INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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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 28, 2024

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

Source Name: SAIC

Permit Level: MSOP Minor Permit Revision

Permit Number: 093-47795-00034

Source Location: 3290 16th Street, Bedford, IN 47421

Type of Action Taken: Revisions to permit requirements

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 47795.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.

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(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 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Indiana Office of Administrative Law Proceedings, 100 N. Senate Avenue Suite N802, 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 Indiana Office of Administrative Law Proceedings (OALP); or
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OALP 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 OALP 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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Eric J. Holcomb, *Governor*
Brian C. Rockensuess, *Commissioner*

June 28, 2024

Jeremy Stillman
SAIC
3290 16th Street
Bedford, IN 47421

Re: 093-47795-00034
Minor Permit Revision to
MSOP Renewal No. M093-37906-00034

Dear Jeremy Stillman:

SAIC was issued a Minor Source Operating Permit (MSOP) Renewal No. 093-37906-00034 on March 6, 2017, for a stationary custom radar refurbishing operation located at 3290 16th Street, Bedford, IN 47421. On May 1, 2024, the Office of Air Quality (OAQ) received an application from the source requesting to construct new abrasive blasting, surface coating, and natural gas-fired units, as well as change the ownership of the source. Pursuant to the provisions of 326 IAC 2-6.1-6, these changes to the permit are required to be reviewed in accordance with the Minor Permit Revision (MPR) procedures of 326 IAC 2-6.1-6(h). Pursuant to the provisions of 326 IAC 2-6.1-6, a Minor Permit Revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

Pursuant to 326 IAC 2-6.1-6, the following emission units are approved for construction at the source:

(a) One (1) abrasive blast cabinet, identified as B5, approved in 2024 for construction, using 36 grit aluminum oxide beads for blasting, with a maximum abrasive usage rate of 45 pounds per hour, and a maximum throughput rate of 45 pounds of parts per hours, utilized for miscellaneous maintenance activities, using shop vacuums as control, and exhausting indoors.

(b) One (1) abrasive blast cabinet, identified as B6, approved in 2024 for construction, using 36 grit aluminum oxide beads for blasting, with a maximum abrasive usage rate of 45 pounds per hour, and a maximum throughput rate of 45 pounds of parts per hours, utilized for miscellaneous maintenance activities, using shop vacuums as control, and exhausting indoors.

(c) One (1) abrasive blast cabinet, identified as B7, approved in 2024 for construction, utilizing 8-millimeter glass beads for blasting, with a maximum abrasive usage rate of 45 pounds per hour, and a maximum throughput rate of 45 pounds of parts per hours, utilized for miscellaneous maintenance activities, using a shop vacuum as control, and exhausting indoors.

(d) One (1) enclosed painting operation, identified as PB3, approved in 2024 for construction, located in the SAIC main building, with a maximum capacity of 2 units per hour, utilizing air atomized spray application with a maximum paint usage of 0.25 gallons per unit, and utilizing fabric filters for particulate control, exhausting to the atmosphere.

(e) Twenty-One (21) natural gas fired heaters, identified as H-201 through H-221, constructed in 2019, located throughout the main SAIC building, each with a maximum heating capacity of 0.235 MMBtu/hr.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions

The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

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

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-6.1-6, this permit shall be revised by incorporating the Minor Permit Revision into the permit. All other conditions of the permit shall remain unchanged and in effect.

Please find attached the entire MSOP as revised.

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. A copy of the application and permit is also available via IDEM's Virtual File Cabinet (VFC). To access 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. 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/.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5.

If you have any questions regarding this matter, please contact Claire Marlatt, 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) 234-8101 or (800) 451-6027, and ask for Claire Marlatt or (317) 234-8101.

Sincerely,

Brian Williams, Section Chief
Permits Branch
Office of Air Quality

Attachment(s): Updated Permit and Technical Support Document

cc: File - Lawrence County
Lawrence County Health Department
U.S. EPA, Region 5
Compliance and Enforcement Branch
IDEM Southeast Regional Office

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Eric J. Holcomb
Governor

Brian Rockensuess
Commissioner

New Source Construction and Minor Source Operating Permit Renewal
OFFICE OF AIR QUALITY

SAIC
3290 16th Street
Bedford, Indiana 47421

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

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-5.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

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 MSOP under 326 IAC 2-6.1.

Operation Permit No.: M093-37906-00034 Master Agency Interest ID.: 100509	
Issued by: Original signed by: Tripurari P. Sinha, Ph.D., Section Chief Permits Branch, Office of Air Quality	Issuance Date: March 6, 2017 Expiration Date: March 6, 2027

Administrative Amendment No.: 093-43392-00034, issued on November 17, 2020.

Minor Permit Revision No.: 093-47795-00034	
Issued by: Brian Williams, Section Chief Permits Branch Office of Air Quality	Issuance Date: June 28, 2024 Expiration Date: March 6, 2027

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SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary custom radar refurbishing operation.

Source Address:	3290 16th Street, Bedford, Indiana 47421
General Source Phone Number:	812-277-2818
SIC Code:	8711 (Engineering Services)
County Location:	Lawrence
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD 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

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

(a) Welding operations (gas metal arc welding) utilizing an aluminum-based wire (containing 0.2% chromium and 0.2% manganese compounds by weight) and MIG, TIG, and Oxyacetylene welding utilizing carbon steel wire, at a maximum wire usage rate of 2 pounds per hour.

(b) One (1) abrasive mechanical blaster, identified as B1, constructed in 2009, modified in 2015, located in Building #3 sanding room, using 20/30 Urea (plastic beads) for blasting, with a maximum abrasive usage rate of 45 pounds per hour and a maximum throughput of 40 pounds of parts per hour, equipped with an integral cyclone separator and an unrequired dust collector, with a design outlet grain loading of less than or equal to 0.03 grain per actual cubic foot, and a maximum gas flow rate of 1,000 actual cubic feet per minute (acfm), exhausting to the indoors.

(c) One (1) abrasive mechanical blaster, identified as B2, constructed in 2009, modified in 2015, located in Building #3 sanding room, using 20/30 Urea (plastic beads) for blasting, with a maximum abrasive usage rate of 45 pounds per hour and a maximum throughput of 40 pounds of parts per hour, equipped with an integral cyclone separator and an unrequired dust collector, with a design outlet grain loading of less than or equal 0.002 grain per actual cubic foot, and a maximum gas flow rate of 850 actual cubic feet per minute (acfm), exhausting to the indoors.

(d) One (1) enclosed abrasive blasting booth, identified as B3, constructed in 2011 and permitted in 2012, located in Building #4, using aluminum oxide grit for blasting, with a maximum abrasive usage rate of 712.73 pounds per hour and a maximum throughput of 150 pounds of parts per hour, and with particulate emissions controlled by a dust collector, exhausting to the atmosphere.

(e) One (1) painting operation, identified as PB2, constructed in 2009, for application of epoxy primer and epoxy top coat, with a maximum capacity of one (1) navy ship radar

frame per hour, utilizing air-atomized spray application with a maximum paint usage of 2.33 gallon per hour, and utilizing fabric filters for particulate control, exhausting to the atmosphere. Painting operation includes an enclosed mixing booth in building 4 that was constructed in 2017, with a vent exhausting to the atmosphere.

(f) One (1) cold cleaning degreaser, identified as SD-1, constructed in 2009, consisting of a batch type cleaning system with an open solvent sump, and utilizing 240 gallons of non-halogenated organic solvent per year.

(g) One (1) natural gas-fired water heater, identified as WH-01, constructed in 2019, located in Building #6, with a maximum heating capacity of 0.040 MMBtu/hr, and exhausting indoors.

(h) Three (3) natural gas-fired process heaters, identified as PH-01 through PH-03, constructed in 2019, located on the east side of Building #6, each with a maximum heating capacity of 0.235 MMBtu/hr, and exhausting indoors.

(i) One (1) abrasive blast cabinet, identified as B5, constructed in 2021, using 36 grit aluminum oxide beads for blasting, with a maximum abrasive usage rate of 45 pounds per hour, and a maximum throughput rate of 45 pounds of parts per hours, utilized for miscellaneous maintenance activities, using shop vacuums as control, and exhausting indoors.

(j) One (1) abrasive blast cabinet, identified as B6, constructed in 2021, using 36 grit aluminum oxide beads for blasting, with a maximum abrasive usage rate of 45 pounds per hour, and a maximum throughput rate of 45 pounds of parts per hours, utilized for miscellaneous maintenance activities, using shop vacuums as control, and exhausting indoors.

(k) One (1) abrasive blast cabinet, identified as B7, constructed in 2021, utilizing 8-millimeter glass beads for blasting, with a maximum abrasive usage rate of 45 pounds per hour, and a maximum throughput rate of 45 pounds of parts per hours, utilized for miscellaneous maintenance activities, using a shop vacuum as control, and exhausting indoors.

(l) One (1) enclosed painting operation, identified as PB3, constructed in 2021, located in the SAIC main building, with a maximum capacity of 2 units per hour, utilizing air atomized spray application with a maximum paint usage of 0.25 gallons per unit, and utilizing fabric filters for particulate control, exhausting to the atmosphere.

(m) Twenty-One (21) natural gas fired heaters, identified as H-201 through H-221, constructed in 2019, located throughout the main SAIC building, each with a maximum heating capacity of 0.235 MMBtu/hr.

(n) Paved roads and parking lots with public access.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

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 2-1.1-1) shall prevail.

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

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

B.3 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, M093-37906-00034, 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.4 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.5 Enforceability

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.6 Severability

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.7 Property Rights or Exclusive Privilege

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

B.8 Duty to Provide Information

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

(a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) The annual notice shall be submitted in the format attached no later than March 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

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

B.10 Preventive Maintenance Plan [326 IAC 1-6-3]

(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 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.

(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.11 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M093-37906-00034 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.12 Termination of Right to Operate [326 IAC 2-6.1-7(a)]

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 one hundred twenty (120) days prior to the date of expiration of the source’s existing permit, consistent with 326 IAC 2-6.1-7.

B.13 Permit Renewal [326 IAC 2-6.1-7]

(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 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete 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 one hundred twenty (120) days 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 2-6.1 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 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.14 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

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

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

(c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.15 Source Modification Requirement

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

B.16 Inspection and Entry
[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][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 permitted 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.17 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to 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

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.18 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ.

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

B.19 Credible Evidence [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 2-6.1-5(a)(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 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

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

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

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

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

C.3 Opacity [326 IAC 5-1]

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

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

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

C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

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

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

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

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

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

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

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

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

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

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

(A) Asbestos removal or 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(2).

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project.

(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. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

Testing Requirements [326 IAC 2-6.1-5(a)(2)]

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

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

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

no later than thirty-five (35) days prior to the intended test date.

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

C.11 Instrument Specifications [326 IAC 2-1.1-11]

(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

C.12 Response to Excursions or Exceedances

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.13 Actions Related to Noncompliance Demonstrated by a Stack Test

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

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

C.14 Malfunctions Report [326 IAC 1-6-2]

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

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

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

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

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

C.15 General Record Keeping Requirements [326 IAC 2-6.1-5]

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

(a) Reports required by conditions in Section D of 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

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or

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

(c) 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.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d) One (1) enclosed abrasive blasting booth, identified as B3, constructed in 2011 and permitted in 2012, located in Building #4, using aluminum oxide grit for blasting, with a maximum abrasive usage rate of 712.73 pounds per hour and a maximum throughput of 150 pounds of parts per hour, and with particulate emissions controlled by a dust collector, exhausting to the atmosphere.

