

VIA CERTIFIED MAIL

Mr. Gary McPhail
Lippert Components, Inc.-Indiana Frame Division
16700 Skyview Drive
Goshen, Indiana 46526

Re: SMF 039-9351
First Significant Modification to
FESOP F039-5477-00309

Dear Mr. McPhail:

Lippert Components, Inc. - Indiana Frame Division was issued a Federal Enforceable State Operating Permit (FESOP) on December 11, 1996 for the operation of their mobile home manufacturing operation. A letter requesting changes to this permit was received on January 5, 1998. Pursuant to the provisions of 326 IAC 2-8-11 a significant modification to this permit is hereby approved as described in the attached Technical Support Document for First Significant Permit Modification of the Federally Enforceable State Operating Permit (FESOP) and Enhanced New Source Review (ENSR).

The modification consists of the construction and operation of ten (10) stick welding stations, six (6) MIG welding stations, a new surface coating line (Paint line E-3) for the manufacturing of RV's, as well as the addition of two (2) new spray guns to their existing paint lines (E-1 and E-2); changes in the emission limitation, record keeping and reporting requirements for the existing and new paint lines (E-1, E-2, E-3); and the addition of the General Construction Conditions for the modifications to paint lines E-1 E-2, and E-3.

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Jeremy Magliaro, c/o OAM at the above address; or by phone at 973-575-2555 extension 3284 or 1-800-451-6027.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch

Office of Air Management

Mr. Gary McPhail
Lippert Components, Inc-Indiana Frame Division
Page Two

Attachments

JM/EVP

cc: File - Elkhart County
U.S. EPA, Region V
Elkhart County Health Department
Air Compliance Section - Greg Wingstrom
Compliance Data Section - Jerri Curless
Administrative and Development - Janet Mobley
Data Support - Nancy Landau

**FEDERALLY ENFORCEABLE STATE
OPERATING PERMIT (FESOP)
and ENHANCED NEW SOURCE REVIEW
OFFICE OF AIR MANAGEMENT**

**Lippert Components-Indiana Frame Division
16700 Skyview Drive
Goshen, Indiana 46526**

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 and contains the conditions and provisions specified in 326 IAC 2-8 and 40 CFR Part 70.6 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments) and IC 13-15 and IC 13-17 (prior to July 1, 1996, IC 13-1-1-4 and IC 13-7-10).

Operation Permit No.: F039-5477-00309	
Original issued by Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date: December 11, 1996
First Minor Permit Modification: SMF039-9351	Pages Affected: 4, 6, 14, 18a, 19 , 20, 20a-c, 22a
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A

SOURCE SUMMARY

A.1 General Information

The Permittee owns and operates a mobile home metal frame manufacturing source.

Responsible Official: Gary McPhail
Source Address: 16700 Skyview Drive, Goshen, Indiana 46526
Mailing Address: 16700 Skyview Drive, Goshen, Indiana 46526
SIC Code: 3440
County Location: Elkhart
County Status: Maintenance for Ozone
Attainment for all other criteria pollutants
Source Status: Synthetic Minor Source, FESOP Program

A.2 Emission Units and Pollution Control Summary

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

- a) Two (2) air assisted airless spray guns, located in two (2) booths identified as E-1 and E-2, and each equipped with dry filters for overspray control.
- b) Two (2) air-assisted airless spray guns to be located in the existing permitted mobile home surface coating lines identified as E-1 and E-2, with a maximum capacity of coating 160.0 linear feet of metal mobile home frames per hour, and exhausted through two (2) existing stacks (S/V ID E1 and E2), respectively; and
- c) One (1) air-assisted airless surface coating line, identified as E-3, with a maximum capacity of coating 166.01 linear feet of metal RV frames per hour, utilizing dry filters for particulate control, and exhausted through one (1) stack (S/V ID E3).

A.3 Insignificant Activities

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(20):

- a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- c) Paved and unpaved roads and parking lots with public access.
- d) Welding activities emitting less than five (5) pounds per day or one (1) ton per year of a single HAP.

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

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

- b) The Permittee shall also provide additional information as requested by IDEM, OAM, to

determine the compliance status of the source in accordance with 326 IAC 2-8-5(a).

- c) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that the IDEM, OAM 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.
- d) Upon written request, the Permittee shall also furnish to IDEM, OAM, copies of records required to be kept by this permit. For information claimed to be confidential, the Permittee shall furnish such records directly to both the U.S. EPA and IDEM, OAM, along with a claim of confidentiality.

Such confidentiality claims shall meet the requirements of 40 CFR Part 2, Subpart B (when submitting to U.S. EPA) and 326 IAC 17 (when submitting to IDEM, OAM).

