Ms. Terri Evans
Brunner Engineering & Mfg., Inc.
P.O. Box 1367
Bedford, IN 47421

Re: Significant Source Modification No:
093-11157-00010 to a not yet issued
Part 70 No.: T093-7549-00010

Dear Ms. Evans:

Brunner Engineering & Mfg., Inc. applied for a Part 70 operating permit on December 12, 1996 for manufacturing steel tanks. An application to modify the source was received on July 2, 1999. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(a) One (1) spray booth, identified as B1 which is equipped with airless and air assisted guns, with a maximum capacity of 9.68 units per hour, using dry filters as control, and exhausting to stack C1

(b) One (1) spray booth, identified as B2 which is equipped with airless and air assisted guns, with a maximum capacity of 9.68 units per hour, using dry filters as control, and exhausting to stack C2.

(c) One (1) drying oven, identified as D1, with a maximum capacity of 1.665 million British thermal units (MMBTU) per hour, and exhausting to stack D01.

The proposed Significant Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). If there are no changes to the proposed construction of the emission units, the source may begin operating on the date that IDEM receives an affidavit of construction pursuant to 326 IAC 2-7-10.5(h). If there are any changes to the proposed construction the source can not operate until an Operation Permit Validation Letter is issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter call (800) 451-6027, press 0 and ask for Shantanu Pahi or extension 3-0868, or dial (317) 233-0868.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Spahi
cc: File - Lawrence County
U.S. EPA, Region V
Lawrence County Health Department
Air Compliance Section Inspector - Joe Foyst
Compliance Data Section - Karen Nowak
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

PART 70 *SIGNIFICANT* SOURCE MODIFICATION
OFFICE OF AIR MANAGEMENT

Brunner Engineering & Mfg., Inc.
800 - 900 X Street
Bedford, Indiana 47421

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

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 093-11157-00010	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) . The information describing the emission units contained in conditions A.1 through 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 approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary steel tank manufacturing plant.

Responsible Official:	Darryl Zupancic
Source Address:	800 - 900 X Street, Bedford, Indiana 47421
Mailing Address:	P. O. Box 1367, Bedford, Indiana 47421
Phone Number:	812-275-5931
SIC Code:	3443
County Location:	Lawrence
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD or Emission Offset Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

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

(a) One (1) spray booth, identified as B1 which is equipped with airless and air assisted guns, with a maximum capacity of 9.68 units per hour, using dry filters as control, and exhausting to stack C1

(b) One (1) spray booth, identified as B2 which is equipped with airless and air assisted guns, with a maximum capacity of 9.68 units per hour, using dry filters as control, and exhausting to stack C2.

(c) One (1) drying oven, identified as D1, with a maximum capacity of 1.665 million British thermal units (MMBTU) per hour, and exhausting to stack D01.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

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.

B.2 Definitions [326 IAC 2-7-1]

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

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

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

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), 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.

B.5 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

(a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval 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 emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.

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

(d) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

However, in the event that the Title V application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:

(1) If the Title V draft permit has not gone on public notice, then the change/addition covered by the Significant Source Modification will be included in the Title V draft.

(2) If the Title V permit has gone thru final EPA proposal and would be issued ahead of the Significant Source Modification, the Significant Source Modification will go thru a concurrent 45 day EPA review. Then the Significant Source Modification will be incorporated into the final Title V permit at the time of issuance.

(3) If the Title V permit has not gone thru final EPA review and would be issued after the Significant Source Modification is issued, then the Modification would be added to the proposed Title V permit, and the Title V permit will issued after EPA review.

B.6 Phase Construction Time Frame

That pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the IDEM may revoke this approval to construct if the:

(a) Construction of spray booths has not begun within eighteen (18) months from the effective date of this approval or if during the construction of spray booths, work is suspended for a continuous period of one (1) year or more.

The OAM may extend such time upon satisfactory showing that an extension, formally requested by the Permittee is justified.

B.7 BACT Determination for Phase Constructions

That pursuant to 40 CFR 52.21(j)(4), for phase construction projects, the determination of BACT shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than eighteen (18) months prior to commencement of construction of each independent phase of the project.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

(a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, on the attached Certification Form, with each submittal.