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

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

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

Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of the following facilities shall not exceed the allowable emission rates listed in the following table:

Emission Unit	Process Weight Rate (tons per hour)	326 IAC 6-3-2 Allowable Particulate Emission Rate (pounds per hour)
Abrasive Blasting Booth (B3)	0.43	2.33

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 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.1.3 Particulate Control

(a) In order to comply with Condition D.1.1, the dust collectors for particulate control shall be in operation and control emissions from the abrasive blaster, identified as B3, at all times the abrasive blaster is in operation.

(b) In the event that bag 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 2-6.1-5(a)(2)]

D.1.4 Parametric Monitoring

The Permittee shall record the pressure drop across the dust collector used in conjunction with the abrasive blaster, identified as B3, at least once per day when the abrasive blaster, identified as B3, is in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 0.5 and 5.5 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 required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take a reasonable response 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.1.5 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 C - Response to Excursions or Exceedances)

(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 has been repaired or replaced. The emissions units 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 C - Response to Excursions or Exceedances)

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

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

D.1.6 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.4, the Permittee shall maintain daily records of the pressure drop across the dust collector controlling the abrasive blaster identified as B3. 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).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(e) One (1) painting operation, identified as PB2, constructed in 2009, for application of epoxy primer and epoxy top coat, with a maximum capacity of one (1) navy ship radar frame per hour, utilizing air-atomized spray application with a maximum paint usage of 2.33 gallon per hour, and utilizing fabric filters for particulate control, exhausting to the atmosphere. Painting operation includes an enclosed mixing booth in building 4 that was constructed in 2017, with a vent exhausting to the atmosphere.

(k) One (1) enclosed painting operation, identified as PB3, constructed in 2021, located in the SAIC main building, with a maximum capacity of 2 units per hour, utilizing air atomized spray application with a maximum paint usage of 0.25 gallons per unit, and utilizing fabric filters for particulate control, exhausting to the atmosphere.

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

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

D.2.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(d) (Particulate Emission Limitations for Manufacturing Processes):

(a) Particulate from the painting operations (PB2 and PB3) shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permitee shall operate the control device in accordance with manufacturer's specifications at all times that the painting operations (PB2 and PB3) are in operation.

(b) If overspray is visibly detected at the exhaust or accumulates on the ground, the source shall inspect the control device and do either of the following no later than four (4) hours after such observation:

(1) Repair the control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

(2) Operate equipment so that no overspary is visibly detectable at the exhaust or accumulates on the ground.

(c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the ispection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

D.2.2 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-9, for the painting operations, identified as PB2 and PB3, the Permittee shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5), excluding water, as delivered to the applicator.

(b) Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of Painting operations PB2 and PB3 during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes

evaporation.

D.2.3 Preventive Maintenance Plan [326 IAC 1-6-3]

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 Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

D.2.4 Volatile Organic Compounds (VOC)[326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content and usage limitations contained in Conditions D.2.2(a) and D.2.2(b) 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 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.2.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content limit in Condition D.2.2(a) shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis when non-compliant coatings are used in PB3. This volume weighted average shall be determined by the following equation:

$$A = [\sum (C \times U) / \sum U]$$

Where:

A is the volume weighted average in pounds VOC per gallon less water as applied;

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

U is the usage rate of the coating in gallons per day.

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

D.2.6 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.1(c), the Permittee shall maintain a record of any actions taken if overspray is visibly detected.

(b) To document compliance with Condition D.2.2(a), the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.2.2(a). Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

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

(2) The amount of coating material and solvent less water 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.

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

(c) To document the compliance status with Condition D.2.2(a), the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken daily or monthly, as indicated below, and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.2.2(a). Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

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

(2) The VOC content of each coating less water as applied.

(3) The amount of coating material and solvent less water used on monthly basis and on a daily basis when using daily weighted averaging to show compliance with Condition D.2.2(a).

(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.

(4) The volume weighted average VOC content less water of the coatings used for each day when using daily weighted averaging to show compliance with Condition D.2.2(a).

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

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(f) One (1) cold cleaning degreaser, identified as SD-1, constructed in 2009, consisting of a batch type cleaning system with an open solvent sump, and utilizing 240 gallons of non-halogenated organic solvent per year.

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

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

D.3.1 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) Ensure the following control equipment and operating requirements are met:

(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 such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) Ensure the following additional control equipment and operating requirements are met:

(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.
(E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(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:
(A) must be a solid, fluid stream; and
(B) shall be applied at a pressure that does not cause excessive splashing.

D.3.2 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.3.3 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan is required for the cold cleaner degreaser 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 2-6.1-5(a)(2)]

D.3.4 Record Keeping Requirements

(a) To document the compliance status with Condition D.3.2, the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records shall 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.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(k) One (1) natural gas-fired water heater, identified as WH-01, constructed in 2019, located in Building #6, with a maximum heating capacity of 0.040 MMBtu/hr, and exhausting indoors.

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

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

D.4.1 Particulate Emissions [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), PM emissions from the water heater WH-01 shall be limited to 0.6 pounds per MMBtu heat input.

D.4.2 Preventive Maintenance Plan [326 IAC 1-6-3]

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

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

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

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

Company Name:	SAIC
Address:	3290 16th Street
City:	Bedford, Indiana 47421
Phone #:	812-277-2818
MSOP #:	M093-37906-00034

I hereby certify that SAIC is :
☐ still in operation.
☐ no longer in operation.

I hereby certify that SAIC is :
☐ in compliance with the requirements of MSOP M093-37906-00034.
☐ not in compliance with the requirements of MSOP M093-37906-00034.

Authorized Individual (typed):	
Title:	
Signature:	**Date:**
Email Address:	**Phone:**

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

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FAX NUMBER: (317) 233-6865

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

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

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

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

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

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

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

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 20____ _____ AM/PM

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

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____
_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____
_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

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

MALFUNCTION REPORTED BY:_____TITLE:_____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____
*SEE PAGE 2

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

326 IAC 1-6-1 Applicability of rule

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

326 IAC 1-2-39 "Malfunction" definition

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

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

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

_____
_____

Indiana Department of Environmental Management
Office of Air Quality

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

Source Description and Location

Source Name:	**SAIC**
Source Location:	**3290 16th Street, Bedford, IN 47421**
County:	**Lawrence**
SIC Code:	**8711 (Engineering Services)**
Operation Permit No.:	**M 093-37906-00034**
Operation Permit Issuance Date:	**March 6, 2017**
Minor Permit Revision No.:	**093-47795-00034**
Permit Reviewer:	**Claire Marlatt**

Existing Approvals

The source was issued MSOP Renewal No. 093-37906-00034 on March 6, 2017. The source has since received the following approvals:

(a) MSOP AA No. 093-43392-00034, issued on November 17, 2020.

County Attainment Status

The source is located in Lawrence 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. Lawrence 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) $PM_{2.5}$
Lawrence 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
Lawrence 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 (326 IAC 2-7) and MSOP (326 IAC 2-6.1) 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.

Source Status - Existing Source

This table reflects the unrestricted potential emissions of the source prior to the proposed revision. If the control equipment has been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the integral control device.

	Source-Wide Emissions Prior to Revision (tons/year)							
	PM[1]	**PM_{10}[1]**	**$PM_{2.5}$[1, 2]**	**SO_2**	**NO_X**	**VOC**	**CO**	**Total HAPs**
Total PTE of Entire Source Excluding Fugitives*	78.16	68.85	68.85	0.00	0.84	71.08	0.70	7.27

	Source-Wide Emissions Prior to Revision (tons/year)							
	PM[1]	**PM_{10}[1]**	**$PM_{2.5}$[1, 2]**	**SO_2**	**NO_X**	**VOC**	**CO**	**Total HAPs**
Title V Major Source Thresholds	--	100	100	100	100	100	100	25
Total PTE of Entire Source Including Source-Wide Fugitives*	78.65	68.94	68.87	0.00	0.84	71.08	0.70	7.27
MSOP Thresholds	25	25	25	25	25	25	< 100	< 25

[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 $PM_{2.5}$.

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

(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 existing 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.

(c) These emissions are based on the TSD of MSOP AA No. 093-43392-00034, issued on November 17, 2020.

Description of Proposed Revision

The Office of Air Quality (OAQ) has reviewed an application, submitted by SAIC on May 1, 2024, relating to constructing new abrasive blasting, surface coating, and natural gas-fired units, as well as changing ownership of the source.

The following emission units were constructed and/or operated without a permit:

(a) One (1) abrasive blast cabinet, identified as B5, constructed in 2021, using 36 grit aluminum oxide beads for blasting, with a maximum abrasive usage rate of 45 pounds per hour, and a maximum throughput rate of 45 pounds of parts per hours, utilized for miscellaneous maintenance activities, using shop vacuums as control, and exhausting indoors.

(b) One (1) abrasive blast cabinet, identified as B6, constructed in 2021, using 36 grit aluminum oxide beads for blasting, with a maximum abrasive usage rate of 45 pounds per hour, and a maximum throughput rate of 45 pounds of parts per hours, utilized for miscellaneous maintenance activities, using shop vacuums as control, and exhausting indoors.

(c) One (1) abrasive blast cabinet, identified as B7, constructed in 2021, utilizing 8-millimeter glass beads for blasting, with a maximum abrasive usage rate of 45 pounds per hour, and a maximum throughput rate of 45 pounds of parts per hours, utilized for miscellaneous maintenance activities, using a shop vacuum as control, and exhausting indoors.

(d) One (1) enclosed painting operation, identified as PB3, constructed in 2021, located in the SAIC main building, with a maximum capacity of 2 units per hour, utilizing air atomized spray application with a maximum paint usage of 0.25 gallons per unit, and utilizing fabric filters for particulate control, exhausting to the atmosphere.

(e) Twenty-One (21) natural gas fired heaters, identified as H-201 through H-221, constructed in 2019, located throughout the main SAIC building, each with a maximum heating capacity of 0.235 MMBtu/hr.

(f) Welding operations (gas metal arc welding) utilizing an aluminum-based wire (containing 0.2% chromium and 0.2% manganese compounds by weight), and MIG, TIG, and Oxyacetylene welding utilizing carbon steel wire, at a maximum wire usage rate of 2 pounds per hour.

As part of this permitting action, the following emission units are being removed from the permit:

(a) One (1) abrasive mechanical blaster, identified as B4, constructed in 2012, modified in 2015, located in Building #3 sanding room, using aluminum oxide grit for blasting, with a maximum abrasive usage rate of 432.32 pounds per hour and a maximum throughput of 150 pounds of parts per hour, and with particulate emissions controlled by a dust collector, exhausting to the atmosphere.

(b) One (1) cold cleaning degreaser, identified as SD-2, constructed in 2012 and permitted in 2020 to change to a VOC-based solvent, consisting of a batch type cleaning system with an open solvent sump, and utilizing 240 gallons of nonhalogenated organic solvent per year.