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

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

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
 - 1) enforcement action;
 - 2) permit termination, revocation and reissuance or modification; and
 - 3) denial of a permit renewal application.
- b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)]

Any application form, report, or compliance certification submitted under this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this permit shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

A responsible official is defined at 326 IAC 2-7-1(33).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- a) The Permittee shall annually certify that the source has complied with the terms and conditions contained in this permit, including emission limitations, standards, and work practices. The certification shall be submitted April 15 to:
- c) The Permittee shall pay the annual fee within thirty (30) calendar days of receipt of a

billing by IDEM, OAM or in a time period that is consistent with the payment schedule issued by IDEM, OAM.

- d) If the Permittee does not receive a bill from IDEM, OAM, thirty (30) calendar days before due date, the Permittee shall call the following telephone numbers: 1-800-451-6027 or 317-233-0179 (ask for OAM, Data Support Section), to determine the appropriate permit fee. The applicable fee is due April 1 of each year.

B.26 Enhanced New Source Review [326 IAC 2]

The requirements of the construction permit rules in 326 IAC 2 are satisfied by this permit for any previously unpermitted facilities and such facilities to be constructed within eighteen (18) months after the date of issuance of this permit, as listed in Sections A.2 and A.3.

C.13 Emission Statement [326 IAC 2-6] [326 IAC 2-8-4(3)]

- (a) The Permittee shall submit a certified, annual emission statement that meets the requirements of 326 IAC 2-6 (Emission Reporting). This annual statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8) (Emission Statement Operating Year). The annual statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The annual emission statement 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, OAM, on or before the date it is due.

SECTION D.1

FACILITY OPERATION CONDITIONS

- (a) Two (2) air assisted airless spray guns, located in two (2) booths identified as E-1 and E-2, and each equipped with dry filters for overspray control.
- (b) Two (2) air-assisted airless spray guns to be located on the existing permitted mobile home surface coating lines (E-1 and E-2), with a maximum capacity of coating 160.0 linear feet of metal mobile home frames per hour, and exhausted through two (2) existing stacks (S/V ID E1 and E2), respectively;
- (c) One (1) air-assisted airless surface coating line, identified as E-3, with a maximum capacity of coating 166.01 linear feet of metal RV frames per hour, utilizing dry filters for particulate control, and exhausted through one (1) stack (S/V ID E3);

Emissions Limitations [326 IAC 2-8-4(1)]

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

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating applied to the mobile home and RV metal frames shall be limited to 3.5 pounds of VOC per gallon of coating less water, for air dried coatings. or forced warm air dried coatings at temperatures up to 194°F Fahrenheit;

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), solvent sprayed from the application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.1.2 Volatile Organic Compounds

The VOC usage at the three (3) surface coating lines, (E-1, E-2, and E-3), shall be limited to a total of 99.0 tons per any twelve (12) consecutive months. This requirement satisfies the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-8 (FESOP), and shall render the requirements under 326 IAC 2-7 (Part 70 Program) not applicable.

D.1.3 Fine Particulate Matter (PM₁₀)

The PM₁₀ emissions from the three (3) surface coating lines, (E-1, E-2, and E-3), shall not exceed 19.8 pounds per hour. Therefore, the requirements of 326 IAC 2-7 (Part 70) do not apply.

D.1.4 Particulate Matter Overspray

The three (3) surface coating lines, (E-1, E-2, and E-3) shall each comply with 326 IAC 6-3-2(c). The 326 IAC 6-3-2 equations are as follows:

$E = 4.10 P^{0.67}$, where P equals process weight in tons per hour for process weights up to and including sixty thousand (60,000) pounds per hour and E equals the allowable emission rate in pounds per hour. For process weights in excess of sixty thousand (60,000) pounds per hour, $E = 55.0 P^{0.11} - 40$.

Compliance Determination Requirements

D.1.5 Volatile Organic Compounds (VOC)

Compliance with the VOC content and usage limitations contained in Conditions D.1.1 and D.1.2 shall be determined pursuant to 326 IAC 8-1-4(a)(3)(A) and 326 IAC 8-1-2(a)(7) 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 2-8-5(a)(1)]

D.1.6 Particulate Matter Overspray

The dry filters for particulate matter overspray control shall be in operation at all times when the three (3) surface coating lines, (E-1, E-2, and E-3), are in operation.

D.1.7 Preventive Maintenance [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Condition B.13 of this permit, is required for each facility and its control device.

D.1.8 Monitoring

Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To document compliance with Conditions D.1.3 and D.1.4, observations shall be made daily of the overspray while at least one of the booths is in operation.

Weekly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an overspray emission, evidence of overspray emission, or other abnormal emission is observed.

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

D.1.9 Daily Visible Emissions Notations

Daily visible emission notations of the spray booth stack exhaust, shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, 80 percent of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when an abnormal emission is observed.