(c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, 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;

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

If due to circumstances beyond its control, the PMP 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 Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

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

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

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.

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

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

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

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

(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.5 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided in this approval, all air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission unit***s*** vented to the control equipment are in operation.

C.6 Stack Height [326 IAC 1-7]

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

Testing Requirements [326 IAC 2-7-6(1)]

C.7 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

(a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

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

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

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

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

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.8 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

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

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

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

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

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.9 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

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

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

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

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.10 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

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

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

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

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

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

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

C.11 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum

of three (3) years and available upon the request of an IDEM and OAM representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

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

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

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

(c) Support information shall include, where applicable:

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

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

(3) All calibration and maintenance records;

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

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

C.12 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

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

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

(b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval 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 and OAM on or before the date it is due.

(c) Unless otherwise specified in this approval, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

(a) One (1) spray booth, identified as B1 which is equipped with airless and air assisted guns , with a maximum capacity of 9.68 units per hour, using dry filters as control, and exhausting to stack C1

(d) One (1) spray booth, identified as B2 which is equipped with airless and air assisted guns, with a maximum capacity of 9.68 units per hour, using dry filters as control, and exhausting to stack C2.

(e) One (1) drying oven, identified as D1, with a maximum capacity of 1.665 million British thermal units (MMBTU) per hour, and exhausting to stack D01.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

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

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volume-weighted average volatile organic compound (VOC) content of coating applied to steel tanks shall be limited to 3.5 pounds of VOCs per gallon of coating less water, as delivered to the applicator for any calender day, for forced warm air (less than 90EC or 194 EF) dried coatings.

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the volatile organic compounds limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.4 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.5 Particulate Matter (PM)

The dry filters for PM overspray control shall be in place at all times when the paint booths(B1 or B2 or both) are in operation.

D.1.6 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks C1 and C2 while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.7 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (4) shall be taken daily and shall be complete and sufficient to establish compliance with the VOC emission limit established in Condition D.1.1.

(1) The amount and VOC content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(3) The cleanup solvent usage for each day;

(4) The total VOC usage for each day; and

(b) To document compliance with Condition D.1.2 and D.1.6, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

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

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

PART 70 SOURCE MODIFICATION CERTIFICATION

Source Name: Brunner Engineering & Mfg., Inc.
Source Address: 800 - 900 X Street, Bedford, Indiana 47421
Mailing Address: P. O. Box 1367, Bedford, Indiana 47421
Source Modification No.: 093-11157-00010

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

Please check what document is being certified:

9 Test Result (specify) _____

9 Report (specify) _____

9 Notification (specify) _____

9 Other (specify) _____

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

Signature:

Printed Name:

Title/Position:

Date:

Indiana Department of Environmental Management
Office of Air Management

Addendum to the
Technical Support Document for Significant Source Modification to a not yet issued Part 70 Operating Permit

Source Name:	**Brunner Engineering & Mfg., Inc.**
Source Location:	**800 - 900 X Street, Bedford, Indiana 47421**
County:	**Lawrence**
SIC Code:	**3443**
Operation Permit No.:	**T093-7549-00010**
Date Issued:	**Not yet Issued**
Significant Source modification no.:	**093-11157-00010**
Permit Reviewer:	**Spahi**

On August 19,1999, the Office of Air Management (OAM) had a notice published in the Times-Mail, Bedford, Indiana, stating that Brunner Engineering & Mfg., Inc. had applied for a significant source modification to a not yet issued Part 70 Operating Permit to operate a stationary steel manufacturing plant. The notice also stated that OAM proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On September 20,1999, Brunner Engineering & Mfg., Inc. submitted comments on the proposed significant source modification to a not yet issued Part 70 permit. The summary of the comments is as follows:

Comment #1: With respect to the identification of Brunner's responsible official in SECTION A of the draft Source Modification, Mr. Darryl Zupancic, Brunner's Plant Manager, should be identified as the responsible official, not Terri Evans.

Response # 1: OAM has already incorporated this change into the permit.

Comment #2: For clarity, and for consistency with changes to the Technical Support Document requested below, Brunner recommends that the Facility Description for the drying oven be included with the descriptions for the two spray booths on Page 12 of 15, since all three facilities are integral components of the coating process for the main production lines. Concurrently, the drying oven description should be deleted from Page 14 of 15.