(c) One (1) natural gas fired batch annealing oven, identified as AN-1, constructed in 2010, with a maximum heating capacity of 1.2 MMBtu/hr.

Enforcement Issues

IDEM is aware that equipment has been constructed and/or operated prior to receipt of the proper permit. IDEM is reviewing this matter and will take the appropriate action. This proposed approval is intended to satisfy the requirements of the construction permit and/or operating rules.

Emission Calculations

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

Permit Level Determination – MSOP Minor Permit Revision

Pursuant to 326 IAC 2-1.1-1(12), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-6.1-6. This table reflects the PTE before controls of the proposed revision. If the control equipment has been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the integral control device.

	PTE Before Controls of the New Emission Units (ton/year)							
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$[1]**	**SO_2**	**NO_X**	**VOC**	**CO**	**Total HAPs**
Twenty One (21) NG Heaters	0.046	0.18	0.18	0.015	2.42	0.13	2.03	0.046
Blaster B5	1.97	1.97	1.97	-	-	-	-	-
Blaster B6	1.97	1.97	1.97	-	-	-	-	-
Blaster B7	1.97	1.97	1.97	-	-	-	-	-

	PTE Before Controls of the New Emission Units (ton/year)							
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$[1]**	**SO_2**	**NO_X**	**VOC**	**CO**	**Total HAPs**
Painting PB3	4.5	4.5	4.5	-	-	5.2	-	1.15
Total PTE Before Controls of the New Emission Units:	**10.456**	**10.59**	**10.59**	**0.015**	**2.42**	**0.13**	**2.03**	**1.196**

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

	PTE Increase of the Modified Emission Unit(s)/Process(es) (ton/year)							
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$[1]**	**SO_2**	**NO_X**	**VOC**	**CO**	**Total HAPs**
PTE Before Modification (Welding)	0.02	0.02	0.02	-	-	-	-	0.004
PTE After Modification (Welding)	3.05	3.05	3.05	-	-	-	-	0.11
PTE Increase (Welding)	*3.03*	*3.03*	*3.03*	*-*	*-*	*-*	*-*	*0.106*
Total PTE Increase of the Modified Emission Unit(s)/Process	*3.03*	*3.03*	*3.03*	*-*	*-*	*-*	*-*	*0.106*

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

	PTE Increases Due to the Revision (ton/year)							
	PM	**PM_{10}**	**$PM_{2.5}$[1]**	**SO_2**	**NO_X**	**VOC**	**CO**	**Total HAPs**
Total PTE Before Controls of the New Emission Units	10.456	10.59	10.59	0.015	2.42	0.13	2.03	1.196
Total PTE Increase of the Modified Emission Unit(s)/Process	3.03	3.03	3.03	-	-	-	-	0.106
Total PTE of the Revision	**13.49**	**13.62**	**13.62**	**0.015**	**2.42**	**5.33**	**2.03**	**1.30**

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

Appendix A of this TSD reflects the detailed potential emissions of the proposed revision.

Pursuant to 326 IAC 2-6.1-6(g)(3), this MSOP is revised through a Minor Permit Revision because the proposed revision involves the construction of new emission units with a potential to emit within the following ranges:

(A) Less than twenty-five (25) tons per year and equal to or greater than five (5) tons per year of either PM, PM_{10}, or direct $PM_{2.5}$.

(B) Less than twenty-five (25) tons per year and equal to or greater than ten (10) tons per year of the following pollutants:

(i) Sulfur dioxide (SO_2).

(ii) Nitrogen oxides (NO_X).

(iii) VOC for modifications that are not described in clause (C).

(C) Less than twenty-five (25) tons per year and equal to or greater than five (5) tons per year of VOC for modifications that require the use of air pollution control equipment to comply with the applicable provisions of 326 IAC 8.

(D) Less than one hundred (100) tons per year and equal to or greater than twenty-five (25) tons per year of carbon monoxide (CO).

(E) Less than five (5) tons per year and equal to or greater than two-tenths (0.2) ton per year of lead (Pb).

(F) Less than twenty-five (25) tons per year and equal to or greater than five (5) tons per year of the following regulated air pollutants:
- (i) Hydrogen sulfide (H_2S).
- (ii) Total reduced sulfur (TRS).
- (iii) Reduced sulfur compounds.
- (iv) Fluorides.

PTE of the Entire Source After Issuance of the MSOP Revision

The table below summarizes the uncontrolled/unlimited potential to emit of the entire source. If the control equipment has been determined to be integral, the table reflects the potential to emit (PTE) after consideration of the integral control device.

	Source-Wide Emissions after Issuance (ton/year) (Uncontrolled/Unlimited)							
	PM[1]	**PM_{10}[1]**	**$PM_{2.5}$[1, 2]**	**SO_2**	**NO_X**	**VOC**	**CO**	**Total HAPs**
Total PTE of Entire Source Excluding Fugitive Emissions*	72.66	63.43	63.43	0.015	2.44	75.59	2.05	8.45
Title V Major Source Thresholds	--	100	100	100	100	100	100	25
Total PTE of Entire Source Including Source-Wide Fugitives*	73.19	63.54	63.46	0.015	2.44	75.59	2.05	8.45
MSOP Thresholds	25	25	25	25	25	25	< 100	< 25
PSD Major Source Thresholds	250	250	250	250	250	250	250	--

[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 $PM_{2.5}$.

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

Appendix A of this TSD reflects the detailed unlimited/uncontrolled emissions of the source.

(a) This existing Title V minor stationary source will continue to be minor under 326 IAC 2-7 because the uncontrolled/unlimited potential to emit regulated air pollutants and HAPs from the entire source will continue to be less than the Title V major source threshold levels. Therefore, the source is subject to the provisions of 326 IAC 2-6.1 (MSOP) and is an area source under Section 112 of the Clean Air Act (CAA).

(b) This existing minor PSD stationary source will continue to be minor under 326 IAC 2-2 because the potential to emit of all PSD regulated pollutants from the entire source will continue to be less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

Federal Rule Applicability Determination

Due to the proposed revision, federal rule applicability has been reviewed as follows:

New Source Performance Standards (NSPS):

(a) The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc and 326 IAC 12, are not included in the permit for the twenty-one (21) natural gas-fired space heaters, identified as H201-H221, because each is not a *steam generating unit*, as defined in 40 CFR 60.41c.

(b) There are no other New Source Performance Standards (40 CFR Part 60) and 326 IAC 12 included for this proposed revision.

National Emission Standards for Hazardous Air Pollutants (NESHAP):

(a) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD and 326 IAC 20-95 are not included in the permit for the twenty-one (21) natural gas-fired space heaters, identified as H201-H221, because these emission units are not considered boilers or process heaters and the source is an area source of HAPs.

(b) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ are not included in the permit for the twenty-one (21) natural gas-fired space heaters, identified as H201-H221, because they are not considered boilers.

(c) There are no National Emission Standards for Hazardous Air Pollutants under 40 CFR 63, 326 IAC 14 and 326 IAC 20 included for this proposed revision.

Compliance Assurance Monitoring (CAM):

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is 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

Due to this proposed revision, state rule applicability has been reviewed as follows:

326 IAC 2-6.1 (MSOP)
MSOP applicability is discussed under the PTE of the Entire Source After Issuance of the MSOP Revision section of this document.

326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset)
PSD and Emission Offset applicability is discussed under the PTE of the Entire Source After Issuance of the MSOP Revision section of this document.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The new emission unit(s) will emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

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

(1) 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.

(2) 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.

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 Lawrence 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 Lawrence 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

Due to the proposed revision, state rule applicability has been reviewed as follows:

326 IAC 6-2-1 (Particulate Emission Limitations for Sources of Indirect Heating)
Pursuant to 326 IAC 6-2-1, the twenty-one (21) new natural gas-fired space heaters are not subject to the requirements of this rule because they are not sources of indirect heating.

326 IAC 6-3-2 (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.

Pursuant to 326 IAC 6-3-1(b)(14), the welding stations and the abrasive blasters (B5, B6, and B7) are not subject to the requirements of 326 IAC 6-3, since each unit has potential emissions of less than 0.551 lb/hr.

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 painting booth, PB3, 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).

(a) Pursuant to 326 IAC 6-3-1(d), particulate from the surface coating shall be controlled by a dry particulate filter and the Permittee shall operate the control device in accordance with manufacturer's specifications.

(b) Pursuant to 326 IAC 6-3-1(d)(2), if overspray is visibly detected at the exhaust or accumulates on the ground, the source shall inspect the control device and do either of the following no later than four (4) hours after such observation:

(1) Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

(2) Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the source shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

326 IAC 7-1.1 Sulfur Dioxide Emission Limitations
This emission unit is not subject to 326 IAC 326 IAC 7-1.1 because it has a potential to emit (or limited potential to emit) sulfur dioxide (SO2) of less than 25 tons per year or 10 pounds per hour.

326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Even though, the twenty-one (21) naural gas-fired heaters were constructed after January 1, 1980, they are not subject to the requirements of 326 IAC 8-1-6 because their unlimited VOC potential emissions are less than twenty-five (25) tons per year.

The painting booth, PB3, is not subject to the requirements of 326 IAC 8-1-6 because it is regulated by other rules in 326 IAC 8. The booth is subject to the requirements of 326 IAC 8-2-9.

326 IAC 8-2-9 (Miscellaneous Metal and Plastic Parts Coating Operations)
(a) Pursuant to 326 IAC 8-2-1(a) and 326 IAC 8-2-9(a), the painting booth, PB3, is subject to the requirements of 326 IAC 8-2-9, since it was constructed in 2024, located in Lawrence County, and has the unlimited PTE of VOC equal to or greater than 15 lbs/day, and this source performs miscellaneous metal surface coating.

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 booth shall be not exceed 3.5 pounds of VOC per gallon of coating less water.

(b) This paint booth is also subject to the work practices specified under 326 IAC 8-2-9(f).

(c) 326 IAC 8-1-2 (Compliance Methods)
Pursuant to 326 IAC 8-1-2(a)(7), when using non-compliant coatings in the painting booth, PB3, the source shall demonstrate compliance with the applicable 326 IAC 8-2-9 VOC content limitation(s), using a daily volume-weighted average of all coatings applied on a daily basis in the painting booth, PB3.

326 IAC 9-1 (Carbon Monoxide Emission Limits)
The requirements of 326 IAC 9-1 do not apply to the new units, because this source does not operate a catalyst regeneration petroleum cracking system or a petroleum fluid coker, grey iron cupola, blast furnace, basic oxygen steel furnace, or other ferrous metal smelting equipment.

326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Categories)
The requirements of 326 IAC 10-3 do not apply to the new units, since this unit is not a blast furnace gas-fired boiler, a Portland cement kiln, or a facility specifically listed under 326 IAC 10-3-1(a)(2).

Compliance Determination and Monitoring Requirements

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

(1) IDEM OAQ has determined that testing of the painting booth, PB3, and its fabric filters is not required at this time to determine compliance with the PM and VOC emission limits. IDEM has the authority to require testing at a later time if necessary to demonstrate compliance with any applicable requirement.

(b) There are no new or modified Compliance Monitoring Requirements included with this proposed revision.