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

D.1.10 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1 and D.1.2.
 - (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 month of use;
 - (3) The volume weighted VOC content of each coating used for each month;
 - (4) The cleanup solvent usage for each month;
 - (5) The total VOC usage for each month; and
 - (6) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Condition D.1.8 and D.1.9, the Permittee shall maintain a log of daily overspray observations, daily and weekly inspections, and those additional inspections prescribed by the Preventative Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.11 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

SECTION D.2

FACILITY CONDITIONS

- (a) Two (2) air-assisted airless spray guns to be located on the existing permitted mobile home surface coating lines (E-1 and E-2), with a maximum capacity of coating 160.0 linear feet of metal mobile home frames per hour, and exhausted through two (2) existing stacks (S/V ID E1 and E2), respectively;
- (b) One (1) surface coating booth, identified as E-3, with a maximum capacity of coating 166.01 linear feet of metal RV frames per hour, utilizing dry filters for particulate control, and exhausted through one (1) stack (S/V ID E3);

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

Construction Conditions [326 IAC 2-1-3.2]

General Construction Conditions

D.2.1 This permit 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.

Effective Date of the Permit

D.2.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.

D.2.3 Pursuant to 326 IAC 2-1-9(b) (Revocation of Permits), IDEM, OAM may revoke this section of the approved permit if construction is not commenced within eighteen (18) months after receipt of this permit or if construction is suspended for a continuous period of one (1) year or more.

D.2.4 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

First Time Operation Permit

D.2.5 This document shall also become the first-time operation permit for the facilities under this section of this permit, pursuant to 326 IAC 2-1-4 (Operating Permits) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to:

Indiana Department of Environmental Management
Permit Administration & Development Section, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

verifying that the facilities were constructed as proposed in the application. The facilities covered in this section of this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM.

- (b) 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.
- (c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this permit.
- (d) The Permittee shall cease and/or remove all equipment related to the manufacturing and surface coating of metal RV or mobile home frames from their plant located at 16849 County Road 38, Goshen, Indiana.

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

FESOP Quarterly Report

Source Name: Lippert Components, Inc.-Indiana Frame Division
Source Address: 16700 Skyview Dr. Goshen, Indiana 46526
Mailing Address: 16700 Skyview Dr. Goshen, Indiana 46526
FESOP No.: F039-5477-00309 and SMF-039-9351
Facility: Surface Coating Booths E-1, E-2, E-3
Parameter: VOC usage
Limit: 99 tons per twelve (12) consecutive month period

YEAR: _____

Month	VOC Usage (tons)	VOC Usage (tons)	VOC Usage (tons/yr)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

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

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

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Lippert Components, Inc.
16700 Skyview Dr.
Goshen, Indiana 46526

Affidavit of Construction

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

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

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

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

4. I hereby certify that Lippert Components, Inc., 16700 Skyview Dr., Goshen, Indiana, has constructed the RV surface coating line, six (6) MIG welders, ten (10) stick welders, and added two (2) additional spray guns to the mobile home surface coating lines in conformity with the requirements and intent of the Construction Permit application received by the Office of Air Management on January 5, 1998 and as permitted pursuant to **Significant Fesop Modification No. SMF-039-9351, Plant ID No. 039-00309** issued on _____.

Further Affiant said not.

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

Signature

Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of
Indiana on this _____ day of _____, 19 _____.

My Commission expires: _____

Signature

Name (typed or printed)

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for First Significant Permit Modification of the Federally Enforceable State Operating Permit (FESOP) and Enhanced New Source Review (ENSR)

Source Background and Description

Source Name:	Lippert Components, Inc. - Indiana Frame Division		
Source Location:	16700 Skyview Dr., Goshen, IN 46526		
County:	Elkhart		
FESOP No.:	F039-5477-00309	Issued:	December 11, 1996
Revision No.:	SMF-039-9351		
SIC Code:	3440		
Permit Reviewer:	Jeremy Magliaro/EVP		

History/Source Definition

This RV and Mobile Home manufacturing company consists of two (2) plants:

- (a) Plant 1 is located at 16700 Skyview Dr., Goshen, Indiana 46526; and
- (b) Plant 2 is located at 16849 County Road 38, Goshen, Indiana 46526.

Since the two (2) plants are located on adjacent properties, (the two plants are located in close proximity in the same city and perform identical operations, therefore they are considered to be located on adjacent properties per U.S.EPA and IDEM, OAM guidance), have the same SIC codes and are owned by one (1) company, they will be considered one (1) source.

The applicant originally submitted two (2) separate applications for new construction on January 5, 1998, one for Plant 1 (CP-039-9351) and one for Plant 2 (CP-039-9352). Upon further review by IDEM, OAM, it was determined that these two (2) plants should be considered as one source (see above). Plant 1 is currently operating under an existing FESOP (F039-5477-00309 issued December 11, 1996), while Plant 2 is operating under a state construction permit.