Response #2: OAM has already incorporated this change into the permit.

Comment #3: With respect to the proposed provisions of Section D.1.6 of the draft Source Modification, Brunner suggests that one of the two following alternative provisions be utilized in place of the current draft language:

ALTERNATIVE ONE -- D.1.6.

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the dry filters for Spray Paint Booths B1 and B2. To monitor the performance of the dry filters, weekly measurements observations shall be taken of the pressure drop across the dry filter for each Spray Booth of the overspray from the Spray Paint Booth, B1 stack's C1 while it is in operation. The

Compliance Response . . .

(b) Monthly inspections shall be performed of the coating emissions from . . . .

(c) Additional inspections and preventive measures . . . .

ALTERNATIVE TWO -- D.1.6

(a) The Permittee shall implement an operator training program as described below:

(1) All operators that perform spray painting operations or booth maintenance for Spray Paint Booths B1 or B2 shall be trained in the proper set-up and operation of the dry filter particulate control system. All existing operators shall be trained within 60 days after the date of permit issuance. All new operators shall be trained upon hire or transfer from other operations.

(2) Training shall include proper filter alignment, filter inspection and maintenance, and trouble shooting practices. The training program shall be written and retained on site. The training program shall include a description of the methods to be used at the completion of initial and refresher training to demonstrate and document successful completion. Copies of the training program, the list of trained operators, and training records shall be maintained on site or be available within one (1) hour for inspection by IDEM.

(3) All operators shall be given refresher training annually.

(b) Additional inspections and preventive measures . . . .

Response #3: Alternative one is not acceptable, because it proposes longer time periods than detailed in the original compliance monitoring condition. These longer time periods will not meet the Title V goal of assuring continuous compliance.

Brunner Engineering and Manufacturing, Inc. should be complemented on its intentions to incorporate a training program and is encouraged to do so, but the training detailed in alternative two or any similar training program cannot take the place of compliance monitoring. The OAM has included training as a permit condition, along with a compliance determination requirement for some sources. OAM uses several criteria to determine the applicability of those conditions to that source.

A compliance determination requirement such as that requested by Brunner Engineering and Manufacturing, Inc. is an option that must be determined on a case-by-case basis by the OAM for facilities that have an excellent compliance history and may be able to comply with 326 IAC 6-3 without filters, assuming all of the overspray is emitted. In 1996, 1997, and 1998, Brunner Engineering and Manufacturing, Inc. exceeded the 25 tons per year threshold while using coatings with a VOC content over 3.5 lbs/gal in paint booths B1 and B2, a violation of 326 IAC 8-2-9(d)(2). The pending violation occurred on the same operation for which they are now requesting the training condition. Condition D.1.6 has not been changed as a result of this comment.

Comments on Draft Technical Support Document

Comment #4: The Emissions Calculations for VOCs presented in Appendix A to the Technical Support Document (TSD) do not reflect the proper paint usage for Booth 1. The column headed 'Gal of Mat' for Booth 1 should reflect some additional usage to account for the Paint Pot guns

which are used in Booth 1 but not in Booth 2. The paint usage for the Paint Pot guns in Booth 1 was provided on Form W1 of the permit application and labeled that it reflected usage for PAINT POT GUNS ONLY. The usage from this Form W1 should be added to the usage provided on the Booth 1 Form W1 labeled MAIN PAINT GUNS. In summary, the paint usage for Booth 1 presented in Appendix A to the TSD should be greater than the paint usage for Booth 2.

Response #4 OAM has re-calculated the emissions from the paint booth #1, the emissions(PM and VOC) from the Booth 1 are slightly higher than Booth 2. This change in emissions from Booth #1 shall be kept on record.