Proposed Changes

The following changes listed below are due to the proposed revision. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

(1) IDEM, OAQ added the new emissions units to the permit and removed the units that have been removed from the source.

(2) IDEM, OAQ changed the name of the source as requested to SAIC.

(3) IDEM. OAQ has removed the affidavit of construction condition in Section B.3.

~~Tri Star Engineering, Inc.~~ **SAIC**
~~1640 Plaza Drive~~ **3290 16th Street**
Bedford, Indiana 47421

***

A.2 Emission Units and Pollution Control Equipment Summary

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

(a) Welding operations (gas metal arc welding) utilizing an aluminum-based wire (containing 0.2% chromium and 0.2% manganese compounds by weight) **and MIG, TIG, and Oxyacetylene welding utilizing carbon steel wire,** at a maximum wire usage rate of 2 pounds per hour.

***

~~(e) One (1) abrasive mechanical blaster, identified as B4, constructed in 2012, modified in 2015, located in Building #3 sanding room, using aluminum oxide grit for blasting, with a maximum abrasive usage rate of 432.32 pounds per hour and a maximum throughput of 150 pounds of parts per hour, and with particulate emissions controlled by a dust collector, exhausting to the atmosphere.~~

***

~~(h) One (1) cold cleaning degreaser, identified as SD-2, constructed in 2012 and permitted in 2020 to change to a VOC-based solvent, consisting of a batch type cleaning system with an open solvent sump, and utilizing 240 gallons of nonhalogenated organic solvent per year.~~

~~(i) One (1) natural gas fired batch annealing oven, identified as AN-1, constructed in 2010, with a maximum heating capacity of 1.2 MMBtu/hr.~~

***

(i) One (1) abrasive blast cabinet, identified as B5, constructed in 2021, using 36 grit aluminum oxide beads for blasting, with a maximum abrasive usage rate of 45 pounds per hour, and a maximum throughput rate of 45 pounds of parts per hours, utilized for miscellaneous maintenance activities, using shop vacuums as control, and exhausting indoors.

(j) One (1) abrasive blast cabinet, identified as B6, constructed in 2021, using 36 grit aluminum oxide beads for blasting, with a maximum abrasive usage rate of 45 pounds per hour, and a maximum throughput rate of 45 pounds of parts per hours, utilized for miscellaneous maintenance activities, using shop vacuums as control, and exhausting indoors.

(k) One (1) abrasive blast cabinet, identified as B7, constructed in 2021, utilizing 8-millimeter glass beads for blasting, with a maximum abrasive usage rate of 45 pounds per hour, and a maximum throughput rate of 45 pounds of parts per hours, utilized for miscellaneous maintenance activities, using a shop vacuum as control, and exhausting indoors.

(l) One (1) enclosed painting operation, identified as PB3, constructed in 2021, located in the SAIC main building, with a maximum capacity of 2 units per hour, utilizing air atomized spray application with a maximum paint usage of 0.25 gallons per unit, and utilizing fabric filters for particulate control, exhausting to the atmosphere.

(m) Twenty-One (21) natural gas fired heaters, identified as H-201 through H-221, constructed in 2019, located throughout the main SAIC building, each with a maximum heating capacity of 0.235 MMBtu/hr.

***

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

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

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

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

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

***

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d) One (1) enclosed abrasive blasting booth, identified as B3, constructed in 2011 and permitted in 2012, located in Building #4, using aluminum oxide grit for blasting, with a maximum abrasive usage rate of 712.73 pounds per hour and a maximum throughput of 150 pounds of parts per hour, and with particulate emissions controlled by a dust collector, exhausting to the atmosphere.

~~(e) One (1) abrasive mechanical blaster, identified as B4, constructed in 2012, modified in 2015, located in Building #3 sanding room, using aluminum oxide grit for blasting, with a maximum abrasive usage rate of 432.32 pounds per hour and a maximum throughput of 150 pounds of parts per hour, and with particulate emissions controlled by a dust collector, exhausting to the atmosphere.~~

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

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

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

Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from each of the following facilities shall not exceed the allowable emission rates listed in the following table:

Emission Unit	Process Weight Rate (tons per hour)	326 IAC 6-3-2 Allowable Particulate Emission Rate (pounds per hour)
Abrasive Blasting Booth (B3)	0.43	2.33
~~Abrasive Blaster (B4)~~	~~0.291~~	~~1.79~~

The~~se~~ pounds per hour limitation~~s were~~ **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 Preventive Maintenance Plan [326 IAC 1-6-3]

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

Compliance Determination Requirements

D.1.3 Particulate Control

(a) In order to comply with Condition D.1.1, the dust collector~~s~~ for particulate control shall be in operation and control emissions from the abrasive blaster~~s~~, identified as B3 ~~and B4~~, at all times the~~se~~ abrasive blaster~~s~~ ~~are~~ **is** in operation.

(b) In the event that bag 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 2-6.1-5(a)(2)]

D.1.4 Parametric Monitoring

The Permittee shall record the pressure drop across the dust collector used in conjunction with the abrasive blaster~~s~~, identified as B3 ~~and B4~~, at least once per day when the abrasive blasters, identified as B3 ~~and B4~~, ~~are~~ **is** in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range the Permittee shall take a reasonable response. The normal range for this unit is a pressure drop between 0.5 and 5.5 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 required by this condition. A pressure reading that is

outside the above mentioned range is not a deviation from this permit. Failure to take a reasonable response 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.1.5 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 C - Response to Excursions or Exceedances)

(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 has been repaired or replaced. The emissions units 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 C - Response to Excursions or Exceedances)

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

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

D.1.6 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.4, the Permittee shall maintain daily records of the pressure drop across the dust collector~~s~~ controlling the abrasive blaster~~s~~ identified as B3 ~~and B4~~. 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).

***

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(e) One (1) painting operation, identified as PB2, constructed in 2009, for application of epoxy primer and epoxy top coat, with a maximum capacity of one (1) navy ship radar frame per hour, utilizing air-atomized spray application with a maximum paint usage of 2.33 gallon per hour, and utilizing fabric filters for particulate control, exhausting to the atmosphere. Painting operation includes an enclosed mixing booth in building 4 that was constructed in 2017, with a vent exhausting to the atmosphere.

(l) One (1) enclosed painting operation, identified as PB3, constructed in 2021, located in the SAIC main building, with a maximum capacity of 2 units per hour, utilizing air atomized spray application with a maximum paint usage of 0.25 gallons per unit, and utilizing fabric filters for particulate control, exhausting to the atmosphere.

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

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

D.2.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(d) (Particulate Emission Limitations for Manufacturing Processes):

(a) Particulate from the painting operations (PB2 **and PB3**) shall be controlled by a dry particulate filter, waterwash, or an equivalent control device, and the Permitee shall operate the control device in accordance with manufacturer's specifications at all times that the painting operations (PB2 **and PB3**) are in operation.

(b) If overspray is visibly detected at the exhaust or accumulates on the ground, the source shall inspect the control device and do either of the following no later than four (4) hours after such observation:

(1) Repair the control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

(2) Operate equipment so that no overspary is visibly detectable at the exhaust or accumulates on the ground.

(c) If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the ispection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

D.2.2 Volatile Organic Compound (VOC) [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-9, **for the painting operations, identified as PB2,** the Permittee shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5), excluding water, as delivered to the applicator.

(b) Pursuant to 326 IAC 8-2-9, for the painting operations, identified as PB3, the Permittee shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5), excluding water, as delivered to the applicator.

(~~b~~**c**) Pursuant to 326 IAC 8-2-9(f), all solvents sprayed from the application equipment of Painting operations PB2 **and PB3** during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.

…

D.2.4 Volatile Organic Compounds (VOC)[326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content and usage limitations contained in Condition**s** D.2.2(a) **and D.2.2(b)** 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 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.2.5 Volatile Organic Compounds (VOC) [326 IAC 8-1-2] [326 IAC 8-1-4]

Compliance with the VOC content limit in Condition D.2.2(b) shall be determined pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on a daily basis when non-compliant coatings are used in PB3. This volume weighted average shall be determined by the following equation:

$$A = [\sum (C \times U) / \sum U]$$

Where:

A is the volume weighted average in pounds VOC per gallon less water as applied;

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

U is the usage rate of the coating in gallons per day.

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

D.2.5~~6~~ Record Keeping Requirements

…

(b) To document compliance with Condition D.2.2(a) ~~and D.2.4~~, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.2.2(a) ~~and D.2.4~~. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

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

(2) The amount of coating material and solvent less water 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.

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

(c) To document the compliance status with Condition D.2.2(a), the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken daily or monthly, as indicated below, and shall be complete and sufficient to establish compliance with the VOC emission limits established in Condition D.2.2(a). Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

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

(2) The VOC content of each coating less water as applied.

(3) The amount of coating material and solvent less water used on monthly basis and on a daily basis when using daily weighted averaging to show compliance with Condition D.2.2(a).

(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.

(4) The volume weighted average VOC content less water of the coatings used for each day when using daily weighted averaging to show compliance with Condition D.2.2(a).

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

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(g) One (1) cold cleaning degreaser, identified as SD-1, constructed in 2009, consisting of a batch type cleaning system with an open solvent sump, and utilizing 240 gallons of non-halogenated organic solvent per year.

~~(h) One (1) cold cleaning degreaser, identified as SD-2, constructed in 2012 and permitted in 2020 to change to a VOC-based solvent, consisting of a batch type cleaning system with an open solvent sump, and utilizing 240 gallons of nonhalogenated organic solvent per year.~~

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

***

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

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

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

Company Name:	~~Tri Star Engineering, Inc.~~ **SAIC**
Address:	~~1640 Plaza Drive~~ **3290 16th Street**
City:	Bedford, Indiana 47421
Phone #:	812-277-~~0208~~ **2818**
MSOP #:	M093-37906-00034

I hereby certify that ~~Tri Star Engineering, Inc~~. **SAIC** is : ☐ still in operation. ☐ no longer in operation.

I hereby certify that ~~Tri Star Engineering, Inc.~~ **SAIC** is : ☐ in compliance with the requirements of MSOP M093-37906-00034. ☐ not in compliance with the requirements of MSOP M093-37906-00034.

***

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 May 1, 2024.

IDEM Contact

(a) If you have any questions regarding this permit, please contact Claire Marlatt, 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) 234-8101 or (800) 451-6027, and ask for Claire Marlatt or (317) 234-8101.