For Plant 1, the applicant had informed IDEM, OAM that due to increased production levels, they wished to process this construction permit as fast as possible, and applied for an interim construction permit. The proposed construction is a new surface coating and fabrication building. This proposed construction at Plant 1 would violate the plants current FESOP for VOC emissions. On January 19, 1998, the applicant proposed that the construction permit be approved and that they would apply for a Title V permit within twelve months.

For Plant 2, the applicant had informed IDEM, OAM that they wished to add another spray gun to their existing booth to compensate for increased production levels. This change was determined to be at a registration level. On March 11, 1998, they indicated that this booth will only be used temporarily until construction at Plant 1 was completed. They indicated that, upon completion of construction at Plant 1, they would decommission and/or move all surface coating and fabrication equipment relating to the production of metal mobile home and RV frames at Plant 2 to Plant 1.

The applicant also indicated that any surface coating equipment moved from Plant 2 to Plant 1

will only be used for backup or maintenance, and that this equipment **will not** increase the capacity at Plant 1. Once decommissioning at Plant 2 occurred, the applicant indicated that it would revoke all existing permits and change the SIC listing on the plant to reflect a new operation. Hence, upon completion of construction at Plant 1, Plant 2 will no longer be considered in the source definition.

On March 11, 1998, the applicant decided that it would be feasible to modify their existing FESOP for Plant 1 to incorporate all new construction **at both plants** rather than apply for a Title V operating permit because the source was changing to non HAP coatings for the RV line and would therefore be able to operate within the confines of a FESOP. This would convert the proposed construction permit CP-039-9351 to SMF/ ENSR 039-9351. The modified FESOP will contain a VOC emission limit of 99 tons per year in addition to the existing PM10 emission limit of 99 tons per year.

Changes Proposed

- (a) The construction and operation of the following new equipment to be added to the FESOP:
- (1) one (1) surface coating line, identified as E-3, with a maximum capacity of coating 166.01 linear feet of metal RV frames per hour, equipped with one (1) air-assisted airless spray gun, utilizing dry filters for particulate control, and exhausted through one (1) stack (S/V ID E3);
 - (2) six (6) MIG welding stations, identified as W33 through W38, each utilizing a maximum of 16.25 pounds of wire per hour, exhausted inside the plant;
 - (3) ten (10) stick welding stations, identified as W39 through W48, utilizing a total maximum of 21.0 pounds of electrodes per hour, exhausted inside the plant;
 - (4) one (1) natural gas-fired air make-up unit rated at 1.68 million (mm) British thermal units (Btu) per hour; and
 - (5) two (2) air-assisted airless spray guns to be located in the existing permitted mobile home surface coating booths identified as E-1 and E-2, with a maximum capacity of coating 160.0 linear feet of metal mobile home frames per hour, and exhausted through two (2) existing stacks (S/V ID E1 and E2), respectively;
- (b) The following changes have been made to the FESOP:
- (1) Condition A.2, Page 4 of 22
Add to the listing of emission units the following:
 - (a) Two (2) air-assisted airless spray guns to be located in the existing permitted mobile home surface coating lines identified as E-1 and E-2, with a maximum capacity of coating 160.0 linear feet of metal mobile home frames per hour, and exhausted through two (2) existing stacks (S/V ID E1 and E2), respectively;
 - (b) One (1) air-assisted airless surface coating line, identified as E-3, with a

maximum capacity of coating 166.01 linear feet of metal RV frames per hour, utilizing dry filters for particulate control, and exhausted through one (1) stack (S/V ID E3);

- (2) Condition A.3, Page 4 of 22
The insignificant activities categories listed under Condition A.3 already incorporate the proposed welding activities and the natural gas combustion air makeup unit, therefore, there will be no changes to this section.
- (3) Condition B.12, Page 6 of 22
The annual compliance certification date has been changed from July 1 to April 15.
- (4) Condition B.26, Page 14 of 22
Add a new condition to address Enhanced New Source Review (ENSR) as follows:

"The requirements of the construction permit rules in 326 IAC 2 are satisfied by this permit for any facilities to be constructed within eighteen (18) months after the date of issuance of this permit, as listed in Sections A.2."
- (5) Condition C.13, Page 18a and 18b of 31
Under Condition C.13, an annual Emission Statement requirement has been added to the FESOP.
- (6) Section D.1., Page 19a of 22
The revised equipment list in Section A.2 shall be listed under this section. References under this section of "two (2) paint lines" have been changed to read "three (3) surface coating lines" to incorporate this modification.
- (7) The following new conditions have been added to Section D.1:
 - (a) Condition D.1.2, Page 19 of 22, a VOC usage limit of 99 tons per twelve (12) consecutive month period has been included in the FESOP;
 - (b) Condition D.1.5, page 20 of 22, a VOC compliance determination has been included in the FESOP;
 - (c) Condition D.1.10, page 20a of 22, a monthly VOC record keeping requirement has been included in the FESOP;
 - (d) Condition D.1.11, page 20a of 22, a quarterly VOC reporting requirement has been included in the FESOP.