Comment #5: As has been addressed in separate correspondence from Brunner to IDEM's OAM Permit Branch, Brunner respectfully suggests that a more accurate depiction of the VOC emissions from the coating operation for the main production lines would involve an allocation of the VOCs between the spray booths and the drying oven. As was discussed with Shanty Pahi by tel-conference on August 27, 1999, the best information available to Brunner from the manufacturer of the spray guns currently used in the existing coating operations (which would be used in the new booths as well) is that a transfer efficiency of 55% is achieved. The 45% of the coating material not transferred becomes a component of the booth's VOC emissions. On the other hand, particularly with the water based paints, the VOC emissions from the coating material actually transferred to Brunner's product would be assumed to occur in the drying ovens. Thus, Brunner suggests that the proper allocation of VOC emissions between the new booths and the drying oven is 45% to 55%, consistent with the transfer efficiency. If IDEM wishes, the manufacturers' information on transfer efficiencies can be provided. Brunner respectfully requests that the TSD be revised, or an addendum provided to the TSD, to show this allocation of VOC emissions between the paint booths and the drying oven. For example, on Page 4 of the TSD, the table included in the section titled Potential to Emit Modification After Issuance should be modified to reflect allocation of 55% of the potential VOC emissions to the Drying Oven unit, thereby reducing the emissions from the paint booths.

Brunner realizes that this correct depiction of the distribution of VOC emissions between the paint booths and the drying oven has no impact on the applicable requirements for VOC controls. The use of low VOC-content coating materials, pursuant to 326 IAC 8-2-9, is applicable to control the VOC emissions from the coating operations, whether those emissions physically occur from the stacks for the paint booths or from the drying oven stack.

Response #5: OAM will note and keep it on record that the distribution of VOC emissions between the booth and the oven at the 45%/55% ratio. This split will not change any calculations related to the potential to emit (PTE) of VOC from the booth and the oven nor it will change any applicable requirements for the booth or the oven.

Comment #6: On Page 2 and 3 of the TSD, with respect to the section entitled Potential to Emit Modification, Brunner is uncertain why the table in this section reports PMl0 as higher than PM? Brunner doesn't understand how this result can occur. Also, is this table characterizing potentials to emit for all of the units subject to this modification or to each of the paints booths singularly? It appears that the values in the table are closer to the calculated values for only one (1) paint booth. Brunner respectfully requests that clarification be made in the TSD Addendum as to the scope of the PM/PM10 data in this table.

Response #6: PM-10 emissions are slightly higher than the PM emissions because when calculating the emissions from the oven, the PM-10 emission factor (7.6 lb/MMCF) is higher than PM emission factor (1.9 lb/MMCF). These emission factors for the oven(natural gas combustion

MMBTU/hr < 100) were taken from Table 1.4-2, AP-42(March 1998 edition). The table on page 2 of 3 represents the potential to emit (PTE) of all the units (two(2) paint booths and the oven) subject to this modification not each of the paint booths singularly.

Comment #7: On Page 2 of the TSD, in the section entitled Emission Calculations, the value for PM/PM10 appears to be for one booth only. (This is similar to the comment above under item 3.) Please verify whether these PM/PM10 data are for one or two paint booths?

Response #7: The PM/PM10 data is for two paint booths and the oven.

Comment #8: With regard to the section titled Source Status on Page 3 of the TSD, Brunner believes that the VOC Emissions stated in the table are substantially overstated and in error. These data are identified in the TSD as originating from the Airs Facility Quick Look Report. Brunner believes that the VOC emissions after controls for the source should be about 140.7 tons/years based on the actual emissions reported to IDEM for the most recent reporting period -- calendar year 1998. The actual VOC emissions reported were 33.4 tons. Since the facility operated 2,080 hours per years, these actual emissions correspond to 140.7 tons per year when multiplied by a factor of 4.2115 to reflect what VOC emissions would have been if the source had operated 8,760 hours per year.

Response #8: OAM has investigated this matter and has looked at the past Technical Support Documents issued to this source and has decided that the emissions from the Airs Facility Quick Look Report are in error. The following table represents the correct emissions(after control) from the source, this information was based upon past permits issued to the source:

	Potential to Emit (tons/year)					
Permit No.	PM	PM-10	SO_2	VOC	CO	NO_X
10450	0.1	0.1	0.0	0.0	0.6	0.7
3407	16.5	16.5	0.0	26.14	0.0	0.0
Total	16.6	16.6	0.0	26.14	0.6	0.7

Comment #9: On Page 4 of the TSD, the sentence labeled as (4) is incorrect, being based on erroneously high VOC emissions, as discussed in the preceding comment. Thus, this statement should be corrected to state that the existing source is not a major stationary source.

