0.002	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[8]	0.001	0	0.003	0.003	0.0001	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	0	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**	**2.86E-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. IDEM has conservatively assumed the fabric filter only captures 95% of all particles 15 microns and larger.
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
Paint Booth 3 Surface Prep Operation (SP)

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
Reviewer: Madison Spahn

Paint Booth, Surface Preperation (SP)*

Material		Gal of Mat. (gal/unit)	Maximum (unit/hour)	Maximum usage (gal/hr)	Transfer Efficiency	Density (lb/gal)	Weight % Solids	Solids (lb/gal)	10 % Solids (lb/gal)	Uncontrolled PM Emissions (ton/yr)	Controlled PM Emissions (ton/yr)	Controlled PM10 and PM2.5 Emissions (ton/yr)
Jones-Blair (JB33304/01 & JB99953/04)	Primer	7.50	0.043	0.323	74%	12.43	72.81	9.05	0.91	0.95	0.05	0.69
Recoatable Epoxy Primer (B67W45 & B67V45)	Primer	7.50	0.043	0.323	74%	14.56	76.30	11.11	1.11	1.16	0.06	0.31
Epoxy Primer (E2W932/V6V943/VS100)	Primer	7.50	0.043	0.323	74%	10.98	65.80	7.22	0.72	0.76	0.04	0.20
Epoxy Primer (E2W932P & V6V943)	Primer	7.50	0.043	0.323	74%	11.20	67.80	7.59	0.76	0.79	0.04	0.21
Ureprime 2.8 Primer, White (33028)	Primer	7.50	0.043	0.323	74%	11.08	67.11	7.44	0.74	0.78	0.04	0.21
Chem-O-Z HS2 Organic Zn Rich Primer (33910)	Primer	7.50	0.043	0.323	74%	19.07	89.48	17.06	1.71	1.78	0.09	0.48
Worst Case Emissions										**1.78**	**0.09**	**0.69**
Jones-Blair (JB45070/01 & JB99951/04)	Top Coat	7.50	0.043	0.323	74%	10.27	71.40	7.33	0.73	0.77	0.04	0.21
Acrylithane 2.8 Frost Metallic (4760-004)	Top Coat	7.50	0.043	0.323	74%	8.82	58.28	5.14	0.51	0.54	0.03	0.15
4760-001 (643JB19990)	Top Coat	7.50	0.043	0.323	74%	8.82	67.43	5.94	0.59	0.62	0.03	0.17
Acrylithane 2.8 Black Cherry Metallic (4700-010)	Top Coat	7.50	0.043	0.323	74%	8.98	63.53	5.70	0.57	0.60	0.03	0.16
Acrylithane 2.8 Enamel A.P. White (4400-003)	Top Coat	7.50	0.043	0.323	74%	11.08	67.11	7.44	0.74	0.78	0.04	0.21
Acrylithane 2.8 A.P. Green (4440-004)	Top Coat	7.50	0.043	0.323	74%	19.07	89.48	17.06	1.71	1.78	0.09	0.48
Acrylithane 2.8 Clear Gloss (4700-001)	Top Coat	7.50	0.043	0.323	74%	10.24	67.48	6.91	0.69	0.72	0.04	0.20
Acrylithane 2.8 White Tint Base (4700-003)	Top Coat	7.50	0.043	0.323	74%	9.14	62.08	5.67	0.57	0.59	0.03	0.16
Acrylithane 2.8 HI Hide White Base (4700-008)	Top Coat	7.50	0.043	0.323	74%	8.63	59.68	5.15	0.51	0.54	0.03	0.15
Acrylithane 2.8 Enamel Prometheus Energy Blue (JB4700-008PEB/01)	Top Coat	7.50	0.043	0.323	74%	10.60	68.62	7.27	0.73	0.76	0.04	0.21
Acrylithane 2.8 Black Cherry Metallic (AWX177-1)	Top Coat	7.50	0.043	0.323	74%	10.46	72.28	7.56	0.76	0.79	0.04	0.21
Acrylithane 2.8 Clean Energy Blue (HHN-B50112)	Top Coat	7.50	0.043	0.323	74%	10.95	71.41	7.82	0.78	0.82	0.04	0.22
Acrylithane 2.8 Clean Energy Green (HHN-D40269)	Top Coat	7.50	0.043	0.323	74%	8.80	53.20	4.68	0.47	0.49	0.02	0.13
Chem-o-Gard I Black (3360-001)	Top Coat	7.50	0.043	0.323	74%	8.63	55.38	4.78	0.48	0.50	0.02	0.13
Acrylithane 2.8 Air Liquide Blue (4700-022 tinted to HHN-C51329)	Top Coat	7.50	0.043	0.323	74%	8.57	53.42	4.58	0.46	0.48	0.02	0.13
Acrylithane 2.8 Clean Energy Green (4700-022 tinted to HHN-D40269)	Top Coat	7.50	0.043	0.323	74%	11.85	85.39	10.12	1.01	1.06	0.05	0.29
Acrylithane New A.P. Green (4740-004)	Top Coat	7.50	0.043	0.323	74%	11.07	71.50	7.92	0.79	0.83	0.04	0.22
Carbothane (8845 & 8843- White 1864)	Top Coat	7.50	0.043	0.323	74%	11.56	82.50	9.54	0.95	1.00	0.05	0.27
Worst Case Emissions										**1.78**	**0.09**	**0.48**
Jones-Blair (JB45072/01 & JB99951/04)	Clear Coat	7.50	0.043	0.323	74%	8.60	61.80	5.31	0.53	0.56	0.03	0.15
			Total Worst Case Emissions							**4.12**	**0.21**	**1.11**