Previously existing conditions have been renumbered accordingly.

- (8) Condition D.1.1, Page 19 of 22
The references to Construction Permit CP-039-4348-00309, issued on April 13, 1995, have been deleted. The addition of wording pertaining to the coating of RV metal frames has been added.

- (9) Condition D.1.3, Page 19 of 22
The PM10 limit in this condition has been changed from 22.6 pounds per hour to 19.8 pounds per hour due to increased potential emissions from insignificant activities.
- (10) Condition D.1.7, Page 20 of 22
The following italicized wording has been added to this condition:
A Preventive Maintenance Plan is required *for each facility and its control device*.
- (11) Section D.2, Pages 20b and 20c of 22
This section has been added to include:
 - (a) The General Construction Conditions, Effective Date of this Permit; and First Time Operation Permit Conditions required for the new surface coating facilities; and
- (12) Quarterly Reporting Form, Page 22a of 22.
One (1) quarterly reporting form to comply with Condition D.1.2 has been included added to the FESOP.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
E3	Spray Booth E-3	22	3.5	20,000	70

Recommendation

The staff recommends to the Commissioner that this modification be approved.

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

A complete application for the purposes of this review was received on January 5, 1998.

An interim construction permit was approved on January 30, 1998.

Emissions Calculations

Operation	Emission Factor	Maximum Capacity	Potential PM Emissions (lbs/hr)	Allowable PM Emissions (lbs/hr)	Potential PM Emissions (tons/yr)
six (6) MIG welding stations	0.0055 lb of PM/lb of wire	16.34 lbs wire / station / hour	0.54	8.56	2.36
ten (10) STICK welding stations	0.097 lb PM/ lb of electrode (E7014)	21.00 lbs electrodes / hour	2.04	8.84	8.92
TOTALS	--	--	2.58	17.4	11.28

Emission Factors are from SARA 313 Reporting Guide.

Potential PM emissions = (Emission Factor)*(Capacity)*(8760 hrs/yr)(1 ton/2000 lb)

Allowable Emissions are based on 326 IAC 6-3-2 (Process Operations) where:

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

A total process weight throughput of 6,000 pounds per hour increase on the mobile home line and a 6,300 pounds per hour capacity on the new RV line was used to calculate allowable emissions under 326 IAC 6-3 (Process Operations).

The six (6) MIG welding stations utilize welding wire that contains 1% Manganese. Therefore, potential Manganese emissions from the welding operations are equal to:

$$(0.54 \text{ lb PM/hr}) * (1\% \text{ Manganese}) * (1 \text{ ton}/2000 \text{ lb}) * (8760 \text{ hr/yr}) = 0.02 \text{ tons Mn/yr;}$$

See Appendix A (Emissions Calculation Spreadsheets) for detailed emissions calculations from surface coating and combustion (two (2) pages).

Total Potential and Allowable Emissions

Indiana Permit Allowable Emissions Definition for the proposed surface coating equipment only (after compliance with applicable rules, based on 8,760 hours of operation per year at rated capacity):

Pollutant	Allowable Emissions (tons/year)	Potential Emissions (tons/year)
Particulate Matter (PM)	99	230.59
Particulate Matter (PM10)	99	230.59
Sulfur Dioxide (SO ₂)	--	negligible
Volatile Organic Compounds (VOC)	99	124.35
Carbon Monoxide (CO)	--	0.15
Nitrogen Oxides (NO _x)	--	0.74
Single Hazardous Air Pollutant (HAP)	--	negligible
Combination of HAPs	--	negligible

- (a) Allowable emissions of PM, PM10, and VOC are determined from the applicability of rule 326 IAC 2-8 for the source.
- (b) Allowable emissions (as defined in the Indiana Rule) of PM10 and VOC are greater than 25 tons per year. Therefore, pursuant to 326 IAC 2-1, Sections 1 and 3, a construction permit is required.
- (c) This First Significant Modification to the FESOP is being done simultaneously with Enhanced New Source Review such that the modified emission limits under the modified FESOP continue to satisfy the requirements of 326 IAC 2-8, and 326 IAC 2-7 (Part 70 Permit Program) does not apply to this source.