Response #9: See the table in response #9, this table represents the correct emissions(after control) for the source before modification. OAM will keep this on record that this source is not a major stationary source.

Comment #10: On Page 5 of the TSD, paragraphs (a) and (b) pose the same compliance monitoring issues discussed above with respect to the Source Modification and Brunner requests that the TSD Addendum reflect whatever changes may occur in these monitoring requirements in response to Brunner's comments.

Response #10: The compliance monitoring conditions listed in the TSD are not applicable to the modification. The new compliance monitoring conditions listed in the response #3 are now applicable to this source.

Indiana Department of Environmental Management
Office of Air Management

Technical Support Document (TSD) for a not yet issued Part 70 ***Significant*** Source Modification.

Source Background and Description

Source Name:	Brunner Engineering & Mfg., Inc.
Source Location:	800-900 X Street, Bedford, IN 47421
County:	Lawrence
SIC Code:	3443
Operation Permit No.:	T 093-7549-00010
Operation Permit Issuance Date:	Not Yet issued
Significant Source Modification No.:	093-11157-00010
Permit Reviewer:	Spahi

The Office of Air Management (OAM) has reviewed a modification application from Brunner Engineering & Mfg., Inc. relating to the construction of the following emission units and pollution control devices:

(a) One (1) spray booth, identified as B1 which is equipped with airless and air assisted guns, with a maximum capacity of 9.68 units per hour, using dry filters as control, and exhausting to stack C1

(b) One (1) spray booth, identified as B2 which is equipped with airless and air assisted guns, with a maximum capacity of 9.68 units per hour, using dry filters as control, and exhausting to stack C2.

(c) One (1) drying oven, identified as D1, with a maximum capacity of 1.665 million British thermal units (MMBTU) per hour, and exhausting to stack D01.

History

On July 2, 1999, Brunner Engineering & Mfg., Inc. submitted an application to the OAM requesting to replace the spray booths at their existing plant. Brunner Engineering & Mfg., Inc. has a pending Part 70 permit which was submitted on December 12, 1996.

Enforcement Issue

The source has the following enforcement actions pending:

(1) for violating the limit of 3.5 pounds of VOCs per gallon of coating less water listed in rule 326 IAC 8-2-9 (Miscellaneous Metal Coatings).

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
C1	Paint Booth (B1)	16	3	26,400	Ambient
C2	Paint Booth (B2)	16	3	26,400	Ambient
D01	Drying Oven (D1)	16	3	1,720	less than 150

Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on July 1, 1999.

Emission Calculations

See Appendix A of this document for detailed VOC emissions calculations from the two spray booths (1 Page.)

See Appendix B of this document for detailed emissions calculations from the drying oven (2 Pages)

Spray Booths only:

PM/PM10 Emissions after control = 57.98 tons/ yr x (100% -97%)
= 1.74 tons/yr

Potential To Emit of Modification

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

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

Pollutant	Potential To Emit (tons/year)
PM	57.98
PM-10	58.08
SO_2	0.00
VOC	20.14
CO	0.60
NO_x	0.40

Justification for Modification

The Part 70 Operating permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4)(A) because the potential to emit of PM and PM10 is greater than twenty-five (25) tons per year.

County Attainment Status

The source is located in Lawrence County.

Pollutant	Status
PM-10	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

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

(b) Lawrence County has been classified as attainment or unclassifiable for PM, PM10 and VOC. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

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

Pollutant	Emissions (tons/year)
PM	0.95
PM-10	0.39
SO_2	0.00
VOC	662.0
CO	0.00
NOx	0.00

(d) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

(e) These emissions are based upon Airs Facility Quick Look Report, updated January 22, 1999.

Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

	Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Paint Booths	1.74	1.74	0.0	20.14	0.0	0.0	0.0
Drying Ovens	0.0	0.1	0.0	0.0	0.6	0.4	0.0
Total	1.74	1.84	0.0	20.14	0.6	0.4	0.0
PSD Significant Levels	25	15	40	40	100	40	-

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Federal Rule Applicability

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

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

State Rule Applicability - Individual Facilities

326 IAC 8-2-9 (Miscellaneous Metal Coating)

Any surface coating facilities constructed after July 1, 1990 which has actual emissions of greater than fifteen (15) pounds of volatile organic compounds(VOCs) before add-on controls is subject to 326 IAC 8-2. Additionally 326 IAC 8-2-9(a)(5) states that any industrial category which coats metal parts or products under the standard industrial classification code of major groups #33, #34, #35, #36,#37, #38 and #39 is subject to 326 IAC 8-2-9 and this spray booth operation(SIC #3443) falls under this category.