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%. IDEM has conservatively assumed the fabric filter only captures 95% of all particles 15 microns and larger.

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
VOC and Particulate
Parts Washer

Company Name: **Alloy Custom Products, LLC**
Address City IN Zip: **9701 Old SR 25 North, Lafayette, Indiana 47905**
FESOP No.: **F157-47177-00461**
Reviewer: **Madison Spahn**

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	32.00	6.68	0.11
			Total:	**0.11**

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

Company Name: Alloy Custom Products, LLC
Address City IN Zip: 9701 Old SR 25 North, Lafayette, Indiana 47905
FESOP No.: F157-47177-00461
Reviewer: Madison Spahn

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	0.257
Gas Metal Arc (MIG)(ER5154)	13	2.5	32.5	2.41E-02	3.40E-05	0	0	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	0.101
Stick (E7024 electrode)	1	0.25	0.25	9.20E-03	6.29E-04	0	0	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)(carbon steel)	1	1	1	5.50E-03	5.00E-04	0.00E+00	0.00E+00	0.00E+00	0.006	5.00E-04	0.00E+00	0.00E+00	0.00E+00	0.001
Tungsten Inert Gas (TIG)(Aluminum)	9	0.2	1.8	2.41E-02	3.40E-04	0	0	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
Flux Core Welding	1	3	3	1.51E-02	8.91E-03	5.00E-05		4.00E-05	0.045	2.67E-02	1.50E-04	0.00E+00	1.20E-04	0.027

	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	0.01	0	0	0	0	0
Plasma (Cut Carbon Steel)	1	0.625	110	0.0039	0	0	0	0	0.02	0	0	0	0	0
Plasma (Cut 5083 Aluminum)	1	0.5	100	0.0039	0	0	0	0	0.01	0	0	0	0	0

EMISSION TOTALS	PM = PM10	Mn	Ni	CO	Cr	Total HAPs
Potential Emissions lbs/hr	2.07	0.35	0.02	0.00	0.08	0.46
Potential Emissions lbs/day	49.61	8.52	0.42	0.05	2.00	10.99
Potential Emissions tons/year	**9.05**	**1.55**	**0.08**	**0.009**	**0.36**	**2.01**

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)
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
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: **Alloy Custom Products, LLC**
Address City IN Zip: **9701 Old SR 25 North, Lafayette, Indiana 47905**
FESOP No.: **F157-47177-00461**
Reviewer: **Madison Spahn**

Unit	Heat Input
Air Make-Up	3.40
Air Make-Up	1.88
16 Space Heaters	4.00
3 Space Heaters	0.90
2 Space Heaters	0.40
4 Forced-Air Furnaces	0.80
2 Forced-Air Furnaces	0.04
Total	**11.42**

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
11.4	1020	98.1

	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	0.1	0.4	0.4	0.0	4.9	0.3	4.1