Proposed Modification

PTE from the proposed First Significant Modification to FESOP F039-5477-00309 (based on limited operation per Operation Condition Nos. D.1.2 and D.1.3):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO ₂ (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO _x (ton/yr)	Single HAP (ton/yr)	Combo HAPs (ton/yr)
PTE from Proposed Modification (Booths E-1,E-2, E-3)	4.6	4.6	0.0	124.3	0.0	0.0	0	0
PTE from Proposed Modification (Insignificant Activities)	11.3	11.3	0.0	0.0	0.2	0.8	Negl	Negl
Existing FESOP Limits (F039-5477-00309, issued on December 11, 1996)	17.8	17.8	0.0	0.0	0.0	0.0	0	0
Total PTE for E-1 and E-2 Under FESOP F039-5477-00309	17.8	17.8	0.0	4.0	0.0	0.0	0	0
Total PTE for insignificant activities Under FESOP F039-5477-00309	1.0	1.0	0.0	0.0	0.0	0.0	Negl.	Negl.
Total PTE for insignificant activities Under Modified FESOP SMF039-9351	12.3	12.3	0.0	0.0	0.2	0.8	0	0
Total Limited PTE for E-1,E-2, and E-3, Under Modified FESOP SMF039-9351	22.4	22.4	0.0	99.0	0.0	0.0	0	0
Revised FESOP Limits	34.7	34.7	0.0	99.0	0.2	0.8	Negl.	Negl.
Title V Significant Levels	99	99	99	99	99	99	9	24
Note: This source will be able to keep its FESOP status.								

This First Significant Modification to the stationary source FESOP will **not** change the status of the stationary source because the emissions increase is still less than the FESOP significant levels. Therefore, the following requirements will not apply:

- (a) PSD, 326 IAC 2-2, and 40 CFR 52.21,
- (b) Emission Offset, 326 IAC 2-3, and
- (c) Part 70 Permit Program, 326 IAC 2-7.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (326 IAC 12) and 40 CFR Part 60 applicable to this facility.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (40 CFR Part 63) applicable to this facility.

State Rule Applicability

The following State Rule changes have been added to this source as a result of the First Significant Modification to the FESOP :

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the VOC usage at the three surface coating lines, E-1, E-2, and E-3, shall be limited to total of 99.0 tons per any twelve (12) consecutive months. The modified emission limits under this FESOP modification continue to satisfy the requirements of 326 IAC 2-8, and 326 IAC 2-7 (Part 70 Permit Program) does not apply to this source. This requirement also satisfies the requirements of 326 IAC 2-2 and 326 IAC 2-3. See Appendix A for supporting calculations (two pages).

326 IAC 2-6 (Emission Reporting)

This facility is subject to 326 IAC 2-6 (Emission Reporting), because the source emits more than 10 tons/yr of VOC in Elkhart County. Pursuant to this rule, the owner/operator of this facility must annually submit an emission statement of the facility. The annual statement must be received by April 15 of each year and must contain the minimum requirements as specified in 326 IAC 2-6-4.

326 IAC 5-1-2 (Visible Emission Limitations)

Pursuant to 326 IAC 5-1-2 (Visible Emission Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), the visible emissions shall meet the following:

- (a) visible emissions shall not exceed an average of 40% opacity in 24 consecutive readings.
- (b) visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period.

326 IAC 6-3 (Process Operations)

(a) That pursuant to 326 IAC 6-3 (Process Operations), spray booths E-1, E-2, and E-3 shall comply with the following requirements::

- (1) The dry filters for particulate matter overspray control shall be in operation at all times when the paint booths are in operation.
- (2) The spray guns shall comply with 326 IAC 6-3-2(c) using the following equation:

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

- (3) Daily inspections shall be performed to verify the placement, integrity and particulate loading of the filters.

This source will comply with the requirements of 326 IAC 6-3-2 by using dry filters for PM overspray control on the spray guns.

- (b) That pursuant to 326 IAC 6-3 (Process Operations), the six (6) MIG welding stations identified as W33 through W38 shall not exceed the allowable particulate matter (PM) emission rate of 8.56 pounds per hour from all six (6) stations based on a potential

throughput of 6,000 pounds per hour.

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

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

$$E = 4.10(3.0 \text{ tons/hr})^{0.67} \\ E = 8.56 \text{ pounds PM per hour;}$$

The potential emissions from the six (6) MIG welders is equal to 0.54 pounds per hour in compliance with 326 IAC 6-3 (Process Operations). See "Emissions Calculations" , (page 5 of 10,TSD), for potential emissions calculations.

- (c) That pursuant to 326 IAC 6-3 (Process Operations), the ten (10) stick welding stations identified as W39 through W48 shall not exceed the allowable particulate matter (PM) emission rate of 8.84 pounds per hour from all ten (10) stations based on a potential throughput of 6,300 pounds per hour.

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

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

$$E = 4.10(3.15 \text{ tons/hr})^{0.67} \\ E = 8.84 \text{ pounds PM per hour;}$$

The potential emissions from the ten (10) stick welding stations is equal to 2.04 pounds per hour in compliance with 326 IAC 6-3 (Process Operations). See "Emissions Calculations" , (page 5 of 10, TSD), for potential emissions calculations.

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), the Permittee shall be in violation of 326 IAC 6-4 (Fugitive Dust Emissions) if any of the criteria specified in 326 IAC 6-4-2(1) through (4) are violated. Fugitive dust from the surface coating or welding operations shall not be seen crossing the property line of the source at or near ground level.