(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: Emissions Calculations

Company Name: SAIC
Source Address: 3290 16th Street, Bedford, IN 47421
MSOP MPR No. 093-47795-00034
Permit Reviewer: Claire Marlatt

Emission Unit/Activity	Uncontrolled Potential Emissions (tons/yr)									
	PM	PM_{10}	$PM_{2.5}$	SO_2	NOx	VOC	CO	Worst Single HAP		Total HAPs
Welding Operations	3.05	3.05	3.05	---	---	---	---	0.004	Nickel	0.004
Abrasive Blaster (B1)*	0.20	0.20	0.20	---	---	---	---	---	---	---
Abrasive Blaster (B2)*	0.20	0.20	0.20	---	---	---	---	---	---	---
Abrasive Blaster (B5)	1.97	1.97	1.97	---	---	---	---	---	---	---
Abrasive Blaster (B6)	1.97	1.97	1.97	---	---	---	---	---	---	---
Abrasive Blaster (B7)	1.97	1.97	1.97	---	---	---	---	---	---	---
Painting Operation (PB2)	27.6	27.6	27.6	---	---	69.4	---	5.40	Toluene	7.25
Painting Operation (PB3)	4.5	4.5	4.5	---	---	5.2	---	1.04	Xylene	1.15
Degreaser (SD-1)	---	---	---	---	---	0.82	---	---	---	---
Abrasive Blasting Booth (B3)	31.22	21.85	21.85	---	---	---	---	---	---	---
Paved Roads	0.53	0.11	0.03	---	---	---	---	---	---	---
Natural Gas Water Heater (WH-01)	0.0003	0.001	0.001	0.0001	0.02	0.001	0.01	0.0003	Hexane	0.0003
Twenty-Four (24) Natural Gas Heaters	0.046	0.18	0.18	0.015	2.42	0.13	2.03	0.044	Hexane	0.046
Potential to Emit Totals	**73.19**	**63.54**	**63.46**	**0.015**	**2.44**	**75.59**	**2.05**	**5.40**	**Toluene**	**8.45**

Emission Unit/Activity	Controlled Potential Emissions (tons/yr)									
	PM	PM_{10}	$PM_{2.5}$	SO_2	NOx	VOC	CO	Worst Single HAP		Total HAPs
Welding Operations	3.05	3.05	3.05	---	---	---	---	0.004	Nickel	0.004
Abrasive Blaster (B1)*	0.20	0.20	0.20	---	---	---	---	---	---	---
Abrasive Blaster (B2)*	0.20	0.20	0.20	---	---	---	---	---	---	---
Abrasive Blaster (B5)	0.05	0.05	0.05	---	---	---	---	---	---	---
Abrasive Blaster (B6)	0.05	0.05	0.05	---	---	---	---	---	---	---
Abrasive Blaster (B7)	0.05	0.05	0.05	---	---	---	---	---	---	---
Painting Operation (PB2)	27.58	27.58	27.58	---	---	69.4	---	5.40	Toluene	7.25
Painting Operation (PB3)	4.45	4.45	4.45	---	---	5.2	---	1.04	Xylene	1.15
Degreaser (SD-1)	---	---	---	---	---	0.82	---	---	---	---
Abrasive Blasting Booth (B3)	31.22	21.85	21.85	---	---	---	---	---	---	---
Paved Roads	0.49	0.10	0.02	---	---	---	---	---	---	---
Natural Gas Water Heater (WH-01)	0.0003	0.001	0.001	0.0001	0.02	0.001	0.01	0.0003	Hexane	0.0003
Twenty-Four (24) Natural Gas Heaters	0.046	0.18	0.18	0.015	2.42	0.13	2.03	0.044	Hexane	0.046
Potential to Emit Totals	**67.37**	**57.75**	**57.68**	**0.015**	**2.44**	**75.59**	**2.05**	**5.40**	**Toluene**	**8.45**

Notes & Abbreviations:
= New Emission Units
PM = Particulate Matter; PM_{10} = Particulate Matter (<10 µm); $PM_{2.5}$ = Particulate Matter (<2.5 µm); VOCs = Volatile Organic Compounds; HAPs = Hazardous Air Pollutants
*Pursuant to Registration No. 093-22346-00031, issued on May 15, 2006, IDEM has agreed the cyclone separators are considered an integral part of the glass bead abrasive blasters (B1 and B2). Therefore, the permitting level will be determined using the potential to emit after the cyclone separator controls.

Appendix A: Emissions Calculations
Revision Summary
Company Name: SAIC
Source Address: 3290 16th Street, Bedford, IN 47421
MSOP MPR No. 093-47795-00034
Permit Reviewer: Claire Marlatt

Emission Unit/Activity	Uncontrolled Potential Emissions (tons/yr)							
	PM	PM_{10}	$PM_{2.5}$	SO_2	NOx	VOC	CO	Total HAPs
Welding Operations (modified)	3.03	3.03	3.03	---	---	---	---	0.106
Abrasive Blaster (B5)	1.97	1.97	1.97	---	---	---	---	---
Abrasive Blaster (B6)	1.97	1.97	1.97	---	---	---	---	---
Abrasive Blaster (B7)	1.97	1.97	1.97	---	---	---	---	---
Painting Operation (PB3)	4.5	4.5	4.5	---	---	5.2	---	1.15
Twenty-One (21) Natural Gas Heaters	0.046	0.18	0.18	0.015	2.42	0.13	2.03	0.046
Potential to Emit Totals	**13.49**	**13.62**	**13.62**	**0.015**	**2.42**	**5.33**	**2.03**	**1.30**

Appendix A: Emissions Calculations
Natural Gas Combustion (Non-Ovens)
Capacity <100 MMBtu/hr

Company Name: SAIC
Source Address: 3290 16th Street, Bedford, IN 47421
MSOP No. 093-47795-00034
Permit Reviewer: Claire Marlatt

Unit	Maximum Heat Input Capacity (MMBtu/hr)	High Heat Value (MMBtu/MMcf)	Potential Throughput (MMcf/yr)
WH-01	0.040		0.34
PH-01	0.235		2.02
PH-02	0.235		2.02
PH-03	0.235		2.02
H201	0.235		2.02
H202	0.235		2.02
H203	0.235		2.02
H204	0.235		2.02
H205	0.235		2.02
H206	0.235		2.02
H207	0.235		2.02
H208	0.235		2.02
H209	0.235	1,020	2.02
H210	0.235		2.02
H211	0.235		2.02
H212	0.235		2.02
H213	0.235		2.02
H214	0.235		2.02
H215	0.235		2.02
H216	0.235		2.02
H217	0.235		2.02
H218	0.235		2.02
H219	0.235		2.02
H220	0.235		2.02
H221	0.235		2.02
Totals	**5.680**	**1,020**	**48.78**

Criteria Pollutants	Criteria Pollutants						
	PM*	PM_{10}*	$PM_{2.5}$*	SO_2	NOx	VOC	CO
Emission Factor (lbs/MMcf)	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission (tons/yr)	0.05	0.04	0.19	0.015	2.44	0.13	2.05

*PM emission factor is filterable PM only. PM_{10} emission factor is filterable and condensable PM_{10} combined. $PM_{2.5}$ assumed equal to PM_{10}.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Hazardous Air Pollutants (HAPs)	HAPs - Organics*					HAPs - Metals*				
	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Emission Factor (lbs/MMcf)	0.0021	0.0012	7.5E-02	1.8	0.0034	0.0005	0.0011	0.0014	0.0004	0.0021
Potential Emission (tons/yr)	5.1E-05	2.9E-05	1.8E-03	0.044	8.3E-05	1.2E-05	2.7E-05	3.4E-05	9.3E-06	5.1E-05

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

Potential to Emit Total HAPs (tons/year) =	4.6E-02

Methodology & Notes:
All emission factors are based on normal firing. New emissions units
MMBtu = 1,000,000 Btu; MMCF = 1,000,000 Cubic Feet of Gas; PM = Particulate Matter; PM_{10} = Particulate Matter (<10 µm)
$PM_{2.5}$ = Particulate Matter (<2.5 µm); DCB = Dichlorobenzene; VOCs = Volatile Organic Compounds
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/yr) = [Maximum Heat Input Capacity (MMBtu/hr)] × [8,760 (hr/yr)] / [1,020 (MMBtu/MMcf)]
Potential Emissions (tons/yr) = [Potential Throughput (MMcf/yr)] × [Emission Factor (lbs/MMcf)] × [2,000 (lbs/ton)]

Appendix A: Emissions Calculations
Degreasers

Company Name: SAIC
Source Address: 3290 16th Street, Bedford, IN 47421
MSOP No. 093-47795-00034
Permit Reviewer: Claire Marlatt

Potential to Emit (PTE) of VOCs

Unit	Maximum Material Usage (gal/yr)	Density (lbs/gal)	VOC Content (%)	Potential VOC Emissions	
				(lbs/yr)	(tons/yr)
Degreaser (SD-1)	240	6.8	100%	1,632	0.816
				Total VOCs	**0.816**

Methodology & Notes:
VOCs = Volatile Organic Compounds; PM = Particulate Matter; HAPs = Hazardous Air Pollutants
PTE of VOC (lbs/yr) = [Maximum Material Usage (gal/yr)] × [Density (lbs/gal)] × [VOC Content (%)]
PTE of VOC (tons/yr) = [PTE of VOC (lbs/yr)] / [2,000 (lbs/ton)]
There are no PMs or HAPs associated with the degreasing agent used in this degreaser.

Appendix A: Emissions Calculations
Welding

Company Name: SAIC
Source Address: 3290 16th Street, Bedford, IN 47421
MSOP No. 093-47795-00034
Permit Reviewer: Claire Marlatt

Process	Number of Stations	Maximum Electrode Consumption per Station		Type of Wire	Emission Factors* (lb pollutant/lb electrode)				Potential to Emit (tons/yr)				Total HAPs (tons/yr)
		(lbs/hr)	(lbs/day)		$PM/PM_{10}/PM_{2.5}$**	Mn	Ni	Cr	$PM/PM_{10}/PM_{2.5}$**	Mn	Ni	Cr	
Gas Metal Arc Welding (GMAW) (ERNiCu)	1	2	48	Aluminum	0.002	0.000022	0.000451	0.000001	0.018	1.9E-04	0.004	8.8E-06	0.004
Metal Inert Gas (MIG)(carbon steel)	2	2	96	Carbon Steel	0.0055	0.0005	0.00	0.00	0.096	8.8E-03	0.000	0.0E+00	0.009
Tungsten Inert Gas (TIG)(carbon steel)	2	2	96	Carbon Steel	0.0055	0.0005	0.00	0.00	0.096	8.8E-03	0.000	0.0E+00	0.009
Oxyacetylene(carbon steel)	1	2	48	Carbon Steel	0.0055	0.0005	0.00	0.00	0.048	4.4E-03	0.000	0.0E+00	0.004

FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Plasma**	1	0.125	15000	0.0039	0.00	0.00	0.00	0.439	0.000	0.000	0.000	0.000
EMISSION TOTALS												
Potential Emissions lbs/hr								**0.70**	**0.02**	**0.00**	**0.00**	**0.03**
Potential Emissions lbs/day								**16.73**	**0.53**	**0.09**	**0.00**	**0.63**
Potential Emissions tons/year								**3.05**	**0.10**	**0.02**	**0.00**	**0.11**

Methodology & Notes:
PTE = Potential to Emit; HAPs = Hazardous Air Pollutants
*Emission factors for welding stations are from AP-42, Tables 12.19-1 and 12.19-2 (01/95) for GMAW welding process, SCC 3-09-052.
**Based on AP-42 Table 12.19-1, all welding fume is considered to be PM_{10}. PM and $PM_{2.5}$ emissions are assumed equal to PM_{10} emissions.
Maximum Electrode Consumption per Station (lbs/day) = [Number of Stations] × [Maximum Electrode Consumption per Station (lbs/hr)] × [24 hr/day]
PTE (tons/yr) = [Number of Stations] × [Maximum Electrode Consumption per Station (lbs/hr)] × [Emission Factor (lb pollutant/lb of electrode)] × [8,760 (hrs/yr)] / [2,000 (lbs/ton)]