*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

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
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	1.03E-04	5.88E-05	3.68E-03	8.83E-02	1.67E-04	**9.23E-02**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
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	2.45E-05	5.39E-05	6.86E-05	1.86E-05	1.03E-04	**2.69E-04**
					Total HAPs	**9.25E-02**
					Worst HAP	**8.83E-02**

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
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Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Evan Mills
Alloy Custom Products LLC
9701 Old SR 25 N
Lafayette, IN 47905

DATE: June 26, 2024

FROM: Jenny Acker, Branch Chief
Permits Branch
Office of Air Quality

SUBJECT: Final Decision
FESOP Renewal
157-47177-00461

This notice is to inform you that a final decision has been issued for the air permit application referenced above.

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. In addition, the Notice of Decision has been sent to the OAQ Permits Branch Interested Parties List and, if applicable, the Consultant/Agent and/or Responsible Official/Authorized Individual.

The final decision and supporting materials are available electronically; the original signature page is enclosed for your convenience. The final decision and supporting materials available electronically at:

IDEM's online searchable database: http://www.in.gov/apps/idem/caats/ . Choose Search Option **by Permit Number**, then enter permit 47177

and

IDEM's Virtual File Cabinet (VFC): https://www.in.gov/idem. Enter VFC in the search box, then search for permit documents using a variety of criteria, such as Program area, date range, permit #, Agency Interest Number, or Source ID.

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, or have difficulty accessing the documents online, 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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Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

June 26, 2024

TO: Tippecanoe County Public Library Downtown Library

From: Jenny Acker, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Alloy Custom Products LLC
Permit Number: 157-47177-00461

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library 1/9/2017

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Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

June 26, 2024
Alloy Custom Products LLC
157-47177-00461

To: Interested Parties

This notice is to inform you that a final decision has been issued for the air permit application referenced above. This notice is for informational purposes only. You are not required to take any action.

You are receiving this notice because you asked to be on IDEM's notification list for this company and/or county; or because your property is nearby the company being permitted; or because you represent a local/regional government entity.

The enclosed Notice of Decision Letter provides additional information about the final permit decision.

The final decision and supporting materials are available electronically at:

IDEM's online searchable database: http://www.in.gov/apps/idem/caats/ . Choose Search Option by Permit Number, then enter permit 47177

and

IDEM's Virtual File Cabinet (VFC): https://www.in.gov/idem. Enter VFC in the search box, then search for permit documents using a variety of criteria, such as Program area, date range, permit #, Agency Interest Number, or Source ID.

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.

Please Note: *If you would like to be removed from the Air Permits mailing list, please contact Joanne Smiddie-Brush with the Air Permits Administration Section at 1-800-451-6027, ext. 3-0185 or via e-mail at JBRUSH@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure
Final Interested Parties Cover Letter 10/13/2023

Mail Code 61-53

IDEM Staff	CMOSIER 6/26/2024 Alloy Custom Products LLC 157-47177-00461 (final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Evan Mills Alloy Custom Products LLC 9701 Old SR 25 N Lafayette IN 47905 (Source CAATS) via UPS									
2		Tippecanoe County Commissioners 20 N 3rd St, County Office Building Lafayette IN 47901 *(Local Official)*									
3		Tippecanoe County Health Department 20 N 3rd St Lafayette IN 47901-1211 *(Health Department)*									
4		Lafayette City Council and Mayors Office 20 N 6th St Lafayette IN 47901-1411 *(Local Official)*									
5		Tippecanoe County Public Library 627 South St Lafayette IN 47901-1470 *(Library)*									
6		Mrs. Phyllis Owens 3600 Cypress Ln Lafayette IN 47905 *(Affected Party)*									
7		Mr. Jerry White 3837 Basalt St Lafayette IN 47909 *(Affected Party)*									
8		Mr. William Cramer 128 Seminole Dr West Lafayette IN 47906 *(Affected Party)*									
9		West Lafayette City Council and Mayors Office 222 N Chauncey Ave West Lafayette IN 47906 *(Local Official)*									
10		Mr. Allen Hoffman 4740 Masons Ridge Rd Lafayette IN 47909 *(Affected Party)*									
11		Jessica Johnston Cornerstone Environmental, Health and Safety 880 Lennox Court Zionsville IN 46077 *(Consultant)*									
12											
13											
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