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

Pursuant to 326 IAC 8-2-9(d)(2) (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC)content of coatings applied to the metal RV frames and metal mobile home frames shall be limited to 3.5 pounds per gallon of coating less water delivered to the applicator in a coating application system that is air dried or forced warm air dried at temperatures up to 194EFahrenheit. Solvent sprayed from the application equipment during clean up 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.

Emissions calculations have determined that these coatings are in compliance with 326 IAC 8-2-9 (Miscellaneous Metal Coatings). (See Appendix A, page 1 of 2 for more detailed emissions calculations.)

Compliance Monitoring

These monitoring conditions are necessary because the VOC emissions at the source must be below the Title V major source level of 100 tons per year; the facility must comply with 326 IAC 8-2-9 (Miscellaneous Metal Coatings), and the source must demonstrate compliance with the FESOP limits established in 326 IAC 2-8-4.

- (a) Total VOC usage at booths E-1, E-2, and E-3 shall not exceed 99 tons per any twelve (12) consecutive month period;
- (b) The volatile organic compound (VOC) content of the coating delivered to the applicator at the booths E-1, E-2, and E-3 shall not exceed 3.5 pounds of VOCs per gallon of coating less water, for air dried or forced warm air dried coatings at temperatures up to 194°F Fahrenheit;
- (c) 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.

A quarterly summary of these records shall be reported to OAM Compliance Section. These reports shall include total monthly VOC emissions from the above listed emission units in tons per month and tons per twelve (12) consecutive month period.. These monitoring conditions are necessary to comply with 326 IAC 8-2-9 (Miscellaneous Metal Coatings) and 326 IAC 2-8-5 (Compliance Requirements for FESOPs).

Air Toxic Emissions

- (a) This proposed modification will emit levels of air toxics less than those that constitute major source applicability according to Section 112 of the Clean Air Act.
- (b) See "Emissions Calculations", page 5 of 10 of the TSD for more detailed emissions calculations.

Conclusion

The modification of this RV and Mobile Home manufacturing source will be subject to the conditions of the attached proposed FESOP Significant Modification Permit No. SMF-039-9351-00309.

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document (TSD) for First Significant Permit Modification of the Federally Enforceable State Operating Permit (FESOP) and Enhanced New Source Review (ENSR)

Source Background and Description

Source Name:	Lippert Components, Inc. - Indiana Frame Division		
Source Location:	16700 Skyview Dr., Goshen, IN 46526		
County:	Elkhart		
FESOP No.:	F039-5477-00309	Issued:	December 11, 1996
Revision No.:	SMF-039-9351		
SIC Code:	3440		
Permit Reviewer:	Jeremy Magliaro/EVP		

On March 26, 1998 the Office of Air Management (OAM) had a notice published in the Goshen News, in Goshen, Indiana, stating that Lippert Components, Inc. - Indiana Frame Division had applied for the First Significant Permit Modification to the Federally Enforceable State Operating Permit (FESOP) and Enhanced New Source Review (ENSR). The modification to the FESOP for this RV and Mobile Home manufacturing source sought to construct and operate a new surface coating line, the addition of two (2) new spray guns to the existing surface coating line, six (6) MIG welding stations, ten (10) stick welders, and one (1) natural gas fired air make-up unit. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit modification 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 modification should be issued as proposed.

On April 21, 1998, Robert D. Waugaman of Bruce Carter Associates, L.L.C., submitted the following comments on behalf of Lippert Components, Inc.- Indiana Frame Division:

Comment #1

Section D.1, item (a) should be reworded for clarification purposes to list the two (2) existing air assisted airless spray guns. This gives a total of four (4) air assisted airless paint guns in the mobile home frame coating lines identified as E-1 and E-2.

Response #1

The following changes have been made to Section D.1 item (a), and Section A.2, item (a) (changes indicated in bold face or strikeout):

- (a) Two (2) air assisted airless ~~paint lines~~ **spray guns, located in two (2) booths** identified as E-1 and E-2, **and each equipped** with dry filters for overspray control.

Comment #2

Condition D.1.3, Particulate Matter, should have the limit changed from 19.8 pounds per hour to 34.7 pounds per hour will then be consistent with the calculations displayed on page 6 of 10 in the Technical Support Document.

Response #2

By limiting PM10 emissions to 19.8 pounds per hour, this is equivalent to limiting the yearly emissions of PM10 from booths E-1, E-2, and E-3 to 86.72 tons per year, as shown below:

$$(19.8 \text{ lb/hr}) * (8760 \text{ hrs/yr}) * (1 \text{ ton}/2000 \text{ lbs}) = 86.72;$$

When combined with potential emission from insignificant activities at the source, this limit is necessary to limit potential PM10 emission below 99 tons per year. Therefore, the limit will remain unchanged.