Appendix A: Emissions Calculations
Plastic Media Abrasive Blasters (B1 and B2)

Company Name: SAIC
Source Address: 3290 16th Street, Bedford, IN 47421
MSOP No. 093-47795-00034
Permit Reviewer: Claire Marlatt

Emission Factors*

Abrasive	Emission Factor (lb/lb abrasive)	
	PM	$PM_{10}/PM_{2.5}$**
Urea Plastic Media	0.010	0.010
Al Oxide Grit	0.010	0.010
Glass Bead	0.010	0.010

Uncontrolled Potential to Emit (PTE) $PM/PM_{10}/PM_{2.5}$

Unit	Maximum Abrasive Usage Rate (lbs/hr)	Uncontrolled PTE (lbs/hr)			Uncontrolled PTE (tons/yr)		
		PM	PM_{10}	$PM_{2.5}$**	PM	PM_{10}	$PM_{2.5}$**
20/30 Urea Plastic Media Blaster B1	45	0.45	0.45	0.45	1.97	1.97	1.97
20/30 Urea Plastic Media Blaster B2	45	0.45	0.45	0.45	1.97	1.97	1.97
Aluminum Oxide 36 Grit Media Blaster B5	45	0.45	0.45	0.45	1.97	1.97	1.97
Aluminum Oxide 36 Grit Media Blaster B6	45	0.45	0.45	0.45	1.97	1.97	1.97
Glass Bead 8 mm Media Blaster B7	45	0.45	0.45	0.45	1.97	1.97	1.97

Controlled Potential to Emit (PTE) $PM/PM_{10}/PM_{2.5}$

Unit	Cyclone Control Efficiency (%)***	Controlled PTE (lbs/hr)			Controlled PTE (tons/yr)		
		PM	PM_{10}	$PM_{2.5}$**	PM	PM_{10}	$PM_{2.5}$**
20/30 Urea Plastic Media Blaster B1	90.0%	0.05	0.05	0.05	0.20	0.20	0.20
20/30 Urea Plastic Media Blaster B2	90.0%	0.05	0.05	0.05	0.20	0.20	0.20
Aluminum Oxide 36 Grit Media Blaster B5	90.0%	0.05	0.05	0.05	0.20	0.20	0.20
Aluminum Oxide 36 Grit Media Blaster B6	90.0%	0.05	0.05	0.05	0.20	0.20	0.20
Glass Bead 8 mm Media Blaster B7	90.0%	0.05	0.05	0.05	0.20	0.20	0.20

Methodology & Notes:
*Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition).
**$PM_{2.5}$ emissions assumed equal to PM_{10} emissions.
***The control efficiency of the blaster cyclones as provided by the manufacturer.
Uncontrolled PTE (lbs/hr) = [Maximum Abrasive Usage Rate (lbs/hr)] × [Emission Factor (lb/lb abrasive)]
Uncontrolled PTE (tons/yr) = [Uncontrolled PTE (lbs/hr)] × [8,760 hrs/year] / [2,000 (lbs/ton)]
Controlled PTE (lbs/hr) = [Uncontrolled PTE (lbs/hr)] × [1 - Control Efficiency (%)]
Controlled PTE (tons/yr) = [Uncontrolled PTE (tons/yr)] × [1 - Control Efficiency (%)]

326 IAC 6-3-2 Allowable PM Emission Rate

Unit	Process Weight Rate of Parts (lbs/hr)	Maximumx Abrasive Usage Rate (lbs/hr)	Total Process Weight Rate (lbs/hr)	Total Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable PM Emission Rate (lbs/hr)	Uncontrolled PTE of PM (lbs/hr)	Cyclone Control Efficiency (%)	Controlled PTE of PM (lbs/hr)
20/30 Urea Plastic Media Blaster B1	40	85	125	0.063	0.64	0.85	90.0%	0.09
20/30 Urea Plastic Media Blaster B2	40	85	125	0.063	0.64	0.85	90.0%	0.09

Note: IDEM has determined that the cyclone seperators are not considered and integral control device (Administrative Amendment 093-32364-00034).

Methodology & Notes:
PTE = Potential to Emit; PM = Particulate Matter; PM_{10} = Particulate Matter (<10 μm); $PM_{2.5}$ = Particulate Matter (<2.5 μm)
Total Process Weight Rate (lbs/hr) = [Process Weight Rate of Parts (lbs/hr)] + [Maximum Abrasive Usage Rate (lbs/hr)]
Total Process Weight Rate (tons/hr) = [Total Process Weight Rate (lbs/hr)] / [2,000 (lbs/ton)]
326 IAC 6-3-2 Allowable PM Emission Rate = 4.10 × [Total Process Weight Rate (tons/hr)]$^{0.67}$
Uncontrolled PTE of PM (lbs/hr) = [Maximum Abrasive Usage Rate (lb/hr)] × [PM Emission Factor (lb PM/lb abrasive)]
Controlled PTE of PM (lbs/hr) = [Uncontrolled PTE of PM (lbs/hr)] × [1 - Control Efficiency (%)]

Appendix A: Emissions Calculations
Painting Operation (PB2)

Company Name: SAIC
Source Address: 3290 16th Street, Bedford, IN 47421
MSOP No. 093-47795-00034
Permit Reviewer: Claire Marlatt

Potential to Emit of VOCs and Particulates

Material	Density (lbs/gal)	Compositional Information			Max Material Usage (gal/unit)	VOC Content (lbs/gal) Less Water	Max Capacity (unit/hr)	Transfer Efficiency (%)	Control Efficiency (%)*	PTE of VOCs			PTE of $PM/PM_{10}/PM_{2.5}$	
		Weight % Volatiles	Weight % Water	Weight % Solids						(lbs/hr)	(lbs/day)	(tons/yr)	Before Control (ton/yr)	After Control (ton/yr)
Primers														
Amercoat 68 HS Zinc Rich Primer	8.40	28.6%	0.0%	73.0%	2.33	2.40	1.00	75%	98%	5.59	134.21	24.49	15.64	0.31
Aerospace Deft Green Primer	13.45	19.2%	0.0%	43.0%	2.33	2.58	1.00	75%	98%	6.01	144.27	26.33	14.76	0.30
Epoxy Coating Primer, Chromate Free	13.21	21.6%	0.0%	52.0%	2.33	2.85	1.00	75%	98%	6.64	159.37	29.09	17.53	0.35
Coating														
Waterborne Polyurethane CARC Type II Coating	10.88	9.3%	0.0%	36.0%	2.33	1.01	1.00	75%	98%	2.35	56.48	10.31	9.99	0.20
PPG Aerospace Deft Gunship Coating	10.01	37.6%	0.0%	0.0%	2.33	3.76	1.00	75%	98%	8.76	210.26	38.37	0.00	0.00
Aerospace Deft White Paint Coating	10.46	36.1%	0.0%	0.0%	2.33	3.78	1.00	75%	98%	8.81	211.38	38.58	0.00	0.00
Cures														
Amercoat 68 HS Zinc Rich Cure	7.68	50.2%	0.0%	49.8%	0.01	3.86	1.00	75%	98%	0.04	0.93	0.17	0.04	0.00
PPG Aerospace Deft Curing Agent	8.39	31.3%	0.0%	60.0%	0.01	2.63	1.00	75%	98%	0.03	0.63	0.12	0.06	0.00
PPG Aerospace Deft Gunship Cure	9.01	26.3%	0.0%	0.0%	0.01	2.37	1.00	75%	98%	0.02	0.57	0.10	0.00	0.00
Catalysts														
Waterborne Polyurethane CARC Catalyst	8.93	24.9%	0.0%	0.0%	0.01	2.22	1.00	75%	98%	0.02	0.53	0.10	0.00	0.00
Epoxy Coating Primer, Chromate Free - Catalyst	9.44	19.4%	0.0%	0.0%	0.01	1.83	1.00	75%	98%	0.02	0.44	0.08	0.00	0.00
Defthane M85285E-II-H Catalyst	9.40	11.0%	0.0%	0.0%	0.01	1.03	1.00	75%	98%	0.01	0.25	0.05	0.00	0.00
Clean-Up														
Americoat 65 (clean-up/thinner)	7.26	100.0%	0.0%	0.0%	0.01	7.26	1.00	75%	98%	0.06	1.36	0.25	0.00	0.00
Thinner 21-26 (Amercoat 101)	7.43	90.0%	0.0%	10.0%	0.01	6.69	1.00	75%	98%	0.07	1.60	0.29	0.01	0.00
Jasco Xylol Xylene	7.18	100.0%	0.0%	0.0%	0.01	7.18	1.00	75%	98%	0.07	1.72	0.31	0.00	0.00
Americoat 911 (clean-up/thinner)	7.34	100.0%	0.0%	0.0%	0.01	7.34	1.00	75%	98%	0.07	1.76	0.32	0.00	0.00
MEK	6.73	100.0%	0.0%	0.0%	0.01	6.73	1.00	75%	98%	0.07	1.61	0.29	0.00	0.00
							****Worst Case PTE (tons/yr)**			**15.8**	**380.3**	**69.4**	**27.6**	**0.6**

Methodology & Notes:
PTE = Potential to Emit; VOCs = Volatile Organic Compounds; PM = Particulate Matter
PM_{10} = Particulate Matter (<10 µm); $PM_{2.5}$ = Particulate Matter (<2.5 µm); MEK = Methyl Ethyl Ketone
*Particulates are controlled with fabric filters.
**The surface coating operation only has the ability to paint one radar screen per hour, using one coating. The PTE is based on the coating as applied, with the worst case VOC and solids content.
VOC Content (lbs/gal) Less Water = [Density (lbs/gal)] × [Weight % Organics] / [1 - Volume % Water]
PTE of VOC (lb/hr) = [VOC Content (lbs/gal) Less Water] × [Maximum Material Usage (gal/unit)] × [Maximum Capacity (units/hr)]
PTE of VOC (lbs/day) = [PTE of VOC (lbs/hr)] × [24 (hr/day)]
PTE of VOC (tons/yr) = [PTE of VOC (lbs/hr)] × [8,760 (hr/yr)] / [2,000 (lbs/ton)]
PTE of $PM/PM_{10}/PM_{2.5}$ Before Control (tons/yr) = [Density (lbs/gal)] × [Weight % Solids] × [Maximum Material Usage (gal/unit)] × [Maximum Capacity (units/hr)] × [1 - Transfer Efficiency (%)] × [8,760 (hr/yr)] / [2,000 (lbs/ton)]
PTE of $PM/PM_{10}/PM_{2.5}$ After Control (tons/yr) = [PTE of $PM/PM_{10}/PM_{2.5}$ Before Control (tons/yr)] × [1 - Control Efficiency (%)]

Appendix A: Emissions Calculations
Painting Operation (PB2)

Company Name: SAIC
Source Address: 3290 16th Street, Bedford, IN 47421
MSOP No. 093-47795-00034
Permit Reviewer: Claire Marlatt

Potential to Emit of Hazardous Air Pollutants (HAPs)

Material	Density (lbs/gal)	Maximum Usage (gal/unit)	MIBK		Benzene		Xylene		Toluene		Napthalene		Ethylbenzene		Methanol		Hexamethylene Diisocyanate		Cumene		Total HAPs (tons/yr)
			Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	
Primers																					
Amercoat 68 HS Zinc Rich Primer	8.40	2.33	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
Aerospace Deft Green Primer	13.45	2.33	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.1%	0.14	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.14
Epoxy Coating Primer, Chromate Free	13.21	2.33	0.0%	0.00	0.0%	0.00	0.0%	0.00	4.0%	5.39	0.0%	0.00	0.1%	0.13	0.0%	0.00	0.0%	0.00	0.0%	0.00	5.53
Coating																					
Waterborne Polyurethane CARC Type II Coating	10.88	2.33	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
PPG Aerospace Deft Gunship Coating	10.01	2.33	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
Aerospace Deft White Paint Coating	10.46	2.33	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	1.0%	1.07	0.0%	0.00	0.0%	0.00	0.0%	0.00	1.07
Cures																					
Amercoat 68 HS Zinc Rich Cure	7.68	0.01	0.0%	0.00	0.0%	0.00	10.0%	0.03	0.0%	0.00	0.0%	0.00	1.5%	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.04
PPG Aerospace Deft Curing Agent	8.39	0.01	8.0%	0.03	0.0%	0.00	7.0%	0.03	0.0%	0.00	0.0%	0.00	1.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.06
PPG Aerospace Deft Gunship Cure	9.01	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.1%	0.00	0.00
Catalysts																					
Waterborne Polyurethane CARC Catalyst	8.93	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.1%	0.00	0.0%	0.00	0.00
Epoxy Coating Primer, Chromate Free - Catalyst	9.44	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.1%	0.00	0.00
Defthane M85285E-II-H Catalyst	9.40	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.2%	0.00	0.0%	0.00	0.00
Clean-Up																					
Americoat 65 (clean-up/thinner)	7.26	0.01	0.0%	0.00	19.0%	0.05	80.0%	0.20	1.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.25
Thinner 21-26 (Amercoat 101)	7.43	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	10.0%	0.03	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.03
Jasco Xylol Xylene	7.18	0.01	0.0%	0.00	0.0%	0.00	80.0%	0.25	0.0%	0.00	0.0%	0.00	20.0%	0.06	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.31
Americoat 911 (clean-up/thinner)	7.34	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
MEK	6.73	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
***Worst Case PTE (tons/year):**			**0.03**		**0.05**		**0.48**		**5.40**		**0.03**		**1.27**		**0.00**		**0.00**		**0.00**		**7.25**

Methodology & Notes:
PTE = Potential to Emit; HAPs = Hazardous Air Pollutants; MEK = Methyl Ethyl Ketone; MIBK = Methyl Isobutyl Ketone
Maximum capacity of coating is 1.00 unit/hr.
*The surface coating operation only has the ability to paint one radar screen per hour, using one coating. The PTE is based on the coating as applied, with the worst case HAPs content.
PTE of HAPs (tons/yr) = [Density (lbs/gal)] × [Maximum Material Usage (gal/unit)] × [Maximum Capacity (units/hr)] × [HAP Content (% by Weight)] × [8,760 (hr/yr)] / [2,000 (lbs/ton)]

Appendix A: Emissions Calculations
Painting Operation (PB3)

Company Name: SAIC
Source Address: 3290 16th Street, Bedford, IN 47421
MSOP No. 093-47795-00034
Permit Reviewer: Claire Marlatt

Potential to Emit of VOCs and Particulates

Material	Density (lbs/gal)	Compositional Information			Max Material Usage (gal/unit)	VOC Content (lbs/gal) Less Water	Max Capacity (unit/hr)	Transfer Efficiency (%)	Control Efficiency (%)*	PTE of VOCs			PTE of $PM/PM_{10}/PM_{2.5}$	
		Weight % Volatiles	Weight % Water	Weight % Solids						(lbs/hr)	(lbs/day)	(tons/yr)	Before Control (ton/yr)	After Control (ton/yr)
Primers														
TT-P-645B Yellow Zinc Molybdate Primer	12.93	19.3%	0.0%	80.7%	0.25	2.49	0.50	75%	98%	0.31	7.47	1.36	1.43	0.03
ASTM F-718 Epoxy Deck Primer	14.49	11.2%	0.0%	88.0%	0.25	1.62	0.50	75%	98%	0.20	4.86	0.89	1.75	0.03
Coating														
03BK074 Camouflage Black Coating	10.01	42.7%	5.2%	57.3%	0.25	3.76	0.50	75%	98%	0.47	11.27	2.06	0.78	0.02
00334801 Amercoat 68 HS	7.68	50.2%	0.0%	49.8%	0.25	3.86	0.50	75%	98%	0.48	11.57	2.11	0.52	0.01
MIL-PRF-24635E Gray Coating	10.59	19.1%	0.0%	80.9%	0.25	2.02	0.50	75%	98%	0.25	6.06	1.11	1.17	0.02
PX700SG281 Haze Gray Paint Coating	12.02	3.0%	0.0%	98.2%	0.25	0.36	0.50	75%	98%	0.05	1.08	0.20	1.61	0.03
Interfine 979SG Haze Gray Part A	11.70	-	0.0%	0.0%	0.13	1.82	0.50	75%	98%	0.11	2.73	0.50	0.00	0.00
22750F-20450-GLTan Type II Coating	10.30	-	0.0%	0.0%	0.25	2.15	0.50	75%	98%	0.27	6.45	1.18	0.00	0.00
MS-375 Non Skid Dark Grey	8.10	20.0%	0.0%	80.0%	0.25	1.62	0.50	75%	98%	0.20	4.86	0.89	0.89	0.02
Cures														
44W007CAT Curing Solution	9.51	19.5%	0.0%	80.5%	0.25	1.84	0.50	75%	98%	0.23	5.52	1.01	1.05	0.02
Interfine 979SG Haze Gray Semi-Gloss Part B	11.70	24.0%	0.0%	76.0%	0.13	1.82	0.50	75%	98%	0.11	2.73	0.50	0.61	0.01
PPG Aerospace Deft Gunship Cure	9.01	26.3%	0.0%	73.6%	0.25	2.37	0.50	75%	98%	0.30	7.11	1.30	0.91	0.02
Catalysts														
02GN084CAT Deft Primer Catalyst	9.01	18.7%	1.1%	81.3%	0.01	1.59	0.50	75%	98%	0.01	0.19	0.03	0.04	0.00
Clean-Up														
Americoat 65 (clean-up/thinner)	7.26	100.0%	0.0%	0.0%	0.01	7.26	0.50	75%	98%	0.03	0.68	0.12	0.00	0.00
Thinner 21-26 (Amercoat 101)	7.43	90.0%	0.0%	10.0%	0.01	6.69	0.50	75%	98%	0.03	0.80	0.15	0.00	0.00
Americoat 911 (clean-up/thinner)	7.34	100.0%	0.0%	0.0%	0.01	7.34	0.50	75%	98%	0.04	0.88	0.16	0.00	0.00
							Worst Case PTE (tons/yr)			**1.2**	**28.7**	**5.2**	**4.5**	**0.1**

Methodology & Notes:
PTE = Potential to Emit; VOCs = Volatile Organic Compounds; PM = Particulate Matter
PM_{10} = Particulate Matter (<10 µm); $PM_{2.5}$ = Particulate Matter (<2.5 µm); MEK = Methyl Ethyl Ketone
*Particulates are controlled with fabric filters.
**The surface coating operation only has the ability to paint one radar screen per hour, using one coating. The PTE is based on the coating as applied, with the worst case VOC and solids content.
VOC Content (lbs/gal) Less Water = [Density (lbs/gal)] × [Weight % Organics] / [1 - Volume % Water]
PTE of VOC (lb/hr) = [VOC Content (lbs/gal) Less Water] × [Maximum Material Usage (gal/unit)] × [Maximum Capacity (units/hr)]
PTE of VOC (lbs/day) = [PTE of VOC (lbs/hr)] × [24 (hr/day)]
PTE of VOC (tons/yr) = [PTE of VOC (lbs/hr)] × [8,760 (hr/yr)] / [2,000 (lbs/ton)]
PTE of $PM/PM_{10}/PM_{2.5}$ Before Control (tons/yr) = [Density (lbs/gal)] × [Weight % Solids] × [Maximum Material Usage (gal/unit)] × [Maximum Capacity (units/hr)] × [1 - Transfer Efficiency (%)] × [8,760 (hr/yr)] / [2,000 (lbs/ton)]
PTE of $PM/PM_{10}/PM_{2.5}$ After Control (tons/yr) = [PTE of $PM/PM_{10}/PM_{2.5}$ Before Control (tons/yr)] × [1 - Control Efficiency (%)]

Appendix A: Emissions Calculations
Painting Operation (PB3)

Company Name: SAIC
Source Address: 3290 16th Street, Bedford, IN 47421
MSOP No. 093-47795-00034
Permit Reviewer: Claire Marlatt

Material	Density (lbs/gal)	Maximum Usage (gal/unit)	MIBK		Benzene		Xylene		Toluene		Napthalene		Ethylbenzene		Methanol		Hexamethylene Diisocyanate		Cumene		Total HAPs (tons/yr)
			Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	Content (% w)*	PTE (tons/yr)	
Primers																					
TT-P-645B Yellow Zinc Molybdate Primer	12.93	0.25	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
ASTM F-718 Epoxy Deck Primer	14.49	0.25	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.1%	0.02	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.02
Coating																					
03BK074 Camouflage Black Coating	10.01	0.25	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
00334801 Amercoat 68 HS	7.68	0.25	0.0%	0.00	0.0%	0.00	10.0%	0.84	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.84
MIL-PRF-24635E Gray Coating	10.59	0.25	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
PX700SG281 Haze Gray Paint Coating	12.02	0.25	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
Interfine 979SG Haze Gray Part A	11.70	0.13	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
22750F-20450-GLTan Type II Coating	10.30	0.25	3.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
MS-375 Non Skid Dark Grey	8.10	0.25	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	1.0%	0.09	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.09
Cures																					
44W007CAT Curing Solution	9.51	0.25	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
Interfine 979SG Haze Gray Semi-Gloss Part B	11.70	0.13	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
PPG Aerospace Deft Gunship Cure	9.01	0.25	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
Catalysts																					
02GN084CAT Deft Primer Catalyst	9.01	0.01	2.0%	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.01
Clean-Up																					
Americoat 65 (clean-up/thinner)	7.26	0.01	0.0%	0.00	19.0%	0.05	80.0%	0.20	1.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.25
Thinner 21-26 (Amercoat 101)	7.43	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	10.0%	0.03	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.03
Americoat 911 (clean-up/thinner)	7.34	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.00
***Worst Case PTE (tons/year):**			**0.01**		**0.05**		**1.04**		**0.00**		**0.03**		**0.10**		**0.00**		**0.00**		**0.00**		**1.15**

Methodology & Notes:
PTE = Potential to Emit; HAPs = Hazardous Air Pollutants; MEK = Methyl Ethyl Ketone; MIBK = Methyl Isobutyl Ketone
Maximum capacity of coating is 1.00 unit/hr.
*The surface coating operation only has the ability to paint one radar screen per hour, using one coating. The PTE is based on the coating as applied, with the worst case HAPs content.
PTE of HAPs (tons/yr) = [Density (lbs/gal)] × [Maximum Material Usage (gal/unit)] × [Maximum Capacity (units/hr)] × [HAP Content (% by Weight)] × [8,760 (hr/yr)] / [2,000 (lbs/ton)]

Appendix A: Emissions Calculations
Abrasive Blasting - Confined
Abrasive Blasting Booth (B3)

Company Name: SAIC
Source Address: 3290 16th Street, Bedford, IN 47421
MSOP No. 093-47795-00034
Permit Reviewer: Claire Marlatt

Table 1 - Emission Factors for Abrasives

Abrasive	Emission Factor (EF)	
	lb PM / lb abrasive	lb PM_{10} / 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

Abrasive	Density (lb/ft^3)
Al Oxides	160
Sand	99
Steel	487

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 Type (diameter)	Internal diameter (inches)	Nozzle Pressure (psig)							
		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)	0.188	65	80	94	107	122	135	149	165
No. 4 (1/4 inch)	0.250	109	138	168	195	221	255	280	309
No. 5 (5/16 inch)	0.313	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)	0.438	385	472	560	645	755	820	905	940
No. 8 (1/2 inch)	0.500	503	615	725	835	945	1,050	1,160	1,265
No. 10 (5/8 inch)	0.625	820	990	1,170	1,336	1,510	1,680	1,850	2,030
No. 12 (3/4 inch)	0.750	1,140	1,420	1,670	1,915	2,160	2,400	2,630	2,880
No. 16 (1 inch)	1.000	2,030	2,460	2,900	3,340	3,780	4,200	4,640	5,060

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/ft^3
ID1 = Internal diameter of nozzle for sand blasting from Table 3 =	0.3125	inch
FR1 = Sand flow rate at nozzle pressure and internal diameter (ID1) from Table 3 =	441	lb/hr (based on 85 psig)
D = Density of actual abrasive =	160	lb/ft^3
ID = internal diameter of actual nozzle =	0.3125	inch
FR = Flow rate of actual abrasive (lb/hr) =	712.73	lb/hr (per nozzle)

Potential to Emit Before Control

FR = Flow rate of actual abrasive (lb/hr) =	712.73		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 =	0.010		lb PM/ lb abrasive
PM_{10} emission factor ratio for actual abrasive from Table 1 =	0.70		lb PM_{10} / lb PM
	PM	**$PM_{10}/PM_{2.5}$***	
Potential to Emit (before control) =	7.127	4.989	lb/hr
=	171.05	119.74	lb/day
=	31.22	21.85	ton/yr

Potential to Emit After Control

	PM	$PM_{10}/PM_{2.5}$*	
Emission Control Device Efficiency =	99.5%	99.5%	
Potential to Emit (after control) =	3.6E-02	2.5E-02	lb/hr
=	0.855	0.599	lb/day
=	0.156	0.109	ton/yr

Methodology & Notes:
PTE = Potential to Emit; PM = Particulate Matter; PM_{10} = Particulate Matter (<10 µm); $PM_{2.5}$ = Particulate Matter (<2.5 µm)
Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition).
Flow rate of actual abrasive (FR) (lbs/hr) = FR1 × (ID/ID1)^2 × (D/D1)
Potential to Emit (before control) = EF × FR × (1 - w/200) × 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/yr) = [Potential to Emit (lbs/hr)] × [8,760 (hr/yr)] / [2,000 (lbs/ton)]
*$PM_{2.5}$ emissions assumed equal to PM_{10}.

326 IAC 6-3-2 Allowable PM Emission Rate

Unit	Process Weight Rate of Parts (lbs/hr)	Maximum Abrasive Usage Rate (lbs/hr)	Total Process Weight Rate (lbs/hr)	Total Process Weight Rate (tons/hr)	326 IAC 6-3-2 Allowable PM Emission Rate (lbs/hr)	Uncontrolled PTE of PM (lbs/hr)	Control Efficiency (%)	Controlled PTE of PM (lbs/hr)
Abrasive Blasting Booth	150	712.73	862.7	0.43	2.33	7.13	99.5%	0.04

The abrasive blasting booth (B3) has uncontrolled potential particulate emissions of 7.13 pounds per hour, which is greater than the 326 IAC 6-3-2 allowable particulate emission rate of 2.33 pounds per hour. Therefore, in order to comply with the 326 IAC 6-3-2 allowable particulate emission rate, particulate from the abrasive blasting booth (B3) shall be controlled by the dust collector at all times the abrasive blasting booth is in operation.

Methodology & Notes:
Total Process Weight Rate (lbs/hr) = [Process Weight Rate of Parts (lbs/hr)] + [Maximum Abrasive Usage Rate (lbs/hr)]
Total Process Weight Rate (tons/hr) = [Total Process Weight Rate (lbs/hr)] / [2,000 (lbs/ton)]
326 IAC 6-3-2 Allowable PM Emission Rate = 4.10 × [Total Process Weight Rate (tons/hr)]$^{0.67}$
Uncontrolled PTE of PM (lbs/hr) = [Maximum Abrasive Usage Rate (lb/hr)] × [PM Emission Factor (lb PM/lb abrasive)]
Controlled PTE of PM (lbs/hr) = [Uncontrolled PTE of PM (lbs/hr)] × [1 - Control Efficiency (%)]

Appendix A: Emissions Calculations
Fugitive Dust Emissions - Paved Roads

Company Name: SAIC
Source Address: 3290 16th Street, Bedford, IN 47421
MSOP No. 093-47795-00034
Permit Reviewer: Claire Marlatt

Paved Roads at Industrial Site
The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Informtation (provided by source)

Type of Traffic	Vehicle Type	Maximum Number of Vehicles Daily	Number of One-Way Trips per Day per Vehicle	Maximum Trips (trip/day)	Max Weight of Vehicle (tons/trip)	Total Weight Driven per Day (ton/day)	Maximum One-Way Distance			
							Feet/Trip	Miles/Trip	Miles/Day	Miles/Year
Vehicle Type 1 (entering plant) (one-way trip)	Cars	105.0	1.0	105.0	4.0	420.0	200	0.038	4.0	1,451.7
Vehicle Type 1 (leaving plant) (one-way trip)	Cars	105.0	1.0	105.0	4.0	420.0	200	0.038	4.0	1,451.7
Vehicle Type 2 (entering plant) (one-way trip)	Light Trucks	2.0	1.0	2.0	4.0	8.0	300	0.057	0.1	41.5
Vehicle Type 2 (leaving plant) (one-way trip)	Light Trucks	2.0	1.0	2.0	4.0	8.0	300	0.057	0.1	41.5
			Total	**214.0**	**16.0**	**856.0**	**1,000.0**	**0.189**	**8.2**	**2,986.4**

Average Vehicle Weight Per Trip = 4.0 tons/trip
Average Miles Per Trip = 0.04 miles/trip

Unmitigated Emission Factor, $EF = [k \times (sL)^{0.91} \times (W)^{1.02}]$ (Equation 1 from AP-42 13.2.1)

	PM	PM_{10}	$PM_{2.5}$	
where k =	0.011	0.0022	0.00054	lbs/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	4.0	4.0	4.0	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m^2 = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, $Eext = E \times [1 - (p/4N)]$ (Equation 2 from AP-42 13.2.1)
Mitigated Emission Factor, $Eext = EF \times [1 - (p/4N)]$
where p = 125 days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM_{10}	$PM_{2.5}$	
Unmitigated Emission Factor, EF =	0.358	0.072	0.0176	lbs/mile
Mitigated Emission Factor, Eext =	0.327	0.065	0.0161	lbs/mile

Type of Traffic	Vehicle Type	Unmitigated PTE (tons/yr)			Mitigated PTE (tons/yr)		
		PM	PM_{10}	$PM_{2.5}$	PM	PM_{10}	$PM_{2.5}$
Vehicle Type 1 (entering plant) (one-way trip)	Cars	0.26	0.05	0.01	0.24	0.05	0.01
Vehicle Type 1 (leaving plant) (one-way trip)	Cars	0.26	0.05	0.01	0.24	0.05	0.01
Vehicle Type 2 (entering plant) (one-way trip)	Light Trucks	0.01	0.00	0.00	0.01	0.00	0.00
Vehicle Type 2 (leaving plant) (one-way trip)	Light Trucks	0.01	0.00	0.00	0.01	0.00	0.00
Potential to Emit Totals		**0.53**	**0.11**	**0.03**	**0.49**	**0.10**	**0.02**

Methodology & Notes:
PTE = Potential to Emit; PM = Particulate Matter; PM_{10} = Particulate Matter (<10 μm); $PM_{2.5}$ = Particulate Matter (<2.5 μm)
Total Weight driven per day (ton/day) = [Maximum Weight of Loaded Vehicle (tons/trip)] × [Maximum trips per day (trip/day)]
Maximum One-Way Distance (mi/trip) = [Maximum One-Way Distance (ft/trip) / [5,280 (ft/mile)]
Maximum One-Way Miles (mi/day) = [Maximum Trips (trip/day)] × [Maximum One-Way Distance (mi/trip)]
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight Driven per Day (ton/day)] / SUM[Maximum Trips per Day (trip/day)]
Average Miles Per Trip (mi/trip) = SUM[Maximum One-Way Miles (mi/day)] / SUM[Maximum Trips per Day (trip/day)]
Unmitigated PTE (tons/yr) = [Maximum One-Way Miles (mi/yr)] × [Unmitigated Emission Factor (lbs/mi)] / [2,000 (lbs/ton)]
Mitigated PTE (tons/yr) = [Maximum One-Way Miles (mi/yr)] × [Mitigated Emission Factor (lbs/mi)] / [2,000 (lbs/ton)]
Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] × [1 - Dust Control Efficiency (%)]

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: Jeremy Stillman
SAIC
3290 16th St
Bedford, IN 47421

DATE: June 28, 2024

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

SUBJECT: Final Decision
MSOP Minor Permit Revision
093-47795-00034

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 47795

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 28, 2024
SAIC
093-47795-00034

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 47795

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

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2		Bedford City Council and Mayors Office 1102 16th St Bedford IN 47421 *(Local Official)*									
3		Lawrence County Board of Commissioners 916 15th St Bedford IN 47421 *(Local Official)*									
4		Mr. Anthony Wray 1861 Buddha Bypass Rd Bedford IN 47421 *(Affected Party)*									
5		Mr. Bobby Minton 7745 S Fairfax Rd Bloomington IN 47401 *(Affected Party)*									
6		Mr. David Weatherholt Boilermaker Local #374 4777 E CR 2100 N Dale IN 47523 *(Affected Party)*									
7		Lawrence County Health Department 2419 Mitchell Rd Bedford IN 47421 *(Health Department)*									
8		Krystal Shetler Times-Mail 813 16th St Bedford IN 47421 *(Affected Party)*									
9		Amanda Chadwell August Mack Environmental Inc 1302 N Meridian St Ste 300 Indianapolis IN 46202 *(Consultant)*									
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