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

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

Based on the MSDS submitted by the source and calculations made, the spray booth is in compliance with this requirement because the maximum volatile organic compound (VOC) content of the coatings delivered at the applicator at each of the spray booths is 1.07 pounds of VOCs per gallon of coating less water which is less than 3.5 pounds of VOCs per gallon of coating less water limit.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

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

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the Spray Paint Booth, B1 stack's C1 while it is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Conclusion

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 093-11157-00010.

Appendix B: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
External Combustion Units

Company Name: **Brunner Engineering & Manufacturing**
Address City IN Zip: **800-900 X St., Bedford, IN 47421**
SSM: **093-11157**
Plt ID: **093-00010**
Reviewer: **Spahi**
Date: **July 21,1999**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.7	14.5

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	50.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.0	0.1	0.0	0.4	0.0	0.6

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).
See page 2 for HAPs emissions calculations.

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

HAPs Emissions

Company Name: **Brunner Engineering & Manufacturing**
Address City IN Zip: **800-900 X St., Bedford, IN 47421**
SSM: **093-11157**
Plt ID: **093-00010**
Reviewer: **Spahi**
Date: **July 21,1999**

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.518E-05	8.672E-06	5.420E-04	1.301E-02	2.457E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	3.614E-06	7.950E-06	1.012E-05	2.746E-06	1.518E-05

Methodology is the same as page 1.

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

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations

Company Name: **Brunner Engineering & Manufacturing**
Address City IN Zip: **800-900 X St., Bedford, IN 47421**
SSM: **093-11157**
Plt ID: **093-00010**
Reviewer: **Spahi**
Date: **July 21,1999**

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Booth 1																
SC2006 Red Primer	9.8	53.25%	48.7%	4.6%	57.3%	36.86%	0.54525	9.680	1.05	0.45	2.36	56.73	10.35	26.48	1.22	75%
SC8002 Grey Primer	9.8	53.69%	49.2%	4.5%	57.4%	36.81%	0.54525	9.680	1.04	0.44	2.34	56.10	10.24	26.28	1.20	75%
SB8001 Grey Enamel	9.6	53.06%	48.1%	5.0%	54.9%	38.85%	0.54525	9.680	1.07	0.48	2.54	60.93	**11.12**	26.10	1.24	75%
SB1001 White Enamel	10.5	47.08%	42.6%	4.5%	52.5%	41.39%	0.54525	9.680	1.00	0.47	2.50	59.95	10.94	**32.02**	1.14	75%
SB9001 Black Enamel	9.1	55.88%	50.7%	5.2%	55.2%	38.70%	0.54525	9.680	1.05	0.47	2.49	59.86	10.92	23.13	1.22	75%
Booth 2																
SC2006 Red Primer	9.8	53.25%	48.7%	4.6%	57.3%	36.86%	0.49360	9.680	1.05	0.45	2.14	51.36	9.37	23.97	1.22	75%
SC8002 Grey Primer	9.8	53.69%	49.2%	4.5%	57.4%	36.81%	0.49360	9.680	1.04	0.44	2.12	50.79	9.27	23.79	1.20	75%
SB8001 Grey Enamel	9.6	53.06%	48.1%	5.0%	54.9%	38.85%	0.49360	9.680	1.07	0.48	2.30	55.16	**10.07**	23.63	1.24	75%
SB1001 White Enamel	10.5	47.08%	42.6%	4.5%	52.5%	41.39%	0.49360	9.680	1.00	0.47	2.26	54.27	9.90	**28.99**	1.14	75%
SB9001 Black Enamel	9.1	55.88%	50.7%	5.2%	55.2%	38.70%	0.49360	9.680	1.05	0.47	2.26	54.19	9.89	20.94	1.22	75%

State Potential Emissions **Add worst case coating to all solvents**

METHODOLOGY

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