Comment #3

In Condition D.1.10, Record Keeping Requirements, subitem (a)(2) "a log of the dates of use" should be changed to "a log of the month of use" to be consistent with the rest of the record keeping requirements in this paragraph.

Also, in Condition D.1.10, Record Keeping Requirements, subitem (a)(3) should be reworded to state "The volume weighted VOC content of each coating used for each month."

Response #3

The following changes have been made to Section D.1, item (a) (changes indicated in bold face or strikeout):

D.1.10 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1 and D.1.2.
- (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~~ **month** of use;
 - (3) The volume weighted VOC content of ~~the~~ **each** coating used for each month;
 - (4) The cleanup solvent usage for each month;
 - (5) The total VOC usage for each month; and
 - (6) The weight of VOCs emitted for each compliance period.

**Appendix A: Emission Calculations
VOC and Particulate
From Surface Coating Operations**

Company Name: Lippert Components, Inc.
Address City IN Zip: 16700 Skyview Dr., Goshen, IN 46526
SMF: 039-9351
Plt ID: 039-00309
Reviewer: Jeremy Magliaro/EVP
Date: January 26, 1998

Potential Emissions (uncontrolled):																		
Material (as applied)	Process	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit) (1)	Maximum (unit/hour) (2)	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	
Reynco Coating	Mobile Line (E-1, E-2)	8.60	62.00%	61.80%	0.20%	63.80%	36.30%	0.070	160.00	0.0	0.02	0.19	4.62	0.84	80.16	0.09	0.5	
Black A.D. Enamel	RV Line (E-3)	10.74	31.20%	0.00%	31.20%	0.00%	53.40%	0.049	166.01	3.4	3.35	27.26	654.18	119.39	131.63	12.55	0.5	
White A.D. Enamel	RV Line (E-3)	11.91	29.10%	0.00%	29.10%	0.00%	50.30%	0.049	166.01	3.5	3.47	28.19	676.62	123.48	150.43	13.78	0.5	
Total Potential Uncontrolled (worst-case*) Emissions:												28.39	681.25	124.33	230.59			
Potential Emissions (controlled):																		
										Control Efficiency:		Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr			
										VOC	PM							
Total Potential Controlled (worst-case*) Emissions:										0.00%	98.00%	28.39	681.25	124.33	4.61			

(1) Gallons per unit is expressed here as gallons per linear foot (gal/linear foot).

(2) Units per hour is expressed here as linear feet per hour (linear feet/hour).

* Total potential uncontrolled and controlled VOC and PM emissions are based on worst-case coatings for each booth. The White A.D. Enamel was used for the RV booth (E-3).

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) * Transfer Efficiency

Total = Sum of Worst Case Coatings for each booth.

Controlled emission rate = uncontrolled emission rate * (1 - control efficiency)

**Appendix A: Emission Calculations
Natural Gas Combustion
MM Btu/hr 0.3 - < 10**

Company Name: Lippert Components, Inc.
Address City IN Zip: 16700 Skyview Dr., Goshen, IN 46526
SMF: 039-9351
Plt ID: 039-00309
Reviewer: Jeremy Magliaro/EVP
Date: January 26, 1998

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

1.7

14.7

Heat Input Capacity includes:
one (1) air make-up unit rated at 1.68 mmBtu/hr

	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	11.9	11.9	0.6	100.0	5.8	21.0
Potential Emission in tons/yr	0.09	0.09	0.00	0.74	0.04	0.15

Methodology:

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for NOx: uncontrolled = 100, Low Nox Burner = 17, Flue gas recirculation = 36

Emission Factors for CO: uncontrolled = 21, Low NOx burner = 15, Flue Gas Recirculation = ND.

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

Emission Factors from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-03-006-03

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

**Appendix A: Emission Calculations
HAP Emissions
From Surface Coating Operations**

Company Name: Lippert Components, Inc.
Address City IN Zip: 16700 Skyview Dr., Goshen, IN 45626
CP: 039-9351
Pit ID: 039-00309
Reviewer: Jeremy Magliaro/EVP
Date: January 26, 1998

Total Potential HAP Emissions

Material	Density (Lb/Gal)	Gal of Mat (gal/unit) (1)	Maximum (unit/hour) (2)	Weight % Toluene	Weight % MIBK	Toluene Emissions (ton/yr)	Methyl isobutyl ketone (MIBK) (ton/yr)
Black A.D. Enamel	10.45	0.049000	166.01	1.20%	19.20%	4.47	71.49
White A.D. Enamel	11.58	0.049000	166.01	5.00%	16.90%	20.63	69.73

Total Potential Emissions*

20.63

71.49

* Total Potential Emissions is equal to the worst-case emission rate for each HAP. The White A.D. Enamel had the worst case total HAPS = 90.36 tons/yr.

(1) Gallons per unit is expressed here as gallons per linear foot (gal/linear foot).

(2) Units per hour is expressed here as linear feet per hour (linear feet/hour).

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs